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International Agreement Report

Assessment Study of RELAP5/MOD2, CYCLE 36.04 Based on Spray Start-up Test for DOEL-4

Prepared by
P. Moeyaert, E. Stubbe

TRACTEBEL
B-1040 Brussels, Belgium

Office of Nuclear Regulatory Research
U.S. Nuclear Regulatory Commission
Washington, DC 20555

July 1989

Prepared as part of
The Agreement on Research Participation and Technical Exchange
under the International Thermal-Hydraulic Code Assessment
and Application Program (ICAP)

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ASSESSMENT STUDY OF RELAP-5 MOD-2 CYCLE 36.04 BASED ON SPRAY START-UP TEST FOR DOEL-4

BY

P. MOEYAERT
E. STUBBE
TRACTEBEL, BRUSSELS OCTOBER 1986

EXECUTIVE SUMMARY

The use of real plant data for code assessment constitutes a highly desirable complement to the assessment studies based on small scale separate effect tests and small scale integral facilities, as it may shed some light on the important issue of scalability of the code models for real plants.

In the process of assembling the input data deck for the Doel-4 plant, the proposed study allows one to verify the behaviour of part of the plant without awaiting the full data deck for this plant. In this context, TRACTEBEL has selected a particular start-up test dealing with the spray and heater commissionning test for the plant which basically requires a good simulation of the pressurizer component and primary control loops. The steam generators do play a minor role as they constitute basically a heat sink at constant temperature and pressure.

The pressurizer component however plays a major role in determining the plant behaviour in normal and off-normal plant conditions, while the spray and heater systems, which do not strictly have a safety function, have a decisive impact on the operational flexibility of the plant. Hence a correct simulation of this component is vital to simulate operational transients.

Furthermore, for a correct treatment of the phenomena which do occur in a pressurizer, with counteracting effects from both spray and heaters operational, a good number of code features are addressed such as :

- Thermal non-equilibrium thermalhydraulics in the pressurizer.
- Form loss effects and counter current flow in the surge line.
- Heat transfer from pressurizer shell and the pressurizer rises heaters to a two phase fluid.

This study concentrates on the spray commissioning test for the DOEL-4 plant and simulates the primary behaviour during the last two minutes of the test.

The most important findings are :

- The RELAP-5 code is capable to reproduce the depressurisation rate to within 1 % of the measured value.

- During the 120 sec transient time, a growing divergence is observed for the pressurizer water level (ΔP level) between the calculated and the measured level. This discrepancy is most probably the result of an uncertainty in the charging-letdown flow rates which were not recorded during the test.

- The calculated temperature profile of the spray flow suggest a 100 % efficiency of the spray flow, since the fluid temperature approaches the saturation temperature within 0.2°C. Since the depressurisation rate is calculated correctly, this means that the vapour-water heat transfer coefficient in the film condensation model is large enough to drive the spray fluid to saturation. This test however does not validate the upper bound of the film condensation model heat transfer coefficient.

- Water packing can be avoided by proper nodalisation of the pressurizer.

- The structural heat stored in the pressurizer shell and the heaters may account for about 10 % difference in the depressurisation rate.

- A large mass error occurred when the surgeline-hot leg connection was nodalised by a cross flow to a small volume in the hot leg conform to some recommendation.

- The code performance is acceptable and very steady. Indeed, a total mass error fraction of 10^{-6} is calculated, with a very steady progressing of about 20 CPU sec per problem second, on a CYBER 180/825.

ABSTRACT

This report presents an assessment study for the code RELAP-5 MOD-2 based on a pressurizer spray start-up test of the Doel-4 power plant.

Doel-4 is a three loop WESTINGHOUSE PWR plant ordered by the EBES utility with a nominal power rating of 1000 MWe and equipped with preheater type E steam generators.

A large series of commissionning tests are normally performed on new plants, of which the so called pressurizer spray and heater test (SU-PR-01) was performed on February 2nd 1985.
TRACTEBEL, being the Architect-Engineer for this plant was closely involved with all start-up tests and was responsible for the final approval of the tests.

This particular start-up test has been selected as the first code assessment study for this plant, as it can be considered as a kind of separate effect test, principally involving the phenomena in one plant component i.e. the pressurizer.The pressurizer plays a vital role in determining the plant behaviour during operational transients and accidents. Hence a correct simulation of the pressurizer (including surge line, spray- and heater control) is essential in trying to simulate the plant behaviour under off- normal conditions. Although the pressurizer spray and heater systems do not strictly have a safety function, they have a large impact on the operational flexibility of the plant (i.e. plant pressure control).
The code used for assessment is RELAP-5 MOD-2 CYCLE 36.04, which was installed on a CYBER 176 computer.
This pressurizer spray test involves the following important features for code assessment :

- Full scale
- Pressurizer thermalhydraulics : which involves the thermal non equilibrium phenomena leading to condensation (by spray) and evaporation (by heaters).

- Surgeline thermalhydraulics : form loss factors and counter current flow behaviour.
- Structural heat from pressurizer shell and heaters.
- Assymmetric loop behaviour when one or two reactor coolant pumps are tripped, leading to reversed loop flow.
- Single phase pump behaviour (coastdown).

This code assessment work is performed by TRACTEBEL and is based on the plant recorded data for this test.

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1. INTRODUCTION

In the framework of the Belgian contribution to international code assessment program (ICAP), TRACTEBEL has suggested to perform several assessment studies based on start-up tests and operational transients involving the DOEL-4 plant.

The use of real plant data for code assessment constitutes a highly desirable complement to the assessment studies based on small scale separate effect tests and small scale integral facilities, as it may shed some light on the important issue of scalability of the code models for real plants.

In the process of assembling the input data deck for the Doel-4 plant, the proposed study allows one to verify the behaviour of part of the plant without awaiting the full data deck for this plant. In this context, TRACTEBEL has selected a particular start-up test dealing with the spray and heater commissionning test for the plant which basically requires a good simulation of the pressurizer component and primary control loops. The steam generators do play a minor role as they constitute basically a heat sink at constant temperature and pressure.

The pressurizer component however plays a major role in determining the plant behaviour in normal and off-normal plant conditions, while the spray and heater systems, which do not strictly have a safety function, have a decisive impact on the operational flexibility of the plant. Hence a correct simulation of this component is vital to simulate operational transients.

Furthermore, for a correct treatment of the phenomena which do occur in a pressurizer, with counteracting effects from both spray and heaters operational, a good number of code features are addressed such as :

- Thermal non-equilibrium thermalhydraulics in the pressurizer.
- Form loss effects and counter current flow in the surge line.
- Heat transfer from pressurizer shell and the pressurizer heaters to a two phase fluid.

Chapter 2 gives a description of the DOEL-4 plant and the systems which play a role for this test.
Chapter 3 gives a description of the test procedure and boundary conditions.
Chapter 4 applies to the RELAP 5 MOD-2- nodalisation of the test in terms of nodalisation philosophy and detailed description of the RELAP volumes, junctions and heat slabs.
Chapter 5 presents the code assessment for the so called reference test defined in chapter 3.
Some sensitivity studies are presented in chapter 6 which highlight the effect of nodalisation (run 1), the effect of erroneous specific heat input (run 2) and two plant tests whereby 1 reactor coolant pump was tripped and one (run 3) or both (run 4) spray valve were opened.
These runs 3 and 4 induce asymmetric loop behaviour (reversed flow in loop with stopped pump) and also yield some information on the pump coastdown.

Finally, chapter 7 gives some informations about the run statistics.

2. DOEL 4 PLANT AND SYSTEM DESCRIPTION

The Doel 4 plant is a Westinghouse 4 loop pressurized water reactor (PWR) rated at 1000 MWe and commisioned in 1985, for which TRACTEBEL was the architect engineer.
This section provides a description of those systems that are relevant to the simulation and analysis of the pressurizer spray efficiency test at zero power (a precritical commissioning test).

2.1. Reactor coolant system

Fig. 2.1 represents the engineering flow diagram of the reactor coolant system (RCS), comprising the reactor vessel and the three primary loops, each loop including a U-tube preheater type steam generator and 1 main coolant pump.
The individual loops are labelled respectively the R, B and G loop.
Doel 4 is equipped with a 14 ft core, loaded at the moment of the spray test, with 157 new fuel assembies each comprising 264 fuel pins. No nuclear power was produced, but the pressure drop over the core region was nominal during the test.

The major heat input into the reactor coolant is induced by the 3 primary pumps, of 4.43 MW each, and which establish a rated mass flow rate of 4757 kg/s corresponding to a pump head of 68.6 m.

A 1600 ft^3 (46.5 m^3) pressurizer is connected to the "B" loop hot leg by a 14" surge line.

Two pressurizer spray lines connect the pressurizer spray nozzle (in top of the pressurizer dome) to the "R" loop and "B" loop cold legs, yielding a total spray flow of 102 m^3/h under nominal conditions when both spray valves (PR-400, PR-402) are fully open.

The pressurizer spray control system, acting on the pressurizer spray valve setting is shown in fig. 2.2.

The pressurizer is equipped with 1 group proportional heaters (max power 308 kW) and 5 groups of back-up heaters (total power 1294 kW). In the automatic operation mode, all back-up heaters are switched on as the pressurizer pressure decreases below P_{NOM} -1.7 bar (P_{NOM} = 155.1 bar). In order to avoid any impact on the depressurisation rate during the spray efficiency test, all heaters (proportional + back-up) were in manual operation mode.

The pressurizer heater control system (shown in fig. 2.3 for level 1) for the automatic mode, is simulated for analysing operational transients.

2.2. The chemical and volume control system (CVCS)

The water inventory and primary water chemistry in the reactor coolant system is maintained by the charging and letdown system (CVCS).

Three centrifugal charging pumps take suction from the volumetric control tank and feed cold borated water via a regenerative heat exchanger into the cold leg of loop R.

The charging flow rate in the automatic mode depends upon the differences between the programmed and the actual pressurizer water level, which controls a regulating valve (CV/458) in the charging line. The nominal charging flow rate is about 15 m^3/h. Fig. 2.4 represents the actual pressurizer level control system. The charging system also provides the seal injection water for the 3 main coolant pumps. Part of the seal water enters the reactor coolant system and part returns to the volumetric control tank.

The letdown flow is controlled mainly by 3 orifices in a letdown line connected to the cross over leg of loop G.

In nominal conditions, the letdown flow rate (corresponding to 1 orifice in service) is 22.7 m^3/h.

2.3. Steam generators - main steam system - feedwater system

The 3 steam generators are U-tube Westinghouse preheater type, model E steam generators, with a nominal heat transfer area of 6340 m^2 consisting of 4864 tubes ($Ø_{in}$ = 16.87 mm, $Ø_{out}$ = 19.05 mm) with average length of 21.70 m.

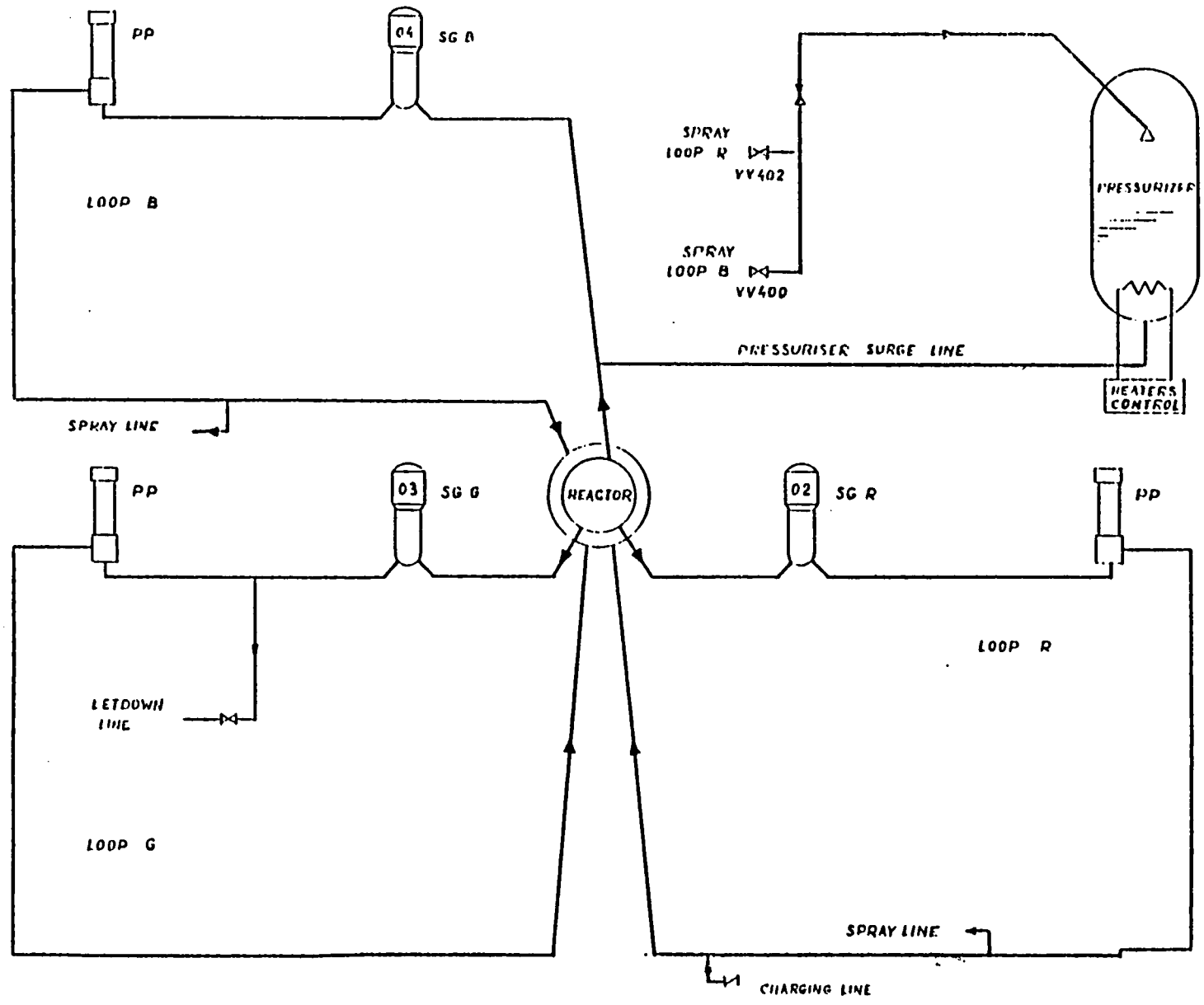
During the spray efficiency test, the primary temperature was held constant at the zero power reference temperature by dumping steam to the atmosphere by the main steam power operated relief valves.
Since the condensor was not available, the main feedwater pumps were not running. Cold feedwater was supplied to the steam generators by the auxiliary feedwater system.

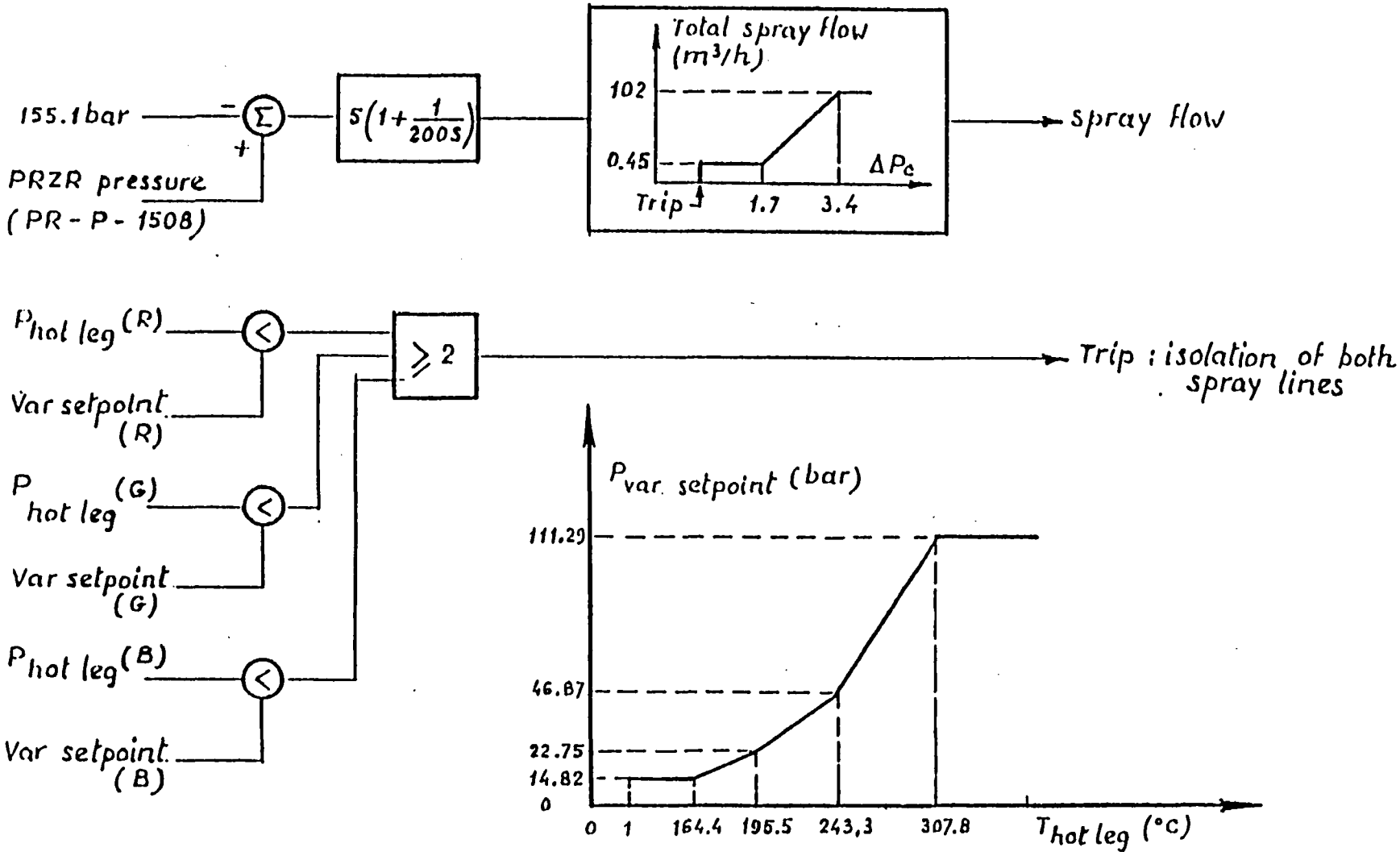
2.4. Measurement and recorder uncertainties

Fig. 2.5 shows the raw recordings made during the actual spray test in Doel 4, i.e. the pressurizer pressure and level against time as well as the position indication of both spray valves against time.

The uncertainty band for the pressure sensor is estimated at ± 2 bar at nominal system pressure (= 1.3 %).
The uncertainty band for the pressurizer level gauge is estimated at 5 % .
A global recorder uncertainty of about 3 % shoud be added to instrument uncertainty for both recorder parameters.
The recorded spray valve position as function of time will be taken as input for the simulated spray valve area evolution, although in a slightly modified sequence (see § 4).

FIG. 2.1 · PRIMARY REACTOR COOLANT FLOW DIAGRAM

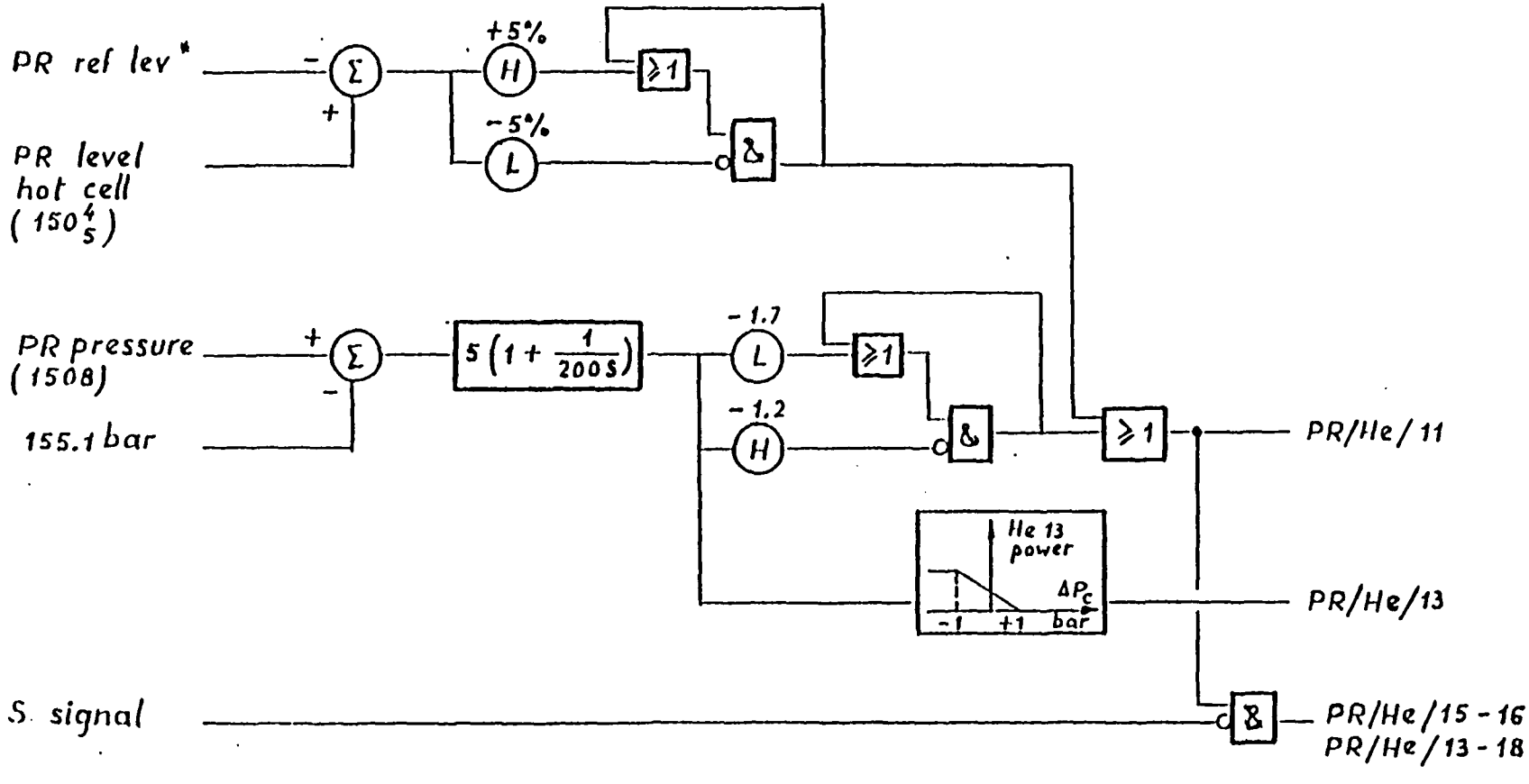


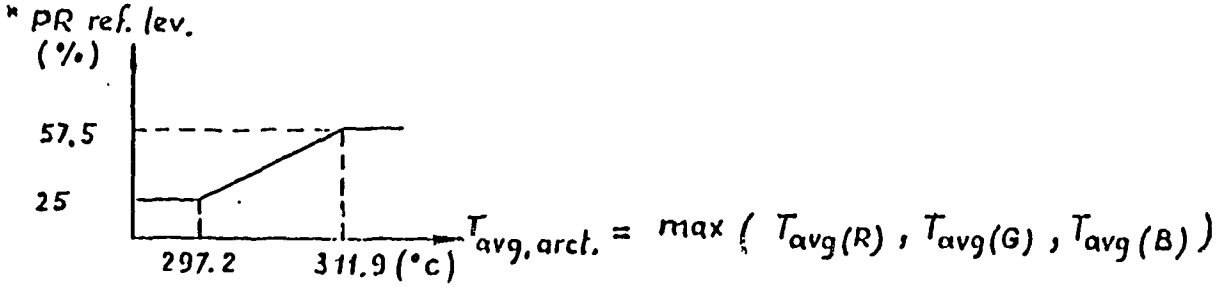


TRACTEBEL

DOEL 4 : PRESSURIZER SPRAY CONTROL

FIG. 2.2

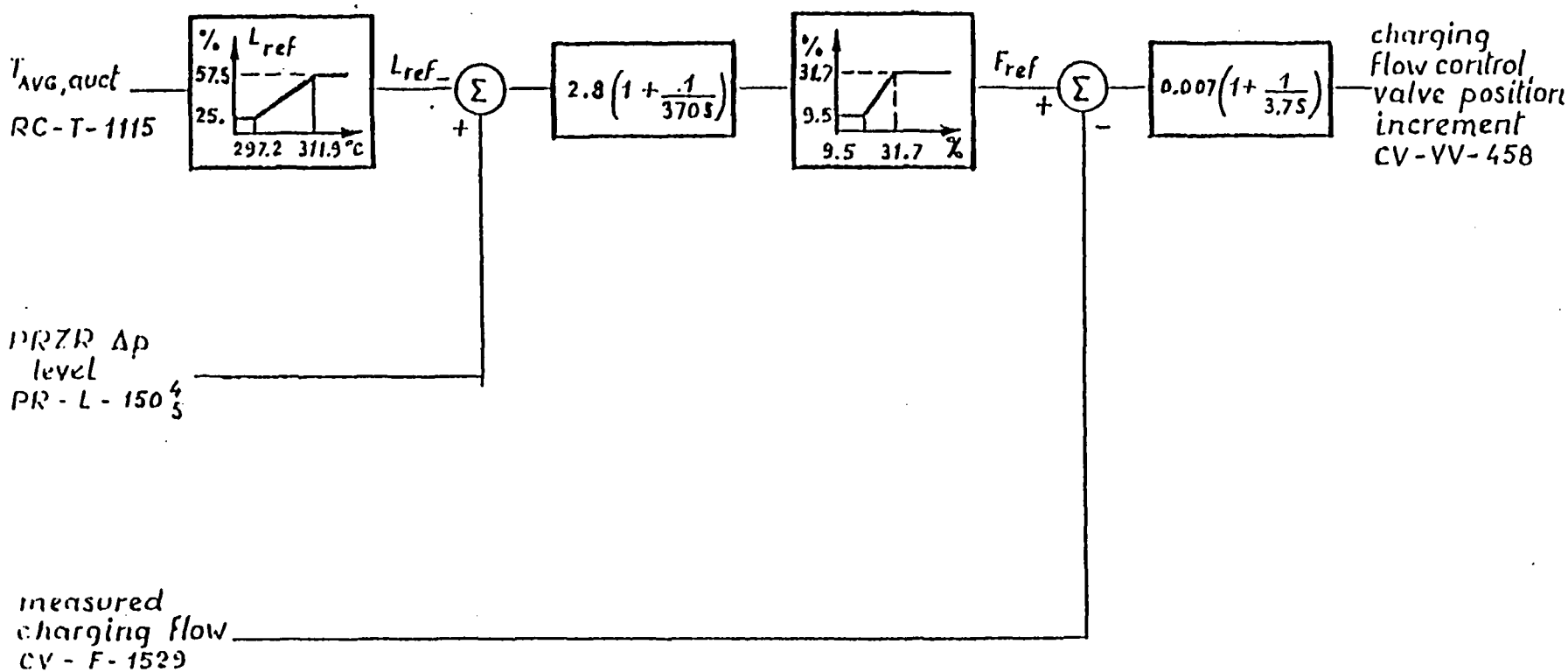




TRACTEBEL

DOEL 4 : PRESSURIZER HEATER CONTROL LEVEL 1

FIG. 2.3



TRACTEBEL

DOEL 4 : PRESSURIZER LEVEL CONTROL
CHARGING FLOW CONTROL

FIG. 2.4

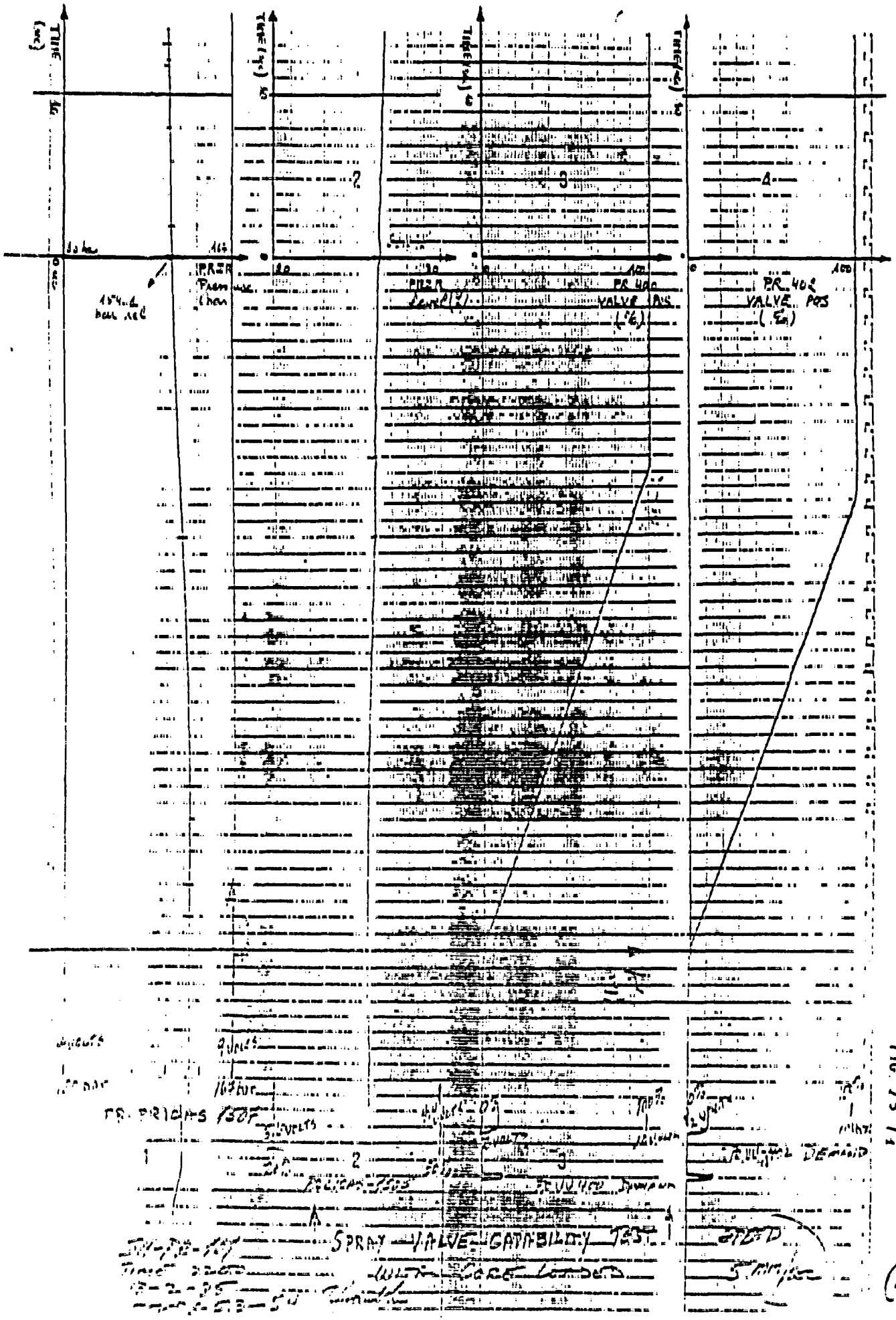

TIME (sec)
PRZR Pressure (bar)
PRZR Level (%)
PR 402 VALVE POS (%)
PR 402 VALVE POS (%)
SPRAY VALVE OPERABILITY TEST

FIG 25/4

FIG. 2.5/2 — (2)

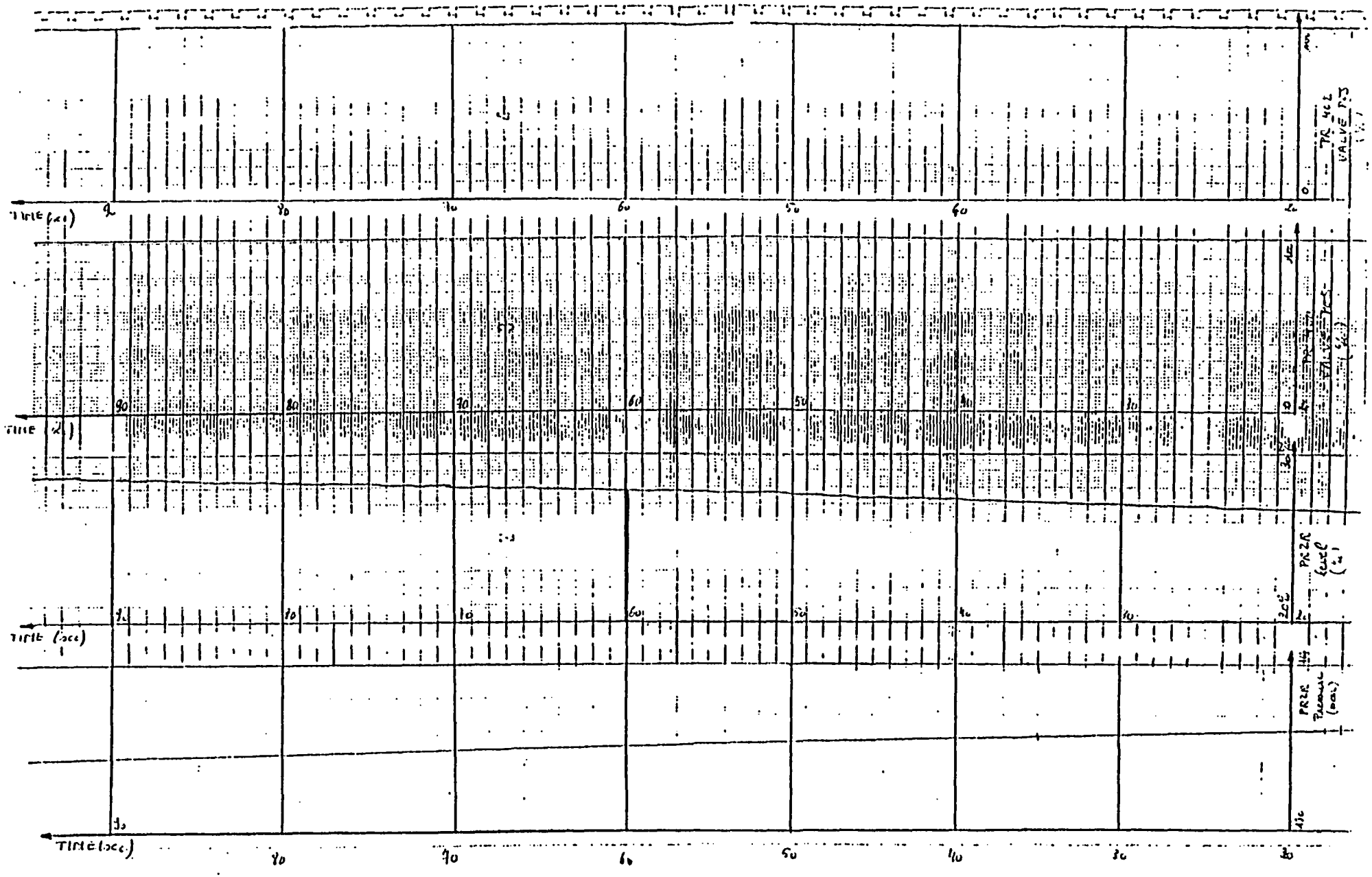
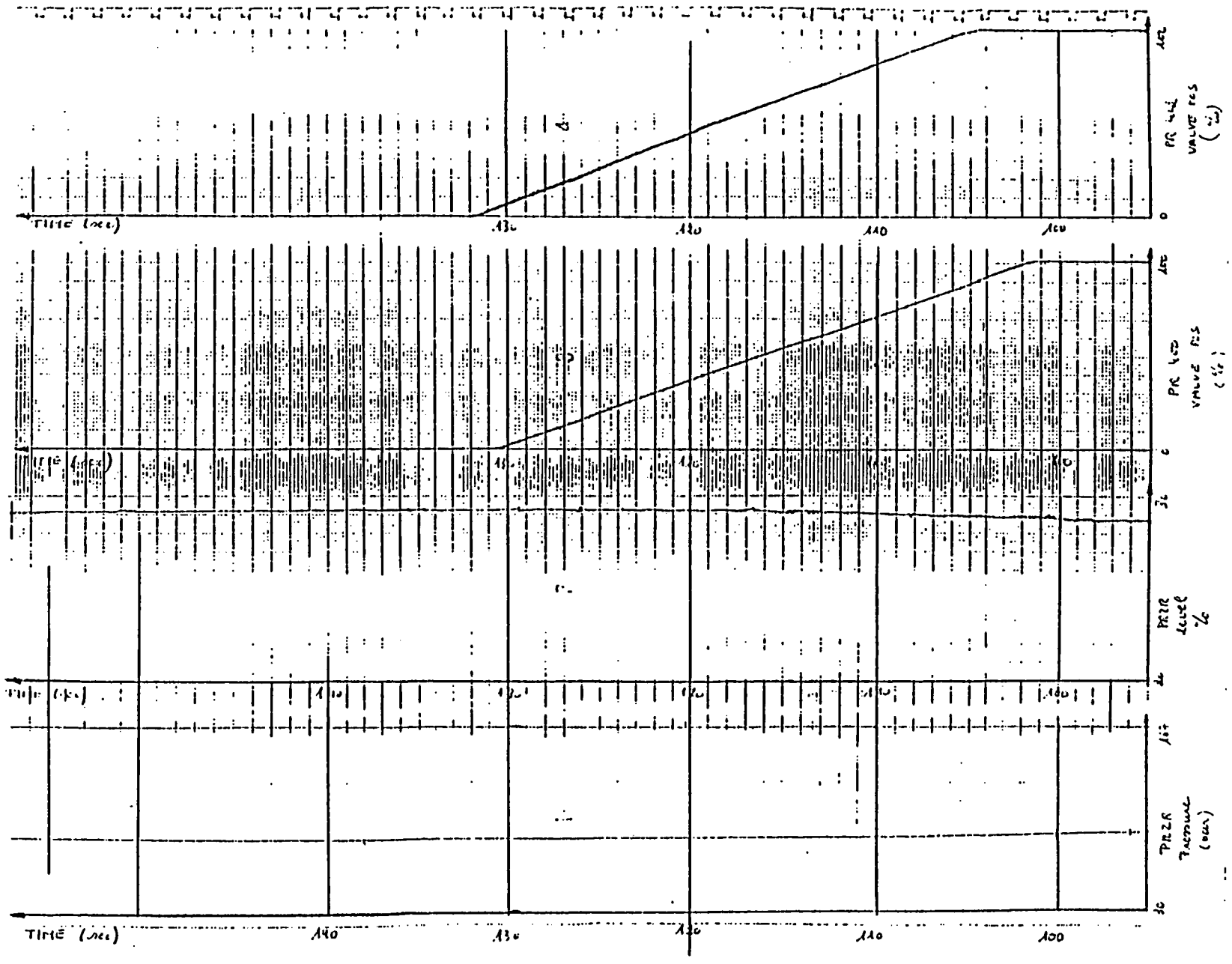

TIME (sec)
TIME (sec)
TIME (sec)
TIME (sec)
VALVE POS
PRZR LEVEL (%)
PRZR PRESSURE (psia)

FIG. 2.5 /3


PR VALVE RES (%)
PR VALVE RES (%)
PRZR LEVEL %
PRZR PRESSURE (ata)
TIME (sec)
TIME (sec)
TIME (sec)
TIME (sec)

3. DESCRIPTION OF THE DOEL 4 SPRAY EFFICIENCY TEST

The pressure transient discussed in this paper was part of a commissioning test entitled "Pressurizer heater and spray efficiency test" (SU-PR-101).
The test was performed in Doel 4 on the 13th and 14th of february 1985.
One of the objectives of the plant was to check the efficiency of the pressurizer spray to decrease the primary pressure. The pressurizer pressure evolution was recorded during this test in parallel with the spray valves position indication and the pressurizer level evolution.

3.1. Initial plant conditions

3.1.1. The primary system average temperature was about 297.3°C, corresponding to the normal no-load reference temperature. The pressurizer pressure was 158 bar, exceeding the nominal pressure by 3 bar. The initial pressurizer level of 26.3 % was slightly higher than the no load reference level (25 %) due to previous tests.

3.1.2. The pressurizer pressure control is in manual, the heater control demand being at 60 % of the maximum of the variable heater power (308 kW), to compensate for the heat losses and the residual spray.

3.1.3. The pressurizer level control is in manual. One CVCS charging pump is operating and normal letdown is established (1 orifice open). The letdown pressure control is in automatic, the nominal letdown flow rate being 22.7 m^3/h.

3.1.4. In order to establish nominal spray flow, all three primary pumps were running.

3.1.5. The heat produced by the primary pumps was evacuated via the three steam generators, the primary temperature being

controlled by dumping steam through the atmosphere relief valves.

3.1.6. The steam generator level was controlled by the auxiliary feedwater system.

3.2. Spray efficiency test procedure

3.2.1. The spray test was started by opening both spray valves in parallel from 0 % to 100 % in about 30 seconds (see fig. 2.5 channels 3 and 4).

3.2.2. Pressurizer pressure and level were recorded during the test, on channels 1 and 2 of figure 2.5.

3.2.3. Both spray valves were closed manually at the same time in about 25 seconds, once the pressurizer pressure decreased below 146.5 bar.

4. CODE AND MODEL DESCRIPTION FOR THE TEST SIMULATION

The code used for simulating the pressurizer spray efficiency test was RELAP5/MOD2 cycle 36.04 and was processed on a CDC machine CYBER 180/825.
The test procedure of the actual spray test has been modified slightly for economic reasons : since a RELAP5 simulation of the steady state operation at normal no load conditions was already available (P_{PZR} = 155.1 bar), the pressure raise from 155.1 bar to 158 bar before starting the spray test has been omitted. So the simulated spray valves are opened when the recorded RCS pressure reached the normal no load conditions (P_{PZR} = 155.1 bar) and the opening time interval has been reduced from 30 seconds to 10 seconds.
The results of the actual and the simulated spray tests have to be compared between the moment the actual pressurizer pressure decreases below 155.1 bar and the moment the spray valves (actual and simulated) are closed.

4.0. General nodalisation philosophy

The general nodalisation philosophy is a compromise between precision and economy. The minimum length of a volume in the primary loops corresponds to length of the vertical part of the cross over leg leading to the primary pump. The corresponding transport time of 0.12 seconds was taken as a minimum at nominal conditions (100 % power). This led to a 5 volume representation of the core (an odd number of volumes was considered to allow an easier representation of cosinus like power distribution).
In the U-tube bundle, the number of axial nodes is based on a rule of thumb of about 2° ΔT per volume in order to obtain an acceptable heat transfer and temperature drop between primary and secondary side.
This resulted in 11 volumes in the ascending leg, and 7 volumes in the descending leg of the bundle.
Since no important phenomena have to be expected on the secondary side of the steam generators, the latter has not been simulated explicitely. The constant Reactor Coolant System

temperature has been obtained by imposing a fixed surface temperature at the secondary side of the U-tube heat structures. This resulted in the nodalisation scheme as shown in fig. 4.1, consisting of 134 volumes, 139 junctions and 82 heat structures (275 mesh points).
The following chapter describes in more or less detail the extent of the nodalisation.

4.1. Nodalisation of the reactor coolant system

The numbering logic for the RCS is as follows :

. reactor vessel	components	010 - 099
. "R" loop	components	100 - 199
. "G" loop	components	200 - 299
. "B" loop	components	300 - 399
. pressurizer	components	400 - 499

Table 4.1 compares the calculated steady state conditions at 100 % power with nominal plant values for the most relevant parameters. All form loss factors (K_F, K_R) appearing in the input for the spray test at no load conditions have been dimensioned for steady state conditions at 100 % power.

4.1.1. Reactor vessel nodalisation

Fig. 4.2 represents the correspondance between the Relap nodalisation and the actual reactor vessel geometry.

Table 4.2 summarizes the geometrical data of the reactor vessel nodalisation.

4.1.2. Primary loop nodalisation

Table 4.3, 4.4 and 4.5 summarize respectively the geometrical data of the hydrodynamic components for the loops R, G and B.

The detail of the nodalisation of the RCS has only limited influence on the relevant results of this particular exercise, being pressurizer pressure and level evolution.

The reactor coolant system only has to supply a correct flow rate and temperature to the pressurizer spray system and conditions the surge flow in the pressurizer surge line. The only observable affects in the RCS during the spray test will be the primary pressure drop and the steam generator power exchange (not identical for the 3 SG).
Therefore a detailed discussion of RCS parameters is not relevant and furthermore the explicite simulation of the secondary side of the steam generator is certainly not required.

4.1.3. Nodalisation of the S.G. U-tube bundle

All U-tubes of one S.G. have been globalised into one equivalent tube having 11 volumes in the ascending part (volumes i22-01/11) and 7 volumes in the descending part (volumes i24-01/07) (i = 1,2,3).
Since the secondary side of the S.G. has not been simulated, an acceptable heat transfer rate (and so an exceptable primary temperature level) was obtained by simulating the U-tube metallic structures and imposing at the secondary side surface a uniform temperature distribution (equal to the required cold leg temperature).

4.1.4. Simulation of the primary pumps

Since not enough data were available, the built-in Westinghouse pump model was selected as a best guess.
The acceptability of the model was verified by comparing the simulated pump coastdown curve and the actually registered pump coastdown curves.

4.1.5. Pressurizer nodalisation

4.1.5.1. Hydrodynamic volumes

Table 4.6 summarizes the geometrical data of the hydrodynamic volumes of the pressurizer and compares the total volume to the nominal value.

The pressurizer has been subdivided in 10 volumes (410-01/09 and 420-01). Volume 420-01 represents the top of the pressurizer dome where the spray nozzle is located. The subdivision of the remaining 9 volumes has been made taking into account following restrictions :

a) the 2 instrumentation tabs leading to the pressurizer level indicator, have to be situated in the middle of a volume, since RELAP links the mean volume static pressure to the center of the volume (volume 410-03 and 410-08).

b) the initial water level (26,3 %) has to be located in the center region of a volume to avoid unrealistic condensation effects if a volume is practically filled up with water and contains only a small amount of vapour, or to avoid unrealistic flashing effects in the other extreme case (volume 410-05).

c) since the simulated surge line (volumes 400-01/04) has a continuous, though small, slope and contains no vertical parts, there is no vertical phase separation possible in the surge line. When simulating conditions where all pressurizer heater power was on, combined with full spray, a large vapour entrainment was observed in the surge line (CCFL in horizontal flow regime).
In order to permit a certain degree of stratification in the bottom of the pressurizer (at the entrance of the surge line), three small volumes (410-01/03) are represented in the

bottom of the pressurizer, while the pressurizer heaters have been concentrated in the 2 volumes above (410-04/05).

The surge line (volumes 400-01/04) is connected to the primary loop B by an "upward located cross flow junction" in order to be able to cope with horizontal stratification phenomena in the primary loop B (not in this exercise) and to represent correctly the T-like connection between surge line and hot leg.

Both spraylines are simulated explicitly including their control valve (J435 and J445) ; one spray line is connected to the cold leg R, the other to the cold leg B.
The spray flow is controlled, as in reality, by the pressure difference between the pressurizer dome and the cold legs and by the CV of the spray valves J435 and J445.
The full open area of both spray valves (J435 and J445) has been dimensioned to obtain the nominal total spray flow rate of 102 m^3/hr.
The cross section of the spray flow lines is the actual pipe cross section, such that the velocity in the spray lines is respected.
The length of the spray lines covers the elevation difference between the top of the pressurizer and the primary loop cold legs, and, consequently, is different from the actual length.
However, this has no impact on the results for the following reasons :

a) since, in reality, there is always a small continuous spray flow rate (0.45 m^3/h), the temperature of the water in the spray lines at any time is the cold leg temperature (spray line heat losses neglected) (the continuous spray flow rate in not simulated, because this causes flow oscillation problems through the nearly closed control valves. The omission of this flow and its pressure reducing effect will be compensated by reducing the proportional heater power in automatic control).
b) because the total RCS water inventory is not relevant for this exercise, and is hardly affected .

4.1.5.2. Pressurizer heat structures

Besides the S.G. U-tube heat structures, the pressurizer and surge line heat structures are the only relevant and actually simulated heat structures for this test.

Two types of heat structures are simulated :

a) The pressurizer heaters :
The pressurizer heaters are simulated by one heater rod of nominal section (= section of one real heater rod) and with a length equal to the sum of the lengths of all real individual heater rods.
The pressurizer heaters are represented in volumes 410-04 and 410-05. The simulated heater rod in volume 410-04 represents the total length of the rods below the top level of volume 410-04. The heaters in volume 410-05 represent the total length of the rods above the top level of volume 410-04.
The total heater power including back-up heaters is 1602 kW, 308 kW being the power of the proportional heaters, the complement being the power of all back-up heaters. During the spray test, the heaters were in manual control and only the proportional heaters were operational.
Fig. 4.3 illustrates the RELAP control block for the pressurizer heater control of fig. 2.3.

b) The pressurizer and surge line wall heat structures :
The pressurizer heat structures are represented because their thermal inertia has an influence on the spray performance.
The pressurizer heat losses have been modelled by imposing a fixed heat transfer coefficient for the wall heat structures, so that the heat losses to a fictive containment volume (940-01) correspond to the actual overall heat losses estimated during another start-up test, to be about 30 % of the variable heaters efficiency, i.e. about 92 kW.

4.2. Chemical and volume system nodalisation (CVCS)

During the spray test, the CVCS was in manual steady operation, which means that the total charging flow (being the charging line flow + the part of the primary pump seal water entering the RCS) compensates exactly the letdown flow.
Both letdown and charging are represented by Time Dependent Junctions : TDJ283 for the letdown, TDJ181 for the charging flow.

The letdown flow is calculated by the code using following data :

- the efficiency of the (only) operational letdown orifice at nominal steady state conditions is 22.7 m^3/h

- the letdown orifice back pressure is 38 bar and remains constant, controlled by the letdown pressure control system.

The letdown flow thus calculated is re-injected into the RCS system by the charging system (TDV 180) at a temperature 10 °C below the letdown temperature (to take into account the combined effect of the regenerative and the non-regenerative heat exchangers).

4.3. Description of the Relap control variables

The general numbering logic for the control variables (cards 205 NNNoo) corresponds to the logic used for the volume numbering.

CNTRLVAR 001-099 : related to the core + some particular control variables
CNTRLVAR 100-199 : related to primary loop R
CNTRLVAR 200-299 : related to primary loop G
CNTRLVAR 300-399 : related to primary loop B
CNTRLVAR 400-499 : related to the pressurizer
CNTRLVAR 600-699 : related to steam generator R
CNTRLVAR 700-799 : related to steam generator G

CNTRLVAR 800-899 : related to steam generator B

4.3.1. CNTRLVAR 001-099

CNTRLVAR 001-003	energy added to the primary system by the charging flow
CNTRLVAR 004-006	energy taken from the primary system by the letdown flow
CNTRLVAR 007	net energy input in the pressurizer resulting from heat losses to the containment, the PR heaters and the PR wall heat transfer to the PR volume
CNTRLVAR 008	net energy input into the PRZR vapor phase
CNTRLVAR 009	primary system energy balance
CNTRLVAR 010-016	conversions for plot generation
CNTRLVAR 020-026	pressurizer energy balance
CNTRLVAR 027	total heat produced by the PRZR heater rods
CNTRLVAR 028	total vapor generation rate in pressurizer
CNTRLVAR 031-032	core power and turbine power (both zero)

4.3.2. CNTRLVAR 100-399 (primary loops)

CNTRLVAR 100-113 CNTRLVAR 200-213 CNTRLVAR 300-313	calculation of the ΔT setpoint for the overtemperature and overpower protection for each primary loop (corresponding to fig. 4.4)

CNTRLVAR 134-186 charging flow calculation taking into account the centrifugal charging pump curve (not used)

CNTRLVAR 281-284 letdown flow calculation

4.3.3. CNTRLVAR 400-499 (pressurizer)

CNTRLVAR 400 calculates the collapsed water level from the following expression

$$L_{col}(\%) = 100 \times \frac{\sum_{vol}^{all} \alpha_{Fi} - L_0}{L_{100} - L_0}$$

α_{Fi} is the fluid void fraction for volume i
L_0 being the sum of all pressurizer and surge line volume vertical heights up to the lower instrumentation tap,
L_{100} being the sum of all heights up to the upper instrumentation tap.

CNTRLVAR 402 calculates the measured hot calibrated pressurizer level, based on the weight difference between a reference water column and the water (and steam) column in the pressurizer. The electrical signal, corresponding to a pressure difference, varies between 0 % and 100 % for water level varying between lower tap and upper tap. Hence we can write :

$$L(\%) = 100 \times \frac{p_z - p_0}{p_{100} - p_0} = 100 \frac{\sum_i \rho_i g_i h_i - \rho_v g H}{\rho_l g H - \rho_v g H}$$

wherein : g = earth gravity
ρ = density

H = distance between level taps (= 11.164 m)

subscript : i = index of hydrodynamic volumes in pressurizer

z = water level

v = vapour at nominal saturated conditions

l = liquid at nominal saturated conditions

o = 0 %

100 = 100 %

CNTRLVAR 404	total PRZR mass
CNTRLVAR 410-418	pressurizer heater control in correspondence with fig. 4.3 However, control component 418 has been changed to represent the manual operation mode of the pressurizer heaters during this particular test.
CNTRLVAR 435-445	represent the time dependent behaviour of both pressurizer spray valves.

4.3.4. CNTRLVAR i00-i99 (i = 6, 7, 8)

CNTRLVAR i06-i10	calculate the total steam generator power for all three steam generators

4.3.5. Miscellaneous

CNTRLVAR 900-911	total mass of the PRZR vapor phase
CNTRLVAR 912	total mass of the PRZR liquid phase
CNTRLVAR 920	net energy input into the surge line

DOEL 4 – STEADY STATE AT 100 % POWER

TABLE 4.1

Parameter	Units	Transmitter	VALUES site	nominal	best estimate	RELAP	ERROR %	Component RELAP
PRIMARY SYSTEM								
CORE POWER	MW			2988	2979	2986,6	0,05	CV 031
PRZR PRESSURE	bar	PR-P-1507		155,1	–	155,1	0,0	V440
PRZR LEVEL	%	PR-L-1504		57,5		57,63	0,2	CV402
COLD LEG TEMP.	°C	RC-T-1 1/3 10	293,55	293,53	293,4	293,86	0,2	V153, 253, 353
HOT LEG TEMP.	°C	RC-T-1 1/3 15	328,95	330,27	329,2	329,38	0,1	V111, 211, 311
AVERAGED TEMP.	°C	RC-T-1 1/3 15	311,24	311,9	311,3	311,62	0,1	
ΔT	°C	RC-T-1 1/3 10	35,4	36,74	35,8	35,52	<0,8	
REACTOR COOLANT FLOW	m³/h			23482	23040	23152	0,5	
SECONDARY SYSTEM								
FEEDWATER FLOW	kg/s	FW-F-1 1/3 03		555,6		555,6	0,0	V602, 702, 802
FEEDWATER TEMP.	°C	FW-T-1696		223,9		223,9	0,0	V600, 700, 800
SG NARROW RANGE LEV.	%	FW-L-1 1/3 13		58,6		58,75	0,3	CV613, 713, 813
STEAM LINE PRESSURE	bar	MS-P-1 1/3 07	75,6	75,8		75,2	< 0,8	V640, 740, 840
STEAM FLOW	kg/s	MS-F-1 1/3 02		555,6		553,4	0,4	V645, 745, 845
S.G. POWER	MW			1000		999,1	0,1	CV610, 710, 810

TABLE 4.1

TRACTEBEL

TABLE 4.2 : GEOMETRICAL DATA FOR THE REACTOR VESSEL

VOLUME NUMBER	NAME	TYPE	FLOWAREA (m^2)	LENGTH (m)	VOLUME (m^3)
011 - 01	UPDOWNC	BRANCH	1.85196	2.094	3.878
013 - 01	UPDOWN022	BRANCH	2.47595	1.414	3.501
015 - 01	DOWNCTS	ANNULUS	2.57	1.74233	4.47779
02			2.57	1.74233	4.47779
03			2.57	1.74233	4.47779
023 - 01	LOWPLEN	BRANCH	6.23368	1.455	9.07
025 - 01	COREIN	BRANCH	3.86	0.853	3.29258
031 - 01	CORE	PIPE	3.86	0.853	3.29258
02			3.86	0.853	3.29258
03			3.86	0.853	3.29258
04			3.86	0.853	3.29258
05			3.86	0.853	3.29258
035 - 01	BYPASS	SNGLVOL	0.80891	4.265	3.45
039 - 01	COREEX	BRANCH	3.86	0.853	3.29258
041 - 01	UPPLEN1	BRANCH	8.865	0.670	5.93955
043 - 01	UPPLEN2	BRANCH	8.865	2.094	18.5633
045 - 01	UPHEAD	BRANCH	9.04369	2.06	18.63

TRACTEBEL

TABLE 4.3 : GEOMETRICAL DATA FOR PRIMARY LOOP R

VOLUME NUMBER	NAME	TYPE	FLOW AREA (m^2)	LENGTH (m)	VOLUME (m^3)	VERT. ANGLE (°)
111 - 01	HTLEGR1	PIPE	0.4369	2.6813	1.1715	0.
02			0.4369	2.6813	1.1715	0.
113 - 01	HTLEGR2	BRANCH	0.4369	2.6813	1.1715	19.57
131 - 01	SEALR	PIPE	0.4984	1.943	0.9684	-90.
02			0.4984	1.943	0.9684	-90.
03			0.4984	3.009	1.4997	0.
04			0.4870	1.600	0.7792	90.
151 - 01	COLDR1	SNGLVOL	0.383	2.065	0.791	0.
152 - 01	COLDR2	BRANCH	0.383	2.065	0.791	0.
153 - 01	COLDR3	PIPE	0.383	2.065	0.791	0.
153 - 02			0.434	2.065	0.896	0.

TABLE 4.4 : GEOMETRICAL DATA FOR PRIMARY LOOP G

VOLUME NUMBER	NAME	TYPE	FLOW AREA (m^2)	LENGTH (m)	VOLUME (m^3)	VERT. ANGLE (°)
211 - 01	HTLEGG1	PIPE	0.4369	2.6813	1.1715	0.
02			0.4369	2.6813	1.1715	0.
213 - 00	HTLEGG2	BRANCH	0.4369	2.6813	1.1715	19.57
231 - 01	SEALG1	PIPE	0.4984	1.943	0.9684	-90.
02			0.4984	1.943	0.9684	-90.
03			0.487	3.009	1.4654	0.
232 - 00	SEALG 2	BRANCH	0.487	1.6	0.7792	90.
251 - 00	COLDG1	BRANCH	0.383	2.065	0.791	0.
253 - 01	COLDG2	PIPE	0.383	2.065	0.791	0.
253 - 02			0.383	2.065	0.791	0.
253 - 03			0.434	2.065	0.896	0.

TRACTEBEL

TABLE 4.5 : GEOMETRICAL DATA FOR PRIMARY LOOP B

VOLUME NUMBER	NAME	TYPE	FLOW AREA (m^2)	LENGTH (m)	VOLUME (m^3)	VERT. ANGLE (°)
311 - 01	HTLEGB1	PIPE	0,4369	2,6813	1,1715	0.
02			0.4369	2,6813	1.1715	0.
313 - 01	HTLEGB2	BRANCH	0.4369	2,6813	1.1715	19.57
331 - 01	SEALB	PIPE	0,4984	1.943	0,9684	-90.
02			0.4984	1,943	0,9684	-90.
03			0.4984	3.009	1.4997	0.
04			0.4870	1.600	0.7792	90.
351 - 01	COLDB1	SNGLVOL	0,383	2.065	0.791	0.
352 - 01	COLDB2	BRANCH	0.383	2.065	0.791	0.
353 - 01	COLDB3	PIPE	0.383	2.065	0.791	0.
353 - 02			0.434	2.065	0,896	0.

TRACTEBEL

TABLE 4.6 : GEOMETRICAL DATA FOR PRZR

HYDRODYNAMIC VOLUMES

VOLUME NUMBER	NAME	TYPE	FLOW AREA (m^2)	LENGTH (m)	VOLUME (m^3)
410 - 01	PRESSU	PIPE	2.13290	0.28217	0.60184
02			2.13290	0.56434	1.20368
03			3.53500	0.7	2.47450
04			3.53500	1.464	5.17524
05			3.53500	3.	10.6050
06			3.53500	3.	10.6050
07			3.53500	3.	10.6050
08			3.53500	0.7	2.47450
09			2.13290	0.38	0.810502
420 - 01	TOP	BRANCH	2.13400	0.2665	0.568711
				Total of hydrodynamique volumes	45.12397
				Actual volume of PRZR	46.5

FIG. 4.1 MODALISATION SCHEME FOR DOEL 4 SPRAY TEST SIMULATION.

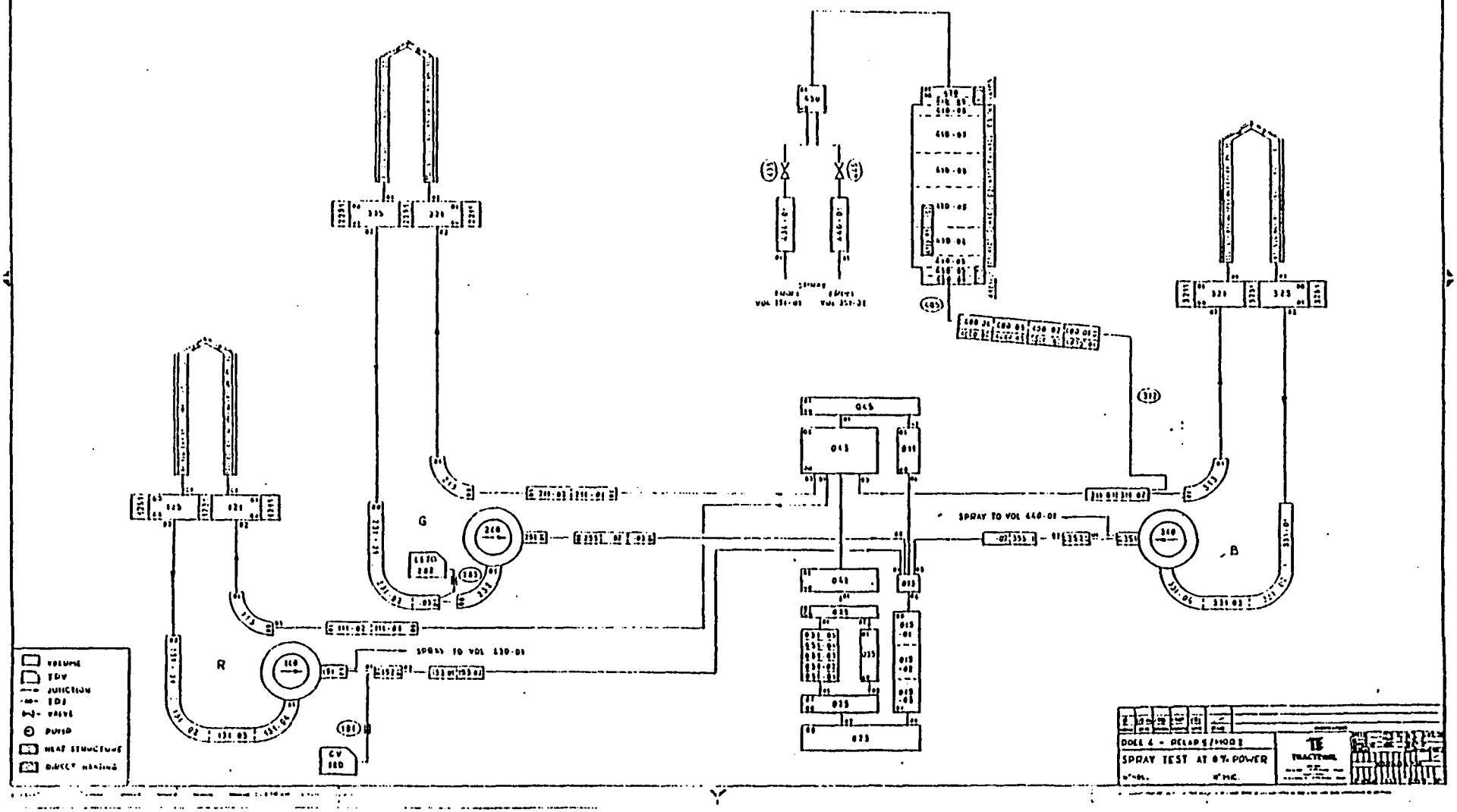
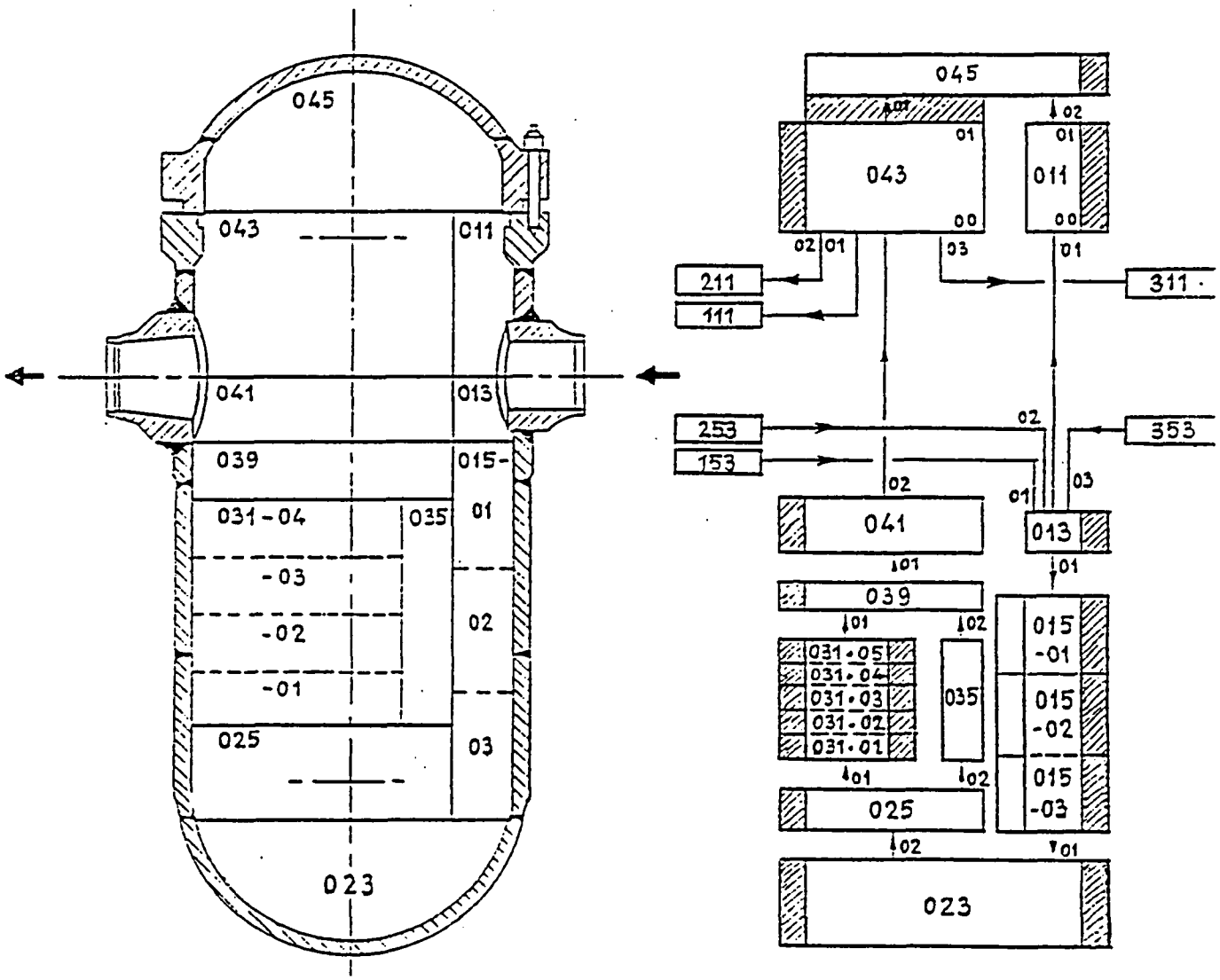


FIG. 4 : DOEL 4 - REACTOR VESSEL NODALISATION



TRACTEBEL

DOEL 4 - PRESSURIZER HEATER CONTROL - LEVEL 1
RELAP 5 / MOD 2 EQUIVALENT

FUNCTION TABLE 411		FUNCTION TABLE 417	
570.35	25.	-1.	1.
585.05	57.5	1.	0.

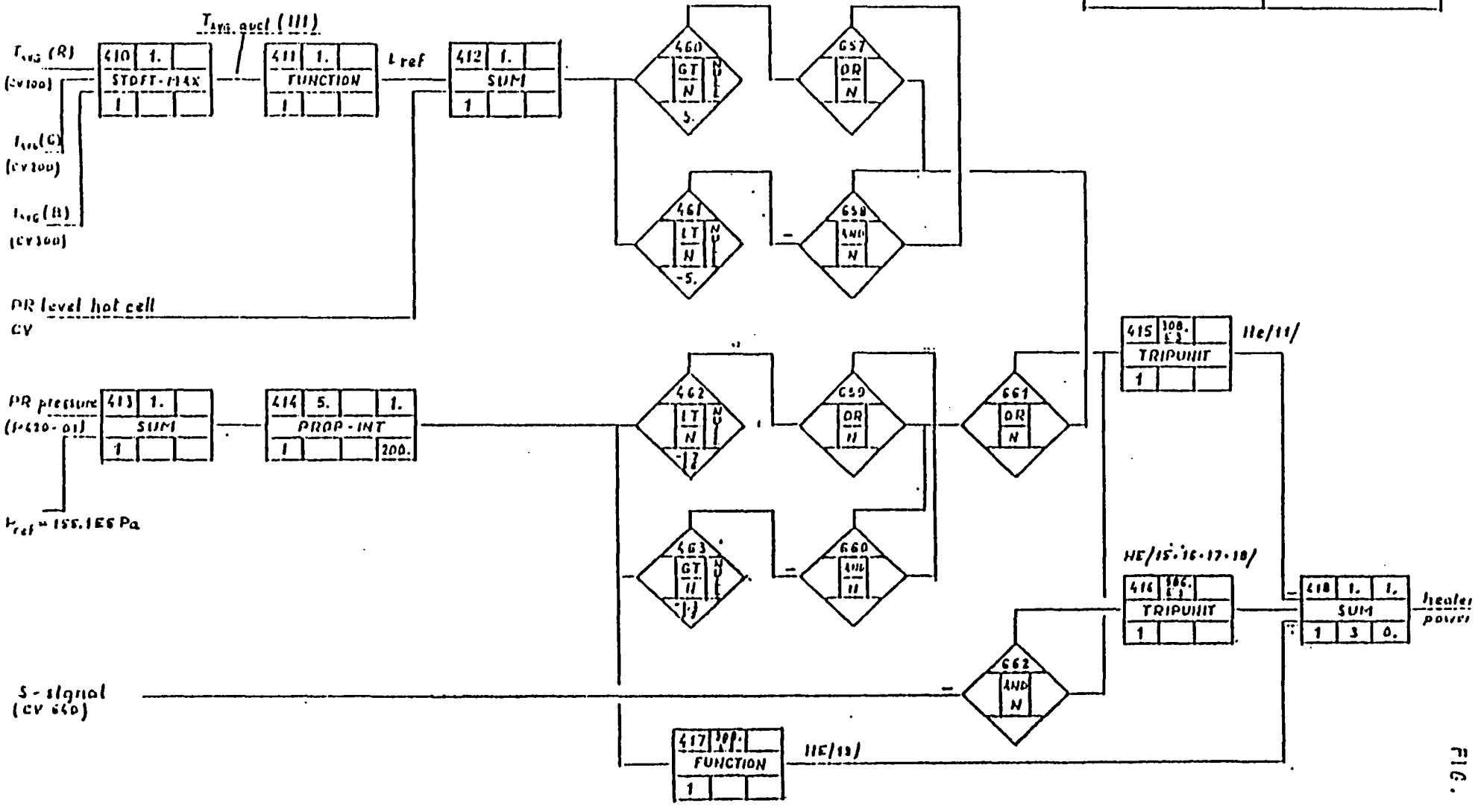


FIG. 4.3

TRACTEBEL

DOEL 4 : OVERTEMPERATURE - OVERPOWER

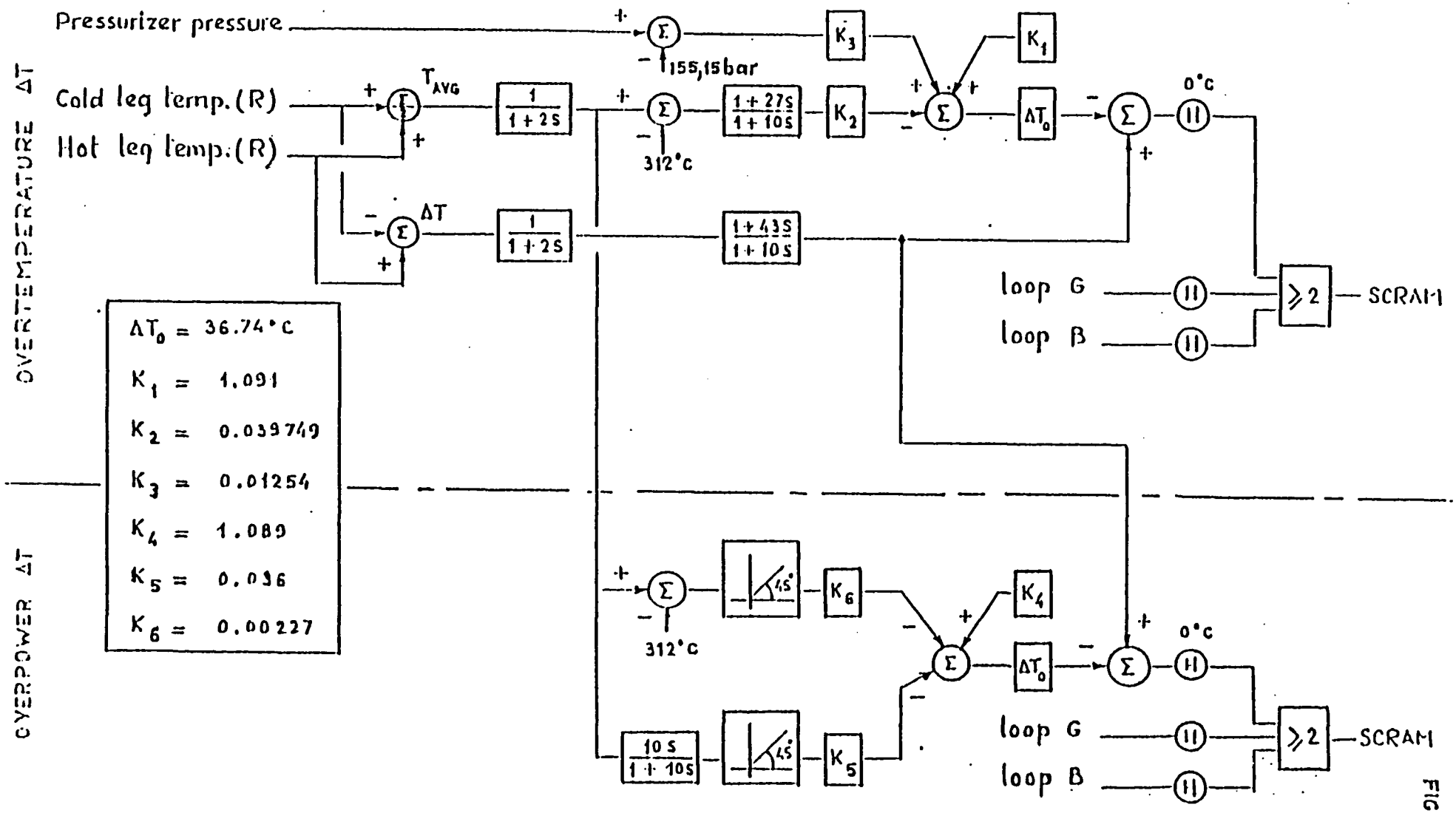


FIG. 4.4

5. DESCRIPTION OF THE SPRAY EFFICIENCY TEST SIMULATION

The test configurations and the main results are summarized in table 5.1

5.1. Simulation procedure

The simulation of the spray efficiency test can be subdivided into two main phases :

- steady state operation at zero power between 0 and 30 sec
- spray test simulation between 30 and 160 sec.

5.1.1. Steady state operation

An acceptable steady state at zero power is obtained in two steps :

- During the first 20 seconds, reactor coolant system pressure is controlled artificially by connecting a time dependent volume (TDV490) (at nominal pressure with saturated vapor only) to the pressurizer dome by means of a valve (VALVE 489). At the same time, the pressurizer heaters compensate nearly exactly the pressurizer heat losses to the containment. The heat produced by the reactor coolant pumps has to be evacuated via the steam generators.
  There is no residual spray.

- At t = 20 sec, the VALVE 489 is closed, thus isolating the reactor coolant system from the time dependent volume TDV 490. The primary system is now operating in steady state conditions at zero power.

5.1.2. Spray test simulation

At t = 30 sec both spray valves are opened in 10 sec, and the pressurizer heater power is raised from 89.257 kW (≈ pressurizer heat losses) to 185 kW (≈ 60 % of full power of variable heaters) in 4 sec.
Depressurisation goes on for about 100 sec until, at t = 130 sec, both pressurizer spray valves are closed in 25 seconds.
The simulation stops at t = 160 sec.

5.2. Discussion of the results of the reference test

5.2.1. Steady state simulation

The first phase (t = 0 -> 20 sec) corresponds to a steady state at 0 % power with pressurizer pressure control by a time dependent volume (TDV 490) connected to the pressurizer by a valve (VALVE 489).
At t = 20 sec, all principal parameters seem to be stable. The mass flow rate through VALVE 489 is 1.23 10^{-3} kg/s from the pressurizer to the TMDPVOL 490.
This negligeable mass flow rate assures a smooth state transition when closing valve 489 at t = 20 sec.
Again all temperatures, void fractions and pressures seam to be stable between t = 20 sec and t = 30 sec. However, the powers to all 3 SG (CNTRLVAR 610, 710, 810) increases steadily.
The total SG power being 7.36 MW at t = 30 sec, it is clear that the 3 SGs do not absorb all the heat produced by the 3 reactor coolant pumps (13.35 MW).
This is also reflected by the net primary system heat input (CNTRLVAR 009), being positive (5.69 MW), which causes a slow heat up of the primary coolant resulting in a pressurizer level increase.
However the main parameter changes are so small that the state at t = 30 sec can be considered as an acceptable steady state for the simulation of the spray test.

5.2.2. Spray test simulation

5.2.2.1. Pressurizer pressure drop (fig. 5.1)

The pressurizer spray efficiency is expressed by its depressurization rate at nominal spray flow rate.

The calculated spray flow rate is 20.67 kg/s (Fig. 5.2) at the moment the spray valves are fully opened. The density at the end of the spray line (vol 450.01) being 732.32 kg/m^3, this corresponds to a volumetric flow rate of 101.5 m^3/h. (The nominal design value being 102 m^3/h). The actual spray flow rate however is an unobservable parameter.

The mean depressurization rate during a steady spray regime, e.g. between t = 60 sec. and t = 120 sec is calculated from the following results.

TIME	SIMULATED PRZR PRESSURE (BAR)	ACTUALLY MEASURED PRESSURE (BAR)	% DIFFERENCE
60	152.47	152.49	
120	147.30	147.27	
rate bar/min	5.17	5.22	- 1 %

There is a good agreement between the calculated and the measured depressurisation rate. The difference (1 %) is clearly less than the recorder uncertainty (3 %), not taking into account the uncertainty in the interpretation of the recordings.

The calculated depressurisation rate is not quite constant, and decreases during the test, which is also illustrated by a reducing vapour condensation rate (fig. 5.3) in the pressurizer.

The first reason for this effect is the reduced subcooling towards the end of the test whereby the enthalpy difference between the spray and the saturated fluid enthalpy decreases which has a direct impact on the depressurisation rate.
Another reason is the increased structural heat release to the pressurizer fluid as the pressure (and temperature) drop.
While the heater power remains practically constant at 198 kW (Fig. 5.4), the structural heat released from the pressurizer and surgeline walls increases from 180 kW (t = 60 s) to 529 kW (t = 120 s).

Finally, the overshoot of the calculated pressure (in comparison with the measured pressure) between 30 and 50 sec, is clearly due to the fact that the simulated spray valves gradually open between 30 and 40 sec, while the measured depressurisation between 30 and 40 seconds corresponds to fully opened valves.

5.2.2.2. Pressurizer level (fig. 5.5)

a) The first important observation is the divergence between the collapsed and the Δp water level once the pressurizer spray has started ; this is normal, since the collapsed water level is a measure of the water <u>volume</u> fraction while the Δp level is a measure of the <u>weight</u> of the water and steam between the level taps.
Indeed, for a pressure reduction from 155 bar to 146 bar, the saturated water density increases by 23 %, this means that for a constant ΔP level (plant control parameter), the collapsed level should decrease by 23 % .
This is also confirmed by the plots of the fluid mass (fig. 5.6), the vapour mass (fig. 5.7) and the total mass (fig. 5.8) evolution in the pressurizer. The fluid mass increases only by 11 %, hence leading to a drop in the collapsed level.

b) Figure 5.5 reveals an increasing discrepancy between the measured ΔP level and the calculated ΔP level of about 1 % (max. 1.2 %).

The following reasons may explain this difference :

b.1. figure 5.5 shows that there is nearly no calculated level raise between 30 and 40 seconds (while the spray valves are gradually opened) while the measured level increases by ± 0.3 % during this period (because the spray valves were already fully open before t = 30 sec in the actual test)

b.2. in the spray test simulation the CVCS mass flow was constant (charging flow equals letdown flow at each moment).

In the actual test however, the letdown flow rate was nearly constant while the charging flow was in manual control. This means that the charging flow control valve was in a fixed position.

As the centrifugal pump speed is not controlled in function of PR-level, the flow rate through the charging line increases when the RCS pressure decreases (the Δp between the RCS and the centrifugal pump increasing). This flow rate increase is weakly counteracted by the reduction of the centrifugal pump head as flow increases. The charging flow was not recorded during the test.

The net increase of the charging flow during the test results in a PR level increase, that has been estimated by integration of the net charging flow (charging - letdown) to be ≈ 0.3 % . This 0.3 % has been omitted in our simulation.

b.3. As already mentioned in § 2.4, the uncertainty band for the pressurizer level gauge is ± 5 % .

Taking into account the recorder and the reading error, we can accept the 0.6 % difference that is left between the measured and the calculated level.

5.2.2.4. Steam generator power evolution (fig. 5.9)

Figure 5.9 shows that the S.G. "B" power increases significantly when spray is actuated while the S.G.s "R" and "G" power decreases at the same time.

The increase of the S.G. "B" power is explained by the presence of the surge line connection to the loop "B" hot leg. Since there is a considerable outsurge (16 kg/s) during the spray test, of saturated water into the hot leg of loop "B" (Fig.5.10), there is a net increase of the reactor coolant temperature at the inlet of the S.G. "B" (0.2 °C). The cold leg temperature in loop B stays constant and equals the secondary side surface temperature. This results in a net increase of the S.G. "B" power. A difference of about 5 MW between S.G. "B" and the other S.G is fully compatible with a temperature difference at the inlet of 0.2 °C.

The reduction of the S.G.s "R" and "G" power has to be explained by the slight reduction of the hot leg temperatures (by ± 0.02 to 0.03 °C) (and in second order by a very small reduction of the reactor coolant mass flow rate). The reduction of the hot leg temperature is due to the global temperature decrease in the upper mixing volume of the reactor vessel (vol 043-01) from 570.52 K to 570.50.

5.2.2.5. Temperature evolution of the primary coolant system

Since the primary coolant mass inventory is practically constant (196 ton), any global temperature change must result from a change in the energy of the system.
The evolution of the various heat fluxes is calculated by the control variable Q which sums all the heat sources (primary pumps, charging, structural heat) - (steam generators, letdown) of the primary coolant system.
The netto heat input remains positive throughout the test, at about 4.5 MW, leading to a slight temperature increase and hence an increasing heat transfer in the steam generators (fig. 5.9)

for which a fixed secondary pressure (or temperature) was maintained.

5.3. Discussion of the RELAP-5 condensation model

Table 5.2 illustrates some essential data for the upper volumes of the pressurizer above the liquid level taken at 90 sec.

Fig. 5.11 illustrates the evolution of the calculated temperatures in the pressurizer dome :
i.e. fluid temperature
vapour temperature
saturation temperature
spray fluid inlet temperature.

For water condensation processes, in the annular mist flow regime, the interface heat transfer between the water droplets and the saturated vapour is governed by the expression :

$$Q_{if} = H_{if} \ (T_s - T_f) \quad \text{while } Q_{ig} = 0$$

The interface heat transfer coefficient is based on the Brown's correlation for droplets in superheated steam and the Theophanous's film condensation model. Since the former is based on the fluid void fraction $(1 - \alpha_g)$, which is very small in this case (table 5.2), only the contribution of the film condensation model, based on the film area per unit volume, is substantial, and large enough to drive the spray droplets to saturation . Indeed table 5.2 shows that the volume vapour void fraction increases to nearly unity while the fluid temperature is calculated to the only 0.2 °C below saturation in the volume 410-06, just above the liquid level.
The excellent agreement between the measured and calculated depressurisation rate for this test is an indication that overall condensation model and hence the spray efficiency is acceptable.
Since the data show that fluid temperature of the droplets almost reach saturation in volume 401-06, this indicates that the spray is 100 % efficient in the calculation and in the test.

This test indicates that the interface heat transfer coefficient is large enough to yield 100 % spray efficiency and validates the lower bound of the fim condensation model.
However, increasing this coefficient would not yield different results in terms of the overall depressurisation rate, but would drive the liquid temperature to saturation in a shorter distance from the spray nozzle and lead to a different profile of the vapour void fraction in the pressurizer.
Hence, this analysis does not validate the upper bound of the film condensation model.

TABLE 5.1 - SUMMARY OF TEST CONDITIONS AND MAIN RESULTS

RUN NUMBER	TEST NUMBER	TEST CONFIGURATION							RELAP BOUNDARY CONDITIONS	MAIN RESULTS		
		PUMPS	SPRAY VALVES (NUMBER)	TIME-POSITION sec	%	PRZ HEATERS TIME-POWER sec	kW			CALCULATED SPRAY FLOW (m3/hr)	CALCULATED DEPRESSURIZATION RATE (bar/min)	MEASURED DEPRESSURIZATION RATE (bar/min)
REF	SU-PR 101	R	(2)	30	0	30	89.3		See chapters 4 and 5	101.5	5.17	5.22
		G	(2)	40	100	34	185					
		B	(2)	130	100							
			(2)	155	0	160	185					
1	SU-PR 101	R	(2)	30	0	30	89.3		-initial spray temp.3°C too low -initial water level close to a RELAP-5 volume boundary	101.5	water packing	
		G	(2)	40	100	34	185					
		B	(2)	130	100							
			(2)	155	0	160	185					
2	SU-PR 101	R	(2)	30	0	30	89.3		-Cp = 1 for pressurizer heat slabs	101.5	5.6	5.22
		G	(2)	40	100	34	185					
		B	(2)	130	100							
			(2)	155	0	160	185					
3	4.1	R + B	(1)	60	0	auto			Cfr chapters 4 and 5	41	2.5 / 0.82 *	
				70	100							
4	4.2	R + B	(2)	60	0	auto			Cfr chapters 4 and 5	82	4.58/ 2.90 *	
				70	100							

REMARKS

1) FOR ALL TESTS, the net charging flow was equal to the letdown flow.
2) All steam generators were maintained at constant pressure (temperature).
3) For all RELAP simulations, an initial steady state was obtained at t = 30 s.
* For automatic heater control, the first figure indicates average depressurisation rate before back-up heaters are switched on the second figure is with all back-up heaters on.

TABLE 5.2 : SUMMARY OF CONDENSATION DATA IN THE PRESSURIZER VAPOUR SPACE (t = 90 s)

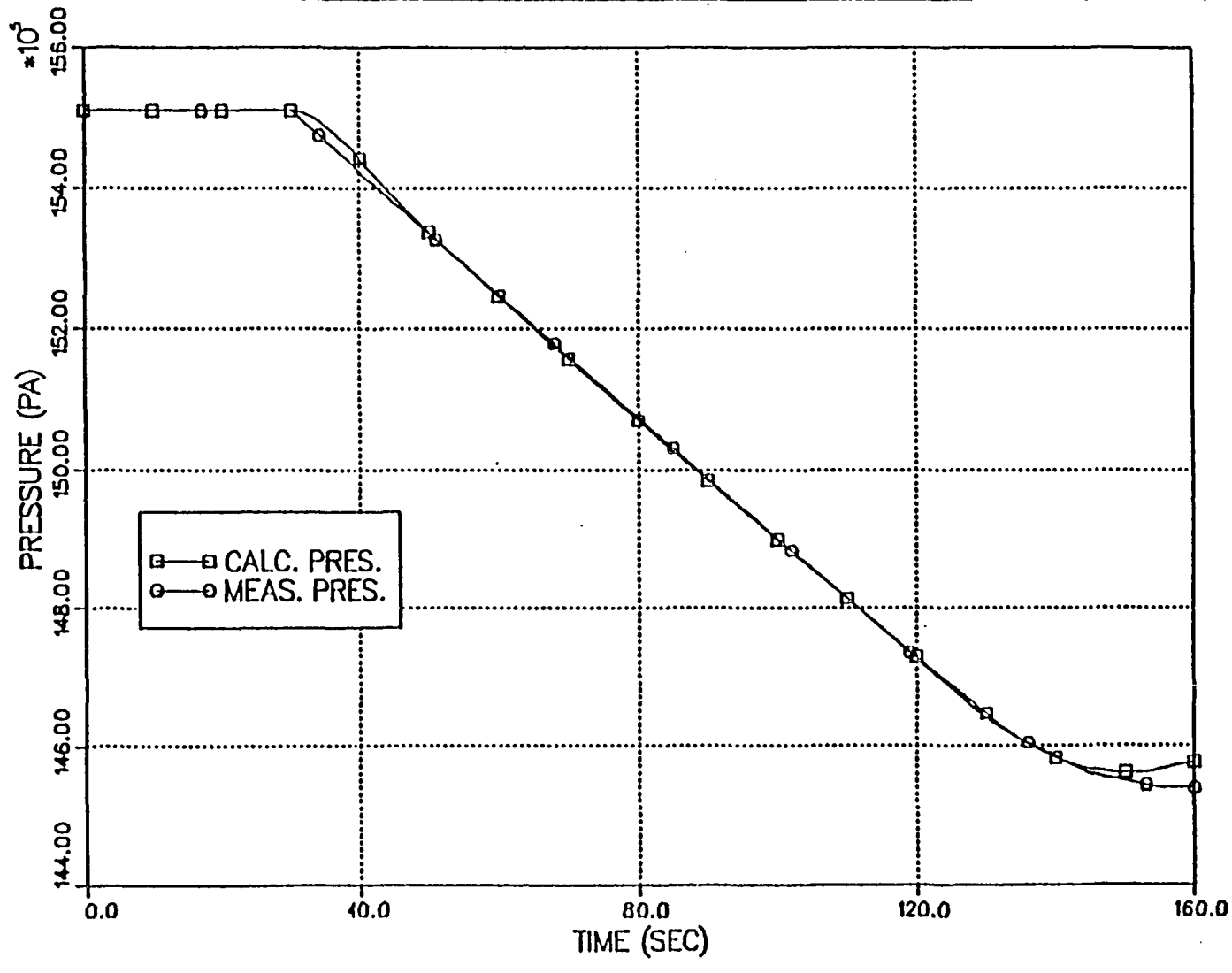
pressure = 150 bar

VOLUME NUMBER	VAPOUR VOID FRACTION	STRUCTURAL HEAT INPUT	VOLUME	SPECIFIC VAPOUR GENERATION	TOTAL VAPOUR GENERATION	FLOW REGIME	FLUID TEMPERATURE	VAPOUR TEMPERATURE	SATURATION TEMPERATURE	WALL TEMPERATURE
Fig.4.1	-	kW	m3	kg/m3.S	kg/s	-	°K	°K	°K	°K
420	0.968	5.65	0.5687	-3.38	-1.922	ANM	589.61	615.15	615.20	615.66
410-09	0.974	7.97	0.8105	-1.751	-1.419	ANM	600.54	615.15	615.20	615.90
410-08	0.980	19.456	2.4745	-0.5944	-1.47	ANM	609.35	615.14	615.21	616.05
410-07	0.987	73.634	10.605	-0.11474	-1.217	ANM	614.22	615.15	615.22	616.33
410-06	0.997	73.869	10.605	-0.042	-0.445	ANM	615.02	615.15	615.23	616.36
410-05	0.564	133.81	10.605	+0.068	-	SLG	615.54	615.16	615.26	616.16
					TOTAL : -6.474					

RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOEL4 – SPRAY CAPACITY TEST AT ZERO POWER 87/01/22. (SU-PR-101)

F5.1. PRESSURE EVOLUTION IN PRESSURIZER DOME (REFERENCE)

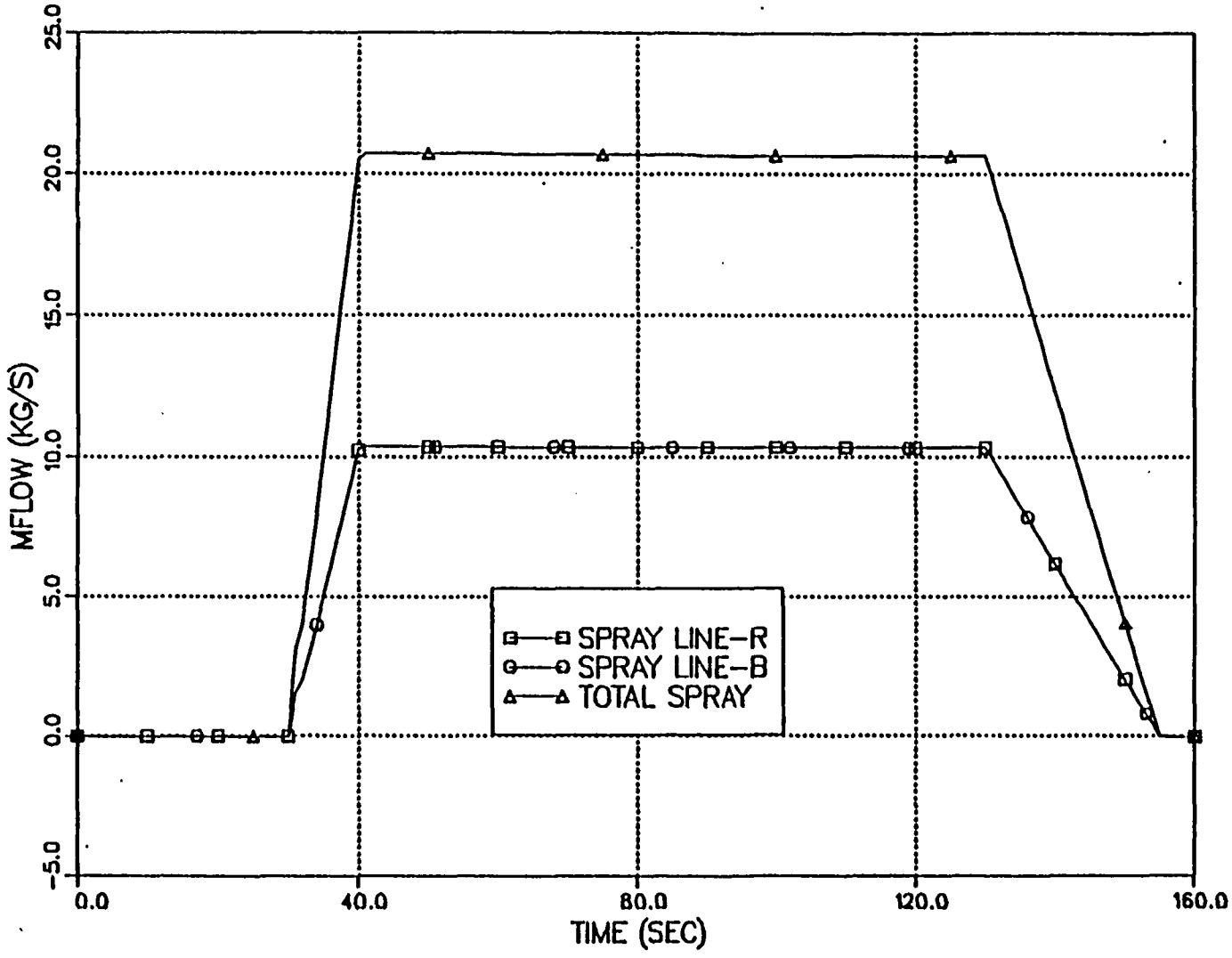


DISSPLA 10.0
JOB-DISSPLA , 1800
PLOT 1000 18.16.22 THUR 22 JAN, 1987

RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOEL4 – SPRAY CAPACITY TEST AT ZERO POWER 87/01/22. (SU-PR-101)

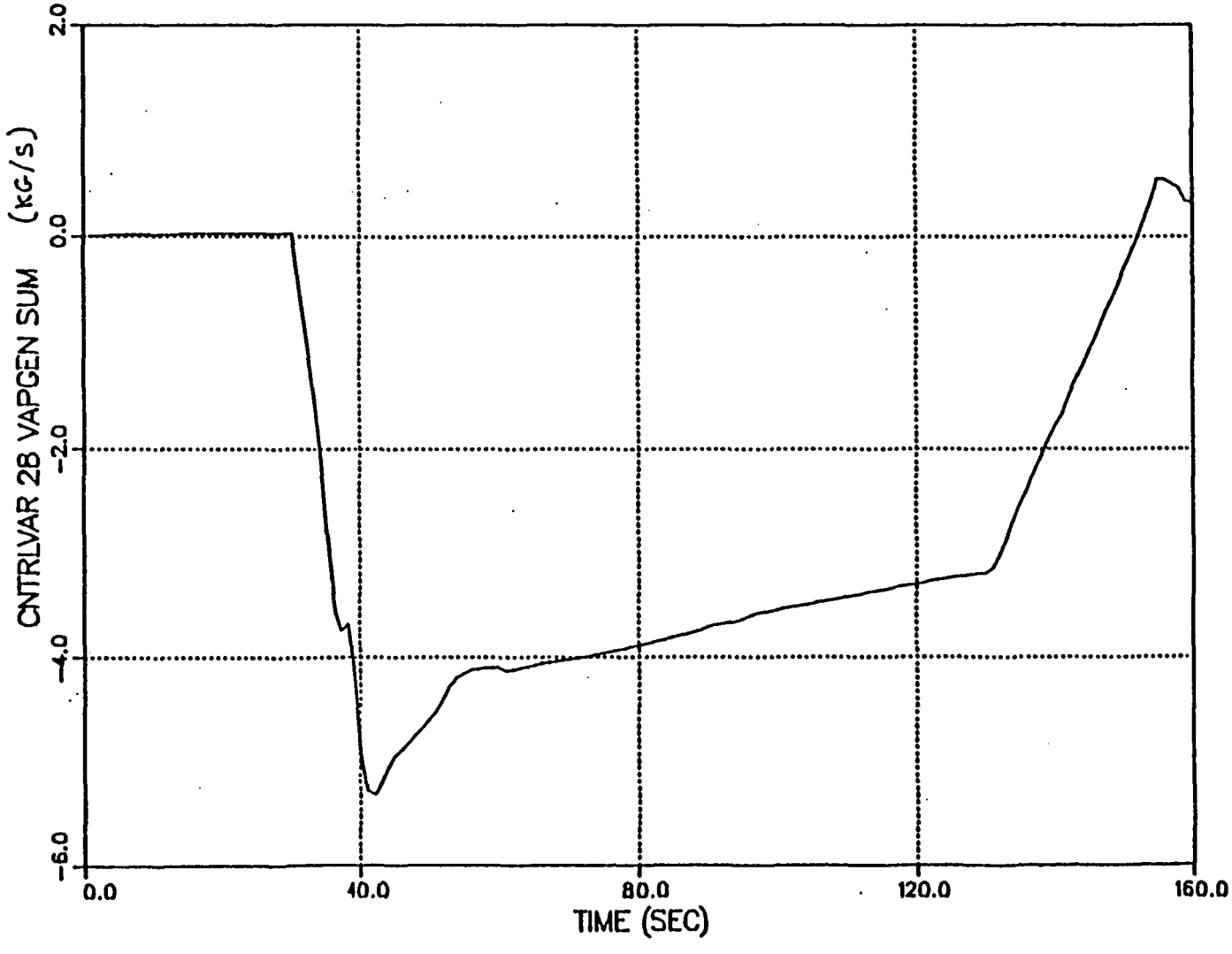
F 5.2. PRESSURIZER SPRAY MASS FLOW RATE (REFERENCE)



RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOEL4 – SPRAY CAPACITY TEST AT ZERO POWER 87/01/22. (SU-PR-101)

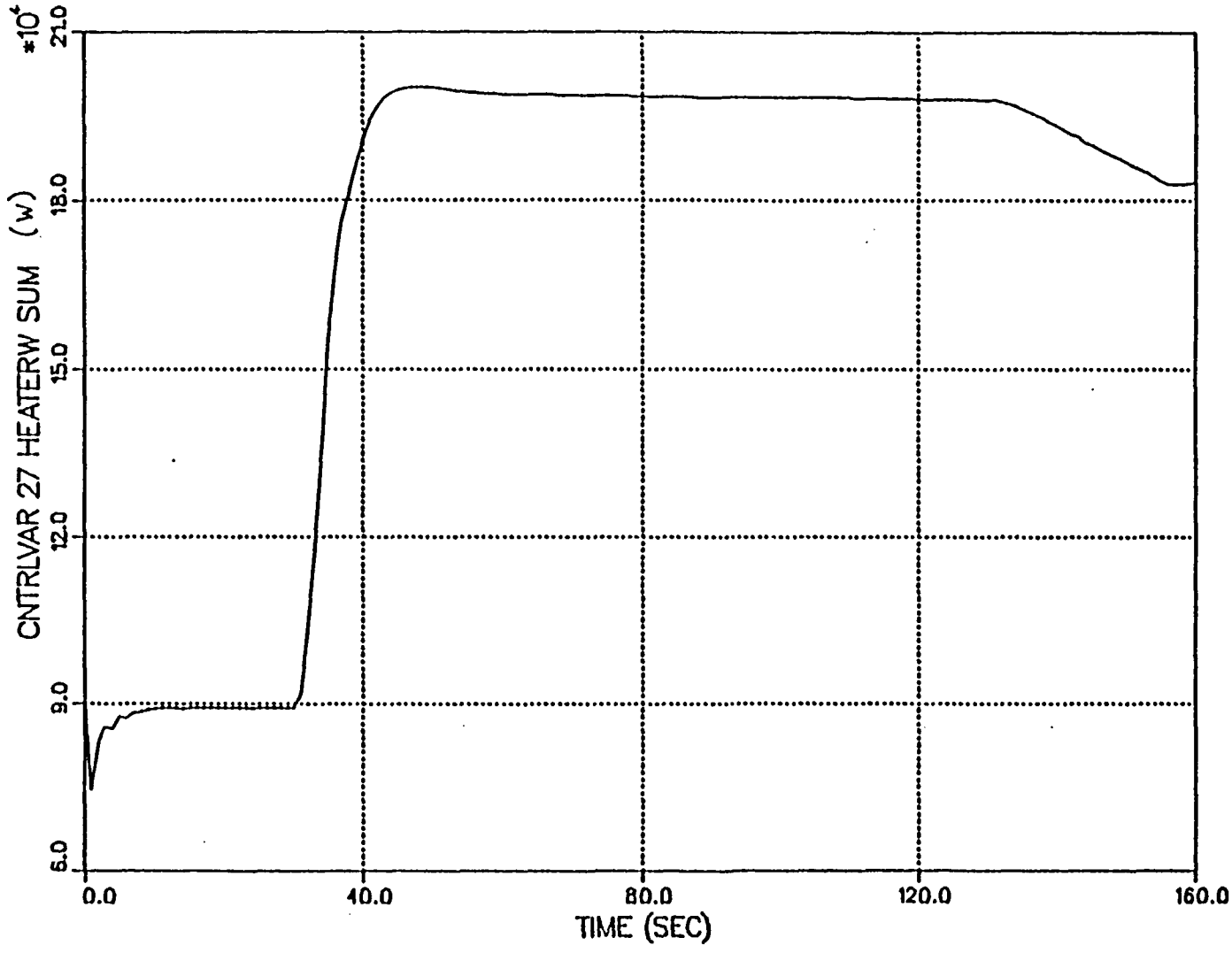
F 5.3. VAPOUR CONDENSATION RATE (PRES) (REFERENCE)



RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOEL4 – SPRAY CAPACITY TEST AT ZERO POWER 87/01/22. (SU-PR-101)

F 5.4 . HEATERS EFFECTIVE HEAT TRANSFER (REFERENCE)

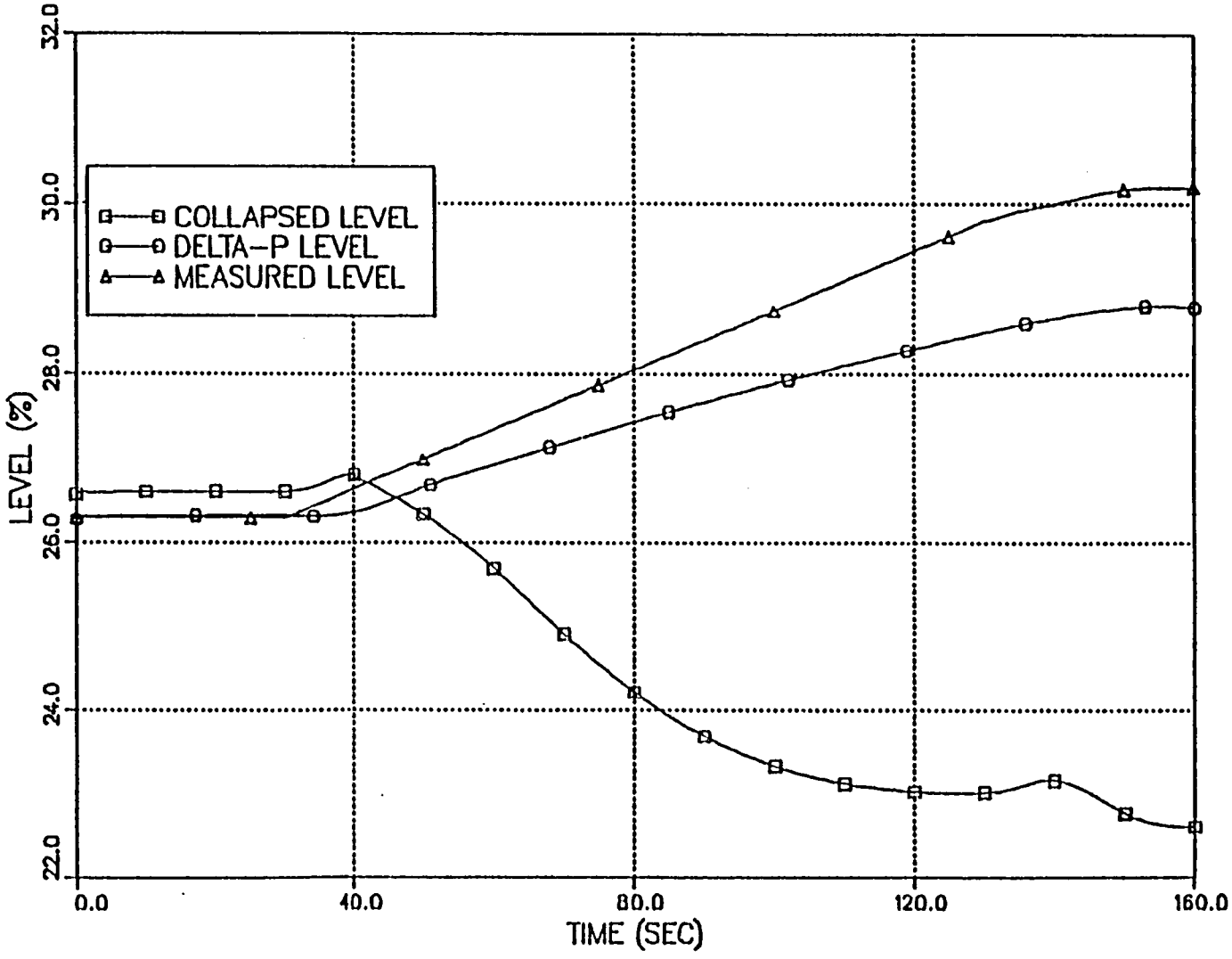


PLOT 0 18.24.02 THUR 22 JAN, 1987 JOB-DISSPLA , 15020 DISSPLA 10.0

RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOEL4 – SPRAY CAPACITY TEST AT ZERO POWER 87/01/22. (SU-PR-101)

F 5.5. PRESSURIZER WATER LEVEL (REFERENCE)

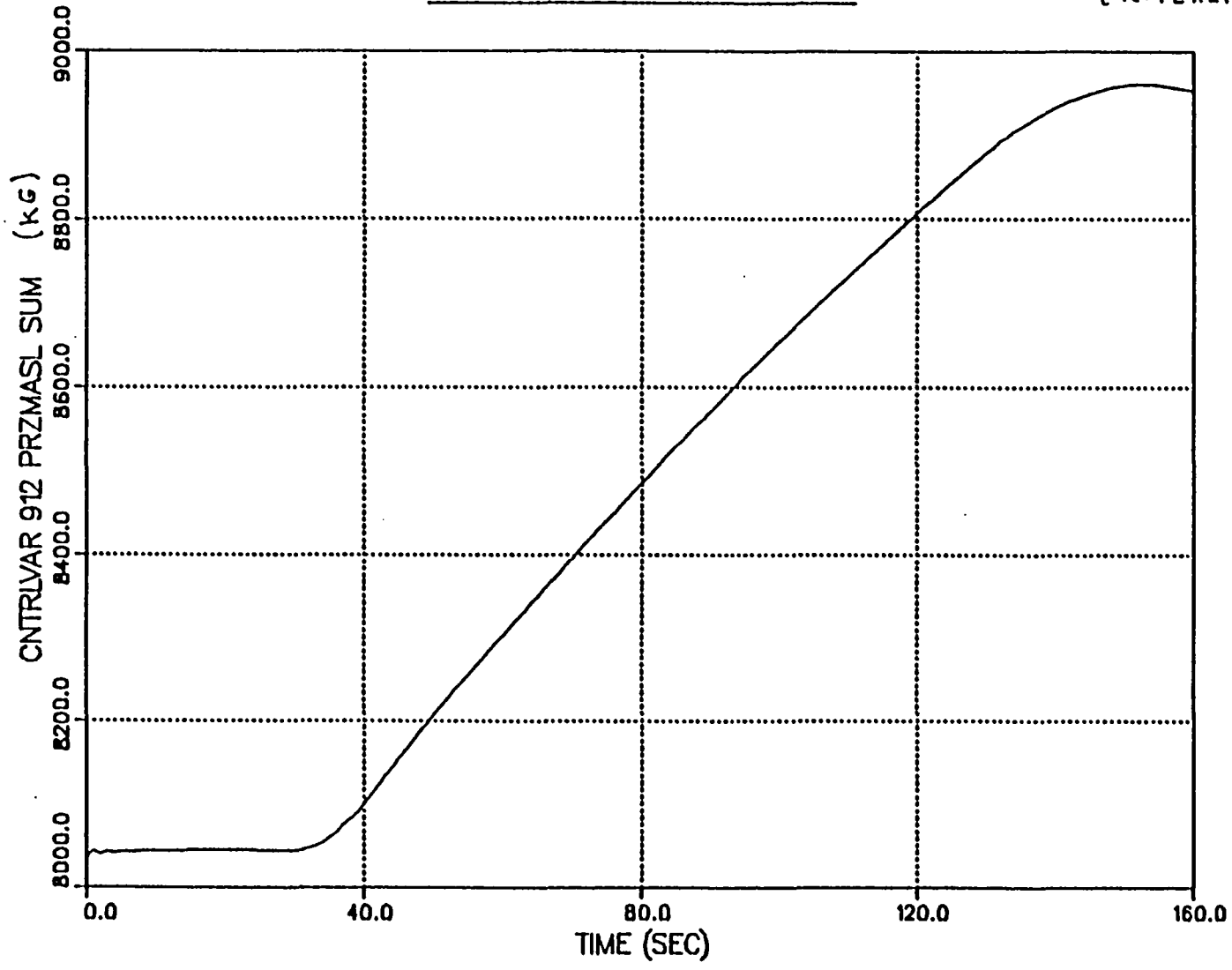


PLOT 2000 18.18.53 THUR 22 JAN, 1987 JOB-DISSPLA , 15500 DISSPLA 10.0

RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOE14 – SPRAY CAPACITY TEST AT ZERO POWER 87/01/22. (SU-PR-101)

F 5.6 . PRESSURIZER FLUID MASS (REFERENCE)

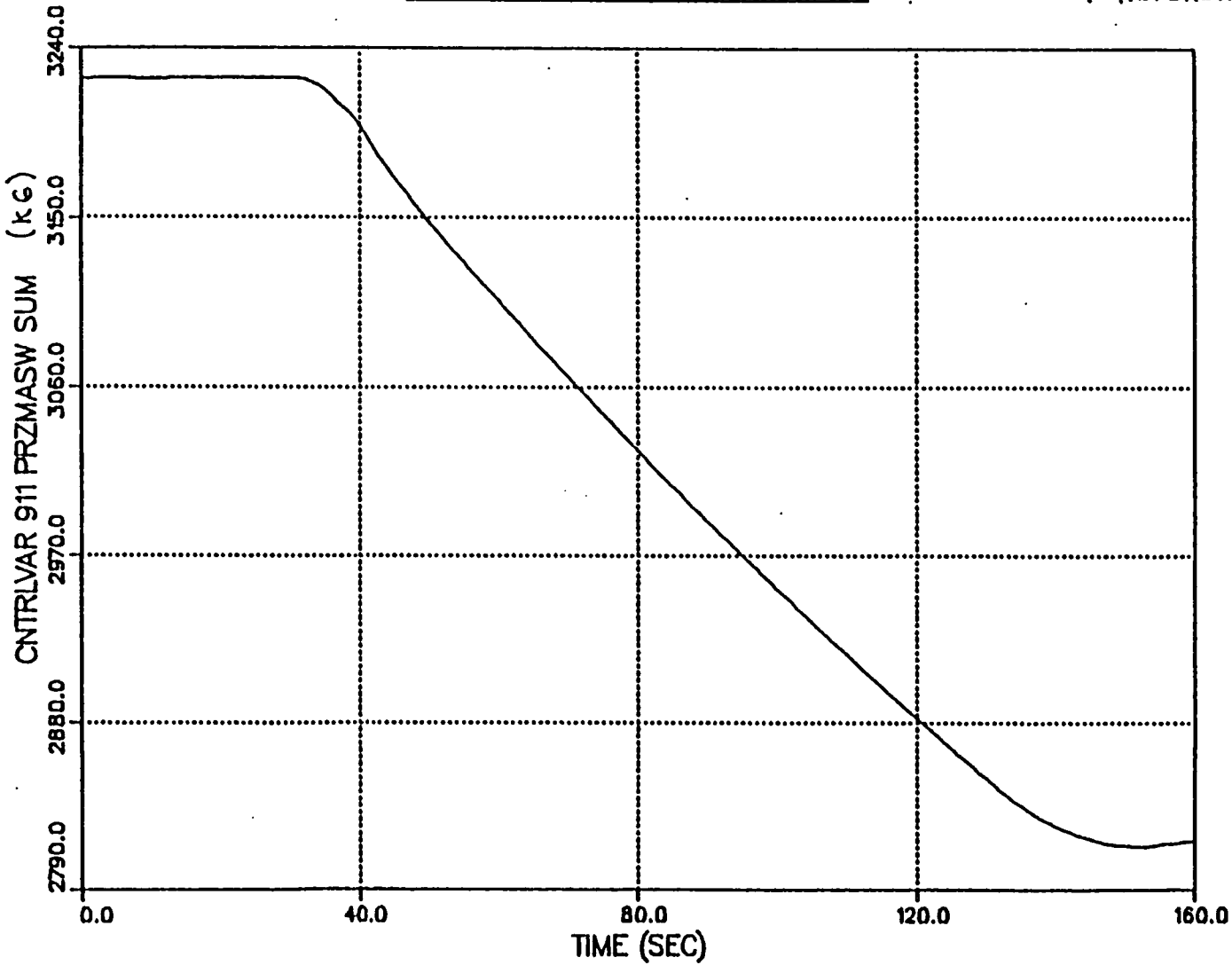


PLOT 0 18:23:35 THUR 22 JAN, 1987 JOB-DISPLA , 19500 DISPLA 10.0

RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOEL4 – SPRAY CAPACITY TEST AT ZERO POWER 87/01/22. (SU-PR-101)

F 5.7 . PRESSURIZER VAPOUR MASS (REFERENCE)

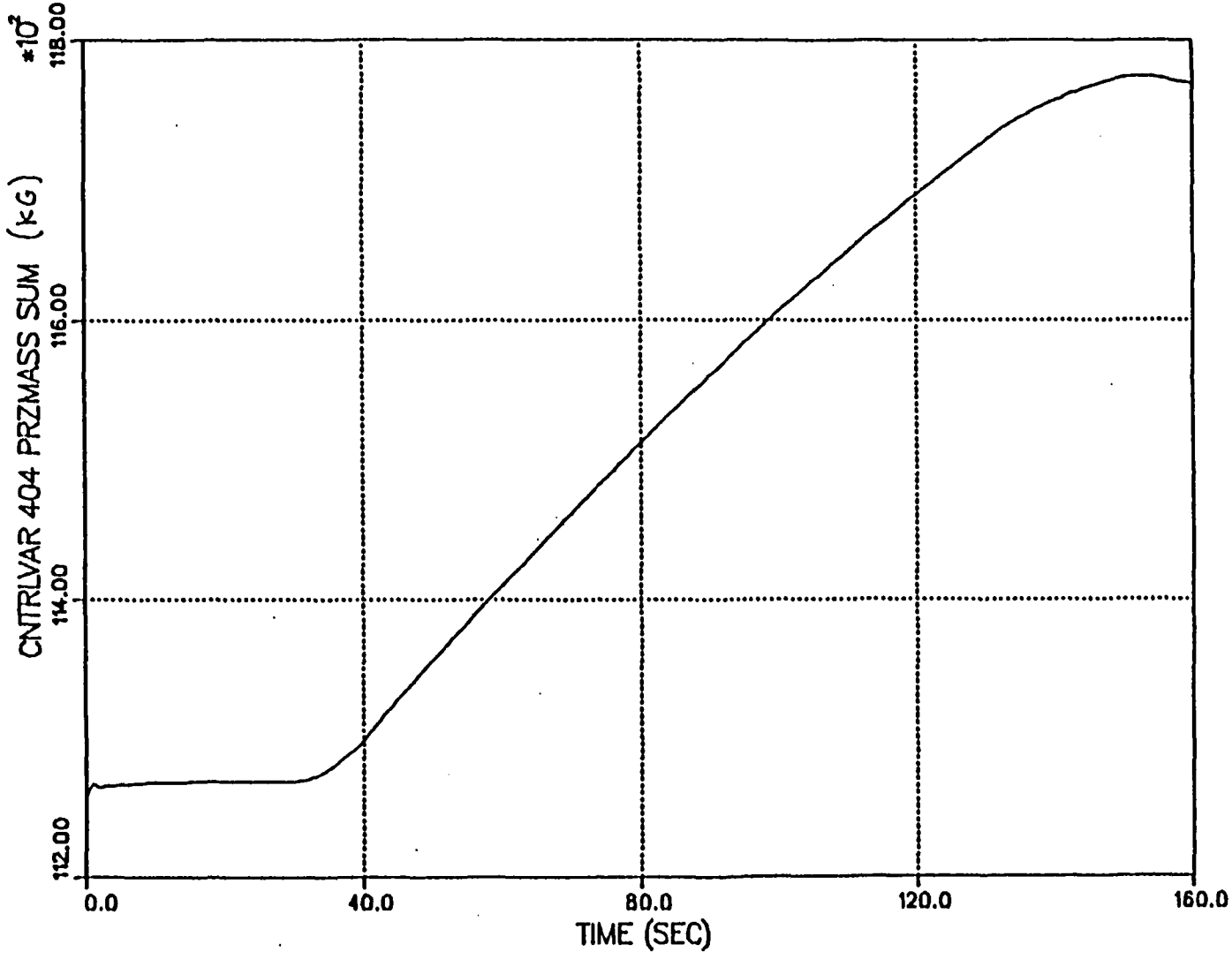


PLOT 0 18.23.00 THUR 22 JAN, 1987 JOB-DISSPLA , 18800 DISSPLA 10.0

RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOEL4 – SPRAY CAPACITY TEST AT ZERO POWER 87/01/22. (SU-PR-101)

F 5.8 . PRESSURIZER MASS (REFERENCE)

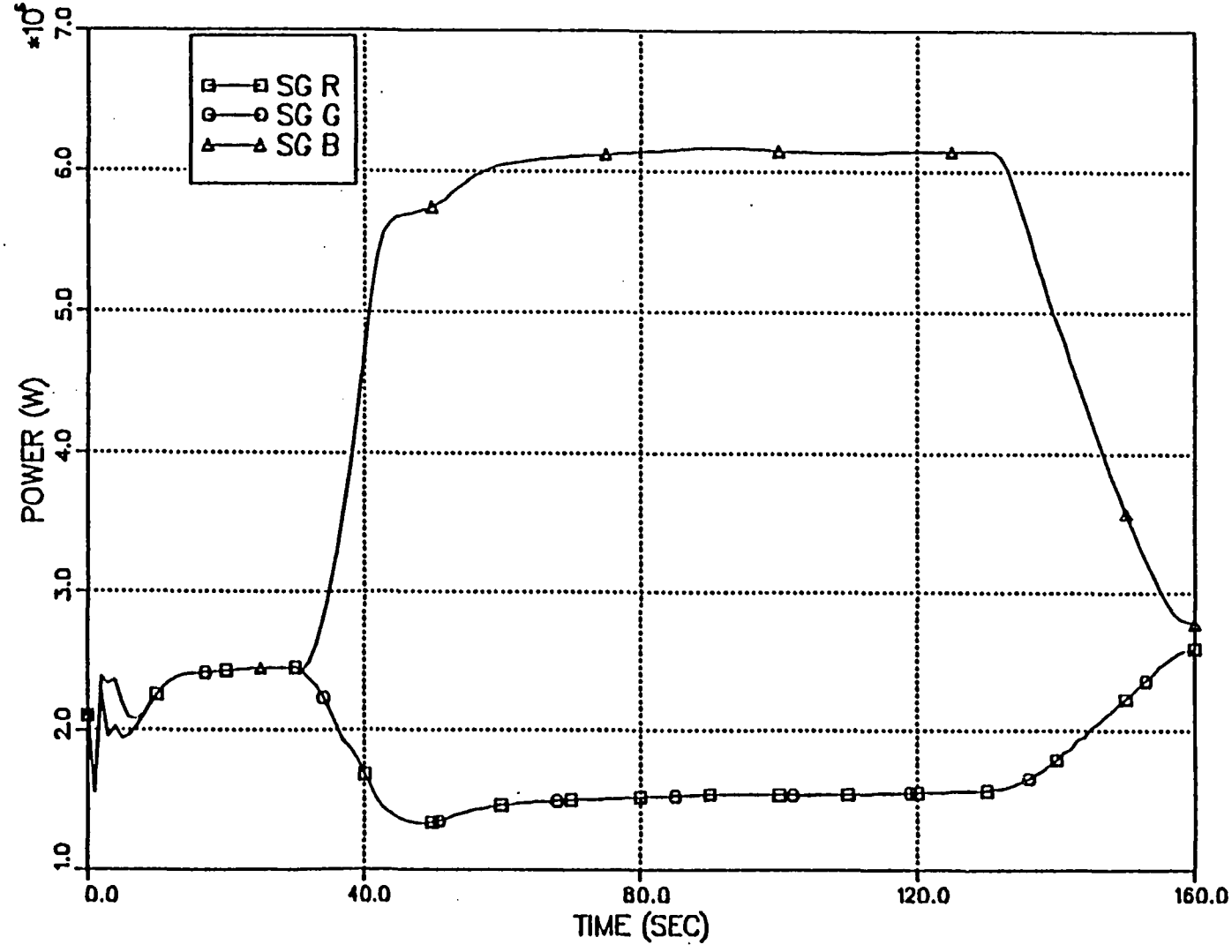


PLOT 0 18:22.40 THUR 22 JAN, 1987 JOB-DISPLA , 15500 DISSPLA 10.0

RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOE14 – SPRAY CAPACITY TEST AT ZERO POWER 87/01/22. (SU-PR-101)

F 5.9. STEAM GENERATOR POWER (REFERENCE)

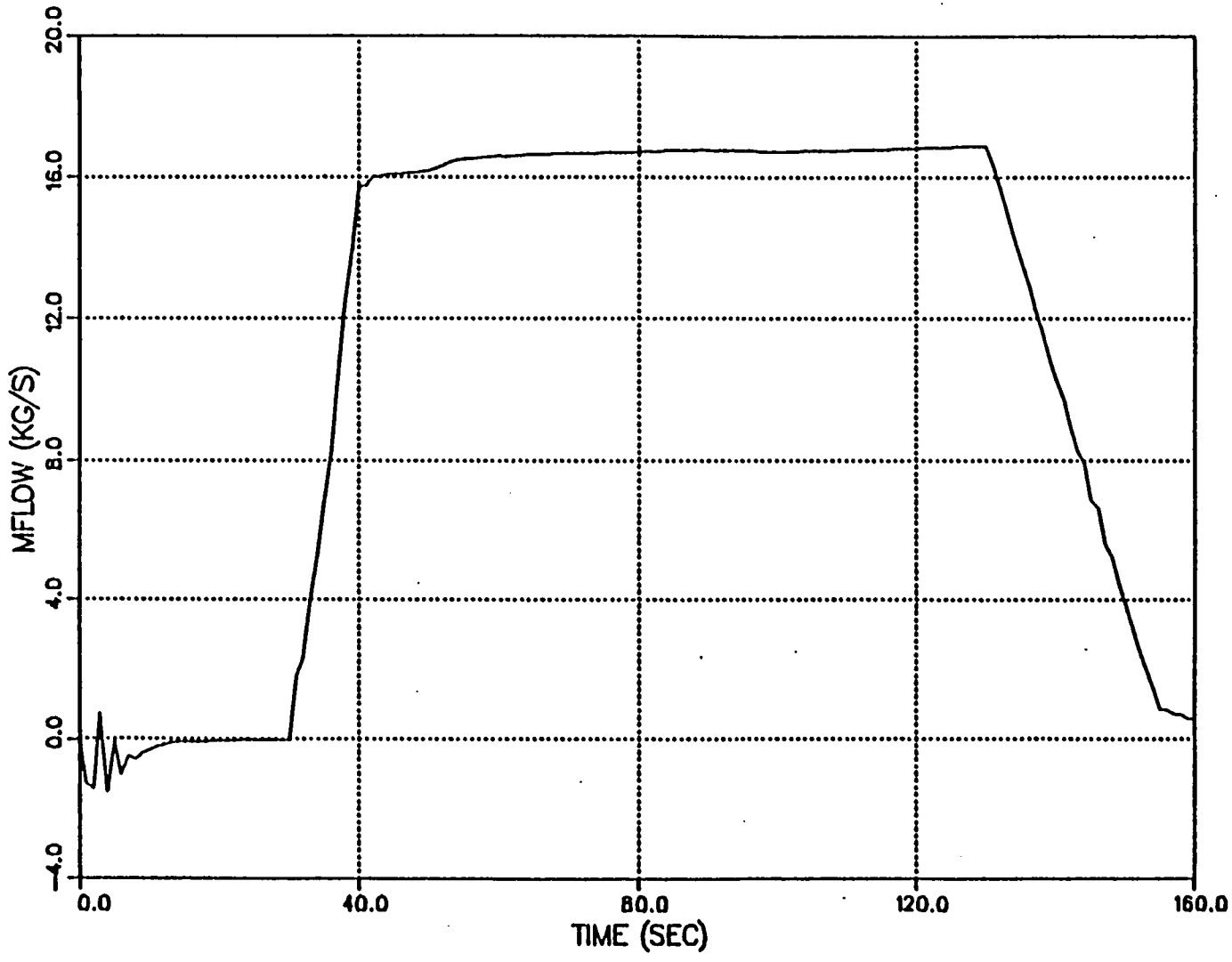


PLOT 4000 18.18.57 THUR 22 JAN, 1987 JOB-DISPLA , 1860 DISPLA 10.0

RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOEL4 – SPRAY CAPACITY TEST AT ZERO POWER 87/01/22. (SU-PR-101)

F5.10. SURGE LINE MASS FLOW RATE (REFERENCE)

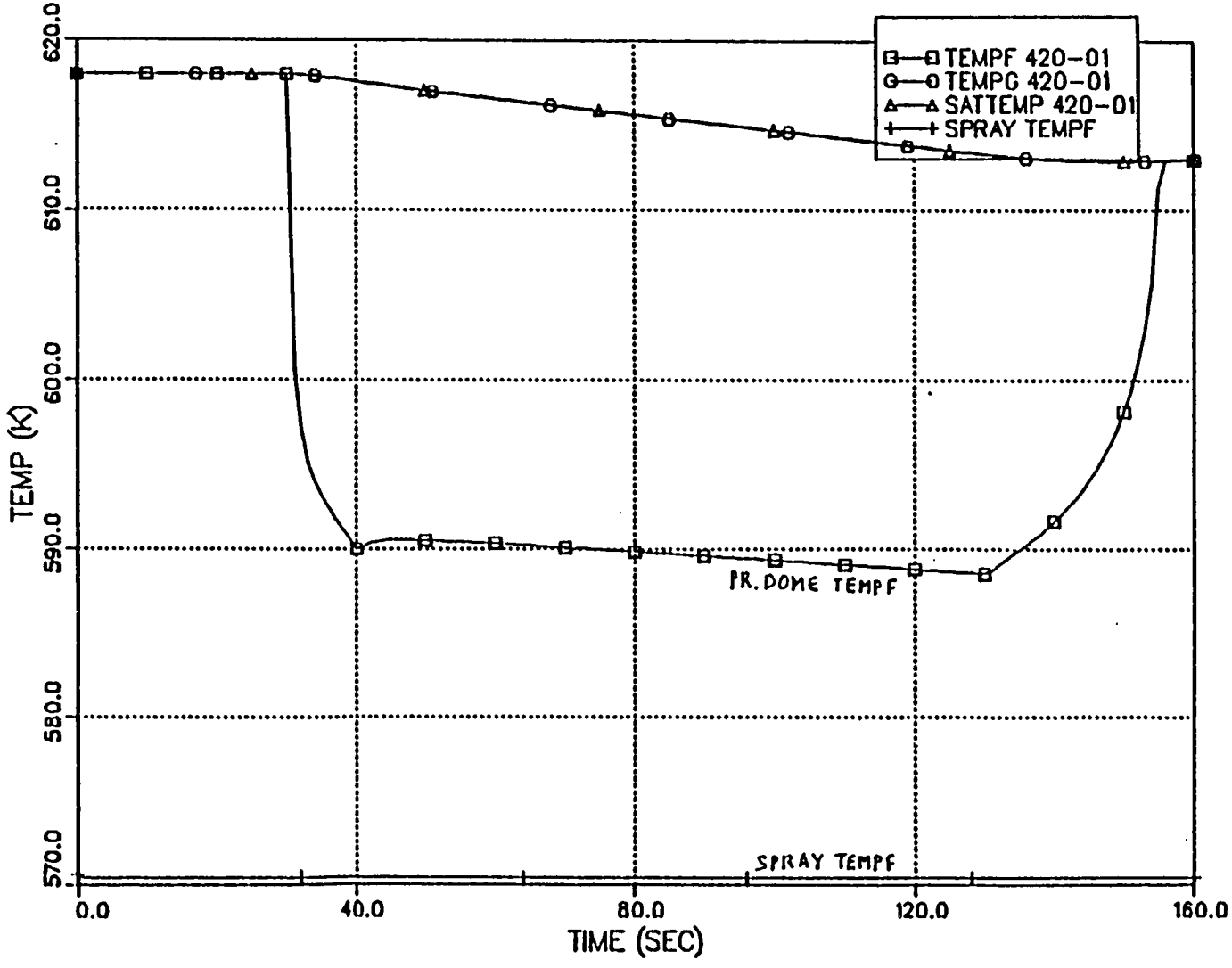


PLOT 8000 13:20:24 THUR 22 JUN, 1987 JOB=DISSPLA , 1SSCO DISSPLA 10.0

RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOEL4 – SPRAY CAPACITY TEST AT ZERO POWER 87/01/22.

F5.11 PRESSURIZER TEMPERATURE EVOLUTION



6. DISCUSSION OF THE RESULTS OF SOME SENSITIVITY STUDIES

6.1. Impact of nodalisation of pressurizer dome

The pressurizer spray test has been simulated between 30 sec and 80 sec with the volumes 410-09 and 420-01 replaced by 5 smaller volumes. This refining of the nodalisation of the pressurizer dome had absolutely no influence upon the depressurisation rate during the spray test.

6.2. Impact of the pressurizer nodalisation in relation to the initial level (RUN 1 in table 5.1)

In the first spray test simulation we executed, pressurizer nodalisation was such that the initial pressurizer level was near the boundary of a hydrodynamic volume. This caused no problems during steady state operation. However, when at t = 30 sec the heater power was raised and when at t = 32 sec the spray flow started, water packing occured and resulted in an unnatural evolution of the pressurizer pressure (fig. 6.1) and the surge line flow rate (fig. 6.2).
A similar phenomenon occured at t ≈ 100 sec presenting the same symptoms in figures 6.1 and 6.2.
The nodalisation has been changed for the final spray test simulation so that the initial level was located in the middle region of a hydrodynamic volume (vol 410-05).

6.3. Impact of initial spray temperature

The test described under § 6.2 was realised with an initial spray temperature of 3 °C below the cold leg temperature (fig. 6.3).
Since the spray efficiency is sensitive to the temperature difference between the spray temperature and the pressurizer dome temperature, an increased depressurisation rate has to be expected as long as the spray temperature is low. Once the relatively cold water plug has been driven into the pressurizer, the temperature of the spray water is the cold leg temperature

and the depressurisation rate takes its nominal value. This effect is represented in figure 6.1, but has to be commented by the following remark :
since water packing problems occurred at t = 30 sec, the pressure increased sharply (for numerical reasons) causing the pressurizer dome vapor phase to be superheated ($T_{vapor} > T_{sat}$). Consequently, the important depressurisation rate between t = 35 sec and 55 sec is due to the combined effect of too low a spray temperature and too high a vapor temperature, both increasing the ΔT and the spray efficiency.

6.4. Impact of the metallic structures specific heat (RUN 2)

Fig.6.4 represents the pressurizer pressure evolution of a spray test nearly identical to the spray test discussed in chapter 5, the only difference being the specific heat of the metallic structures (pressurizer walls, heaters and surge line). In the present test, the specific heat is 1 J/kgK, while in the reference test the Cp value was the nominal one.
Cp = 1 means that the metallic structure have no thermal inertia, their internal temperature distribution is at each moment in equilibrium with the temperature of the adjacent hydrodynamic volume. So no heat is stored in the metallic structures that could be released to the adjacent hydrodynamic volume if its temperature had decreased. In other words, if Cp = 1 the walls do not resist to the depressurisation.
Figure 6.4 shows a main depressurisation rate of 5.6 bar/min, about 0.5 bar/min more than during the reference test (chapter 5). Furthermore, one can observe a linear depressurisation (constant depressurisation rate) during the steady spray regime (60 -> 120 sec). Consequently, if the specific heat is reset to its nominal value the depressurisation will not be constant but will decrease as pressure decreases, since the release of the heat stored in the walls increases with the difference between the surface temperature and the volume temperature. So the resistance against the depressurisation increases as the pressurizer pressure (and so the saturation temp) decreases. This is observed in figure 5.1.

6.5. Nodalisation of the cross flow junction between the surge line and hot leg loop "B"

Initially, the surge line was connected by a cross flow junction to a small volume, part of the RCS hot leg "B", characterized by length = diameter as recommended until some months ago by the Relap experts of INEL. However, we observed during the spray test simulation that in 1046 steps out of 1600 (65 %) the largest mass error was located in the small hot leg cross flow volume. This can be explained by the fact that a large number of vapor bubbles, entrained from the pressurizer bottom in the surge line collapse in the subcooled water of the hot leg "B"(small) T-volume (the vapor fraction in the cross flow junction ≈ 10,7 %).
In the ultimate spray test simulation, the small cross flow volume was added to a larger hot leg pipe, thus reducing the total mass error by about 25 % .

6.6. Impact of reactor coolant pump status on spray efficiency

In fact this sensitivity study is part of a project set up to determine whether or not a spray valve has to be closed automatically when the corresponding reactor coolant pump is stopped. The reason for closing would be that, if the pressure distribution allows it, the spray water coming from the other loop with a spray line (and primary pump running) would flow through second spray line back to the RCS instead being injected into the pressurizer.
Hereby all pump configurations will be examined.
The two cases that follow consider the reactor coolant pump "G" tripped (corresponding to the loop without spray line) at t = 30 sec (steady state) and pressurizer spray valves opening between 60 (0 % opening) and 70 sec (100 % opening)..

6.6.1. Case 1 (RUN 3 (fig. 6.5))

- The reactor coolant pump coastdown is verified between 30 and 60 sec (τ = 23 sec corresponding exactly to the experimental value).
- One spray valve is opened between 60 and 70 sec (R LOOP).
- All heaters are in automatic control, the control logic being conform to fig. 2.3.

Results :

1° Since pump "G" is tripped, an inverse flow is installed in loop "G" and the mass flow rates in loop "R" and "B" increase. This increase of the flow is accompanied by a reduction of the static pressure loops R and B.
The pressurizer pressure decreases slightly by a sudden outsurge of pressurizer water to the loop B, and is restored by a small increase of the variable heater power.

2° As one spray valve is opened, a total spray flow rate of ± 41 m^3/h is obtained (40 % of nominal value). The mean spray efficiency in a first phase is ± 2.5 bar/min (instead of a nominal 5.2 bar/min). As pressurizer pressure decreases, the variable heater power is raised up to its maximum power (308 kW) after which the back-up heaters are switched on. In presence of all heaters, the spray efficiency is reduced to 0.32 bar/min.

6.6.2. Case 2 (run 4)

Case 2 is nearly identical to case 1 except for the opening of both valves at t = 60 sec.
The comments are analoguous to those for case 1, the spray efficiencies now being 4.58 bar/min in absence of back-up heaters, and 2.90 bar/min in presence of back-up heaters with a calculated spray flow of 81 m^3/hr (80 % of nominal flow rate) which is essentially due to a reduced primary loop static pressure in the absence of one coolant pump.

Figure 6.6 illustrates the evolution of the pressurizer pressure.
When the pressure drops below 153.4 bar, the back-up heaters are switched on automatically, and result in a reduction in the spray efficiency of 37 % .

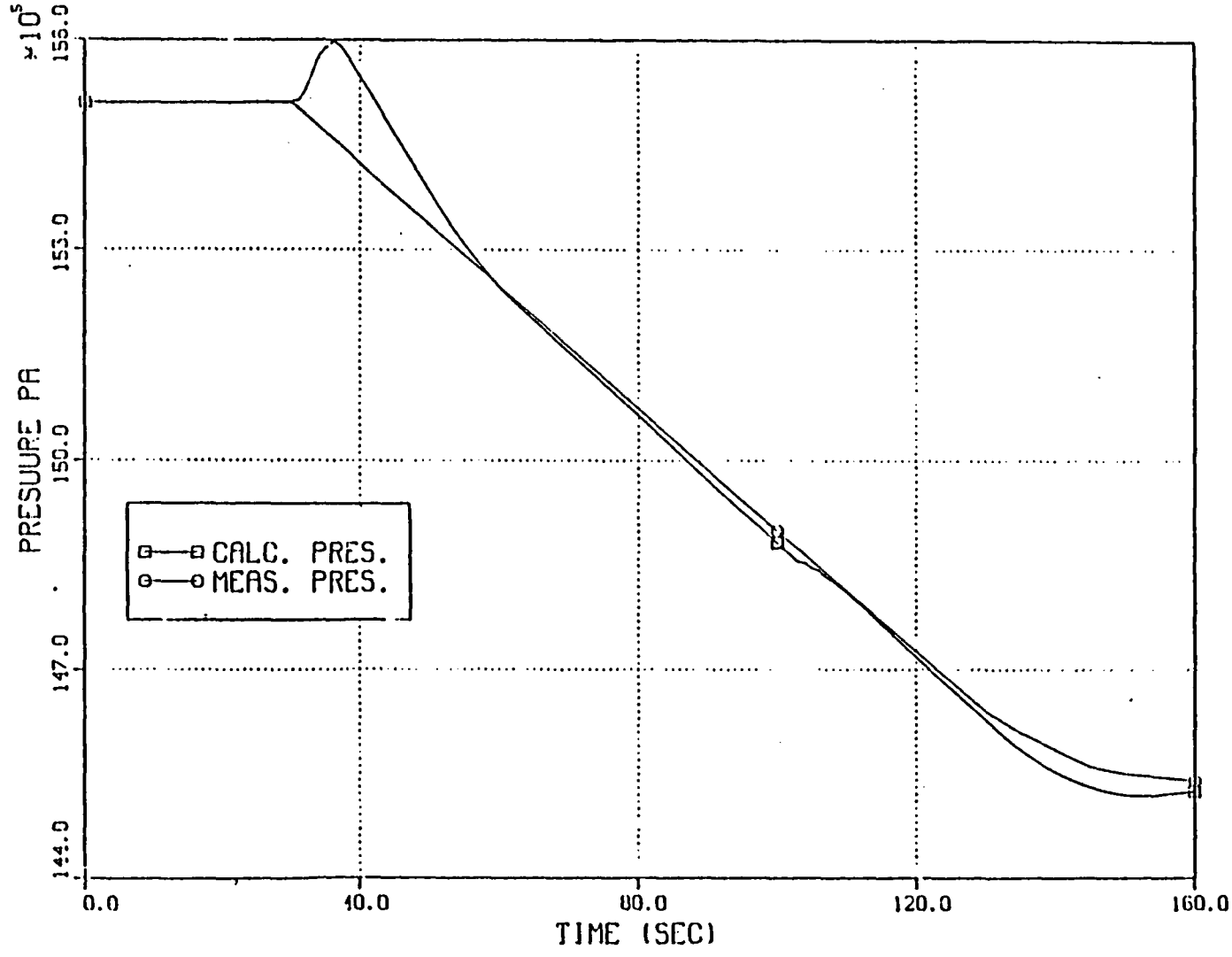
Figure 6.7 illustrates the energy fluxes in the pressurizer, from spray (CNTRLVAR 22), surgeline (CNTRLVAR 25), and from structures (pressurizer shell and heaters) (CNTRLVAR 7). The control variable 418 shows the power input to the heaters. This figure illustrates that between 90 and 150 seconds, the energy carried in by the spray is about equal to the energy carried out via the surgeline.

Figure 6.8 illustrates the evolution of the surge flowrate.
The strong oscillations observed at 0 and 30 s are caused by steady state initialisation.
Between 60 and 61.5 seconds, water packing is observed in volume 450 (spray lines) when spray is initiated.
This is caused by a minute boiloff in vol 450 which at the moment the spray valve opens, manifests a vapour void fraction of 10^{-8}. This water packing creates a pressure disturbance which effects mostly the surge flow rate.

RELAP5/2/36.02 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOEL4 - SPRAY CAPACITY TEST AT ZERO POWER 86/09/06. (SU-PR-101)

FIG 6.1 PRESSURE EVOLUTION IN PRESSURIZER DOME (RUN 1)

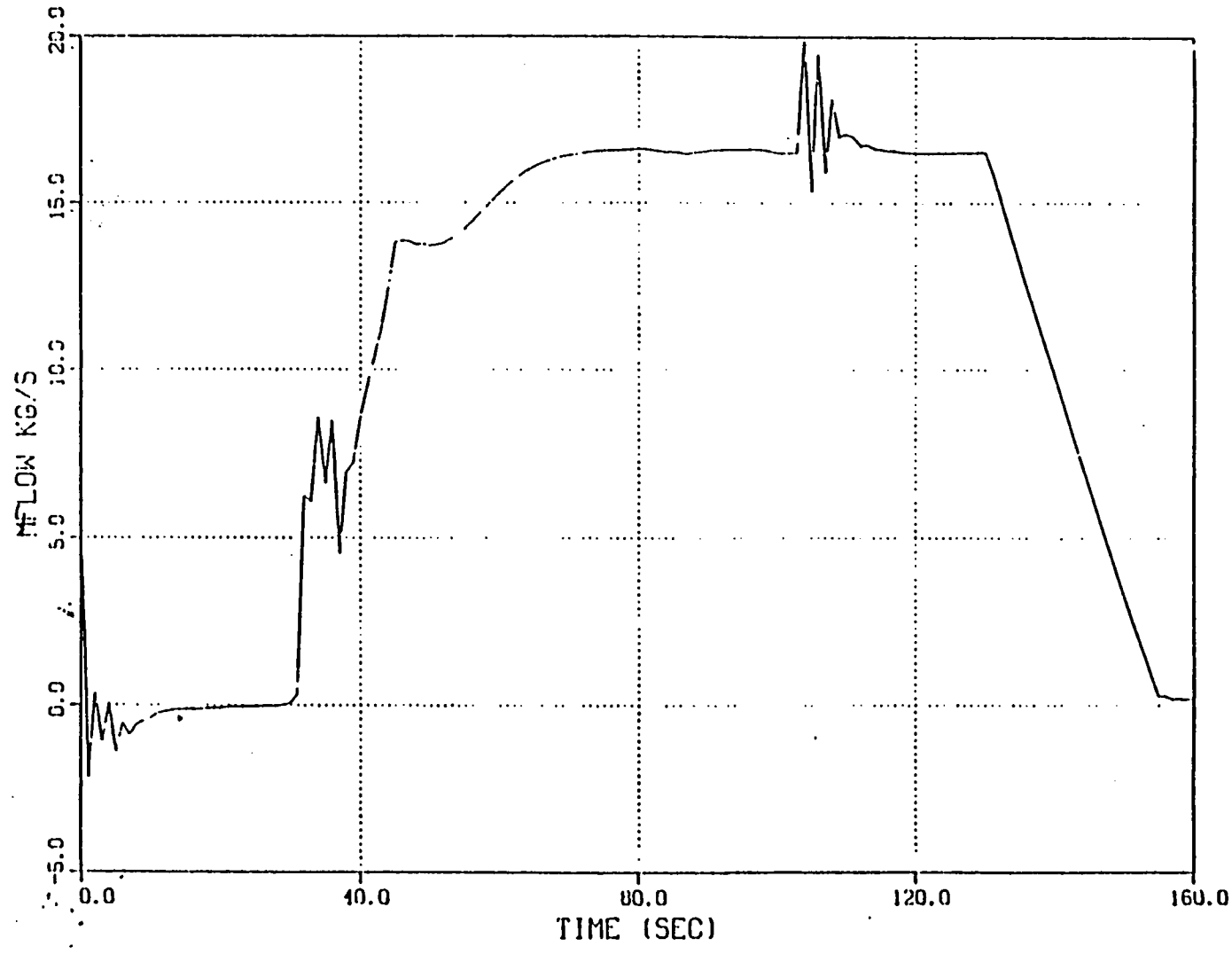


PLOT 1000 15.46.59 SAT 6 SEP, 1986 JOB-R3XUMC , CYBERNET NOS 1.3 D.SSPLE VER 8.2

RELAP5/2/36.02 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOEL4 - SPRAY CAPACITY TEST AT ZERO POWER 86/09/06.(SU-PR-101)

FIG 6.2 SURGE LINE MASS FLOW RATE (RUN 1)

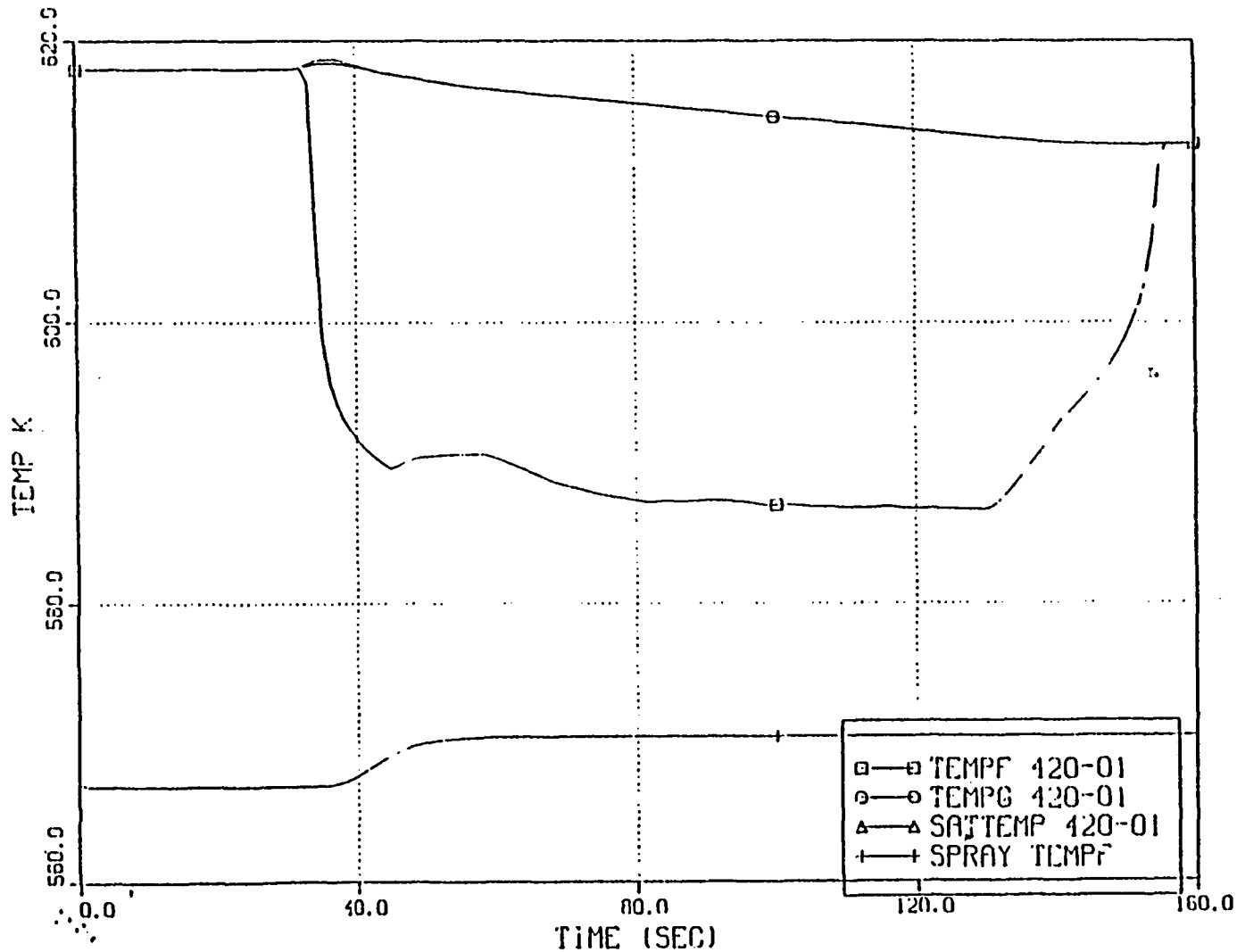


PLOT 5000 15.50.29 SAT 6 SEP. 1986 JOB-RONJVNC , CURRENT NOS 1.0 DISSPLA VER 6.2

RELAP5/2/36.02 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOEL4 - SPRAY CAPACITY TEST AT ZERO POWER 86/09/06. (SU-PR-101)

FIG 6.3 PRESSURIZER TEMPERATURE EVOLUTION (RUN 1)

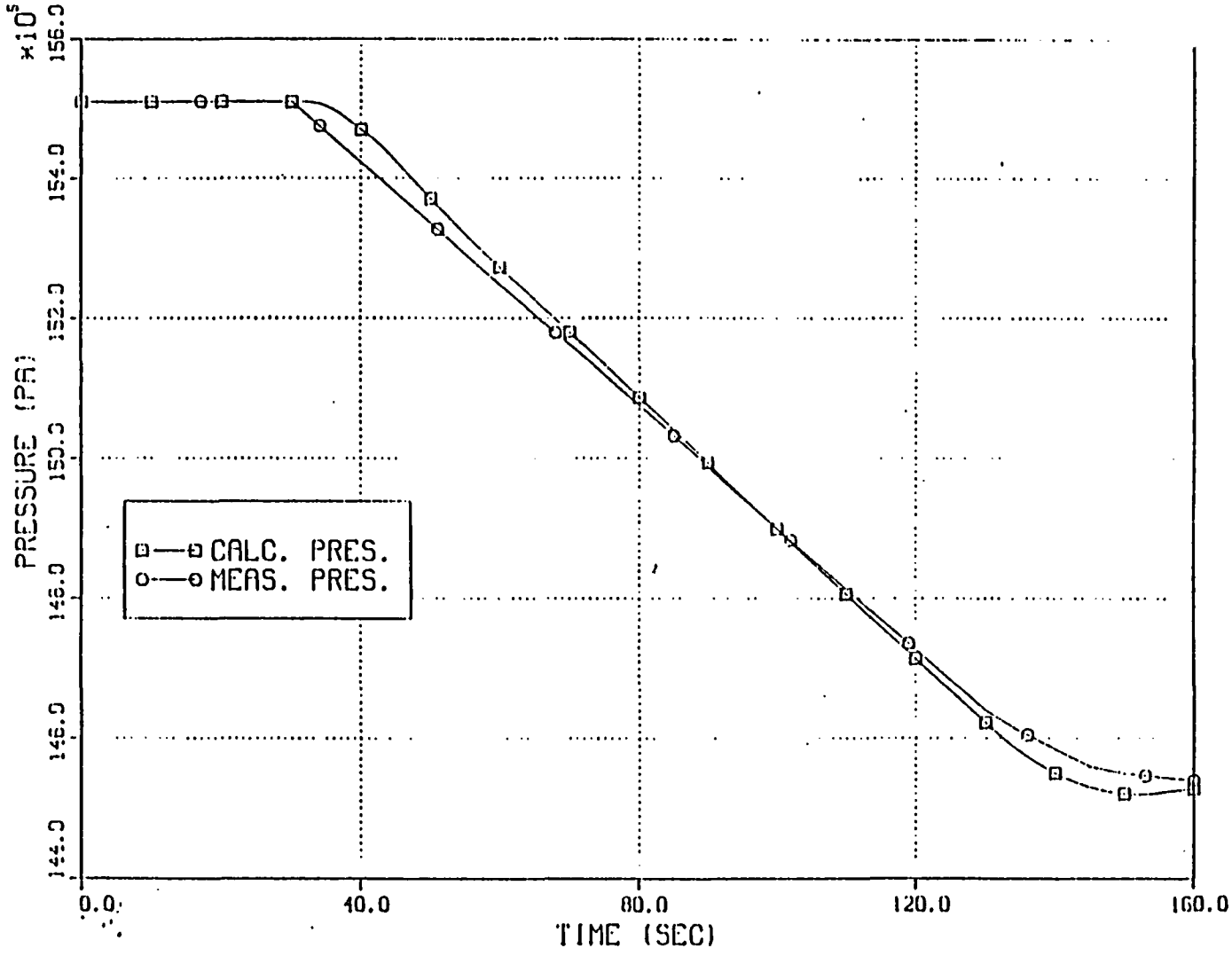


PLOT 6030 15.50.34 SAT 6 SEP. 1986 JOB-A3HJVNC . CYBERNET NOS 1.0 DISSPLA VER 8.2

RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOCL4 - SPRAY CAPACITY TEST AT ZERO POWER 86/09/22 (SU-PR-101)

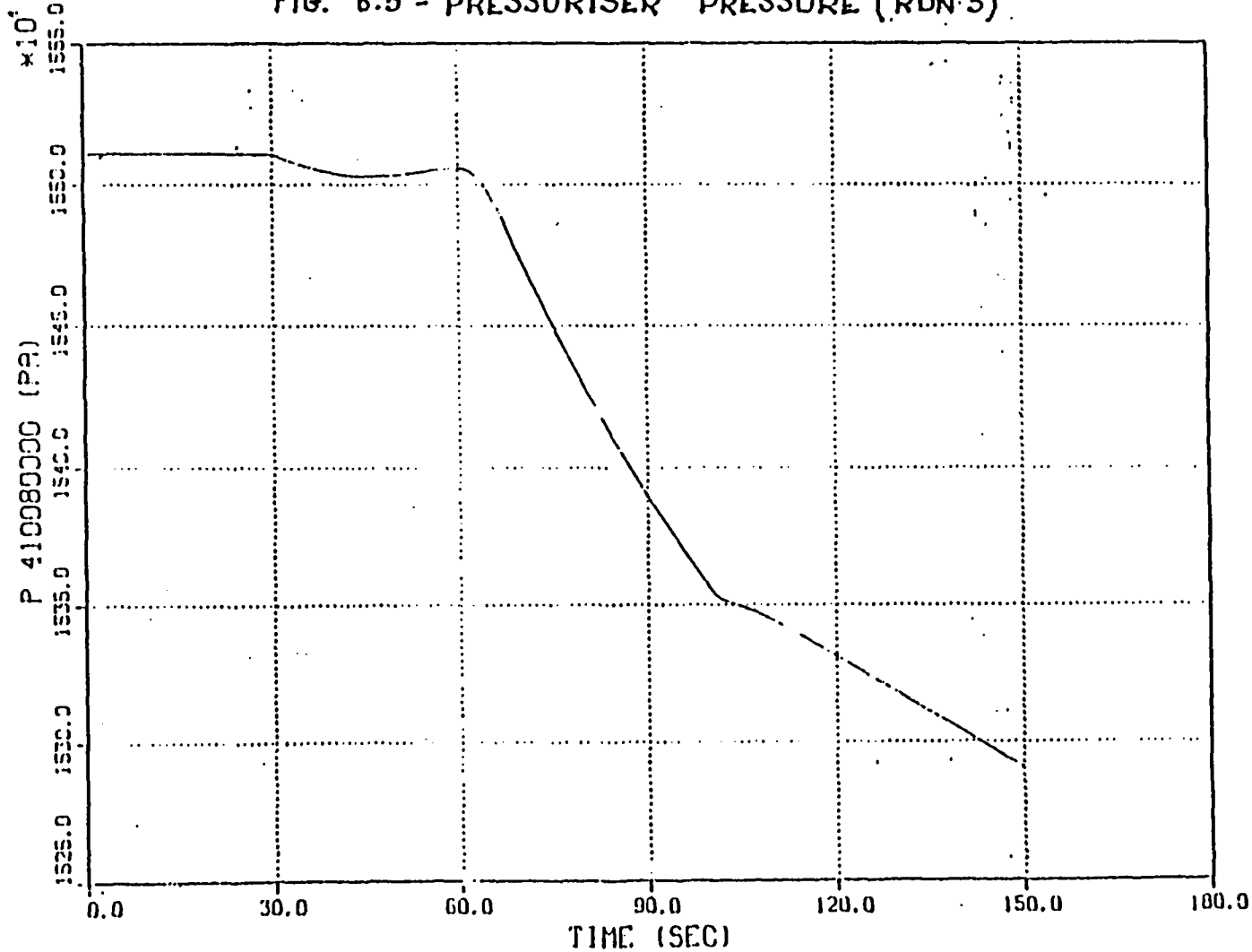
FIG 6.4 PRESSURE EVOLUTION IN PRESSURIZER DOME (RUN 2)



RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOEL4 - SPRAY CAPACITY TEST AT ZERO POWER 86/10/04. (TEST 4.1)

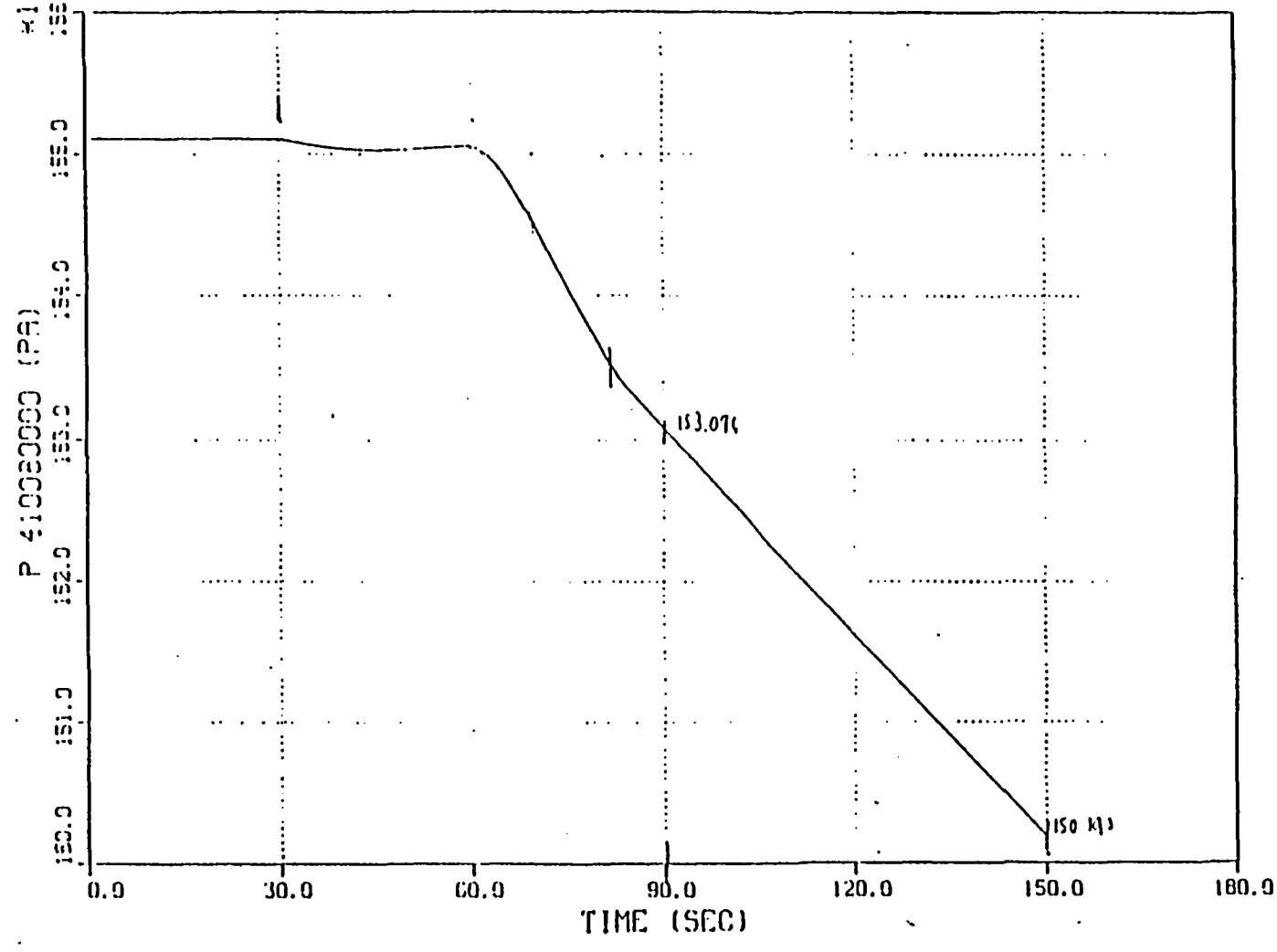
FIG. 6.5 - PRESSURISER PRESSURE (RUN 3)



RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOEL4 - SPRAY CAPACITY TEST AT ZERO POWER 86/10/04. (TEST 4.2)

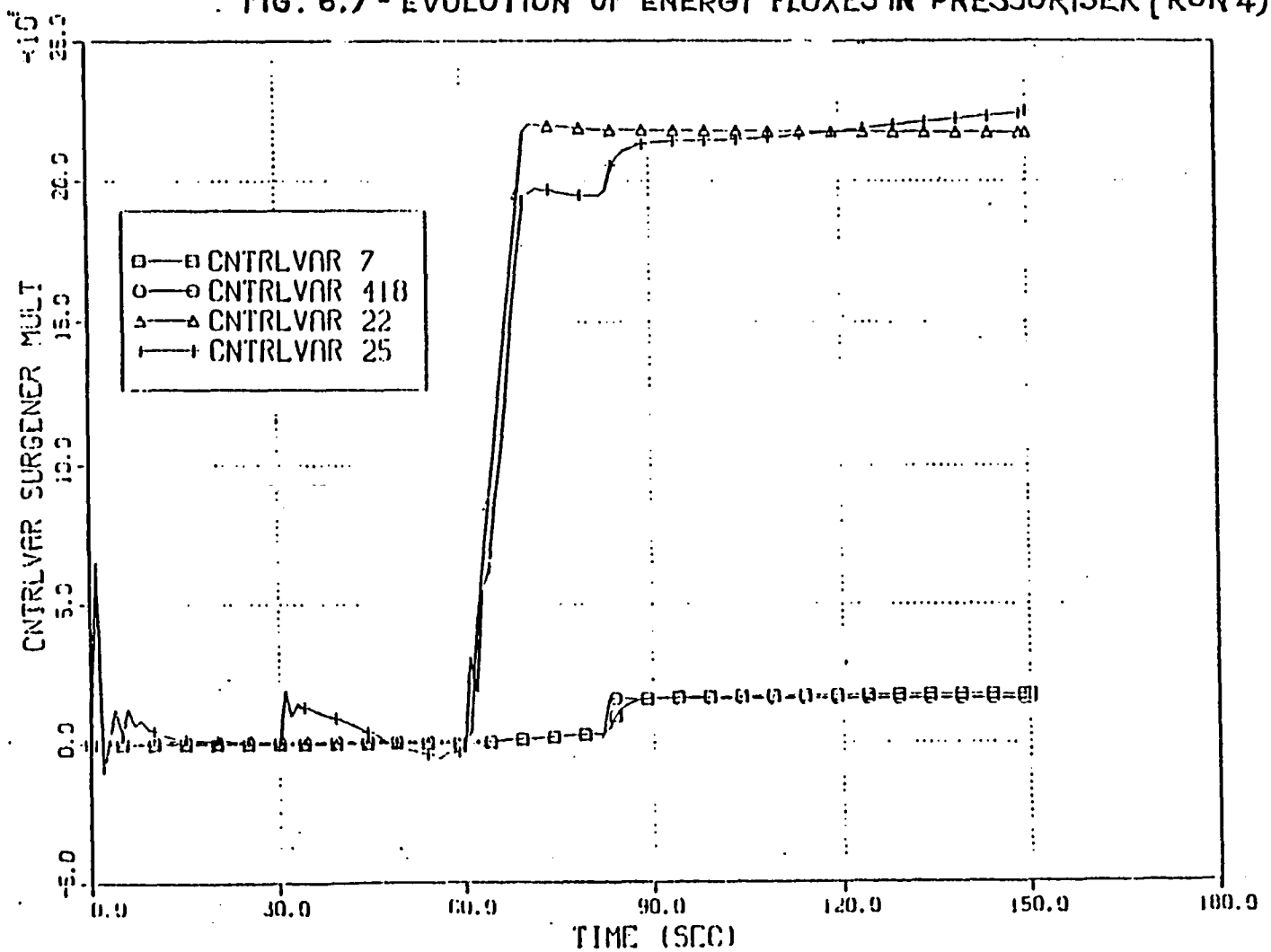
FIG. 6.6 - PRESSURISER PRESSURE (RUN 4)



RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOEL4 - SPRAY CAPACITY TEST AT ZERO POWER 86/10/04. (TEST 4.2)

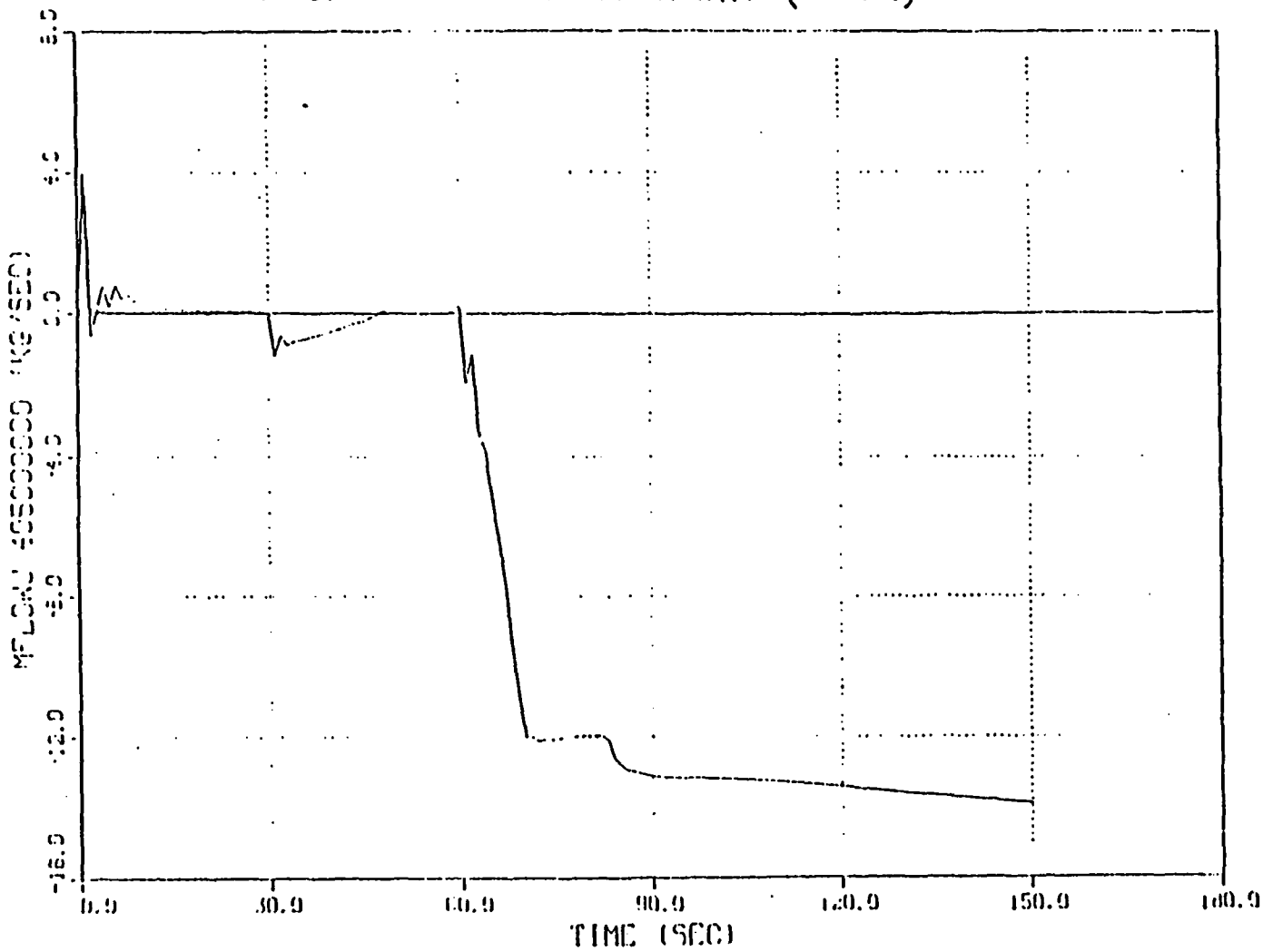
FIG. 6.7 - EVOLUTION OF ENERGY FLUXES IN PRESSURISER (RUN 4)



RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOEL4 - SPRAY CAPACITY TEST AT ZERO POWER 86/10/04. (TEST 4.2)

FIG. 6.8 - SURGELINE FLOWRATE (RUN 4)



7. RUN STATISTICS

Fig. 7.1 illustrates the CPU-time (clock-seconds) versus problem time, for a CYBER 180-835 computer.
The requested time step was 0.2 sec, while the average time step was constant throughout the run at 0.1 sec, being the "courant limit" for the volumes 131/04, 231/04 and 331/04 (vertical part of pump suction leg).

Table 7.1 illustrates various run statistics at each printer major edit.
From this table one observers that the longest mass error is -0.73 kg corresponding to a mass ration of -3.7×10^{-4} (at t = 90 sec).
Finally, the CPU-time versus transient time ratio is very constant and averages out to 20.3 CPU-s/transient-s.

TABLE 7.1 - RUN STATISTICS FOR DOEL 4 SPRAY TEST SIMULATION

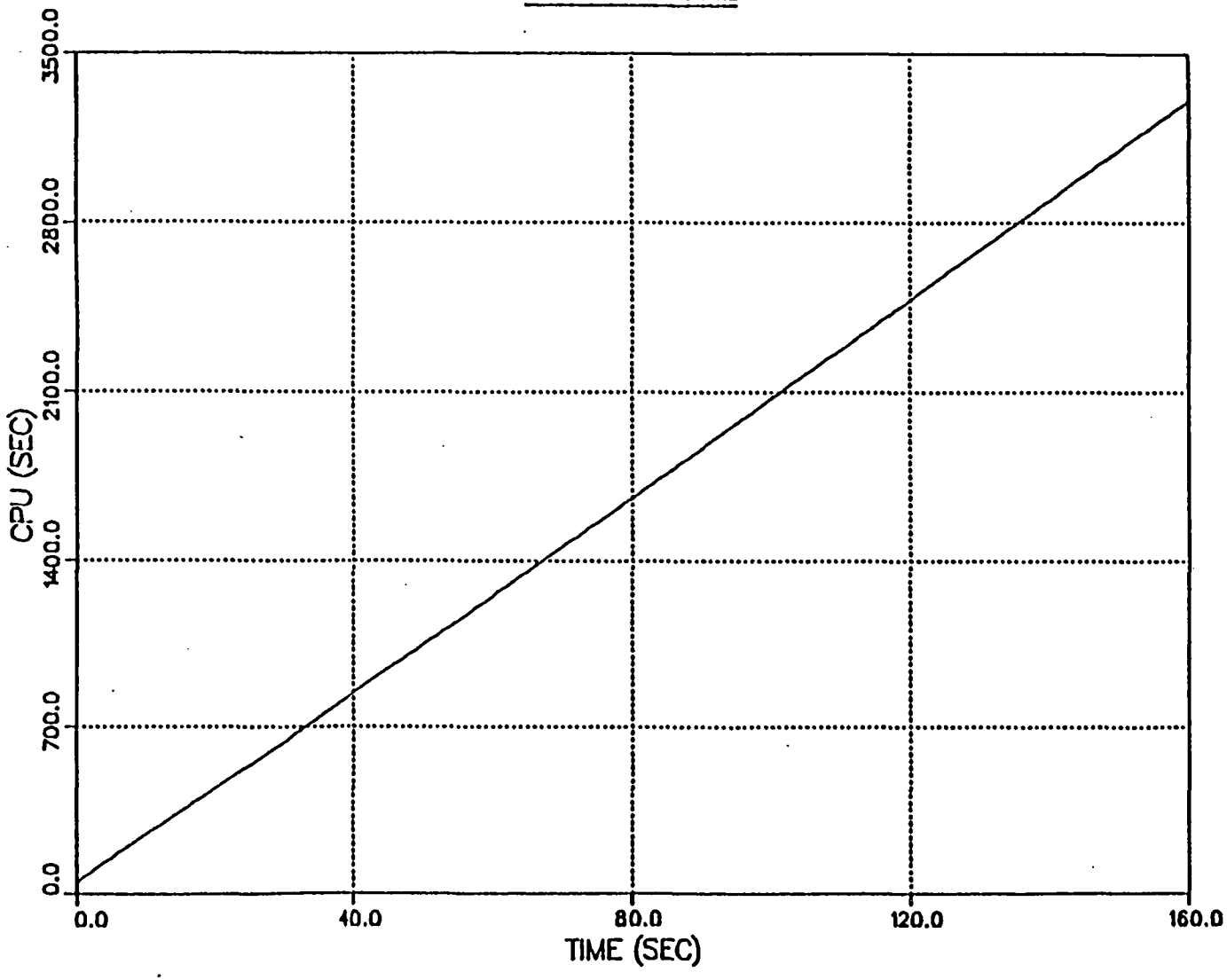
(134 volumes, 139 junctions and 82 heat structures)

TRANSIENT TIME	CPU TIME	TIME STEP SIZE	CYCLE NUMBER	MASS ERROR FRACTION	RELAP-5 PERFORMANCE		
					α	ß	
(RT) sec	sec	(DT) sec	(-)	(-)	msec per vol. and per cycle	msec per vol. and per problem sec	CPU (s) per problem sec
0	44.5		0	0			
		0.1			14.88	149	20
20	443.36		200	$-8.8 \ 10^{-7}$			
		0.1			14.7	147	19.7
30	640.40		300	$-9.7 \ 10^{-7}$			
		0.1			15.1	151	20.2
60	1247.2		600	$-2.1 \ 10^{-6}$			
		0.1			15.4	154	20.6
90	1865.6		900	$-3.7 \ 10^{-6}$			
		0.1			15.3	153	20.5
120	2481.0		1 200	$-2.6 \ 10^{-6}$			
		0.1			15.4	154	20.6
150	3100		1 500	$-2.7 \ 10^{-6}$			
		0.1			15.2	152	20.4
160	3304		1 600	$8.56 \ 10^{-7}$			

RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM

DOEL4 – SPRAY CAPACITY TEST AT ZERO POWER 87/01/22.

F 7.1 . CPU–TIME



PLOT 7000 18.21.24 THUR 22 JAN, 1987 JOB-DISSPLA , 18500 DISSPLA 10.0

8. CONCLUSION

1. From the study follows that the RELAP-5 code is capable to reproduce the depressurisation rate to within 1 % of the measured value.

2. During the 120 sec transient time, a growing divergence is observed for the pressurizer water level (ΔP level) between the calculated and the measured level. This discrepancy is most probably the result of an uncertainty in the charging-letdown flow rates which were not recorded during the test.

3. The calculated temperature profile of the spray flow suggest a 100 % efficiency of the spray flow, since the fluid temperature approaches the saturation temperature within 0.2°C. Since the depressurisation rate is calculated correctly, this means that the vapour-water heat transfer coefficient in the film condensation model is large enough to drive the spray fluid to saturation. This test however does not validated the upper bound of the film condensation model heat transfer coefficient.

4. Water packing can be avoided by proper nodalisation of the pressurizer.

5. The structural heat stored in the pressurizer shell and the heaters may account for about 10 % difference in the depressurisation rate.

6. A large mass error occurred when the surgeline-hot leg connection was nodalised by a cross flow to a small volume in the hot leg conform to some recommendation.

7. The code performance is acceptable and very steady. Indeed, a total mass error fraction of 10^{-6} is calculated, with a very steady progressing of about 20 CPU sec per problem second, on a CYBER 180/825.

LISTING OF INPUT DATA FOR CASE 1

```
1     =DOEL4 - SPRAY CAPACITY TEST AT ZERO POWER
2     *
3     *
4     *
5     *
6     *
7     *                TRACTEBEL - BELGIUM
8     *
9     *
10    *
11    *
12    *
13    *   THIS FILE CONTAINS THE INPUT DECK AND THE RESULTS
14    *   OF THE RELAP5/MOD2 SIMULATION OF A PRESSURIZER
15    *   SPRAY CAPACITY TEST EXECUTED IN THE DOEL 4 PLANT
16    *   (BELGIUM) ON THE 13TH OF FEBRUARY 1986.
17    *   THE CHRONOLOGY OF THE SIMULATION HAS BEEN SUBDIVIDED
18    *   IN THREE PARTS :
19    *
20    *          T < 20 SEC        : STEADY STATE AT ZERO POWER
21    *                              WITH PRIMARY PRESSURE CONTROL
22    *                              BY A TIME DEPENDENT VOLUME ON
23    *                              THE PRESSURIZER
24    *
25    *          20 < T < 30 SEC   : STEADY STATE AT ZERO POWER OF
26    *                              THE PRIMARY SYSTEM ON ITS OWN
27    *
28    *          T = 30 SEC        : START OF THE PRESSURIZER SPRAY
29    *                              TEST
30    *
31    *
32    *
33    *
34    *
35     100 NEW  TRANSNT
36     101 RUN
37     104 NONE
38    *
39    *
40    *   TIME STEP CONTROL
41    *
42    *
43     201 020.  1.E-6  0.2   3  05   100  100
44     202 030.  1.E-6  0.2   3  05   050  050
45     203 160.  1.E-6  0.2   3  05   150  150
46    *
47    *
48    *
49    ************************************************************
50    *                                                          *
51    *                                                          *
52    *                                                          *
53    *                      MINOR    EDIT                       *
54    *                                                          *
55    *                                                          *
56    *                                                          *
```

```
*************************************************************************
*
*
*****************************
* PRESSURES                 *
*****************************
*
*
* PRESSURIZER PRESSURES
*
*
301 P                 420010000
302 P                 410090000
303 P                 410080000
*
* PRIMARY SYSTEM PRESSURES
*
304 P                 151010000
305 P                 351010000
306 P                 231010000
*
* SPRAY LINE PRESSURES
*
307 P                 430010000
308 P                 440010000
309 P                 450010000
*
*
*****************************
* MASS FLOW RATES           *
*****************************
*
*
* SPRAY MASS FLOW RATES
*
310 MFLOWJ            430010000    *   SPRAY LINE  R
311 MFLOWJ            440010000    *   SPRAY LINE  B
312 MFLOWJ            435000000    *   SPRAY VALVE R
313 MFLOWJ            445000000    *   SPRAY VALVE B
314 MFLOWJ            450010000    *   TOTAL SPRAY
*
* LET DOWN - CHARGING FLOW RATE
*
315 MFLOWJ            283000000    *   LET DOWN
316 MFLOWJ            181000000    *   CHARGING
*
* PRIMARY LOOP MASS FLOW RATES
*
317 MFLOWJ            153010000    *   LOOP  R
318 MFLOWJ            253010000    *   LOOP  G
319 MFLOWJ            353010000    *   LOOP  P
*
* SURGE LINE MASS FLOW RATE
*
320 MFLOWJ            312000000
*
*
*****************************
```

```
115     * VOID FRACTIONS              *
116     ******************************
117     *
118     *
119     321 VOIDG            410010000
120     322 VOIDG            410020000
121     323 VOIDG            410030000
122     324 VOIDG            410040000
123     325 VOIDG            410080000
124     326 VOIDG            410090000
125     327 VOIDG            420010000
126     *
127     *
128     ******************************
129     * VAPOR GENERATION             *
130     ******************************
131     *
132     *
133     328 VAPGEN           410070000
134     329 VAPGEN           410080000
135     330 VAPGEN           410090000
136     331 VAPGEN           420010000
137     *
138     *
139     ******************************
140     * PRESSURIZER LEVEL            *
141     ******************************
142     *
143     *
144     332 CNTRLVAR              400   *   COLLAPSED WATER LEVEL
145     333 CNTRLVAR              402   *   DELTA - P       LEVEL
146     *
147     *
148     ******************************
149     * HEAT TRANSFER DATA           *
150     ******************************
151     *
152     *
153     334 Q               940010000   *   PR HEAT LOSSES
154     335 CNTRLVAR              418   *   PR HEATER POWER
155     336 CNTRLVAR              610   *   SG - R    POWER
156     337 CNTRLVAR              710   *   SG - G    POWER
157     338 CNTRLVAR              810   *   SG - B    POWER
158     339 CNTRLVAR              009   *   PRIMARY SYSTEM ENERGY BALANCE
159     340 CNTRLVAR              007   *   PR HEAT INPUT
160     341 CNTRLVAR              026   *   PR ENERGY BALANCE
161     *
162     *
163     ******************************
164     * PRIMARY PUMP VELOCITIES      *
165     ******************************
166     *
167     *
168     342 PMPVEL                140   *   PUMP  R
169     343 PMPVEL                240   *   PUMP  G
170     344 PMPVEL                340   *   PUMP  B
171     *
172     *
```

```
173     ******************************
174     * SPRAY VALVE NORM. AREA     *
175     ******************************
176     *
177     *
178     345 CNTRLVAR              435    *   SPRAY VALVE  R
179     346 CNTRLVAR              445    *   SPRAY VALVE  B
180
181     *
182     *
183     ******************************
184     * TEMPERATURES               *
185     ******************************
186     *
187     *
188     347 TEMPF            125010000    *
189     348 TEMPF            131040000     *
190     349 TEMPF            161010000      *   LOOP  R
191     350 TEMPF            111010000     *
192     351 TEMPF            121010000    *
193     *
194     352 TEMPF            225010000    *
195     353 TEMPF            232010000     *
196     354 TEMPF            251010000      *   LOOP  G
197     355 TEMPF            211010000     *
198     356 TEMPF            221010000    *
199     *
200     357 TEMPF            325010000    *
201     358 TEMPF            331040000     *
202     359 TEMPF            351010000      *   LOOP  B
203     360 TEMPF            311010000     *
204     361 TEMPF            321010000    *
205     *
206     362 TEMPF            450010000    *   SPRAY WATER TEMP.
207     363 TEMPF            420010000    *   PR DOME LIQ TEMP.
208     364 TEMPG            420010000    *   PR DOME VAP TEMP.
209     365 SATTEMP          420010000    *   PR DOME SAT TEMP.
210     *
211     *
212     ******************************
213     * MISCELLANEOUS              *
214     ******************************
215     *
216     *
217     366 CNTRLVAR         008          *   VAPOUR HEAT WALLS.
218     367 CNTRLVAR         028          *   TOTAL CONDENSATION RATE.
219     368 CNTRLVAR         027          *   HEATER HEAT INPUT.
220     369 CNTRLVAR         912          *   PRESS FLUID MASS.
221     370 CNTRLVAR         911          *   PRESS VAPOUR MASS.
222     371 CNTRLVAR         920          *   SURGELINE HEAT INPUT.
223     *
224     *
225     ******************************
226     * CPU TIME                   *
227     ******************************
228     *
229     *
230     999 CPUTIME                 0
```

```
231     *
232     *
233     *
234     *
235     *
236     ***************************************************************
237     *                                                             *
238     *                                                             *
239     *                                                             *
240     *                        T R I P S                            *
241     *                                                             *
242     *                                                             *
243     *                                                             *
244     ***************************************************************
245     *
246     *
247     *
248      *
249      597 TIME O GT NULL  O    0.002  N  *  START CHARGING = LET DOWN
250      698 TIME O GT NULL  O   20.     N  *  ISOLATE  TDV
251      599 TIME O GT NULL  O 9999.     N  *  PUMP TRIP
252     *
253      698 -598   OR -598              N  *  ISOLATE  TDV
254      *
255      *
256      *
257      ***************************************************************
258      *                                                             *
259      *                                                             *
260      *                                                             *
261      *                  P R I M A R Y   S I D E                    *
262      *                                                             *
263      *                                                             *
264      *                                                             *
265      ***************************************************************
266      *
267      ***************************************************************
268      *                                                             *
269      *                  REACTOR  VESSEL  ( 001-099 )               *
270      *                                                             *
271      ***************************************************************
272      *
273      ***********************************************
274      *    DOWNCOMER - ABOVE NOZZLE CENTER LINE     *
275      ***********************************************
276      *
277      *
278      0110000 UPDOWNC  BRANCH
279      0110001 2  0
280      0110101 0.  2.094   3.878   0.  90.0  2.094  4.E-5  0.462  00
281      0111101 013000000 011000000   0.00      0.     0.      00000
282      0112101 011010000 045000000   3.70E-3   2.3    2.3     00000
283      *
284      *
285      ***********************************************
286      *    DOWNCOMER - BELOW NOZZLE CENTER LINE     *
287      ***********************************************
288      *
```

```
*
0130000 UPDOWNOZZ  BRANCH
0130001 4  0
0130101 0.  1.414   3.501  0. -90.0  -1.414   4.E-5  0.500  00
0131101 153010000 013000000  00.00   0.4285   0.4285   00000
0132101 253010000 013000000  00.00   0.4285   0.4285   00000
0133101 353010000 013000000  00.00   0.4285   0.4285   00000
0134101 013010000 015000000  00.00   0.16    0.16    00000
*
*
*************************************************
*    DOWNCOMER - THERMAL SHIELD - LOWER PLENUM   *
*************************************************
*
*
0150000  DOWNCTS  ANNULUS
0150001  3
0150101  2.57      3
0150301  1.74233   3
0150601 -90.0      3
0150801  4.E-5   0.5   3
0150901  0.      0.    2
0151001  00            3
0151101  0000          2
0151300  0
*
*
*************************************************
*                LOWER  PLENUM                  *
*************************************************
*
*
0230000 LOWPLEN  BRANCH
0230001 2  0
0230101 0.   1.455    9.07    0.  -90.0   -1.455   4.E-5   0.   00
0231101 015010000 023000000  00.00  1.43  0.5   00000
0232101 023000000 025000000  00.00  5.273  5.273 00000
*
*
*************************************************
*                CORE   ENTRANCE                *
*************************************************
*
*
0250000 COREIN  BRANCH
0250001 2  0
0250101 3.86   0.853    0.  0.  90.0  0.853  4.E-5  0.  00
0251101 025010000 031000000  00.00 2.45 2.45 00000
0252101 025010000 035000000  00.10 7.45 7.45 00000
*
*
*************************************************
*            CORE  HEATED  LENGTH               *
*************************************************
*
*
0310000  CORE  PIPE
0310001  5
```

```
0310101  3.86     5
0310301  0.853    5
0310601  90.0     5
0310701  0.853    5
0310801  2.E-6    0.012    5
0310901  2.47     2.47     1
0310902  2.40     2.40     2
0310903  2.31     2.31     3
0310904  2.23     2.23     4
0311001  00       5
0311101  00000    4
0311300  0
*
*
*************************************************
*                 CORE  BY  PASS                *
*************************************************
*
*
0350000  BYPASS  SNOLVOL
0350101  0.  4.265  3.45 0.  90.0  4.265  4.E-5  0.  00
*
*
*************************************************
*                   CORE  EXIT                  *
*************************************************
*
*
0390000 COREEX BRANCH
0390001 2  0
0390101 3.86  0.853   0.   0.  90.0   0.853   4.E-5   0.  00
0391101 031010000 039000000  00.00  .72 .72 00000
0392101 035010000 039000000  00.10  6.45 6.45 00000
*
*
*************************************************
*   UPPER  PLENUM  PART1  BELOW  LEVEL  OM      *
*************************************************
*
*
0410000 UPPLEN1  BRANCH
0410001 2  0
0410101 8.865   0.67   0.  0.  90.0  0.67  4.E-5  0.  00
0411101 039010000 041000000  00.00   2.036  2.036 00000
0412101 041010000 043000000  00.00   0.     0.    00000
*
*
*************************************************
*   UPPER  PLENUM  PART2  ABOVE  LEVEL  OM      *
*************************************************
*
*
0430000 UPPLEN2 BRANCH
0430001 3  0
0430101 8.865   2.094   0.   0.  90.0   2.094   4.E-5   0.  00
0431101 043000000 111000000  00.00  0.38  0.38  00000
0432101 043000000 211000000  00.00  0.38  0.38  00000
0433101 043000000 311000000  00.00  0.38  0.38  00000
```

```
*
*
*************************************************
*                  UPPER  HEAD                  *
*************************************************
*
*
0450000 UPHEAD  BRANCH
0450001 1  0
0450101 0.  2.06  18.63   0.   90.0   2.06   4.E-5    0.    00
0451101 043010000 045000000  00.00   2.6  2.6  0000
*
*****************************************************************
*                                                               *
*                   PRIMARY LOOP  R  ( 100-199 )                *
*                                                               *
*****************************************************************
*
*****************************************************
* HOT LEG  R  (  REACTOR VESSEL  -  SI SC  NOZZLES  )  *
*****************************************************
*
1110000  HTLEGR1  PIPE
1110001  2
1110101  0.4369   2
1110301  2.6813   2
1110601  00.0     2
1110701  00.0     2
1110801  4.E-5   0.746  2
1111001  00       2
1111101  00000    1
1111300  0
*
*****************************************************
* HOT LEG  R  (  SI SC  NOZZLES  -  INLET  SG  R  )    *
*****************************************************
*
1130000 HTLEGR2 BRANCH
1130001 1  0
1130101 0.4369    2.6813    0.  0.  19.57  0.897  4.E-5  0.746  00
1131101 111010000 113000000   0.4369   0.   0.  00000
*
*****************************************************
* SG R  -  INLET BOX                                  *
*****************************************************
*
1210000 INBOX  BRANCH
1210001 2  0
1210101 3.279   1.9     0.   0.  90.0   1.9    4.E-5   0.  00
1211101 121010000 122000000   1.0872 0.226  0.58   00000
1212101 113010000 121000000   0.4369  0.325  0.255  00000
*
*****************************************************
* SG R  -  U TUBES                                    *
*****************************************************
*
1220000  UTUBE  PIPE
1220001  11
```

```
1220101  1.0872   11
1220301  .9455  1   .9144  3   1.1557   4    .978   10   1.052   11
1220601  90.0  10   39.540224    11
1220701  .9455  1   .9144 3  1.1557   4     .978   10   .66972 11
1220801  3.0E-9      0.01687      11
1221001  00  11
1221101  0000  10
1221300  0
*
*
1230000  UJUN  SNGLJUN
1230101  122010000  124000000   0.0   0.0  0.0  0000  0.  0.
*
*
1240000  UTUBE  PIPE
1240001  7
1240101  1.0872  7
1240301  1.052  1    1.956   4   1.1557   5    1.14315   6  1.6311  7
1240601  -35.54  1   -90.   7
1240701  -.66972 1   -1.956   4  -1.1557   5   -1.14315   6 -1.6311 7
1240801  3.0E-9   0.01687   7
1241001  00  7
1241101  0000  6
1241300  0
*
*****************************************************
* SG R  -  OUTLET BOX                               *
*****************************************************
*
1250000 OUTBOX   BRANCH
1250001 2  0
1250101 3.279  1.9    0.  0. -90.0  -1.9    4.E-5  0.  00
1251101 124010000  125000000   1.0879   0.58   0.226   00000
1252101 125010000  131000000   0.4984   0.255  0.325   00000
*
*
*****************************************************
* LOOP SEAL  R  (  OUTLET  SG R  -  PUMP  )         *
*****************************************************
*
1310000  SEALR  PIPE
1310001  4
1310101  0.4984   1
1310102  0.4870   4
1310301  1.943    2
1310302  3.009    3
1310303  1.600    4
1310601  -90.     2
1310602    0.     3
1310603   90.     4
1310701   -1.943  2
1310702    0.     3
1310703    1.600  4
1310801  4.E-5   0.787  4
1311001  00       4
1311101  0000     3
1311300  0
*
```

```
521     ****************************************************
522     * PUMP  LOOP R                                     *
523     ****************************************************
524     *
525     1400000 PUMPR PUMP
526     1400101 0.    1.389      3.630  0.   90.0  1.389  00
527     1400108 131010000    0.    .195  .195   00000
528     1400109 151000000    0.    .27   .27    00000
529     1400301   -2    -1    -2    -1    -1     599   0
530     1400302  155.    1.    6.524    95.1    29293.    3579.    746.    25806.
531     1400303   -862.7    4064.6    114.6    204.3
532     *
533     ****************************************************
534     * COLD  LEG  R (  PUMP - CV NOZZLE  )              *
535     ****************************************************
536     *
537     1510000  COLDR1   SNGLVOL
538     1510101  0.383   2.065  0.  0.  0.  0.  4.E-5  0.698   00
539     *
540     ****************************************************
541     * COLD  LEG  R (  CV NOZZLE  -  ECCS NOZZLE  )     *
542     ****************************************************
543     *
544     1520000 COLDR2  BRANCH
545     1520001 2  0
546     1520101 0.383     2.065     0.   0.   0.   0.  4.E-5   0.698  00
547     1521101 151010000 152000000  00.00   0.  0.  00000
548     1522101 152010000 153000000  00.00   0.  0.  00000
549     *
550     *
551     *
552     ****************************************************
553     * CHARGING  FLOW                                   *
554     ****************************************************
555     *                                   *I TO BE CHECKED
556     *
557     1800000 CVTANK  TMDPVOL
558     1800101 1. 1. 0. 0. 0. 0. 0. 0.  00
559     1800200 13  0    TEMPF 152010000
560     1800201 285.   200.E5  275.  .001
561     1800202 610.   200.E5  600.  .001
562     *
563     1810000 CVJUN TMDPJUN
564     1810101 180000000 152000000 3.49E-3
565     1810200 1  597   MFLOWJ  283000000
566     1810201 -1.    6.2   0.  0.
567     1810202 0.    0.          0.    0.
568     1810203 10.   10.         0.    0.
569     *
570     *
571     *
572     ****************************************************
573     * COLD  LEG  R (  ECCS NOZZLE  -  REACTOR VESSEL  )*
574     ****************************************************
575     *
576     1530000  COLDR3  PIPE
577     1530001  2
578
```

```
1530101  0.383    1
1530102  0.434    2
1530301  2.065    2
1530601  00.0     2
1530801  4.E-5    0.698  2
1531001  00       2
1531101  00000    1
1531300  0
*
*****************************************************************
*                                                               *
*                    PRIMARY LOOP  G  ( 200-299 )               *
*                                                               *
*****************************************************************
*
*****************************************************
* HOT LEG G  (  REACTOR VESSEL  -  SI SC  NOZZLES  )  *
*****************************************************
*
2110000  HTLEGG1  PIPE
2110001  2
2110101  0.4369   2
2110301  2.6813   2
2110601  00.0     2
2110701  00.0     2
2110801  4.E-5    0.746  2
2111001  00       2
2111101  00000    1
2111300  0
*
*****************************************************
* HOT LEG  G  (  SI SC  NOZZLES  -  INLET  SG  G  )   *
*****************************************************
*
2130000 HTLEGG2 BRANCH
2130001 1  0
2130101 0.4369    2.6813    0.  0.  19.57  0.897  4.E-5  0.746  00
2131101 211010000 213000000   0.4369   0.   0.  00000
*
*****************************************************
* SG G  -  INLET BOX                                  *
*****************************************************
*
2210000 INBOX  BRANCH
2210001 2  0
2210101 3.279   1.9     0.   0.  90.0   1.9    4.E-5   0.  00
2211101 221010000 222000000   1.0872  0.226  0.58   00000
2212101 213010000 221000000   0.4369  0.325  0.255  00000
*
*****************************************************
* SG G  -  U TUBES                                    *
*****************************************************
*
2220000  UTUBE  PIPE
2220001  11
2220101  1.0872  11
2220301  .9455  1   .9144  3   1.1557   4    .978   10   1.052   11
2220601  90.0  10  39.540224   11
```

```
2220701  .9455  1   .9144 3  1.1557   4     .978   10   .66972 11
2220801  3.0E-9      0.01687     11
2221001  00  11
2221101  0000  10
2221300  0
*
*
2230000  UJUN  SNGLJUN
2230101  222010000  224000000   0.0   0.0  0.0  0000  0.  0.
*
*
2240000  UTUBE  PIPE
2240001  7
2240101  1.0872  7
2240301  1.052  1    1.956   4   1.1557   5    1.14315   6  1.6311  7
2240601  -35.54  1   -90.   7
2240701  -.66972 1   -1.956   4  -1.1557  5   -1.14315   6 -1.6311 7
2240801  3.0E-9   0.01687   7
2241001  00  7
2241101  0000  6
2241300  0
*
*****************************************************
* SG G  -  OUTBOX                                   *
*****************************************************
*
2250000 OUTBOX   BRANCH
2250001 2  0
2250101 3.279  1.9    0.  0. -90.0  -1.9    4.E-5  0.  00
2251101 224010000  225000000   1.0879   0.58   0.226   00000
2252101 225010000  231000000   0.4984   0.255  0.325   00000
*
*****************************************************
*       LOOP SEAL G  (  OUTLET  SG G - PUMP  )      *
*****************************************************
*
2310000  SEALG1  PIPE
2310001  3
2310101  0.4984   1
2310102  0.487    3
2310301  1.943    2
2310302  3.009    3
2310601  -90.     2
2310602   0.      3
2310701 -1.943    2
2310702  0.       3
2310801  4.E-5   0.787  3
2311001  00       3
2311101  00000    2
2311300  0
*
*****************************************************
* LETDOWN                                           *
*****************************************************
*
2820000 LETD01 TMDPVOL
2820101  10. 1.  0.  0   0.  0.  0.  0.  00
2820200  13
```

```
2820201  0. 38.E5   412.     .001
*
*
*
2830000  TJ183  TMDPJUN
2830101  231010000  282000000  0.
2830200  1   0   CNTRLVAR 283
2830201   0.0     0.0     0.0     0.0
2830202   15.0     15.0     0.0     0.0
*
*
*
2320000 SEALG2  BRANCH
2320001 1  0
2320101 0.487     1.6     0.   0.  90.0   1.6  4.E-5  0.787  00
2321101 231010000 232000000   0.00  0.  0.  0000
*
*****************************************************
* PUMP  LOOP G                                      *
*****************************************************
*
2400000 PUMPR PUMP
2400101 0.   1.389     3.630  0.  90.0  1.389  00
2400108 232010000    0.   .195  .195   00000
2400109 251000000    0.   .27   .27    00000
2400301   -2    -1    -2    -1    -1     599  0
2400302  155.    1.    6.524    95.1    29293.    3579.    746.    25806.
2400303   -862.7    4064.6    114.6    204.3
*
*****************************************************
* COLD  LEG  G ( PUMP  -  ECCS  NOZZLE )            *
*****************************************************
*
2510000 COLG1 BRANCH
2510001 1  0
2510101 0.383     2.065     0.  0.  00.0  0.  4.E-5  0.698  00
2511101 251010000 253000000  00.00  0.  0.  00000
*
*****************************************************
* COLD  LEG  G (  ECCS NOZZLE  -  REACTOR VESSEL  )  *
*****************************************************
*
2530000  COLG2  PIPE
2530001  3
2530101  0.383   2
2530102  0.434   3
2530301  2.065   3
2530601  00.0    3
2530801  4.E-5  00.698  3
2531001  00  3
2531101  00000  2
2531300  0
*
*********************************************************************
*                                                                   *
*                    PRIMARY LOOP B ( 300-399 )                     *
*                                                                   *
*********************************************************************
```

```
*
*****************************************************
* HOT LEG  B   ( REACTOR VESSEL  -  PRESSURISER TEE )  *
*****************************************************
*
3110000  HTLEGB1  PIPE
3110001  2
3110101  0.4369   2
3110301  2.6813   2
3110601  00.0     2
3110701  00.0     2
3110801  4.E-5   0.746  2
3111001  00       2
3111101  00000    1
3111300  0
*
*****************************************************
* SURGE LINE JUNCTION                                 *
*****************************************************
*
3120000 SURGEJUN SNGLJUN
3120101 400000000 311010000 0. 0. 0. 10001
*
*****************************************************
* HOT LEG  B  ( PRESSURISER TEE - SG  LOOP  B )       *
*****************************************************
*
3130000 HTLEGB2  BRANCH
3130001 1  0
3130101 0.4369    2.6813    0.  0. 19.57  0.897  4.E-5  0.     00
3131101 311010000 313000000  00.00  0.  0.  00000
*
*****************************************************
* SG B  -  INLET BOX                                  *
*****************************************************
*
3210000 INBOX  BRANCH
3210001 2  0
3210101 3.279   1.9     0.   0.  90.0   1.9    4.E-5   0.  00
3211101 321010000 322000000   1.0872  0.228  0.58   00000
3212101 313010000 321000000   0.4369  0.325  0.255  00000
*
*****************************************************
* SG B  -  U TUBES                                    *
*****************************************************
*
3220000  UTUBE  PIPE
3220001  11
3220101  1.0872   11
3220301  .9455  1   .9144  3   1.1557   4   .978  10  1.052   11
3220601  90.0  10   39.540224    11
3220701  .9455  1   .9144 3   1.1557   4   .978  10  0.66972  11
3220801  3.0E-9     0.01687     11
3221001  00  11
3221101  0000  10
3221300  0
*
```

```
3230000  UJUN  SNGLJUN
3230101  322010000  324000000   0.0   0.0  0.0  0000  0.  0.
*
*
3240000  UTUBE  PIPE
3240001  7
3240101  1.0872  7
3240301  1.052  1.    1.956   4    1.1557   5    1.14315   6  1.6311  7
3240601  -35.54  1   -90.   7
3240701  -.66972 1   -1.956   4  -1.1557   5   -1.14315   6 -1.6311 7
3240801  3.0E-9   0.01687   7
3241001  00  7
3241101  0000  6
3241300  0
*
*****************************************************
* SG B  -   OUTLET BOX                              *
*****************************************************
*
3250000 OUTBOX  BRANCH
3250001 2  0
3250101 3.279  1.9    0.  0. -90.0  -1.9    4.E-5  0.  00
3251101 324010000  325000000   1.0879   0.58   0.225   00000
3252101 325010000  331000000   0.4984   0.255  0.325   00000
*
*****************************************************
* LOOP SEAL  B  (  OUTLET  SG B  -  PUMP  )         *
*****************************************************
*
3310000  SEALB  PIPE
3310001  4
3310101  0.4984   1
3310102  0.4870   4
3310301  1.943    2
3310302  3.009    3
3310303  1.600    4
3310601  -90.     2
3310602   0.      3
3310603   90.     4
3310701  -1.943   2
3310702   0.      3
3310703   1.600   4
3310801  4.E-5   0.787  4
3311001  00       4
3311101  0000     3
3311300  0
*
*****************************************************
* PUMP  LOOP B                                      *
*****************************************************
*
3400000 PUMPR PUMP
3400101 0.   1.389     3.630  0.  90.0  1.389  00
3400108 331010000    0.    .195  .195   00000
3400109 351000000    0.    .27   .27    00000
3400301  -2    -1    -2    -1    -1    599  0
3400302  155.    1.    6.524    95.1    29293.    3579.    746.   .25806.
3400303  -862.7    4064.6    114.6    204.3
```

```
869     *
870     ****************************************************
871     * COLD  LEG  B  (  PUMP - SPRAY NOZZLE  )          *
872     ****************************************************
873     *
874     3510000  COLDB1   SNGLVOL
875     3510101  0.383   2.065  0.  0.  0.  0.  4.E-5  0.698   00
876     *
877     ****************************************************
878     * COLD  LEG  B (  CV NOZZLE  -  ECCS NOZZLE  )     *
879     ****************************************************
880     *
881     3520000 COLDR2  BRANCH
882     3520001 2  0
883     3520101 0.383     2.065     0.   0.   0.   0.  4.E-5   0.698  00
884     3521101 351010000 352000000  00.00   0.  0.  00000
885     3522101 352010000 353000000  00.00   0.  0.  00000
886     *
887     ****************************************************
888     * COLD  LEG  B (  ECCS NOZZLE  -  REACTOR VESSEL  )  *
889     ****************************************************
890     *
891     3530000  COLDR3  PIPE
892     3530001  2
893     3530101  0.383   1
894     3530102  0.434   2
895     3530301  2.065   2
896     3530601  00.0    2
897     3530801  4.E-5   0.698  2
898     3531001  00      2
899     3531101  00000   1
900     3531300  0
901     *
902     ********************************************************************
903     *                                                                  *
904     *                    PRESSURIZER  (  400  -  490  )                *
905     *                                                                  *
906     ********************************************************************
907     *
908     ****************************************************
909     * SURGE LINE                                       *
910     ****************************************************
911     *
912     4000000  SURGE  PIPE
913     4000001 4
914     4000101 0.063118     1
915     4000102 0.0634253    4
916     4000301 5.6275       4
917     4000601 15.639       4
918     4000801 4.5E-5  0.   4
919     4001001 00           4
920     4001101 00000        3
921     4001300 1
922     *
923     ****************************************************
924     * JUNCTION  SURGE LINE - PRESSURIZER               *
925     ****************************************************
926     *
```

```
4050000 SURGE1 SNGLJUN
4050101 400010000  410000000  0.0634253  0.0   0.0   00100
*
*****************************************************
* PRESSURIZER                                       *
*****************************************************
*
4100000  PRESSU PIPE
4100001  9
4100101  2.1329          2
4100102  3.535           8
4100103  2.1329          9
4100301  0.28217         1
4100302  0.56434         2
4100303  0.7             3
4100304  1.464           4
4100305  3.0             7
4100306  0.7             8
4100307  0.38            9
4100601  90.             9
4100801  4.5E-5   0.     9
4101001  00              9
4101101  00000           8
4101300  1
*
4200000  TOP  BRANCH
4200001  1    0
4200101  2.134   0.2665   0.   0.   90.   0.2665   4.5E-5   0.   00
4201101  410010000  420000000  0.  0.  0.  00000
*
*
* SPRAY LINES
*
*
4300000 SPRAYR  BRANCH
4300001 1  0
4300101 5.989E-3  10.2665  0.  0.  90.0  10.2665 4.E-5  0.  00
4301101 151010000 430000000  00.00  0.  0.  00000
*
4400000 SPRAYB  BRANCH
4400001 1  0
4400101 5.989E-3  10.2665  0.  0.  90.0  10.2665 4.E-5  0.  00
4401101 351010000 440000000  00.00  0.  0.  00000
*
*
4350000 SPRAYR  VALVE
4350101 430010000  450000000  6.954E-4  0.  0.  00100
4350201 1          0.    0.   0.
4350300 SRVVLV
4350301 435
*
4450000 SPRAYB  VALVE
4450101 440010000  450000000  6.954E-4  0.  0.  00
4450201 1          0.    0.   0.
4450300 SRVVLV
4450301 445
*
4500000 SPRAYB  BRANCH
```

```
4500001 1  0
4500101 5.989E-3  9.15865  0. 0. 90. 9.15865 4.E-5  0.  00
4501101 450010000 420010000  00.00  1. 1. 00000
*
*
* FOR STEADY STATE ONLY   T < 20 SEC
*
*
4890000  PRESVAL  VALVE
4890101  420010000   490000000  0.1  0.  0.  00100
4890201  0   0.  0.  0.
4890300  TRPVLV
4890301  698
*
4900000  TV490  TMDPVOL
4900101  10.   1.  0. 0. 0. 0. 0. 0. 00
4900200  2
4900201  0.   155.1E6   1.
*
*
* CONTAINMENT
*
*
9400000  TV940 TMDPVOL
9400101  10. 1.  0.  0   0.  0.  0.  0.  00
9400200  3
9400201  0.    2.0E5     323.15
*
*
*
*****************************************************************
*                                                               *
*                                                               *
*                                                               *
*                                                               *
*                    INITIAL  CONDITIONS                        *
*                                                               *
*                                                               *
*****************************************************************
*
*
*****************************************************
* PRESSURE , TEMPERATURE , INTERNAL ENERGY , VOIDG  *
*****************************************************
*
0110200   13   1.59955E+07   570.55   0.001
0130200   13   1.59860E+07   570.61   0.001
0151201   13   1.59898E+07   570.61   0.    0.    0.    1
0151202   13   1.60015E+07   570.62   0.    0.    0.    2
0151203   13   1.60131E+07   570.62   0.    0.    0.    3
0230200   13   1.60134E+07   570.63   0.001
0250200   13   1.59500E+07   570.6    0.001
0311201   13   1.59160E+07   570.59   0.    0.    0.    1
0311202   13   1.58928E+07   570.58   0.    0.    0.    2
0311203   13   1.58506E+07   570.56   0.    0.    0.    3
0311204   13   1.58073E+07   570.55   0.    0.    0.    4
```

1043	0311205	13	1.57829E+07	570.54	0.	0.	0.	5
1044	0350200	13	1.58652E+07	570.53	0.001			
1045	0390200	13	1.57627E+07	570.53	0.001			
1046	0410200	13	1.57203E+07	570.52	0.001			
1047	0430200	13	1.57134E+07	570.52	0.001			
1048	0450200	13	1.56998E+07	570.47	0.001			
1049	*							
1050	1111201	13	1.55940E+07	570.48	0.	0.	0.	1
1051	1111202	13	1.55905E+07	570.48	0.	0.	0.	2
1052	1130200	13	1.55842E+07	570.48	0.001			
1053	1210200	13	1.56327E+07	570.50	0.001			
1054	1221201	13	1.56019E+07	570.47	0.	0.	0.	1
1055	1221202	13	1.55860E+07	570.46	0.	0.	0.	2
1056	1221203	13	1.55703E+07	570.44	0.	0.	0.	3
1057	1221204	13	1.55524E+07	570.43	0.	0.	0.	4
1058	1221205	13	1.55341E+07	570.41	0.	0.	0.	5
1059	1221206	13	1.55173E+07	570.40	0.	0.	0.	6
1060	1221207	13	1.55004E+07	570.39	0.	0.	0.	7
1061	1221208	13	1.54836E+07	570.39	0.	0.	0.	8
1062	1221209	13	1.54667E+07	570.38	0.	0.	0.	9
1063	1221210	13	1.54499E+07	570.37	0.	0.	0.	10
1064	1221211	13	1.54337E+07	570.37	0.	0.	0.	11
1065	1241201	13	1.54229E+07	570.36	0.	0.	0.	1
1066	1241202	13	1.54167E+07	570.36	0.	0.	0.	2
1067	1241203	13	1.54106E+07	570.36	0.	0.	0.	3
1068	1241204	13	1.54046E+07	570.36	0.	0.	0.	4
1069	1241205	13	1.53999E+07	570.36	0.	0.	0.	5
1070	1241206	13	1.53965E+07	570.36	0.	0.	0.	6
1071	1241207	13	1.53925E+07	570.36	0.	0.	0.	7
1072	1250200	13	1.54013E+07	570.37	0.001			
1073	1311201	13	1.53390E+07	570.34	0.	0.	0.	1
1074	1311202	13	1.53486E+07	570.35	0.	0.	0.	2
1075	1311203	13	1.53535E+07	570.35	0.	0.	0.	3
1076	1311204	13	1.53457E+07	570.35	0.	0.	0.	4
1077	1400200	13	1.57344E+07	570.52	0.001			
1078	1510200	13	1.59451E+07	570.60	0.001			
1079	1520200	13	1.59418E+07	570.58	0.001			
1080	1531201	13	1.59385E+07	570.58	0.	0.	0.	1
1081	1531202	13	1.59585E+07	570.59	0.	0.	0.	2
1082	*							
1083	2111201	13	1.55940E+07	570.48	0.	0.	0.	1
1084	2111202	13	1.55905E+07	570.48	0.	0.	0.	2
1085	2130200	13	1.55842E+07	570.48	0.001			
1086	2210200	13	1.56327E+07	570.5	0.001			
1087	2221201	13	1.56019E+07	570.47	0.	0.	0.	1
1088	2221202	13	1.55860E+07	570.46	0.	0.	0.	2
1089	2221203	13	1.55703E+07	570.44	0.	0.	0.	3
1090	2221204	13	1.55524E+07	570.43	0.	0.	0.	4
1091	2221205	13	1.55341E+07	570.41	0.	0.	0.	5
1092	2221206	13	1.55173E+07	570.40	0.	0.	0.	6
1093	2221207	13	1.55004E+07	570.39	0.	0.	0.	7
1094	2221208	13	1.54836E+07	570.39	0.	0.	0.	8
1095	2221209	13	1.54667E+07	570.38	0.	0.	0.	9
1096	2221210	13	1.54499E+07	570.37	0.	0.	0.	10
1097	2221211	13	1.54337E+07	570.37	0.	0.	0.	11
1098	2241201	13	1.54229E+07	570.36	0.	0.	0.	1
1099	2241202	13	1.54167E+07	570.36	0.	0.	0.	2
1100	2241203	13	1.54106E+07	570.36	0.	0.	0.	3

1101	2241204	13	1.54046E+07	570.36	0.	0.	0.	4
1102	2241205	13	1.53999E+07	570.36	0.	0.	0.	5
1103	2241206	13	1.53965E+07	570.36	0.	0.	0.	6
1104	2241207	13	1.53926E+07	570.36	0.	0.	0.	7
1105	2250200	13	1.54013E+07	570.37	0.001			
1106	2311201	13	1.53390E+07	570.34	0.	0.	0.	1
1107	2311202	13	1.53486E+07	570.35	0.	0.	0.	2
1108	2311203	13	1.53535E+07	570.35	0.	0.	0.	3
1109	2320200	13	1.53457E+07	570.35	0.001			
1110	2400200	13	1.57344E+07	570.52	0.001			
1111	2510200	13	1.59451E+07	570.6	0.001			
1112	2531201	13	1.59418E+07	570.6	0.	0.	0.	1
1113	2531202	13	1.59385E+07	570.6	0.	0.	0.	2
1114	2531203	13	1.59585E+07	570.6	0.	0.	0.	3
1115	*							
1116	3111201	13	1.55946E+07	570.48	0.	0.	0.	1
1117	3111202	13	1.55946E+07	570.48	0.	0.	0.	2
1118	3130200	13	1.56845E+07	570.48	0.001			
1119	3210200	13	1.56328E+07	570.5	0.001			
1120	3221201	13	1.56020E+07	570.47	0.	0.	0.	1
1121	3221202	13	1.55860E+07	570.46	0.	0.	0.	2
1122	3221203	13	1.55703E+07	570.44	0.	0.	0.	3
1123	3221204	13	1.55525E+07	570.43	0.	0.	0.	4
1124	3221205	13	1.55342E+07	570.41	0.	0.	0.	5
1125	3221206	13	1.55173E+07	570.40	0.	0.	0.	6
1126	3221207	13	1.55005E+07	570.39	0.	0.	0.	7
1127	3221208	13	1.54836E+07	570.39	0.	0.	0.	8
1128	3221209	13	1.54668E+07	570.38	0.	0.	0.	9
1129	3221210	13	1.54499E+07	570.37	0.	0.	0.	10
1130	3221211	13	1.54337E+07	570.37	0.	0.	0.	11
1131	3241201	13	1.54230E+07	570.36	0.	0.	0.	1
1132	3241202	13	1.54168E+07	570.36	0.	0.	0.	2
1133	3241203	13	1.54107E+07	570.36	0.	0.	0.	3
1134	3241204	13	1.54047E+07	570.36	0.	0.	0.	4
1135	3241205	13	1.54000E+07	570.36	0.	0.	0.	5
1136	3241206	13	1.53966E+07	570.36	0.	0.	0.	6
1137	3241207	13	1.53926E+07	570.36	0.	0.	0.	7
1138	3250200	13	1.54013E+07	570.37	0.001			
1139	3311201	13	1.53391E+07	570.34	0.	0.	0.	1
1140	3311202	13	1.53486E+07	570.35	0.	0.	0.	2
1141	3311203	13	1.53535E+07	570.35	0.	0.	0.	3
1142	3311204	13	1.53457E+07	570.35	0.	0.	0.	4
1143	3400200	13	1.57344E+07	570.52	0.001			
1144	3510200	13	1.59451E+07	570.6	0.001			
1145	3520200	13	1.59418E+07	570.6	0.001			
1146	3531201	13	1.59385E+07	570.6	0.	0.	0.	1
1147	3531202	13	1.59585E+07	570.6	0.	0.	0.	2
1148	*							
1149	4001201	12	1.55762E+07	0.		0.	0.	0. 1
1150	4001202	12	1.55757E+07	0.		0.	0.	0. 2
1151	4001203	12	1.55700E+07	0.		0.	0.	0. 3
1152	4001208	12	1.55650E+07	0.		0.	0.	0. 4
1153	4101201	12	1.55100E+07	0.	0. 0.	0.	4	
1154	4101202	12	1.55100E+07	0.2158	0. 0.	0.	5	
1155	4101203	12	1.55100E+07	1.	0. 0.	0.	9	
1156	4200200	12	1.55104E+07	1.0000	.001			
1157	4300200	13	1.59104E+07	570.6	.001			
1158	4400200	13	1.59104E+07	570.6	.001			

```
4500200    13    1.59104E+07     570.6     .001
*
*
*****************************************************************
*                                                               *
*                        MASS FLOW RATES                        *
*                                                               *
*****************************************************************
*
0111201      3.63144E-02     3.63144E-02      0.
0112201     18.176          18.177            0.
0131201     14.764          14.764            0.
0132201     14.764          14.764            0.
0133201     14.764          14.764            0.
0134201      8.2209          8.2209           0.
0151301      8.2209          8.2209           0.          1
0151302      8.2207          8.2207           0.          2
0231201      8.2206          8.2206           0.
0232201      4.9622          4.9622           0.
0251201      4.8130          4.8130           0.
0252201      5.7764          5.7764           0.
0311301      4.8910          4.8910           0.          1
0311302      5.0494          5.0494           0.          2
0311303      5.2346          5.2346           0.          3
0311304      5.3955          5.3955           0.          4
0391201      5.4773          5.4773           0.
0392201      5.7771          5.7771           0.
0411201      5.6214          5.6214           0.
0412201      2.4479          2.4479           0.
0431201     16.613          16.613            0.
0432201     16.613          16.613            0.
0433201     16.596          16.596            0.
0451201     -7.46699E-03    -7.46699E-03      0.
1111301     16.618          16.618            0.          1
1131201     16.618          16.618            0.
1211201      6.6772          6.6772           0.
1212201     16.619          16.619            0.
1221301      6.5905          6.5905           0.          1
1221302      6.5160          6.5160           0.          2
1221303      6.4520          6.4520           0.          3
1221304      6.3816          6.3816           0.          4
1221305      6.3290          6.3290           0.          5
1221306      6.2813          6.2813           0.          6
1221307      6.2398          6.2398           0.          7
1221308      6.2034          6.2034           0.          8
1221309      6.1712          6.1712           0.          9
1221310      6.1428          6.1428           0.         10
1230201 0    6.1154          6.1154           0.
1241301      6.0904          6.0904           0.          1
1241302      6.0525          6.0525           0.          2
1241303      6.0222          6.0222           0.          3
1241304      5.9976          5.9976           0.          4
1241305      5.9842          5.9842           0.          5
1241306      5.9612          5.9612           0.          6
1251201      5.8938          5.8938           0.
1252201     12.865          12.865            0.
1311301     13.167          13.167            0.          1
1400201     37              0.                0.
```

1217	1400202	1	4737.	0.	0.	
1218	1311302		13.167	13.167	0.	2
1219	1311303		13.167	13.167	0.	3
1220	1521201		16.730	16.730	0.	
1221	1522201		16.730	16.730	0.	
1222	1531301		16.730	16.730	0.	1
1223	2111301		16.618	16.618	0.	1
1224	2131201		16.618	16.618	0.	
1225	2211201		6.6772	6.6772	0.	
1226	2212201		16.619	16.619	0.	
1227	2221301		6.5905	6.5905	0.	1
1228	2221302		6.5160	6.5160	0.	2
1229	2221303		6.4520	6.4520	0.	3
1230	2221304		6.3816	6.3816	0.	4
1231	2221305		6.3290	6.3290	0.	5
1232	2221306		6.2813	6.2813	0.	6
1233	2221307		6.2398	6.2398	0.	7
1234	2221308		6.2034	6.2034	0.	8
1235	2221309		6.1712	6.1712	0.	9
1236	2221310		6.1428	6.1428	0.	10
1237	2230201	0	6.1154	6.1154	0.	
1238	2241301		6.0904	6.0904	0.	1
1239	2241302		6.0525	6.0525	0.	2
1240	2241303		6.0222	6.0222	0.	3
1241	2241304		5.9976	5.9976	0.	4
1242	2241305		5.9842	5.9842	0.	5
1243	2241306		5.9612	5.9612	0.	6
1244	2251201		5.8938	5.8938	0.	
1245	2252201		12.865	12.865	0.	
1246	2311301		13.167	13.167	0.	1
1247	2311302		13.167	13.167	0.	2
1248	2321201		13.167	0.	0.	
1249	2400201	1	4737.	0.	0.	
1250	2400202	1	4737.	0.	0.	
1251	2511201		16.730	16.730	0.	
1252	2531301		16.730	16.730	0.	2
1253	3111301		16.601	16.601	0.	1
1254	3120201	0	0.	0.	0.	
1255	3131201		16.6	16.6	0.	
1256	3211201		6.6780	6.6780	0.	
1257	3212201		16.621	16.621	0.	
1258	3221301		6.5912	6.5912	0.	1
1259	3221302		6.5167	6.5167	0.	2
1260	3221303		6.4526	6.4526	0.	3
1261	3221304		6.3822	6.3822	0.	4
1262	3221305		6.3295	6.3295	0.	5
1263	3221306		6.2818	6.2818	0.	6
1264	3221307		6.2402	6.2402	0.	7
1265	3221308		6.2039	6.2039	0.	8
1266	3221309		6.1717	6.1717	0.	9
1267	3221310		6.1432	6.1432	0.	10
1268	3230201	0	6.1157	6.1157	0.	
1269	3241301		6.0907	6.0907	0.	1
1270	3241302		6.0528	6.0528	0.	2
1271	3241303		6.0225	6.0225	0.	3
1272	3241304		5.9979	5.9979	0.	4
1273	3241305		5.9845	5.9845	0.	5
1274	3241306		5.9615	5.9615	0.	6

```
3251201      5.8941      5.8941      0.
3252201     12.865      12.865       0.
3311301     13.168      13.168       0.          1
3400201 1 4737.          0.          0.
3400202 1 4737.          0.          0.
3311302     13.167      13.167       0.          2
3311303     13.167      13.167       0.          3
3521201     16.731      16.731       0.
3522201     16.731      16.731       0.
3531301     16.731      16.731       0.          1
4001301      0.          0.          0.          3
4050201 1    0.          0.          0.
4101301      0.          0.          0.          8
4201201      0.          0.          0.
4301201      0.005       0.          0.
4401201      0.005       0.          0.
4501201      0.005       0.          0.
*
*
*****************************************************************
*                    BORON  CONCENTRATION                       *
*****************************************************************
*
0152001  0.001   3
0312001  0.001   5
1112001  0.001   2
1222001  0.001  11
1242001  0.001   7
1312001  0.001   4
1532001  0.001   2
*
2112001  0.001   2
2222001  0.001  11
2242001  0.001   7
2312001  0.001   3
2532001  0.001   3
*
3112001  0.001   2
3222001  0.001  11
3242001  0.001   7
3312001  0.001   4
3532001  0.001   2
*
4002001  0.001   4
4102001  0.001   9
*
*
*****************************************************************
*                MESH  POINT  TEMPERATURES  ( K )                *
*****************************************************************
11211401  570.  570.  570.  570.  570.
11220401  570.  570.  570.
11220402  570.  570.  570.
11220403  570.  570.  570.
11220404  570.  570.  570.
11220405  570.  570.  570.
11220406  570.  570.  570.
11220407  570.  570.  570.
```

1333	11220408	570.	570.	570.		
1334	11220409	570.	570.	570.		
1335	11220410	570.	570.	570.		
1336	11220411	570.	570.	570.		
1337	11231401	570.	570.	570.	570.	
1338	11240401	570.	570.	570.		
1339	11240402	570.	570.	570.		
1340	11240403	570.	570.	570.		
1341	11240404	570.	570.	570.		
1342	11240405	570.	570.	570.		
1343	11240406	570.	570.	570.		
1344	11240407	570.	570.	570.		
1345	11240408	570.	570.	570.		
1346	11251401	570.	570.	570.	570.	570.
1347	12211401	570.	570.	570.	570.	570.
1348	12220401	570.	570.	570.		
1349	12220402	570.	570.	570.		
1350	12220403	570.	570.	570.		
1351	12220404	570.	570.	570.		
1352	12220405	570.	570.	570.		
1353	12220406	570.	570.	570.		
1354	12220407	570.	570.	570.		
1355	12220408	570.	570.	570.		
1356	12220409	570.	570.	570.		
1357	12220410	570.	570.	570.		
1358	12220411	570.	570.	570.		
1359	12231401	570.	570.	570.	570.	
1360	12240401	570.	570.	570.		
1361	12240402	570.	570.	570.		
1362	12240403	570.	570.	570.		
1363	12240404	570.	570.	570.		
1364	12240405	570.	570.	570.		
1365	12240406	570.	570.	570.		
1366	12240407	570.	570.	570.		
1367	12240408	570.	570.	570.		
1368	12251401	570.	570.	570.	570.	570.
1369	13211401	570.	570.	570.	570.	570.
1370	13220401	570.	570.	570.		
1371	13220402	570.	570.	570.		
1372	13220403	570.	570.	570.		
1373	13220404	570.	570.	570.		
1374	13220405	570.	570.	570.		
1375	13220406	570.	570.	570.		
1376	13220407	570.	570.	570.		
1377	13220408	570.	570.	570.		
1378	13220409	570.	570.	570.		
1379	13220410	570.	570.	570.		
1380	13220411	570.	570.	570.		
1381	13231401	570.	570.	570.	570.	
1382	13240401	570.	570.	570.		
1383	13240402	570.	570.	570.		
1384	13240403	570.	570.	570.		
1385	13240404	570.	570.	570.		
1386	13240405	570.	570.	570.		
1387	13240406	570.	570.	570.		
1388	13240407	570.	570.	570.		
1389	13240408	570.	570.	570.		
1390	13251401	570.	570.	570.	570.	570.

```
*
14113401  617.9  617.9  617.9
14113402  617.9  617.9  617.9
*
14000401 617. 500. 400.  350.
14000402 617. 500. 400. 350.
14000403 617. 500. 400. 350.
14000404 617. 500. 400. 350.
*
14101401 617. 500. 400. 350.
14101402 617. 500. 400. 350.
14102401 617. 500. 400. 350.
14102402 617. 500. 400. 350.
14102403 617. 500. 400. 350.
14102404 617. 500. 400. 350.
14102405 617. 500. 400. 350.
14102406 617. 500. 400. 350.
*
14103401 617. 500. 400. 350.
14103402 617. 500. 400. 350.
*
*
*****************************************************************
*                                                               *
*                                                               *
*                                                               *
*                        HEAT  STRUCTURES                       *
*                                                               *
*                                                               *
*                                                               *
*****************************************************************
*
*
*****************************************************************
*                                                               *
*                          PRESSURIZER                          *
*                                                               *
*****************************************************************
*
****************
*  SURGE  LINE  *
****************
*
14000000   4    4    2    1    0.142
14000100   0         2
14000101   0.012     3
14000201   5         3
14000301   0.        3
14000400  -1
14000501   400010000    10000      1     1     5.6275    4
14000601   940010000        0     3940     1     5.6275    4
14000701          0              0.    0.    0.          4
14000801          0              0.    0.    0.          4
*
***********
*  BOTTOM  *
***********
*
```

```
14101000   2     4     2     1     0.8263442
14101100   0           2
14101101   0.0389      3
14101201   5           3
14101301   0.          3
14101400  -1
14101501   410010000         0        1      1      0.28217     1
14101502   410020000         0        1      1      0.564434    2
14101601   940010000         0     3940      1      0.28217     1
14101602   940010000         0     3940      1      0.564434    2
14101701           0            0.     0.     0.          2
14101801           0            0.     0.     0.          2
*
************************
*  CYLINDRICAL  SHELL  *
************************
*
14102000   6     4     2     1     1.063825
14102100   0           2
14102101   0.0384      3
14102201   5           3
14102301   0.          3
14102400  -1
14102501   410030000         0        1      1      0.7         1
14102502   410040000     00000        1      1      1.464       2
14102503   410050000     10000     1    1   3.0       5
14102504   410080000         0        1      1      0.7         6
14102601   940010000         0     3940      1      0.7         1
14102602   940010000         0     3940      1      1.464       2
14102603   940010000         0     3940      1      3.0         5
14102604   940010000         0     3940      1      0.7         6
14102701           0            0.     0.     0.          6
14102801           0            0.     0.     0.          6
*
*********
*  TOP  *
*********
*
14103000   2     4     2     1     0.8263442     0     0     2
14103100   0           2
14103101   0.035412    3
14103201   5           3
14103301   0.          3
14103400  -1
14103501   410090000         0        1      1      0.38        1
14103502   420010000         0        1      1      0.2665      2
14103601   940010000         0     3940      1      0.38        1
14103602   940010000         0     3940      1      0.2665      2
14103701           0            0.     0.     0.          2
14103801           0            0.     0.     0.          2
*
20294000 HTC-T
20294001 0.        2.51
20294002 99999.    2.51
*
*************************************
* PRESSURIZER  -  HEATERS           *
*************************************
```

```
*
14113000  2  3  2  1  0.
14113100  0  2
14113101  0.0073025  1    0.0038  2
14113201  5  2
14113301  1.   1   0.   2
14113400  -1
14113501  0  0  0  1  154.0000  1
14113502  0  0  0  1   51.3000  2
14113601  410040000  0  1  1  154.0000  1
14113602  410050000  0  1  1   51.3000  2
14113701  10418  .75  0.  0.  1
14113702  10418  .25  0.  0.  2
14113801  0  0.  0.  0.  2
14113901  0  0.  0.  0.  2
*
*************************************************
* SG-BOTTOM  HOT SIDE                           *
*************************************************
*
*
11211000   1    5    3    1    1.7192
11211100   0    2
11211101   0.03  3    0.0298  4
11211201   5    4
11211301   0.   4
11211400  -1
11211501  121010000        0        1       1     .25   1
11211601          0        0        0       1     .25   1
11211701   0    0.    0.    0.    1
11211801   0    0.    0.    0.    1
*
*************************************************
* SG-BOTTOM    COLD SIDE                        *
*************************************************
*
11251000   1    5    3    1    1.7192
11251100   0    2
11251101   0.03  3    .0298  4
11251201   5    4
11251301   0.   4
11251400  -1
11251501  125010000        0        1       1     0.25        1
11251601          0        0        0       1     0.25        1
11251701   0    0.    0.    0.    1
11251801   0    0.    0.    0.    1
*
*************************************************
* PRIMARY  HOT SIDE - COLD SIDE SEPARATION PLATE *
*************************************************
*
11231000   1    4    1    1    0.
11231100   0    1
11231101   3   0.038
11231201   5    3
11231301   0.   3
11231400  -1
11231501  121010000    0000        1       1     1.16      1
```

```
11231601   125010000    0000       1      1     1.16       1
11231701   0     0.     0.     0.     1
11231801   0     0.     0.     0.     1
11231901   0     0.     0.     0.     1
*
*************************************************
* TUBE  SHEET   -   HOT SIDE                    *
*************************************************
*************************************************
* U TUBES      HOT SIDE                         *
*************************************************
*
11220000    11     3     2     1     0.008435
11220100     0     1
11220101     2     0.009525
11220201     6     2
11220301     0.    2
11220400    -1
11220501    122010000     0000      1      1     4598.9      1
11220502    122020000    10000      1      1     4447.6      3
11220503    122040000     0000      1      1     5621.3      4
11220504    122050000    10000      1      1     4757.0     10
11220505    122110000     0000      1      1     5116.9     11
11220601  -600      0000      1000   1     4598.9      1
11220602  -600     00000      1000   1     4447.6      3
11220603  -600      0000      1000   1     5621.3      4
11220604  -600      0000      1000   1     4757.0     10
11220610  -600      0000      1000   1     5116.9     11
11220701    0      0.0     0.0     0.0     11
11220801    0     .000  0.0     0.0     11
*
*
*************************************************
* U TUBES      COLD SIDE                        *
*************************************************
*
11240000     8     3     2     1     0.008435
11240100     0     1
11240101     2     0.009525
11240201     6     2
11240301     0.    2
11240400    -1
11240501    124010000     0000      1      1     5116.9      1
11240502    124020000    10000      1      1     9514.0      4
11240503    124050000     0000      1      1     6066.       5
11240504    124060000     0000      1      1     5560.5      6
11240505    124070000     0000      1      1     5560.5      7
11240506    124070000    10000      1      1     2373.6      8
*
*
11240601  -600      0000      1000   1     5116.9      1
11240602  -600     0000      1000   1     9514.0      4
11240603  -600      0000      1000   1     6066.       5
11240604  -600     0000      1000   1     5560.5      7
11240605  -600      0000      1000   1     2373.6      8
11240701    0      0.0     0.0     0.0     8
11240801    0     .000    0.0     0.0     8
*
```

```
1623    ***********************************************
1624    * SG-BOTTOM  HOT SIDE                         *
1625    ***********************************************
1626    *
1627    12211000    1    5    3    1    1.7192
1628    12211100    0    2
1629    12211101    0.03  3    0.0298  4
1630    12211201    5    4
1631    12211301    0.   4
1632    12211400   -1
1633    12211501   221010000        0        1      1      .25   1
1634    12211601            0        0        0      1      .25   1
1635    12211701    0     0.     0.     0.     1
1636    12211801    0     0.     0.     0.     1
1637    *
1638    ***********************************************
1639    * SG-BOTTOM     COLD SIDE                      *
1640    ***********************************************
1641
1642    12251000    1    5    3    1    1.7192
1643    12251100    0    2
1644    12251101    0.03  3    .0298  4
1645    12251201    5    4
1646    12251301    0.   4
1647    12251400   -1
1648    12251501   225010000        0        1      1     0.25        1
1649    12251601            0        0        0      1     0.25        1
1650    12251701    0     0.     0.     0.     1
1651    12251801    0     0.     0.     0.     1
1652    *
1653    ***********************************************
1654    * PRIMARY  HOT SIDE - COLD SIDE SEPARATION PLATE *
1655    ***********************************************
1656    *
1657    12231000    1    4    1    1    0.
1658    12231100    0    1
1659    12231101    3   0.038
1660    12231201    5    3
1661    12231301    0.   3
1662    12231400   -1
1663    12231501   221010000     0000        1      1     1.16        1
1664    12231601   225010000     0000        1      1     1.16        1
1665    12231701    0     0.     0.     0.     1
1666    12231801    0     0.     0.     0.     1
1667    12231901    0     0.     0.     0.     1
1668    *
1669    ***********************************************
1670    * U TUBES     HOT SIDE                         *
1671    ***********************************************
1672    *
1673    12220000    11     3     2     1     0.008435
1674    12220100    0     1
1675    12220101    2     0.009525
1676    12220201    6     2
1677    12220301    0.    2
1678    12220400   -1
1679    12220501   222010000      0000       1      1     4598.9      1
1680    12220502   222020000     10000       1      1     4447.6      3
```

```
12220503    222040000      0000      1      1     5621.3      4
12220504    222050000     10000      1      1     4757.0     10
12220505    222110000      0000      1      1     5116.9     11
12220601   -600      0000      1000   1     4598.9      1
12220602   -600     00000      1000   1     4447.6      3
12220603   -600      0000      1000   1     5621.3      4
12220604   -600      0000      1000   1     4757.0     10
12220610   -600      0000      1000   1     5116.9     11
12220701    0      0.0     0.0     0.0     11
12220801    0     .000  0.0     0.0     11
*
*
*************************************************
* U TUBES      COLD SIDE                        *
*************************************************
*
12240000     8     3     2     1     0.008435
12240100     0     1
12240101     2     0.009525
12240201     6     2
12240301     0.    2
12240400    -1
12240501    224010000      0000      1      1     5116.9      1
12240502    224020000     10000      1      1     9514.0      4
12240503    224050000      0000      1      1     6066.      5
12240504    224060000      0000      1      1     5560.5      6
12240505    224070000      0000      1      1     5560.5      7
12240506    224070000     10000      1      1     2373.6      8
*
*
12240601   -600      0000      1000   1     5116.9      1
12240602   -600     0000      1000   1     9514.0      4
12240603   -600      0000      1000   1     6066.      5
12240604   -600    0000      1000   1     5560.5      7
12240605   -600      0000      1000   1     2373.6      8
12240701    0      0.0     0.0     0.0     8
12240801    0     .000    0.0     0.0     8
*
*************************************************
* SG -BOTTOM  HOT SIDE                          *
*************************************************
*
*
13211000    1    5    3    1    1.7192
13211100    0    2
13211101    0.03  3    0.0298  4
13211201    5    4
13211301    0.   4
13211400   -1
13211501   321010000      0      1      1     .25   1
13211601          0      0      0      1     .25   1
13211701    0    0.    0.    0.    1
13211801    0    0.    0.    0.    1
*
*
*************************************************
* SG-BOTTOM     COLD SIDE                       *
*************************************************
```

```
*
*
13251000    1    5    3    1    1.7192
13251100    0    2
13251101    0.03  3    .0298  4
13251201    5    4
13251301    0.   4
13251400   -1
13251501   325010000        0        1        1     0.25        1
13251601         0        0        0        1     0.25        1
13251701    0     0.     0.     0.     1
13251801    0     0.     0.     0.     1
*
*****************************************************
* PRIMARY  HOT SIDE - COLD SIDE SEPARATION PLATE *
*****************************************************
13231000    1    4    1    1    0.
13231100    0    1
13231101    3   0.038
13231201    6    3
13231301    0.   3
13231400   -1
13231501   321010000     0000        1        1     1.16        1
13231601   325010000     0000        1        1     1.16        1
13231701    0     0.     0.     0.     1
13231801    0     0.     0.     0.     1
13231901    0     0.     0.     0.     1
*****************************************************
* U TUBES      HOT SIDE                             *
*****************************************************
*
13220000    11    3    2    1    0.008435
13220100     0    1
13220101     2    0.009525
13220201     6    2
13220301     0.   2
13220400    -1
13220501    322010000     0000        1        1     4598.9      1
13220502    322020000    10000        1        1     4447.6      3
13220503    322040000     0000        1        1     5621.3      4
13220504    322050000    10000        1        1     4757.0     10
13220505    322110000     0000        1        1     5116.9     11
13220601   -600    0000      1000   1     4598.9      1
13220602   -600    0000      1000   1     4447.6      3
13220603   -600      0000      1000   1     5621.3      4
13220604   -600     0000      1000   1     4757.0     10
13220610   -600     0000      1000   1     5116.9     11
13220701    0     0.0     0.0     0.0     11
13220801    0     .000  0.0     0.0     11
*
*****************************************************
* U TUBES      COLD SIDE                            *
*****************************************************
*
13240000    8    3    2    1    0.008435
13240100    0    1
13240101    2    0.009525
13240201    6    2
```

```
13240301     0.    2
13240400    -1
13240501    324010000      0000      1      1     5116.9      1
13240502    324020000     10000      1      1     9514.0      4
13240503    324050000      0000      1      1     6066.      5
13240504    324060000      0000      1      1     5560.5      6
13240505    324070000      0000      1      1     5560.5      7
13240506    324070000     10000      1      1     2373.6      8
*
*
13240601   -600      0000      1000   1     5116.9      1
13240602   -600   0000      1000   1     9514.0      4
13240603   -600    0000      1000   1     6066.      5
13240604   -600    0000      1000   1     5560.5      7
13240605   -600    0000      1000   1     2373.6      8
13240701    0      0.0      0.0     0.0     8
13240801    0    .000    0.0     0.0     8
*
*
20260000 TEMP
20260001 0.   570.35
20260002 1000.   570.35
*
*****************************************************************
*                                                               *
*                    THERMAL PROPERTIES                         *
*                                                               *
*                         N 1   UO2                             *
*                           2   ZR                              *
*                           3   S-STEEL                         *
*                           4   GAP                             *
*                           5   C-STEEL                         *
*                           6   INCONEL-600                     *
*                                                               *
*****************************************************************
*
*********************************************
*                   UO2                     *
*********************************************
*
20100100   TBL/FCTN  1  1  * UO2
20100101   293.  8.37
20100102   366.  6.577
20100103   533.  5.78
20100104   616.  4.623
20100105   700.  4.633
20100106   783.  4.221
20100107   866.  3.88
20100108   950.  3.596
20100109  1033.  3.357
20100110  1200.  2.984
20100111  1977.  2.29
20100112  9000.  2.99
*
20100151   273.     2.31E6
20100152   323.     2.57E6
20100153   373.     2.75E6
20100154   473.     2.92E6
```

```
20100155   673.      3.13E6
20100156  1373.      3.44E6
20100157  9000.      6.80E6
*
*
*************************************************
*                      ZR                       *
*************************************************
*
*
20100200  TBL/FCTN  1  1  * ZR
20100201   273.15     7.
20100202   473.15     1.200438E1
20100203   673.15     1.400510E1
20100204   873.15     1.700793E1
20100205  1073.15     1.900866E1
20100206  1273.15     2.200975E1
20100207  1473.15     2.501085E1
20100208  1673.15     3.001267E1
20100209  1873.15     3.601486E1
20100210  2073.15     4.401777E1
20100211  2273.15     5.502352E1
20100212  2473.15     6.802826E1
*
20100251   255.3722        1.904141E6
20100252  1077.594         2.312171E6
20100253  1185.928         5.712422E6
20100254  1248.428         2.311769E6
20100255  2199.817         2.312171E6
*
*
*************************************************
*                      ZR                       *
*************************************************
*
*
20100300  TBL/FCTN  1  1  *S-STEEL
20100301   273.      13.
20100302  1190.      25.
20100303  9000.   25.
*
20100351   225.      3.5E6
20100352   580.      4.34E6
20100353  1300.      5.29E6
*
*
*************************************************
*                      GAP                      *
*************************************************
*
*
20100400  TBL/FCTN  1  1  *GAP
20100401     0.56         *REF.:STABILIZATION VESSEL.
20100451   5.4         *RHO-CD   EGG-LOFT-5480
*
*
*************************************************
*                    C-STEEL                    *
```

```
*************************************************
*
*
20100500 TBL/FCTN 1 1 *C-STEEL
20100501 46.05
20100551   3.8776E6
*
*
*************************************************
*                  INCONNEL-600                 *
*************************************************
*
*
20100600 TBL/FCTN 1 1 *INCONNEL-600
20100601 294.15   14.86
20100602 366.15   15.76
20100603 477.15   17.45
20100604 589.15   19.18
20100605 700.15   20.91
*
20100651 294.15       3.880E6
20100652 366.15       3.880E6
20100653 477.15       4.227E6
20100654 589.15       4.227E6
20100655 700.15       4.580E6
*
*
*
*
*********************************************************************
*                                                                   *
*                                                                   *
*                                                                   *
*                        CONTROL  SYSTEM                            *
*                                                                   *
*                                                                   *
*                                                                   *
*********************************************************************
*
*******************************
* ENERGY BALANCE CALCULATIONS *
*******************************
*
20500100 P/RHO180 DIV  1.  0.  1
20500101 RHOF 180010000   P 180010000
*
20500200 ENTHA180 SUM  1.  0.  1
20500201 0.          1.   UF   180010000
20500202             1.   CNTRLVAR   001
*
20500300 CVENERGY MULT 1.  0.  1
20500301 MFLOWJ 181000000  CNTRLVAR 002
*
20500400 P/RHO231 DIV  1.  0.  1
20500401 RHOF 231010000  P 231010000
*
20500500 ENTHA231 SUM  1.  0.  1
20500501 0.          1.   UF   231010000
```

```
20500502            1.   CNTRLVAR  004
*
20500600 LETDENER MULT 1.  0.  1
20500601 MFLOWJ 283000000  CNTRLVAR 005
*
20500700 PRZRHEAT SUM  1.  0.  1
20500701 0.    1.  Q    410010000
20500702       1.  Q    410020000
20500703       1.  Q    410030000
20500704       1.  Q    410040000
20500705       1.  Q    410050000
20500706       1.  Q    410060000
20500707       1.  Q    410070000
20500708       1.  Q    410080000
20500709       1.  Q    410090000
20500710       1.  Q    420010000
*
20592000 SURGHEAT SUM  1.  0.  1
20592001 0.    1.  Q    400010000
20592002       1.  Q    400020000
20592003       1.  Q    400030000
20592004       1.  Q    400040000
*
20500800 PRZVAPH  SUM  1.  0.  1
20500801 0.    1.  QWG  410010000
20500802       1.  QWG  410020000
20500803       1.  QWG  410030000
20500804       1.  QWG  410040000
20500805       1.  QWG  410050000
20500806       1.  QWG  410060000
20500807       1.  QWG  410070000
20500808       1.  QWG  410080000
20500809       1.  QWG  410090000
20500810       1.  QWG  420010000
*
20500900 BALANCE  SUM  1.  0.  1
20500901 13.38E6  1.   CNTRLVAR 003   * + CV
20500902         -1.   CNTRLVAR 006   * - LD
20500903         -1.   CNTRLVAR 610   * - SGR
20500904         -1.   CNTRLVAR 710   *     G
20500905         -1.   CNTRLVAR 810   *     B
20500906          1.   CNTRLVAR 920
20500907          1.   CNTRLVAR 007
*
*
* CONVERSION OF PR-PRESSURE TO CNTRLVAR
*
20501000 CALC-P MULT  1.  155.E5  1
20501001 P  420010000
*
20501100 MEAS-P FUNCTION  1.  155.1E5  1
20501101 TIME 0     011
*
20201100 REAC-T
20201101 0.       155.1E5
20201102 30.      155.1E5
20201103 130.     146.4E5
20201104 135.     146.1E5
```

```
20201105 140.     145.85E5
20201106 145.     145.6E5
20201107 150.     145.5E5
20201108 155.     145.4E5
20201109 160.     145.4E5
*
20501200 MEAS-L FUNCTION 1.  26.3  1
20501201 TIME 0   012
*
20201200 REAC-T
20201201 0.      26.3
20201202 30.     26.3
20201203 130.    29.8
20201204 135.    29.92
20201205 140.    30.
20201206 145.    30.1
20201207 150.    30.18
20201208 155.    30.2
20201209 160.    30.2
*
*.
* CONVERSION OF TEMPERATURES TO CNTRLVAR
*
20501300 TEMPF420 MULT  1.  570.  1
20501301 TEMPF  420010000
*
20501400 TEMPG420 MULT  1.  570.  1
20501401 TEMPG  420010000
*
20501500 SAT420   MULT  1.  617.  1
20501501 SATTEMP 420010000
*
20501600 SPRYTEMP MULT  1.  570.  1
20501601 TEMPF  450010000
*
*
* PRESSURIZER ENERGY BALANCE
*
20502000 P/RHO450 DIV 1.  0.  1
20502001 RHOF 450010000   P 450010000
*
20502100 ENTHA450 SUM 1.  0.  1
20502101 0.    1.  UF  450010000
20502102       1.  CNTRLVAR  020
*
20502200 SPRENER MULT 1.  0.  1
20502201 MFLOWJ 450010000   CNTRLVAR 021
*
20502300 P/RHO400 DIV 1.  0.  1
20502301 RHOF 400010000   P 400010000
*
20502400 ENTHA410 SUM 1.  0.  1
20502401 0.    1.  UF  400010000
20502402       1.  CNTRLVAR  023
*
20502500 SURGENER MULT -1. 0.  1
20502501 MFLOWJ 400010000   CNTRLVAR 024
*
```

```
20502600 SPRBALAN SUM 1.  0.  1
20502601 0.    1.  CNTRLVAR  007
20502602       1.  CNTRLVAR  022
20502603      -1.  CNTRLVAR  025
*
20502700 HEATERW  SUM 1.  0.  1
20502701 0. 10.75 HTRNR     411300101
20502702     3.58 HTRNR     411300201
*
20502800 VAPGEN   SUM 1.  0.  1
20502801 0. 0.60184 VAPGEN    410010000
20502802    1.2038  VAPGEN    410020000
20502803    2.4745  VAPGEN    410030000
20502804    6.17624 VAPGEN    410040000
20502805   10.605   VAPGEN    410050000
20502806   10.605   VAPGEN    410060000
20502807   10.605   VAPGEN    410070000
20502808    2.4745  VAPGEN    410080000
20502809    0.8105  VAPGEN    410090000
20502810    0.6687  VAPGEN    420010000
*
*
* PRIMARY POWER  -  TURBINE POWER
*
*
20503100 POW  SUM  1.  0.  1
20503101 0.  1.  TIME 0  -1.  TIME  0
*
20503200 TURBPOW SUM 1.  0.  1
20503201 0.  1.  TIME 0  -1.  TIME  0
*
*
*************************************************
*  OVERTEMPERATURE  -  OVERPOWER  -  DELTA  T   *
*************************************************
*
*
****************************
*      L O O P    " R "     *
****************************
*
20510000  TAVG(R)   SUM    0.5     585.15      1
20510001    0.   1.                TEMPF   151010000
20510002         1.                TEMPF   111010000
*
20510100  LAG1          LAG    1.      585.15     1
20510101     2.                      CNTRLVAR  100
*
20510200  S1            SUM    1.        0.       1
20510201  -585.15       1.            CNTRLVAR  101
*
20510300  LL1     LEAD-LAG   0.03974   0.        1
20510301    27.        10.            CNTRLVAR  102
*
20510400  S2            SUM    0.01254   0.       1
20510401  -155.1E5      1.            P  420010000
*
20510500  ???           SUM   36.7      0.       1    * OVERTEMPERATURE
```

```
20510501      1.091      1.            CNTRLVAR  104     *  DELTA-T
20510502                -1.            CNTRLVAR  103     *  SET POINT
*
20510600  DELTA-T     SUM      1.        36.7       1     * ACTUAL
20510601     0.       -1.          TEMPF  151010000     * DELTA-T
20510602               1.          TEMPF  111010000     *
*
20510700  LAG2        LAG      1.        36.75      1
20510701     2.                       CNTRLVAR  106
*
20510800  LL2    LEAD-LAG      1.        36.7       1
20510801    43.       10.            CNTRLVAR  107
*
20510900  LL3    LEAD-LAG      1.       585.15      1
20510901     1.       10.            CNTRLVAR  101
*
20511000  LAG3        LAG     .1.       585.15      1
20511001    10.                       CNTRLVAR  101
*
20511100  S4     SUM   0.36   0.         1    2    0.
20511101     0.        1.            CNTRLVAR  109
20511102               -1.            CNTRLVAR  110
*
20511200  S5     SUM   0.002268  0.     1    2    0.
20511201  -585.15      1.            CNTRLVAR  101
*
20511300  S6          SUM    36.7       36.7       1     *  OVERPOWER
20511301     1.089    -1.            CNTRLVAR  111     *  DELTA-T
20511302              -1.             CNTRLVAR 112     *  SET POINT
*
****************************
*     L O O P    " G "     *
****************************
*
20520000  TAVG(G)  SUM     0.5     585.15      1
20520001     0.        1.          TEMPF  251010000
20520002               1.          TEMPF  211010000
*
20520100  LAG1        LAG      1.       585.15      1
20520101     2.                       CNTRLVAR  200
*
20520200  S1          SUM      1.        0.         1
20520201  -585.15      1.             CNTRLVAR 201
*
20520300  LL1    LEAD-LAG     0.03974    0.         1
20520301    27.       10.             CNTRLVAR 202
*
20520400  S2          SUM    0.01254     0.         1
20520401  -155.1E5     1.             P  420010000
*
20520500  ???         SUM    36.7        0.         1     * OVERTEMPERATURE
20520501     1.091     1.             CNTRLVAR 104     *  DELTA-T
20520502              -1.             CNTRLVAR 203     *  SET POINT
*
20520600  DELTA-T     SUM    1.         36.7        1     * ACTUAL
20520601     0.       -1.          TEMPF  251010000     * DELTA-T
20520602               1.          TEMPF  211010000     *
```

```
20520700  LAG2        LAG     1.        36.75      1
20520701    2.                        CNTRLVAR  206
*
20520800  LL2    LEAD-LAG     1.        36.7       1
20520801   43.        10.              CNTRLVAR 207
*
20520900  LL3    LEAD-LAG     1.        585.15     1
20520901    1.        10.              CNTRLVAR 201
*
20521000  LAG3        LAG     1.        585.15     1
20521001   10.                        CNTRLVAR  201
*
20521100  S4          SUM     0.36       0.     1    2    0.
20521101    0.         1.              CNTRLVAR 209
20521102              -1.              CNTRLVAR 210
*
20521200  S5          SUM     0.002268   0.     1    2    0.
20521201  -585.15      1.              CNTRLVAR 201
*
20521300  S6          SUM    36.7       36.7    1          *  OVERPOWER
20521301     1.089    -1.              CNTRLVAR 211         *  DELTA-T
20521302              -1.              CNTRLVAR 212         *  SET POINT
*
*****************************
*      L O O P    " B "     *
*****************************
*
20530000  TAVG(B)  SUM    0.5       585.15     1
20530001    0.                 1.   TEMPF  351010000
20530002                       1.   TEMPF  311010000
*
20530100  LAG1        LAG     1.        585.15     1
20530101    2.                        CNTRLVAR  300
*
20530200  S1          SUM     1.         0.        1
20530201  -585.15              1.     CNTRLVAR  301
*
20530300  LL1    LEAD-LAG     0.03974    0.        1
20530301   27.               10.      CNTRLVAR  302
*
20530400  S2          SUM     0.01254    0.        1
20530401  -155.1E5            1.       P  420010000
*
20530500  ???         SUM    36.7        0.        1    *  OVERTEMPERATURE
20530501     1.091            1.     CNTRLVAR  104    *  DELTA-T
20530502                      -1.     CNTRLVAR  303    *  SET POINT
*
20530600  DELTA-T     SUM     1.        36.7       1    *  ACTUAL
20530601    0.               -1.   TEMPF  351010000    *  DELTA-T
20530602                       1.   TEMPF  311010000    *
*
20530700  LAG2        LAG     1.        36.75      1
20530701    2.                        CNTRLVAR  306
*
20530800  LL2    LEAD-LAG     1.        36.7       1
20530801   43.               10.      CNTRLVAR 307
*
20530900  LL3    LEAD-LAG     1.        585.15     1
```

```
20530901     1.                10.        CNTRLVAR 301
*
20531000  LAG3        LAG    1.     585.15      1
20531001    10.                      CNTRLVAR  301
*
20531100  S4          SUM    0.36       0.        1     2     0.
20531101     0.               1.        CNTRLVAR 309
20531102                      -1.       CNTRLVAR 310
*
20531200  S5          SUM    0.002268   0.        1     2     0.
20531201  -585.15              1.       CNTRLVAR 301
*
20531300  S6          SUM   36.7       36.7       1           *  OVERPOWER
20531301     1.089            -1.       CNTRLVAR 311           *  DELTA-T
20531302                      -1.       CNTRLVAR 312           *  SET POINT

*
*
*************************************************
* CHARGING SYSTEM                               *
*************************************************
*
*
20513400 LEVREG    PROP-INT  -2.8   11.667  0
20513401 1.   0.0027027     CNTRLVAR 412
*
20513500 LIMIT    MULT  1.  11.667   0   3    9.5   31.7
20513501 CNTRLVAR 134
*
20513600 DELTAF    SUM  1.    0.       0
20513601 0.  -1.        CNTRLVAR 135
20513602      0.833333  CNTRLVAR 181
*
20513700 D(AREA)   PROP-INT  .007   0.    0
20513701 1.        .27027027   CNTRLVAR 136
*
*
20513900 VALVAREA  SUM  1.   .1090  0    3    1.E-50    1.
20513901 0.  -0.01  CNTRLVAR 137    1.  CNTRLVAR 139
*
20514000 AREA**2   MULT       1.   .01188  0   3   1.E-70   1.
20514001 CNTRLVAR   139      CNTRLVAR  139
*
20514100 K(VALV)   DIV   242.196   20387.  0
20514101 CNTRLVAR  140
*
20514200 K(T+DT)   SUM   1. 20796.   0
20514201 408.644   1.    CNTRLVAR  141
*
20514300 DELTA-K   SUM  1.   0.   0
20514301 0.   1.   CNTRLVAR 142
20514302      -1.  CNTRLVAR 144
*
20514400 K(T)      MULT  1.  20796.  0
20514401 CNTRLVAR  142
*
20514500 DELTA-P   SUM   1.  0.   0
20514501 0.   1.   P  152010000   * CHANGE
```

```
20514502     -1.   CNTRLVAR 146
*
20514600 P(T)     MULT  1.     1.591E7  0
20514601 P  152010000
*
20515300 KOQ02   MULT  1.178E5  981423.   0
20515301 CNTRLVAR 183
*
20515400 DUM       SUM  1.  1.05E6    0
20515401 0.        1.  CNTRLVAR  153
20515402          -1.  CNTRLVAR  186
*
20515500 A(T)      DIV  1.  9.53E-7    0
20515601 CNTRLVAR  164
*
20516600 DUM       MULT  5.84E4  242.117   0
20515601 CNTRLVAR  155   CNTRLVAR  155
20515602 CNTRLVAR  186   CNTRLVAR  186
*
20515700 DUM       MULT  1.  -63192.   0
20515701 CNTRLVAR  153   CNTRLVAR  155   CNTRLVAR  186
*
20515800 A         SUM   1.  20570.4   0
20515801 1.E-50    1.  CNTRLVAR    142
20515802          -1.  CNTRLVAR    156
*
20515900 DUM       MULT  1.   290474.    0
20515901 CNTRLVAR 181     CNTRLVAR 142
*
20516000 DUM       MULT  1.178E5   0.   0
20516001 CNTRLVAR  155   CNTRLVAR  155
20516002 CNTRLVAR  145   CNTRLVAR  186
*
20517000 B         SUM   1.      63206.   0
20517001 0.   1.   CNTRLVAR   160
20517002      1.   CNTRLVAR   181
20517003     -1.   CNTRLVAR   157
*
20517100 DUM       MULT  5.84E4  0.  0
20517101 CNTRLVAR  155   CNTRLVAR  155
20517102 CNTRLVAR  145   CNTRLVAR  145
*
20517200 DUM       MULT  1.178E5  -.26   0
20517201 CNTRLVAR  155   CNTRLVAR  183   CNTRLVAR  145
*
20517300 DUM       MULT  1.    456.1    0
20517301 CNTRLVAR  143   CNTRLVAR  181   CNTRLVAR  181
*
20517400 C         SUM   1.    455.8    0
20517401 0.   1.   CNTRLVAR   173
20517402      1.   CNTRLVAR   172
20517403     -1.   CNTRLVAR   171
*
20517500 B**2      MULT  1.    3.995E9   0
20517501 CNTRLVAR  170   CNTRLVAR  170
*
20517600  AC4      MULT  4.   3.75E7    0
20517601 CNTRLVAR  158   CNTRLVAR  174
```

```
*
20517700 B2-4AC    SUM    1. 3.96E9   0   1   0.
20517701 0.    1.  CNTRLVAR    175
20517702      -1.  CNTRLVAR    176
*
20517800 SQRT      STDFNCTN  1.  62908.6   0
20517801 SQRT      CNTRLVAR        177
*
20517900 DUM       SUM   0.5     -148.7   0
20517901 0.    1.  CNTRLVAR    178
20517902      -1.  CNTRLVAR    170
*
20518000 DELTA-Q   DIV   1.      0.  0
20518001 CNTRLVAR  158   CNTRLVAR  179
*
20518100 Q(T+DT)   SUM   1.     14.0  0
20518101 0.    1.  CNTRLVAR    181
20518102       1.  CNTRLVAR    180
*
20518200 DUM  STDFNCTN   4.138E-3 0.597   0
20518201 SQRT      CNTRLVAR    142
*
20518300 QO(T+DT)  MULT  1.      8.33    0
20518301 CNTRLVAR  181   CNTRLVAR  182
*
20518400 QTOT      SUM   1.     22.33    0
20518401 0.    1.  CNTRLVAR    181
20518402       1.  CNTRLVAR    183
*
20518500 P(PUMP)   FUNCTION  1.E5  200.48E5   0
20518501 CNTRLVAR  184      185
*
20218500 REAC-T
20218501 0.        206.
20218502 5.        205.6
20218503 10.       205.
20218504 14.       204.
20218505 17.       203.
20218506 20.       202.
20218507 23.       200.
20218508 26.       197.6
20218509 28.75     195.
20218510 30.       193.
20218511 32.22     190.
20218512 35.2      185.
20218513 39.05     180.
20218514 42.83     175.
20218515 44.82     170.
20218516 50.       160.
*
20518600 DFDQ      FUNCTION 1.E5  -67456.   0
20518601 CNTRLVAR   184     186
*
20218600 REAC-T
20218601 0.       -0.00001
20218602 5.       -0.05
20218603 10.      -0.1
20218604 14.      -0.23
```

```
20218605 17.      -0.3333
20218606 20.      -0.5
20218607 23.      -0.73
20218608 26.      -0.87
20218609 28.75    -1.1
20218610 30.      -1.2
20218611 32.22    -1.56
20218612 42.83    -1.56
20218613 50.      -2.0
*
20528100 LET1 SUM    2. 0. 1
20528102  0.   1.  P 231010000
20528103      -1.  P 282010000
*
20528200 LET2  MULT 1. 0. 1
20528201 CNTRLVAR  281  RHOF 231010000
*
20528300 LET3  STDFNCTN  4.757E-5  6.177   0
20528301  SQRT CNTRLVAR 282
*
20528400 LETDOWN  MULT  3.6217  22.37   0
20528401 CNTRLVAR 283
*
*********************************************
* PRESSURIZER LEVEL                         *
*********************************************
*
*
20540000  COLLEVEL  SUM 8.957363     0.          1
20540001     -7.26451  1.51700  VOIDF  400010000
20540002    1.517              VOIDF  400020000
20540003    1.517              VOIDF  400030000
20540004    1.517              VOIDF  400040000
20540009    0.28217              VOIDF  410010000
20540010    0.56434              VOIDF  410020000
20540011    0.7                  VOIDF  410030000
20540012    1.464                  VOIDF  410040000
20540013    3.000                VOIDF  410050000
20540014    3.000                VOIDF  410060000
20540015    3.000                VOIDF  410070000
20540016    0.7                VOIDF  410080000
20540017    0.38                   VOIDF  410090000
20540018    0.2665               VOIDF  420010000
*
20540400  PRZMASS  SUM  1.       0.     1
20540401    0.          0.60184  RHO    410010000
20540402                1.2038   RHO    410020000
20540403                2.4745   RHO    410030000
20540404                5.17524  RHO    410040000
20540405               10.605    RHO    410050000
20540406               10.605    RHO    410060000
20540407               10.605    RHO    410070000
20540408                2.4745   RHO    410080000
20540409                0.8105   RHO    410090000
20540410                0.5687   RHO    420010000
*
20540200  DPLEVEL  SUM  1.8480E-3  25. 1  3  0.  100.
20540201  -1.1270E4   3.4335   RHO    410030000  * CHECK
```

```
20540202   14.362                RHO    410040000
20540203   29.430              RHO    410050000
20540204   29.430              RHO    410060000
20540205   29.430              RHO    410070000
20540206   3.4335              RHO    410080000
*
*************************************
* PR - HEATER CONTROL               *
*************************************
*
*
20541000 T-AUCT-H STDFNCTN 1.  570.54   0
20541001 MAX              CNTRLVAR   100
20541002 CNTRLVAR  200    CNTRLVAR   300
*
20541100 L-REF    FUNCTION 1.  25.419   0
20541101 CNTRLVAR  410              411
*
20241100 REAC-T
20241101 570.36    25.0
20241102 585.05    57.5
*
20541200 DELT-LEV  SUM     1.   0.    0
20541201 0.        -1.    CNTRLVAR  411
20541202            1.    CNTRLVAR  402
*
20541300 DELTA-P   SUM     1.   0.    1
20541301 -155.1E6   1.    P   410080000
*
20541400 DP-CORR  PROP-INT 1.   0.    1
20541401 1.        .005    CNTRLVAR  413
*
20541500 POW-HE11 TRIPUNIT 308.E3 0.  1
20541501 599
*
20541600 POW-BKR  TRIPUNIT 986.E3 0.  1
20541601 599
*
20541700 POWVAR FUNCTION 3.08E5 1.5E5 1
20541701 CNTRLVAR   414             417
*
20241700 REAC-T
20241701 -1.E5  1.
20241702  1.E5  0.
*
20541800 TOTPOW FUNCTION  1.  89.257E3   1
20541801 TIME  0         418
*
20241800 REAC-T
20241801  0.    89.257E3
20241802  30.   89.257E3
20241803  34.  185.000E3
20241804 160.  185.000E3
*
*************************************
* SPRAY VALVE R.  AREA              *
*************************************
*
```

```
20543500 SPRAYVAL  FUNCTION  1.   0.  0  3  0.  1.
20543501 TIME  0    435
*
20243500 REAC-T
20243501 0.          0.
20243502 30.         0.
20243503 40.         1.
20243504 130.        1.
20243505 155.        0.
20243506 160.        0.
*************************************
*  SPRAY VALVE B    AREA             *
*************************************
*
20544500 SPRAYVAL  FUNCTION  1.   0.  0  3  0.  1.
20544501 TIME 0    445
*
20244500 REAC-T
20244501 0.          0.
20244502 30.         0.
20244503 40.         1.
20244504 130.        1.
20244505 155.        0.
20244506 160.        0.
*********************************************
* SG  R  POWER                              *
*********************************************
*
*
20560600 POWCOLDL  SUM  -1.   20.   1
20560601  0.  1.  0  124050000
*
*
20560700 POWPREH.  SUM  -1.       135.        1
20560701 0.    1.        0   124060000
20560702       1.        0   124070000
*
*
20560800 POWHOTLG  SUM  -1.       327.        1
20560801  0.   1.  0  122010000
20560802       1.  0  122020000
20560803       1.  0  122030000
20560804       1.  0  122040000
*
*
20560900 POWUBEND  SUM  -1.      518.       1
20560901  0.     1.  0  122050000
20560902         1.  0  122060000
20560903         1.  0  122070000
20560904         1.  0  122080000
20560905         1.  0  122090000
20560906         1.  0  122100000
20560907         1.  0  122110000
20560908         1.  0  124010000
20560909         1.  0  124020000
20560910         1.  0  124030000
20560911         1.  0  124040000
*
```

```
*
20561000 SGPOWER   SUM  1.            1000.        1
20561001 0.     1.   CNTRLVAR   606
20561002        1.   CNTRLVAR   607
20561003        1.   CNTRLVAR   608
20561004       1.   CNTRLVAR   609
20561005     -1.  Q  121010000
20561006     -1.  Q  125010000
*
*
*********************************************
* SG  0  POWER                              *
*********************************************
*
20570600 POWCOLDL  SUM  -1.   20.   1
20570601  0.  1.  Q  224060000
*
*
20570700 POWPREH   SUM  -1.        135.          1
20570701 0.     1.         Q   224060000
20570702        1.         Q   224070000
*
*
20570800 POWHOTLG  SUM  -1.        327.          1
20570801  0.    1.  Q  222010000
20570802        1.  Q  222020000
20570803        1.  Q  222030000
20570804        1.  Q  222040000
*
*
20570900 POWUBEND  SUM  -1.       518.         1
20570901  0.      1.  Q  222050000
20570902          1.  Q  222060000
20570903          1.  Q  222070000
20570904          1.  Q  222080000
20570905          1.  Q  222090000
20570906          1.  Q  222100000
20570907          1.  Q  222110000
20570908          1.  Q  224010000
20570909          1.  Q  224020000
20570910          1.  Q  224030000
20570911          1.  Q  224040000
*
*
20571000 SGPOWER   SUM  1.                 0.
20571001 0.     1.   CNTRLVAR   706
20571002        1.   CNTRLVAR   707
20571003        1.   CNTRLVAR   708
20571004       1.   CNTRLVAR   709
20571005    -1.  Q  221010000
20571006    -1.  Q  225010000
*
*
*
*********************************************
* SG  B  POWER                              *
*********************************************
*
```

```
*
20580600 POWCOLDL  SUM  -1.   20.   1
20580601  0.  1.  Q  324050000
*
*
20580700 POWPREH   SUM  -1.       135.        1
20580701 0.    1.        Q   324060000
20580702       1.        Q   324070000
*
*
20580800 POWHOTLG  SUM  -1.       327.        1
20580801  0.   1.  Q  322010000
20580802       1.  Q  322020000
20580803       1.  Q  322030000
20580804       1.  Q  322040000
*
*
20580900 POWUBEND  SUM  -1.      518.       1
20580901  0.     1.  Q  322050000
20580902        1.  Q  322060000
20580903        1.  Q  322070000
20580904        1.  Q  322080000
20580905        1.  Q  322090000
20580906        1.  Q  322100000
20580907        1.  Q  322110000
20580908        1.  Q  324010000
20580909        1.  Q  324020000
20580910        1.  Q  324030000
20580911        1.  Q  324040000
*
*
20581000 SGPOWER   SUM  1.           1000.       1
20581001 0.    1.   CNTRLVAR   806
20581002       1.   CNTRLVAR   807
20581003       1.   CNTRLVAR   808
20581004       1.   CNTRLVAR   809
20581005   -1.  Q 321010000
20581006   -1.  Q 325010000
*
20590000    MG1    MULT  .60184        0.        1
20590001 VOIDG 410010000 RHOG 410010000
*
20590100    MG2    MULT 1.20384        0.        1
20590101 VOIDG 410020000 RHOG 410020000
*
20590200    MG3    MULT 2.47454        0.        1
20590201 VOIDG 410030000 RHOG 410030000
*
20590300    MG4    MULT 5.17524        0.        1
20590301 VOIDG 410040000 RHOG 410040000
*
20590400    MG5    MULT 10.6054        0.        1
20590401 VOIDG 410050000 RHOG 410050000
*
20590500    MG6    MULT 10.6054        0.        1
20590501 VOIDG 410060000 RHOG 410060000
*
20590600    MG7    MULT 10.6054        0.        1
```

```
20590601 VOIDG 410070000 RHOG 410070000
*
20590700    MG8    MULT 2.4745          0.        1
20590701 VOIDG 410080000 RHOG 410080000
*
20590800    MG9    MULT 0.8105          0.        1
20590801 VOIDG 410090000 RHOG 410090000
*
20590900    MG10   MULT 0.5687          0.        1
20590901 VOIDG 420010000 RHOG 420010000
*
20591100 PRZMASW   SUM  1.              0.        1
20591101 0.     1.   CNTRLVAR   900
20591102        1.   CNTRLVAR   901
20591103        1.   CNTRLVAR   902
20591104        1.   CNTRLVAR   903
20591105        1.   CNTRLVAR   904
20591106        1.   CNTRLVAR   905
20591107        1.   CNTRLVAR   906
20591108        1.   CNTRLVAR   907
20591109        1.   CNTRLVAR   908
20591110        1.   CNTRLVAR   909
*
20591200 PRZMASL   SUM  1.              0.        1
20591201 0.    -1.   CNTRLVAR   911
20591202        1.   CNTRLVAR   404
*
*
*
*****************************************************************
*                                                               *
*                                                               *
*                          PLOT REQUEST                         *
*                                                               *
*                                                               *
*****************************************************************
*
20300010 DOTGRID
*
* FIG 1.  CALCULATED PRESSURIZER PRESSURE  VERSUS  TIME
*         MEASURED   PRESSURIZER PRESSURE  VERSUS  TIME
*
20301000  CNTRLVAR  010  011
*
*
* FIG 2.  CALCULATED PRESSURIZER LEVELS    VERSUS  TIME
*         MEASURED   PRESSURIZER LEVEL     VERSUS  TIME
*
20302000  CNTRLVAR  400  402  012
*
*
* FIG 3.  SPRAY MASS FLOW RATE             VERSUS  TIME
*
20303000  MFLOWJ   435000000  445000000  450010000
*
*
* FIG 4.  STEAM GENERATOR POWER            VERSUS  TIME
*
```

```
20304000  CNTRLVAR  610  710  810
*
*
* FIG 5.  SURGE LINE MASS FLOW RATE        VERSUS  TIME
*
20305000  MFLOWJ    312000000
*
*
* FIG 6.  PRESSURIZER TEMPERATURES         VERSUS  TIME
*
20306000  CNTRLVAR  013  014  015  016
*
*
* FIG 7.  CPU TIME                         VERSUS  TIME
*
20307000  CPUTIME  0
*
20308000  CNTRLVAR  008
20309000  CNTRLVAR  028
20310000  CNTRLVAR  404
20311000  CNTRLVAR  911
20312000  CNTRLVAR  912
20313000  CNTRLVAR  027
*
*
* TITLES
*
*
20301030  "FIG 1.   PRESSURE EVOLUTION IN PRESSURIZER DOME "
20302030  "FIG 2.   PRESSURIZER WATER LEVEL "
20303030  "FIG 3.   PRESSURIZER SPRAY MASS FLOW RATE "
20304030  "FIG 4.   STEAM GENERATOR POWER "
20305030  "FIG 5.   SURGE LINE MASS FLOW RATE "
20306030  "FIG 6.   PRESSURIZER TEMPERATURE EVOLUTION "
20307030  "FIG 7.   CPU-TIME "
20308030  "FIG 8.   PRESSURIZER VAPOUR HEAT INPUT  "
20309030  "FIG 9.   VAPOUR CONDENSATION RATE (PRES) "
20310030  "FIG  10. PRESSURIZER MASS "
20311030  "FIG  11. PRESSURIZER VAPOUR MASS "
20312030  "FIG  12. PRESSURIZER FLUID MASS "
20313030  "FIG  13. HEATERS EFFECTIVE HEAT TRANSFER "
*
*
* LINE AND CURVE SPECIFICATIONS
*
*
20301050  "CALC."    "PRES."    LINE   1   10
20301051  "MEAS."    "PRES."    LINE   2   17
*
20302050  "COLLAPSED" "LEVEL"    LINE   1   10
20302051  "DELTA-P"   "LEVEL"    LINE   2   17
20302052  "MEASURED"  "LEVEL"    LINE   3   25
*
20303050  "SPRAY"    "LINE-R"   LINE   1   10
20303051  "SPRAY"    "LINE-B"   LINE   2   17
20303052  "TOTAL"    "SPRAY"    LINE   3   25
*
20304050  "SG"       "R"        LINE   1   10
```

```
20304051  "SG"    "G"          LINE   2   17
20304052  "SG"    "B"          LINE   3   25
*
20306050  "TEMPF"   "420-01"   LINE   1   10
20306051  "TEMPG"   "420-01"   LINE   2   17
20306052  "SATTEMP" "420-01"   LINE   3   25
20306053  "SPRAY"   "TEMPF"    LINE   4   32
*
*
* AXE TITLES
*
*
20301032  "PRESSURE"      "(PA)"
20302032  "LEVEL"         "(%)"
20303032  "MFLOW"         "(KG/S)"
20304032  "POWER"         "(W)"
20305032  "MFLOW"         "(KG/S)"
20306032  "TEMP"          "(K)"
20307032  "CPU"           "(SEC)"
*
*
*
*****************************
* END OF DATA               *
*****************************
*
*
```

PROCESSING TYPE IS NEW PROBLEM OPTION IS TRANSNT

INP-CHK, RUN OPTION IS RUN.

NO ACTION ON RESTART-PLOT FILE IS TO BE TAKEN AT END OF PROBLEM.

INPUT UNITS ARE ASSUMED SI OUTPUT UNITS ARE SI

REMAINING CPU TIME VALUES ARE 1.0 AND 2.0 SEC.

TIME STEP CONTROL DATA

END TIME (SEC)	MIN.TIME STEP (SEC)	MAX.TIME STEP (SEC)	OPTION	MINOR EDIT FREQUENCY	MAJOR EDIT FREQUENCY	RESTART FREQUENCY
2.000000E+01	1.000000E-06	2.000000E-01	3	5	100	100
3.000000E+01	1.000000E-06	2.000000E-01	3	5	50	50
1.600000E+02	1.000000E-06	2.000000E-01	3	5	150	150

MINOR EDIT REQUESTS

REQ.NUM.	VARIABLE CODE	PARAMETER
301	P	420010000
302	P	410090000
303	P	410080000
304	P	151010000
305	P	351010000
306	P	231010000
307	P	430010000
308	P	440010000
309	P	450010000
310	MFLOWJ	430010000
311	MFLOWJ	440010000
312	MFLOWJ	435000000
313	MFLOWJ	445000000
314	MFLOWJ	450010000
315	MFLOWJ	283000000
316	MFLOWJ	181000000
317	MFLOWJ	153010000
318	MFLOWJ	253010000
319	MFLOWJ	353010000
320	MFLOWJ	312000000
321	VOIDG	410010000
322	VOIDG	410020000
323	VOIDG	410030000
324	VOIDG	410040000
325	VOIDG	410080000
326	VOIDG	410090000
327	VOIDG	420010000
328	VAPGEN	410070000
329	VAPGEN	410080000
330	VAPGEN	410090000
331	VAPGEN	420010000
332	CNTRLVAR	400
333	CNTRLVAR	402
334	Q	940010000
335	CNTRLVAR	418
336	CNTRLVAR	610

337	CNTRLVAR	710
338	CNTRLVAR	810
339	CNTRLVAR	9
340	CNTRLVAR	7
341	CNTRLVAR	26
342	PMPVEL	140
343	PMPVEL	240
344	PMPVEL	340
345	CNTRLVAR	435
346	CNTRLVAR	445
347	TEMPF	125010000
348	TEMPF	131040000
349	TEMPF	151010000
350	TEMPF	111010000
351	TEMPF	121010000
352	TEMPF	225010000
353	TEMPF	232010000
354	TEMPF	251010000
355	TEMPF	211010000
356	TEMPF	221010000
357	TEMPF	325010000
358	TEMPF	331040000
359	TEMPF	351010000
360	TEMPF	311010000
361	TEMPF	321010000
362	TEMPF	450010000
363	TEMPF	420010000
364	TEMPG	420010000
365	SATTEMP	420010000
366	CNTRLVAR	8
367	CNTRLVAR	28
368	CNTRLVAR	27
369	CNTRLVAR	912
370	CNTRLVAR	911
371	CNTRLVAR	920
399	CPUTIME	0

EDIT OF COMPONENT INPUT DATA
(QUANTITIES PRINTED ARE INPUT VALUES, SET BY DEFAULT, OR SET BY ERROR RECOVERY)

INPUT DATA FOR COMPONENT 11, UPDOWNC BRANCH , HAVING 1 VOLUMES AND 2 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
011010000	1.85196	2.09400	3.87800	0.	90.0000	2.09400

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
011010000	4.000000E-05	.462000	0	13	1.5996E+07	570.6	0.	0.	0.

BORON CONCENTRATION IS 1.000000E-03

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
011010000	013000000	011000000	0.	0.	0.	00000
011020000	011010000	045000000	3.700000E-03	2.30000	2.30000	00000

JUN.NO.	INIT. LIQ. VEL.	INIT. VAP. VEL.

	(M/SEC)	(M/SEC)
011010000	3.631440E-02	3.631440E-02
011020000	18.1760	18.1770

INPUT DATA FOR COMPONENT 13, UPDOWNOZZ BRANCH , HAVING 1 VOLUMES AND 4 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
013010000	2.47595	1.41400	3.50100	0.	-90.0000	-1.41400

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
013010000	4.000000E-05	.500000	0	13	1.5986E+07	570.6	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
013010000	153010000	013000000	0.	.428500	.428500	00000
013020000	253010000	013000000	0.	.428500	.428500	00000
013030000	353010000	013000000	0.	.428500	.428500	00000
013040000	013010000	015000000	0.	.160000	.160000	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
013010000	14.7640	14.7640
013020000	14.7640	14.7640
013030000	14.7640	14.7640
013040000	8.22090	8.22090

INPUT DATA FOR COMPONENT 15, DOWNCTS ANNULUS , HAVING 3 VOLUMES AND 2 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
015010000	2.57000	1.74233	4.47779	0.	-90.0000	-1.74233
015020000	2.57000	1.74233	4.47779	0.	-90.0000	-1.74233
015030000	2.57000	1.74233	4.47779	0.	-90.0000	-1.74233

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
015010000	4.000000E-05	.500000	0	13	1.5990E+07	570.6	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
015020000	4.000000E-05	.500000	0	13	1.6002E+07	570.6	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
015030000	4.000000E-05	.500000	0	13	1.6013E+07	570.6	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
015010000	2.57000	0.	0.	00000	8.22090	8.22090
015020000	2.57000	0.	0.	00000	8.22070	8.22070

INPUT DATA FOR COMPONENT 23, LOWPLEN BRANCH , HAVING 1 VOLUMES AND 2 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
023010000	6.23368	1.45500	9.07000	0.	-90.0000	-1.45500

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
023010000	4.000000E-05	2.81726	0	13	1.6013E+07	570.6	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
023010000	015010000	023000000	0.	1.43000	.500000	00000
023020000	023000000	026000000	0.	6.27300	6.27300	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
023010000	8.22060	8.22060
023020000	4.96220	4.96220

INPUT DATA FOR COMPONENT 25, COREIN BRANCH , HAVING 1 VOLUMES AND 2 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
025010000	3.86000	.853000	3.29258	0.	90.0000	.853000

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
025010000	4.000000E-05	2.21691	0	13	1.5950E+07	570.6	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
025010000	025010000	031000000	0.	2.45000	2.45000	00000
025020000	025010000	035000000	.100000	7.45000	7.45000	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
025010000	4.81300	4.81300
025020000	5.77640	5.77640

INPUT DATA FOR COMPONENT 31, CORE PIPE , HAVING 5 VOLUMES AND 4 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
031010000	3.86000	.853000	3.29258	0.	90.0000	.853000
031020000	3.86000	.853000	3.29258	0.	90.0000	.853000
031030000	3.86000	.853000	3.29258	0.	90.0000	.853000
031040000	3.86000	.853000	3.29258	0.	90.0000	.853000
031050000	3.86000	.853000	3.29258	0.	90.0000	.853000

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
031010000	2.000000E-06	1.200000E-02	0	13	1.5916E+07	570.6	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
031020000	2.000000E-06	1.200000E-02	0	13	1.5893E+07	570.6	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
031030000	2.000000E-06	1.200000E-02	0	13	1.5851E+07	570.6	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
031040000	2.000000E-06	1.200000E-02	0	13	1.5807E+07	570.6	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
031050000	2.000000E-06	1.200000E-02	0	13	1.5783E+07	570.5	0.	0.	0.

BORON CONCENTRATION IS 1.000000E-03

JUN.NO.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
031010000	3.86000	2.47000	2.47000	00000	4.89100	4.89100
031020000	3.86000	2.40000	2.40000	00000	5.04940	5.04940
031030000	3.86000	2.31000	2.31000	00000	5.23460	5.23460
031040000	3.86000	2.23000	2.23000	00000	5.39550	5.39550

INPUT DATA FOR COMPONENT 35, BYPASS SNGLVOL , HAVING 1 VOLUMES AND 0 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
035010000	.808910	4.26500	3.45000	0.	90.0000	4.26500

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
035010000	4.000000E-05	1.01486	0	13	1.5865E+07	570.5	0.	0.	0.

BORON CONCENTRATION IS 1.000000E-03

INPUT DATA FOR COMPONENT 39, COREEX BRANCH , HAVING 1 VOLUMES AND 2 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
039010000	3.86000	.853000	3.29258	0.	90.0000	.853000

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
039010000	4.000000E-05	2.21691	0	13	1.5763E+07	570.5	0.	0.	0.

BORON CONCENTRATION IS 1.000000E-03

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
039010000	031010000	039000000	0.	.720000	.720000	00000
039020000	035010000	039000000	.100000	6.45000	6.45000	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
039010000	5.47730	5.47730
039020000	5.77710	5.77710

INPUT DATA FOR COMPONENT 41, UPPLEN1 BRANCH , HAVING 1 VOLUMES AND 2 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
041010000	8.86500	.670000	5.93955	0.	90.0000	.670000

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
041010000	4.000000E-05	3.35965	0	13	1.5720E+07	570.5	0.	0.	0.

BORON CONCENTRATION IS 1.000000E-03

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
041010000	039010000	041000000	0.	2.03600	2.03600	00000
041020000	041010000	043000000	0.	0.	0.	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
041010000	5.62140	5.62140
041020000	2.44790	2.44790

INPUT DATA FOR COMPONENT 43, UPPLEN2 BRANCH , HAVING 1 VOLUMES AND 3 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
043010000	8.86500	2.09400	18.5633	0.	90.0000	2.09400

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
043010000	4.000000E-05	3.35965	0	13	1.5713E+07	570.5	0.	0.	0.

BORON CONCENTRATION IS 1.000000E-03

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
043010000	043000000	111000000	0.	.380000	.380000	00000
043020000	043000000	211000000	0.	.380000	.380000	00000
043030000	043000000	311000000	0.	.380000	.380000	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
043010000	16.6130	16.6130
043020000	16.6130	16.6130
043030000	16.5960	16.5960

INPUT DATA FOR COMPONENT 45, UPHEAD BRANCH , HAVING 1 VOLUMES AND 1 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
045010000	9.04389	2.06000	18.6300	0.	90.0000	2.06000

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
045010000	4.000000E-05	3.39334	0	13	1.5700E+07	570.5	0.	0.	0.

BORON CONCENTRATION IS 1.000000E-03

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
045010000	043010000	045000000	0.	2.60000	2.60000	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
045010000	-7.466990E-03	-7.466990E-03

INPUT DATA FOR COMPONENT 111, HTLEGR1 PIPE , HAVING 2 VOLUMES AND 1 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
111010000	.436900	2.68130	1.17146	0.	0.	0.
111020000	.436900	2.68130	1.17146	0.	0.	0.

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
111010000	4.000000E-05	.746000	0	13	1.5594E+07	570.5	0.	0.	0.

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   BORON CONCENTRATION IS        1.000000E-03
111020000     4.000000E-05      .746000          0        13    1.5591E+07     570.5        0.           0.           0.
   BORON CONCENTRATION IS        1.000000E-03

 JUN.NO.     JUNCTION AREA    FORWARD LOSS     REVERSE LOSS      JUNCTION     INIT. LIQ. VEL.  INIT. VAP. VEL.
             (M2)             COEFFICIENT      COEFFICIENT         FLAGS      (M/SEC)          (M/SEC)
111010000     .436900          0.               0.                 00000       16.6180          16.6180

                    INPUT DATA FOR COMPONENT 113, HTLEGR2    BRANCH    , HAVING  1 VOLUMES AND  1 JUNCTIONS

 VOL NO.     FLOW AREA        FLOW LENGTH      VOLUME           HORIZ. ANGLE     VERT. ANGLE      ELEV. CHNG.
             (M2)             (M)              (M3)             (DEG)            (DEG)            (M)
113010000     .436900          2.68130          1.17146          0.               19.6700          .897000

 VOL NO.     ROUGHNESS        HYDRAULIC DIAM.  VOLUME    I. C.  I.C.VALUE 1   I.C.VALUE 2   I.C.VALUE 3   I.C.VALUE 4   I.C.VALUE 5
             (M)              (M)              FLAGS     FLAG
113010000     4.000000E-05     .746000          0         13     1.5584E+07    570.5         0.            0.            0.
   BORON CONCENTRATION IS        1.000000E-03

 JUN.NO. FROM VOL.   TO VOL.     JUNCTION AREA    FORWARD LOSS     REVERSE LOSS      JUNCTION
                                 (M2)             COEFFICIENT      COEFFICIENT         FLAGS
113010000 111010000 113000000     .436900          0.               0.                 00000

 JUN.NO.                         INIT. LIQ. VEL.  INIT. VAP. VEL.
                                 (M/SEC)          (M/SEC)
113010000                         16.6180          16.6180

                    INPUT DATA FOR COMPONENT 121, INBOX      BRANCH    , HAVING  1 VOLUMES AND  2 JUNCTIONS

 VOL NO.     FLOW AREA        FLOW LENGTH      VOLUME           HORIZ. ANGLE     VERT. ANGLE      ELEV. CHNG.
             (M2)             (M)              (M3)             (DEG)            (DEG)            (M)
121010000     3.27900          1.90000          6.23010          0.               90.0000          1.90000

 VOL NO.     ROUGHNESS        HYDRAULIC DIAM.  VOLUME    I. C.  I.C.VALUE 1   I.C.VALUE 2   I.C.VALUE 3   I.C.VALUE 4   I.C.VALUE 5
             (M)              (M)              FLAGS     FLAG
121010000     4.000000E-05     2.04327          0         13     1.5633E+07    570.5         0.            0.            0.
   BORON CONCENTRATION IS        1.000000E-03

 JUN.NO. FROM VOL.   TO VOL.     JUNCTION AREA    FORWARD LOSS     REVERSE LOSS      JUNCTION
                                 (M2)             COEFFICIENT      COEFFICIENT         FLAGS
121010000 121010000 122000000     1.08720          .226000          .580000            00000
121020000 113010000 121000000     .436900          .325000          .255000            00000

 JUN.NO.                         INIT. LIQ. VEL.  INIT. VAP. VEL.
                                 (M/SEC)          (M/SEC)
121010000                         6.67720          6.67720
121020000                         16.6190          16.6190

                    INPUT DATA FOR COMPONENT 122, UTUBE      PIPE      , HAVING 11 VOLUMES AND 10 JUNCTIONS

 VOL NO.     FLOW AREA        FLOW LENGTH      VOLUME           HORIZ. ANGLE     VERT. ANGLE      ELEV. CHNG.
             (M2)             (M)              (M3)             (DEG)            (DEG)            (M)
122010000     1.08720          .945500          1.02795          0.               90.0000          .945500
122020000     1.08720          .914400          .994136          0.               90.0000          .914400
122030000     1.08720          .914400          .994136          0.               90.0000          .914400
122040000     1.08720          1.15570          1.25648          0.               90.0000          1.15570
122050000     1.08720          .978000          1.06328          0.               90.0000          .978000
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122060000	1.08720	.978000	1.06328	0.	90.0000	.978000
122070000	1.08720	.978000	1.06328	0.	90.0000	.978000
122080000	1.08720	.978000	1.06328	0.	90.0000	.978000
122090000	1.08720	.978000	1.06328	0.	90.0000	.978000
122100000	1.08720	.978000	1.06328	0.	90.0000	.978000
122110000	1.08720	1.05200	1.14373	0.	39.5402	.669720

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
122010000	3.000000E-09	1.687000E-02	0	13	1.5602E+07	570.5	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
122020000	3.000000E-09	1.687000E-02	0	13	1.5586E+07	570.5	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
122030000	3.000000E-09	1.687000E-02	0	13	1.5570E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
122040000	3.000000E-09	1.687000E-02	0	13	1.5552E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
122050000	3.000000E-09	1.687000E-02	0	13	1.5534E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
122060000	3.000000E-09	1.687000E-02	0	13	1.5517E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
122070000	3.000000E-09	1.687000E-02	0	13	1.5500E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
122080000	3.000000E-09	1.687000E-02	0	13	1.5484E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
122090000	3.000000E-09	1.687000E-02	0	13	1.5467E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
122100000	3.000000E-09	1.687000E-02	0	13	1.5450E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
122110000	3.000000E-09	1.687000E-02	0	13	1.5434E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
122010000	1.08720	0.	0.	00000	6.59050	6.59050
122020000	1.08720	0.	0.	00000	6.51600	6.51600
122030000	1.08720	0.	0.	00000	6.45200	6.45200
122040000	1.08720	0.	0.	00000	6.38160	6.38160
122050000	1.08720	0.	0.	00000	6.32900	6.32900
122060000	1.08720	0.	0.	00000	6.28130	6.28130
122070000	1.08720	0.	0.	00000	6.23980	6.23980
122080000	1.08720	0.	0.	00000	6.20340	6.20340
122090000	1.08720	0.	0.	00000	6.17120	6.17120
122100000	1.08720	0.	0.	00000	6.14280	6.14280

INPUT DATA FOR COMPONENT 123, UJUN SNGLJUN , HAVING 0 VOLUMES AND 1 JUNCTIONS

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	SUBCOOLED DISCHARGE COEF.	TWO-PHASE DISCHARGE COEF.
123000000	122010000	124000000	.000000E+00	.000000E+00	.000000E+00	00000	1.000000E+00	1.000000E+00

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
123000000	6.115400E+00	6.115400E+00

INPUT DATA FOR COMPONENT 124, UTUBE PIPE , HAVING 7 VOLUMES AND 6 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
124010000	1.08720	1.05200	1.14373	0.	-35.5400	-.669720
124020000	1.08720	1.95600	2.12656	0.	-90.0000	-1.95600
124030000	1.08720	1.95600	2.12656	0.	-90.0000	-1.95600
124040000	1.08720	1.95600	2.12656	0.	-90.0000	-1.95600
124050000	1.08720	1.15570	1.25648	0.	-90.0000	-1.15570
124060000	1.08720	1.14315	1.24283	0.	-90.0000	-1.14315
124070000	1.08720	1.63110	1.77333	0.	-90.0000	-1.63110

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
124010000	3.000000E-09	1.687000E-02	0	13	1.5423E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
124020000	3.000000E-09	1.687000E-02	0	13	1.5417E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
124030000	3.000000E-09	1.687000E-02	0	13	1.5411E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
124040000	3.000000E-09	1.687000E-02	0	13	1.5405E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
124050000	3.000000E-09	1.687000E-02	0	13	1.5400E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
124060000	3.000000E-09	1.687000E-02	0	13	1.5397E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
124070000	3.000000E-09	1.687000E-02	0	13	1.5393E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
124010000	1.08720	0.	0.	00000	6.09040	6.09040
124020000	1.08720	0.	0.	00000	6.05250	6.05250
124030000	1.08720	0.	0.	00000	6.02220	6.02220
124040000	1.08720	0.	0.	00000	5.99760	5.99760
124050000	1.08720	0.	0.	00000	5.98420	5.98420
124060000	1.08720	0.	0.	00000	5.96120	5.96120

INPUT DATA FOR COMPONENT 125, OUTBOX BRANCH , HAVING 1 VOLUMES AND 2 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
125010000	3.27900	1.90000	6.23010	0.	-90.0000	-1.90000

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
125010000	4.000000E-05	2.04327	0	13	1.5401E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
125010000	124010000	125000000	1.08790	.580000	.226000	00000
125020000	125010000	131000000	.498400	.255000	.325000	00000

JUN.NO.	INIT. LIQ. VEL.	INIT. VAP. VEL

	(M/SEC)	(M/SEC)
125010000	5.89380	5.89380
125020000	12.8650	12.8650

INPUT DATA FOR COMPONENT 131, SEALR PIPE , HAVING 4 VOLUMES AND 3 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
131010000	.498400	1.94300	.968391	0.	-90.0000	-1.94300
131020000	.487000	1.94300	.946241	0.	-90.0000	-1.94300
131030000	.487000	3.00900	1.46538	0.	0.	0.
131040000	.487000	1.60000	.779200	0.	90.0000	1.60000

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
131010000	4.000000E-05	.787000	0	13	1.5339E+07	570.3	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
131020000	4.000000E-05	.787000	0	13	1.5349E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
131030000	4.000000E-05	.787000	0	13	1.5354E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
131040000	4.000000E-05	.787000	0	13	1.5346E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
131010000	.487000	0.	0.	00000	13.1670	13.1670
131020000	.487000	0.	0.	00000	13.1670	13.1670
131030000	.487000	0.	0.	00000	13.1670	13.1670

INPUT DATA FOR COMPONENT 140, PUMPR PUMP , HAVING 1 VOLUMES AND 2 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
140010000	2.61339	1.38900	3.63000	0.	90.0000	1.38900

VOL NO.	EQUIL. FLAG	INIT. COND. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
140010000	0	13	1.573440E+07	570.520	0.	0.	0.
BORON CONCENTRATION IS			1.000000E-03				

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
140010000	131010000	140000000	0.	.195000	.195000	00000

JUN.NO.	INIT. LIQ. FLOW (KG/SEC)	INIT. VAP. FLOW (KG/SEC)
140010000	4737.00	0.

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
140020000	140010000	151000000	0.	.270000	.270000	00000

JUN.NO.	INIT. LIQ. FLOW (KG/SEC)	INIT. VAP. FLOW (KG/SEC)
140020000	4737.00	0.

```
---- EDIT OF PUMP INDEX & OPTION INDICATORS
SINGLE PHASE TABLE SET INDEX ................    -2
2 PHASE HEAD & TORQUE MULTIPLIER TABLE INDEX    -1
2 PHASE DIFFERENCE TABLE SET INDEX ..........    -2
PUMP MOTOR TORQUE TABLE INDEX ...............    -1
TIME DEPENDENT PUMP SPEED TABLE INDEX .......    -1
PUMP TRIP NUMBER INDEX ......................   599
PUMP REVERSE INDICATOR ......................     0

---- EDIT OF PUMP FIXED DATA PARAMETERS ----
RATED PUMP SPEED ..................... =   155.0      (RAD/SEC)
PUMP SPEED RATIO (INITIAL / RATED) .. =   1.000
RATED PUMP FLOW ...................... =   6.524      (M3/SEC)
RATED PUMP HEAD ...................... =   95.10      (M)
RATED PUMP TORQUE .................... =   .2929E+05  (N-M)
PUMP MOMENT OF INERTIA ............... =   3579.      (KG-M2)
PUMP RATED DENSITY ................... =   746.0      (KG/M3)
PUMP RATED MOTOR TORQUE .............. =   .2581E+05  (N-M)
PUMP FRICTIONAL TORQUE COEFFICIENT #3 =  -862.7       (N-M)
PUMP FRICTIONAL TORQUE COEFFICIENT #1 =   4065.       (N-M)
PUMP FRICTIONAL TORQUE COEFFICIENT #2 =   114.6       (N-M)
PUMP FRICTIONAL TORQUE COEFFICIENT #4 =   204.3       (N-M)

                    INPUT DATA FOR COMPONENT 151, COLDR1     SNGLVOL    , HAVING  1 VOLUMES AND  0 JUNCTIONS

 VOL NO.    FLOW AREA      FLOW LENGTH     VOLUME          HORIZ. ANGLE    VERT. ANGLE     ELEV. CHNG.
            (M2)           (M)             (M3)            (DEG)           (DEG)           (M)
151010000    .383000        2.06500         .790895         0.              0.              0.

 VOL NO.    ROUGHNESS      HYDRAULIC DIAM. VOLUME    I. C.  I.C.VALUE 1   I.C.VALUE 2   I.C.VALUE 3   I.C.VALUE 4   I.C.VALUE 5
            (M)            (M)             FLAGS     FLAG
151010000   4.000000E-05    .698000           0        13    1.5945E+07    570.6         0.            0.            0.
     BORON CONCENTRATION IS      1.000000E-03

                    INPUT DATA FOR COMPONENT 152, COLDR2     BRANCH     , HAVING  1 VOLUMES AND  2 JUNCTIONS

 VOL NO.    FLOW AREA      FLOW LENGTH     VOLUME          HORIZ. ANGLE    VERT. ANGLE     ELEV. CHNG.
            (M2)           (M)             (M3)            (DEG)           (DEG)           (M)
152010000    .383000        2.06500         .790895         0.              0.              0.

 VOL NO.    ROUGHNESS      HYDRAULIC DIAM. VOLUME    I. C.  I.C.VALUE 1   I.C.VALUE 2   I.C.VALUE 3   I.C.VALUE 4   I.C.VALUE 5
            (M)            (M)             FLAGS     FLAG
152010000   4.000000E-05    .698000           0        13    1.5942E+07    570.6         0.            0.            0.
     BORON CONCENTRATION IS      1.000000E-03

 JUN.NO.  FROM VOL.   TO VOL.    JUNCTION AREA   FORWARD LOSS    REVERSE LOSS    JUNCTION
                                 (M2)            COEFFICIENT     COEFFICIENT     FLAGS
152010000 151010000 152000000    0.              0.              0.              00000
152020000 152010000 153000000    0.              0.              0.              00000

 JUN.NO.                         INIT. LIQ. VEL. INIT. VAP. VEL.
                                 (M/SEC)         (M/SEC)
152010000                         16.7300         16.7300
152020000                         16.7300         16.7300
```

INPUT DATA FOR COMPONENT 153, COLDR3 PIPE , HAVING 2 VOLUMES AND 1 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
153010000	.383000	2.06500	.790895	0.	0.	0.
153020000	.434000	2.06500	.896210	0.	0.	0.

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
153010000	4.000000E-05	.698000	0	13	1.5939E+07	570.6	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
153020000	4.000000E-05	.698000	0	13	1.5959E+07	570.6	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
153010000	.383000	0.	0.	00000	16.7300	16.7300

INPUT DATA FOR COMPONENT 180, CVTANK TMDPVOL , HAVING 1 VOLUMES AND 0 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
180010000	1.00000	1.00000	1.00000	0.	0.	0.

VOL.NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	EQUIL. FLAG
180010000	0.	1.12838	0

TABLE TRIP NUMBER IS 0.

TABULAR DATA

TEMPF 152010000 (K)	PRESSURE (PA)	TEMPERATURE (K)	
285.000	2.000000E+07	275.000	1.000000E-03
610.000	2.000000E+07	600.000	1.000000E-03

INPUT DATA FOR COMPONENT 181, CVJUN TMDPJUN , HAVING 0 VOLUMES AND 1 JUNCTIONS

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)
181000000	180000000	152000000	3.490000E-03

TABLE TRIP NUMBER IS 597.

TABULAR DATA

MFLOWJ 283000000 (KG/SEC)	LIQUID FLOW (KG/SEC)	VAPOR FLOW (KG/SEC)
-1.000000E+00	6.200000E+00	.000000E+00
.000000E+00	.000000E+00	.000000E+00
1.000000E+01	1.000000E+01	.000000E+00

INPUT DATA FOR COMPONENT 211, HTLEGG1 PIPE , HAVING 2 VOLUMES AND 1 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
211010000	.436900	2.68130	1.17146	0.	0.	0.
211020000	.436900	2.68130	1.17146	0.	0.	0.

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
211010000	4.000000E-05	.746000	0	13	1.5594E+07	570.5	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
211020000	4.000000E-05	.746000	0	13	1.5591E+07	570.5	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
211010000	.436900	0.	0.	00000	16.6180	16.6180

INPUT DATA FOR COMPONENT 213, HTLEGG2 BRANCH , HAVING 1 VOLUMES AND 1 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
213010000	.436900	2.68130	1.17146	0.	19.6700	.897000

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
213010000	4.000000E-05	.746000	0	13	1.5584E+07	570.5	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
213010000	211010000	213000000	.436900	0.	0.	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
213010000	16.6180	16.6180

INPUT DATA FOR COMPONENT 221, INBOX BRANCH , HAVING 1 VOLUMES AND 2 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
221010000	3.27900	1.90000	6.23010	0.	90.0000	1.90000

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
221010000	4.000000E-05	2.04327	0	13	1.5633E+07	570.5	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
221010000	221010000	222000000	1.08720	.226000	.580000	00000
221020000	213010000	221000000	.436900	.325000	.255000	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)

221010000	6.67720	6.67720
221020000	16.6190	16.6190

INPUT DATA FOR COMPONENT 222, UTUBE PIPE , HAVING 11 VOLUMES AND 10 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
222010000	1.08720	.945500	1.02795	0.	90.0000	.945500
222020000	1.08720	.914400	.994136	0.	90.0000	.914400
222030000	1.08720	.914400	.994136	0.	90.0000	.914400
222040000	1.08720	1.15570	1.25648	0.	90.0000	1.15570
222050000	1.08720	.978000	1.06328	0.	90.0000	.978000
222060000	1.08720	.978000	1.06328	0.	90.0000	.978000
222070000	1.08720	.978000	1.06328	0.	90.0000	.978000
222080000	1.08720	.978000	1.06328	0.	90.0000	.978000
222090000	1.08720	.978000	1.06328	0.	90.0000	.978000
222100000	1.08720	.978000	1.06328	0.	90.0000	.978000
222110000	1.08720	1.05200	1.14373	0.	39.5402	.669720

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
222010000	3.000000E-09	1.687000E-02	0	13	1.5602E+07	570.5	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
222020000	3.000000E-09	1.687000E-02	0	13	1.5586E+07	570.5	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
222030000	3.000000E-09	1.687000E-02	0	13	1.5570E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
222040000	3.000000E-09	1.687000E-02	0	13	1.5552E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
222050000	3.000000E-09	1.687000E-02	0	13	1.5534E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
222060000	3.000000E-09	1.687000E-02	0	13	1.5517E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
222070000	3.000000E-09	1.687000E-02	0	13	1.5500E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
222080000	3.000000E-09	1.687000E-02	0	13	1.5484E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
222090000	3.000000E-09	1.687000E-02	0	13	1.5467E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
222100000	3.000000E-09	1.687000E-02	0	13	1.5450E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
222110000	3.000000E-09	1.687000E-02	0	13	1.5434E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
222010000	1.08720	0.	0.	00000	6.59050	6.59050
222020000	1.08720	0.	0.	00000	6.51600	6.51600
222030000	1.08720	0.	0.	00000	6.45200	6.45200
222040000	1.08720	0.	0.	00000	6.38160	6.38160
222050000	1.08720	0.	0.	00000	6.32900	6.32900
222060000	1.08720	0.	0.	00000	6.28130	6.28130
222070000	1.08720	0.	0.	00000	6.23980	6.23980
222080000	1.08720	0.	0.	00000	6.20340	6.20340
222090000	1.08720	0.	0.	00000	6.17120	6.17120
222100000	1.08720	0.	0.	00000	6.14280	6.14280

INPUT DATA FOR COMPONENT 223, UJUN SNGLJUN , HAVING 0 VOLUMES AND 1 JUNCTIONS

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	SUBCOOLED DISCHARGE COEF.	TWO-PHASE DISCHARGE COEF.
223000000	222010000	224000000	.000000E+00	.000000E+00	.000000E+00	00000	1.000000E+00	1.000000E+00

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
223000000	6.115400E+00	6.115400E+00

INPUT DATA FOR COMPONENT 224, UTUBE PIPE , HAVING 7 VOLUMES AND 6 JUNCTIONS

VOL. NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
224010000	1.08720	1.05200	1.14373	0.	-35.5400	-.669720
224020000	1.08720	1.95600	2.12656	0.	-90.0000	-1.95600
224030000	1.08720	1.95600	2.12656	0.	-90.0000	-1.95600
224040000	1.08720	1.95600	2.12656	0.	-90.0000	-1.95600
224050000	1.08720	1.15570	1.25648	0.	-90.0000	-1.15570
224060000	1.08720	1.14315	1.24283	0.	-90.0000	-1.14315
224070000	1.08720	1.63110	1.77333	0.	-90.0000	-1.63110

VOL. NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
224010000	3.000000E-09	1.687000E-02	0	13	1.5423E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
224020000	3.000000E-09	1.687000E-02	0	13	1.5417E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
224030000	3.000000E-09	1.687000E-02	0	13	1.5411E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
224040000	3.000000E-09	1.687000E-02	0	13	1.5405E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
224050000	3.000000E-09	1.687000E-02	0	13	1.5400E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
224060000	3.000000E-09	1.687000E-02	0	13	1.5397E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
224070000	3.000000E-09	1.687000E-02	0	13	1.5393E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
224010000	1.08720	0.	0.	00000	6.09040	6.09040
224020000	1.08720	0.	0.	00000	6.05250	6.05250
224030000	1.08720	0.	0.	00000	6.02220	6.02220
224040000	1.08720	0.	0.	00000	5.99760	5.99760
224050000	1.08720	0.	0.	00000	5.98420	5.98420
224060000	1.08720	0.	0.	00000	5.96120	5.96120

INPUT DATA FOR COMPONENT 225, OUTBOX BRANCH , HAVING 1 VOLUMES AND 2 JUNCTIONS

VOL. NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
225010000	3.27900	1.90000	6.23010	0.	-90.0000	-1.90000

VOL. NO.	ROUGHNESS	HYDRAULIC DIAM.	VOLUME	I. C.	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5

	(M)	(M)	FLAGS	FLAG					
225010000	4.000000E-05	2.04327	0	13	1.5401E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
225010000	224010000	225000000	1.08790	.580000	.226000	00000
225020000	225010000	231000000	.498400	.255000	.325000	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
225010000	5.89380	5.89380
225020000	12.8650	12.8650

INPUT DATA FOR COMPONENT 231, SEALG1 PIPE , HAVING 3 VOLUMES AND 2 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
231010000	.498400	1.94300	.968391	0.	-90.0000	-1.94300
231020000	.487000	1.94300	.946241	0.	-90.0000	-1.94300
231030000	.487000	3.00900	1.46538	0.	0.	0.

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
231010000	4.000000E-06	.787000	0	13	1.5339E+07	570.3	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
231020000	4.000000E-05	.787000	0	13	1.5349E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
231030000	4.000000E-05	.787000	0	13	1.5354E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
231010000	.487000	0.	0.	00000	13.1670	13.1670
231020000	.487000	0.	0.	00000	13.1670	13.1670

INPUT DATA FOR COMPONENT 232, SEALG2 BRANCH , HAVING 1 VOLUMES AND 1 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
232010000	.487000	1.60000	.779200	0.	90.0000	1.60000

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
232010000	4.000000E-05	.787000	0	13	1.5346E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
232010000	231010000	232000000	0.	0.	0.	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
232010000	13.1670	0.

INPUT DATA FOR COMPONENT 240, PUMPR PUMP , HAVING 1 VOLUMES AND 2 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
240010000	2.61339	1.38900	3.63000	0.	90.0000	1.38900

VOL NO.	EQUIL. FLAG	INIT. COND. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
240010000	0	13	1.573440E+07	570.520	0.	0.	0.

BORON CONCENTRATION IS 1.000000E-03

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
240010000	232010000	240000000	0.	.195000	.195000	00000

JUN.NO.	INIT. LIQ. FLOW (KG/SEC)	INIT. VAP. FLOW (KG/SEC)
240010000	4737.00	0.

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
240020000	240010000	251000000	0.	.270000	.270000	00000

JUN.NO.	INIT. LIQ. FLOW (KG/SEC)	INIT. VAP. FLOW (KG/SEC)
240020000	4737.00	0.

---- EDIT OF PUMP INDEX & OPTION INDICATORS

```
SINGLE PHASE TABLE SET INDEX ................   -2
2 PHASE HEAD & TORQUE MULTIPLIER TABLE INDEX    -1
2 PHASE DIFFERENCE TABLE SET INDEX ..........   -2
PUMP MOTOR TORQUE TABLE INDEX ...............   -1
TIME DEPENDENT PUMP SPEED TABLE INDEX .......   -1
PUMP TRIP NUMBER INDEX ......................  599
PUMP REVERSE INDICATOR ......................    0
```

---- EDIT OF PUMP FIXED DATA PARAMETERS ----

```
RATED PUMP SPEED ..................... =   155.0      (RAD/SEC)
PUMP SPEED RATIO (INITIAL / RATED) .. =   1.000
RATED PUMP FLOW ...................... =   6.524      (M3/SEC)
RATED PUMP HEAD ...................... =   95.10      (M)
RATED PUMP TORQUE .................... =   .2929E+05  (N-M)
PUMP MOMENT OF INERTIA ............... =   3579.      (KG-M2)
PUMP RATED DENSITY ................... =   746.0      (KG/M3)
PUMP RATED MOTOR TORQUE .............. =   .2581E+05  (N-M)
PUMP FRICTIONAL TORQUE COEFFICIENT #3 = -862.7        (N-M)
PUMP FRICTIONAL TORQUE COEFFICIENT #1 =   4065.       (N-M)
PUMP FRICTIONAL TORQUE COEFFICIENT #2 =   114.6       (N-M)
PUMP FRICTIONAL TORQUE COEFFICIENT #4 =   204.3       (N-M)
```

INPUT DATA FOR COMPONENT 251, COLG1 BRANCH , HAVING 1 VOLUMES AND 1 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)

```
251010000      .383000          2.06500          .790895          0.                0.                0.

 VOL NO.     ROUGHNESS        HYDRAULIC DIAM.  VOLUME    I. C.  I.C.VALUE 1  I.C.VALUE 2  I.C.VALUE 3  I.C.VALUE 4  I.C.VALUE 5
             (M)              (M)              FLAGS     FLAG
251010000    4.000000E-05     .698000            0        13    1.6945E+07    570.6        0.           0.           0.
     BORON CONCENTRATION IS     1.000000E-03

  JUN.NO. FROM VOL.   TO VOL.    JUNCTION AREA    FORWARD LOSS     REVERSE LOSS      JUNCTION
                                 (M2)             COEFFICIENT      COEFFICIENT         FLAGS
251010000 251010000 253000000    0.               0.               0.                 00000

  JUN.NO.                        INIT. LIQ. VEL.  INIT. VAP. VEL.
                                 (M/SEC)          (M/SEC)
251010000                         16.7300          16.7300

                    INPUT DATA FOR COMPONENT 253, COLG2      PIPE      , HAVING  3 VOLUMES AND  2 JUNCTIONS

  VOL NO.     FLOW AREA        FLOW LENGTH      VOLUME           HORIZ. ANGLE     VERT. ANGLE      ELEV. CHNG.
              (M2)             (M)              (M3)             (DEG)            (DEG)            (M)
253010000      .383000          2.06500          .790895          0.               0.               0.
253020000      .383000          2.06500          .790895          0.               0.               0.
253030000      .434000          2.06500          .896210          0.               0.               0.

  VOL NO.     ROUGHNESS        HYDRAULIC DIAM.  VOLUME    I. C.  I.C.VALUE 1  I.C.VALUE 2  I.C.VALUE 3  I.C.VALUE 4  I.C.VALUE 5
              (M)              (M)              FLAGS     FLAG
253010000    4.000000E-05     .698000            0        13    1.5942E+07    570.6        0.           0.           0.
     BORON CONCENTRATION IS     1.000000E-03
253020000    4.000000E-05     .698000            0        13    1.5939E+07    570.6        0.           0.           0.
     BORON CONCENTRATION IS     1.000000E-03
253030000    4.000000E-05     .698000            0        13    1.5959E+07    570.6        0.           0.           0.
     BORON CONCENTRATION IS     1.000000E-03

  JUN.NO.     JUNCTION AREA    FORWARD LOSS     REVERSE LOSS     JUNCTION     INIT. LIQ. VEL.  INIT. VAP. VEL.
              (M2)             COEFFICIENT      COEFFICIENT        FLAGS      (M/SEC)          (M/SEC)
253010000      .383000          0.               0.               00000        16.7300          16.7300
253020000      .383000          0.               0.               00000        16.7300          16.7300

                    INPUT DATA FOR COMPONENT 282, LETD01     TMDPVOL   , HAVING  1 VOLUMES AND  0 JUNCTIONS

  VOL NO.     FLOW AREA        FLOW LENGTH      VOLUME           HORIZ. ANGLE     VERT. ANGLE      ELEV. CHNG.
              (M2)             (M)              (M3)             (DEG)            (DEG)            (M)
282010000      10.0000          1.00000          10.0000          0.               0.               0.

  VOL.NO.     ROUGHNESS        HYDRAULIC DIAM.    EQUIL.
              (M)              (M)                FLAG
282010000     0.               3.56825              0

TABULAR DATA
   TIME        PRESSURE         TEMPERATURE
   (SEC)       (PA)             (K)

   0.          3.800000E+06     412.000          1.000000E-03
```

INPUT DATA FOR COMPONENT 283, TJ183 TMDPJUN , HAVING 0 VOLUMES AND 1 JUNCTIONS

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)
283000000	231010000	282000000	.000000E+00

TABLE TRIP NUMBER IS 0.

TABULAR DATA

CNTRLVAR 283	LIQUID FLOW (KG/SEC)	VAPOR FLOW (KG/SEC)
.000000E+00	.000000E+00	.000000E+00
1.500000E+01	1.500000E+01	.000000E+00

INPUT DATA FOR COMPONENT 311, HTLEGB1 PIPE , HAVING 2 VOLUMES AND 1 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
311010000	.436900	2.68130	1.17146	0.	0.	0.
311020000	.436900	2.68130	1.17146	0.	0.	0.

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
311010000	4.000000E-05	.746000	0	13	1.5595E+07	570.5	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
311020000	4.000000E-05	.746000	0	13	1.5595E+07	570.5	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
311010000	.436900	0.	0.	00000	16.6010	16.6010

INPUT DATA FOR COMPONENT 312, SURGEJUN SNGLJUN , HAVING 0 VOLUMES AND 1 JUNCTIONS

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	SUBCOOLED DISCHARGE COEF.	TWO-PHASE DISCHARGE COEF.
312000000	400000000	311010000	.000000E+00	.000000E+00	.000000E+00	10001	1.000000E+00	1.000000E+00

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
312000000	.000000E+00	.000000E+00

INPUT DATA FOR COMPONENT 313, HTLEGB2 BRANCH , HAVING 1 VOLUMES AND 1 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
313010000	.436900	2.68130	1.17146	0.	19.5700	.897000

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
313010000	4.000000E-05	.745841	0	13	1.5585E+07	570.5	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
313010000	311010000	313000000	0.	0.	0.	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
313010000	16.6000	16.6000

INPUT DATA FOR COMPONENT 321, INBOX BRANCH , HAVING 1 VOLUMES AND 2 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
321010000	3.27900	1.90000	6.23010	0.	90.0000	1.90000

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
321010000	4.000000E-06	2.04327	0	13	1.5633E+07	570.5	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
321010000	321010000	322000000	1.08720	.226000	.580000	00000
321020000	313010000	321000000	.436900	.325000	.255000	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
321010000	6.67800	6.67800
321020000	16.6210	16.6210

INPUT DATA FOR COMPONENT 322, UTUBE PIPE , HAVING 11 VOLUMES AND 10 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
322010000	1.08720	.945500	1.02795	0.	90.0000	.945500
322020000	1.08720	.914400	.994138	0.	90.0000	.914400
322030000	1.08720	.914400	.994136	0.	90.0000	.914400
322040000	1.08720	1.15570	1.25648	0.	90.0000	1.15570
322050000	1.08720	.978000	1.06328	0.	90.0000	.978000
322060000	1.08720	.978000	1.06328	0.	90.0000	.978000
322070000	1.08720	.978000	1.06328	0.	90.0000	.978000
322080000	1.08720	.978000	1.06328	0.	90.0000	.978000
322090000	1.08720	.978000	1.06328	0.	90.0000	.978000
322100000	1.08720	.978000	1.06328	0.	90.0000	.978000
322110000	1.08720	1.05200	1.14373	0.	39.5402	.669720

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
322010000	3.000000E-09	1.687000E-02	0	13	1.5602E+07	570.5	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
322020000	3.000000E-09	1.687000E-02	0	13	1.5586E+07	570.5	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
322030000	3.000000E-09	1.687000E-02	0	13	1.5570E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
322040000	3.000000E-09	1.687000E-02	0	13	1.5553E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
322050000	3.000000E-09	1.687000E-02	0	13	1.5534E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

322060000	3.000000E-09	1.687000E-02	0	13	1.5517E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
322070000	3.000000E-09	1.687000E-02	0	13	1.5501E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
322080000	3.000000E-09	1.687000E-02	0	13	1.5484E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
322090000	3.000000E-09	1.687000E-02	0	13	1.5467E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
322100000	3.000000E-09	1.687000E-02	0	13	1.5450E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
322110000	3.000000E-09	1.687000E-02	0	13	1.5434E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
322010000	1.08720	0.	0.	00000	6.59120	6.59120
322020000	1.08720	0.	0.	00000	6.51670	6.51670
322030000	1.08720	0.	0.	00000	6.45260	6.45260
322040000	1.08720	0.	0.	00000	6.38220	6.38220
322050000	1.08720	0.	0.	00000	6.32950	6.32950
322060000	1.08720	0.	0.	00000	6.28180	6.28180
322070000	1.08720	0.	0.	00000	6.24020	6.24020
322080000	1.08720	0.	0.	00000	6.20390	6.20390
322090000	1.08720	0.	0.	00000	6.17170	6.17170
322100000	1.08720	0.	0.	00000	6.14320	6.14320

INPUT DATA FOR COMPONENT 323, UJUN SNGLJUN , HAVING 0 VOLUMES AND 1 JUNCTIONS

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	SUBCOOLED DISCHARGE COEF.	TWO-PHASE DISCHARGE COEF.
323000000	322010000	324000000	.000000E+00	.000000E+00	.000000E+00	00000	1.000000E+00	1.000000E+00

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
323000000	6.115700E+00	6.115700E+00

INPUT DATA FOR COMPONENT 324, UTUBE PIPE , HAVING 7 VOLUMES AND 6 JUNCTIONS

VOL. NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
324010000	1.08720	1.05200	1.14373	0.	-35.5400	-.669720
324020000	1.08720	1.95600	2.12656	0.	-90.0000	-1.95600
324030000	1.08720	1.95600	2.12656	0.	-90.0000	-1.95600
324040000	1.08720	1.95600	2.12656	0.	-90.0000	-1.95600
324050000	1.08720	1.15570	1.25648	0.	-90.0000	-1.15570
324060000	1.08720	1.14315	1.24283	0.	-90.0000	-1.14315
324070000	1.08720	1.63110	1.77333	0.	-90.0000	-1.63110

VOL. NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
324010000	3.000000E-09	1.687000E-02	0	13	1.5423E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
324020000	3.000000E-09	1.687000E-02	0	13	1.5417E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
324030000	3.000000E-09	1.687000E-02	0	13	1.5411E+07	570.4	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
324040000	3.000000E-09	1.687000E-02	0	13	1.5405E+07	570.4	0.	0.	0.

```
    BORON CONCENTRATION IS      1.000000E-03
324050000     3.000000E-09     1.687000E-02          0        13    1.5400E+07     570.4        0.            0.            0.
    BORON CONCENTRATION IS      1.000000E-03
324060000     3.000000E-09     1.687000E-02          0        13    1.5397E+07     570.4        0.            0.            0.
    BORON CONCENTRATION IS      1.000000E-03
324070000     3.000000E-09     1.687000E-02          0        13    1.5393E+07     570.4        0.            0.            0.
    BORON CONCENTRATION IS      1.000000E-03
```

JUN.NO.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
324010000	1.08720	0.	0.	00000	6.09070	6.09070
324020000	1.08720	0.	0.	00000	6.05280	6.05280
324030000	1.08720	0.	0.	00000	6.02250	6.02250
324040000	1.08720	0.	0.	00000	5.99790	5.99790
324050000	1.08720	0.	0.	00000	5.98450	5.98450
324060000	1.08720	0.	0.	00000	5.96150	5.96150

INPUT DATA FOR COMPONENT 325, OUTBOX BRANCH , HAVING 1 VOLUMES AND 2 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
325010000	3.27900	1.90000	6.23010	0.	-90.0000	-1.90000

```
 VOL. NO.      ROUGHNESS          HYDRAULIC DIAM.  VOLUME     I. C.  I.C.VALUE 1   I.C.VALUE 2   I.C.VALUE 3   I.C.VALUE 4   I.C.VALUE 5
               (M)                (M)               FLAGS      FLAG
325010000     4.000000E-05        2.04327              0        13    1.5401E+07     570.4        0.            0.            0.
    BORON CONCENTRATION IS        1.000000E-03
```

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
325010000	324010000	325000000	1.08790	.580000	.225000	00000
325020000	325010000	331000000	.498400	.255000	.325000	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
325010000	5.89410	5.89410
325020000	12.8650	12.8650

INPUT DATA FOR COMPONENT 331, SEALB PIPE , HAVING 4 VOLUMES AND 3 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
331010000	.498400	1.94300	.968391	0.	-90.0000	-1.94300
331020000	.487000	1.94300	.946241	0.	-90.0000	-1.94300
331030000	.487000	3.00900	1.46538	0.	0.	0.
331040000	.487000	1.60000	.779200	0.	90.0000	1.60000

```
 VOL. NO.      ROUGHNESS          HYDRAULIC DIAM.  VOLUME     I. C.  I.C.VALUE 1   I.C.VALUE 2   I.C.VALUE 3   I.C.VALUE 4   I.C.VALUE 5
               (M)                (M)               FLAGS      FLAG.
331010000     4.000000E-05        .787000              0        13    1.5339E+07     570.3        0.            0.            0.
    BORON CONCENTRATION IS        1.000000E-03
331020000     4.000000E-05        .787000              0        13    1.5349E+07     570.4        0.            0.            0.
    BORON CONCENTRATION IS        1.000000E-03
331030000     4.000000E-05        .787000              0        13    1.5354E+07     570.4        0.            0.            0.
    BORON CONCENTRATION IS        1.000000E-03
331040000     4.000000E-05        .787000              0        13    1.5346E+07     570.4        0.            0.            0.
    BORON CONCENTRATION IS        1.000000E-03
```

JUN.NO.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
331010000	.487000	0.	0.	00000	13.1680	13.1680
331020000	.487000	0.	0.	00000	13.1670	13.1670
331030000	.487000	0.	0.	00000	13.1670	13.1670

INPUT DATA FOR COMPONENT 340, PUMPR PUMP , HAVING 1 VOLUMES AND 2 JUNCTIONS

VOL.NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
340010000	2.61339	1.38900	3.63000	0.	90.0000	1.38900

VOL.NO.	EQUIL. FLAG	INIT. COND. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
340010000	0	13	1.573440E+07	570.520	0.	0.	0.

BORON CONCENTRATION IS 1.000000E-03

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
340010000	331010000	340000000	0.	.195000	.195000	00000

JUN.NO.	INIT. LIQ. FLOW (KG/SEC)	INIT. VAP. FLOW (KG/SEC)
340010000	4737.00	0.

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
340020000	340010000	351000000	0.	.270000	.270000	00000

JUN.NO.	INIT. LIQ. FLOW (KG/SEC)	INIT. VAP. FLOW (KG/SEC)
340020000	4737.00	0.

---- EDIT OF PUMP INDEX & OPTION INDICATORS

SINGLE PHASE TABLE SET INDEX	-2
2 PHASE HEAD & TORQUE MULTIPLIER TABLE INDEX	-1
2 PHASE DIFFERENCE TABLE SET INDEX	-2
PUMP MOTOR TORQUE TABLE INDEX	-1
TIME DEPENDENT PUMP SPEED TABLE INDEX	-1
PUMP TRIP NUMBER INDEX	599
PUMP REVERSE INDICATOR	0

---- EDIT OF PUMP FIXED DATA PARAMETERS ----

RATED PUMP SPEED	=	155.0	(RAD/SEC)
PUMP SPEED RATIO (INITIAL / RATED) ..	=	1.000	
RATED PUMP FLOW	=	6.524	(M3/SEC)
RATED PUMP HEAD	=	95.10	(M)
RATED PUMP TORQUE	=	.2929E+05	(N-M)
PUMP MOMENT OF INERTIA	=	3579.	(KG-M2)
PUMP RATED DENSITY	=	746.0	(KG/M3)
PUMP RATED MOTOR TORQUE	=	.2581E+05	(N-M)
PUMP FRICTIONAL TORQUE COEFFICIENT #3	=	-862.7	(N-M)
PUMP FRICTIONAL TORQUE COEFFICIENT #1	=	4065.	(N-M)
PUMP FRICTIONAL TORQUE COEFFICIENT #2	=	114.6	(N-M)
PUMP FRICTIONAL TORQUE COEFFICIENT #4	=	204.3	(N-M)

INPUT DATA FOR COMPONENT 351, COLDB1 SNGLVOL , HAVING 1 VOLUMES AND 0 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
351010000	.383000	2.06500	.790895	0.	0.	0.

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
351010000	4.000000E-05	.698000	0	13	1.5945E+07	570.6	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

INPUT DATA FOR COMPONENT 352, COLDR2 BRANCH , HAVING 1 VOLUMES AND 2 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
352010000	.383000	2.06500	.790895	0.	0.	0.

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
352010000	4.000000E-05	.698000	0	13	1.5942E+07	570.6	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
352010000	351010000	352000000	0.	0.	0.	00000
352020000	352010000	353000000	0.	0.	0.	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
352010000	16.7310	16.7310
352020000	16.7310	16.7310

INPUT DATA FOR COMPONENT 353, COLDR3 PIPE , HAVING 2 VOLUMES AND 1 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
353010000	.383000	2.06500	.790895	0.	0.	0.
353020000	.434000	2.06500	.896210	0.	0.	0.

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
353010000	4.000000E-05	.698000	0	13	1.5939E+07	570.6	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
353020000	4.000000E-05	.698000	0	13	1.5959E+07	570.6	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
353010000	.383000	0.	0.	00000	16.7310	16.7310

INPUT DATA FOR COMPONENT 400, SURGE PIPE , HAVING 4 VOLUMES AND 3 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
400010000	6.311800E-02	5.62750	.355187	0.	15.6390	1.51704

400020000	6.342530E-02	5.62750	.356926	0.	15.6390	1.51704
400030000	6.342530E-02	5.62750	.356926	0.	15.6390	1.51704
400040000	6.342530E-02	5.62750	.356926	0.	15.6390	1.51704

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
400010000	4.500000E-05	.283486	0	12	1.5576E+07	0.	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
400020000	4.500000E-05	.284175	0	12	1.5576E+07	0.	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
400030000	4.500000E-05	.284175	0	12	1.5570E+07	0.	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
400040000	4.500000E-05	.284175	0	12	1.5565E+07	0.	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

JUN.NO.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	INIT. LIQ. FLOW (KG/SEC)	INIT. VAP. FLOW (KG/SEC)
400010000	6.311800E-02	0.	0.	00000	0.	0.
400020000	6.342530E-02	0.	0.	00000	0.	0.
400030000	6.342530E-02	0.	0.	00000	0.	0.

INPUT DATA FOR COMPONENT 405, SURGE1 SNGLJUN , HAVING 0 VOLUMES AND 1 JUNCTIONS

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	SUBCOOLED DISCHARGE COEF.	TWO-PHASE DISCHARGE COEF.
405000000	400010000	410000000	6.342530E-02	.000000E+00	.000000E+00	00100	1.000000E+00	1.000000E+00

JUN.NO.	INIT. LIQ. FLOW (KG/SEC)	INIT. VAP. FLOW (KG/SEC)
405000000	.000000E+00	.000000E+00

INPUT DATA FOR COMPONENT 410, PRESSU PIPE , HAVING 9 VOLUMES AND 8 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
410010000	2.13290	.282170	.601840	0.	90.0000	.282170
410020000	2.13290	.564340	1.20368	0.	90.0000	.564340
410030000	3.53500	.700000	2.47450	0.	90.0000	.700000
410040000	3.53500	1.46400	5.17524	0.	90.0000	1.46400
410050000	3.53500	3.00000	10.6050	0.	90.0000	3.00000
410060000	3.53500	3.00000	10.6050	0.	90.0000	3.00000
410070000	3.53500	3.00000	10.6050	0.	90.0000	3.00000
410080000	3.53500	.700000	2.47450	0.	90.0000	.700000
410090000	2.13290	.380000	.810502	0.	90.0000	.380000

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
410010000	4.500000E-05	1.64794	0	12	1.5510E+07	0.	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
410020000	4.500000E-05	1.64794	0	12	1.5510E+07	0.	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
410030000	4.500000E-05	2.12153	0	12	1.5510E+07	0.	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
410040000	4.500000E-05	2.12153	0	12	1.5510E+07	0.	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							
410050000	4.500000E-05	2.12153	0	12	1.5510E+07	.2158	0.	0.	0.
BORON CONCENTRATION IS		1.000000E-03							

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410060000    4.500000E-05    2.12153          0    12    1.5510E+07    1.000    0.    0.    0.
     BORON CONCENTRATION IS    1.000000E-03
410070000    4.500000E-05    2.12153          0    12    1.5510E+07    1.000    0.    0.    0.
     BORON CONCENTRATION IS    1.000000E-03
410080000    4.500000E-05    2.12153          0    12    1.5510E+07    1.000    0.    0.    0.
     BORON CONCENTRATION IS    1.000000E-03
410090000    4.500000E-05    1.64794          0    12    1.5510E+07    1.000    0.    0.    0.
     BORON CONCENTRATION IS    1.000000E-03
```

JUN.NO.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	INIT. LIQ. FLOW (KG/SEC)	INIT. VAP. FLOW (KG/SEC)
410010000	2.13290	0.	0.	00000	0.	0.
410020000	2.13290	0.	0.	00000	0.	0.
410030000	3.53500	0.	0.	00000	0.	0.
410040000	3.53500	0.	0.	00000	0.	0.
410050000	3.53500	0.	0.	00000	0.	0.
410060000	3.53500	0.	0.	00000	0.	0.
410070000	3.53500	0.	0.	00000	0.	0.
410080000	2.13290	0.	0.	00000	0.	0.

INPUT DATA FOR COMPONENT 420, TOP BRANCH , HAVING 1 VOLUMES AND 1 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
420010000	2.13400	.266500	.568711	0.	90.0000	.266500

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
420010000	4.500000E-05	1.64838	0	12	1.5510E+07	1.000	0.	0.	0.

BORON CONCENTRATION IS 1.000000E-03

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
420010000	410010000	420000000	0.	0.	0.	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
420010000	0.	0.

INPUT DATA FOR COMPONENT 430, SPRAYR BRANCH , HAVING 1 VOLUMES AND 1 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
430010000	5.989000E-03	10.2665	6.148607E-02	0.	90.0000	10.2665

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
430010000	4.000000E-05	8.732372E-02	0	13	1.5910E+07	570.6	0.	0.	0.

BORON CONCENTRATION IS 1.000000E-03

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
430010000	151010000	430000000	0.	0.	0.	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
430010000	5.000000E-03	0.

INPUT DATA FOR COMPONENT 435, SPRAYR VALVE , HAVING 0 VOLUMES AND 1 JUNCTIONS

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	SUBCOOLED DISCHARGE COEF.	TWO-PHASE DISCHARGE COEF.
435000000	430010000	450000000	6.954000E-04	.000000E+00	.000000E+00	00100	1.000000E+00	1.000000E+00

JUN.NO.	INIT. LIQ. FLOW (KG/SEC)	INIT. VAP. FLOW (KG/SEC)
435000000	.000000E+00	.000000E+00

JUN.NO.	CONTROL NUMBER	TABLE NUMBER
435000000	435	0

INPUT DATA FOR COMPONENT 440, SPRAYB BRANCH , HAVING 1 VOLUMES AND 1 JUNCTIONS

VOL. NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
440010000	5.989000E-03	10.2665	6.148607E-02	0.	90.0000	10.2665

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5
440010000	4.000000E-05	8.732372E-02	0	13	1.5910E+07	570.6	0.	0.	0.

BORON CONCENTRATION IS 1.000000E-03

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS
440010000	351010000	440000000	0.	0.	0.	00000

JUN.NO.	INIT. LIQ. VEL. (M/SEC)	INIT. VAP. VEL. (M/SEC)
440010000	5.000000E-03	0.

INPUT DATA FOR COMPONENT 445, SPRAYB VALVE , HAVING 0 VOLUMES AND 1 JUNCTIONS

JUN.NO.	FROM VOL.	TO VOL.	JUNCTION AREA (M2)	FORWARD LOSS COEFFICIENT	REVERSE LOSS COEFFICIENT	JUNCTION FLAGS	SUBCOOLED DISCHARGE COEF.	TWO-PHASE DISCHARGE COEF.
445000000	440010000	450000000	6.954000E-04	.000000E+00	.000000E+00	00100	1.000000E+00	1.000000E+00

JUN.NO.	INIT. LIQ. FLOW (KG/SEC)	INIT. VAP. FLOW (KG/SEC)
445000000	.000000E+00	.000000E+00

JUN.NO.	CONTROL NUMBER	TABLE NUMBER
445000000	445	0

INPUT DATA FOR COMPONENT 450, SPRAYB BRANCH , HAVING 1 VOLUMES AND 1 JUNCTIONS

VOL NO.	FLOW AREA (M2)	FLOW LENGTH (M)	VOLUME (M3)	HORIZ. ANGLE (DEG)	VERT. ANGLE (DEG)	ELEV. CHNG. (M)
450010000	5.989000E-03	9.15865	5.485115E-02	0.	90.0000	9.15865

VOL NO.	ROUGHNESS (M)	HYDRAULIC DIAM. (M)	VOLUME FLAGS	I. C. FLAG	I.C.VALUE 1	I.C.VALUE 2	I.C.VALUE 3	I.C.VALUE 4	I.C.VALUE 5

```
450010000    4.000000E-05    8.732372E-02    0    13    1.5910E+07    570.6    0.    0.    0.
    BORON CONCENTRATION IS    1.000000E-03

  JUN.NO. FROM VOL.   TO VOL.     JUNCTION AREA    FORWARD LOSS     REVERSE LOSS      JUNCTION
                                  (M2)             COEFFICIENT      COEFFICIENT         FLAGS
450010000 450010000 420010000     0.                1.00000          1.00000            00000

  JUN.NO.                         INIT. LIQ. VEL.  INIT. VAP. VEL.
                                  (M/SEC)          (M/SEC)
450010000                         5.000000E-03     0.

                    INPUT DATA FOR COMPONENT 489, PRESVAL    VALVE     , HAVING  0 VOLUMES AND  1 JUNCTIONS

  JUN.NO. FROM VOL.   TO VOL.     JUNCTION AREA    FORWARD LOSS     REVERSE LOSS      JUNCTION     SUBCOOLED        TWO-PHASE
                                  (M2)             COEFFICIENT      COEFFICIENT         FLAGS      DISCHARGE COEF.  DISCHARGE COEF.
489000000 420010000 490000000     1.000000E-01      .000000E+00      .000000E+00        00100      1.000000E+00     1.000000E+00

  JUN.NO.                         INIT. LIQ. VEL.  INIT. VAP. VEL.
                                  (M/SEC)          (M/SEC)
489000000                          .000000E+00      .000000E+00

  JUN.NO.                         TRIP NUMBER
489000000                         698

                    INPUT DATA FOR COMPONENT 490, TV490      TMDPVOL    , HAVING  1 VOLUMES AND  0 JUNCTIONS

  VOL NO.     FLOW AREA        FLOW LENGTH      VOLUME          HORIZ. ANGLE     VERT. ANGLE      ELEV. CHNG.
              (M2)             (M)              (M3)            (DEG)            (DEG)            (M)
490010000      10.0000          1.00000          10.0000        0.               0.               0.

  VOL.NO.     ROUGHNESS        HYDRAULIC DIAM.    EQUIL.
              (M)              (M)                  FLAG
490010000     0.                3.56825               0

TABULAR DATA
    TIME            PRESSURE         QUALITY
    (SEC)           (PA)

    0.              1.551000E+07     1.00000

                    INPUT DATA FOR COMPONENT 940, TV940      TMDPVOL    , HAVING  1 VOLUMES AND  0 JUNCTIONS

  VOL NO.     FLOW AREA        FLOW LENGTH      VOLUME          HORIZ. ANGLE     VERT. ANGLE      ELEV. CHNG.
              (M2)             (M)              (M3)            (DEG)            (DEG)            (M)
940010000      10.0000          1.00000          10.0000        0.               0.               0.

  VOL.NO.     ROUGHNESS        HYDRAULIC DIAM.    EQUIL.
              (M)              (M)                  FLAG
940010000     0.                3.56825               0

TABULAR DATA
    TIME            PRESSURE         TEMPERATURE
    (SEC)           (PA)             (K)

    0.              200000.          323.150
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                    EDIT OF HEAT STRUCTURE INPUT DATA
          (QUANTITIES PRINTED ARE INPUT VALUES OR SET BY ERROR RECOVERY)

                    INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 1211
NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY:  1
NUMBER OF MESH POINTS:  5
GEOMETRY TYPE: SPHERICAL
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M)   (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
    4,  3.000000E-02      5,  2.980000E-02

MESH POINT NUMBER, MESH POINT COORDINATE (M)
    1,  1.719200E+00      2,  1.749200E+00      3,  1.779200E+00      4,  1.809200E+00      5,  1.839000E+00

MESH POINT NUMBER, COMPOSITION NUMBER  (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
    5,  6

MESH POINT NUMBER, SOURCE FACTOR  (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
    5,  .000000E+00

STRUCTURE      SOURCE       INTERNAL SOURCE
  NUMBER        CODE        FACTOR
  1211001          0         .000000E+00

STRUCTURE  LEFT  VOL.       LEFT        LEFT      LEFT  SURFACE    LEFT  DIRECT
  NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE     AREA ENTRY       SOURCE FACTOR
  1211001   121010000           1           1     2.500000E-01      .000000E+00

STRUCTURE  LEFT  CHF-     LEFT  HYDRAULIC
  NUMBER   HTR OPTIONS    DIAM. (M)
  1211001          0      .000000E+00

STRUCTURE  RIGHT VOL.       RIGHT       RIGHT     RIGHT SURFACE    RIGHT DIRECT
  NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE     AREA ENTRY       SOURCE FACTOR
  1211001          0           0           1     2.500000E-01      .000000E+00

                    INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 1220
NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY: 11
NUMBER OF MESH POINTS:  3
GEOMETRY TYPE: CYLINDRICAL
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M)   (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
    3,  5.450000E-04

MESH POINT NUMBER, MESH POINT COORDINATE (M)
    1,  8.435000E-03      2,  8.980000E-03      3,  9.525000E-03

MESH POINT NUMBER, COMPOSITION NUMBER  (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
    3,  6
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MESH POINT NUMBER, SOURCE FACTOR (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
3, .000000E+00

STRUCTURE NUMBER	SOURCE CODE	INTERNAL SOURCE FACTOR
1220001	0	.000000E+00
1220002	0	.000000E+00
1220003	0	.000000E+00
1220004	0	.000000E+00
1220005	0	.000000E+00
1220006	0	.000000E+00
1220007	0	.000000E+00
1220008	0	.000000E+00
1220009	0	.000000E+00
1220010	0	.000000E+00
1220011	0	.000000E+00

STRUCTURE NUMBER	LEFT VOL. NUMBER	LEFT BDRY. TYPE	LEFT SRFC. CODE	LEFT SURFACE AREA ENTRY	LEFT DIRECT SOURCE FACTOR
1220001	122010000	1	1	4.598900E+03	.000000E+00
1220002	122020000	1	1	4.447600E+03	.000000E+00
1220003	122030000	1	1	4.447600E+03	.000000E+00
1220004	122040000	1	1	5.621300E+03	.000000E+00
1220005	122050000	1	1	4.757000E+03	.000000E+00
1220006	122060000	1	1	4.757000E+03	.000000E+00
1220007	122070000	1	1	4.757000E+03	.000000E+00
1220008	122080000	1	1	4.757000E+03	.000000E+00
1220009	122090000	1	1	4.757000E+03	.000000E+00
1220010	122100000	1	1	4.757000E+03	.000000E+00
1220011	122110000	1	1	5.116900E+03	.000000E+00

STRUCTURE NUMBER	LEFT CHF-HTR OPTIONS	LEFT HYDRAULIC DIAM. (M)
1220001	0	.000000E+00
1220002	0	.000000E+00
1220003	0	.000000E+00
1220004	0	.000000E+00
1220005	0	.000000E+00
1220006	0	.000000E+00
1220007	0	.000000E+00
1220008	0	.000000E+00
1220009	0	.000000E+00
1220010	0	.000000E+00
1220011	0	.000000E+00

STRUCTURE NUMBER	RIGHT VOL. NUMBER	RIGHT BDRY. TYPE	RIGHT SRFC. CODE	RIGHT SURFACE AREA ENTRY	RIGHT DIRECT SOURCE FACTOR
1220001	-600	1000	1	4.598900E+03	.000000E+00
1220002	-600	1000	1	4.447600E+03	.000000E+00
1220003	-600	1000	1	4.447600E+03	.000000E+00
1220004	-600	1000	1	5.621300E+03	.000000E+00
1220005	-600	1000	1	4.757000E+03	.000000E+00
1220006	-600	1000	1	4.757000E+03	.000000E+00
1220007	-600	1000	1	4.757000E+03	.000000E+00
1220008	-600	1000	1	4.757000E+03	.000000E+00

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1220009        -600        1000          1     4.757000E+03      .000000E+00
1220010        -600        1000          1     4.757000E+03      .000000E+00
1220011        -600        1000          1     5.116900E+03      .000000E+00

                          INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 1231
NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY:  1
NUMBER OF MESH POINTS:  4
GEOMETRY TYPE: RECTANGULAR
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M)   (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
     4,  1.266667E-02

MESH POINT NUMBER, MESH POINT COORDINATE (M)
     1,   .000000E+00      2,  1.266667E-02      3,  2.633333E-02      4,  3.800000E-02

MESH POINT NUMBER, COMPOSITION NUMBER  (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
     4,   5

MESH POINT NUMBER, SOURCE FACTOR  (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
     4,  .000000E+00

STRUCTURE     SOURCE        INTERNAL SOURCE
   NUMBER      CODE         FACTOR
  1231001        0          .000000E+00

STRUCTURE  LEFT  VOL.      LEFT        LEFT      LEFT  SURFACE    LEFT  DIRECT
   NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE    AREA ENTRY       SOURCE FACTOR
  1231001   121010000        1          1      1.160000E+00      .000000E+00

STRUCTURE  LEFT  CHF-     LEFT  HYDRAULIC
   NUMBER  HTR OPTIONS     DIAM. (M)
  1231001        0        .000000E+00

STRUCTURE  RIGHT VOL.      RIGHT       RIGHT     RIGHT SURFACE    RIGHT DIRECT
   NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE    AREA ENTRY       SOURCE FACTOR
  1231001   125010000        1          1      1.160000E+00      .000000E+00

STRUCTURE  RIGHT CHF-     RIGHT HYDRAULIC
   NUMBER  HTR OPTIONS     DIAM. (M)
  1231001        0        .000000E+00

                          INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 1240
NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY:  8
NUMBER OF MESH POINTS:  3
GEOMETRY TYPE: CYLINDRICAL
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M)   (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
     3,  5.450000E-04

MESH POINT NUMBER, MESH POINT COORDINATE (M)
     1,  8.435000E-03      2,  8.980000E-03      3,  9.525000E-03
```

MESH POINT NUMBER, COMPOSITION NUMBER (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
3, 6

MESH POINT NUMBER, SOURCE FACTOR (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
3, .000000E+00

STRUCTURE NUMBER	SOURCE CODE	INTERNAL SOURCE FACTOR
1240001	0	.000000E+00
1240002	0	.000000E+00
1240003	0	.000000E+00
1240004	0	.000000E+00
1240005	0	.000000E+00
1240006	0	.000000E+00
1240007	0	.000000E+00
1240008	0	.000000E+00

STRUCTURE NUMBER	LEFT VOL. NUMBER	LEFT BDRY. TYPE	LEFT SRFC. CODE	LEFT SURFACE AREA ENTRY	LEFT DIRECT SOURCE FACTOR
1240001	124010000	1	1	5.116900E+03	.000000E+00
1240002	124020000	1	1	9.514000E+03	.000000E+00
1240003	124030000	1	1	9.514000E+03	.000000E+00
1240004	124040000	1	1	9.514000E+03	.000000E+00
1240005	124050000	1	1	6.066000E+03	.000000E+00
1240006	124060000	1	1	5.560500E+03	.000000E+00
1240007	124070000	1	1	5.560500E+03	.000000E+00
1240008	124070000	1	1	2.373600E+03	.000000E+00

STRUCTURE NUMBER	LEFT CHF-HTR OPTIONS	LEFT HYDRAULIC DIAM. (M)
1240001	0	.000000E+00
1240002	0	.000000E+00
1240003	0	.000000E+00
1240004	0	.000000E+00
1240005	0	.000000E+00
1240006	0	.000000E+00
1240007	0	.000000E+00
1240008	0	.000000E+00

STRUCTURE NUMBER	RIGHT VOL. NUMBER	RIGHT BDRY. TYPE	RIGHT SRFC. CODE	RIGHT SURFACE AREA ENTRY	RIGHT DIRECT SOURCE FACTOR
1240001	-600	1000	1	5.116900E+03	.000000E+00
1240002	-600	1000	1	9.514000E+03	.000000E+00
1240003	-600	1000	1	9.514000E+03	.000000E+00
1240004	-600	1000	1	9.514000E+03	.000000E+00
1240005	-600	1000	1	6.066000E+03	.000000E+00
1240006	-600	1000	1	5.560500E+03	.000000E+00
1240007	-600	1000	1	5.560500E+03	.000000E+00
1240008	-600	1000	1	2.373600E+03	.000000E+00

INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 1251
NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY: 1
NUMBER OF MESH POINTS: 5
GEOMETRY TYPE: SPHERICAL
STEADY STATE INITIALIZATION: YES

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MESH POINT NUMBER, MESH INTERVAL (M)   (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
     4,  3.000000E-02      5,  2.980000E-02

MESH POINT NUMBER, MESH POINT COORDINATE (M)
     1,  1.719200E+00      2,  1.749200E+00      3,  1.779200E+00      4,  1.809200E+00      5,  1.839000E+00

MESH POINT NUMBER, COMPOSITION NUMBER  (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
     5,   5

MESH POINT NUMBER, SOURCE FACTOR  (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
     5,   .000000E+00

STRUCTURE      SOURCE       INTERNAL SOURCE
   NUMBER       CODE        FACTOR
  1251001         0         .000000E+00

STRUCTURE  LEFT  VOL.       LEFT        LEFT      LEFT  SURFACE    LEFT  DIRECT
   NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE     AREA ENTRY       SOURCE FACTOR
  1251001   125010000          1           1     2.500000E-01      .000000E+00

STRUCTURE  LEFT  CHF-      LEFT  HYDRAULIC
   NUMBER  HTR OPTIONS     DIAM. (M)
  1251001          0       .000000E+00

STRUCTURE  RIGHT VOL.       RIGHT       RIGHT     RIGHT SURFACE    RIGHT DIRECT
   NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE     AREA ENTRY       SOURCE FACTOR
  1251001          0          0           1     2.500000E-01      .000000E+00

                          INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 2211
NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY:  1
NUMBER OF MESH POINTS:  5
GEOMETRY TYPE: SPHERICAL
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M)   (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
     4,  3.000000E-02      5,  2.980000E-02

MESH POINT NUMBER, MESH POINT COORDINATE (M)
     1,  1.719200E+00      2,  1.749200E+00      3,  1.779200E+00      4,  1.809200E+00      5,  1.839000E+00

MESH POINT NUMBER, COMPOSITION NUMBER  (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
     5,   5

MESH POINT NUMBER, SOURCE FACTOR  (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
     5,   .000000E+00

STRUCTURE      SOURCE       INTERNAL SOURCE
   NUMBER       CODE        FACTOR
  2211001         0         .000000E+00

STRUCTURE  LEFT  VOL.       LEFT        LEFT      LEFT  SURFACE    LEFT  DIRECT
   NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE     AREA ENTRY       SOURCE FACTOR
  2211001   221010000          1           1     2.500000E-01      .000000E+00

STRUCTURE  LEFT  CHF-      LEFT  HYDRAULIC
   NUMBER  HTR OPTIONS     DIAM. (M)
  2211001          0       .000000E+00
```

STRUCTURE NUMBER	RIGHT VOL. NUMBER	RIGHT BDRY. TYPE	RIGHT SRFC. CODE	RIGHT SURFACE AREA ENTRY	RIGHT DIRECT SOURCE FACTOR
2211001	0	0	1	2.500000E-01	.000000E+00

INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 2220
NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY: 11
NUMBER OF MESH POINTS: 3
GEOMETRY TYPE: CYLINDRICAL
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M) (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
3, 5.450000E-04

MESH POINT NUMBER, MESH POINT COORDINATE (M)
1, 8.435000E-03 2, 8.980000E-03 3, 9.525000E-03

MESH POINT NUMBER, COMPOSITION NUMBER (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
3, 6

MESH POINT NUMBER, SOURCE FACTOR (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
3, .000000E+00

STRUCTURE NUMBER	SOURCE CODE	INTERNAL SOURCE FACTOR
2220001	0	.000000E+00
2220002	0	.000000E+00
2220003	0	.000000E+00
2220004	0	.000000E+00
2220005	0	.000000E+00
2220006	0	.000000E+00
2220007	0	.000000E+00
2220008	0	.000000E+00
2220009	0	.000000E+00
2220010	0	.000000E+00
2220011	0	.000000E+00

STRUCTURE NUMBER	LEFT VOL. NUMBER	LEFT BDRY. TYPE	LEFT SRFC. CODE	LEFT SURFACE AREA ENTRY	LEFT DIRECT SOURCE FACTOR
2220001	222010000	1	1	4.598900E+03	.000000E+00
2220002	222020000	1	1	4.447600E+03	.000000E+00
2220003	222030000	1	1	4.447600E+03	.000000E+00
2220004	222040000	1	1	5.621300E+03	.000000E+00
2220005	222050000	1	1	4.757000E+03	.000000E+00
2220006	222060000	1	1	4.757000E+03	.000000E+00
2220007	222070000	1	1	4.757000E+03	.000000E+00
2220008	222080000	1	1	4.757000E+03	.000000E+00
2220009	222090000	1	1	4.757000E+03	.000000E+00
2220010	222100000	1	1	4.757000E+03	.000000E+00
2220011	222110000	1	1	5.116900E+03	.000000E+00

STRUCTURE NUMBER	LEFT CHF-HTR OPTIONS	LEFT HYDRAULIC DIAM. (M)
2220001	0	.000000E+00
2220002	0	.000000E+00
2220003	0	.000000E+00
2220004	0	.000000E+00
2220005	0	.000000E+00

2220006	0	.000000E+00
2220007	0	.000000E+00
2220008	0	.000000E+00
2220009	0	.000000E+00
2220010	0	.000000E+00
2220011	0	.000000E+00

STRUCTURE NUMBER	RIGHT VOL. NUMBER	RIGHT BDRY. TYPE	RIGHT SRFC. CODE	RIGHT SURFACE AREA ENTRY	RIGHT DIRECT SOURCE FACTOR
2220001	-600	1000	1	4.598900E+03	.000000E+00
2220002	-600	1000	1	4.447600E+03	.000000E+00
2220003	-600	1000	1	4.447600E+03	.000000E+00
2220004	-600	1000	1	6.621300E+03	.000000E+00
2220005	-600	1000	1	4.757000E+03	.000000E+00
2220006	-600	1000	1	4.757000E+03	.000000E+00
2220007	-600	1000	1	4.757000E+03	.000000E+00
2220008	-600	1000	1	4.757000E+03	.000000E+00
2220009	-600	1000	1	4.757000E+03	.000000E+00
2220010	-600	1000	1	4.757000E+03	.000000E+00
2220011	-600	1000	1	5.116900E+03	.000000E+00

INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 2231

NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY: 1
NUMBER OF MESH POINTS: 4
GEOMETRY TYPE: RECTANGULAR
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M) (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
4, 1.266667E-02

MESH POINT NUMBER, MESH POINT COORDINATE (M)
1, .000000E+00 2, 1.266667E-02 3, 2.533333E-02 4, 3.800000E-02

MESH POINT NUMBER, COMPOSITION NUMBER (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
4, 5

MESH POINT NUMBER, SOURCE FACTOR (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
4, .000000E+00

STRUCTURE NUMBER	SOURCE CODE	INTERNAL SOURCE FACTOR
2231001	0	.000000E+00

STRUCTURE NUMBER	LEFT VOL. NUMBER	LEFT BDRY. TYPE	LEFT SRFC. CODE	LEFT SURFACE AREA ENTRY	LEFT DIRECT SOURCE FACTOR
2231001	221010000	1	1	1.160000E+00	.000000E+00

STRUCTURE NUMBER	LEFT CHF-HTR OPTIONS	LEFT HYDRAULIC DIAM. (M)
2231001	0	.000000E+00

STRUCTURE NUMBER	RIGHT VOL. NUMBER	RIGHT BDRY. TYPE	RIGHT SRFC. CODE	RIGHT SURFACE AREA ENTRY	RIGHT DIRECT SOURCE FACTOR
2231001	225010000	1	1	1.160000E+00	.000000E+00

STRUCTURE NUMBER	RIGHT CHF-HTR OPTIONS	RIGHT HYDRAULIC DIAM. (M)

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 2231001          0      .000000E+00

                          INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 2240
NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY:  8
NUMBER OF MESH POINTS:  3
GEOMETRY TYPE: CYLINDRICAL
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M)   (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
     3,  5.450000E-04

MESH POINT NUMBER, MESH POINT COORDINATE (M)
     1,  8.435000E-03      2,  8.980000E-03      3,  9.525000E-03

MESH POINT NUMBER, COMPOSITION NUMBER  (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
     3,   6

MESH POINT NUMBER, SOURCE FACTOR  (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
     3,   .000000E+00

STRUCTURE       SOURCE        INTERNAL SOURCE
   NUMBER         CODE        FACTOR
  2240001          0          .000000E+00
  2240002          0          .000000E+00
  2240003          0          .000000E+00
  2240004          0          .000000E+00
  2240005          0          .000000E+00
  2240006          0          .000000E+00
  2240007          0          .000000E+00
  2240008          0          .000000E+00

STRUCTURE  LEFT  VOL.        LEFT        LEFT       LEFT  SURFACE     LEFT  DIRECT
  NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE      AREA ENTRY        SOURCE FACTOR
  2240001   224010000           1            1     5.116900E+03       .000000E+00
  2240002   224020000           1            1     9.514000E+03       .000000E+00
  2240003   224030000           1            1     9.514000E+03       .000000E+00
  2240004   224040000           1            1     9.514000E+03       .000000E+00
  2240005   224050000           1            1     6.066000E+03       .000000E+00
  2240006   224060000           1            1     5.560500E+03       .000000E+00
  2240007   224070000           1            1     5.560500E+03       .000000E+00
  2240008   224070000           1            1     2.373600E+03       .000000E+00

STRUCTURE  LEFT  CHF-      LEFT  HYDRAULIC
  NUMBER  HTR OPTIONS      DIAM. (M)
  2240001          0       .000000E+00
  2240002          0       .000000E+00
  2240003          0       .000000E+00
  2240004          0       .000000E+00
  2240005          0       .000000E+00
  2240006          0       .000000E+00
  2240007          0       .000000E+00
  2240008          0       .000000E+00

STRUCTURE  RIGHT VOL.        RIGHT       RIGHT      RIGHT SURFACE     RIGHT DIRECT
  NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE      AREA ENTRY        SOURCE FACTOR
  2240001       -600          1000            1     5.116900E+03       .000000E+00
  2240002       -600          1000            1     9.514000E+03       .000000E+00
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 2240003      -600      1000        1     9.514000E+03     .000000E+00
 2240004      -600      1000        1     9.514000E+03     .000000E+00
 2240005      -600      1000        1     6.066000E+03     .000000E+00
 2240006      -600      1000        1     5.560500E+03     .000000E+00
 2240007      -600      1000        1     5.560500E+03     .000000E+00
 2240008      -600      1000        1     2.373600E+03     .000000E+00

                        INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 2251
NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY:  1
NUMBER OF MESH POINTS:  5
GEOMETRY TYPE: SPHERICAL
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M)   (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
    4,  3.000000E-02      6,  2.980000E-02

MESH POINT NUMBER, MESH POINT COORDINATE (M)
    1,  1.719200E+00      2,  1.749200E+00      3,  1.779200E+00      4,  1.809200E+00      5,  1.839000E+00

MESH POINT NUMBER, COMPOSITION NUMBER  (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
    5,   5

MESH POINT NUMBER, SOURCE FACTOR  (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
    5,   .000000E+00

STRUCTURE      SOURCE       INTERNAL SOURCE
 NUMBER         CODE        FACTOR
 2251001          0          .000000E+00

STRUCTURE  LEFT  VOL.       LEFT        LEFT       LEFT  SURFACE    LEFT  DIRECT
 NUMBER       NUMBER  BDRY. TYPE  SRFC. CODE      AREA ENTRY       SOURCE FACTOR
 2251001   225010000          1           1      2.500000E-01       .000000E+00

STRUCTURE  LEFT  CHF-      LEFT  HYDRAULIC
 NUMBER  HTR OPTIONS       DIAM. (M)
 2251001          0        .000000E+00

STRUCTURE  RIGHT VOL.       RIGHT       RIGHT      RIGHT SURFACE    RIGHT DIRECT
 NUMBER       NUMBER  BDRY. TYPE  SRFC. CODE      AREA ENTRY       SOURCE FACTOR
 2251001          0          0           1      2.500000E-01       .000000E+00

                        INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 3211
NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY:  1
NUMBER OF MESH POINTS:  5
GEOMETRY TYPE: SPHERICAL
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M)   (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
    4,  3.000000E-02      5,  2.980000E-02

MESH POINT NUMBER, MESH POINT COORDINATE (M)
    1,  1.719200E+00      2,  1.749200E+00      3,  1.779200E+00      4,  1.809200E+00      5,  1.839000E+00
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MESH POINT NUMBER, COMPOSITION NUMBER  (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
     5,   5

MESH POINT NUMBER, SOURCE FACTOR  (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
     5,   .000000E+00

STRUCTURE      SOURCE        INTERNAL SOURCE
   NUMBER        CODE        FACTOR
  3211001          0          .000000E+00

STRUCTURE  LEFT  VOL.        LEFT        LEFT       LEFT  SURFACE    LEFT  DIRECT
   NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE      AREA ENTRY       SOURCE FACTOR
  3211001   321010000           1           1      2.500000E-01       .000000E+00

STRUCTURE  LEFT  CHF-      LEFT  HYDRAULIC
   NUMBER  HTR OPTIONS     DIAM. (M)
  3211001          0       .000000E+00

STRUCTURE  RIGHT VOL.        RIGHT       RIGHT      RIGHT SURFACE    RIGHT DIRECT
   NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE      AREA ENTRY       SOURCE FACTOR
  3211001          0           0           1      2.500000E-01       .000000E+00

                          INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 3220
NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY: 11
NUMBER OF MESH POINTS:  3
GEOMETRY TYPE: CYLINDRICAL
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M)   (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
     3,  5.450000E-04

MESH POINT NUMBER, MESH POINT COORDINATE (M)
     1,  8.435000E-03      2,  8.980000E-03      3,  9.525000E-03

MESH POINT NUMBER, COMPOSITION NUMBER  (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
     3,   6

MESH POINT NUMBER, SOURCE FACTOR  (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
     3,   .000000E+00

STRUCTURE      SOURCE        INTERNAL SOURCE
   NUMBER        CODE        FACTOR
  3220001          0          .000000E+00
  3220002          0          .000000E+00
  3220003          0          .000000E+00
  3220004          0          .000000E+00
  3220005          0          .000000E+00
  3220006          0          .000000E+00
  3220007          0          .000000E+00
  3220008          0          .000000E+00
  3220009          0          .000000E+00
  3220010          0          .000000E+00
  3220011          0          .000000E+00

STRUCTURE  LEFT  VOL.        LEFT        LEFT       LEFT  SURFACE    LEFT  DIRECT
```

NUMBER	NUMBER	BDRY. TYPE	SRFC. CODE	AREA ENTRY	SOURCE FACTOR
3220001	322010000	1	1	4.598900E+03	.000000E+00
3220002	322020000	1	1	4.447600E+03	.000000E+00
3220003	322030000	1	1	4.447600E+03	.000000E+00
3220004	322040000	1	1	5.621300E+03	.000000E+00
3220005	322050000	1	1	4.757000E+03	.000000E+00
3220006	322060000	1	1	4.757000E+03	.000000E+00
3220007	322070000	1	1	4.757000E+03	.000000E+00
3220008	322080000	1	1	4.757000E+03	.000000E+00
3220009	322090000	1	1	4.757000E+03	.000000E+00
3220010	322100000	1	1	4.757000E+03	.000000E+00
3220011	322110000	1	1	5.116900E+03	.000000E+00

STRUCTURE NUMBER	LEFT CHF-HTR OPTIONS	LEFT HYDRAULIC DIAM. (M)
3220001	0	.000000E+00
3220002	0	.000000E+00
3220003	0	.000000E+00
3220004	0	.000000E+00
3220005	0	.000000E+00
3220006	0	.000000E+00
3220007	0	.000000E+00
3220008	0	.000000E+00
3220009	0	.000000E+00
3220010	0	.000000E+00
3220011	0	.000000E+00

STRUCTURE NUMBER	RIGHT VOL. NUMBER	RIGHT BDRY. TYPE	RIGHT SRFC. CODE	RIGHT SURFACE AREA ENTRY	RIGHT DIRECT SOURCE FACTOR
3220001	-600	1000	1	4.598900E+03	.000000E+00
3220002	-600	1000	1	4.447600E+03	.000000E+00
3220003	-600	1000	1	4.447600E+03	.000000E+00
3220004	-600	1000	1	5.621300E+03	.000000E+00
3220005	-600	1000	1	4.757000E+03	.000000E+00
3220006	-600	1000	1	4.757000E+03	.000000E+00
3220007	-600	1000	1	4.757000E+03	.000000E+00
3220008	-600	1000	1	4.757000E+03	.000000E+00
3220009	-600	1000	1	4.757000E+03	.000000E+00
3220010	-600	1000	1	4.757000E+03	.000000E+00
3220011	-600	1000	1	5.116900E+03	.000000E+00

INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 3231

NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY: 1
NUMBER OF MESH POINTS: 4
GEOMETRY TYPE: RECTANGULAR
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M) (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
4, 1.266667E-02

MESH POINT NUMBER, MESH POINT COORDINATE (M)
1, .000000E+00 2, 1.266667E-02 3, 2.533333E-02 4, 3.800000E-02

```
MESH POINT NUMBER, COMPOSITION NUMBER  (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
     4,   5

MESH POINT NUMBER, SOURCE FACTOR  (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
     4,  .000000E+00

STRUCTURE      SOURCE        INTERNAL SOURCE
   NUMBER        CODE        FACTOR
 3231001          0          .000000E+00

STRUCTURE  LEFT  VOL.       LEFT        LEFT      LEFT  SURFACE    LEFT  DIRECT
   NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE     AREA ENTRY       SOURCE FACTOR
 3231001    321010000           1            1     1.160000E+00      .000000E+00

STRUCTURE  LEFT  CHF-     LEFT  HYDRAULIC
   NUMBER  HTR OPTIONS     DIAM. (M)
 3231001          0       .000000E+00

STRUCTURE  RIGHT VOL.       RIGHT       RIGHT     RIGHT SURFACE    RIGHT DIRECT
   NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE     AREA ENTRY       SOURCE FACTOR
 3231001    325010000           1            1     1.160000E+00      .000000E+00

STRUCTURE  RIGHT CHF-     RIGHT HYDRAULIC
   NUMBER  HTR OPTIONS     DIAM. (M)
 3231001          0       .000000E+00

                          INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 3240
NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY:  8
NUMBER OF MESH POINTS:  3
GEOMETRY TYPE: CYLINDRICAL
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M)   (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
     3,  5.450000E-04

MESH POINT NUMBER, MESH POINT COORDINATE (M)
     1,  8.435000E-03      2,  8.980000E-03      3,  9.525000E-03

MESH POINT NUMBER, COMPOSITION NUMBER  (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
     3,   6

MESH POINT NUMBER, SOURCE FACTOR  (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
     3,  .000000E+00

STRUCTURE      SOURCE        INTERNAL SOURCE
   NUMBER        CODE        FACTOR
 3240001          0          .000000E+00
 3240002          0          .000000E+00
 3240003          0          .000000E+00
 3240004          0          .000000E+00
 3240005          0          .000000E+00
 3240006          0          .000000E+00
 3240007          0          .000000E+00
 3240008          0          .000000E+00
```

STRUCTURE NUMBER	LEFT VOL. NUMBER	LEFT BDRY. TYPE	LEFT SRFC. CODE	LEFT SURFACE AREA ENTRY	LEFT DIRECT SOURCE FACTOR
3240001	324010000	1	1	5.116900E+03	.000000E+00
3240002	324020000	1	1	9.514000E+03	.000000E+00
3240003	324030000	1	1	9.514000E+03	.000000E+00
3240004	324040000	1	1	9.514000E+03	.000000E+00
3240005	324050000	1	1	6.066000E+03	.000000E+00
3240006	324060000	1	1	5.560500E+03	.000000E+00
3240007	324070000	1	1	5.560500E+03	.000000E+00
3240008	324070000	1	1	2.373600E+03	.000000E+00

STRUCTURE NUMBER	LEFT CHF-HTR OPTIONS	LEFT HYDRAULIC DIAM. (M)
3240001	0	.000000E+00
3240002	0	.000000E+00
3240003	0	.000000E+00
3240004	0	.000000E+00
3240005	0	.000000E+00
3240006	0	.000000E+00
3240007	0	.000000E+00
3240008	0	.000000E+00

STRUCTURE NUMBER	RIGHT VOL. NUMBER	RIGHT BDRY. TYPE	RIGHT SRFC. CODE	RIGHT SURFACE AREA ENTRY	RIGHT DIRECT SOURCE FACTOR
3240001	-600	1000	1	5.116900E+03	.000000E+00
3240002	-600	1000	1	9.514000E+03	.000000E+00
3240003	-600	1000	1	9.514000E+03	.000000E+00
3240004	-600	1000	1	9.514000E+03	.000000E+00
3240005	-600	1000	1	6.066000E+03	.000000E+00
3240006	-600	1000	1	5.560500E+03	.000000E+00
3240007	-600	1000	1	5.560500E+03	.000000E+00
3240008	-600	1000	1	2.373600E+03	.000000E+00

INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 3251

NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY: 1
NUMBER OF MESH POINTS: 5
GEOMETRY TYPE: SPHERICAL
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M) (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
4, 3.000000E-02 5, 2.980000E-02

MESH POINT NUMBER, MESH POINT COORDINATE (M)
1, 1.719200E+00 2, 1.749200E+00 3, 1.779200E+00 4, 1.809200E+00 5, 1.839000E+00

MESH POINT NUMBER, COMPOSITION NUMBER (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
5, 5

MESH POINT NUMBER, SOURCE FACTOR (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
5, .000000E+00

STRUCTURE NUMBER	SOURCE CODE	INTERNAL SOURCE FACTOR
3251001	0	.000000E+00

STRUCTURE NUMBER	LEFT VOL. NUMBER	LEFT BDRY. TYPE	LEFT SRFC. CODE	LEFT SURFACE AREA ENTRY	LEFT DIRECT SOURCE FACTOR

```
 3251001   325010000          1          1     2.500000E-01      .000000E+00

STRUCTURE  LEFT  CHF-     LEFT  HYDRAULIC
   NUMBER  HTR OPTIONS     DIAM. (M)
 3251001          0       .000000E+00

STRUCTURE  RIGHT VOL.       RIGHT       RIGHT      RIGHT SURFACE    RIGHT DIRECT
   NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE      AREA ENTRY       SOURCE FACTOR
 3251001           0           0          1      2.500000E-01      .000000E+00

                          INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 4000
NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY:  4
NUMBER OF MESH POINTS:  4
GEOMETRY TYPE: CYLINDRICAL
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M)   (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
     4,  1.200000E-02

MESH POINT NUMBER, MESH POINT COORDINATE (M)
     1,  1.420000E-01      2,  1.540000E-01,      3,  1.660000E-01      4,  1.780000E-01

MESH POINT NUMBER, COMPOSITION NUMBER  (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
     4,   5

MESH POINT NUMBER, SOURCE FACTOR  (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
     4,   .000000E+00

STRUCTURE      SOURCE       INTERNAL SOURCE
   NUMBER        CODE       FACTOR
 4000001          0         .000000E+00
 4000002          0         .000000E+00
 4000003          0         .000000E+00
 4000004          0         .000000E+00

STRUCTURE  LEFT  VOL.       LEFT        LEFT       LEFT  SURFACE    LEFT  DIRECT
   NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE      AREA ENTRY       SOURCE FACTOR
 4000001   400010000           1          1      5.627500E+00      .000000E+00
 4000002   400020000           1          1      5.627500E+00      .000000E+00
 4000003   400030000           1          1      5.627500E+00      .000000E+00
 4000004   400040000           1          1      5.627500E+00      .000000E+00

STRUCTURE  LEFT  CHF-     LEFT  HYDRAULIC
   NUMBER  HTR OPTIONS     DIAM. (M)
 4000001          0       .000000E+00
 4000002          0       .000000E+00
 4000003          0       .000000E+00
 4000004          0       .000000E+00

STRUCTURE  RIGHT VOL.       RIGHT       RIGHT      RIGHT SURFACE    RIGHT DIRECT
   NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE      AREA ENTRY       SOURCE FACTOR
 4000001   940010000        3940          1      5.627500E+00      .000000E+00
 4000002   940010000        3940          1      5.627500E+00      .000000E+00
 4000003   940010000        3940          1      5.627500E+00      .000000E+00
 4000004   940010000        3940          1      5.627500E+00      .000000E+00

                          INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 4101
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NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY:  2
NUMBER OF MESH POINTS:  4
GEOMETRY TYPE: CYLINDRICAL
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M)   (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
    4,  3.890000E-02

MESH POINT NUMBER, MESH POINT COORDINATE (M)
    1,  8.263442E-01      2,  8.652442E-01      3,  9.041442E-01      4,  9.430442E-01

MESH POINT NUMBER, COMPOSITION NUMBER  (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
    4,   5

MESH POINT NUMBER, SOURCE FACTOR  (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
    4,   .000000E+00

STRUCTURE      SOURCE        INTERNAL SOURCE
  NUMBER        CODE         FACTOR
  4101001          0          .000000E+00
  4101002          0          .000000E+00

STRUCTURE  LEFT  VOL.        LEFT        LEFT       LEFT  SURFACE    LEFT  DIRECT
   NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE     AREA ENTRY       SOURCE FACTOR
  4101001   410010000           1            1     2.821700E-01      .000000E+00
  4101002   410020000           1            1     5.644340E-01      .000000E+00

STRUCTURE  LEFT  CHF-      LEFT  HYDRAULIC
  NUMBER  HTR OPTIONS      DIAM. (M)
  4101001          0       .000000E+00
  4101002          0       .000000E+00

STRUCTURE  RIGHT VOL.        RIGHT       RIGHT      RIGHT SURFACE    RIGHT DIRECT
   NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE     AREA ENTRY       SOURCE FACTOR
  4101001   940010000        3940            1     2.821700E-01      .000000E+00
  4101002   940010000        3940            1     5.644340E-01      .000000E+00

                          INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 4102
NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY:  6
NUMBER OF MESH POINTS:  4
GEOMETRY TYPE: CYLINDRICAL
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M)   (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
    4,  3.840000E-02

MESH POINT NUMBER, MESH POINT COORDINATE (M)
    1,  1.063825E+00      2,  1.102225E+00      3,  1.140625E+00      4,  1.179025E+00

MESH POINT NUMBER, COMPOSITION NUMBER  (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
    4,   5
```

MESH POINT NUMBER, SOURCE FACTOR (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
4, .000000E+00

STRUCTURE NUMBER	SOURCE CODE	INTERNAL SOURCE FACTOR
4102001	0	.000000E+00
4102002	0	.000000E+00
4102003	0	.000000E+00
4102004	0	.000000E+00
4102005	0	.000000E+00
4102006	0	.000000E+00

STRUCTURE NUMBER	LEFT VOL. NUMBER	LEFT BDRY. TYPE	LEFT SRFC. CODE	LEFT SURFACE AREA ENTRY	LEFT DIRECT SOURCE FACTOR
4102001	410030000	1	1	7.000000E-01	.000000E+00
4102002	410040000	1	1	1.464000E+00	.000000E+00
4102003	410050000	1	1	3.000000E+00	.000000E+00
4102004	410060000	1	1	3.000000E+00	.000000E+00
4102005	410070000	1	1	3.000000E+00	.000000E+00
4102006	410080000	1	1	7.000000E-01	.000000E+00

STRUCTURE NUMBER	LEFT CHF-HTR OPTIONS	LEFT HYDRAULIC DIAM. (M)
4102001	0	.000000E+00
4102002	0	.000000E+00
4102003	0	.000000E+00
4102004	0	.000000E+00
4102005	0	.000000E+00
4102006	0	.000000E+00

STRUCTURE NUMBER	RIGHT VOL. NUMBER	RIGHT BDRY. TYPE	RIGHT SRFC. CODE	RIGHT SURFACE AREA ENTRY	RIGHT DIRECT SOURCE FACTOR
4102001	940010000	3940	1	7.000000E-01	.000000E+00
4102002	940010000	3940	1	1.464000E+00	.000000E+00
4102003	940010000	3940	1	3.000000E+00	.000000E+00
4102004	940010000	3940	1	3.000000E+00	.000000E+00
4102005	940010000	3940	1	3.000000E+00	.000000E+00
4102006	940010000	3940	1	7.000000E-01	.000000E+00

INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 4103
NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY: 2
NUMBER OF MESH POINTS: 4
GEOMETRY TYPE: CYLINDRICAL
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M) (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
4, 3.541200E-02

MESH POINT NUMBER, MESH POINT COORDINATE (M)
1, 8.263442E-01 2, 8.617562E-01 3, 8.971682E-01 4, 9.325802E-01

```
MESH POINT NUMBER, COMPOSITION NUMBER  (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
     4,   5

MESH POINT NUMBER, SOURCE FACTOR  (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
     4,  .000000E+00

STRUCTURE      SOURCE       INTERNAL SOURCE
   NUMBER       CODE        FACTOR
  4103001         0         .000000E+00
  4103002         0         .000000E+00

STRUCTURE  LEFT  VOL.       LEFT        LEFT       LEFT  SURFACE    LEFT  DIRECT
   NUMBER     NUMBER  BDRY. TYPE  SRFC. CODE     AREA ENTRY       SOURCE FACTOR
  4103001   410090000          1           1     3.800000E-01       .000000E+00
  4103002   420010000          1           1     2.665000E-01       .000000E+00

STRUCTURE  LEFT  CHF-     LEFT  HYDRAULIC
   NUMBER  HTR OPTIONS     DIAM. (M)
  4103001         0       .000000E+00
  4103002         0       .000000E+00

STRUCTURE  RIGHT VOL.       RIGHT       RIGHT      RIGHT SURFACE    RIGHT DIRECT
   NUMBER      NUMBER  BDRY. TYPE  SRFC. CODE     AREA ENTRY       SOURCE FACTOR
  4103001   940010000         3940           1     3.800000E-01       .000000E+00
  4103002   940010000         3940           1     2.665000E-01       .000000E+00

                          INPUT DATA FOR HEAT STRUCTURE-GEOMETRY 4113
NUMBER OF HEAT STRUCTURES WITH THIS GEOMETRY:  2
NUMBER OF MESH POINTS:  3
GEOMETRY TYPE: CYLINDRICAL
STEADY STATE INITIALIZATION: YES

MESH POINT NUMBER, MESH INTERVAL (M)   (MESH INTERVAL CONSTANT BETWEEN INDICATED MESH POINTS)
     2,  7.302500E-03      3,  3.810000E-03

MESH POINT NUMBER, MESH POINT COORDINATE (M)
     1,  .000000E+00      2,  7.302500E-03      3,  1.111250E-02

MESH POINT NUMBER, COMPOSITION NUMBER  (COMPOSITION NUMBER CONSTANT BETWEEN INDICATED MESH POINTS)
     3,   5

MESH POINT NUMBER, SOURCE FACTOR  (SOURCE FACTOR CONSTANT BETWEEN INDICATED MESH POINTS)
     2, 1.000000E+00      3,  .000000E+00

STRUCTURE      SOURCE       INTERNAL SOURCE
   NUMBER       CODE        FACTOR
  4113001      10418        7.500000E-01
  4113002      10418        2.500000E-01

STRUCTURE  LEFT  VOL.       LEFT        LEFT       LEFT  SURFACE    LEFT  DIRECT
   NUMBER     NUMBER  BDRY. TYPE  SRFC. CODE     AREA ENTRY       SOURCE FACTOR
  4113001         0          0           1     1.540000E+02       .000000E+00
  4113002         0          0           1     5.130000E+01       .000000E+00

STRUCTURE  LEFT  CHF-     LEFT  HYDRAULIC
```

NUMBER	HTR OPTIONS	DIAM. (M)
4113001	0	.000000E+00
4113002	0	.000000E+00

STRUCTURE NUMBER	RIGHT VOL. NUMBER	RIGHT BDRY. TYPE	RIGHT SRFC. CODE	RIGHT SURFACE AREA ENTRY	RIGHT DIRECT SOURCE FACTOR
4113001	410040000	1	1	1.540000E+02	.000000E+00
4113002	410050000	1	1	5.130000E+01	.000000E+00

STRUCTURE NUMBER	RIGHT CHF-HTR OPTIONS	RIGHT HYDRAULIC DIAM. (M)
4113001	0	.000000E+00
4113002	0	.000000E+00

EDIT OF HEAT STRUCTURE MATERIAL (COMPOSITION) DATA

DATA FOR COMPOSITION 1

THERMAL CONDUCTIVITY TABLE

TEMPERATURE (K)	THERMAL CONDUCT. (WATTS/M-K)	TEMPERATURE (K)	THERMAL CONDUCT. (WATTS/M-K)
2.930000E+02	8.370000E+00	3.660000E+02	6.577000E+00
5.330000E+02	5.780000E+00	6.160000E+02	4.623000E+00
7.000000E+02	4.633000E+00	7.830000E+02	4.221000E+00
8.660000E+02	3.880000E+00	9.500000E+02	3.596000E+00
1.033000E+03	3.357000E+00	1.200000E+03	2.984000E+00
1.977000E+03	2.290000E+00	9.000000E+03	2.990000E+00

VOLUMETRIC HEAT CAPACITY TABLE

TEMPERATURE (K)	HEAT CAPACITY (J/M3-K)	TEMPERATURE (K)	HEAT CAPACITY (J/M3-K)
2.730000E+02	2.310000E+06	3.230000E+02	2.570000E+06
3.730000E+02	2.750000E+06	4.730000E+02	2.920000E+06
6.730000E+02	3.130000E+06	1.373000E+03	3.440000E+06
9.000000E+03	6.800000E+06		

DATA FOR COMPOSITION 2

THERMAL CONDUCTIVITY TABLE

TEMPERATURE (K)	THERMAL CONDUCT. (WATTS/M-K)	TEMPERATURE (K)	THERMAL CONDUCT. (WATTS/M-K)
2.731500E+02	7.000000E+00	4.731500E+02	1.200438E+01
6.731500E+02	1.400510E+01	8.731500E+02	1.700793E+01
1.073150E+03	1.900866E+01	1.273150E+03	2.200975E+01
1.473150E+03	2.501085E+01	1.673150E+03	3.001267E+01
1.873150E+03	3.601486E+01	2.073150E+03	4.401777E+01
2.273150E+03	5.502352E+01	2.473150E+03	6.802826E+01

VOLUMETRIC HEAT CAPACITY TABLE

TEMPERATURE (K)	HEAT CAPACITY (J/M3-K)	TEMPERATURE (K)	HEAT CAPACITY (J/M3-K)
2.553722E+02	1.904141E+06	1.077594E+03	2.312171E+06
1.185928E+03	5.712422E+06	1.248428E+03	2.311769E+06
2.199817E+03	2.312171E+06		

DATA FOR COMPOSITION 3

THERMAL CONDUCTIVITY TABLE

TEMPERATURE (K)	THERMAL CONDUCT. (WATTS/M-K)	TEMPERATURE (K)	THERMAL CONDUCT. (WATTS/M-K)
2.730000E+02	1.300000E+01	1.190000E+03	2.500000E+01
9.000000E+03	2.500000E+01		

VOLUMETRIC HEAT CAPACITY TABLE

TEMPERATURE (K)	HEAT CAPACITY (J/M3-K)	TEMPERATURE (K)	HEAT CAPACITY (J/M3-K)
2.250000E+02	3.500000E+06	5.800000E+02	4.340000E+06
1.300000E+03	5.280000E+06		

DATA FOR COMPOSITION 4

THERMAL CONDUCTIVITY IS CONSTANT AT 5.600000E-01 (WATTS/M-K)

VOLUMETRIC HEAT CAPACITY IS CONSTANT AT 5.400000E+00 (J/M3-K)

DATA FOR COMPOSITION 5

THERMAL CONDUCTIVITY IS CONSTANT AT 4.605000E+01 (WATTS/M-K)

VOLUMETRIC HEAT CAPACITY IS CONSTANT AT 3.877500E+06 (J/M3-K)

DATA FOR COMPOSITION 6

THERMAL CONDUCTIVITY TABLE

TEMPERATURE (K)	THERMAL CONDUCT. (WATTS/M-K)	TEMPERATURE (K)	THERMAL CONDUCT. (WATTS/M-K)
2.941500E+02	1.486000E+01	3.661500E+02	1.576000E+01
4.771500E+02	1.745000E+01	5.891500E+02	1.918000E+01
7.001500E+02	2.091000E+01		

VOLUMETRIC HEAT CAPACITY TABLE

TEMPERATURE (K)	HEAT CAPACITY (J/M3-K)	TEMPERATURE (K)	HEAT CAPACITY (J/M3-K)
2.941500E+02	3.880000E+06	3.661500E+02	3.880000E+06
4.771500E+02	4.227000E+06	5.891500E+02	4.227000E+06
7.001500E+02	4.580000E+06		

EDIT OF GENERAL TABLE INPUT

GENERAL TABLE NO. 11

TABLE IS REACTIVITY VERSUS TIME, TIME FACTOR IS 1.000000E+00, REACTIVITY FACTOR IS 1.000000E+00.

TIME (AS INPUT)	REACTIVITY (AS INPUT)	TIME (SEC)	REACTIVITY (DOLLARS)
.000000E+00	1.551000E+07	.000000E+00	1.551000E+07
3.000000E+01	1.551000E+07	3.000000E+01	1.551000E+07
1.300000E+02	1.464000E+07	1.300000E+02	1.464000E+07
1.350000E+02	1.461000E+07	1.350000E+02	1.461000E+07
1.400000E+02	1.458500E+07	1.400000E+02	1.458500E+07
1.450000E+02	1.456000E+07	1.450000E+02	1.456000E+07
1.500000E+02	1.455000E+07	1.500000E+02	1.455000E+07
1.550000E+02	1.454000E+07	1.550000E+02	1.454000E+07
1.600000E+02	1.454000E+07	1.600000E+02	1.454000E+07

GENERAL TABLE NO. 12

TABLE IS REACTIVITY VERSUS TIME, TIME FACTOR IS 1.000000E+00, REACTIVITY FACTOR IS 1.000000E+00.

TIME (AS INPUT)	REACTIVITY (AS INPUT)	TIME (SEC)	REACTIVITY (DOLLARS)
.000000E+00	2.630000E+01	.000000E+00	2.630000E+01
3.000000E+01	2.630000E+01	3.000000E+01	2.630000E+01
1.300000E+02	2.980000E+01	1.300000E+02	2.980000E+01
1.350000E+02	2.992000E+01	1.350000E+02	2.992000E+01
1.400000E+02	3.000000E+01	1.400000E+02	3.000000E+01
1.450000E+02	3.010000E+01	1.450000E+02	3.010000E+01
1.500000E+02	3.018000E+01	1.500000E+02	3.018000E+01
1.550000E+02	3.020000E+01	1.550000E+02	3.020000E+01
1.600000E+02	3.020000E+01	1.600000E+02	3.020000E+01

GENERAL TABLE NO. 185

TABLE IS REACTIVITY VERSUS TIME, TIME FACTOR IS 1.000000E+00, REACTIVITY FACTOR IS 1.000000E+00.

TIME (AS INPUT)	REACTIVITY (AS INPUT)	TIME (SEC)	REACTIVITY (DOLLARS)
.000000E+00	2.060000E+02	.000000E+00	2.060000E+02
5.000000E+00	2.056000E+02	5.000000E+00	2.056000E+02
1.000000E+01	2.050000E+02	1.000000E+01	2.050000E+02
1.400000E+01	2.040000E+02	1.400000E+01	2.040000E+02
1.700000E+01	2.030000E+02	1.700000E+01	2.030000E+02
2.000000E+01	2.020000E+02	2.000000E+01	2.020000E+02
2.300000E+01	2.000000E+02	2.300000E+01	2.000000E+02
2.600000E+01	1.976000E+02	2.600000E+01	1.976000E+02
2.875000E+01	1.950000E+02	2.875000E+01	1.950000E+02
3.000000E+01	1.930000E+02	3.000000E+01	1.930000E+02
3.222000E+01	1.900000E+02	3.222000E+01	1.900000E+02
3.520000E+01	1.850000E+02	3.520000E+01	1.850000E+02
3.905000E+01	1.800000E+02	3.905000E+01	1.800000E+02
4.283000E+01	1.750000E+02	4.283000E+01	1.750000E+02
4.482000E+01	1.700000E+02	4.482000E+01	1.700000E+02
5.000000E+01	1.600000E+02	5.000000E+01	1.600000E+02

GENERAL TABLE NO. 186

TABLE IS REACTIVITY VERSUS TIME, TIME FACTOR IS 1.000000E+00, REACTIVITY FACTOR IS 1.000000E+00.

TIME (AS INPUT)	REACTIVITY (AS INPUT)	TIME (SEC)	REACTIVITY (DOLLARS)
.000000E+00	-1.000000E-05	.000000E+00	-1.000000E-05
5.000000E+00	-5.000000E-02	5.000000E+00	-5.000000E-02
1.000000E+01	-1.000000E-01	1.000000E+01	-1.000000E-01
1.400000E+01	-2.300000E-01	1.400000E+01	-2.300000E-01
1.700000E+01	-3.333000E-01	1.700000E+01	-3.333000E-01
2.000000E+01	-5.000000E-01	2.000000E+01	-5.000000E-01
2.300000E+01	-7.300000E-01	2.300000E+01	-7.300000E-01
2.600000E+01	-8.700000E-01	2.600000E+01	-8.700000E-01
2.875000E+01	-1.100000E+00	2.875000E+01	-1.100000E+00
3.000000E+01	-1.200000E+00	3.000000E+01	-1.200000E+00
3.222000E+01	-1.560000E+00	3.222000E+01	-1.560000E+00
4.283000E+01	-1.560000E+00	4.283000E+01	-1.560000E+00

5.000000E+01 -2.000000E+00 5.000000E+01 -2.000000E+00

GENERAL TABLE NO. 411

TABLE IS REACTIVITY VERSUS TIME, TIME FACTOR IS 1.000000E+00, REACTIVITY FACTOR IS 1.000000E+00.

TIME (AS INPUT)	REACTIVITY (AS INPUT)	TIME (SEC)	REACTIVITY (DOLLARS)
6.703500E+02	2.500000E+01	6.703500E+02	2.500000E+01
5.850500E+02	5.750000E+01	5.850500E+02	5.750000E+01

GENERAL TABLE NO. 417

TABLE IS REACTIVITY VERSUS TIME, TIME FACTOR IS 1.000000E+00, REACTIVITY FACTOR IS 1.000000E+00.

TIME (AS INPUT)	REACTIVITY (AS INPUT)	TIME (SEC)	REACTIVITY (DOLLARS)
-1.000000E+05	1.000000E+00	-1.000000E+05	1.000000E+00
1.000000E+05	.000000E+00	1.000000E+05	.000000E+00

GENERAL TABLE NO. 418

TABLE IS REACTIVITY VERSUS TIME, TIME FACTOR IS 1.000000E+00, REACTIVITY FACTOR IS 1.000000E+00.

TIME (AS INPUT)	REACTIVITY (AS INPUT)	TIME (SEC)	REACTIVITY (DOLLARS)
.000000E+00	8.925700E+04	.000000E+00	8.925700E+04
3.000000E+01	8.925700E+04	3.000000E+01	8.925700E+04
3.400000E+01	1.850000E+05	3.400000E+01	1.850000E+05
1.600000E+02	1.850000E+05	1.600000E+02	1.850000E+05

GENERAL TABLE NO. 435

TABLE IS REACTIVITY VERSUS TIME, TIME FACTOR IS 1.000000E+00, REACTIVITY FACTOR IS 1.000000E+00.

TIME (AS INPUT)	REACTIVITY (AS INPUT)	TIME (SEC)	REACTIVITY (DOLLARS)
.000000E+00	.000000E+00	.000000E+00	.000000E+00
3.000000E+01	.000000E+00	3.000000E+01	.000000E+00
4.000000E+01	1.000000E+00	4.000000E+01	1.000000E+00
1.300000E+02	1.000000E+00	1.300000E+02	1.000000E+00
1.550000E+02	.000000E+00	1.550000E+02	.000000E+00
1.600000E+02	.000000E+00	1.600000E+02	.000000E+00

GENERAL TABLE NO. 445

ABLE IS REACTIVITY VERSUS TIME, TIME FACTOR IS 1.000000E+00, REACTIVITY FACTOR IS 1.000000E+00.

TIME (AS INPUT)	REACTIVITY (AS INPUT)	TIME (SEC)	REACTIVITY (DOLLARS)
.000000E+00	.000000E+00	.000000E+00	.000000E+00
3.000000E+01	.000000E+00	3.000000E+01	.000000E+00
4.000000E+01	1.000000E+00	4.000000E+01	1.000000E+00
1.300000E+02	1.000000E+00	1.300000E+02	1.000000E+00
1.550000E+02	.000000E+00	1.550000E+02	.000000E+00
1.600000E+02	.000000E+00	1.600000E+02	.000000E+00

GENERAL TABLE NO. 600

TABLE IS TEMPERATURE VS. TIME
TIME FACTOR IS 1.000000E+00, TEMPERATURE FACTORS ARE 1.000000E+00, .000000E+00.

TIME (AS INPUT)	TEMPERATURE (AS INPUT)	TIME (SEC)	TEMPERATURE (K)
.000000E+00	5.703500E+02	.000000E+00	5.703500E+02
1.000000E+03	5.703500E+02	1.000000E+03	5.703500E+02

GENERAL TABLE NO. 940

TABLE IS HEAT TRANSFER COEFFICIENT VS. TIME, TIME FACTOR IS 1.000000E+00, HEAT TRANSFER COEFFICIENT FACTOR IS 1.000000E+00.

TIME (AS INPUT)	HEAT TRANF.COEF. (AS INPUT)	TIME (SEC)	HEAT TRANF.COEF. (WATTS/M2-K)
.000000E+00	2.510000E+00	.000000E+00	2.510000E+00
9.999900E+04	2.510000E+00	9.999900E+04	2.510000E+00

```
                                    EDIT OF CONTROL COMPONENT INPUT DATA

CONTROL COMPONENT    1  P/RHO180            TYPE = DIV

        Y =   1.0000    /(RHOF         180010000)*(P            180010000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT    2  ENTHA180            TYPE = SUM

        Y =   1.0000    *[    0.
                        +   1.0000    *(UF           180010000)
                        +   1.0000    *(CNTRLVAR             1)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT    3  CVENERGY            TYPE = MULT

        Y =   1.0000    *(MFLOWJ       181000000)
                        *(CNTRLVAR             2)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT    4  P/RHO231            TYPE = DIV

        Y =   1.0000    /(RHOF         231010000)*(P            231010000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT    5  ENTHA231            TYPE = SUM

        Y =   1.0000    *[    0.
                        +   1.0000    *(UF           231010000)
                        +   1.0000    *(CNTRLVAR             4)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT    6  LETDENER            TYPE = MULT

        Y =   1.0000    *(MFLOWJ       283000000)
                        *(CNTRLVAR             5)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT    7  PRZRHEAT            TYPE = SUM

        Y =   1.0000    *[    0.
                        +   1.0000    *(Q            410010000)
                        +   1.0000    *(Q            410020000)
                        +   1.0000    *(Q            410030000)
                        +   1.0000    *(Q            410040000)
                        +   1.0000    *(Q            410050000)
                        +   1.0000    *(Q            410060000)
                        +   1.0000    *(Q            410070000)
                        +   1.0000    *(Q            410080000)
                        +   1.0000    *(Q            410090000)
                        +   1.0000    *(Q            420010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT    8  PRZVAPH             TYPE = SUM

        Y =   1.0000    *[    0.
                        +   1.0000    *(QWG          410010000]
```

```
                          +   1.0000    *(QWG          410020000)
                          +   1.0000    *(QWG          410030000)
                          +   1.0000    *(QWG          410040000)
                          +   1.0000    *(QWG          410050000)
                          +   1.0000    *(QWG          410060000)
                          +   1.0000    *(QWG          410070000)
                          +   1.0000    *(QWG          410080000)
                          +   1.0000    *(QWG          410090000)
                          +   1.0000    *(QWG          420010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT    9  BALANCE              TYPE = SUM

          Y =   1.0000    *[    1.33800E+07
                          +   1.0000    *(CNTRLVAR            3)
                          +  -1.0000    *(CNTRLVAR            6)
                          +  -1.0000    *(CNTRLVAR          610)
                          +  -1.0000    *(CNTRLVAR          710)
                          +  -1.0000    *(CNTRLVAR          810)
                          +   1.0000    *(CNTRLVAR          920)
                          +   1.0000    *(CNTRLVAR            7)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT   10  CALC-P              TYPE = MULT

          Y =   1.0000    *(P            420010000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   1.650000E+07

CONTROL COMPONENT   11  MEAS-P              TYPE = FUNCTION

          Y =   1.0000    *FUNCTION (TIME                0)
             FUNCTION IS DEFINED BY GENERAL TABLE  11
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   1.551000E+07

CONTROL COMPONENT   12  MEAS-L              TYPE = FUNCTION

          Y =   1.0000    *FUNCTION (TIME                0)
             FUNCTION IS DEFINED BY GENERAL TABLE  12
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    26.3000

CONTROL COMPONENT   13  TEMPF420            TYPE = MULT

          Y =   1.0000    *(TEMPF        420010000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    570.000

CONTROL COMPONENT   14  TEMPG420            TYPE = MULT

          Y =   1.0000    *(TEMPG        420010000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    570.000

CONTROL COMPONENT   15  SAT420              TYPE = MULT

          Y =   1.0000    *(SATTEMP       420010000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    617.000

CONTROL COMPONENT   16  SPRYTEMP            TYPE = MULT
```

```
        Y =   1.0000    *(TEMPF        450010000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    570.000

CONTROL COMPONENT   20  P/RHO450            TYPE = DIV

        Y =   1.0000    /(RHOF         450010000)*(P            450010000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT   21  ENTHA450            TYPE = SUM

        Y =   1.0000    *[    0.
                         +   1.0000    *(UF           450010000)
                         +   1.0000    *(CNTRLVAR            20)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT   22  SPRENER             TYPE = MULT

        Y =   1.0000    *(MFLOWJ       450010000)
                        *(CNTRLVAR            21)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT   23  P/RHO400            TYPE = DIV

        Y =   1.0000    /(RHOF         400010000)*(P            400010000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT   24  ENTHA410            TYPE = SUM

        Y =   1.0000    *[    0.
                         +   1.0000    *(UF           400010000)
                         +   1.0000    *(CNTRLVAR            23)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT   25  SURGENER            TYPE = MULT

        Y =  -1.0000    *(MFLOWJ       400010000)
                        *(CNTRLVAR            24)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT   26  SPRBALAN            TYPE = SUM

        Y =   1.0000    *[    0.
                         +   1.0000    *(CNTRLVAR             7)
                         +   1.0000    *(CNTRLVAR            22)
                         +  -1.0000    *(CNTRLVAR            25)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT   27  HEATERW             TYPE = SUM

        Y =   1.0000    *[    0.
                         +  10.750     *(HTRNR        411300101)
                         +   3.5800    *(HTRNR        411300201)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT   28  VAPGEN              TYPE = SUM

        Y =   1.0000    *[    0.
```

```
                    +   .60184    *(VAPGEN        410010000)
                    +   1.2038    *(VAPGEN        410020000)
                    +   2.4745    *(VAPGEN        410030000)
                    +   5.1752    *(VAPGEN        410040000)
                    +   10.605    *(VAPGEN        410050000)
                    +   10.605    *(VAPGEN        410060000)
                    +   10.605    *(VAPGEN        410070000)
                    +   2.4745    *(VAPGEN        410080000)
                    +   .81050    *(VAPGEN        410090000)
                    +   .56870    *(VAPGEN        420010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT   31  POW                 TYPE = SUM

      Y =  1.0000    *[    0.
                    +   1.0000    *(TIME                  0)
                    +  -1.0000    *(TIME                  0)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT   32  TURBPOW             TYPE = SUM

      Y =  1.0000    *[    0.
                    +   1.0000    *(TIME                  0)
                    +  -1.0000    *(TIME                  0)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  100  TAVG(R)             TYPE = SUM

      Y =  .50000    *[    0.
                    +   1.0000    *(TEMPF         151010000)
                    +   1.0000    *(TEMPF         111010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    585.150

CONTROL COMPONENT  101  LAG1                TYPE = LAG

      Y(S) =  1.0000    *[1.0/(1.0 +     2.0000    *S)]*(CNTRLVAR          100),
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    585.150

CONTROL COMPONENT  102  S1                  TYPE = SUM

      Y =  1.0000    *[    -585.15
                    +   1.0000    *(CNTRLVAR          101)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  103  LL1                 TYPE = LEAD-LAG

      Y(S)= 3.97400E-02*[(1.0 +     27.000    *S)/(1.0 +     10.000    *S) ]*(CNTRLVAR          102)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  104  S2                  TYPE = SUM

      Y =  1.25400E-02*[   -1.55100E+07
                    +   1.0000    *(P             420010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  105  ???                 TYPE = SUM
```

```
        Y =   36.700     *[     1.0910
                          +   1.0000     *(CNTRLVAR          104)
                          +  -1.0000     *(CNTRLVAR          103)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  106  DELTA-T              TYPE = SUM

        Y =   1.0000     *[    0.
                          +  -1.0000     *(TEMPF        151010000)
                          +   1.0000     *(TEMPF        111010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   36.7000

CONTROL COMPONENT  107  LAG2                 TYPE = LAG

        Y(S) =   1.0000     *[1.0/(1.0 +     2.0000     *S)]*(CNTRLVAR          106),
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   36.7500

CONTROL COMPONENT  108  LL2                  TYPE = LEAD-LAG

        Y(S)=   1.0000     *[(1.0 +     43.000     *S)/(1.0 +     10.000     *S) ]*(CNTRLVAR          107)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   36.7000

CONTROL COMPONENT  109  LL3                  TYPE = LEAD-LAG

        Y(S)=   1.0000     *[(1.0 +     1.0000     *S)/(1.0 +     10.000     *S) ]*(CNTRLVAR          101)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   585.150

CONTROL COMPONENT  110  LAG3                 TYPE = LAG

        Y(S) =   1.0000     *[1.0/(1.0 +     10.000     *S)]*(CNTRLVAR          101),
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   585.150

CONTROL COMPONENT  111  S4                   TYPE = SUM

        Y =   .36000     *[    0.
                          +   1.0000     *(CNTRLVAR          109)
                          +  -1.0000     *(CNTRLVAR          110)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.
UPPER LIMIT IS    0.

CONTROL COMPONENT  112  S5                   TYPE = SUM

        Y = 2.26800E-03*[    -585.15
                          +   1.0000     *(CNTRLVAR          101)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.
UPPER LIMIT IS    0.

CONTROL COMPONENT  113  S6                   TYPE = SUM

        Y =   36.700     *[     1.0890
                          +  -1.0000     *(CNTRLVAR          111)
                          +  -1.0000     *(CNTRLVAR          112)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   36.7000

CONTROL COMPONENT  134  LEVREG               TYPE = PROP-INT

        Y = -2.8000     *[     1.0000     *(CNTRLVAR          412) +   2.70270E-03*INT(CNTRLVAR          412)]
```

```
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    11.6670

CONTROL COMPONENT  135  LIMIT              TYPE = MULT

          Y =    1.0000    *(CNTRLVAR           134)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    11.6670
LOWER LIMIT IS      9.50000
UPPER LIMIT IS      31.7000

CONTROL COMPONENT  136  DELTAF             TYPE = SUM

          Y =    1.0000    *[    0.
                            +  -1.0000    *(CNTRLVAR           136)
                            +   .83333    *(CNTRLVAR           181)]
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  137  D(AREA)            TYPE = PROP-INT

          Y =  7.00000E-03*[     1.0000    *(CNTRLVAR           136) +     .27027    *INT(CNTRLVAR           136) ]
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  139  VALVAREA           TYPE = SUM

          Y =    1.0000    *[    0.
                            + -1.00000E-02*(CNTRLVAR           137)
                            +   1.0000    *(CNTRLVAR           139)]
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    .109000
LOWER LIMIT IS     1.000000E-50
UPPER LIMIT IS     1.00000

CONTROL COMPONENT  140  AREA**2            TYPE = MULT

          Y =    1.0000    *(CNTRLVAR           139)
                           *(CNTRLVAR           139)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS   1.188000E-02
LOWER LIMIT IS     1.000000E-70
UPPER LIMIT IS     1.00000

CONTROL COMPONENT  141  K(VALV)            TYPE = DIV

          Y =   242.20    /(CNTRLVAR           140)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    20387.0

CONTROL COMPONENT  142  K(T+DT)            TYPE = SUM

          Y =    1.0000    *[     408.64
                            +   1.0000    *(CNTRLVAR           141)]
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    20796.0

CONTROL COMPONENT  143  DELTA-K            TYPE = SUM

          Y =    1.0000    *[    0.
                            +   1.0000    *(CNTRLVAR           142)
                            +  -1.0000    *(CNTRLVAR           144)]
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  144  K(T)               TYPE = MULT
```

```
        Y =   1.0000    *(CNTRLVAR          142)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    20796.0

CONTROL COMPONENT  145  DELTA-P              TYPE = SUM

        Y =   1.0000    *[    0.
                        +   1.0000    *(P             152010000)
                        +  -1.0000    *(CNTRLVAR          146)]
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    0.

CONTROL COMPONENT  146  P(T)                 TYPE = MULT

        Y =   1.0000    *(P             152010000)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    1.591000E+07

CONTROL COMPONENT  153  KOQO2                TYPE = MULT

        Y =  1.17800E+05*(CNTRLVAR          183)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    981423.

CONTROL COMPONENT  154  DUM                  TYPE = SUM

        Y =   1.0000    *[    0.
                        +   1.0000    *(CNTRLVAR          153)
                        +  -1.0000    *(CNTRLVAR          186)]
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    1.050000E+06

CONTROL COMPONENT  155  A(T)                 TYPE = DIV

        Y =   1.0000    /(CNTRLVAR          154)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    9.530000E-07

CONTROL COMPONENT  156  DUM                  TYPE = MULT

        Y =   58400.    *(CNTRLVAR          155)
                        *(CNTRLVAR          155)
                        *(CNTRLVAR          186)
                        *(CNTRLVAR          186)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    242.117

CONTROL COMPONENT  157  DUM                  TYPE = MULT

        Y =   1.0000    *(CNTRLVAR          153)
                        *(CNTRLVAR          155)
                        *(CNTRLVAR          186)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    -63192.0

CONTROL COMPONENT  158  A                    TYPE = SUM

        Y =   1.0000    *[    1.00000E-50
                        +   1.0000    *(CNTRLVAR          142)
                        +  -1.0000    *(CNTRLVAR          156)]
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    20570.4

CONTROL COMPONENT  159  DUM                  TYPE = MULT

        Y =   1.0000    *(CNTRLVAR          181)
```

```
                        *(CNTRLVAR          142)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    290474.

CONTROL COMPONENT  160  DUM                 TYPE = MULT

        Y =  1.17800E+05*(CNTRLVAR          155)
                        *(CNTRLVAR          155)
                        *(CNTRLVAR          145)
                        *(CNTRLVAR          186)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  170  B                   TYPE = SUM

        Y =   1.0000    *[    0.
                         +   1.0000    *(CNTRLVAR          160)
                         +   1.0000    *(CNTRLVAR          181)
                         +  -1.0000    *(CNTRLVAR          167)]
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    63206.0

CONTROL COMPONENT  171  DUM                 TYPE = MULT

        Y =   58400.    *(CNTRLVAR          155)
                        *(CNTRLVAR          155)
                        *(CNTRLVAR          145)
                        *(CNTRLVAR          145)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  172  DUM                 TYPE = MULT

        Y =  1.17800E+05*(CNTRLVAR          155)
                        *(CNTRLVAR          183)
                        *(CNTRLVAR          145)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS   -.260000

CONTROL COMPONENT  173  DUM                 TYPE = MULT

        Y =   1.0000    *(CNTRLVAR          143)
                        *(CNTRLVAR          181)
                        *(CNTRLVAR          181)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    456.100

CONTROL COMPONENT  174  C                   TYPE = SUM

        Y =   1.0000    *[    0.
                         +   1.0000    *(CNTRLVAR          173)
                         +   1.0000    *(CNTRLVAR          172)
                         +  -1.0000    *(CNTRLVAR          171)]
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    455.800

CONTROL COMPONENT  175  B**2                TYPE = MULT

        Y =   1.0000    *(CNTRLVAR          170)
                        *(CNTRLVAR          170)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS   3.995000E+09

CONTROL COMPONENT  176  AC4                 TYPE = MULT
```

```
      Y =   4.0000    *(CNTRLVAR          158)
                      *(CNTRLVAR          174)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS   3.750000E+07

CONTROL COMPONENT  177  B2-4AC              TYPE = SUM

      Y =   1.0000    *[    0.
                      +   1.0000    *(CNTRLVAR          175)
                      +  -1.0000    *(CNTRLVAR          176)]
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS   3.960000E+09
LOWER LIMIT IS     0.

CONTROL COMPONENT  178  SQRT                TYPE = STDFNCTN

      Y =   1.0000    *SQRT      ( (CNTRLVAR          177) )
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    62908.6

CONTROL COMPONENT  179  DUM                 TYPE = SUM

      Y =   .50000    *[    0.
                      +   1.0000    *(CNTRLVAR          178)
                      +  -1.0000    *(CNTRLVAR          170)]
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS   -148.700

CONTROL COMPONENT  180  DELTA-Q             TYPE = DIV

      Y =   1.0000    /(CNTRLVAR          158)*(CNTRLVAR          179)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  181  Q(T+DT)             TYPE = SUM

      Y =   1.0000    *[    0.
                      +   1.0000    *(CNTRLVAR          181)
                      +   1.0000    *(CNTRLVAR          180)]
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    14.0000

CONTROL COMPONENT  182  DUM                 TYPE = STDFNCTN

      Y =  4.13800E-03*SQRT      ( (CNTRLVAR          142) )
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    .597000

CONTROL COMPONENT  183  QO(T+DT)            TYPE = MULT

      Y =   1.0000    *(CNTRLVAR          181)
                      *(CNTRLVAR          182)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    8.33000

CONTROL COMPONENT  184  QTOT                TYPE = SUM

      Y =   1.0000    *[    0.
                      +   1.0000    *(CNTRLVAR          181)
                      +   1.0000    *(CNTRLVAR          183)]
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    22.3300

CONTROL COMPONENT  185  P(PUMP)             TYPE = FUNCTION

      Y =  1.00000E+05*FUNCTION (CNTRLVAR          184)
```

```
          FUNCTION IS DEFINED BY GENERAL TABLE 185
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS   2.004800E+07

CONTROL COMPONENT  186  DFDQ *                TYPE = FUNCTION

          Y =  1.00000E+05*FUNCTION (CNTRLVAR          184)
          FUNCTION IS DEFINED BY GENERAL TABLE 186
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS   -67456.0

CONTROL COMPONENT  200  TAVG(G)               TYPE = SUM

          Y =   .50000    *[    0.
                          +   1.0000    *(TEMPF        251010000)
                          +   1.0000    *(TEMPF        211010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    585.150

CONTROL COMPONENT  201  LAG1                  TYPE = LAG

        Y(S) =   1.0000    *[1.0/(1.0 +     2.0000    *S)]*(CNTRLVAR          200),
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    585.150

CONTROL COMPONENT  202  S1                    TYPE = SUM

          Y =   1.0000    *[   -585.15
                          +   1.0000    *(CNTRLVAR          201)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  203  LL1                   TYPE = LEAD-LAG

        Y(S)=  3.97400E-02*[(1.0 +     27.000    *S)/(1.0 +     10.000    *S) ]*(CNTRLVAR          202)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  204  S2                    TYPE = SUM

          Y =  1.25400E-02*[   -1.55100E+07
                          +   1.0000    *(P            420010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  205  ???                   TYPE = SUM

          Y =   36.700    *[    1.0910
                          +   1.0000    *(CNTRLVAR          104)
                          +  -1.0000    *(CNTRLVAR          203)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  206  DELTA-T               TYPE = SUM

          Y =   1.0000    *[    0.
                          +  -1.0000    *(TEMPF        251010000)
                          +   1.0000    *(TEMPF        211010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   36.7000

CONTROL COMPONENT  207  LAG2                  TYPE = LAG

        Y(S) =   1.0000    *[1.0/(1.0 +     2.0000    *S)]*(CNTRLVAR          206),
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    36.7500
```

```
CONTROL COMPONENT  208  LL2                    TYPE = LEAD-LAG

        Y(S)=   1.0000    *[(1.0 +     43.000    *S)/(1.0 +     10.000    *S) ]*(CNTRLVAR          207)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    36.7000

CONTROL COMPONENT  209  LL3                    TYPE = LEAD-LAG

        Y(S)=   1.0000    *[(1.0 +     1.0000    *S)/(1.0 +     10.000    *S) ]*(CNTRLVAR          201)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    585.150

CONTROL COMPONENT  210  LAG3                   TYPE = LAG

        Y(S) =   1.0000    *[1.0/(1.0 +     10.000    *S)]*(CNTRLVAR          201),
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    585.150

CONTROL COMPONENT  211  S4                     TYPE = SUM

        Y =   .36000    *[    0.
                         +   1.0000    *(CNTRLVAR          209)
                         +  -1.0000    *(CNTRLVAR          210)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.
UPPER LIMIT IS     0.

CONTROL COMPONENT  212  S5                     TYPE = SUM

        Y =  2.26800E-03*[    -585.15
                         +   1.0000    *(CNTRLVAR          201)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.
UPPER LIMIT IS     0.

CONTROL COMPONENT  213  S6                     TYPE = SUM

        Y =   36.700    *[     1.0890
                         +  -1.0000    *(CNTRLVAR          211)
                         +  -1.0000    *(CNTRLVAR          212)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    36.7000

CONTROL COMPONENT  281  LET1                   TYPE = SUM

        Y =   2.0000    *[    0.
                         +   1.0000    *(P          231010000)
                         +  -1.0000    *(P          282010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  282  LET2                   TYPE = MULT

        Y =   1.0000    *(CNTRLVAR          281)
                        *(RHOF          231010000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  283  LET3                   TYPE = STDFNCTN

        Y =  4.75700E-05*SQRT    . ( (CNTRLVAR          282) )
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    6.17700

CONTROL COMPONENT  284  LETDOWN                TYPE = MULT
```

```
          Y =   3.6217    *(CNTRLVAR          283)
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    22.3700

CONTROL COMPONENT  300  TAVG(B)              TYPE = SUM

          Y =   .50000    *[    0.
                           +   1.0000    *(TEMPF        351010000)
                           +   1.0000    *(TEMPF        311010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    585.150

CONTROL COMPONENT  301  LAG1                 TYPE = LAG

          Y(S) =   1.0000    *[1.0/(1.0 +     2.0000    *S)]*(CNTRLVAR          300),
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    585.150

CONTROL COMPONENT  302  S1                   TYPE = SUM

          Y =   1.0000    *[    -585.15
                           +   1.0000    *(CNTRLVAR          301)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  303  LL1                  TYPE = LEAD-LAG

          Y(S)=  3.97400E-02*[(1.0 +     27.000    *S)/(1.0 +     10.000    *S) ]*(CNTRLVAR          302)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  304  S2                   TYPE = SUM

          Y =  1.25400E-02*[   -1.55100E+07
                           +   1.0000    *(P            420010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  305  ???                  TYPE = SUM

          Y =   36.700    *[     1.0910
                           +   1.0000    *(CNTRLVAR          104)
                           +  -1.0000    *(CNTRLVAR          303)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  306  DELTA-T              TYPE = SUM

          Y =   1.0000    *[    0.
                           +  -1.0000    *(TEMPF        351010000)
                           +   1.0000    *(TEMPF        311010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    36.7000

CONTROL COMPONENT  307  LAG2                 TYPE = LAG

          Y(S) =   1.0000    *[1.0/(1.0 +     2.0000    *S)]*(CNTRLVAR          306),
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    36.7500

CONTROL COMPONENT  308  LL2                  TYPE = LEAD-LAG

          Y(S)=   1.0000    *[(1.0 +     43.000    *S)/(1.0 +     10.000    *S) ]*(CNTRLVAR          307)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    36.7000

CONTROL COMPONENT  309  LL3                  TYPE = LEAD-LAG
```

```
        Y(S)=   1.0000    *[(1.0 +     1.0000    *S)/(1.0 +     10.000    *S) ]*(CNTRLVAR          301)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    585.150

CONTROL COMPONENT  310  LAG3                TYPE = LAG

        Y(S) =   1.0000    *[1.0/(1.0 +     10.000    *S)]*(CNTRLVAR          301),
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    585.150

CONTROL COMPONENT  311  S4                  TYPE = SUM

        Y =   .36000    *[    0.
                          +   1.0000    *(CNTRLVAR          309)
                          +  -1.0000    *(CNTRLVAR          310)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.
UPPER LIMIT IS    0.

CONTROL COMPONENT  312  S6                  TYPE = SUM

        Y =  2.26800E-03*[    -585.15
                          +   1.0000    *(CNTRLVAR          301)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.
UPPER LIMIT IS    0.

CONTROL COMPONENT  313  S6                  TYPE = SUM

        Y =   36.700    *[     1.0890
                          +  -1.0000    *(CNTRLVAR          311)
                          +  -1.0000    *(CNTRLVAR          312)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    36.7000

CONTROL COMPONENT  400  COLLEVEL            TYPE = SUM

        Y =   8.9574    *[    -7.2645
                          +   1.5170    *(VOIDF        400010000)
                          +   1.5170    *(VOIDF        400020000)
                          +   1.5170    *(VOIDF        400030000)
                          +   1.5170    *(VOIDF        400040000)
                          +   .28217    *(VOIDF        410010000)
                          +   .56434    *(VOIDF        410020000)
                          +   .70000    *(VOIDF        410030000)
                          +   1.4640    *(VOIDF        410040000)
                          +   3.0000    *(VOIDF        410050000)
                          +   3.0000    *(VOIDF        410060000)
                          +   3.0000    *(VOIDF        410070000)
                          +   .70000    *(VOIDF        410080000)
                          +   .38000    *(VOIDF        410090000)
                          +   .26650    *(VOIDF        420010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  402  DPLEVEL             TYPE = SUM

        Y =  1.84800E-03*[    -11270.
                          +   3.4335    *(RHO          410030000)
                          +   14.362    *(RHO          410040000)
                          +   29.430    *(RHO          410050000)
                          +   29.430    *(RHO          410060000)
                          +   29.430    *(RHO          410070000)
```

```
                          +   3.4335    *(RHO          410080000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    25.0000
LOWER LIMIT IS     0.
UPPER LIMIT IS      100.000

CONTROL COMPONENT  404  PRZMASS              TYPE = SUM

        Y =   1.0000    *[    0.
                          +   .60184    *(RHO          410010000)
                          +   1.2038    *(RHO          410020000)
                          +   2.4745    *(RHO          410030000)
                          +   5.1752    *(RHO          410040000)
                          +   10.605    *(RHO          410050000)
                          +   10.605    *(RHO          410060000)
                          +   10.605    *(RHO          410070000)
                          +   2.4745    *(RHO          410080000)
                          +   .81050    *(RHO          410090000)
                          +   .56870    *(RHO          420010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  410  T-AUCT-H             TYPE = STDFNCTN

        Y =   1.0000    *MAX       ( (CNTRLVAR           100) ,
                                     (CNTRLVAR           200) ,
                                     (CNTRLVAR           300) )
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    570.540

CONTROL COMPONENT  411  L-REF                TYPE = FUNCTION

        Y =   1.0000    *FUNCTION (CNTRLVAR           410)
            FUNCTION IS DEFINED BY GENERAL TABLE 411
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS    25.4190

CONTROL COMPONENT  412  DELT-LEV             TYPE = SUM

        Y =   1.0000    *[    0.
                          +  -1.0000    *(CNTRLVAR          411)
                          +   1.0000    *(CNTRLVAR          402)]
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  413  DELTA-P              TYPE = SUM

        Y =   1.0000    *[  -1.55100E+07
                          +   1.0000    *(P            410080000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  414  DP-CORR              TYPE = PROP-INT

        Y =   1.0000    *[    1.0000    *(CNTRLVAR          413) +    5.00000E-03*INT(CNTRLVAR          413) ]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  415  POW-HE11             TYPE = TRIPUNIT

        Y =  3.08000E+05*UNITTRIP(  599)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  416  POW-BKR              TYPE = TRIPUNIT
```

```
        Y =  9.86000E+05*UNITTRIP(  599)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  417  POWVAR              TYPE = FUNCTION

        Y =  3.08000E+05*FUNCTION (CNTRLVAR          414)
          FUNCTION IS DEFINED BY GENERAL TABLE 417
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    150000.

CONTROL COMPONENT  418  TOTPOW              TYPE = FUNCTION

        Y =   1.0000    *FUNCTION (TIME                 0)
          FUNCTION IS DEFINED BY GENERAL TABLE 418
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    89257.0

CONTROL COMPONENT  435  SPRAYVAL            TYPE = FUNCTION

        Y =   1.0000    *FUNCTION (TIME                 0)
          FUNCTION IS DEFINED BY GENERAL TABLE 435
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS   0.
LOWER LIMIT IS     0.
UPPER LIMIT IS      1.00000

CONTROL COMPONENT  445  SPRAYVAL            TYPE = FUNCTION

        Y =   1.0000    *FUNCTION (TIME                 0)
          FUNCTION IS DEFINED BY GENERAL TABLE 445
INITIALIZATION FLAG IS OFF, INPUT INITIAL VALUE IS   0.
LOWER LIMIT IS     0.
UPPER LIMIT IS      1.00000

CONTROL COMPONENT  606  POWCOLDL            TYPE = SUM

        Y =  -1.0000    *[    0.
                        +   1.0000    *(Q           124050000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    20.0000

CONTROL COMPONENT  607  POWPREH             TYPE = SUM

        Y =  -1.0000    *[    0.
                        +   1.0000    *(Q           124060000)
                        +   1.0000    *(Q           124070000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    135.000

CONTROL COMPONENT  608  POWHOTLG            TYPE = SUM

        Y =  -1.0000    *[    0.
                        +   1.0000    *(Q           122010000)
                        +   1.0000    *(Q           122020000)
                        +   1.0000    *(Q           122030000)
                        +   1.0000    *(Q           122040000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    327.000

CONTROL COMPONENT  609  POWUBEND            TYPE = SUM

        Y =  -1.0000    *[    0.
                        +   1.0000    *(Q           122050000)
```

```
                    +   1.0000    *(Q            122060000)
                    +   1.0000    *(Q            122070000)
                    +   1.0000    *(Q            122080000)
                    +   1.0000    *(Q            122090000)
                    +   1.0000    *(Q            122100000)
                    +   1.0000    *(Q            122110000)
                    +   1.0000    *(Q            124010000)
                    +   1.0000    *(Q            124020000)
                    +   1.0000    *(Q            124030000)
                    +   1.0000    *(Q            124040000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    618.000

CONTROL COMPONENT  610  SGPOWER            TYPE = SUM

        Y =   1.0000    *[    0.
                    +   1.0000    *(CNTRLVAR          606)
                    +   1.0000    *(CNTRLVAR          607)
                    +   1.0000    *(CNTRLVAR          608)
                    +   1.0000    *(CNTRLVAR          609)
                    +  -1.0000    *(Q            121010000)
                    +  -1.0000    *(Q            125010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    1000.00

CONTROL COMPONENT  706  POWCOLDL           TYPE = SUM

        Y =  -1.0000    *[    0.
                    +   1.0000    *(Q            224050000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    20.0000

CONTROL COMPONENT  707  POWPREH            TYPE = SUM

        Y =  -1.0000    *[    0.
                    +   1.0000    *(Q            224060000)
                    +   1.0000    *(Q            224070000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    135.000

CONTROL COMPONENT  708  POWHOTLG           TYPE = SUM

        Y =  -1.0000    *[    0.
                    +   1.0000    *(Q            222010000)
                    +   1.0000    *(Q            222020000)
                    +   1.0000    *(Q            222030000)
                    +   1.0000    *(Q            222040000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    327.000

CONTROL COMPONENT  709  POWUBEND           TYPE = SUM

        Y =  -1.0000    *[    0.
                    +   1.0000    *(Q            222050000)
                    +   1.0000    *(Q            222060000)
                    +   1.0000    *(Q            222070000)
                    +   1.0000    *(Q            222080000)
                    +   1.0000    *(Q            222090000)
                    +   1.0000    *(Q            222100000)
                    +   1.0000    *(Q            222110000)
                    +   1.0000    *(Q            224010000)
                    +   1.0000    *(Q            224020000)
```

```
                    +   1.0000    *(Q            224030000)
                    +   1.0000    *(Q            224040000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    518.000

CONTROL COMPONENT  710  SGPOWER              TYPE = SUM

      Y =   1.0000    *[    0.
                    +   1.0000    *(CNTRLVAR          706)
                    +   1.0000    *(CNTRLVAR          707)
                    +   1.0000    *(CNTRLVAR          708)
                    +   1.0000    *(CNTRLVAR          709)
                    +  -1.0000    *(Q            221010000)
                    +  -1.0000    *(Q            225010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  806  POWCOLDL             TYPE = SUM

      Y =  -1.0000    *[    0.
                    +   1.0000    *(Q            324050000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    20.0000

CONTROL COMPONENT  807  POWPREH              TYPE = SUM

      Y =  -1.0000    *[    0.
                    +   1.0000    *(Q            324060000)
                    +   1.0000    *(Q            324070000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    135.000

CONTROL COMPONENT  808  POWHOTLG             TYPE = SUM

      Y =  -1.0000    *[    0.
                    +   1.0000    *(Q            322010000)
                    +   1.0000    *(Q            322020000)
                    +   1.0000    *(Q            322030000)
                    +   1.0000    *(Q            322040000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    327.000

CONTROL COMPONENT  809  POWUBEND             TYPE = SUM

      Y =  -1.0000    *[    0.
                    +   1.0000    *(Q            322050000)
                    +   1.0000    *(Q            322060000)
                    +   1.0000    *(Q            322070000)
                    +   1.0000    *(Q            322080000)
                    +   1.0000    *(Q            322090000)
                    +   1.0000    *(Q            322100000)
                    +   1.0000    *(Q            322110000)
                    +   1.0000    *(Q            324010000)
                    +   1.0000    *(Q            324020000)
                    +   1.0000    *(Q            324030000)
                    +   1.0000    *(Q            324040000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    518.000

CONTROL COMPONENT  810  SGPOWER              TYPE = SUM

      Y =   1.0000    *[    0.
                    +   1.0000    *(CNTRLVAR          806)
```

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                    +   1.0000    *(CNTRLVAR          807)
                    +   1.0000    *(CNTRLVAR          808)
                    +   1.0000    *(CNTRLVAR          809)
                    +  -1.0000    *(Q            321010000)
                    +  -1.0000    *(Q            325010000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS    1000.00

CONTROL COMPONENT  900  MG1                TYPE = MULT

        Y =   .60184    *(VOIDG        410010000)
                        *(RHOG         410010000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  901  MG2                TYPE = MULT

        Y =   1.2038    *(VOIDG        410020000)
                        *(RHOG         410020000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  902  MG3                TYPE = MULT

        Y =   2.4745    *(VOIDG        410030000)
                        *(RHOG         410030000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  903  MG4                TYPE = MULT

        Y =   5.1752    *(VOIDG        410040000)
                        *(RHOG         410040000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  904  MG5                TYPE = MULT

        Y =   10.605    *(VOIDG        410050000)
                        *(RHOG         410050000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  905  MG6                TYPE = MULT

        Y =   10.605    *(VOIDG        410060000)
                        *(RHOG         410060000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  906  MG7                TYPE = MULT

        Y =   10.605    *(VOIDG        410070000)
                        *(RHOG         410070000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  907  MG8                TYPE = MULT

        Y =   2.4745    *(VOIDG        410080000)
                        *(RHOG         410080000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  908  MG9                TYPE = MULT
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        Y =    .81050     *(VOIDG        410090000)
                          *(RHOG         410090000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  909  MG10                TYPE = MULT

        Y =    .66870     *(VOIDG        420010000)
                          *(RHOG         420010000)
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  911  PRZMASW             TYPE = SUM

        Y =   1.0000      *[    0.
                           +   1.0000     *(CNTRLVAR          900)
                           +   1.0000     *(CNTRLVAR          901)
                           +   1.0000     *(CNTRLVAR          902)
                           +   1.0000     *(CNTRLVAR          903)
                           +   1.0000     *(CNTRLVAR          904)
                           +   1.0000     *(CNTRLVAR          905)
                           +   1.0000     *(CNTRLVAR          906)
                           +   1.0000     *(CNTRLVAR          907)
                           +   1.0000     *(CNTRLVAR          908)
                           +   1.0000     *(CNTRLVAR          909)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  912  PRZMASL             TYPE = SUM

        Y =   1.0000      *[    0.
                           +  -1.0000     *(CNTRLVAR          911)
                           +   1.0000     *(CNTRLVAR          404)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

CONTROL COMPONENT  920  SURGHEAT            TYPE = SUM

        Y =   1.0000      *[    0.
                           +   1.0000     *(Q            400010000)
                           +   1.0000     *(Q            400020000)
                           +   1.0000     *(Q            400030000)
                           +   1.0000     *(Q            400040000)]
INITIALIZATION FLAG IS ON , INPUT INITIAL VALUE IS   0.

        EDIT TRIP DATA

TRIP NO.   LEFT VAR. CODE PARAMETER   REL.  RIGHT VAR. CODE PARAMETER   +   CONSTANT          LATCH OPTION   TRPTIM
    597    TIME                 0     GT   NULL                    0      2.000000E-03       NOLATCH        -1.00000
    598    TIME                 0     GT   NULL                    0       20.0000           NOLATCH        -1.00000
    599    TIME                 0     GT   NULL                    0       9999.00           NOLATCH        -1.00000

TRIP NO.   LEFT TRIP   REL.   RIGHT TRIP    LATCH OPTION    TRPTIM
    698       -598     OR        -598       NOLATCH        -1.00000

$$$$$$$$ VOLUME, 151010000, HAS ILLEGAL MULTIPLE JUNCTION ON A SIDE OR END.

$$$$$$$$ VOLUME, 231030000, HAS ILLEGAL MULTIPLE JUNCTION ON A SIDE OR END.

$$$$$$$$ VOLUME, 311020000, HAS ILLEGAL MULTIPLE JUNCTION ON A SIDE OR END.
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$$$$$$$$ VOLUME, 351010000, HAS ILLEGAL MULTIPLE JUNCTION ON A SIDE OR END.

$$$$$$$$ NO JUNCTIONS CONNECTED TO VOLUME 940010000.

REFERENCE VOLUMES AND ELEVATIONS FOR EACH LOOP AND SEGMENT FOR EACH HYDRODYNAMIC SYSTEM

VOL. NO.	INLET ELEV. (M)	OUTLET ELEV. (M)	VOL. NO.	INLET ELEV. (M)	OUTLET ELEV. (M)	VOL. NO.	INLET ELEV. (M)	OUTLET ELEV. (M)
REFERENCE VOLUME OF SYSTEM		1 NAMED	IS 11010000 AND HAS INLET ELEVATION 0. (M) .					
11010000	0.	2.09400	-13010000	0.	-1.41400	153020000	0.	0.
153010000	0.	0.	152010000	0.	0.	180010000	0.	0.
45010000	2.09400	4.15400	43010000	0.	2.09400	41010000	-.670000	0.
39010000	-1.52300	-.670000	31050000	-2.37600	-1.52300	31040000	-3.22900	-2.37600
31030000	-4.08200	-3.22900	31020000	-4.93500	-4.08200	31010000	-5.78800	-4.93500
JUNCTION 39020000 CLOSES AN ELEVATION LOOP BY CONNECTING VOLUMES 35010000 AND 39010000.								
25010000	-6.64100	-5.78800	35010000	-5.78800	-1.52300			
253030000	0.	0.	253020000	0.	0.	253010000	0.	0.
251010000	0.	0.	240010000	-1.38900	0.	232010000	-2.98900	-1.38900
231030000	-2.98900	-2.98900	282010000	-2.98900	-2.98900			
353020000	0.	0.	353010000	0.	0.	352010000	0.	0.
361010000	0.	0.	440010000	0.	10.2666	450010000	10.2666	19.4252
-420010000	19.1587	19.4252	490010000	19.4252	19.4252			
15010000	-1.41400	-3.15633	15020000	-3.15633	-4.89866	15030000	-4.89866	-6.64099
JUNCTION 23020000 CLOSES AN ELEVATION LOOP BY CONNECTING VOLUMES -23010000 AND 25010000.								
23010000	-6.64099	-8.09599						
111010000	0.	0.	111020000	0.	0.	113010000	0.	.897000
121010000	.897000	2.79700	122010000	2.79700	3.74250	122020000	3.74250	4.65690
122030000	4.65690	5.57130	122040000	5.57130	6.72700	122050000	6.72700	7.70500
122060000	7.70500	8.68300	122070000	8.68300	9.66100	122080000	9.66100	10.6390
122090000	10.6390	11.6170	122100000	11.6170	12.5950	122110000	12.5950	13.2647
124010000	13.2647	12.5950	124020000	12.5950	10.6390	124030000	10.6390	8.68300
124040000	8.68300	6.72700	124050000	6.72700	5.57130	124060000	5.57130	4.42815
124070000	4.42815	2.79705	125010000	2.79705	.897050	131010000	.897050	-1.04595
131020000	-1.04595	-2.98895	131030000	-2.98895	-2.98895	131040000	-2.98895	-1.38895
JUNCTION 152010000 CLOSES AN ELEVATION LOOP BY CONNECTING VOLUMES 151010000 AND 152010000.								
140010000	-1.38895	5.000000E-05	151010000	5.000000E-05	5.000000E-05	430010000	5.000000E-05	10.2666
JUNCTION 435000000 CLOSES AN ELEVATION LOOP BY CONNECTING VOLUMES 430010000 AND 450010000.								
211010000	0.	0.	211020000	0.	0.	213010000	0.	.897000
221010000	.897000	2.79700	222010000	2.79700	3.74250	222020000	3.74250	4.65690
222030000	4.65690	5.57130	222040000	5.57130	6.72700	222050000	6.72700	7.70500
222060000	7.70500	8.68300	222070000	8.68300	9.66100	222080000	9.66100	10.6390
222090000	10.6390	11.6170	222100000	11.6170	12.5950	222110000	12.5950	13.2647
224010000	13.2647	12.5950	224020000	12.5950	10.6390	224030000	10.6390	8.68300
224040000	8.68300	6.72700	224050000	6.72700	5.57130	224060000	5.57130	4.42815
224070000	4.42815	2.79705	225010000	2.79705	.897050	231010000	.897050	-1.04595
JUNCTION 231020000 CLOSES AN ELEVATION LOOP BY CONNECTING VOLUMES 231020000 AND 231030000.								
231020000	-1.04595	-2.98895						
311010000	0.	0.	311020000	0.	0.	-400010000	0.	1.51704
400020000	1.51704	3.03407	400030000	3.03407	4.55111	400040000	4.55111	6.06814
410010000	6.06814	6.35031	410020000	6.35031	6.91465	410030000	6.91465	7.61465
410040000	7.61465	9.07865	410050000	9.07865	12.0787	410060000	12.0787	15.0787
410070000	15.0787	18.0787	410080000	18.0787	18.7787	410090000	18.7787	19.1587
JUNCTION 420010000 CLOSES AN ELEVATION LOOP BY CONNECTING VOLUMES 410090000 AND 420010000.								
313010000	0.	.897000	321010000	.897000	2.79700	322010000	2.79700	3.74250
322020000	3.74250	4.65690	322030000	4.65690	5.57130	322040000	5.57130	6.72700
322050000	6.72700	7.70500	322060000	7.70500	8.68300	322070000	8.68300	9.66100
322080000	9.66100	10.6390	322090000	10.6390	11.6170	322100000	11.6170	12.5950
322110000	12.5950	13.2647	324010000	13.2647	12.5950	324020000	12.5950	10.6390
324030000	10.6390	8.68300	324040000	8.68300	6.72700	324050000	6.72700	5.57130
324060000	5.57130	4.42815	324070000	4.42815	2.79705	325010000	2.79705	.897050
331010000	.897050	-1.04595	331020000	-1.04595	-2.98895	331030000	-2.98895	-2.98895

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JUNCTION 340020000 CLOSES AN ELEVATION LOOP BY CONNECTING VOLUMES 340010000 AND 351010000.
     331040000  -2.98895      -1.38895          340010000  -1.38895      5.000000E-05
REFERENCE VOLUME OF SYSTEM    2 NAMED            IS 940010000 AND HAS INLET ELEVATION  0.          (M) .

MOTOR TORQUE AT INITIAL CONDITIONS FOR PUMPR      PUMP       140010000 IS    32334.3     (N-M).

MOTOR TORQUE AT INITIAL CONDITIONS FOR PUMPR      PUMP       240010000 IS    32334.3     (N-M).

MOTOR TORQUE AT INITIAL CONDITIONS FOR PUMPR      PUMP       340010000 IS    32334.3     (N-M).
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EDIT OF HYDRODYNAMIC COMPONENTS AFTER INPUT PROCESSING

NUMBER OF VOLUMES = 134, NUMBER OF JUNCTIONS = 139.

TOTAL SYSTEM MASS = 1.96370E+05 KG, TOTAL SYSTEM VOLUME = 2.98116E+02 M3.

VOL.NO.	PRESSURE (PA)	VOIDG	TEMPF (K)	TEMPG (K)	SAT. TEMP. (K)	NONCOND. VAPOR QUAL.	BORON DENS. (KG/M3)	UF (J/KG)	UG (J/KG)	VOL. FLAG
SYSTEM 1	MASS = 1.96370E+05 KG		VOLUME= 298.12	M3						
UPDOWNC	BRANCH	COMPONENT								
11-010000	1.59955E+07	0.	570.54	620.46	620.46	0.	.73296	1.30149E+06	2.43589E+06	00
UPDOWNOZZ	BRANCH	COMPONENT								
13-010000	1.59860E+07	0.	570.60	620.41	620.41	0.	.73282	1.30183E+06	2.43615E+06	00
DOWNCTS	ANNULUS	COMPONENT								
15-010000	1.59898E+07	0.	570.60	620.43	620.43	0.	.73283	1.30182E+06	2.43605E+06	00
15-020000	1.60016E+07	0.	570.61	620.49	620.49	0.	.73283	1.30185E+06	2.43573E+06	00
15-030000	1.60131E+07	0.	570.61	620.54	620.54	0.	.73285	1.30183E+06	2.43542E+06	00
LOWPLEN	BRANCH	COMPONENT								
23-010000	1.60134E+07	0.	570.62	620.55	620.55	0.	.73283	1.30188E+06	2.43541E+06	00
COREIN	BRANCH	COMPONENT								
25-010000	1.59500E+07	0.	570.59	620.23	620.23	0.	.73278	1.30185E+06	2.43712E+06	00
CORE	PIPE	COMPONENT								
31-010000	1.59160E+07	0.	570.58	620.05	620.05	0.	.73273	1.30187E+06	2.43804E+06	00
31-020000	1.58928E+07	0.	570.57	619.93	619.93	0.	.73271	1.30186E+06	2.43862E+06	00
31-030000	1.58506E+07	0.	570.55	619.72	619.72	0.	.73267	1.30185E+06	2.43960E+06	00
31-040000	1.58073E+07	0.	570.54	619.50	619.50	0.	.73261	1.30188E+06	2.44061E+06	00
31-050000	1.57829E+07	0.	570.53	619.37	619.37	0.	.73259	1.30188E+06	2.44119E+06	00
BYPASS	SNGLVOL	COMPONENT								
35-010000	1.58652E+07	0.	570.52	619.79	619.79	0.	.73276	1.30165E+06	2.43926E+06	00
COREEX	BRANCH	COMPONENT								
39-010000	1.57627E+07	0.	570.52	619.27	619.27	0.	.73257	1.30187E+06	2.44166E+06	00
UPPLEN1	BRANCH	COMPONENT								
41-010000	1.57203E+07	0.	570.51	619.05	619.05	0.	.73251	1.30190E+06	2.44266E+06	00
UPPLEN2	BRANCH	COMPONENT								
43-010000	1.57134E+07	0.	570.51	619.02	619.02	0.	.73250	1.30192E+06	2.44282E+06	00
UPHEAD	BRANCH	COMPONENT								
45-010000	1.56998E+07	0.	570.46	618.95	618.95	0.	.73258	1.30168E+06	2.44314E+06	00
HTLEGR1	PIPE	COMPONENT								
111-010000	1.55940E+07	0.	570.47	618.40	618.40	0.	.73236	1.30196E+06	2.44564E+06	00
111-020000	1.55905E+07	0.	570.47	618.38	618.38	0.	.73235	1.30196E+06	2.44572E+06	00
HTLEGR2	BRANCH	COMPONENT								
113-010000	1.55842E+07	0.	570.47	618.35	618.35	0.	.73234	1.30198E+06	2.44587E+06	00
INBOX	BRANCH	COMPONENT								
121-010000	1.56327E+07	0.	570.49	618.60	618.60	0.	.73239	1.30198E+06	2.44472E+06	00
UTUBE	PIPE	COMPONENT								
122-010000	1.56019E+07	0.	570.46	618.44	618.44	0.	.73240	1.30188E+06	2.44545E+06	00
122-020000	1.55860E+07	0.	570.45	618.36	618.36	0.	.73239	1.30186E+06	2.44583E+06	00
122-030000	1.55703E+07	0.	570.43	618.28	618.28	0.	.73240	1.30179E+06	2.44620E+06	00
122-040000	1.55524E+07	0.	570.42	618.19	618.19	0.	.73238	1.30177E+06	2.44662E+06	00
122-050000	1.55341E+07	0.	570.40	618.09	618.09	0.	.73239	1.30170E+06	2.44706E+06	00
122-060000	1.55173E+07	0.	570.39	618.00	618.00	0.	.73238	1.30168E+06	2.44746E+06	00
122-070000	1.55004E+07	0.	570.38	617.92	617.92	0.	.73237	1.30167E+06	2.44786E+06	00
122-080000	1.54836E+07	0.	570.38	617.83	617.83	0.	.73234	1.30170E+06	2.44826E+06	00
122-090000	1.54667E+07	0.	570.38	617.74	617.74	0.	.73233	1.30168E+06	2.44866E+06	00
122-100000	1.54499E+07	0.	570.37	617.65	617.65	0.	.73232	1.30166E+06	2.44906E+06	00
122-110000	1.54337E+07	0.	570.37	617.57	617.57	0.	.73229	1.30170E+06	2.44945E+06	00

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UTUBE     PIPE       COMPONENT
124-010000  1.54229E+07  0.          570.36      617.51      617.51      0.          .73229      1.30167E+06  2.44970E+06  00
124-020000  1.54167E+07  0.          570.36      617.48      617.48      0.          .73227      1.30168E+06  2.44985E+06  00
124-030000  1.54106E+07  0.          570.36      617.45      617.45      0.          .73226      1.30169E+06  2.45000E+06  00
124-040000  1.54046E+07  0.          570.36      617.42      617.42      0.          .73225      1.30171E+06  2.45014E+06  00
124-050000  1.53999E+07  0.          570.36      617.39      617.39      0.          .73224      1.30172E+06  2.45025E+06  00
124-060000  1.53965E+07  0.          570.36      617.37      617.37      0.          .73224      1.30173E+06  2.45034E+06  00
124-070000  1.53925E+07  0.          570.36      617.35      617.35      0.          .73223      1.30173E+06  2.45043E+06  00
OUTBOX    BRANCH     COMPONENT
125-010000  1.54013E+07  0.          570.37      617.40      617.40      0.          .73223      1.30177E+06  2.45022E+06  00
SEALR     PIPE       COMPONENT
131-010000  1.53390E+07  0.          570.34      617.07      617.07      0.          .73217      1.30174E+06  2.45171E+06  00
131-020000  1.53486E+07  0.          570.35      617.12      617.12      0.          .73217      1.30177E+06  2.45148E+06  00
131-030000  1.53535E+07  0.          570.35      617.15      617.15      0.          .73218      1.30176E+06  2.45137E+06  00
131-040000  1.53457E+07  0.          570.35      617.11      617.11      0.          .73216      1.30178E+06  2.45155E+06  00
PUMPR     PUMP       COMPONENT
 RPM =   165.00     (RAD/SEC)     HEAD =  6.88996E+05 (PA)          TORQUE =  -32334.     (N-M)
  OCTANT = 1                                                     MTR.TORQUE =  0.          (N-M)
140-010000  1.57344E+07  0.          570.51      619.12      619.12      0.          .73254      1.30187E+06  2.44232E+06  10
COLDR1    SNGLVOL    COMPONENT
151-010000  1.59451E+07  0.          570.59      620.20      620.20      0.          .73277      1.30186E+06  2.43725E+06  00
COLDR2    BRANCH     COMPONENT
152-010000  1.59418E+07  0.          570.57      620.18      620.18      0.          .73280      1.30176E+06  2.43734E+06  00
COLDR3    PIPE       COMPONENT
153-010000  1.59385E+07  0.          570.57      620.17      620.17      0.          .73279      1.30177E+06  2.43743E+06  00
153-020000  1.59585E+07  0.          570.58      620.27      620.27      0.          .73281      1.30178E+06  2.43689E+06  00
CVTANK    TMDPVOL    COMPONENT
180-010000  2.00000E+07  0.          275.00      638.85      638.85      0.          1.0097       7942.8      2.30082E+06  00
HTLEGG1   PIPE       COMPONENT
211-010000  1.55940E+07  0.          570.47      618.40      618.40      0.          .73236      1.30196E+06  2.44564E+06  00
211-020000  1.55905E+07  0.          570.47      618.38      618.38      0.          .73235      1.30196E+06  2.44572E+06  00
HTLEGG2   BRANCH     COMPONENT
213-010000  1.55842E+07  0.          570.47      618.35      618.35      0.          .73234      1.30198E+06  2.44587E+06  00
INBOX     BRANCH     COMPONENT
221-010000  1.56327E+07  0.          570.49      618.60      618.60      0.          .73239      1.30198E+06  2.44472E+06  00
UTUBE     PIPE       COMPONENT
222-010000  1.56019E+07  0.          570.46      618.44      618.44      0.          .73240      1.30188E+06  2.44545E+06  00
222-020000  1.55860E+07  0.          570.45      618.36      618.36      0.          .73239      1.30186E+06  2.44583E+06  00
222-030000  1.55703E+07  0.          570.43      618.28      618.28      0.          .73240      1.30179E+06  2.44620E+06  00
222-040000  1.55524E+07  0.          570.42      618.19      618.19      0.          .73238      1.30177E+06  2.44662E+06  00
222-050000  1.55341E+07  0.          570.40      618.09      618.09      0.          .73239      1.30170E+06  2.44706E+06  00
222-060000  1.55173E+07  0.          570.39      618.00      618.00      0.          .73238      1.30168E+06  2.44746E+06  00
222-070000  1.55004E+07  0.          570.38      617.92      617.92      0.          .73237      1.30167E+06  2.44786E+06  00
222-080000  1.54836E+07  0.          570.38      617.83      617.83      0.          .73234      1.30170E+06  2.44826E+06  00
222-090000  1.54667E+07  0.          570.38      617.74      617.74      0.          .73233      1.30168E+06  2.44866E+06  00
222-100000  1.54499E+07  0.          570.37      617.65      617.65      0.          .73232      1.30166E+06  2.44906E+06  00
222-110000  1.54337E+07  0.          570.37      617.57      617.57      0.          .73229      1.30170E+06  2.44945E+06  00
UTUBE     PIPE       COMPONENT
224-010000  1.54229E+07  0.          570.36      617.51      617.51      0.          .73229      1.30167E+06  2.44970E+06  00
224-020000  1.54167E+07  0.          570.36      617.48      617.48      0.          .73227      1.30168E+06  2.44985E+06  00
224-030000  1.54106E+07  0.          570.36      617.45      617.45      0.          .73226      1.30169E+06  2.45000E+06  00
224-040000  1.54046E+07  0.          570.36      617.42      617.42      0.          .73225      1.30171E+06  2.45014E+06  00
224-050000  1.53999E+07  0.          570.36      617.39      617.39      0.          .73224      1.30172E+06  2.45025E+06  00
224-060000  1.53965E+07  0.          570.36      617.37      617.37      0.          .73224      1.30173E+06  2.45034E+06  00
224-070000  1.53925E+07  0.          570.36      617.35      617.35      0.          .73223      1.30173E+06  2.45043E+06  00
OUTBOX    BRANCH     COMPONENT
225-010000  1.54013E+07  0.          570.37      617.40      617.40      0.          .73223      1.30177E+06  2.45022E+06  00
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SEALG1      PIPE        COMPONENT
231-010000  1.53390E+07  0.          570.34      617.07      617.07      0.          .73217      1.30174E+06  2.45171E+06  00
231-020000  1.53486E+07  0.          570.35      617.12      617.12      0.          .73217      1.30177E+06  2.45148E+06  00
231-030000  1.53535E+07  0.          570.35      617.15      617.15      0.          .73218      1.30176E+06  2.45137E+06  00
SEALG2      BRANCH      COMPONENT
232-010000  1.53457E+07  0.          570.35      617.11      617.11      0.          .73216      1.30178E+06  2.45155E+06  00
PUMPR       PUMP        COMPONENT
  RPM =   155.00     (RAD/SEC)     HEAD =  6.88996E+05 (PA)          TORQUE =  -32334.     (N-M)
  OCTANT = 1                                                      MTR.TORQUE =  0.          (N-M)
240-010000  1.57344E+07  0.          570.51      619.12      619.12      0.          .73254      1.30187E+06  2.44232E+06  10
COLG1       BRANCH      COMPONENT
251-010000  1.59451E+07  0.          570.59      620.20      620.20      0.          .73277      1.30186E+06  2.43725E+06  00
COLG2       PIPE        COMPONENT
253-010000  1.59418E+07  0.          570.59      620.18      620.18      0.          .73276      1.30187E+06  2.43734E+06  00
253-020000  1.59386E+07  0.          570.59      620.17      620.17      0.          .73275      1.30188E+06  2.43743E+06  00
253-030000  1.59585E+07  0.          570.59      620.27      620.27      0.          .73279      1.30184E+06  2.43689E+06  00
LETDG1      TMDPVOL     COMPONENT
282-010000  3.80000E+06  0.          412.00      520.46      520.46      0.          .92880      5.82440E+05  2.60184E+06  00
HTLEGB1     PIPE        COMPONENT
311-010000  1.55946E+07  0.          570.47      618.40      618.40      0.          .73236      1.30195E+06  2.44562E+06  00
311-020000  1.55946E+07  0.          570.47      618.40      618.40      0.          .73236      1.30195E+06  2.44562E+06  00
HTLEGB2     BRANCH      COMPONENT
313-010000  1.55845E+07  0.          570.47      618.35      618.35      0.          .73234      1.30198E+06  2.44586E+06  00
INBOX       BRANCH      COMPONENT
321-010000  1.56328E+07  0.          570.49      618.60      618.60      0.          .73239      1.30198E+06  2.44472E+06  00
UTUBE       PIPE        COMPONENT
322-010000  1.56020E+07  0.          570.46      618.44      618.44      0.          .73240      1.30188E+06  2.44545E+06  00
322-020000  1.55860E+07  0.          570.45      618.36      618.36      0.          .73239      1.30186E+06  2.44583E+06  00
322-030000  1.55703E+07  0.          570.43      618.28      618.28      0.          .73240      1.30179E+06  2.44620E+06  00
322-040000  1.55525E+07  0.          570.42      618.19      618.19      0.          .73238      1.30177E+06  2.44662E+06  00
322-050000  1.55342E+07  0.          570.40      618.09      618.09      0.          .73239      1.30170E+06  2.44705E+06  00
322-060000  1.55173E+07  0.          570.39      618.00      618.00      0.          .73238      1.30168E+06  2.44746E+06  00
322-070000  1.55005E+07  0.          570.38      617.92      617.92      0.          .73237      1.30167E+06  2.44785E+06  00
322-080000  1.54836E+07  0.          570.38      617.83      617.83      0.          .73234      1.30170E+06  2.44826E+06  00
322-090000  1.54668E+07  0.          570.38      617.74      617.74      0.          .73233      1.30168E+06  2.44866E+06  00
322-100000  1.54499E+07  0.          570.37      617.65      617.65      0.          .73232      1.30166E+06  2.44906E+06  00
322-110000  1.54337E+07  0.          570.37      617.57      617.57      0.          .73229      1.30170E+06  2.44945E+06  00
UTUBE       PIPE        COMPONENT
324-010000  1.54230E+07  0.          570.36      617.51      617.51      0.          .73229      1.30167E+06  2.44970E+06  00
324-020000  1.54168E+07  0.          570.36      617.48      617.48      0.          .73227      1.30168E+06  2.44985E+06  00
324-030000  1.54107E+07  0.          570.36      617.45      617.45      0.          .73226      1.30169E+06  2.45000E+06  00
324-040000  1.54047E+07  0.          570.36      617.42      617.42      0.          .73225      1.30171E+06  2.45014E+06  00
324-050000  1.54000E+07  0.          570.36      617.39      617.39      0.          .73224      1.30172E+06  2.45025E+06  00
324-060000  1.53966E+07  0.          570.36      617.38      617.38      0.          .73224      1.30173E+06  2.45033E+06  00
324-070000  1.53926E+07  0.          570.36      617.35      617.35      0.          .73223      1.30173E+06  2.45043E+06  00
OUTBOX      BRANCH      COMPONENT
325-010000  1.54013E+07  0.          570.37      617.40      617.40      0.          .73223      1.30177E+06  2.45022E+06  00
SEALB       PIPE        COMPONENT
331-010000  1.53391E+07  0.          570.34      617.07      617.07      0.          .73217      1.30174E+06  2.45171E+06  00
331-020000  1.53486E+07  0.          570.35      617.12      617.12      0.          .73217      1.30177E+06  2.45148E+06  00
331-030000  1.53535E+07  0.          570.35      617.15      617.15      0.          .73218      1.30176E+06  2.45137E+06  00
331-040000  1.53457E+07  0.          570.35      617.11      617.11      0.          .73216      1.30178E+06  2.45155E+06  00
PUMPR       PUMP        COMPONENT
  RPM =   155.00     (RAD/SEC)     HEAD =  6.88996E+05 (PA)          TORQUE =  -32334.     (N-M)
  OCTANT = 1                                                      MTR.TORQUE =  0.          (N-M)
340-010000  1.57344E+07  0.          570.51      619.12      619.12      0.          .73254      1.30187E+06  2.44232E+06  10
COLOB1      SNGLVOL     COMPONENT
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351-010000	1.59451E+07	0.	570.59	620.20	620.20	0.	.73277	1.30186E+06	2.43725E+06	00
COLDR2	BRANCH	COMPONENT								
352-010000	1.59418E+07	0.	570.59	620.18	620.18	0.	.73276	1.30187E+06	2.43734E+06	00
COLDR3	PIPE	COMPONENT								
353-010000	1.59385E+07	0.	570.59	620.17	620.17	0.	.73275	1.30188E+06	2.43743E+06	00
353-020000	1.59585E+07	0.	570.59	620.27	620.27	0.	.73279	1.30184E+06	2.43689E+06	00
SURGE	PIPE	COMPONENT								
400-010000	1.55762E+07	0.	618.31	618.31	618.31	0.	.59263	1.60766E+06	2.44606E+06	00
400-020000	1.55757E+07	0.	618.31	618.31	618.31	0.	.59264	1.60764E+06	2.44607E+06	00
400-030000	1.55700E+07	0.	618.28	618.28	618.28	0.	.59275	1.60743E+06	2.44620E+06	00
400-040000	1.55650E+07	0.	618.25	618.25	618.25	0.	.59284	1.60725E+06	2.44632E+06	00
PRESSU	PIPE	COMPONENT								
410-010000	1.55100E+07	0.	617.97	617.97	617.97	0.	.59386	1.60522E+06	2.44763E+06	00
410-020000	1.55100E+07	0.	617.97	617.97	617.97	0.	.59386	1.60522E+06	2.44763E+06	00
410-030000	1.55100E+07	0.	617.97	617.97	617.97	0.	.59386	1.60522E+06	2.44763E+06	00
410-040000	1.55100E+07	0.	617.97	617.97	617.97	0.	.59386	1.60522E+06	2.44763E+06	00
410-050000	1.55100E+07	.61560	617.97	617.97	617.97	0.	.22828	1.60522E+06	2.44763E+06	00
410-060000	1.55100E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60522E+06	2.44763E+06	00
410-070000	1.55100E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60522E+06	2.44763E+06	00
410-080000	1.55100E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60522E+06	2.44763E+06	00
410-090000	1.55100E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60522E+06	2.44763E+06	00
TOP	BRANCH	COMPONENT								
420-010000	1.55104E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60523E+06	2.44762E+06	00
SPRAYR	BRANCH	COMPONENT								
430-010000	1.59104E+07	0.	570.59	620.02	620.02	0.	.73270	1.30194E+06	2.43819E+06	00
SPRAYB	BRANCH	COMPONENT								
440-010000	1.59104E+07	0.	570.59	620.02	620.02	0.	.73270	1.30194E+06	2.43819E+06	00
SPRAYB	BRANCH	COMPONENT								
450-010000	1.59104E+07	0.	570.59	620.02	620.02	0.	.73270	1.30194E+06	2.43819E+06	00
TV490	TMDPVOL	COMPONENT								
490-010000	1.55100E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60522E+06	2.44763E+06	00

SYSTEM 2 MASS = 0. KG VOLUME= 0. M3

TV940	TMDPVOL	COMPONENT								
940-010000	2.00000E+05	0.	323.15	393.38	393.38	0.	0.	2.09218E+05	2.52920E+06	00

VOL.NO.	RHOF (KG/M3)	RHOG (KG/M3)	LIQ.V.VEL. (M/SEC)	VAP.V.VEL. (M/SEC)	SOUNDE (M/SEC)	STATIC QUAL.	TOT.HT.INP. (WATTS)	VAP.HT.INP. (WATTS)	VAPOR GEN. (KG/M3-SEC)
11-010000	732.96	107.39	3.63144E-02	3.63144E-02	982.96	0.	0.	0.	0.
13-010000	732.82	107.29	7.9495	7.9423	982.37	0.	0.	0.	0.
15-010000	732.83	107.33	8.0733	8.0733	982.40	0.	0.	0.	0.
15-020000	732.83	107.46	8.2208	8.2208	982.41	0.	0.	0.	0.
15-030000	732.85	107.59	8.2206	8.2206	982.50	0.	0.	0.	0.
23-010000	732.83	107.60	.31657	.31638	982.42	0.	0.	0.	0.
25-010000	732.78	106.88	4.9624	4.9624	982.18	0.	0.	0.	0.
31-010000	732.73	106.50	4.8520	4.8519	982.00	0.	0.	0.	0.
31-020000	732.71	106.24	4.9702	4.9701	981.91	0.	0.	0.	0.
31-030000	732.67	105.76	5.1420	5.1418	981.75	0.	0.	0.	0.
31-040000	732.61	105.28	5.3150	5.3149	981.50	0.	0.	0.	0.
31-050000	732.59	105.01	5.4364	5.4363	981.40	0.	0.	0.	0.
35-010000	732.76	105.93	.71414	.71414	982.13	0.	0.	0.	0.
39-010000	732.57	104.79	5.6242	5.6243	981.33	0.	0.	0.	0.
41-010000	732.51	104.32	2.4478	2.4478	981.09	0.	0.	0.	0.
43-010000	732.50	104.25	-7.46850E-03	-6.53911E-03	981.04	0.	0.	0.	0.
45-010000	732.58	104.10	1.20687E-04	3.52312E-04	981.37	0.	0.	0.	0.
111-010000	732.36	102.95	16.615	16.615	980.47	0.	0.	0.	0.
111-020000	732.35	102.91	16.618	16.618	980.44	0.	0.	0.	0.

113-010000	732.34	102.84	16.618	16.618	980.39	0.	0.	0.	0.
121-010000	732.39	103.37	2.2140	2.2140	980.59	0.	0.	0.	0.
122-010000	732.40	103.03	6.6338	6.6339	980.62	0.	0.	0.	0.
122-020000	732.39	102.86	6.5533	6.5533	980.58	0.	0.	0.	0.
122-030000	732.40	102.69	6.4840	6.4840	980.64	0.	0.	0.	0.
122-040000	732.38	102.50	6.4168	6.4168	980.59	0.	0.	0.	0.
122-050000	732.39	102.30	6.3553	6.3553	980.62	0.	0.	0.	0.
122-060000	732.38	102.12	6.3052	6.3052	980.58	0.	0.	0.	0.
122-070000	732.37	101.94	6.2606	6.2606	980.54	0.	0.	0.	0.
122-080000	732.34	101.76	6.2216	6.2216	980.41	0.	0.	0.	0.
122-090000	732.33	101.58	6.1873	6.1873	980.37	0.	0.	0.	0.
122-100000	732.32	101.40	6.1570	6.1570	980.33	0.	0.	0.	0.
122-110000	732.29	101.23	6.1291	6.1291	980.21	0.	0.	0.	0.
124-010000	732.29	101.12	6.1029	6.1029	980.22	0.	0.	0.	0.
124-020000	732.27	101.05	6.0715	6.0715	980.17	0.	0.	0.	0.
124-030000	732.26	100.99	6.0374	6.0374	980.12	0.	0.	0.	0.
124-040000	732.25	100.92	6.0099	6.0099	980.08	0.	0.	0.	0.
124-050000	732.24	100.87	5.9909	5.9909	980.04	0.	0.	0.	0.
124-060000	732.24	100.84	5.9727	5.9727	980.01	0.	0.	0.	0.
124-070000	732.23	100.79	5.9294	5.9294	979.98	0.	0.	0.	0.
126-010000	732.23	100.89	1.9554	1.9554	979.96	0.	0.	0.	0.
131-010000	732.17	100.23	12.865	12.865	979.75	0.	0.	0.	0.
131-020000	732.17	100.33	13.167	13.167	979.74	0.	0.	0.	0.
131-030000	732.18	100.38	13.167	13.167	979.77	0.	0.	0.	0.
131-040000	732.16	100.30	13.226	13.226	979.71	0.	0.	0.	0.
140-010000	732.54	104.48	2.4751	2.4751	981.20	0.	0.	0.	0.
151-010000	732.77	106.82	16.806	16.806	982.14	0.	0.	0.	0.
152-010000	732.80	106.79	16.712	16.698	982.29	0.	0.	0.	0.
153-010000	732.79	106.75	16.730	16.730	982.26	0.	0.	0.	0.
153-020000	732.81	106.98	14.764	14.764	982.33	0.	0.	0.	0.
180-010000	1009.7	170.17	6.14068E-03	6.14068E-03	1442.5	0.	0.	0.	0.
211-010000	732.36	102.95	16.615	16.615	980.47	0.	0.	0.	0.
211-020000	732.35	102.91	16.618	16.618	980.44	0.	0.	0.	0.
213-010000	732.34	102.84	16.618	16.618	980.39	0.	0.	0.	0.
221-010000	732.39	103.37	2.2140	2.2140	980.59	0.	0.	0.	0.
222-010000	732.40	103.03	6.6338	6.6339	980.62	0.	0.	0.	0.
222-020000	732.39	102.86	6.5533	6.5533	980.58	0.	0.	0.	0.
222-030000	732.40	102.69	6.4840	6.4840	980.64	0.	0.	0.	0.
222-040000	732.38	102.50	6.4168	6.4168	980.59	0.	0.	0.	0.
222-050000	732.39	102.30	6.3553	6.3553	980.62	0.	0.	0.	0.
222-060000	732.38	102.12	6.3052	6.3052	980.58	0.	0.	0.	0.
222-070000	732.37	101.94	6.2606	6.2606	980.54	0.	0.	0.	0.
222-080000	732.34	101.76	6.2216	6.2216	980.41	0.	0.	0.	0.
222-090000	732.33	101.58	6.1873	6.1873	980.37	0.	0.	0.	0.
222-100000	732.32	101.40	6.1570	6.1570	980.33	0.	0.	0.	0.
222-110000	732.29	101.23	6.1291	6.1291	980.21	0.	0.	0.	0.
224-010000	732.29	101.12	6.1029	6.1029	980.22	0.	0.	0.	0.
224-020000	732.27	101.05	6.0715	6.0715	980.17	0.	0.	0.	0.
224-030000	732.26	100.99	6.0374	6.0374	980.12	0.	0.	0.	0.
224-040000	732.25	100.92	6.0099	6.0099	980.08	0.	0.	0.	0.
224-050000	732.24	100.87	5.9909	5.9909	980.04	0.	0.	0.	0.
224-060000	732.24	100.84	5.9727	5.9727	980.01	0.	0.	0.	0.
224-070000	732.23	100.79	5.9294	5.9294	979.98	0.	0.	0.	0.
225-010000	732.23	100.89	1.9554	1.9554	979.96	0.	0.	0.	0.
231-010000	732.17	100.23	12.865	12.865	979.75	0.	0.	0.	0.
231-020000	732.17	100.33	13.167	13.167	979.74	0.	0.	0.	0.
231-030000	732.18	100.38	12.603	15.222	979.77	0.	0.	0.	0.

232-010000	732.16	100.30	13.226	13.226	979.71	0.	0.	0.	0.
240-010000	732.54	104.48	2.4751	2.4751	981.20	0.	0.	0.	0.
251-010000	732.77	106.82	16.807	16.806	982.14	0.	0.	0.	0.
253-010000	732.76	106.79	16.730	16.730	982.12	0.	0.	0.	0.
253-020000	732.75	106.75	16.730	16.730	982.09	0.	0.	0.	0.
253-030000	732.79	106.98	14.764	14.764	982.25	0.	0.	0.	0.
282-010000	928.80	19.070	0.	0.	1467.8	0.	0.	0.	0.
311-010000	732.36	102.95	16.598	16.598	980.47	0.	0.	0.	0.
311-020000	732.36	102.95	16.601	16.601	980.47	0.	0.	0.	0.
313-010000	732.34	102.84	16.610	16.610	980.40	0.	0.	0.	0.
321-010000	732.39	103.37	2.2143	2.2143	980.59	0.	0.	0.	0.
322-010000	732.40	103.03	6.6346	6.6347	980.62	0.	0.	0.	0.
322-020000	732.39	102.86	6.5540	6.5540	980.58	0.	0.	0.	0.
322-030000	732.40	102.69	6.4846	6.4847	980.64	0.	0.	0.	0.
322-040000	732.38	102.60	6.4174	6.4174	980.59	0.	0.	0.	0.
322-050000	732.39	102.30	6.3558	6.3559	980.63	0.	0.	0.	0.
322-060000	732.38	102.12	6.3057	6.3057	980.58	0.	0.	0.	0.
322-070000	732.37	101.94	6.2610	6.2610	980.54	0.	0.	0.	0.
322-080000	732.34	101.76	6.2221	6.2221	980.41	0.	0.	0.	0.
322-090000	732.33	101.58	6.1878	6.1878	980.37	0.	0.	0.	0.
322-100000	732.32	101.40	6.1575	6.1575	980.33	0.	0.	0.	0.
322-110000	732.29	101.23	6.1295	6.1295	980.21	0.	0.	0.	0.
324-010000	732.29	101.12	6.1032	6.1032	980.22	0.	0.	0.	0.
324-020000	732.27	101.05	6.0718	6.0718	980.17	0.	0.	0.	0.
324-030000	732.26	100.99	6.0377	6.0377	980.12	0.	0.	0.	0.
324-040000	732.25	100.92	6.0102	6.0102	980.08	0.	0.	0.	0.
324-050000	732.24	100.87	5.9912	5.9912	980.04	0.	0.	0.	0.
324-060000	732.24	100.84	5.9730	5.9730	980.01	0.	0.	0.	0.
324-070000	732.23	100.79	5.9297	5.9297	979.98	0.	0.	0.	0.
325-010000	732.23	100.89	1.9555	1.9555	979.96	0.	0.	0.	0.
331-010000	732.17	100.23	12.866	12.866	979.75	0.	0.	0.	0.
331-020000	732.17	100.33	13.168	13.167	979.74	0.	0.	0.	0.
331-030000	732.18	100.38	13.167	13.167	979.77	0.	0.	0.	0.
331-040000	732.16	100.30	13.226	13.226	979.71	0.	0.	0.	0.
340-010000	732.54	104.48	2.4751	2.4751	981.20	0.	0.	0.	0.
351-010000	732.77	106.82	16.807	16.806	982.14	0.	0.	0.	0.
352-010000	732.76	106.79	16.731	16.731	982.12	0.	0.	0.	0.
353-010000	732.75	106.75	16.731	16.731	982.09	0.	0.	0.	0.
353-020000	732.79	106.98	14.764	14.764	982.25	0.	0.	0.	0.
400-010000	592.63	102.75	0.	0.	618.61	0.	0.	0.	0.
400-020000	592.64	102.75	0.	0.	618.62	0.	0.	0.	0.
400-030000	592.75	102.69	0.	0.	618.83	0.	0.	0.	0.
400-040000	592.84	102.63	0.	0.	619.02	0.	0.	0.	0.
410-010000	593.86	102.04	0.	0.	621.11	0.	0.	0.	0.
410-020000	593.86	102.04	0.	0.	621.11	0.	0.	0.	0.
410-030000	593.86	102.04	0.	0.	621.11	0.	0.	0.	0.
410-040000	593.86	102.04	0.	0.	621.11	0.	0.	0.	0.
410-050000	593.86	102.04	0.	0.	181.81	.21580	0.	0.	0.
410-060000	593.86	102.04	0.	0.	372.13	1.0000	0.	0.	0.
410-070000	593.86	102.04	0.	0.	372.13	1.0000	0.	0.	0.
410-080000	593.86	102.04	0.	0.	372.13	1.0000	0.	0.	0.
410-090000	593.86	102.04	0.	0.	372.13	1.0000	0.	0.	0.
420-010000	593.85	102.05	-1.40323E-05	-4.10957E-23	372.12	1.0000	0.	0.	0.
430-010000	732.70	106.43	5.00000E-03	5.00000E-03	981.87	0.	0.	0.	0.
440-010000	732.70	106.43	5.00000E-03	5.00000E-03	981.87	0.	0.	0.	0.
450-010000	732.70	106.43	5.00000E-03	5.00000E-03	981.87	0.	0.	0.	0.
490-010000	593.86	102.04	0.	0.	372.13	1.0000	0.	0.	0.

940-010000	988.11	1.1294	0.	0.	1537.3	0.	0.	0.	0.	
JUN.NO.	FROM VOL.	TO VOL.	LIQ.J.VEL. (M/SEC)	VAP.J.VEL. (M/SEC)	MASS FLOW (KG/SEC)	JUN.AREA (M2)	THROAT RATIO	JUNCTION FLAGS	CHOKE FLAG	NO.ADVS.CHOKED EDIT TOTAL
SYSTEM 1										
UPDOWNC	BRANCH	COMPONENT								
11-010000	-13-010000	11-010000	3.63144E-02	3.63144E-02	49.284	1.8520	1.0000	00000	0	0 0
11-020000	11-010000	45-010000	18.176	18.176	49.292	3.70000E-03	1.0000	00000	0	0 0
UPDOWNOZZ	BRANCH	COMPONENT								
13-010000	153-020000	13-010000	14.764	14.764	4695.5	.43400	1.0000	00000	0	0 0
13-020000	253-030000	13-010000	14.764	14.764	4695.4	.43400	1.0000	00000	0	0 0
13-030000	353-020000	13-010000	14.764	14.764	4696.4	.43400	1.0000	00000	0	0 0
13-040000	13-010000	15-010000	8.2209	8.2209	14916.	2.4760	1.0000	00000	0	0 0
DOWNCTS	ANNULUS	COMPONENT								
15-010000	15-010000	15-020000	8.2209	8.2209	15483.	2.5700	1.0000	00000	0	0 0
15-020000	15-020000	15-030000	8.2207	8.2207	15483.	2.5700	1.0000	00000	0	0 0
LOWPLEN	BRANCH	COMPONENT								
23-010000	15-030000	23-010000	8.2206	8.2206	15483.	2.5700	1.0000	00000	0	0 0
23-020000	-23-010000	25-010000	4.9622	4.9622	14037.	3.8600	1.0000	00000	0	0 0
COREIN	BRANCH	COMPONENT								
25-010000	25-010000	31-010000	4.8130	4.8130	13614.	3.8600	1.0000	00000	0	0 0
25-020000	25-010000	35-010000	5.7764	5.7764	423.28	.10000	1.0000	00000	0	0 0
CORE	PIPE	COMPONENT								
31-010000	31-010000	31-020000	4.8910	4.8910	13833.	3.8600	1.0000	00000	0	0 0
31-020000	31-020000	31-030000	5.0494	5.0494	14281.	3.8600	1.0000	00000	0	0 0
31-030000	31-030000	31-040000	5.2346	5.2346	14804.	3.8600	1.0000	00000	0	0 0
31-040000	31-040000	31-050000	5.3955	5.3955	15258.	3.8600	1.0000	00000	0	0 0
COREEX	BRANCH	COMPONENT								
39-010000	31-050000	39-010000	5.4773	5.4773	15489.	3.8600	1.0000	00000	0	0 0
39-020000	35-010000	39-010000	5.7771	5.7771	423.32	.10000	1.0000	00000	0	0 0
UPPLEN1	BRANCH	COMPONENT								
41-010000	39-010000	41-010000	5.6214	5.6214	15896.	3.8600	1.0000	00000	0	0 0
41-020000	41-010000	43-010000	2.4479	2.4479	15896.	8.8650	1.0000	00000	0	0 0
UPPLEN2	BRANCH	COMPONENT								
43-010000	-43-010000	111-010000	16.613	16.613	5316.7	.43690	1.0000	00000	0	0 0
43-020000	-43-010000	211-010000	16.613	16.613	5316.7	.43690	1.0000	00000	0	0 0
43-030000	-43-010000	311-010000	16.596	16.596	5311.2	.43690	1.0000	00000	0	0 0
UPHEAD	BRANCH	COMPONENT								
45-010000	43-010000	45-010000	-7.46699E-03	-7.46699E-03	-48.493	8.8650	1.0000	00000	0	0 0
HTLEGR1	PIPE	COMPONENT								
111-010000	111-010000	111-020000	16.618	16.618	5317.2	.43690	1.0000	00000	0	0 0
HTLEGR2	BRANCH	COMPONENT								
113-010000	111-020000	113-010000	16.618	16.618	5317.2	.43690	1.0000	00000	0	0 0
INBOX	BRANCH	COMPONENT								
121-010000	121-010000	122-010000	6.6772	6.6772	5316.8	1.0872	1.0000	00000	0	0 0
121-020000	113-010000	121-010000	16.619	16.619	5317.4	.43690	1.0000	00000	0	0 0
UTUBE	PIPE	COMPONENT								
122-010000	122-010000	122-020000	6.5905	6.5905	5247.8	1.0872	1.0000	00000	0	0 0
122-020000	122-020000	122-030000	6.5160	6.5160	5188.4	1.0872	1.0000	00000	0	0 0
122-030000	122-030000	122-040000	6.4520	6.4520	5137.5	1.0872	1.0000	00000	0	0 0
122-040000	122-040000	122-050000	6.3816	6.3816	5081.3	1.0872	1.0000	00000	0	0 0
122-050000	122-050000	122-060000	6.3290	6.3290	5039.5	1.0872	1.0000	00000	0	0 0
122-060000	122-060000	122-070000	6.2813	6.2813	5001.4	1.0872	1.0000	00000	0	0 0
122-070000	122-070000	122-080000	6.2398	6.2398	4968.3	1.0872	1.0000	00000	0	0 0
122-080000	122-080000	122-090000	6.2034	6.2034	4939.1	1.0872	1.0000	00000	0	0 0
122-090000	122-090000	122-100000	6.1712	6.1712	4913.4	1.0872	1.0000	00000	0	0 0

122-100000	122-100000	122-110000	6.1428	6.1428	4890.7	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
123-000000	122-110000	124-010000	6.1154	6.1154	4868.7	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
124-010000	124-010000	124-020000	6.0904	6.0904	4848.8	1.0872	1.0000	00000	0	0	0
124-020000	124-020000	124-030000	6.0525	6.0525	4818.6	1.0872	1.0000	00000	0	0	0
124-030000	124-030000	124-040000	6.0222	6.0222	4794.4	1.0872	1.0000	00000	0	0	0
124-040000	124-040000	124-050000	5.9976	5.9976	4774.7	1.0872	1.0000	00000	0	0	0
124-050000	124-050000	124-060000	5.9842	5.9842	4764.0	1.0872	1.0000	00000	0	0	0
124-060000	124-060000	124-070000	5.9612	5.9612	4745.6	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
125-010000	124-070000	125-010000	5.8938	5.8938	4695.0	1.0879	1.0000	00000	0	0	0
125-020000	125-010000	131-010000	12.865	12.865	4695.0	.49840	1.0000	00000	0	0	0
SEALR	PIPE	COMPONENT									
131-010000	131-010000	131-020000	13.167	13.167	4694.9	.48700	1.0000	00000	0	0	0
131-020000	131-020000	131-030000	13.167	13.167	4694.9	.48700	1.0000	00000	0	0	0
131-030000	131-030000	131-040000	13.167	13.167	4695.0	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
140-010000	131-040000	140-010000	13.285	13.285	4737.0	.48700	1.0000	00000	0	0	0
140-020000	140-010000	151-010000	16.884	16.884	4737.0	.38300	1.0000	00000	0	0	0
COLDR2	BRANCH	COMPONENT									
152-010000	151-010000	152-010000	16.730	16.730	4695.3	.38300	1.0000	00000	0	0	0
152-020000	152-010000	153-010000	16.730	16.730	4695.5	.38300	1.0000	00000	0	0	0
COLDR3	PIPE	COMPONENT									
153-010000	153-010000	153-020000	16.730	16.730	4695.4	.38300	1.0000	00000	0	0	0
CVJUN	TMDPJUN	COMPONENT									
181-000000	180-010000	152-010000	1.7595	1.7595	6.2000	3.49000E-03	1.0000	00000	0	0	0
HTLEGG1	PIPE	COMPONENT									
211-010000	211-010000	211-020000	16.618	16.618	5317.2	.43690	1.0000	00000	0	0	0
HTLEGG2	BRANCH	COMPONENT									
213-010000	211-020000	213-010000	16.618	16.618	5317.2	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
221-010000	221-010000	222-010000	6.6772	6.6772	5316.8	1.0872	1.0000	00000	0	0	0
221-020000	213-010000	221-010000	16.619	16.619	5317.4	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
222-010000	222-010000	222-020000	6.5905	6.5905	5247.8	1.0872	1.0000	00000	0	0	0
222-020000	222-020000	222-030000	6.5160	6.5160	5188.4	1.0872	1.0000	00000	0	0	0
222-030000	222-030000	222-040000	6.4520	6.4520	5137.5	1.0872	1.0000	00000	0	0	0
222-040000	222-040000	222-050000	6.3816	6.3816	5081.3	1.0872	1.0000	00000	0	0	0
222-050000	222-050000	222-060000	6.3290	6.3290	5039.5	1.0872	1.0000	00000	0	0	0
222-060000	222-060000	222-070000	6.2813	6.2813	5001.4	1.0872	1.0000	00000	0	0	0
222-070000	222-070000	222-080000	6.2398	6.2398	4968.3	1.0872	1.0000	00000	0	0	0
222-080000	222-080000	222-090000	6.2034	6.2034	4939.1	1.0872	1.0000	00000	0	0	0
222-090000	222-090000	222-100000	6.1712	6.1712	4913.4	1.0872	1.0000	00000	0	0	0
222-100000	222-100000	222-110000	6.1428	6.1428	4890.7	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
223-000000	222-110000	224-010000	6.1154	6.1154	4868.7	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
224-010000	224-010000	224-020000	6.0904	6.0904	4848.8	1.0872	1.0000	00000	0	0	0
224-020000	224-020000	224-030000	6.0525	6.0525	4818.6	1.0872	1.0000	00000	0	0	0
224-030000	224-030000	224-040000	6.0222	6.0222	4794.4	1.0872	1.0000	00000	0	0	0
224-040000	224-040000	224-050000	5.9976	5.9976	4774.7	1.0872	1.0000	00000	0	0	0
224-050000	224-050000	224-060000	5.9842	5.9842	4764.0	1.0872	1.0000	00000	0	0	0
224-060000	224-060000	224-070000	5.9612	5.9612	4745.6	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
225-010000	224-070000	225-010000	5.8938	5.8938	4695.0	1.0879	1.0000	00000	0	0	0
225-020000	225-010000	231-010000	12.865	12.865	4695.0	.49840	1.0000	00000	0	0	0

SEALG1	PIPE	COMPONENT									
231-010000	231-010000	231-020000	13.167	13.167	4694.9	.48700	1.0000	00000	0	0	0
231-020000	231-020000	231-030000	13.167	13.167	4694.9	.48700	1.0000	00000	0	0	0
SEALG2	BRANCH	COMPONENT									
232-010000	231-030000	232-010000	13.167	13.167	4695.0	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
240-010000	232-010000	240-010000	13.285	13.285	4737.0	.48700	1.0000	00000	0	0	0
240-020000	240-010000	251-010000	16.884	16.884	4737.0	.38300	1.0000	00000	0	0	0
COLG1	BRANCH	COMPONENT									
251-010000	251-010000	253-010000	16.730	16.730	4695.3	.38300	1.0000	00000	0	0	0
COLG2	PIPE	COMPONENT									
253-010000	253-010000	253-020000	16.730	16.730	4695.2	.38300	1.0000	00000	0	0	0
253-020000	253-020000	253-030000	16.730	16.730	4695.2	.38300	1.0000	00000	0	0	0
TJ183	TMDPJUN	COMPONENT									
283-000000	231-030000	282-010000	0.	0.	0.	.48700	1.0000	00000	0	0	0
HTLEGB1	PIPE	COMPONENT									
311-010000	311-010000	311-020000	16.601	16.601	5311.8	.43690	1.0000	00000	0	0	0
SURGEJUN	SNGLJUN	COMPONENT									
312-000000	-400-010000	-311-020000	0.	0.	0.	6.31180E-02	1.0000	10001	0	0	0
HTLEGB2	BRANCH	COMPONENT									
313-010000	311-020000	313-010000	16.600	16.600	5311.6	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
321-010000	321-010000	322-010000	6.6780	6.6780	5317.4	1.0872	1.0000	00000	0	0	0
321-020000	313-010000	321-010000	16.621	16.621	5318.1	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
322-010000	322-010000	322-020000	6.5912	6.5912	5248.3	1.0872	1.0000	00000	0	0	0
322-020000	322-020000	322-030000	6.5167	6.5167	5188.9	1.0872	1.0000	00000	0	0	0
322-030000	322-030000	322-040000	6.4526	6.4526	5138.0	1.0872	1.0000	00000	0	0	0
322-040000	322-040000	322-050000	6.3822	6.3822	5081.8	1.0872	1.0000	00000	0	0	0
322-050000	322-050000	322-060000	6.3295	6.3295	5039.9	1.0872	1.0000	00000	0	0	0
322-060000	322-060000	322-070000	6.2818	6.2818	5001.8	1.0872	1.0000	00000	0	0	0
322-070000	322-070000	322-080000	6.2402	6.2402	4968.6	1.0872	1.0000	00000	0	0	0
322-080000	322-080000	322-090000	6.2039	6.2039	4939.5	1.0872	1.0000	00000	0	0	0
322-090000	322-090000	322-100000	6.1717	6.1717	4913.8	1.0872	1.0000	00000	0	0	0
322-100000	322-100000	322-110000	6.1432	6.1432	4891.1	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
323-000000	322-110000	324-010000	6.1157	6.1157	4869.0	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
324-010000	324-010000	324-020000	6.0907	6.0907	4849.1	1.0872	1.0000	00000	0	0	0
324-020000	324-020000	324-030000	6.0528	6.0528	4818.8	1.0872	1.0000	00000	0	0	0
324-030000	324-030000	324-040000	6.0225	6.0225	4794.6	1.0872	1.0000	00000	0	0	0
324-040000	324-040000	324-050000	5.9979	5.9979	4775.0	1.0872	1.0000	00000	0	0	0
324-050000	324-050000	324-060000	5.9845	5.9845	4764.2	1.0872	1.0000	00000	0	0	0
324-060000	324-060000	324-070000	5.9615	5.9615	4745.9	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
325-010000	324-070000	325-010000	5.8941	5.8941	4695.2	1.0879	1.0000	00000	0	0	0
325-020000	325-010000	331-010000	12.865	12.865	4695.0	.49840	1.0000	00000	0	0	0
SEALB	PIPE	COMPONENT									
331-010000	331-010000	331-020000	13.168	13.168	4695.3	.48700	1.0000	00000	0	0	0
331-020000	331-020000	331-030000	13.167	13.167	4694.9	.48700	1.0000	00000	0	0	0
331-030000	331-030000	331-040000	13.167	13.167	4695.0	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
340-010000	331-040000	340-010000	13.285	13.285	4737.0	.48700	1.0000	00000	0	0	0
340-020000	340-010000	351-010000	16.884	16.884	4737.0	.38300	1.0000	00000	0	0	0
COLDR2	BRANCH	COMPONENT									
352-010000	351-010000	352-010000	16.731	16.731	4695.5	.38300	1.0000	00000	0	0	0
352-020000	352-010000	353-010000	16.731	16.731	4695.5	.38300	1.0000	00000	0	0	0

COLDR3	PIPE	COMPONENT									
353-010000	353-010000	353-020000	16.731	16.731	4695.5	.38300	1.0000	00000	0	0	0
SURGE	PIPE	COMPONENT									
400-010000	400-010000	400-020000	0.	0.	0.	6.31180E-02	1.0000	00000	0	0	0
400-020000	400-020000	400-030000	0.	0.	0.	6.34253E-02	1.0000	00000	0	0	0
400-030000	400-030000	400-040000	0.	0.	0.	6.34253E-02	1.0000	00000	0	0	0
SURGE1	SNGLJUN	COMPONENT									
405-000000	400-040000	410-010000	0.	0.	0.	6.34253E-02	1.0000	00100	0	0	0
PRESSU	PIPE	COMPONENT									
410-010000	410-010000	410-020000	0.	0.	0.	2.1329	1.0000	00000	0	0	0
410-020000	410-020000	410-030000	0.	0.	0.	2.1329	1.0000	00000	0	0	0
410-030000	410-030000	410-040000	0.	0.	0.	3.5350	1.0000	00000	0	0	0
410-040000	410-040000	410-050000	0.	0.	0.	3.5350	1.0000	00000	0	0	0
410-050000	410-050000	410-060000	0.	0.	0.	3.5350	1.0000	00000	0	0	0
410-060000	410-060000	410-070000	0.	0.	0.	3.5350	1.0000	00000	0	0	0
410-070000	410-070000	410-080000	0.	0.	0.	3.5350	1.0000	00000	0	0	0
410-080000	410-080000	410-090000	0.	0.	0.	2.1329	1.0000	00000	0	0	0
TOP	BRANCH	COMPONENT									
420-010000	410-090000	420-010000	0.	0.	0.	2.1329	1.0000	00000	0	0	0
SPRAYR	BRANCH	COMPONENT									
430-010000	151-010000	430-010000	5.00000E-03	5.00000E-03	2.19427E-02	5.98900E-03	1.0000	00000	0	0	0
SPRAYR	VALVE	COMPONENT									
435-000000	430-010000	450-010000	0.	0.	0.	5.98900E-03	0.	00100	0	0	0
SPRAYB	BRANCH	COMPONENT									
440-010000	351-010000	440-010000	5.00000E-03	5.00000E-03	2.19427E-02	5.98900E-03	1.0000	00000	0	0	0
SPRAYB	VALVE	COMPONENT									
445-000000	440-010000	450-010000	0.	0.	0.	5.98900E-03	0.	00100	0	0	0
SPRAYB	BRANCH	COMPONENT									
450-010000	450-010000	-420-010000	5.00000E-03	5.00000E-03	2.19408E-02	5.98900E-03	1.0000	00000	0	0	0
PRESVAL	VALVE	COMPONENT									
489-000000	420-010000	490-010000	0.	0.	0.	2.1340	0.	00100	0	0	0

SYSTEM 2

JUN.NO.	VOIDFJ	VOIDGJ	FROM	TO	FIJ (N-S2/M5)	FWALFJ	FWALGJ	FJUNF	FJUNR	FORMFJ	FORMGJ
11-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
11-020000	1.0000	0.	X	X	0.	0.	0.	2.30	2.30	0.	0.
13-010000	1.0000	0.	X	X	0.	0.	0.	.429	.429	0.	0.
13-020000	1.0000	0.	X	X	0.	0.	0.	.429	.429	0.	0.
13-030000	1.0000	0.	X	X	0.	0.	0.	.429	.429	0.	0.
13-040000	1.0000	0.	X	X	0.	0.	0.	.160	.160	0.	0.
15-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
15-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
23-010000	1.0000	0.	X	X	0.	0.	0.	1.43	.500	0.	0.
23-020000	1.0000	0.	X	X	0.	0.	0.	5.27	5.27	0.	0.
25-010000	1.0000	0.	X	X	0.	0.	0.	2.45	2.45	0.	0.
25-020000	1.0000	0.	X	X	0.	0.	0.	7.45	7.45	0.	0.
31-010000	1.0000	0.	X	X	0.	0.	0.	2.47	2.47	0.	0.
31-020000	1.0000	0.	X	X	0.	0.	0.	2.40	2.40	0.	0.
31-030000	1.0000	0.	X	X	0.	0.	0.	2.31	2.31	0.	0.
31-040000	1.0000	0.	X	X	0.	0.	0.	2.23	2.23	0.	0.
39-010000	1.0000	0.	X	X	0.	0.	0.	.720	.720	0.	0.
39-020000	1.0000	0.	X	X	0.	0.	0.	6.45	6.45	0.	0.
41-010000	1.0000	0.	X	X	0.	0.	0.	2.04	2.04	0.	0.
41-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
43-010000	1.0000	0.	X	X	0.	0.	0.	.380	.380	0.	0.

43-020000	1.0000	0.	X	X	0.	0.	0.	.380	.380	0.	0.
43-030000	1.0000	0.	X	X	0.	0.	0.	.380	.380	0.	0.
45-010000	1.0000	0.	X	X	0.	0.	0.	2.60	2.60	0.	0.
111-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
113-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
121-010000	1.0000	0.	X	X	0.	0.	0.	.226	.580	0.	0.
121-020000	1.0000	0.	X	X	0.	0.	0.	.325	.255	0.	0.
122-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-040000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-050000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-060000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-070000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-080000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-090000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-100000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
123-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
124-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
124-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
124-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
124-040000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
124-050000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
124-060000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
125-010000	1.0000	0.	X	X	0.	0.	0.	.580	.226	0.	0.
125-020000	1.0000	0.	X	X	0.	0.	0.	.255	.325	0.	0.
131-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
131-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
131-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
140-010000	1.0000	0.	X	X	0.	0.	0.	.195	.195	0.	0.
140-020000	1.0000	0.	X	X	0.	0.	0.	.270	.270	0.	0.
152-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
152-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
153-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
181-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
211-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
213-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
221-010000	1.0000	0.	X	X	0.	0.	0.	.226	.580	0.	0.
221-020000	1.0000	0.	X	X	0.	0.	0.	.325	.255	0.	0.
222-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-040000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-050000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-060000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-070000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-080000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-090000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-100000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
223-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
224-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
224-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
224-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
224-040000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
224-050000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
224-060000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
225-010000	1.0000	0.	X	X	0.	0.	0.	.580	.226	0.	0.

225-020000	1.0000	0.	X	X	0.	0.	0.	.255	.325	0.	0.
231-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
231-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
232-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
240-010000	1.0000	0.	X	X	0.	0.	0.	.195	.195	0.	0.
240-020000	1.0000	0.	X	X	0.	0.	0.	.270	.270	0.	0.
251-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
253-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
253-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
283-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
311-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
312-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
313-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
321-010000	1.0000	0.	X	X	0.	0.	0.	.226	.580	0.	0.
321-020000	1.0000	0.	X	X	0.	0.	0.	.326	.255	0.	0.
322-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-040000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-050000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-060000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-070000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-080000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-090000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-100000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
323-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
324-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
324-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
324-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
324-040000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
324-050000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
324-060000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
325-010000	1.0000	0.	X	X	0.	0.	0.	.580	.225	0.	0.
325-020000	1.0000	0.	X	X	0.	0.	0.	.255	.325	0.	0.
331-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
331-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
331-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
340-010000	1.0000	0.	X	X	0.	0.	0.	.195	.195	0.	0.
340-020000	1.0000	0.	X	X	0.	0.	0.	.270	.270	0.	0.
352-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
352-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
353-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
400-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
400-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
400-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
405-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
410-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
410-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
410-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
410-040000	.69220	.30780	X	X	0.	0.	0.	0.	0.	0.	0.
410-050000	.19220	.80780	X	X	0.	0.	0.	0.	0.	0.	0.
410-060000	0.	1.0000	X	X	0.	0.	0.	0.	0.	0.	0.
410-070000	0.	1.0000	X	X	0.	0.	0.	0.	0.	0.	0.
410-080000	0.	1.0000	X	X	0.	0.	0.	0.	0.	0.	0.
420-010000	0.	1.0000	X	X	0.	0.	0.	0.	0.	0.	0.
430-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
435-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.

440-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
445-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
450-010000	1.0000	0.	X	X	0.	0.	0.	1.00	1.00	0.	0.
489-000000	0.	1.0000	X	X	0.	0.	0.	0.	0.	0.	0.

EDIT OF HEAT STRUCTURES AFTER INPUT PROCESSING

NUMBER OF HEAT STRUCTURES = 82, TOTAL NUMBER OF MESH POINTS = 275.

STR.NO.	SIDE	BDRY.VOL. NUMBER	SURFACE TEMP. (K)	HEAT TRF. RATE (WATT)	HEAT FLUX (WATT/M2)	CRITICAL HEAT FLUX (WATT/M2)	MODE	HEAT TRF. COEF. (WATT/M2-K)	INT. HEAT SOURCE (WATT)	NET HEAT LOSS (WATT)	VOL.AVE. TEMP. (K)
1211-001	LEFT	121-010000	570.49	6.49299E-08	6.99265E-09	0.	2	6544.2	0.	6.49299E-08	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
1220-001	LEFT	122-010000	570.43	-3.53889E+05	-1451.9	0.	2	41095.	0.	1.64397E-05	570.39
	RIGHT	0-000000	570.35	3.53889E+05	1286.8	0.	0	0.			
1220-002	LEFT	122-020000	570.42	-3.11612E+05	-1322.0	0.	2	40696.	0.	-3.06573E-05	570.38
	RIGHT	0-000000	570.35	3.11612E+05	1170.7	0.	0	0.			
1220-003	LEFT	122-030000	570.41	-2.51453E+05	-1066.8	0.	2	40353.	0.	-3.06405E-06	570.38
	RIGHT	0-000000	570.35	2.51453E+05	944.69	0.	0	0.			
1220-004	LEFT	122-040000	570.40	-2.79841E+05	-939.31	0.	2	40020.	0.	-1.13733E-05	570.37
	RIGHT	0-000000	570.35	2.79841E+05	831.82	0.	0	0.			
1220-005	LEFT	122-050000	570.39	-1.73172E+05	-686.88	0.	2	39714.	0.	-2.13804E-05	570.37
	RIGHT	0-000000	570.35	1.73172E+05	608.28	0.	0	0.			
1220-006	LEFT	122-060000	570.38	-1.41532E+05	-561.38	0.	2	39464.	0.	3.83640E-05	570.36
	RIGHT	0-000000	570.35	1.41532E+05	497.14	0.	0	0.			
1220-007	LEFT	122-070000	570.37	-1.10052E+05	-436.52	0.	2	39242.	0.	-6.72624E-05	570.36
	RIGHT	0-000000	570.35	1.10052E+05	386.56	0.	0	0.			
1220-008	LEFT	122-080000	570.37	-1.10272E+05	-437.39	0.	2	39048.	0.	3.46471E-05	570.36
	RIGHT	0-000000	570.35	1.10272E+05	387.34	0.	0	0.			
1220-009	LEFT	122-090000	570.37	-79006.	-313.37	0.	2	38877.	0.	3.52515E-05	570.36
	RIGHT	0-000000	570.35	79006.	277.51	0.	0	0.			
1220-010	LEFT	122-100000	570.36	-47843.	-189.76	0.	2	38725.	0.	8.33303E-05	570.35
	RIGHT	0-000000	570.35	47843.	168.05	0.	0	0.			
1220-011	LEFT	122-110000	570.36	-51843.	-191.17	0.	2	38586.	0.	9.24040E-05	570.35
	RIGHT	0-000000	570.35	51843.	169.29	0.	0	0.			
1231-001	LEFT	121-010000	570.48	-129.80	-111.90	0.	2	6544.2	0.	.53702	570.43
	RIGHT	125-010000	570.38	130.34	112.36	0.	2	5927.7			
1240-001	LEFT	124-010000	570.35	-18300.	-67.481	0.	2	38455.	0.	2.72429E-05	570.35
	RIGHT	0-000000	570.35	18300.	59.759	0.	0	0.			
1240-002	LEFT	124-020000	570.35	-34303.	-68.031	0.	2	38296.	0.	-2.56153E-05	570.35
	RIGHT	0-000000	570.35	34303.	60.246	0.	0	0.			
1240-003	LEFT	124-030000	570.35	-34573.	-68.565	0.	2	38125.	0.	-2.11692E-05	570.35
	RIGHT	0-000000	570.35	34573.	60.719	0.	0	0.			
1240-004	LEFT	124-040000	570.35	-34848.	-69.112	0.	2	37986.	0.	-2.96487E-05	570.35
	RIGHT	0-000000	570.35	34848.	61.203	0.	0	0.			
1240-005	LEFT	124-050000	570.35	-22360.	-69.550	0.	2	37890.	0.	-2.82396E-05	570.35
	RIGHT	0-000000	570.35	22360.	61.591	0.	0	0.			
1240-006	LEFT	124-060000	570.35	-20586.	-69.855	0.	2	37798.	0.	-5.96768E-06	570.35
	RIGHT	0-000000	570.35	20586.	61.861	0.	0	0.			
1240-007	LEFT	124-070000	570.35	-20672.	-70.147	0.	2	37579.	0.	-9.02262E-05	570.35
	RIGHT	0-000000	570.35	20672.	62.119	0.	0	0.			
1240-008	LEFT	124-070000	570.35	-8824.3	-70.147	0.	2	37579.	0.	-3.85147E-05	570.35
	RIGHT	0-000000	570.35	8824.3	62.119	0.	0	0.			
1251-001	LEFT	125-010000	570.37	1.70886E-07	1.84036E-08	0.	2	5927.7	0.	1.70886E-07	570.37
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			

2211-001	LEFT	221-010000	570.49	6.49299E-08	6.09265E-09	0.	2	6544.2	0.	6.49299E-08	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
2220-001	LEFT	222-010000	570.43	-3.53889E+05	-1451.9	0.	2	41095.	0.	1.64397E-05	570.39
	RIGHT	0-000000	570.35	3.53889E+05	1285.8	0.	0	0.			
2220-002	LEFT	222-020000	570.42	-3.11612E+05	-1322.0	0.	2	40696.	0.	-3.06573E-05	570.38
	RIGHT	0-000000	570.35	3.11612E+05	1170.7	0.	0	0.			
2220-003	LEFT	222-030000	570.41	-2.51453E+05	-1066.8	0.	2	40353.	0.	-3.06405E-06	570.38
	RIGHT	0-000000	570.35	2.51453E+05	944.69	0.	0	0.			
2220-004	LEFT	222-040000	570.40	-2.79841E+05	-939.31	0.	2	40020.	0.	-1.13733E-05	570.37
	RIGHT	0-000000	570.35	2.79841E+05	831.82	0.	0	0.			
2220-005	LEFT	222-050000	570.39	-1.73172E+05	-686.88	0.	2	39714.	0.	-2.13804E-05	570.37
	RIGHT	0-000000	570.35	1.73172E+05	608.28	0.	0	0.			
2220-006	LEFT	222-060000	570.38	-1.41532E+05	-561.38	0.	2	39464.	0.	3.83640E-05	570.36
	RIGHT	0-000000	570.35	1.41532E+05	497.14	0.	0	0.			
2220-007	LEFT	222-070000	570.37	-1.10052E+05	-436.52	0.	2	39242.	0.	-6.72624E-06	570.36
	RIGHT	0-000000	570.35	1.10052E+05	386.56	0.	0	0.			
2220-008	LEFT	222-080000	570.37	-1.10272E+05	-437.39	0.	2	39048.	0.	3.46471E-05	570.36
	RIGHT	0-000000	570.35	1.10272E+05	387.34	0.	0	0.			
2220-009	LEFT	222-090000	570.37	-79006.	-313.37	0.	2	38877.	0.	3.62515E-05	570.36
	RIGHT	0-000000	570.35	79006.	277.51	0.	0	0.			
2220-010	LEFT	222-100000	570.36	-47843.	-189.76	0.	2	38725.	0.	8.33303E-05	570.35
	RIGHT	0-000000	570.35	47843.	168.05	0.	0	0.			
2220-011	LEFT	222-110000	570.36	-51843.	-191.17	0.	2	38586.	0.	9.24040E-05	570.35
	RIGHT	0-000000	570.35	51843.	169.29	0.	0	0.			
2231-001	LEFT	221-010000	570.48	-129.80	-111.90	0.	2	6544.2	0.	.53702	570.43
	RIGHT	225-010000	570.38	130.34	112.36	0.	2	5927.7			
2240-001	LEFT	224-010000	570.35	-18300.	-67.481	0.	2	38455.	0.	2.72429E-05	570.35
	RIGHT	0-000000	570.35	18300.	59.759	0.	0	0.			
2240-002	LEFT	224-020000	570.35	-34303.	-68.031	0.	2	38296.	0.	-2.56153E-05	570.35
	RIGHT	0-000000	570.35	34303.	60.246	0.	0	0.			
2240-003	LEFT	224-030000	570.35	-34573.	-68.565	0.	2	38125.	0.	-2.11692E-05	570.35
	RIGHT	0-000000	570.35	34573.	60.719	0.	0	0.			
2240-004	LEFT	224-040000	570.35	-34848.	-69.112	0.	2	37986.	0.	-2.96487E-05	570.35
	RIGHT	0-000000	570.35	34848.	61.203	0.	0	0.			
2240-005	LEFT	224-050000	570.35	-22360.	-69.550	0.	2	37890.	0.	-2.82396E-05	570.35
	RIGHT	0-000000	570.35	22360.	61.591	0.	0	0.			
2240-006	LEFT	224-060000	570.35	-20586.	-69.855	0.	2	37798.	0.	-5.96768E-06	570.35
	RIGHT	0-000000	570.35	20586.	61.861	0.	0	0.			
2240-007	LEFT	224-070000	570.35	-20672.	-70.147	0.	2	37579.	0.	-9.02262E-05	570.35
	RIGHT	0-000000	570.35	20672.	62.119	0.	0	0.			
2240-008	LEFT	224-070000	570.35	-8824.3	-70.147	0.	2	37579.	0.	-3.85147E-05	570.35
	RIGHT	0-000000	570.35	8824.3	62.119	0.	0	0.			
2251-001	LEFT	225-010000	570.37	1.70886E-07	1.84036E-08	0.	2	5927.7	0.	1.70886E-07	570.37
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
3211-001	LEFT	321-010000	570.49	1.13715E-07	1.22466E-08	0.	2	6544.8	0.	1.13715E-07	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
3220-001	LEFT	322-010000	570.43	-3.53897E+05	-1452.0	0.	2	41099.	0.	-8.44058E-05	570.39
	RIGHT	0-000000	570.35	3.53897E+05	1285.8	0.	0	0.			
3220-002	LEFT	322-020000	570.42	-3.11621E+05	-1322.0	0.	2	40700.	0.	5.25825E-06	570.38
	RIGHT	0-000000	570.35	3.11621E+05	1170.7	0.	0	0.			
3220-003	LEFT	322-030000	570.41	-2.51460E+05	-1066.8	0.	2	40357.	0.	-6.54561E-05	570.38
	RIGHT	0-000000	570.35	2.51460E+05	944.71	0.	0	0.			
3220-004	LEFT	322-040000	570.40	-2.79845E+05	-939.32	0.	2	40023.	0.	6.54962E-05	570.37
	RIGHT	0-000000	570.35	2.79845E+05	831.83	0.	0	0.			
3220-005	LEFT	322-050000	570.39	-1.73174E+05	-686.89	0.	2	39717.	0.	-8.62870E-06	570.37
	RIGHT	0-000000	570.35	1.73174E+05	608.28	0.	0	0.			
3220-006	LEFT	322-060000	570.38	-1.41535E+05	-561.39	0.	2	39467.	0.	-3.84655E-05	570.36

	RIGHT	0-000000	570.35	1.41535E+05	497.15	0.	0	0.				
3220-007	LEFT	322-070000	570.37	-1.10052E+05	-436.51	0.	2	39244.	0.	-1.01607E-06	570.36
	RIGHT	0-000000	570.35	1.10052E+05	386.56	0.	0	0.				
3220-008	LEFT	322-080000	570.37	-1.10274E+05	-437.40	0.	2	39050.	0.	-5.50225E-05	570.36
	RIGHT	0-000000	570.35	1.10274E+05	387.34	0.	0	0.				
3220-009	LEFT	322-090000	570.37	-79005.	-313.37	0.	2	38879.	0.	-4.32949E-05	570.36
	RIGHT	0-000000	570.35	79005.	277.51	0.	0	0.				
3220-010	LEFT	322-100000	570.36	-47843.	-189.77	0.	2	38728.	0.	-3.75933E-05	570.35
	RIGHT	0-000000	570.35	47843.	168.05	0.	0	0.				
3220-011	LEFT	322-110000	570.36	-51843.	-191.17	0.	2	38588.	0.	-2.09343E-05	570.35
	RIGHT	0-000000	570.35	51843.	169.29	0.	0	0.				
3231-001	LEFT	321-010000	570.48	-129.80	-111.90	0.	2	6544.8	0.	.53742	570.43
	RIGHT	325-010000	570.38	130.34	112.36	0.	2	6927.8			
3240-001	LEFT	324-010000	570.35	-18298.	-67.472	0.	2	38456.	0.	-2.37114E-05	570.35
	RIGHT	0-000000	570.35	18298.	59.751	0.	0	0.				
3240-002	LEFT	324-020000	570.35	-34298.	-68.021	0.	2	38298.	0.	-1.53682E-04	570.35
	RIGHT	0-000000	570.35	34298.	60.237	0.	0	0.				
3240-003	LEFT	324-030000	570.35	-34568.	-68.556	0.	2	38126.	0.	-3.55479E-05	570.35
	RIGHT	0-000000	570.35	34568.	60.710	0.	0	0.				
3240-004	LEFT	324-040000	570.35	-34843.	-69.102	0.	2	37988.	0.	1.16725E-04	570.35
	RIGHT	0-000000	570.35	34843.	61.194	0.	0	0.				
3240-005	LEFT	324-050000	570.35	-22357.	-69.540	0.	2	37892.	0.	-9.91749E-05	570.35
	RIGHT	0-000000	570.35	22357.	61.583	0.	0	0.				
3240-006	LEFT	324-060000	570.35	-20583.	-69.845	0.	2	37800.	0.	-5.88479E-05	570.35
	RIGHT	0-000000	570.35	20583.	61.852	0.	0	0.				
3240-007	LEFT	324-070000	570.35	-20669.	-70.137	0.	2	37581.	0.	1.40870E-05	570.35
	RIGHT	0-000000	570.35	20669.	62.111	0.	0	0.				
3240-008	LEFT	324-070000	570.35	-8823.0	-70.137	0.	2	37581.	0.	6.01326E-06	570.35
	RIGHT	0-000000	570.35	8823.0	62.111	0.	0	0.				
3251-001	LEFT	325-010000	570.37	-3.08284E-08	-3.32008E-09	0.	2	5927.8	0.	-3.08284E-08	570.37
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
4000-001	LEFT	400-010000	617.40	-4638.2	-923.78	0.	2	1014.8	0.	-3.57969E-02	617.05
	RIGHT	940-010000	616.76	4638.2	736.94	0.	0	2.5100			
4000-002	LEFT	400-020000	617.40	-4638.2	-923.78	0.	2	1015.1	0.	-3.55671E-02	617.05
	RIGHT	940-010000	616.75	4638.2	736.94	0.	0	2.5100			
4000-003	LEFT	400-030000	617.37	-4637.7	-923.68	0.	2	1014.8	0.	-3.24273E-02	617.02
	RIGHT	940-010000	616.72	4637.7	736.86	0.	0	2.5100			
4000-004	LEFT	400-040000	617.34	-4637.3	-923.60	0.	2	1014.6	0.	-2.97321E-02	617.00
	RIGHT	940-010000	616.70	4637.3	736.80	0.	0	2.5100			
4101-001	LEFT	410-010000	617.01	-1224.9	-836.07	0.	2	872.59	0.	-2.63087E-04	615.97
	RIGHT	940-010000	615.03	1224.9	732.61	0.	0	2.5100			
4101-002	LEFT	410-020000	617.01	-2450.2	-836.07	0.	2	872.59	0.	-5.26262E-04	615.97
	RIGHT	940-010000	615.03	2450.2	732.61	0.	0	2.5100			
4102-001	LEFT	410-030000	617.03	-3800.0	-812.15	0.	2	866.26	0.	-2.94424E-03	616.03
	RIGHT	940-010000	615.10	3800.0	732.79	0.	0	2.5100			
4102-002	LEFT	410-040000	617.03	-7947.4	-812.15	0.	2	866.26	0.	-6.15767E-03	616.03
	RIGHT	940-010000	615.10	7947.4	732.79	0.	0	2.5100			
4102-003	LEFT	410-050000	617.89	-16333.	-814.52	0.	11	10426.	0.	61.456	616.89
	RIGHT	940-010000	615.95	16395.	737.70	0.	0	2.5100			
4102-004	LEFT	410-060000	617.89	-16333.	-814.52	0.	10	10134.	0.	72.560	616.89
	RIGHT	940-010000	615.95	16406.	738.20	0.	0	2.5100			
4102-005	LEFT	410-070000	617.89	-16333.	-814.52	0.	10	10134.	0.	72.560	616.89
	RIGHT	940-010000	615.95	16406.	738.20	0.	0	2.5100			
4102-006	LEFT	410-080000	617.92	-3811.5	-814.60	0.	10	16450.	0.	24.574	616.92
	RIGHT	940-010000	615.98	3836.0	739.75	0.	0	2.5100			
4103-001	LEFT	410-090000	617.92	-1637.4	-829.90	0.	10	20036.	0	12.265	616.99
	RIGHT	940-010000	616.12	1649.7	740.87	0.	0	2.5100			

4103-002	LEFT	420-010000	617.93	-1148.4	-829.92	0.	10	22545.	0.	9.3827	617.00
	RIGHT	940-010000	616.13	1157.7	741.39	0.	0	2.5100			
4113-001	LEFT	0-000000	619.87	0.	0.	0.	0	0.	66943.	-1.06932E-04	619.00
	RIGHT	410-040000	618.49	66943.	6225.7	2.80414E+06	4	11827.			
4113-002	LEFT	0-000000	619.87	0.	0.	0.	0	0.	22314.	5.70435E-09	619.00
	RIGHT	410-050000	618.49	22314.	6229.8	1.07790E+06	4	11831.			

STR.NO.	MESH POINT TEMPERATURES (K)				
1211-001	570.49	570.49	570.49	570.49	570.49
1220-001	570.43	570.39	570.35		
1220-002	570.42	570.38	570.35		
1220-003	570.41	570.38	570.35		
1220-004	570.40	570.37	570.35		
1220-005	570.39	570.37	570.35		
1220-006	570.38	570.36	570.35		
1220-007	570.37	570.36	570.35		
1220-008	570.37	570.36	570.35		
1220-009	570.37	570.36	570.35		
1220-010	570.36	570.36	570.35		
1220-011	570.36	570.36	570.35		
1231-001	570.48	570.45	570.42	570.38	
1240-001	570.35	570.35	570.35		
1240-002	570.35	570.35	570.35		
1240-003	570.35	570.35	570.35		
1240-004	570.35	570.35	570.35		
1240-005	570.35	570.35	570.35		
1240-006	570.35	570.35	570.35		
1240-007	570.35	570.35	570.35		
1240-008	570.35	570.35	570.35		
1251-001	570.37	570.37	570.37	570.37	570.37
2211-001	570.49	570.49	570.49	570.49	570.49
2220-001	570.43	570.39	570.35		
2220-002	570.42	570.38	570.35		
2220-003	570.41	570.38	570.35		
2220-004	570.40	570.37	570.35		
2220-005	570.39	570.37	570.35		
2220-006	570.38	570.36	570.35		
2220-007	570.37	570.36	570.35		
2220-008	570.37	570.36	570.35		
2220-009	570.37	570.36	570.35		
2220-010	570.36	570.35	570.35		
2220-011	570.36	570.36	570.35		
2231-001	570.48	570.45	570.42	570.38	
2240-001	570.35	570.35	570.35		
2240-002	570.35	570.35	570.35		
2240-003	570.35	570.35	570.35		
2240-004	570.35	570.35	570.35		
2240-005	570.35	570.35	570.35		
2240-006	570.35	570.35	570.35		
2240-007	570.35	570.35	570.35		
2240-008	570.35	570.35	570.35		
2251-001	570.37	570.37	570.37	570.37	570.37
3211-001	570.49	570.49	570.49	570.49	570.49
3220-001	570.43	570.39	570.35		
3220-002	570.42	570.38	570.35		
3220-003	570.41	570.38	570.35		
3220-004	570.40	570.37	570.35		

3220-005	570.39	570.37	570.35		
3220-006	570.38	570.36	570.35		
3220-007	570.37	570.36	570.35		
3220-008	570.37	570.36	570.35		
3220-009	570.37	570.36	570.35		
3220-010	570.36	570.35	570.35		
3220-011	570.36	570.36	570.35		
3231-001	570.48	570.45	570.42	570.38	
3240-001	570.35	570.35	570.35		
3240-002	570.35	570.35	570.35		
3240-003	570.35	570.35	570.35		
3240-004	570.35	570.35	570.35		
3240-005	570.36	570.36	570.35		
3240-006	570.35	570.35	570.35		
3240-007	570.35	570.35	570.35		
3240-008	570.35	570.35	570.35		
3261-001	570.37	570.37	570.37	570.37	570.37
4000-001	617.40	617.17	616.95	616.76	
4000-002	617.40	617.17	616.95	616.75	
4000-003	617.37	617.14	616.92	616.72	
4000-004	617.34	617.11	616.90	616.70	
4101-001	617.01	616.32	615.66	615.03	
4101-002	617.01	616.32	615.66	615.03	
4102-001	617.03	616.36	615.72	615.10	
4102-002	617.03	616.36	615.72	615.10	
4102-003	617.89	617.22	616.58	615.95	
4102-004	617.89	617.22	616.57	615.95	
4102-005	617.89	617.22	616.57	615.95	
4102-006	617.92	617.25	616.60	615.98	
4103-001	617.92	617.30	616.70	616.12	
4103-002	617.93	617.31	616.71	616.13	
4113-001	619.87	619.11	618.49		
4113-002	619.87	619.11	618.49		

CONTROL VARIABLE EDIT

1	P/RHO180	DIV	19808.6	2	ENTHA180	SUM	27751.4
3	CVENERGY	MULT	172059.	4	P/RHO231	DIV	20950.1
5	ENTHA231	SUM	1.322690E+06	6	LETDENER	MULT	0.
7	PRZRHEAT	SUM	18237.6	8	PRZVAPH	SUM	0.
9	BALANCE	SUM	1.356830E+07	10	CALC-P	MULT	1.551040E+07
11	MEAS-P	FUNCTION	1.551000E+07	12	MEAS-L	FUNCTION	26.3000
13	TEMPF420	MULT	617.968	14	TEMPG420	MULT	617.968
15	SAT420	MULT	617.968	16	SPRYTEMP	MULT	570.593
20	P/RHO450	DIV	21714.7	21	ENTHA450	SUM	1.323651E+06
22	SPRENER	MULT	29041.9	23	P/RHO400	DIV	26283.0
24	ENTHA410	SUM	1.633941E+06	25	SURGENER	MULT	0.
26	SPRBALAN	SUM	47279.6	27	HEATERW	SUM	89229.4
28	VAPGEN	SUM	0.	31	POW	SUM	0.
32	TURBPOW	SUM	0.	100	TAVG(R)	SUM	570.533
101	LAG1	LAG	570.533	102	S1	SUM	-14.6166
103	LL1	LEAD-LAG	-.580865	104	S2	SUM	5.01600
105	???	SUM	245.445	106	DELTA-T	SUM	-.118433
107	LAG2	LAG	-.118433	108	LL2	LEAD-LAG	-.118433
109	LL3	LEAD-LAG	570.533	110	LAG3	LAG	570.533
111	S4	SUM	0.	112	S5	SUM	-3.315053E-02
113	S6	SUM	41.1829	134	LEVREG	PROP-INT	11.6670
135	LIMIT	MULT	11.6670	136	DELTAF	SUM	0.

137	D(AREA)	PROP-INT	0.	139	VALVAREA	SUM	.109000
140	AREA**2	MULT	1.188000E-02	141	K(VALV)	DIV	20387.0
142	K(T+DT)	SUM	20796.0	143	DELTA-K	SUM	0.
144	K(T)	MULT	20796.0	145	DELTA-P	SUM	0.
146	P(T)	MULT	1.591000E+07	153	KOQO2	MULT	981423.
154	DUM	SUM	1.050000E+06	155	A(T)	DIV	9.530000E-07
156	DUM	MULT	242.117	157	DUM	MULT	-63192.0.
158	A	SUM	20570.4	159	DUM	MULT	290474.
160	DUM	MULT	0.	170	B	SUM	63206.0
171	DUM	MULT	0.	172	DUM	MULT	-.260000
173	DUM	MULT	456.100	174	C	SUM	455.800
175	B**2	MULT	3.995000E+09	176	AC4	MULT	3.750000E+07
177	B2-4AC	SUM	3.960000E+09	178	SQRT	STDFNCTN	62908.6
179	DUM	SUM	-148.700	180	DELTA-Q	DIV	0.
181	Q(T+DT)	SUM	14.0000	182	DUM	STDFNCTN	.597000
183	QO(T+DT)	MULT	8.33000	184	QTOT	SUM	22.3300
186	P(PUMP)	FUNCTION	2.004800E+07	186	DFDQ	FUNCTION	-67456.0
200	TAVG(G)	SUM	570.533	201	LAG1	LAG	570.533
202	S1	SUM	-14.6166	203	LL1	LEAD-LAG	-.580865
204	S2	SUM	5.01600	205	777	SUM	245.445
206	DELTA-T	SUM	-.118433	207	LAG2	LAG	-.118433
208	LL2	LEAD-LAG	-.118433	209	LL3	LEAD-LAG	570.533
210	LAG3	LAG	570.533	211	S4	SUM	0.
212	S5	SUM	-3.315053E-02	213	S6	SUM	41.1829
281	LET1	SUM	2.307800E+07	282	LET2	MULT	1.689701E+10
283	LET3	STDFNCTN	6.17700	284	LETDOWN	MULT	22.3700
300	TAVG(B)	SUM	570.533	301	LAG1	LAG	570.533
302	S1	SUM	-14.6166	303	LL1	LEAD-LAG	-.580865
304	S2	SUM	5.01600	305	777	SUM	245.445
306	DELTA-T	SUM	-.118437	307	LAG2	LAG	-.118437
308	LL2	LEAD-LAG	-.118437	309	LL3	LEAD-LAG	570.533
310	LAG3	LAG	570.533	311	S4	SUM	0.
312	S5	SUM	-3.315054E-02	313	S6	SUM	41.1829
400	COLLEVEL	SUM	26.5782	402	DPLEVEL	SUM	26.2816
404	PRZMASS	SUM	11259.8	410	T-AUCT-H	STDFNCTN	570.540
411	L-REF	FUNCTION	25.4190	412	DELT-LEV	SUM	0.
413	DELTA-P	SUM	0.	414	DP-CORR	PROP-INT	0.
415	POW-HE11	TRIPUNIT	0.	416	POW-BKR	TRIPUNIT	0.
417	POWVAR	FUNCTION	154000.	418	TOTPOW	FUNCTION	89257.0
435	SPRAYVAL	FUNCTION	0.	445	SPRAYVAL	FUNCTION	0.
606	POWCOLDL	SUM	22359.7	607	POWPREH	SUM	50082.5
608	POWHOTLG	SUM	1.196796E+06	609	POWUBEND	SUM	835743.
610	SGPOWER	SUM	2.104980E+06	706	POWCOLDL	SUM	22359.7
707	POWPREH	SUM	50082.5	708	POWHOTLG	SUM	1.196796E+06
709	POWUBEND	SUM	835743.	710	SGPOWER	SUM	2.104980E+06
806	POWCOLDL	SUM	22356.6	807	POWPREH	SUM	50075.6
808	POWHOTLG	SUM	1.196822E+06	809	POWUBEND	SUM	835733.
810	SGPOWER	SUM	2.104987E+06	900	MG1	MULT	0.
901	MG2	MULT	0.	902	MG3	MULT	0.
903	MG4	MULT	0.	904	MG5	MULT	666.215
905	MG6	MULT	1082.21	906	MG7	MULT	1082.21
907	MG8	MULT	252.507	908	MG9	MULT	82.7064
909	MG10	MULT	58.0347	911	PRZMASW	SUM	3223.89
912	PRZMASL	SUM	8035.95	920	SURGHEAT	SUM	-18551.5

PLOT GENERAL SUMMARY
LINE [illegible]

```
  1    RELAP5/2/36.04 REACTOR LOSS OF COOLANT ANALYSIS PROGRAM$
  2    DOEL4 - SPRAY CAPACITY TEST AT ZERO POWER 87/01/22.$
```

GENERAL PLOT OPTIONS = 00000101000000000000

PLOT WIDTH = 6.00 PLOT HEIGHT = 8.00 PLOT MAGNF = 1.00

PLOT REQUEST SUMMARY

PLOT NUMBER	OPTIONS	DEPENDENT VARIABLE CODE	PARAMETER	INDEPENDENT VARIABLE CODE	PARAMETER	COMPARISON TABLE
1000	GENERAL	CNTRLVAR	10	TIME	0	NONE
		CNTRLVAR	11	TIME	0	
2000	GENERAL	CNTRLVAR	400	TIME	0	NONE
		CNTRLVAR	402	TIME	0	
		CNTRLVAR	12	TIME	0	
3000	GENERAL	MFLOWJ	435000000	TIME	0	NONE
		MFLOWJ	445000000	TIME	0	
		MFLOWJ	450010000	TIME	0	
4000	GENERAL	CNTRLVAR	610	TIME	0	NONE
		CNTRLVAR	710	TIME	0	
		CNTRLVAR	810	TIME	0	
5000	GENERAL	MFLOWJ	312000000	TIME	0	NONE
6000	GENERAL	CNTRLVAR	13	TIME	0	NONE
		CNTRLVAR	14	TIME	0	
		CNTRLVAR	15	TIME	0	
		CNTRLVAR	16	TIME	0	
7000	GENERAL	CPUTIME	0	TIME	0	NONE
8000	GENERAL	CNTRLVAR	8	TIME	0	NONE
9000	GENERAL	CNTRLVAR	28	TIME	0	NONE
10000	GENERAL	CNTRLVAR	404	TIME	0	NONE
11000	GENERAL	CNTRLVAR	911	TIME	0	NONE
12000	GENERAL	CNTRLVAR	912	TIME	0	NONE
13000	GENERAL	CNTRLVAR	27	TIME	0	NONE

$$$$ INPUT PROCESSING COMPLETED SUCCESSFULLY $$$$

LIST OF DYNAMIC STORAGE INFORMATION FOR TRANSIENT CALCULATION

NUM.	FILID	FILE INDEX	FILE SIZE
1	-23.	63625	9344
2	3.	37905	13
3	9.	37918	1891
4	10.	39809	10320
5	11.	50129	4867
6	-16.	601	13367
8	12.	54996	5020
9	13.	60016	139
10	18.	60155	412
11	14.	13968	-198
12	-4.	-65	145
13	-22.	19793	-4
15	-5.	-1089	43
16	20.	14166	-4300
18	7.	18466	-29
19	-21.	18495	-123
20	19.	18618	-1086
22	-6.	-257	708

27	15.	60567	3058
28	8.	19704	-65
30	17.	19769	-24

LIST OF FTB INFORMATION

FLS = 00275460 FLL = 00046525

SIZE =	0	0	536869823	536870911	536870911	536870911	536870911
MAX =	72969	19797	536870912	536870912	536870912	536870912	536870912
MIN =	72969	19797	1	1	1	1	1

NOLINK= 1 NOFILS = 24 LINK1 = 72969 LASDES = 73061 NEXDES = 73065 FA(1)(8) = 056537 LFA(1)(8) =00000000

LINK 1

ID	SETSIZ	NOSETS	BUFFER	UNIT	INDEX(10)	SIZE(10)	INDEX(8)	SIZE(8)	ADDR(8)
0.	0	0	0	1	72969	200	00216411	00000310	00275147
1.	37904	0	0	1	1	37904	00000001	00112020	00056537
-1.	600	0	0	2	1	600	00000001	00001130	00000000
15.	3058	0	0	1	60567	3058	00166227	00005762	00244765
3.	13	0	0	1	37905	13	00112021	00000015	00170557
4.	146	0	0	3	65	192	00000101	00000300	00000101
5.	43	0	0	3	1089	64	00002101	00000100	00002101
6.	798	0	0	3	257	832	00000401	00001500	00000401
7.	29	0	0	2	18466	29	00044042	00000035	00044041
8.	65	0	0	2	19704	65	00046370	00000101	00046367
9.	1891	0	0	1	37918	1891	00112036	00003543	00170574
10.	10320	0	0	1	39809	10320	00115601	00024120	00174337
11.	4867	0	0	1	50129	4867	00141721	00011403	00220457
12.	5020	0	0	1	54996	5020	00153324	00011634	00232062
13.	139	0	0	1	60016	139	00165160	00000213	00243716
14.	198	0	0	2	13968	198	00033220	00000306	00033217
-16.	13367	0	0	2	601	13367	00001131	00032067	00001130
17.	24	0	0	2	19769	24	00046471	00000030	00046470
18.	412	0	0	1	60155	412	00165373	00000634	00244131
19.	1086	0	0	2	18618	1086	00044272	00002076	00044271
20.	4300	0	0	2	14166	4300	00033526	00010314	00033525
-21.	123	0	0	2	18495	123	00044077	00000173	00044076
-22.	4	0	0	2	19793	4	00046521	00000004	00046520
-23.	9344	0	0	1	63625	9344	00174211	00022200	00252747

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ATTEMPTED ADV: TOT.=      0   EDIT=      0   MIN.DT=   0.          SEC   LAST DT=    .200000     SEC   MS.ERR=   0.          KG
 REPEATED ADV: TOT.=      0   EDIT=      0   MAX.DT=   0.          SEC   CRNT.DT=   0.           SEC   TOT.MS=    196370.    KG
SUCCESSFUL ADV: TOT.=     0   EDIT=      0   AVG.DT=   0.          SEC   ERR.EST=   0.                 M.RATN=   0.
 REQUESTED ADV: TOT.=     0   EDIT=      0   REQ.DT=    .200000    SEC       CPU=   44.5600    SEC     TIME=   0.          SEC

TRIP NUMBER, TRIP TIME (SEC)
   597  -1.000000        598  -1.000000        599  -1.000000
   698  -1.000000
```

VOL.NO.	PRESSURE (PA)	VOIDG	TEMPF (K)	TEMPG (K)	SAT. TEMP. (K)	NONCOND. VAPOR QUAL.	BORON DENS. (KG/M3)	UF (J/KG)	UG (J/KG)	VOL. FLAG
SYSTEM 1	MASS= 1.96370E+05 KG		MASS ERROR= 0.		KG	ERR.EST.= 0.				
UPDOWNC	BRANCH	COMPONENT								
11-010000	1.59955E+07	0.	570.54	620.46	620.46	0.	.73296	1.30149E+06	2.43589E+06	00
UPDOWNOZZ	BRANCH	COMPONENT								
13-010000	1.59860E+07	0.	570.60	620.41	620.41	0.	.73282	1.30183E+06	2.43615E+06	00
DOWNCTS	ANNULUS	COMPONENT								
15-010000	1.59898E+07	0.	570.60	620.43	620.43	0.	.73283	1.30182E+06	2.43605E+06	00
15-020000	1.60015E+07	0.	570.61	620.49	620.49	0.	.73283	1.30185E+06	2.43573E+06	00
15-030000	1.60131E+07	0.	570.61	620.54	620.54	0.	.73285	1.30183E+06	2.43542E+06	00
LOWPLEN	BRANCH	COMPONENT								
23-010000	1.60134E+07	0.	570.62	620.55	620.55	0.	.73283	1.30188E+06	2.43541E+06	00
COREIN	BRANCH	COMPONENT								
25-010000	1.59500E+07	0.	570.59	620.23	620.23	0.	.73278	1.30185E+06	2.43712E+06	00
CORE	PIPE	COMPONENT								
31-010000	1.59160E+07	0.	570.58	620.05	620.05	0.	.73273	1.30187E+06	2.43804E+06	00
31-020000	1.58928E+07	0.	570.57	619.93	619.93	0.	.73271	1.30186E+06	2.43862E+06	00
31-030000	1.58506E+07	0.	570.55	619.72	619.72	0.	.73267	1.30185E+06	2.43960E+06	00
31-040000	1.58073E+07	0.	570.54	619.50	619.50	0.	.73261	1.30188E+06	2.44061E+06	00
31-050000	1.57829E+07	0.	570.53	619.37	619.37	0.	.73259	1.30188E+06	2.44119E+06	00
BYPASS	SNGLVOL	COMPONENT								
35-010000	1.58652E+07	0.	570.52	619.79	619.79	0.	.73276	1.30165E+06	2.43926E+06	00
COREEX	BRANCH	COMPONENT								
39-010000	1.57627E+07	0.	570.52	619.27	619.27	0.	.73257	1.30187E+06	2.44166E+06	00
UPPLEN1	BRANCH	COMPONENT								
41-010000	1.57203E+07	0.	570.51	619.05	619.05	0.	.73251	1.30190E+06	2.44266E+06	00
UPPLEN2	BRANCH	COMPONENT								
43-010000	1.57134E+07	0.	570.51	619.02	619.02	0.	.73250	1.30192E+06	2.44282E+06	00
UPHEAD	BRANCH	COMPONENT								
45-010000	1.56998E+07	0.	570.46	618.95	618.95	0.	.73258	1.30168E+06	2.44314E+06	00
HTLEGR1	PIPE	COMPONENT								
111-010000	1.55940E+07	0.	570.47	618.40	618.40	0.	.73236	1.30196E+06	2.44564E+06	00
111-020000	1.55905E+07	0.	570.47	618.38	618.38	0.	.73235	1.30196E+06	2.44572E+06	00
HTLEGR2	BRANCH	COMPONENT								
113-010000	1.55842E+07	0.	570.47	618.35	618.35	0.	.73234	1.30198E+06	2.44587E+06	00
INBOX	BRANCH	COMPONENT								
121-010000	1.56327E+07	0.	570.49	618.60	618.60	0.	.73239	1.30198E+06	2.44472E+06	00
UTUBE	PIPE	COMPONENT								
122-010000	1.56019E+07	0.	570.46	618.44	618.44	0.	.73240	1.30188E+06	2.44545E+06	00
122-020000	1.55860E+07	0.	570.45	618.36	618.36	0.	.73239	1.30186E+06	2.44583E+06	00
122-030000	1.55703E+07	0.	570.43	618.28	618.28	0.	.73240	1.30179E+06	2.44620E+06	00
122-040000	1.55524E+07	0.	570.42	618.19	618.19	0.	.73238	1.30177E+06	2.44662E+06	00
122-050000	1.55341E+07	0.	570.40	618.09	618.09	0.	.73239	1.30170E+06	2.44706E+06	00
122-060000	1.55173E+07	0.	570.39	618.00	618.00	0.	.73238	1.30168E+06	2.44746E+06	00
122-070000	1.55004E+07	0.	570.38	617.92	617.92	0.	.73237	1.30167E+06	2.44786E+06	00
122-080000	1.54836E+07	0.	570.38	617.83	617.83	0.	.73234	1.30170E+06	2.44826E+06	00

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122-090000  1.54667E+07  0.          570.38      617.74      617.74      0.          .73233      1.30168E+06  2.44866E+06  00
122-100000  1.54499E+07  0.          570.37      617.65      617.65      0.          .73232      1.30166E+06  2.44906E+06  00
122-110000  1.54337E+07  0.          570.37      617.57      617.57      0.          .73229      1.30170E+06  2.44945E+06  00
UTUBE       PIPE        COMPONENT
124-010000  1.54229E+07  0.          570.36      617.51      617.51      0.          .73229      1.30167E+06  2.44970E+06  00
124-020000  1.54167E+07  0.          570.36      617.48      617.48      0.          .73227      1.30168E+06  2.44985E+06  00
124-030000  1.54106E+07  0.          570.36      617.45      617.45      0.          .73226      1.30169E+06  2.45000E+06  00
124-040000  1.54046E+07  0.          570.36      617.42      617.42      0.          .73225      1.30171E+06  2.45014E+06  00
124-050000  1.53999E+07  0.          570.36      617.39      617.39      0.          .73224      1.30172E+06  2.45025E+06  00
124-060000  1.53965E+07  0.          570.36      617.37      617.37      0.          .73224      1.30173E+06  2.45034E+06  00
124-070000  1.53925E+07  0.          570.36      617.35      617.35      0.          .73223      1.30173E+06  2.45043E+06  00
OUTBOX      BRANCH      COMPONENT
125-010000  1.54013E+07  0.          570.37      617.40      617.40      0.          .73223      1.30177E+06  2.45022E+06  00
SEALR       PIPE        COMPONENT
131-010000  1.53390E+07  0.          570.34      617.07      617.07      0.          .73217      1.30174E+06  2.45171E+06  00
131-020000  1.53486E+07  0.          570.35      617.12      617.12      0.          .73217      1.30177E+06  2.45148E+06  00
131-030000  1.53535E+07  0.          570.35      617.15      617.15      0.          .73218      1.30176E+06  2.45137E+06  00
131-040000  1.53457E+07  0.          570.35      617.11      617.11      0.          .73216      1.30178E+06  2.45155E+06  00
PUMPR       PUMP        COMPONENT
  RPM =   155.00     (RAD/SEC)     HEAD =  6.88996E+05 (PA)          TORQUE =  -32334.     (N-M)
  OCTANT = 1                                                      MTR.TORQUE =  0.         (N-M)
140-010000  1.57344E+07  0.          570.51      619.12      619.12      0.          .73254      1.30187E+06  2.44232E+06  10
COLDR1      SNGLVOL     COMPONENT
151-010000  1.59451E+07  0.          570.59      620.20      620.20      0.          .73277      1.30186E+06  2.43725E+06  00
COLDR2      BRANCH      COMPONENT
152-010000  1.59418E+07  0.          570.57      620.18      620.18      0.          .73280      1.30176E+06  2.43734E+06  00
COLDR3      PIPE        COMPONENT
153-010000  1.59385E+07  0.          570.57      620.17      620.17      0.          .73279      1.30177E+06  2.43743E+06  00
153-020000  1.59585E+07  0.          570.58      620.27      620.27      0.          .73281      1.30178E+06  2.43689E+06  00
CVTANK      TMDPVOL     COMPONENT
180-010000  2.00000E+07  0.          275.00      638.85      638.85      0.          1.0097       7942.8      2.30082E+06  00
HTLEGG1     PIPE        COMPONENT
211-010000  1.55940E+07  0.          570.47      618.40      618.40      0.          .73236      1.30196E+06  2.44564E+06  00
211-020000  1.55905E+07  0.          570.47      618.38      618.38      0.          .73235      1.30196E+06  2.44572E+06  00
HTLEGG2     BRANCH      COMPONENT
213-010000  1.55842E+07  0.          570.47      618.35      618.35      0.          .73234      1.30198E+06  2.44587E+06  00
INBOX       BRANCH      COMPONENT
221-010000  1.56327E+07  0.          570.49      618.60      618.60      0.          .73239      1.30198E+06  2.44472E+06  00
UTUBE       PIPE        COMPONENT
222-010000  1.56019E+07  0.          570.46      618.44      618.44      0.          .73240      1.30188E+06  2.44545E+06  00
222-020000  1.55860E+07  0.          570.45      618.36      618.36      0.          .73239      1.30186E+06  2.44583E+06  00
222-030000  1.55703E+07  0.          570.43      618.28      618.28      0.          .73240      1.30179E+06  2.44620E+06  00
222-040000  1.55524E+07  0.          570.42      618.19      618.19      0.          .73238      1.30177E+06  2.44662E+06  00
222-050000  1.55341E+07  0.          570.40      618.09      618.09      0.          .73239      1.30170E+06  2.44706E+06  00
222-060000  1.55173E+07  0.          570.39      618.00      618.00      0.          .73238      1.30168E+06  2.44746E+06  00
222-070000  1.55004E+07  0.          570.38      617.92      617.92      0.          .73237      1.30167E+06  2.44786E+06  00
222-080000  1.54836E+07  0.          570.38      617.83      617.83      0.          .73234      1.30170E+06  2.44826E+06  00
222-090000  1.54667E+07  0.          570.38      617.74      617.74      0.          .73233      1.30168E+06  2.44866E+06  00
222-100000  1.54499E+07  0.          570.37      617.65      617.65      0.          .73232      1.30166E+06  2.44906E+06  00
222-110000  1.54337E+07  0.          570.37      617.57      617.57      0.          .73229      1.30170E+06  2.44945E+06  00
UTUBE       PIPE        COMPONENT
224-010000  1.54229E+07  0.          570.36      617.51      617.51      0.          .73229      1.30167E+06  2.44970E+06  00
224-020000  1.54167E+07  0.          570.36      617.48      617.48      0.          .73227      1.30168E+06  2.44985E+06  00
224-030000  1.54106E+07  0.          570.36      617.45      617.45      0.          .73226      1.30169E+06  2.45000E+06  00
224-040000  1.54046E+07  0.          570.36      617.42      617.42      0.          .73225      1.30171E+06  2.45014E+06  00
224-050000  1.53999E+07  0.          570.36      617.39      617.39      0.          .73224      1.30172E+06  2.45025E+06  00
224-060000  1.53965E+07  0.          570.35      617.37      617.37      0.          .73224      1.30173E+06  2.45034E+06  00
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224-070000  1.53925E+07  0.          570.36      617.35      617.35      0.          .73223      1.30173E+06  2.45043E+06  00
OUTBOX      BRANCH       COMPONENT
225-010000  1.54013E+07  0.          570.37      617.40      617.40      0.          .73223      1.30177E+06  2.45022E+06  00
SEALG1      PIPE         COMPONENT
231-010000  1.53390E+07  0.          570.34      617.07      617.07      0.          .73217      1.30174E+06  2.45171E+06  00
231-020000  1.53486E+07  0.          570.35      617.12      617.12      0.          .73217      1.30177E+06  2.45148E+06  00
231-030000  1.53535E+07  0.          570.35      617.15      617.15      0.          .73218      1.30176E+06  2.45137E+06  00
SEALG2      BRANCH       COMPONENT
232-010000  1.53457E+07  0.          570.35      617.11      617.11      0.          .73216      1.30178E+06  2.45155E+06  00
PUMPR       PUMP         COMPONENT
 RPM =   155.00    (RAD/SEC)     HEAD =  6.88996E+05 (PA)        TORQUE =  -32334.     (N-M)
 OCTANT = 1                                                    MTR.TORQUE =  0.         (N-M)
240-010000  1.57344E+07  0.          570.51      619.12      619.12      0.          .73254      1.30187E+06  2.44232E+06  10
COLG1       BRANCH       COMPONENT
251-010000  1.59451E+07  0.          570.59      620.20      620.20      0.          .73277      1.30186E+06  2.43725E+06  00
COLG2       PIPE         COMPONENT
253-010000  1.59418E+07  0.          570.59      620.18      620.18      0.          .73276      1.30187E+06  2.43734E+06  00
253-020000  1.59385E+07  0.          570.59      620.17      620.17      0.          .73275      1.30188E+06  2.43743E+06  00
253-030000  1.59585E+07  0.          570.59      620.27      620.27      0.          .73279      1.30184E+06  2.43689E+06  00
LETDO1      TMDPVOL      COMPONENT
282-010000  3.80000E+06  0.          412.00      520.46      520.46      0.          .92880      5.82440E+05  2.60184E+06  00
HTLEGB1     PIPE         COMPONENT
311-010000  1.55946E+07  0.          570.47      618.40      618.40      0.          .73236      1.30195E+06  2.44562E+06  00
311-020000  1.55946E+07  0.          570.47      618.40      618.40      0.          .73236      1.30195E+06  2.44562E+06  00
HTLEGB2     BRANCH       COMPONENT
313-010000  1.55845E+07  0.          570.47      618.35      618.35      0.          .73234      1.30198E+06  2.44586E+06  00
INBOX       BRANCH       COMPONENT
321-010000  1.56328E+07  0.          570.49      618.60      618.60      0.          .73239      1.30198E+06  2.44472E+06  00
UTUBE       PIPE         COMPONENT
322-010000  1.56020E+07  0.          570.46      618.44      618.44      0.          .73240      1.30188E+06  2.44545E+06  00
322-020000  1.55860E+07  0.          570.45      618.36      618.36      0.          .73239      1.30186E+06  2.44583E+06  00
322-030000  1.55703E+07  0.          570.43      618.28      618.28      0.          .73240      1.30179E+06  2.44620E+06  00
322-040000  1.55525E+07  0.          570.42      618.19      618.19      0.          .73238      1.30177E+06  2.44662E+06  00
322-050000  1.55342E+07  0.          570.40      618.09      618.09      0.          .73239      1.30170E+06  2.44705E+06  00
322-060000  1.55173E+07  0.          570.39      618.00      618.00      0.          .73238      1.30168E+06  2.44746E+06  00
322-070000  1.55005E+07  0.          570.38      617.92      617.92      0.          .73237      1.30167E+06  2.44785E+06  00
322-080000  1.54836E+07  0.          570.38      617.83      617.83      0.          .73234      1.30170E+06  2.44826E+06  00
322-090000  1.54668E+07  0.          570.38      617.74      617.74      0.          .73233      1.30168E+06  2.44866E+06  00
322-100000  1.54499E+07  0.          570.37      617.65      617.65      0.          .73232      1.30166E+06  2.44906E+06  00
322-110000  1.54337E+07  0.          570.37      617.57      617.57      0.          .73229      1.30170E+06  2.44945E+06  00
UTUBE       PIPE         COMPONENT
324-010000  1.54230E+07  0.          570.36      617.51      617.51      0.          .73229      1.30167E+06  2.44970E+06  00
324-020000  1.54168E+07  0.          570.36      617.48      617.48      0.          .73227      1.30168E+06  2.44985E+06  00
324-030000  1.54107E+07  0.          570.36      617.45      617.45      0.          .73226      1.30169E+06  2.45000E+06  00
324-040000  1.54047E+07  0.          570.36      617.42      617.42      0.          .73225      1.30171E+06  2.45014E+06  00
324-050000  1.54000E+07  0.          570.36      617.39      617.39      0.          .73224      1.30172E+06  2.45025E+06  00
324-060000  1.53966E+07  0.          570.36      617.38      617.38      0.          .73224      1.30173E+06  2.45033E+06  00
324-070000  1.53926E+07  0.          570.36      617.35      617.35      0.          .73223      1.30173E+06  2.45043E+06  00
OUTBOX      BRANCH       COMPONENT
325-010000  1.54013E+07  0.          570.37      617.40      617.40      0.          .73223      1.30177E+06  2.45022E+06  00
SEALB       PIPE         COMPONENT
331-010000  1.53391E+07  0.          570.34      617.07      617.07      0.          .73217      1.30174E+06  2.45171E+06  00
331-020000  1.53486E+07  0.          570.35      617.12      617.12      0.          .73217      1.30177E+06  2.45148E+06  00
331-030000  1.53535E+07  0.          570.35      617.15      617.15      0.          .73218      1.30176E+06  2.45137E+06  00
331-040000  1.53457E+07  0.          570.35      617.11      617.11      0.          .73216      1.30178E+06  2.45155E+06  00
PUMPR       PUMP         COMPONENT
 RPM =   155.00    (RAD/SEC)     HEAD =  6.88996E+05 (PA)        TORQUE =  -32334.     (N-M)
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OCTANT = 1 MTR.TORQUE = 0. (N-M)

340-010000	1.57344E+07	0.	570.51	619.12	619.12	0.	.73254	1.30187E+06	2.44232E+06	10
COLDB1	SNGLVOL	COMPONENT								
351-010000	1.59451E+07	0.	570.59	620.20	620.20	0.	.73277	1.30186E+06	2.43725E+06	00
COLDR2	BRANCH	COMPONENT								
352-010000	1.59418E+07	0.	570.59	620.18	620.18	0.	.73276	1.30187E+06	2.43734E+06	00
COLDR3	PIPE	COMPONENT								
353-010000	1.59385E+07	0.	570.59	620.17	620.17	0.	.73275	1.30188E+06	2.43743E+06	00
353-020000	1.59585E+07	0.	570.59	620.27	620.27	0.	.73279	1.30184E+06	2.43689E+06	00
SURGE	PIPE	COMPONENT								
400-010000	1.55762E+07	0.	618.31	618.31	618.31	0.	.59263	1.60766E+06	2.44606E+06	00
400-020000	1.55757E+07	0.	618.31	618.31	618.31	0.	.59264	1.60764E+06	2.44607E+06	00
400-030000	1.55700E+07	0.	618.28	618.28	618.28	0.	.59275	1.60743E+06	2.44620E+06	00
400-040000	1.55650E+07	0.	618.25	618.25	618.25	0.	.59284	1.60725E+06	2.44632E+06	00
PRESSU	PIPE	COMPONENT								
410-010000	1.55100E+07	0.	617.97	617.97	617.97	0.	.59386	1.60522E+06	2.44763E+06	00
410-020000	1.55100E+07	0.	617.97	617.97	617.97	0.	.59386	1.60522E+06	2.44763E+06	00
410-030000	1.55100E+07	0.	617.97	617.97	617.97	0.	.59386	1.60522E+06	2.44763E+06	00
410-040000	1.55100E+07	0.	617.97	617.97	617.97	0.	.59386	1.60522E+06	2.44763E+06	00
410-050000	1.55100E+07	.61560	617.97	617.97	617.97	0.	.22828	1.60522E+06	2.44763E+06	00
410-060000	1.55100E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60522E+06	2.44763E+06	00
410-070000	1.55100E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60522E+06	2.44763E+06	00
410-080000	1.55100E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60522E+06	2.44763E+06	00
410-090000	1.55100E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60522E+06	2.44763E+06	00
TOP	BRANCH	COMPONENT								
420-010000	1.55104E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60523E+06	2.44762E+06	00
SPRAYR	BRANCH	COMPONENT								
430-010000	1.59104E+07	0.	570.59	620.02	620.02	0.	.73270	1.30194E+06	2.43819E+06	00
SPRAYB	BRANCH	COMPONENT								
440-010000	1.59104E+07	0.	570.59	620.02	620.02	0.	.73270	1.30194E+06	2.43819E+06	00
SPRAYB	BRANCH	COMPONENT								
450-010000	1.59104E+07	0.	570.59	620.02	620.02	0.	.73270	1.30194E+06	2.43819E+06	00
TV490	TMDPVOL	COMPONENT								
490-010000	1.55100E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60522E+06	2.44763E+06	00

SYSTEM 2 MASS= 0. KG MASS ERROR= 0. KG ERR.EST.= 0.

TV940	TMDPVOL	COMPONENT								
940-010000	2.00000E+05	0.	323.15	393.38	393.38	0.	0.	2.09218E+05	2.52920E+06	00

VOL.NO.	RHOF (KG/M3)	RHOG (KG/M3)	LIQ.V.VEL. (M/SEC)	VAP.V.VEL. (M/SEC)	SOUNDE (M/SEC)	STATIC QUAL.	TOT.HT.INP. (WATTS)	VAP.HT.INP. (WATTS)	VAPOR GEN. (KG/M3-SEC)
11-010000	732.96	107.39	3.63144E-02	3.63144E-02	982.96	0.	0.	0.	0.
13-010000	732.82	107.29	7.9495	7.9423	982.37	0.	0.	0.	0.
15-010000	732.83	107.33	8.0733	8.0733	982.40	0.	0.	0.	0.
15-020000	732.83	107.46	8.2208	8.2208	982.41	0.	0.	0.	0.
15-030000	732.85	107.59	8.2206	8.2206	982.50	0.	0.	0.	0.
23-010000	732.83	107.60	.31657	.31638	982.42	0.	0.	0.	0.
25-010000	732.78	106.88	4.9624	4.9624	982.18	0.	0.	0.	0.
31-010000	732.73	106.50	4.8520	4.8519	982.00	0.	0.	0.	0.
31-020000	732.71	106.24	4.9702	4.9701	981.91	0.	0.	0.	0.
31-030000	732.67	105.76	5.1420	5.1418	981.75	0.	0.	0.	0.
31-040000	732.61	105.28	5.3150	5.3149	981.50	0.	0.	0.	0.
31-050000	732.59	105.01	5.4364	5.4363	981.40	0.	0.	0.	0.
35-010000	732.76	105.93	.71414	.71414	982.13	0.	0.	0.	0.
39-010000	732.57	104.79	5.6242	5.6243	981.33	0.	0.	0.	0.
41-010000	732.51	104.32	2.4478	2.4478	981.09	0.	0.	0.	0.
43-010000	732.50	104.25	-7.46850E-03	-6.53911E-03	981.04	0.	0.	0.	0.

45-010000	732.58	104.10	1.20687E-04	3.52312E-04	981.37	0.	0.	0.	0.
111-010000	732.36	102.95	16.615	16.615	980.47	0.	0.	0.	0.
111-020000	732.35	102.91	16.618	16.618	980.44	0.	0.	0.	0.
113-010000	732.34	102.84	16.618	16.618	980.39	0.	0.	0.	0.
121-010000	732.39	103.37	2.2140	2.2140	980.59	0.	-129.80	0.	0.
122-010000	732.40	103.03	6.6338	6.6339	980.62	0.	-3.53889E+05	0.	0.
122-020000	732.39	102.86	6.5533	6.5533	980.58	0.	-3.11612E+05	0.	0.
122-030000	732.40	102.69	6.4840	6.4840	980.64	0.	-2.51453E+05	0.	0.
122-040000	732.38	102.50	6.4168	6.4168	980.59	0.	-2.79841E+05	0.	0.
122-050000	732.39	102.30	6.3553	6.3553	980.62	0.	-1.73172E+05	0.	0.
122-060000	732.38	102.12	6.3052	6.3052	980.58	0.	-1.41532E+05	0.	0.
122-070000	732.37	101.94	6.2606	6.2606	980.54	0.	-1.10052E+05	0.	0.
122-080000	732.34	101.76	6.2216	6.2216	980.41	0.	-1.10272E+05	0.	0.
122-090000	732.33	101.58	6.1873	6.1873	980.37	0.	-79006.	0.	0.
122-100000	732.32	101.40	6.1570	6.1570	980.33	0.	-47843.	0.	0.
122-110000	732.29	101.23	6.1291	6.1291	980.21	0.	-51843.	0.	0.
124-010000	732.29	101.12	6.1029	6.1029	980.22	0.	-18300.	0.	0.
124-020000	732.27	101.05	6.0715	6.0715	980.17	0.	-34303.	0.	0.
124-030000	732.26	100.99	6.0374	6.0374	980.12	0.	-34573.	0.	0.
124-040000	732.25	100.92	6.0099	6.0099	980.08	0.	-34848.	0.	0.
124-050000	732.24	100.87	5.9909	5.9909	980.04	0.	-22360.	0.	0.
124-060000	732.24	100.84	5.9727	5.9727	980.01	0.	-20586.	0.	0.
124-070000	732.23	100.79	5.9294	5.9294	979.98	0.	-29496.	0.	0.
125-010000	732.23	100.89	1.9554	1.9554	979.96	0.	130.34	0.	0.
131-010000	732.17	100.23	12.865	12.865	979.75	0.	0.	0.	0.
131-020000	732.17	100.33	13.167	13.167	979.74	0.	0.	0.	0.
131-030000	732.18	100.38	13.167	13.167	979.77	0.	0.	0.	0.
131-040000	732.16	100.30	13.226	13.226	979.71	0.	0.	0.	0.
140-010000	732.54	104.48	2.4751	2.4751	981.20	0.	0.	0.	0.
151-010000	732.77	106.82	16.806	16.806	982.14	0.	0.	0.	0.
152-010000	732.80	106.79	16.712	16.698	982.29	0.	0.	0.	0.
153-010000	732.79	106.75	16.730	16.730	982.26	0.	0.	0.	0.
153-020000	732.81	106.98	14.764	14.764	982.33	0.	0.	0.	0.
180-010000	1009.7	170.17	6.14068E-03	6.14068E-03	1442.5	0.	0.	0.	0.
211-010000	732.36	102.95	16.615	16.615	980.47	0.	0.	0.	0.
211-020000	732.35	102.91	16.618	16.618	980.44	0.	0.	0.	0.
213-010000	732.34	102.84	16.618	16.618	980.39	0.	0.	0.	0.
221-010000	732.39	103.37	2.2140	2.2140	980.59	0.	-129.80	0.	0.
222-010000	732.40	103.03	6.6338	6.6339	980.62	0.	-3.53889E+05	0.	0.
222-020000	732.39	102.86	6.5533	6.5533	980.58	0.	-3.11612E+05	0.	0.
222-030000	732.40	102.69	6.4840	6.4840	980.64	0.	-2.51453E+05	0.	0.
222-040000	732.38	102.50	6.4168	6.4168	980.59	0.	-2.79841E+05	0.	0.
222-050000	732.39	102.30	6.3553	6.3553	980.62	0.	-1.73172E+05	0.	0.
222-060000	732.38	102.12	6.3052	6.3052	980.58	0.	-1.41532E+05	0.	0.
222-070000	732.37	101.94	6.2606	6.2606	980.54	0.	-1.10052E+05	0.	0.
222-080000	732.34	101.76	6.2216	6.2216	980.41	0.	-1.10272E+05	0.	0.
222-090000	732.33	101.58	6.1873	6.1873	980.37	0.	-79006.	0.	0.
222-100000	732.32	101.40	6.1570	6.1570	980.33	0.	-47843.	0.	0.
222-110000	732.29	101.23	6.1291	6.1291	980.21	0.	-51843.	0.	0.
224-010000	732.29	101.12	6.1029	6.1029	980.22	0.	-18300.	0.	0.
224-020000	732.27	101.05	6.0715	6.0715	980.17	0.	-34303.	0.	0.
224-030000	732.26	100.99	6.0374	6.0374	980.12	0.	-34573.	0.	0.
224-040000	732.25	100.92	6.0099	6.0099	980.08	0.	-34848.	0.	0.
224-050000	732.24	100.87	5.9909	5.9909	980.04	0.	-22360.	0.	0.
224-060000	732.24	100.84	5.9727	5.9727	980.01	0.	-20586.	0.	0.
224-070000	732.23	100.79	5.9294	5.9294	979.98	0.	-29496.	0.	0.
225-010000	732.23	100.89	1.9554	1.9554	979.96	0.	130.34	0.	0.

231-010000	732.17	100.23	12.865	12.865	979.75	0.	0.	0.	0.
231-020000	732.17	100.33	13.167	13.167	979.74	0.	0.	0.	0.
231-030000	732.18	100.38	12.603	15.222	979.77	0.	0.	0.	0.
232-010000	732.16	100.30	13.226	13.226	979.71	0.	0.	0.	0.
240-010000	732.54	104.48	2.4751	2.4751	981.20	0.	0.	0.	0.
251-010000	732.77	106.82	16.807	16.806	982.14	0.	0.	0.	0.
253-010000	732.76	106.79	16.730	16.730	982.12	0.	0.	0.	0.
253-020000	732.75	106.75	16.730	16.730	982.09	0.	0.	0.	0.
253-030000	732.79	106.98	14.764	14.764	982.25	0.	0.	0.	0.
282-010000	928.80	19.070	0.	0.	1467.8	0.	0.	0.	0.
311-010000	732.36	102.95	16.598	16.598	980.47	0.	0.	0.	0.
311-020000	732.36	102.95	16.601	16.601	980.47	0.	0.	0.	0.
313-010000	732.34	102.84	16.610	16.610	980.40	0.	0.	0.	0.
321-010000	732.39	103.37	2.2143	2.2143	980.59	0.	-129.80	0.	0.
322-010000	732.40	103.03	6.6346	6.6347	980.62	0.	-3.63897E+06	0.	0.
322-020000	732.39	102.86	6.5540	6.5540	980.58	0.	-3.11621E+05	0.	0.
322-030000	732.40	102.69	6.4846	6.4847	980.64	0.	-2.51460E+06	0.	0.
322-040000	732.38	102.50	6.4174	6.4174	980.59	0.	-2.79845E+05	0.	0.
322-050000	732.39	102.30	6.3558	6.3559	980.63	0.	-1.73174E+05	0.	0.
322-060000	732.38	102.12	6.3057	6.3057	980.58	0.	-1.41535E+05	0.	0.
322-070000	732.37	101.94	6.2610	6.2610	980.54	0.	-1.10052E+05	0.	0.
322-080000	732.34	101.76	6.2221	6.2221	980.41	0.	-1.10274E+05	0.	0.
322-090000	732.33	101.58	6.1878	6.1878	980.37	0.	-79005.	0.	0.
322-100000	732.32	101.40	6.1575	6.1575	980.33	0.	-47843.	0.	0.
322-110000	732.29	101.23	6.1295	6.1295	980.21	0.	-51843.	0.	0.
324-010000	732.29	101.12	6.1032	6.1032	980.22	0.	-18298.	0.	0.
324-020000	732.27	101.05	6.0718	6.0718	980.17	0.	-34298.	0.	0.
324-030000	732.26	100.99	6.0377	6.0377	980.12	0.	-34568.	0.	0.
324-040000	732.25	100.92	6.0102	6.0102	980.08	0.	-34843.	0.	0.
324-050000	732.24	100.87	5.9912	5.9912	980.04	0.	-22357.	0.	0.
324-060000	732.24	100.84	5.9730	5.9730	980.01	0.	-20583.	0.	0.
324-070000	732.23	100.79	5.9297	5.9297	979.98	0.	-29492.	0.	0.
325-010000	732.23	100.89	1.9555	1.9555	979.96	0.	130.34	0.	0.
331-010000	732.17	100.23	12.866	12.866	979.75	0.	0.	0.	0.
331-020000	732.17	100.33	13.168	13.167	979.74	0.	0.	0.	0.
331-030000	732.18	100.38	13.167	13.167	979.77	0.	0.	0.	0.
331-040000	732.16	100.30	13.226	13.226	979.71	0.	0.	0.	0.
340-010000	732.54	104.48	2.4751	2.4751	981.20	0.	0.	0.	0.
351-010000	732.77	106.82	16.807	16.806	982.14	0.	0.	0.	0.
352-010000	732.76	106.79	16.731	16.731	982.12	0.	0.	0.	0.
353-010000	732.75	106.75	16.731	16.731	982.09	0.	0.	0.	0.
353-020000	732.79	106.98	14.764	14.764	982.25	0.	0.	0.	0.
400-010000	592.63	102.75	0.	0.	618.61	0.	-4638.2	0.	0.
400-020000	592.64	102.75	0.	0.	618.62	0.	-4638.2	0.	0.
400-030000	592.75	102.69	0.	0.	618.83	0.	-4637.7	0.	0.
400-040000	592.84	102.63	0.	0.	619.02	0.	-4637.3	0.	0.
410-010000	593.86	102.04	0.	0.	621.11	0.	-1224.9	0.	0.
410-020000	593.86	102.04	0.	0.	621.11	0.	-2450.2	0.	0.
410-030000	593.86	102.04	0.	0.	621.11	0.	-3800.0	0.	0.
410-040000	593.86	102.04	0.	0.	621.11	0.	58995.	0.	0.
410-050000	593.86	102.04	0.	0.	181.81	.21580	5980.9	0.	0.
410-060000	593.86	102.04	0.	0.	372.13	1.0000	-16333.	0.	0.
410-070000	593.86	102.04	0.	0.	372.13	1.0000	-16333.	0.	0.
410-080000	593.86	102.04	0.	0.	372.13	1.0000	-3811.5	0.	0.
410-090000	593.86	102.04	0.	0.	372.13	1.0000	-1637.4	0.	0.
420-010000	593.85	102.05	-1.40323E-05	-4.10957E-23	372.12	1.0000	-1148.4	0.	0.
430-010000	732.70	106.43	5.00000E-03	5.00000E-03	981.87	0.	0.	0.	0.

440-010000	732.70	106.43	5.00000E-03	5.00000E-03	981.87	0.	0.	0.	0.	
450-010000	732.70	106.43	5.00000E-03	5.00000E-03	981.87	0.	0.	0.	0.	
490-010000	593.86	102.04	0.	0.	372.13	1.0000	0.	0.	0.	
940-010000	988.11	1.1294	0.	0.	1537.3	0.	89824.	0.	0.	

JUN.NO.	FROM VOL.	TO VOL.	LIQ.J.VEL. (M/SEC)	VAP.J.VEL. (M/SEC)	MASS FLOW (KG/SEC)	JUN.AREA (M2)	THROAT RATIO	JUNCTION FLAGS	CHOKE FLAG	NO.ADVS. EDIT	CHOKED TOTAL
SYSTEM 1											
UPDOWNC	BRANCH	COMPONENT									
11-010000	-13-010000	11-010000	3.63144E-02	3.63144E-02	49.284	1.8520	1.0000	00000	0	0	0
11-020000	11-010000	45-010000	18.176	18.176	49.292	3.70000E-03	1.0000	00000	0	0	0
UPDOWNOZZ	BRANCH	COMPONENT									
13-010000	153-020000	13-010000	14.764	14.764	4695.5	.43400	1.0000	00000	0	0	0
13-020000	253-030000	13-010000	14.764	14.764	4695.4	.43400	1.0000	00000	0	0	0
13-030000	353-020000	13-010000	14.764	14.764	4695.4	.43400	1.0000	00000	0	0	0
13-040000	13-010000	15-010000	8.2209	8.2209	14916.	2.4760	1.0000	00000	0	0	0
DOWNCTS	ANNULUS	COMPONENT									
15-010000	15-010000	15-020000	8.2209	8.2209	15483.	2.5700	1.0000	00000	0	0	0
15-020000	15-020000	15-030000	8.2207	8.2207	15483.	2.5700	1.0000	00000	0	0	0
LOWPLEN	BRANCH	COMPONENT									
23-010000	15-030000	23-010000	8.2206	8.2206	15483.	2.5700	1.0000	00000	0	0	0
23-020000	-23-010000	25-010000	4.9622	4.9622	14037.	3.8600	1.0000	00000	0	0	0
COREIN	BRANCH	COMPONENT									
25-010000	25-010000	31-010000	4.8130	4.8130	13614.	3.8600	1.0000	00000	0	0	0
25-020000	25-010000	35-010000	5.7764	5.7764	423.28	.10000	1.0000	00000	0	0	0
CORE	PIPE	COMPONENT									
31-010000	31-010000	31-020000	4.8910	4.8910	13833.	3.8600	1.0000	00000	0	0	0
31-020000	31-020000	31-030000	5.0494	5.0494	14281.	3.8600	1.0000	00000	0	0	0
31-030000	31-030000	31-040000	5.2346	5.2346	14804.	3.8600	1.0000	00000	0	0	0
31-040000	31-040000	31-050000	5.3955	5.3955	15258.	3.8600	1.0000	00000	0	0	0
COREEX	BRANCH	COMPONENT									
39-010000	31-050000	39-010000	5.4773	5.4773	15489.	3.8600	1.0000	00000	0	0	0
39-020000	35-010000	39-010000	5.7771	5.7771	423.32	.10000	1.0000	00000	0	0	0
UPPLEN1	BRANCH	COMPONENT									
41-010000	39-010000	41-010000	5.6214	5.6214	15896.	3.8600	1.0000	00000	0	0	0
41-020000	41-010000	43-010000	2.4479	2.4479	15896.	8.8650	1.0000	00000	0	0	0
UPPLEN2	BRANCH	COMPONENT									
43-010000	-43-010000	111-010000	16.613	16.613	5316.7	.43690	1.0000	00000	0	0	0
43-020000	-43-010000	211-010000	16.613	16.613	5316.7	.43690	1.0000	00000	0	0	0
43-030000	-43-010000	311-010000	16.596	16.596	5311.2	.43690	1.0000	00000	0	0	0
UPHEAD	BRANCH	COMPONENT									
45-010000	43-010000	45-010000	-7.46699E-03	-7.46699E-03	-48.493	8.8650	1.0000	00000	0	0	0
HTLEGR1	PIPE	COMPONENT									
111-010000	111-010000	111-020000	16.618	16.618	5317.2	.43690	1.0000	00000	0	0	0
HTLEGR2	BRANCH	COMPONENT									
113-010000	111-020000	113-010000	16.618	16.618	5317.2	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
121-010000	121-010000	122-010000	6.6772	6.6772	5316.8	1.0872	1.0000	00000	0	0	0
121-020000	113-010000	121-010000	16.619	16.619	5317.4	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
122-010000	122-010000	122-020000	6.5905	6.5905	5247.8	1.0872	1.0000	00000	0	0	0
122-020000	122-020000	122-030000	6.5160	6.5160	5188.4	1.0872	1.0000	00000	0	0	0
122-030000	122-030000	122-040000	6.4520	6.4520	5137.5	1.0872	1.0000	00000	0	0	0
122-040000	122-040000	122-050000	6.3816	6.3816	5081.3	1.0872	1.0000	00000	0	0	0
122-050000	122-050000	122-060000	6.3290	6.3290	5039.5	1.0872	1.0000	00000	0	0	0
122-060000	122-060000	122-070000	6.2813	6.2813	5001.4	1.0872	1.0000	00000	0	0	0

122-070000	122-070000	122-080000	6.2398	6.2398	4968.3	1.0872	1.0000	00000	0	0	0
122-080000	122-080000	122-090000	6.2034	6.2034	4939.1	1.0872	1.0000	00000	0	0	0
122-090000	122-090000	122-100000	6.1712	6.1712	4913.4	1.0872	1.0000	00000	0	0	0
122-100000	122-100000	122-110000	6.1428	6.1428	4890.7	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
123-000000	122-110000	124-010000	6.1154	6.1154	4868.7	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
124-010000	124-010000	124-020000	6.0904	6.0904	4848.8	1.0872	1.0000	00000	0	0	0
124-020000	124-020000	124-030000	6.0525	6.0525	4818.6	1.0872	1.0000	00000	0	0	0
124-030000	124-030000	124-040000	6.0222	6.0222	4794.4	1.0872	1.0000	00000	0	0	0
124-040000	124-040000	124-050000	5.9976	5.9976	4774.7	1.0872	1.0000	00000	0	0	0
124-050000	124-050000	124-060000	5.9842	5.9842	4764.0	1.0872	1.0000	00000	0	0	0
124-060000	124-060000	124-070000	5.9612	5.9612	4745.6	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
125-010000	124-070000	125-010000	5.8938	5.8938	4695.0	1.0879	1.0000	00000	0	0	0
125-020000	125-010000	131-010000	12.865	12.865	4695.0	.49840	1.0000	00000	0	0	0
SEALR	PIPE	COMPONENT									
131-010000	131-010000	131-020000	13.167	13.167	4694.9	.48700	1.0000	00000	0	0	0
131-020000	131-020000	131-030000	13.167	13.167	4694.9	.48700	1.0000	00000	0	0	0
131-030000	131-030000	131-040000	13.167	13.167	4695.0	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
140-010000	131-040000	140-010000	13.285	13.285	4737.0	.48700	1.0000	00000	0	0	0
140-020000	140-010000	151-010000	16.884	16.884	4737.0	.38300	1.0000	00000	0	0	0
COLDR2	BRANCH	COMPONENT									
152-010000	151-010000	152-010000	16.730	16.730	4695.3	.38300	1.0000	00000	0	0	0
152-020000	152-010000	153-010000	16.730	16.730	4695.5	.38300	1.0000	00000	0	0	0
COLDR3	PIPE	COMPONENT									
153-010000	153-010000	153-020000	16.730	16.730	4695.4	.38300	1.0000	00000	0	0	0
CVJUN	TMDPJUN	COMPONENT									
181-000000	180-010000	152-010000	1.7595	1.7595	6.2000	3.49000E-03	1.0000	00000	0	0	0
HTLEGG1	PIPE	COMPONENT									
211-010000	211-010000	211-020000	16.618	16.618	5317.2	.43690	1.0000	00000	0	0	0
HTLEGG2	BRANCH	COMPONENT									
213-010000	211-020000	213-010000	16.618	16.618	5317.2	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
221-010000	221-010000	222-010000	6.6772	6.6772	5316.8	1.0872	1.0000	00000	0	0	0
221-020000	213-010000	221-010000	16.619	16.619	5317.4	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
222-010000	222-010000	222-020000	6.5905	6.5905	5247.8	1.0872	1.0000	00000	0	0	0
222-020000	222-020000	222-030000	6.5160	6.5160	5188.4	1.0872	1.0000	00000	0	0	0
222-030000	222-030000	222-040000	6.4520	6.4520	5137.5	1.0872	1.0000	00000	0	0	0
222-040000	222-040000	222-050000	6.3816	6.3816	5081.3	1.0872	1.0000	00000	0	0	0
222-050000	222-050000	222-060000	6.3290	6.3290	5039.5	1.0872	1.0000	00000	0	0	0
222-060000	222-060000	222-070000	6.2813	6.2813	5001.4	1.0872	1.0000	00000	0	0	0
222-070000	222-070000	222-080000	6.2398	6.2398	4968.3	1.0872	1.0000	00000	0	0	0
222-080000	222-080000	222-090000	6.2034	6.2034	4939.1	1.0872	1.0000	00000	0	0	0
222-090000	222-090000	222-100000	6.1712	6.1712	4913.4	1.0872	1.0000	00000	0	0	0
222-100000	222-100000	222-110000	6.1428	6.1428	4890.7	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
223-000000	222-110000	224-010000	6.1154	6.1154	4868.7	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
224-010000	224-010000	224-020000	6.0904	6.0904	4848.8	1.0872	1.0000	00000	0	0	0
224-020000	224-020000	224-030000	6.0525	6.0525	4818.6	1.0872	1.0000	00000	0	0	0
224-030000	224-030000	224-040000	6.0222	6.0222	4794.4	1.0872	1.0000	00000	0	0	0
224-040000	224-040000	224-050000	5.9976	5.9976	4774.7	1.0872	1.0000	00000	0	0	0
224-050000	224-050000	224-060000	5.9842	5.9842	4764.0	1.0872	1.0000	00000	0	0	0
224-060000	224-060000	224-070000	5.9612	5.9612	4745.6	1.0872	1.0000	00000	0	0	0

OUTBOX	BRANCH	COMPONENT									
225-010000	224-070000	225-010000	5.8938	5.8938	4695.0	1.0879	1.0000	00000	0	0	0
225-020000	225-010000	231-010000	12.865	12.865	4695.0	.49840	1.0000	00000	0	0	0
SEALG1	PIPE	COMPONENT									
231-010000	231-010000	231-020000	13.167	13.167	4694.9	.48700	1.0000	00000	0	0	0
231-020000	231-020000	231-030000	13.167	13.167	4694.9	.48700	1.0000	00000	0	0	0
SEALG2	BRANCH	COMPONENT									
232-010000	231-030000	232-010000	13.167	13.167	4695.0	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
240-010000	232-010000	240-010000	13.285	13.285	4737.0	.48700	1.0000	00000	0	0	0
240-020000	240-010000	251-010000	16.884	16.884	4737.0	.38300	1.0000	00000	0	0	0
COLG1	BRANCH	COMPONENT									
251-010000	251-010000	253-010000	16.730	16.730	4695.3	.38300	1.0000	00000	0	0	0
COLG2	PIPE	COMPONENT									
253-010000	253-010000	253-020000	16.730	16.730	4695.2	.38300	1.0000	00000	0	0	0
253-020000	253-020000	253-030000	16.730	16.730	4695.2	.38300	1.0000	00000	0	0	0
TJ183	TMDPJUN	COMPONENT									
283-000000	231-030000	282-010000	0.	0.	0.	.48700	1.0000	00000	0	0	0
HTLEGB1	PIPE	COMPONENT									
311-010000	311-010000	311-020000	16.601	16.601	5311.8	.43690	1.0000	00000	0	0	0
SURGEJUN	SNGLJUN	COMPONENT									
312-000000	-400-010000	-311-020000	0.	0.	0.	6.31180E-02	1.0000	10001	0	0	0
HTLEGB2	BRANCH	COMPONENT									
313-010000	311-020000	313-010000	16.600	16.600	5311.5	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
321-010000	321-010000	322-010000	6.6780	6.6780	5317.4	1.0872	1.0000	00000	0	0	0
321-020000	313-010000	321-010000	16.621	16.621	5318.1	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
322-010000	322-010000	322-020000	6.5912	6.5912	5248.3	1.0872	1.0000	00000	0	0	0
322-020000	322-020000	322-030000	6.5167	6.5167	5188.9	1.0872	1.0000	00000	0	0	0
322-030000	322-030000	322-040000	6.4526	6.4526	5138.0	1.0872	1.0000	00000	0	0	0
322-040000	322-040000	322-050000	6.3822	6.3822	5081.8	1.0872	1.0000	00000	0	0	0
322-050000	322-050000	322-060000	6.3295	6.3295	5039.9	1.0872	1.0000	00000	0	0	0
322-060000	322-060000	322-070000	6.2818	6.2818	5001.8	1.0872	1.0000	00000	0	0	0
322-070000	322-070000	322-080000	6.2402	6.2402	4968.6	1.0872	1.0000	00000	0	0	0
322-080000	322-080000	322-090000	6.2039	6.2039	4939.5	1.0872	1.0000	00000	0	0	0
322-090000	322-090000	322-100000	6.1717	6.1717	4913.8	1.0872	1.0000	00000	0	0	0
322-100000	322-100000	322-110000	6.1432	6.1432	4891.1	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
323-000000	322-110000	324-010000	6.1157	6.1157	4869.0	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
324-010000	324-010000	324-020000	6.0907	6.0907	4849.1	1.0872	1.0000	00000	0	0	0
324-020000	324-020000	324-030000	6.0528	6.0528	4818.8	1.0872	1.0000	00000	0	0	0
324-030000	324-030000	324-040000	6.0225	6.0225	4794.6	1.0872	1.0000	00000	0	0	0
324-040000	324-040000	324-050000	5.9979	5.9979	4775.0	1.0872	1.0000	00000	0	0	0
324-050000	324-050000	324-060000	5.9845	5.9845	4764.2	1.0872	1.0000	00000	0	0	0
324-060000	324-060000	324-070000	5.9615	5.9615	4745.9	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
325-010000	324-070000	325-010000	5.8941	5.8941	4695.2	1.0879	1.0000	00000	0	0	0
325-020000	325-010000	331-010000	12.865	12.865	4695.0	.49840	1.0000	00000	0	0	0
SEALB	PIPE	COMPONENT									
331-010000	331-010000	331-020000	13.168	13.168	4695.3	.48700	1.0000	00000	0	0	0
331-020000	331-020000	331-030000	13.167	13.167	4694.9	.48700	1.0000	00000	0	0	0
331-030000	331-030000	331-040000	13.167	13.167	4695.0	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
340-010000	331-040000	340-010000	13.285	13.285	4737.0	.48700	1.0000	00000	0	0	0
340-020000	340-010000	351-010000	16.884	16.884	4737.0	.38300	1.0000	00000	0	0	0

COLDR2	BRANCH	COMPONENT									
352-010000	351-010000	352-010000	16.731	16.731	4695.5	.38300	1.0000	00000	0	0	0
352-020000	352-010000	353-010000	16.731	16.731	4695.5	.38300	1.0000	00000	0	0	0
COLDR3	PIPE	COMPONENT									
353-010000	353-010000	353-020000	16.731	16.731	4695.5	.38300	1.0000	00000	0	0	0
SURGE	PIPE	COMPONENT									
400-010000	400-010000	400-020000	0.	0.	0.	6.31180E-02	1.0000	00000	0	0	0
400-020000	400-020000	400-030000	0.	0.	0.	6.34253E-02	1.0000	00000	0	0	0
400-030000	400-030000	400-040000	0.	0.	0.	6.34253E-02	1.0000	00000	0	0	0
SURGE1	SNGLJUN	COMPONENT									
405-000000	400-040000	410-010000	0.	0.	0.	6.34253E-02	1.0000	00100	0	0	0
PRESSU	PIPE	COMPONENT									
410-010000	410-010000	410-020000	0.	0.	0.	2.1329	1.0000	00000	0	0	0
410-020000	410-020000	410-030000	0.	0.	0.	2.1329	1.0000	00000	0	0	0
410-030000	410-030000	410-040000	0.	0.	0.	3.5350	1.0000	00000	0	0	0
410-040000	410-040000	410-050000	0.	0.	0.	3.5350	1.0000	00000	0	0	0
410-050000	410-050000	410-060000	0.	0.	0.	3.5350	1.0000	00000	0	0	0
410-060000	410-060000	410-070000	0.	0.	0.	3.5350	1.0000	00000	0	0	0
410-070000	410-070000	410-080000	0.	0.	0.	3.5350	1.0000	00000	0	0	0
410-080000	410-080000	410-090000	0.	0.	0.	2.1329	1.0000	00000	0	0	0
TOP	BRANCH	COMPONENT									
420-010000	410-090000	420-010000	0.	0.	0.	2.1329	1.0000	00000	0	0	0
SPRAYR	BRANCH	COMPONENT									
430-010000	151-010000	430-010000	5.00000E-03	5.00000E-03	2.19427E-02	5.98900E-03	1.0000	00000	0	0	0
SPRAYR	VALVE	COMPONENT									
435-000000	430-010000	450-010000	0.	0.	0.	5.98900E-03	0.	00100	0	0	0
SPRAYB	BRANCH	COMPONENT									
440-010000	351-010000	440-010000	5.00000E-03	5.00000E-03	2.19427E-02	5.98900E-03	1.0000	00000	0	0	0
SPRAYB	VALVE	COMPONENT									
445-000000	440-010000	450-010000	0.	0.	0.	5.98900E-03	0.	00100	0	0	0
SPRAYB	BRANCH	COMPONENT									
450-010000	450-010000	-420-010000	5.00000E-03	5.00000E-03	2.19408E-02	5.98900E-03	1.0000	00000	0	0	0
PRESVAL	VALVE	COMPONENT									
489-000000	420-010000	490-010000	0.	0.	0.	2.1340	0.	00100	0	0	0

SYSTEM 2

JUN.NO.	VOIDFJ	VOIDGJ	FROM	TO	FIJ (N-S2/M5)	FWALFJ	FWALGJ	FJUNF	FJUNR	FORMFJ	FORMGJ
11-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
11-020000	1.0000	0.	X	X	0.	0.	0.	2.30	2.30	0.	0.
13-010000	1.0000	0.	X	X	0.	0.	0.	.429	.429	0.	0.
13-020000	1.0000	0.	X	X	0.	0.	0.	.429	.429	0.	0.
13-030000	1.0000	0.	X	X	0.	0.	0.	.429	.429	0.	0.
13-040000	1.0000	0.	X	X	0.	0.	0.	.160	.160	0.	0.
15-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
15-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
23-010000	1.0000	0.	X	X	0.	0.	0.	1.43	.500	0.	0.
23-020000	1.0000	0.	X	X	0.	0.	0.	5.27	5.27	0.	0.
25-010000	1.0000	0.	X	X	0.	0.	0.	2.45	2.45	0.	0.
25-020000	1.0000	0.	X	X	0.	0.	0.	7.45	7.45	0.	0.
31-010000	1.0000	0.	X	X	0.	0.	0.	2.47	2.47	0.	0.
31-020000	1.0000	0.	X	X	0.	0.	0.	2.40	2.40	0.	0.
31-030000	1.0000	0.	X	X	0.	0.	0.	2.31	2.31	0.	0.
31-040000	1.0000	0.	X	X	0.	0.	0.	2.23	2.23	0.	0.
39-010000	1.0000	0.	X	X	0.	0.	0.	.720	.720	0.	0.
39-020000	1.0000	0.	X	X	0.	0.	0.	6.45	6.45	0.	0.

41-010000	1.0000	0.	X	X	0.	0.	0.	2.04	2.04	0.	0.
41-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
43-010000	1.0000	0.	X	X	0.	0.	0.	.380	.380	0.	0.
43-020000	1.0000	0.	X	X	0.	0.	0.	.380	.380	0.	0.
43-030000	1.0000	0.	X	X	0.	0.	0.	.380	.380	0.	0.
45-010000	1.0000	0.	X	X	0.	0.	0.	2.60	2.60	0.	0.
111-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
113-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
121-010000	1.0000	0.	X	X	0.	0.	0.	.226	.580	0.	0.
121-020000	1.0000	0.	X	X	0.	0.	0.	.325	.255	0.	0.
122-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-040000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-050000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-060000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-070000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-080000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-090000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
122-100000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
123-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
124-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
124-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
124-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
124-040000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
124-050000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
124-060000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
125-010000	1.0000	0.	X	X	0.	0.	0.	.580	.226	0.	0.
125-020000	1.0000	0.	X	X	0.	0.	0.	.255	.325	0.	0.
131-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
131-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
131-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
140-010000	1.0000	0.	X	X	0.	0.	0.	.195	.195	0.	0.
140-020000	1.0000	0.	X	X	0.	0.	0.	.270	.270	0.	0.
152-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
152-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
153-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
181-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
211-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
213-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
221-010000	1.0000	0.	X	X	0.	0.	0.	.226	.580	0.	0.
221-020000	1.0000	0.	X	X	0.	0.	0.	.325	.255	0.	0.
222-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-040000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-050000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-060000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-070000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-080000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-090000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
222-100000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
223-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
224-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
224-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
224-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
224-040000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.

224-050000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
224-060000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
225-010000	1.0000	0.	X	X	0.	0.	0.	.580	.226	0.	0.
225-020000	1.0000	0.	X	X	0.	0.	0.	.255	.325	0.	0.
231-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
231-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
232-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
240-010000	1.0000	0.	X	X	0.	0.	0.	.195	.195	0.	0.
240-020000	1.0000	0.	X	X	0.	0.	0.	.270	.270	0.	0.
251-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
253-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
253-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
283-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
311-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
312-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
313-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
321-010000	1.0000	0.	X	X	0.	0.	0.	.226	.580	0.	0.
321-020000	1.0000	0.	X	X	0.	0.	0.	.325	.255	0.	0.
322-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-040000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-050000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-060000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-070000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-080000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-090000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
322-100000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
323-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
324-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
324-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
324-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
324-040000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
324-050000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
324-060000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
325-010000	1.0000	0.	X	X	0.	0.	0.	.580	.225	0.	0.
325-020000	1.0000	0.	X	X	0.	0.	0.	.255	.325	0.	0.
331-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
331-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
331-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
340-010000	1.0000	0.	X	X	0.	0.	0.	.195	.195	0.	0.
340-020000	1.0000	0.	X	X	0.	0.	0.	.270	.270	0.	0.
352-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
352-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
353-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
400-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
400-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
400-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
405-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
410-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
410-020000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
410-030000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.
410-040000	.69220	.30780	X	X	0.	0.	0.	0.	0.	0.	0.
410-050000	.19220	.80780	X	X	0.	0.	0.	0.	0.	0.	0.
410-060000	0.	1.0000	X	X	0.	0.	0.	0.	0.	0.	0.
410-070000	0.	1.0000	X	X	0.	0.	0.	0.	0.	0.	0.
410-080000	0.	1.0000	X	X	0.	0.	0.	0.	0.	0.	0.

420-010000	0.	1.0000	X	X	0.	0.	0.	0.	0.	0.	0.	
430-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.	
435-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.	
440-010000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.	
445-000000	1.0000	0.	X	X	0.	0.	0.	0.	0.	0.	0.	
450-010000	1.0000	0.	X	X	0.	0.	0.	1.00	1.00	0.	0.	
489-000000	0.	1.0000	X	X	0.	0.	0.	0.	0.	0.	0.	

STR.NO.	SIDE	BDRY.VOL. NUMBER	SURFACE TEMP. (K)	HEAT TRF. RATE (WATT)	HEAT FLUX (WATT/M2)	CRITICAL HEAT FLUX (WATT/M2)	MODE	HEAT TRF. COEF. (WATT/M2-K)	INT. HEAT SOURCE (WATT)	NET HEAT LOSS (WATT)	VOL.AVE. TEMP. (K)
1211-001	LEFT	121-010000	570.49	6.49299E-08	6.99265E-09	0.	2	6544.2	0.	6.49299E-08	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
1220-001	LEFT	122-010000	570.43	-3.53889E+05	-1451.9	0.	2	41095.	0.	1.64397E-05	570.39
	RIGHT	0-000000	570.35	3.53889E+05	1285.8	0.	0	0.			
1220-002	LEFT	122-020000	570.42	-3.11612E+05	-1322.0	0.	2	40696.	0.	-3.06573E-05	570.38
	RIGHT	0-000000	570.35	3.11612E+05	1170.7	0.	0	0.			
1220-003	LEFT	122-030000	570.41	-2.51453E+05	-1066.8	0.	2	40353.	0.	-3.06405E-06	570.38
	RIGHT	0-000000	570.35	2.51453E+05	944.69	0.	0	0.			
1220-004	LEFT	122-040000	570.40	-2.79841E+05	-939.31	0.	2	40020.	0.	-1.13733E-05	570.37
	RIGHT	0-000000	570.35	2.79841E+05	831.82	0.	0	0.			
1220-005	LEFT	122-050000	570.39	-1.73172E+05	-686.88	0.	2	39714.	0.	-2.13804E-05	570.37
	RIGHT	0-000000	570.35	1.73172E+05	608.28	0.	0	0.			
1220-006	LEFT	122-060000	570.38	-1.41532E+05	-561.38	0.	2	39464.	0.	3.83640E-05	570.36
	RIGHT	0-000000	570.35	1.41532E+05	497.14	0.	0	0.			
1220-007	LEFT	122-070000	570.37	-1.10052E+05	-436.52	0.	2	39242.	0.	-6.72624E-05	570.36
	RIGHT	0-000000	570.35	1.10052E+05	386.56	0.	0	0.			
1220-008	LEFT	122-080000	570.37	-1.10272E+05	-437.39	0.	2	39048.	0.	3.46471E-05	570.36
	RIGHT	0-000000	570.35	1.10272E+05	387.34	0.	0	0.			
1220-009	LEFT	122-090000	570.37	-79006.	-313.37	0.	2	38877.	0.	3.52515E-05	570.36
	RIGHT	0-000000	570.35	79006.	277.51	0.	0	0.			
1220-010	LEFT	122-100000	570.36	-47843.	-189.76	0.	2	38725.	0.	8.33303E-05	570.35
	RIGHT	0-000000	570.35	47843.	168.05	0.	0	0.			
1220-011	LEFT	122-110000	570.36	-51843.	-191.17	0.	2	38586.	0.	9.24040E-05	570.35
	RIGHT	0-000000	570.35	51843.	169.29	0.	0	0.			
1231-001	LEFT	121-010000	570.48	-129.80	-111.90	0.	2	6544.2	0.	.53702	570.43
	RIGHT	125-010000	570.38	130.34	112.36	0.	2	5927.7			
1240-001	LEFT	124-010000	570.35	-18300.	-67.481	0.	2	38455.	0.	2.72429E-05	570.35
	RIGHT	0-000000	570.35	18300.	59.759	0.	0	0.			
1240-002	LEFT	124-020000	570.35	-34303.	-68.031	0.	2	38296.	0.	-2.56153E-05	570.35
	RIGHT	0-000000	570.35	34303.	60.246	0.	0	0.			
1240-003	LEFT	124-030000	570.35	-34573.	-68.565	0.	2	38125.	0.	-2.11692E-05	570.35
	RIGHT	0-000000	570.35	34573.	60.719	0.	0	0.			
1240-004	LEFT	124-040000	570.35	-34848.	-69.112	0.	2	37986.	0.	-2.96487E-05	570.35
	RIGHT	0-000000	570.35	34848.	61.203	0.	0	0.			
1240-005	LEFT	124-050000	570.35	-22360.	-69.550	0.	2	37890.	0.	-2.82396E-05	570.35
	RIGHT	0-000000	570.35	22360.	61.591	0.	0	0.			
1240-006	LEFT	124-060000	570.35	-20586.	-69.855	0.	2	37798.	0.	-5.96768E-06	570.35
	RIGHT	0-000000	570.35	20586.	61.861	0.	0	0.			
1240-007	LEFT	124-070000	570.35	-20672.	-70.147	0.	2	37579.	0.	-9.02262E-05	570.35
	RIGHT	0-000000	570.35	20672.	62.119	0.	0	0.			
1240-008	LEFT	124-070000	570.35	-8824.3	-70.147	0.	2	37579.	0.	-3.85147E-05	570.35
	RIGHT	0-000000	570.35	8824.3	62.119	0.	0	0.			
1251-001	LEFT	125-010000	570.37	1.70886E-07	1.84036E-08	0.	2	5927.7	0.	1.70886E-07	570.37
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
2211-001	LEFT	221-010000	570.49	6.49299E-08	6.99265E-09	0.	2	6544.2	0.	6.49299E-08	570.49

	RIGHT	0-000000	570.49	0.	0.	0.	0	0.				
2220-001	LEFT	222-010000	570.43	-3.53889E+05	-1451.9	0.	2	41095.	0.	1.64397E-05	570.39
	RIGHT	0-000000	570.35	3.53889E+05	1285.8	0.	0	0.			
2220-002	LEFT	222-020000	570.42	-3.11612E+05	-1322.0	0.	2	40696.	0.	-3.06573E-05	570.38
	RIGHT	0-000000	570.35	3.11612E+05	1170.7	0.	0	0.			
2220-003	LEFT	222-030000	570.41	-2.51453E+05	-1066.8	0.	2	40353.	0.	-3.06405E-06	570.38
	RIGHT	0-000000	570.35	2.51453E+05	944.69	0.	0	0.			
2220-004	LEFT	222-040000	570.40	-2.79841E+05	-939.31	0.	2	40020.	0.	-1.13733E-05	570.37
	RIGHT	0-000000	570.35	2.79841E+05	831.82	0.	0	0.			
2220-005	LEFT	222-050000	570.39	-1.73172E+05	-686.88	0.	2	39714.	0.	-2.13804E-05	570.37
	RIGHT	0-000000	570.35	1.73172E+05	608.28	0.	0	0.			
2220-006	LEFT	222-060000	570.38	-1.41532E+05	-561.38	0.	2	39464.	0.	3.83640E-05	570.36
	RIGHT	0-000000	570.35	1.41532E+05	497.14	0.	0	0.			
2220-007	LEFT	222-070000	570.37	-1.10052E+05	-436.52	0.	2	39242.	0.	-6.72624E-05	570.36
	RIGHT	0-000000	570.35	1.10052E+05	386.56	0.	0	0.			
2220-008	LEFT	222-080000	570.37	-1.10272E+05	-437.39	0.	2	39048.	0.	3.46471E-05	570.36
	RIGHT	0-000000	570.35	1.10272E+05	387.34	0.	0	0.			
2220-009	LEFT	222-090000	570.37	-79006.	-313.37	0.	2	38877.	0.	3.52515E-05	570.36
	RIGHT	0-000000	570.35	79006.	277.61	0.	0	0.			
2220-010	LEFT	222-100000	570.36	-47843.	-189.76	0.	2	38725.	0.	8.33303E-05	570.35
	RIGHT	0-000000	570.35	47843.	168.05	0.	0	0.			
2220-011	LEFT	222-110000	570.36	-51843.	-191.17	0.	2	38586.	0.	9.24040E-05	570.35
	RIGHT	0-000000	570.35	51843.	169.29	0.	0	0.			
2231-001	LEFT	221-010000	570.48	-129.80	-111.90	0.	2	6544.2	0.	.53702	570.43
	RIGHT	225-010000	570.38	130.34	112.36	0.	2	5927.7			
2240-001	LEFT	224-010000	570.35	-18300.	-67.481	0.	2	38455.	0.	2.72429E-05	570.35
	RIGHT	0-000000	570.35	18300.	59.759	0.	0	0.			
2240-002	LEFT	224-020000	570.35	-34303.	-68.031	0.	2	38296.	0.	-2.56153E-05	570.35
	RIGHT	0-000000	570.35	34303.	60.246	0.	0	0.			
2240-003	LEFT	224-030000	570.35	-34573.	-68.565	0.	2	38125.	0.	-2.11692E-05	570.35
	RIGHT	0-000000	570.35	34573.	60.719	0.	0	0.			
2240-004	LEFT	224-040000	570.35	-34848.	-69.112	0.	2	37986.	0.	-2.96487E-05	570.35
	RIGHT	0-000000	570.35	34848.	61.203	0.	0	0.			
2240-005	LEFT	224-050000	570.35	-22360.	-69.550	0.	2	37890.	0.	-2.82396E-05	570.35
	RIGHT	0-000000	570.35	22360.	61.591	0.	0	0.			
2240-006	LEFT	224-060000	570.35	-20586.	-69.855	0.	2	37798.	0.	-5.96768E-06	570.35
	RIGHT	0-000000	570.35	20586.	61.861	0.	0	0.			
2240-007	LEFT	224-070000	570.35	-20672.	-70.147	0.	2	37579.	0.	-9.02262E-05	570.35
	RIGHT	0-000000	570.35	20672.	62.119	0.	0	0.			
2240-008	LEFT	224-070000	570.35	-8824.3	-70.147	0.	2	37579.	0.	-3.85147E-05	570.35
	RIGHT	0-000000	570.35	8824.3	62.119	0.	0	0.			
2251-001	LEFT	225-010000	570.37	1.70886E-07	1.84036E-08	0.	2	5927.7	0.	1.70886E-07	570.37
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
3211-001	LEFT	321-010000	570.49	1.13715E-07	1.22466E-08	0.	2	6544.8	0.	1.13715E-07	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
3220-001	LEFT	322-010000	570.43	-3.53897E+05	-1452.0	0.	2	41099.	0.	-8.44058E-05	570.39
	RIGHT	0-000000	570.35	3.53897E+05	1285.8	0.	0	0.			
3220-002	LEFT	322-020000	570.42	-3.11621E+05	-1322.0	0.	2	40700.	0.	5.25825E-06	570.38
	RIGHT	0-000000	570.35	3.11621E+05	1170.7	0.	0	0.			
3220-003	LEFT	322-030000	570.41	-2.51460E+05	-1066.8	0.	2	40357.	0.	-6.54561E-05	570.38
	RIGHT	0-000000	570.35	2.51460E+05	944.71	0.	0	0.			
3220-004	LEFT	322-040000	570.40	-2.79845E+05	-939.32	0.	2	40023.	0.	6.54962E-05	570.37
	RIGHT	0-000000	570.35	2.79845E+05	831.83	0.	0	0.			
3220-005	LEFT	322-050000	570.39	-1.73174E+05	-686.89	0.	2	39717.	0.	-8.62870E-06	570.37
	RIGHT	0-000000	570.35	1.73174E+05	608.28	0.	0	0.			
3220-006	LEFT	322-060000	570.38	-1.41535E+05	-561.39	0.	2	39467.	0.	-3.84655E-05	570.36
	RIGHT	0-000000	570.35	1.41535E+05	497.15	0.	0	0.			

3220-007	LEFT	322-070000	570.37	-1.10052E+05	-436.51	0.	2	39244.	0.	-1.01607E-06	570.36
	RIGHT	0-000000	570.35	1.10052E+05	386.56	0.	0	0.			
3220-008	LEFT	322-080000	570.37	-1.10274E+05	-437.40	0.	2	39050.	0.	-5.50225E-05	570.36
	RIGHT	0-000000	570.35	1.10274E+05	387.34	0.	0	0.			
3220-009	LEFT	322-090000	570.37	-79005.	-313.37	0.	2	38879.	0.	-4.32949E-05	570.36
	RIGHT	0-000000	570.35	79005.	277.51	0.	0	0.			
3220-010	LEFT	322-100000	570.36	-47843.	-189.77	0.	2	38728.	0.	-3.75933E-05	570.35
	RIGHT	0-000000	570.35	47843.	168.05	0.	0	0.			
3220-011	LEFT	322-110000	570.36	-51843.	-191.17	0.	2	38588.	0.	-2.09343E-05	570.35
	RIGHT	0-000000	570.35	51843.	169.29	0.	0	0.			
3231-001	LEFT	321-010000	570.48	-129.80	-111.90	0.	2	6544.8	0.	.53742	570.43
	RIGHT	325-010000	570.38	130.34	112.36	0.	2	5927.8			
3240-001	LEFT	324-010000	570.35	-18298.	-67.472	0.	2	38456.	0.	-2.37114E-05	570.35
	RIGHT	0-000000	570.35	18298.	59.751	0.	0	0.			
3240-002	LEFT	324-020000	570.35	-34298.	-68.021	0.	2	38298.	0.	-1.53682E-04	570.35
	RIGHT	0-000000	570.35	34298.	60.237	0.	0	0.			
3240-003	LEFT	324-030000	570.35	-34568.	-68.556	0.	2	38126.	0.	-3.55479E-05	570.35
	RIGHT	0-000000	570.35	34568.	60.710	0.	0	0.			
3240-004	LEFT	324-040000	570.35	-34843.	-69.102	0.	2	37988.	0.	1.16725E-04	570.35
	RIGHT	0-000000	570.35	34843.	61.194	0.	0	0.			
3240-005	LEFT	324-050000	570.35	-22357.	-69.540	0.	2	37892.	0.	-9.91749E-05	570.35
	RIGHT	0-000000	570.35	22357.	61.583	0.	0	0.			
3240-006	LEFT	324-060000	570.35	-20583.	-69.845	0.	2	37800.	0.	-5.88479E-05	570.35
	RIGHT	0-000000	570.35	20583.	61.852	0.	0	0.			
3240-007	LEFT	324-070000	570.35	-20669.	-70.137	0.	2	37581.	0.	1.40870E-05	570.35
	RIGHT	0-000000	570.35	20669.	62.111	0.	0	0.			
3240-008	LEFT	324-070000	570.35	-8823.0	-70.137	0.	2	37581.	0.	6.01326E-06	570.35
	RIGHT	0-000000	570.35	8823.0	62.111	0.	0	0.			
3251-001	LEFT	325-010000	570.37	-3.08284E-08	-3.32008E-09	0.	2	5927.8	0.	-3.08284E-08	570.37
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
4000-001	LEFT	400-010000	617.40	-4638.2	-923.78	0.	2	1014.8	0.	-3.57969E-02	617.05
	RIGHT	940-010000	616.76	4638.2	736.94	0.	0	2.5100			
4000-002	LEFT	400-020000	617.40	-4638.2	-923.78	0.	2	1015.1	0.	-3.55671E-02	617.05
	RIGHT	940-010000	616.75	4638.2	736.94	0.	0	2.5100			
4000-003	LEFT	400-030000	617.37	-4637.7	-923.68	0.	2	1014.8	0.	-3.24273E-02	617.02
	RIGHT	940-010000	616.72	4637.7	736.86	0.	0	2.5100			
4000-004	LEFT	400-040000	617.34	-4637.3	-923.60	0.	2	1014.6	0.	-2.97321E-02	617.00
	RIGHT	940-010000	616.70	4637.3	736.80	0.	0	2.5100			
4101-001	LEFT	410-010000	617.01	-1224.9	-836.07	0.	2	872.59	0.	-2.63087E-04	615.97
	RIGHT	940-010000	615.03	1224.9	732.61	0.	0	2.5100			
4101-002	LEFT	410-020000	617.01	-2450.2	-836.07	0.	2	872.59	0.	-5.26262E-04	615.97
	RIGHT	940-010000	615.03	2450.2	732.61	0.	0	2.5100			
4102-001	LEFT	410-030000	617.03	-3800.0	-812.15	0.	2	866.26	0.	-2.94424E-03	616.03
	RIGHT	940-010000	615.10	3800.0	732.79	0.	0	2.5100			
4102-002	LEFT	410-040000	617.03	-7947.4	-812.15	0.	2	866.26	0.	-6.15767E-03	616.03
	RIGHT	940-010000	615.10	7947.4	732.79	0.	0	2.5100			
4102-003	LEFT	410-050000	617.89	-16333.	-814.52	0.	11	10426.	0.	61.456	616.89
	RIGHT	940-010000	615.95	16395.	737.70	0.	0	2.5100			
4102-004	LEFT	410-060000	617.89	-16333.	-814.52	0.	10	10134.	0.	72.560	616.89
	RIGHT	940-010000	615.95	16406.	738.20	0.	0	2.5100			
4102-005	LEFT	410-070000	617.89	-16333.	-814.52	0.	10	10134.	0.	72.560	616.89
	RIGHT	940-010000	615.95	16406.	738.20	0.	0	2.5100			
4102-006	LEFT	410-080000	617.92	-3811.5	-814.60	0.	10	16450.	0.	24.574	616.92
	RIGHT	940-010000	615.98	3836.0	739.75	0.	0	2.5100			
4103-001	LEFT	410-090000	617.92	-1637.4	-829.90	0.	10	20036.	0.	12.265	616.99
	RIGHT	940-010000	616.12	1649.7	740.87	0.	0	2.5100			
4103-002	LEFT	420-010000	617.93	-1148.4	-829.92	0.	10	22545.	0.	9.3827	617.00

	RIGHT	940-010000	616.13	1157.7	741.39	0.	0	2.5100			
4113-001	LEFT	0-000000	619.87	0.	0.	0.	0	0.	66943.	-1.06932E-04	619.00
	RIGHT	410-040000	618.49	66943.	6225.7	2.80414E+06	4	11827.			
4113-002	LEFT	0-000000	619.87	0.	0.	0.	0	0.	22314.	5.70435E-09	619.00
	RIGHT	410-050000	618.49	22314.	6229.8	1.07790E+06	4	11831.			

STR.NO.	MESH POINT TEMPERATURES (K)				
1211-001	570.49	570.49	570.49	570.49	570.49
1220-001	570.43	570.39	570.35		
1220-002	570.42	570.38	570.35		
1220-003	570.41	570.38	570.35		
1220-004	570.40	570.37	570.35		
1220-005	570.39	570.37	570.35		
1220-006	570.38	570.36	570.35		
1220-007	570.37	570.36	570.35		
1220-008	570.37	570.36	570.35		
1220-009	570.37	570.36	570.35		
1220-010	570.36	570.35	570.35		
1220-011	570.36	570.36	570.35		
1231-001	570.48	570.45	570.42	570.38	
1240-001	570.35	570.35	570.35		
1240-002	570.35	570.35	570.35		
1240-003	570.35	570.35	570.35		
1240-004	570.35	570.35	570.35		
1240-005	570.35	570.35	570.35		
1240-006	570.35	570.35	570.35		
1240-007	570.35	570.35	570.35		
1240-008	570.35	570.35	570.35		
1251-001	570.37	570.37	570.37	570.37	570.37
2211-001	570.49	570.49	570.49	570.49	570.49
2220-001	570.43	570.39	570.35		
2220-002	570.42	570.38	570.35		
2220-003	570.41	570.38	570.35		
2220-004	570.40	570.37	570.35		
2220-005	570.39	570.37	570.35		
2220-006	570.38	570.36	570.35		
2220-007	570.37	570.36	570.35		
2220-008	570.37	570.36	570.35		
2220-009	570.37	570.36	570.35		
2220-010	570.36	570.35	570.35		
2220-011	570.36	570.36	570.35		
2231-001	570.48	570.45	570.42	570.38	
2240-001	570.35	570.35	570.35		
2240-002	570.35	570.35	570.35		
2240-003	570.35	570.35	570.35		
2240-004	570.35	570.35	570.35		
2240-005	570.35	570.35	570.35		
2240-006	570.35	570.35	570.35		
2240-007	570.35	570.35	570.35		
2240-008	570.35	570.35	570.35		
2251-001	570.37	570.37	570.37	570.37	570.37
3211-001	570.49	570.49	570.49	570.49	570.49
3220-001	570.43	570.39	570.35		
3220-002	570.42	570.38	570.35		
3220-003	570.41	570.38	570.35		
3220-004	570.40	570.37	570.35		
3220-005	570.39	570.37	570.35		

3220-006	570.38	570.36	570.35		
3220-007	570.37	570.36	570.35		
3220-008	570.37	570.36	570.35		
3220-009	570.37	570.36	570.35		
3220-010	570.36	570.35	570.35		
3220-011	570.36	570.36	570.35		
3231-001	570.48	570.45	570.42	570.38	
3240-001	570.35	570.35	570.35		
3240-002	570.35	570.35	570.35		
3240-003	570.35	570.35	570.35		
3240-004	570.35	570.35	570.35		
3240-005	570.35	570.35	570.35		
3240-006	570.35	570.35	570.35		
3240-007	570.35	570.35	570.35		
3240-008	570.35	570.35	570.35		
3251-001	570.37	570.37	570.37	570.37	570.37
4000-001	617.40	617.17	616.95	616.76	
4000-002	617.40	617.17	616.95	616.75	
4000-003	617.37	617.14	616.92	616.72	
4000-004	617.34	617.11	616.90	616.70	
4101-001	617.01	616.32	615.66	615.03	
4101-002	617.01	616.32	615.66	615.03	
4102-001	617.03	616.36	615.72	615.10	
4102-002	617.03	616.36	615.72	615.10	
4102-003	617.89	617.22	616.58	615.95	
4102-004	617.89	617.22	616.57	615.95	
4102-005	617.89	617.22	616.57	615.95	
4102-006	617.92	617.25	616.60	615.98	
4103-001	617.92	617.30	616.70	616.12	
4103-002	617.93	617.31	616.71	616.13	
4113-001	619.87	619.11	618.49		
4113-002	619.87	619.11	618.49		

CONTROL VARIABLE EDIT

1	P/RHO180	DIV	19808.6	2	ENTHA180	SUM	27751.4
3	CVENERGY	MULT	172059.	4	P/RHO231	DIV	20950.1
5	ENTHA231	SUM	1.322690E+06	6	LETDENER	MULT	0.
7	PRZRHEAT	SUM	18237.6	8	PRZVAPH	SUM	0.
9	BALANCE	SUM	1.356830E+07	10	CALC-P	MULT	1.551040E+07
11	MEAS-P	FUNCTION	1.551000E+07	12	MEAS-L	FUNCTION	26.3000
13	TEMPF420	MULT	617.968	14	TEMPG420	MULT	617.968
15	SAT420	MULT	617.968	16	SPRYTEMP	MULT	570.593
20	P/RHO450	DIV	21714.7	21	ENTHA450	SUM	1.323651E+06
22	SPRENER	MULT	29041.9	23	P/RHO400	DIV	26283.0
24	ENTHA410	SUM	1.633941E+06	25	SURGENER	MULT	0.
26	SPRBALAN	SUM	47279.6	27	HEATERW	SUM	89229.4
28	VAPGEN	SUM	0.	31	POW	SUM	0.
32	TURBPOW	SUM	0.	100	TAVG(R)	SUM	570.533
101	LAG1	LAG	570.533	102	S1	SUM	-14.6166
103	LL1	LEAD-LAG	-.580865	104	S2	SUM	5.01600
105	???	SUM	245.445	106	DELTA-T	SUM	-.118433
107	LAG2	LAG	-.118433	108	LL2	LEAD-LAG	-.118433
109	LL3	LEAD-LAG	570.533	110	LAG3	LAG	570.533
111	S4	SUM	0.	112	S5	SUM	-3.315053E-02
113	S6	SUM	41.1829	134	LEVREG	PROP-INT	11.6670
135	LIMIT	MULT	11.6670	136	DELTAF	SUM	0.
137	D(AREA)	PROP-INT	0.	139	VALVAREA	SUM	.109000

140	AREA**2	MULT	1.188000E-02	141	K(VALV)	DIV	20387.0
142	K(T+DT)	SUM	20796.0	143	DELTA-K	SUM	0.
144	K(T)	MULT	20796.0	145	DELTA-P	SUM	0.
146	P(T)	MULT	1.591000E+07	153	KOQO2	MULT	981423.
154	DUM	SUM	1.050000E+06	155	A(T)	DIV	9.530000E-07
156	DUM	MULT	242.117	157	DUM	MULT	-63192.0
158	A	SUM	20570.4	159	DUM	MULT	290474.
160	DUM	MULT	0.	170	B	SUM	63206.0
171	DUM	MULT	0.	172	DUM	MULT	-.260000
173	DUM	MULT	456.100	174	C	SUM	455.800
175	B**2	MULT	3.995000E+09	176	AC4	MULT	3.750000E+07
177	B2-4AC	SUM	3.960000E+09	178	SQRT	STDFNCTN	62908.6
179	DUM	SUM	-148.700	180	DELTA-Q	DIV	0.
181	Q(T+DT)	SUM	14.0000	182	DUM	STDFNCTN	.597000
183	QO(T+DT)	MULT	8.33000	184	QTOT	SUM	22.3300
185	P(PUMP)	FUNCTION	2.004800E+07	186	DFDQ	FUNCTION	-67456.0
200	TAVG(G)	SUM	570.533	201	LAG1	LAG	570.533
202	S1	SUM	-14.6166	203	LL1	LEAD-LAG	-.580865
204	S2	SUM	5.01600	205	???	SUM	245.445
206	DELTA-T	SUM	-.118433	207	LAG2	LAG	-.118433
208	LL2	LEAD-LAG	-.118433	209	LL3	LEAD-LAG	570.533
210	LAG3	LAG	570.533	211	S4	SUM	0.
212	S5	SUM	-3.315053E-02	213	S6	SUM	41.1829
281	LET1	SUM	2.307800E+07	282	LET2	MULT	1.689701E+10
283	LET3	STDFNCTN	6.17700	284	LETDOWN	MULT	22.3700
300	TAVG(B)	SUM	570.533	301	LAG1	LAG	570.533
302	S1	SUM	-14.6166	303	LL1	LEAD-LAG	-.580865
304	S2	SUM	5.01600	305	???	SUM	245.445
306	DELTA-T	SUM	-.118437	307	LAG2	LAG	-.118437
308	LL2	LEAD-LAG	-.118437	309	LL3	LEAD-LAG	570.533
310	LAG3	LAG	570.533	311	S4	SUM	0.
312	S5	SUM	-3.315054E-02	313	S6	SUM	41.1829
400	COLLEVEL	SUM	26.5782	402	DPLEVEL	SUM	26.2816
404	PRZMASS	SUM	11259.8	410	T-AUCT-H	STDFNCTN	570.540
411	L-REF	FUNCTION	25.4190	412	DELT-LEV	SUM	0.
413	DELTA-P	SUM	0.	414	DP-CORR	PROP-INT	0.
415	POW-HE11	TRIPUNIT	0.	416	POW-BKR	TRIPUNIT	0.
417	POWVAR	FUNCTION	154000.	418	TOTPOW	FUNCTION	89257.0
435	SPRAYVAL	FUNCTION	0.	445	SPRAYVAL	FUNCTION	0.
606	POWCOLDL	SUM	22359.7	607	POWPREH	SUM	50082.5
608	POWHOTLG	SUM	1.196796E+06	609	POWUBEND	SUM	835743.
610	SGPOWER	SUM	2.104980E+06	706	POWCOLDL	SUM	22359.7
707	POWPREH	SUM	50082.5	708	POWHOTLG	SUM	1.196796E+06
709	POWUBEND	SUM	835743.	710	SGPOWER	SUM	2.104980E+06
806	POWCOLDL	SUM	22356.6	807	POWPREH	SUM	50075.6
808	POWHOTLG	SUM	1.196822E+06	809	POWUBEND	SUM	835733.
810	SGPOWER	SUM	2.104987E+06	900	MG1	MULT	0.
901	MG2	MULT	0.	902	MG3	MULT	0.
903	MG4	MULT	0.	904	MG5	MULT	666.215
905	MG6	MULT	1082.21	906	MG7	MULT	1082.21
907	MG8	MULT	252.507	908	MG9	MULT	82.7064
909	MG10	MULT	58.0347	911	RZMASW	SUM	3223.89
912	PRZMASL	SUM	8035.95	920	JRGHEAT	SUM	-18551.5

---RESTART NO. 0 WRITTEN, BLOCK NO. 0---

NUMBER OF ELEMENTS IN SPARSE MATRIX 1: ORIGINAL = 410. FACTORED = 666 ROUNDOFF ERROR = 1.600000E-11 NCOUNT = 1

ATTEMPTED ADV:	TOT.=	200	EDIT=	200	MIN.DT=	1.000000E-01	SEC	LAST DT=	1.000000E-01	SEC	MS.ERR=	-.172905	KG
REPEATED ADV:	TOT.=	0	EDIT=	0	MAX.DT=	.100000	SEC	CRNT.DT=	.119937	SEC	TOT.MS=	196370.	KG
SUCCESSFUL ADV:	TOT.=	200	EDIT=	200	AVG.DT=	.100000	SEC	ERR.EST=	1.122178E-07		M.RATN=	-8.805050E-07	
REQUESTED ADV:	TOT.=	100	EDIT=	100	REQ.DT=	.200000	SEC	CPU=	443.361	SEC	TIME=	20.0000	SEC

TRIP NUMBER, TRIP TIME (SEC)
597 1.0000000E-01 598 -1.000000 599 -1.000000
698 0.

VOL.NO.	PRESSURE (PA)	VOIDG	TEMPF (K)	TEMPG (K)	SAT. TEMP. (K)	NONCOND. VAPOR QUAL.	BORON DENS. (KG/M3)	UF (J/KG)	UG (J/KG)	VOL. FLAG
SYSTEM 1	MASS= 1.96370E+05 KG		MASS ERROR= -.17291 KG			ERR.EST.= 1.12218E-07				
UPDOWNC	BRANCH	COMPONENT								
11-010000	1.59589E+07	0.	570.55	620.27	620.27	0.	.73287	1.30161E+06	2.43688E+06	00
UPDOWNOZZ	BRANCH	COMPONENT								
13-010000	1.59490E+07	0.	570.61	620.22	620.22	0.	.73274	1.30195E+06	2.43715E+06	00
DOWNCTS	ANNULUS	COMPONENT								
16-010000	1.59675E+07	0.	570.61	620.26	620.26	0.	.73275	1.30195E+06	2.43692E+06	00
15-020000	1.59692E+07	0.	570.62	620.32	620.32	0.	.73276	1.30195E+06	2.43660E+06	00
15-030000	1.59809E+07	0.	570.62	620.38	620.38	0.	.73277	1.30195E+06	2.43629E+06	00
LOWPLEN	BRANCH	COMPONENT								
23-010000	1.59829E+07	0.	570.62	620.39	620.39	0.	.73277	1.30195E+06	2.43623E+06	00
COREIN	BRANCH	COMPONENT								
25-010000	1.59164E+07	0.	570.60	620.05	620.05	0.	.73270	1.30195E+06	2.43803E+06	00
CORE	PIPE	COMPONENT								
31-010000	1.58837E+07	0.	570.59	619.89	619.89	0.	.73266	1.30196E+06	2.43883E+06	00
31-020000	1.58446E+07	0.	570.57	619.69	619.69	0.	.73262	1.30198E+06	2.43974E+06	00
31-030000	1.58062E+07	0.	570.56	619.49	619.49	0.	.73257	1.30199E+06	2.44064E+06	00
31-040000	1.57685E+07	0.	570.55	619.30	619.30	0.	.73253	1.30200E+06	2.44152E+06	00
31-050000	1.57315E+07	0.	570.54	619.11	619.11	0.	.73248	1.30202E+06	2.44239E+06	00
BYPASS	SNGLVOL	COMPONENT								
35-010000	1.58177E+07	0.	570.56	619.55	619.55	0.	.73261	1.30193E+06	2.44037E+06	00
COREEX	BRANCH	COMPONENT								
39-010000	1.57129E+07	0.	570.53	619.01	619.01	0.	.73246	1.30202E+06	2.44283E+06	00
UPPLEN1	BRANCH	COMPONENT								
41-010000	1.56960E+07	0.	570.52	618.93	618.93	0.	.73245	1.30201E+06	2.44323E+06	00
UPPLEN2	BRANCH	COMPONENT								
43-010000	1.56878E+07	0.	570.52	618.89	618.89	0.	.73244	1.30201E+06	2.44342E+06	00
UPHEAD	BRANCH	COMPONENT								
45-010000	1.56729E+07	0.	570.45	618.81	618.81	0.	.73255	1.30167E+06	2.44377E+06	00
HTLEGR1	PIPE	COMPONENT								
111-010000	1.55821E+07	0.	570.48	618.34	618.34	0.	.73233	1.30201E+06	2.44592E+06	00
111-020000	1.55790E+07	0.	570.48	618.32	618.32	0.	.73232	1.30202E+06	2.44599E+06	00
HTLEGR2	BRANCH	COMPONENT								
113-010000	1.55727E+07	0.	570.48	618.29	618.29	0.	.73231	1.30202E+06	2.44614E+06	00
INBOX	BRANCH	COMPONENT								
121-010000	1.56142E+07	0.	570.49	618.51	618.51	0.	.73236	1.30202E+06	2.44516E+06	00
UTUBE	PIPE	COMPONENT								
122-010000	1.55845E+07	0.	570.47	618.35	618.35	0.	.73235	1.30196E+06	2.44586E+06	00
122-020000	1.55681E+07	0.	570.46	618.27	618.27	0.	.73235	1.30191E+06	2.44625E+06	00
122-030000	1.55521E+07	0.	570.44	618.18	618.18	0.	.73235	1.30186E+06	2.44663E+06	00
122-040000	1.55339E+07	0.	570.43	618.09	618.09	0.	.73235	1.30182E+06	2.44706E+06	00
122-050000	1.55151E+07	0.	570.41	617.99	617.99	0.	.73234	1.30179E+06	2.44751E+06	00
122-060000	1.54979E+07	0.	570.40	617.90	617.90	0.	.73233	1.30177E+06	2.44792E+06	00
122-070000	1.54807E+07	0.	570.39	617.81	617.81	0.	.73231	1.30175E+06	2.44833E+06	00
122-080000	1.54635E+07	0.	570.39	617.72	617.72	0.	.73230	1.30175E+06	2.44873E+06	00

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122-090000  1.54464E+07  0.          570.38      617.63      617.63      0.          .73228      1.30174E+06  2.44914E+06  00
122-100000  1.54292E+07  0.          570.37      617.55      617.55      0.          .73226      1.30174E+06  2.44956E+06  00
122-110000  1.54127E+07  0.          570.37      617.46      617.46      0.          .73225      1.30174E+06  2.44995E+06  00
UTUBE       PIPE        COMPONENT
124-010000  1.54018E+07  0.          570.36      617.40      617.40      0.          .73223      1.30175E+06  2.45021E+06  00
124-020000  1.53955E+07  0.          570.36      617.37      617.37      0.          .73222      1.30176E+06  2.45036E+06  00
124-030000  1.53892E+07  0.          570.36      617.34      617.34      0.          .73221      1.30177E+06  2.45051E+06  00
124-040000  1.53830E+07  0.          570.36      617.30      617.30      0.          .73220      1.30179E+06  2.45066E+06  00
124-050000  1.53779E+07  0.          570.36      617.28      617.28      0.          .73219      1.30179E+06  2.45078E+06  00
124-060000  1.53742E+07  0.          570.36      617.26      617.26      0.          .73218      1.30180E+06  2.45087E+06  00
124-070000  1.53698E+07  0.          570.36      617.24      617.24      0.          .73218      1.30181E+06  2.45098E+06  00
OUTBOX      BRANCH      COMPONENT
125-010000  1.53780E+07  0.          570.36      617.28      617.28      0.          .73218      1.30181E+06  2.45078E+06  00
SEALR       PIPE        COMPONENT
131-010000  1.53144E+07  0.          570.34      616.94      616.94      0.          .73212      1.30181E+06  2.45230E+06  00
131-020000  1.53237E+07  0.          570.34      616.99      616.99      0.          .73213      1.30181E+06  2.45208E+06  00
131-030000  1.53285E+07  0.          570.35      617.02      617.02      0.          .73213      1.30182E+06  2.45197E+06  00
131-040000  1.53208E+07  0.          570.34      616.98      616.98      0.          .73212      1.30182E+06  2.45215E+06  00
PUMPR       PUMP        COMPONENT
  RPM =   155.00     (RAD/SEC)     HEAD =  6.86166E+05 (PA)        TORQUE =  -32309.     (N-M)
  OCTANT = 1                                                    MTR.TORQUE =   32309.     (N-M)
140-010000  1.57026E+07  0.          570.51      618.96      618.96      0.          .73248      1.30195E+06  2.44307E+06  10
COLDR1      SNGLVOL     COMPONENT
151-010000  1.59075E+07  0.          570.60      620.01      620.01      0.          .73269      1.30196E+06  2.43827E+06  00
COLDR2      BRANCH      COMPONENT
152-010000  1.59040E+07  0.          570.58      619.99      619.99      0.          .73272      1.30188E+06  2.43836E+06  00
COLDR3      PIPE        COMPONENT
153-010000  1.59006E+07  0.          570.58      619.97      619.97      0.          .73271      1.30189E+06  2.43844E+06  00
153-020000  1.59209E+07  0.          570.59      620.08      620.08      0.          .73273      1.30189E+06  2.43791E+06  00
CVTANK      TMDPVOL     COMPONENT
180-010000  2.00000E+07  0.          560.58      638.85      638.85      0.          .75820      1.24253E+06  2.30082E+06  00
HTLEGG1     PIPE        COMPONENT
211-010000  1.55819E+07  0.          570.48      618.34      618.34      0.          .73233      1.30201E+06  2.44592E+06  00
211-020000  1.55788E+07  0.          570.48      618.32      618.32      0.          .73232      1.30202E+06  2.44600E+06  00
HTLEGG2     BRANCH      COMPONENT
213-010000  1.55725E+07  0.          570.48      618.29      618.29      0.          .73231      1.30202E+06  2.44615E+06  00
INBOX       BRANCH      COMPONENT
221-010000  1.56141E+07  0.          570.49      618.51      618.51      0.          .73236      1.30202E+06  2.44516E+06  00
UTUBE       PIPE        COMPONENT
222-010000  1.55843E+07  0.          570.47      618.35      618.35      0.          .73235      1.30196E+06  2.44586E+06  00
222-020000  1.55680E+07  0.          570.46      618.27      618.27      0.          .73235      1.30191E+06  2.44625E+06  00
222-030000  1.55519E+07  0.          570.44      618.18      618.18      0.          .73235      1.30186E+06  2.44663E+06  00
222-040000  1.55337E+07  0.          570.43      618.09      618.09      0.          .73235      1.30182E+06  2.44707E+06  00
222-050000  1.55149E+07  0.          570.41      617.99      617.99      0.          .73234      1.30179E+06  2.44751E+06  00
222-060000  1.54977E+07  0.          570.40      617.90      617.90      0.          .73233      1.30177E+06  2.44792E+06  00
222-070000  1.54805E+07  0.          570.39      617.81      617.81      0.          .73231      1.30176E+06  2.44833E+06  00
222-080000  1.54633E+07  0.          570.39      617.72      617.72      0.          .73230      1.30175E+06  2.44874E+06  00
222-090000  1.54461E+07  0.          570.38      617.63      617.63      0.          .73228      1.30174E+06  2.44915E+06  00
222-100000  1.54289E+07  0.          570.37      617.54      617.54      0.          .73226      1.30174E+06  2.44956E+06  00
222-110000  1.54124E+07  0.          570.37      617.46      617.46      0.          .73225      1.30174E+06  2.44996E+06  00
UTUBE       PIPE        COMPONENT
224-010000  1.54014E+07  0.          570.36      617.40      617.40      0.          .73223      1.30175E+06  2.45022E+06  00
224-020000  1.53952E+07  0.          570.36      617.37      617.37      0.          .73222      1.30176E+06  2.45037E+06  00
224-030000  1.53889E+07  0.          570.36      617.33      617.33      0.          .73221      1.30177E+06  2.45052E+06  00
224-040000  1.53825E+07  0.          570.36      617.30      617.30      0.          .73220      1.30179E+06  2.45067E+06  00
224-050000  1.53775E+07  0.          570.36      617.28      617.28      0.          .73219      1.30179E+06  2.45079E+06  00
224-060000  1.53738E+07  0.          570.36      617.26      617.26      0.          .73218      1.30180E+06  2.45088E+06  00
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224-070000  1.53693E+07  0.          570.36      617.23      617.23      0.          .73218      1.30181E+06  2.45099E+06  00
OUTBOX      BRANCH      COMPONENT
225-010000  1.53775E+07  0.          570.36      617.28      617.28      0.          .73218      1.30181E+06  2.45079E+06  00
SEALG1      PIPE        COMPONENT
231-010000  1.53138E+07  0.          570.34      616.94      616.94      0.          .73212      1.30181E+06  2.45232E+06  00
231-020000  1.53231E+07  0.          570.34      616.99      616.99      0.          .73213      1.30182E+06  2.45210E+06  00
231-030000  1.53279E+07  0.          570.35      617.02      617.02      0.          .73213      1.30182E+06  2.45198E+06  00
SEALG2      BRANCH      COMPONENT
232-010000  1.53203E+07  0.          570.34      616.98      616.98      0.          .73212      1.30182E+06  2.45216E+06  00
PUMPR       PUMP        COMPONENT
 RPM =  155.00     (RAD/SEC)     HEAD =  6.86481E+05 (PA)          TORQUE =  -32311.     (N-M)
 OCTANT = 1                                                     MTR.TORQUE =   32311.     (N-M)
240-010000  1.57022E+07  0.          570.51      618.96      618.96      0.          .73248      1.30195E+06  2.44308E+06  10
COLG1       BRANCH      COMPONENT
251-010000  1.59075E+07  0.          570.60      620.01      620.01      0.          .73269      1.30196E+06  2.43827E+06  00
COLG2       PIPE        COMPONENT
253-010000  1.59042E+07  0.          570.60      619.99      619.99      0.          .73269      1.30196E+06  2.43835E+06  00
253-020000  1.59008E+07  0.          570.59      619.98      619.98      0.          .73268      1.30197E+06  2.43843E+06  00
253-030000  1.59211E+07  0.          570.60      620.08      620.08      0.          .73270      1.30197E+06  2.43790E+06  00
LETD01      TMDPVOL     COMPONENT
282-010000  3.80000E+06  0.          412.00      520.46      520.46      0.          .92880      5.82440E+05  2.60184E+06  00
HTLEGB1     PIPE        COMPONENT
311-010000  1.55821E+07  0.          570.48      618.34      618.34      0.          .73233      1.30201E+06  2.44592E+06  00
311-020000  1.55790E+07  0.          570.48      618.32      618.32      0.          .73232      1.30202E+06  2.44599E+06  00
HTLEGB2     BRANCH      COMPONENT
313-010000  1.55726E+07  0.          570.48      618.29      618.29      0.          .73231      1.30202E+06  2.44614E+06  00
INBOX       BRANCH      COMPONENT
321-010000  1.56142E+07  0.          570.49      618.51      618.51      0.          .73236      1.30202E+06  2.44516E+06  00
UTUBE       PIPE        COMPONENT
322-010000  1.55845E+07  0.          570.47      618.35      618.35      0.          .73235      1.30196E+06  2.44586E+06  00
322-020000  1.55681E+07  0.          570.46      618.27      618.27      0.          .73235      1.30191E+06  2.44625E+06  00
322-030000  1.55521E+07  0.          570.44      618.18      618.18      0.          .73235      1.30186E+06  2.44663E+06  00
322-040000  1.55339E+07  0.          570.43      618.09      618.09      0.          .73235      1.30182E+06  2.44706E+06  00
322-050000  1.55151E+07  0.          570.41      617.99      617.99      0.          .73234      1.30179E+06  2.44751E+06  00
322-060000  1.54979E+07  0.          570.40      617.90      617.90      0.          .73233      1.30177E+06  2.44792E+06  00
322-070000  1.54807E+07  0.          570.39      617.81      617.81      0.          .73231      1.30175E+06  2.44833E+06  00
322-080000  1.54635E+07  0.          570.39      617.72      617.72      0.          .73230      1.30175E+06  2.44874E+06  00
322-090000  1.54463E+07  0.          570.38      617.63      617.63      0.          .73228      1.30174E+06  2.44915E+06  00
322-100000  1.54291E+07  0.          570.37      617.55      617.55      0.          .73226      1.30174E+06  2.44956E+06  00
322-110000  1.54127E+07  0.          570.37      617.46      617.46      0.          .73225      1.30174E+06  2.44995E+06  00
UTUBE       PIPE        COMPONENT
324-010000  1.54017E+07  0.          570.36      617.40      617.40      0.          .73223      1.30175E+06  2.45021E+06  00
324-020000  1.53955E+07  0.          570.36      617.37      617.37      0.          .73222      1.30176E+06  2.45036E+06  00
324-030000  1.53892E+07  0.          570.36      617.34      617.34      0.          .73221      1.30177E+06  2.45051E+06  00
324-040000  1.53829E+07  0.          570.36      617.30      617.30      0.          .73220      1.30179E+06  2.45066E+06  00
324-050000  1.53779E+07  0.          570.36      617.28      617.28      0.          .73219      1.30179E+06  2.45078E+06  00
324-060000  1.53742E+07  0.          570.36      617.26      617.26      0.          .73218      1.30180E+06  2.45087E+06  00
324-070000  1.53697E+07  0.          570.36      617.23      617.23      0.          .73218      1.30181E+06  2.45098E+06  00
OUTBOX      BRANCH      COMPONENT
325-010000  1.53780E+07  0.          570.36      617.28      617.28      0.          .73218      1.30181E+06  2.45078E+06  00
SEALB       PIPE        COMPONENT
331-010000  1.53143E+07  0.          570.34      616.94      616.94      0.          .73212      1.30181E+06  2.45231E+06  00
331-020000  1.53237E+07  0.          570.34      616.99      616.99      0.          .73213      1.30181E+06  2.45208E+06  00
331-030000  1.53285E+07  0.          570.35      617.02      617.02      0.          .73213      1.30182E+06  2.45197E+06  00
331-040000  1.53207E+07  0.          570.34      616.98      616.98      0.          .73212      1.30182E+06  2.45215E+06  00
PUMPR       PUMP        COMPONENT
 RPM =  155.00     (RAD/SEC)     HEAD =  6.86117E+05 (PA)          TORQUE =  -32308.     (N-M)
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OCTANT = 1 MTR.TORQUE = 32308. (N-M)

340-010000	1.57025E+07	0.	570.51	618.96	618.96	0.	.73248	1.30195E+06	2.44307E+06	10
COLDB1	SNGLVOL	COMPONENT								
351-010000	1.59074E+07	0.	570.60	620.01	620.01	0.	.73269	1.30196E+06	2.43827E+06	00
COLDR2	BRANCH	COMPONENT								
352-010000	1.59041E+07	0.	570.59	619.99	619.99	0.	.73269	1.30196E+06	2.43835E+06	00
COLDR3	PIPE	COMPONENT								
353-010000	1.59007E+07	0.	570.59	619.97	619.97	0.	.73268	1.30197E+06	2.43843E+06	00
353-020000	1.59210E+07	0.	570.60	620.08	620.08	0.	.73270	1.30197E+06	2.43790E+06	00
SURGE	PIPE	COMPONENT								
400-010000	1.55745E+07	0.	615.35	618.30	618.30	0.	.60656	1.58257E+06	2.44610E+06	00
400-020000	1.55655E+07	5.05324E-07	618.16	618.25	618.25	0.	.59330	1.60644E+06	2.44631E+06	00
400-030000	1.55567E+07	1.97535E-05	618.22	618.21	618.21	0.	.59295	1.60700E+06	2.44652E+06	00
400-040000	1.55479E+07	3.81529E-05	618.18	618.16	618.16	0.	.59304	1.60679E+06	2.44673E+06	00
PRESSU	PIPE	COMPONENT								
410-010000	1.55427E+07	1.35498E-06	617.99	618.14	618.14	0.	.59394	1.60523E+06	2.44685E+06	00
410-020000	1.55402E+07	1.59476E-07	617.98	618.12	618.12	0.	.59398	1.60516E+06	2.44691E+06	00
410-030000	1.55365E+07	0.	617.98	618.10	618.10	0.	.59396	1.60517E+06	2.44700E+06	00
410-040000	1.55302E+07	1.86344E-04	617.98	618.07	618.07	0.	.59408	1.60516E+06	2.44715E+06	00
410-050000	1.55216E+07	.61434	617.99	618.02	618.03	0.	.22897	1.60537E+06	2.44727E+06	00
410-060000	1.55159E+07	.99999	618.00	618.01	618.00	0.	5.70688E-08	1.60544E+06	2.44766E+06	00
410-070000	1.55128E+07	.99995	617.98	617.99	617.98	0.	1.23102E-06	1.60532E+06	2.44763E+06	00
410-080000	1.55110E+07	.99997	617.97	617.97	617.97	0.	1.07588E-06	1.60526E+06	2.44763E+06	00
410-090000	1.55105E+07	.99998	617.97	617.97	617.97	0.	1.30757E-07	1.60524E+06	2.44763E+06	00
TOP	BRANCH	COMPONENT								
420-010000	1.55101E+07	.99999	617.97	617.97	617.97	0.	2.81573E-08	1.60522E+06	2.44762E+06	00
SPRAYR	BRANCH	COMPONENT								
430-010000	1.59759E+07	0.	570.62	620.36	620.36	0.	.73277	1.30194E+06	2.43642E+06	00
SPRAYB	BRANCH	COMPONENT								
440-010000	1.59758E+07	0.	570.62	620.36	620.36	0.	.73277	1.30194E+06	2.43642E+06	00
SPRAYB	BRANCH	COMPONENT								
450-010000	1.55425E+07	3.77561E-10	570.45	618.13	618.13	0.	.73233	1.30193E+06	2.44686E+06	00
TV490	TMDPVOL	COMPONENT								
490-010000	1.55100E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60522E+06	2.44763E+06	00

SYSTEM 2 MASS= 0. KG MASS ERROR= 0. KG ERR.EST.= 0.

TV940	TMDPVOL	COMPONENT								
940-010000	2.00000E+05	0.	323.15	393.38	393.38	0.	0.	2.09218E+05	2.52920E+06	00

VOL.NO.	RHOF (KG/M3)	RHOG (KG/M3)	LIQ.V.VEL. (M/SEC)	VAP.V.VEL. (M/SEC)	SOUNDE (M/SEC)	STATIC QUAL.	TOT.HT.INP. (WATTS)	VAP.HT.INP. (WATTS)	VAPOR GEN. (KG/M3-SEC)
11-010000	732.87	106.98	3.58630E-02	3.58630E-02	982.60	0.	0.	0.	0.
13-010000	732.74	106.87	7.8403	7.8327	982.03	0.	0.	0.	0.
15-010000	732.75	106.96	7.5532	7.5532	982.06	0.	0.	0.	0.
15-020000	732.76	107.10	7.5531	7.5531	982.11	0.	0.	0.	0.
15-030000	732.77	107.23	7.5530	7.5530	982.16	0.	0.	0.	0.
23-010000	732.77	107.25	-1.87259E-07	-6.56869E-04	982.17	0.	0.	0.	0.
25-010000	732.70	106.50	5.0290	5.0290	981.88	0.	0.	0.	0.
31-010000	732.66	106.13	4.8813	4.8813	981.71	0.	0.	0.	0.
31-020000	732.62	105.70	4.8815	4.8815	981.52	0.	0.	0.	0.
31-030000	732.57	105.27	4.8819	4.8819	981.33	0.	0.	0.	0.
31-040000	732.53	104.85	4.8822	4.8822	981.14	0.	0.	0.	0.
31-050000	732.48	104.44	4.8825	4.8825	980.96	0.	0.	0.	0.
35-010000	732.61	105.40	.70684	.70684	981.48	0.	0.	0.	0.
39-010000	732.46	104.24	5.0308	5.0309	980.88	0.	0.	0.	0.
41-010000	732.45	104.05	2.1906	2.1906	980.81	0.	0.	0.	0.
43-010000	732.44	103.97	-7.49597E-03	-6.49895E-03	980.78	0.	0.	0.	0.

45-010000	732.55	103.80	3.27570E-07	2.22028E-04	981.27	0.	0.	0.	0.
111-010000	732.33	102.82	14.864	14.864	980.33	0.	0.	0.	0.
111-020000	732.32	102.78	14.865	14.865	980.31	0.	0.	0.	0.
113-010000	732.31	102.72	14.865	14.865	980.27	0.	0.	0.	0.
121-010000	732.36	103.17	1.9806	1.9806	980.45	0.	-291.86	0.	0.
122-010000	732.35	102.84	5.9734	5.9734	980.43	0.	-3.64877E+05	0.	0.
122-020000	732.35	102.67	5.9734	5.9734	980.44	0.	-3.06772E+05	0.	0.
122-030000	732.35	102.49	5.9734	5.9734	980.44	0.	-2.65585E+05	0.	0.
122-040000	732.35	102.30	5.9734	5.9734	980.43	0.	-2.80703E+05	0.	0.
122-050000	732.34	102.10	5.9735	5.9735	980.40	0.	-1.98708E+05	0.	0.
122-060000	732.33	101.91	5.9735	5.9735	980.36	0.	-1.65722E+05	0.	0.
122-070000	732.31	101.73	5.9736	5.9736	980.32	0.	-1.36253E+05	0.	0.
122-080000	732.30	101.55	5.9737	5.9737	980.26	0.	-1.09924E+05	0.	0
122-090000	732.28	101.36	5.9739	5.9739	980.20	0.	-86400.	0.	0.
122-100000	732.27	101.18	5.9740	5.9740	980.13	0.	-65381.	0.	0.
122-110000	732.25	101.01	5.9742	5.9742	980.05	0.	-51134.	0.	0.
124-010000	732.23	100.89	5.9743	5.9743	980.00	0.	-40584.	0.	0.
124-020000	732.22	100.83	5.9744	5.9744	979.95	0.	-73984.	0.	0.
124-030000	732.21	100.76	5.9745	5.9745	979.91	0.	-72648.	0.	0.
124-040000	732.20	100.69	5.9746	5.9746	979.86	0.	-71580.	0.	0.
124-050000	732.19	100.64	5.9747	5.9747	979.83	0.	-43103.	0.	0.
124-060000	732.18	100.60	5.9747	5.9747	979.80	0.	-39453.	0.	0.
124-070000	732.18	100.55	5.9748	5.9748	979.76	0.	-57588.	0.	0.
125-010000	732.18	100.64	1.9810	1.9810	979.80	0.	111.72	0.	0.
131-010000	732.12	99.970	13.034	13.034	979.53	0.	0.	0.	0.
131-020000	732.13	100.07	13.339	13.339	979.57	0.	0.	0.	0.
131-030000	732.13	100.12	13.339	13.339	979.58	0.	0.	0.	0.
131-040000	732.12	100.04	13.339	13.339	979.55	0.	0.	0.	0.
140-010000	732.48	104.13	2.4852	2.4852	980.95	0.	0.	0.	0.
151-010000	732.69	106.40	16.951	16.950	981.83	0.	0.	0.	0.
152-010000	732.72	106.38	16.967	16.930	981.93	0.	0.	0.	0.
153-010000	732.71	106.32	16.970	16.970	981.90	0.	0.	0.	0.
153-020000	732.73	106.55	14.976	14.976	981.99	0.	0.	0.	0.
180-010000	758.20	170.17	8.14632E-03	8.14632E-03	1442.5	0.	0.	0.	0.
211-010000	732.33	102.82	14.876	14.876	980.33	0.	0.	0.	0.
211-020000	732.32	102.78	14.877	14.877	980.31	0.	0.	0.	0.
213-010000	732.31	102.71	14.877	14.877	980.27	0.	0.	0.	0.
221-010000	732.36	103.16	1.9822	1.9822	980.45	0.	-291.33	0.	0.
222-010000	732.35	102.84	5.9783	5.9783	980.43	0.	-3.64848E+05	0.	0.
222-020000	732.35	102.67	5.9784	5.9784	980.44	0.	-3.06758E+05	0.	0.
222-030000	732.35	102.49	5.9784	5.9784	980.44	0.	-2.65580E+05	0.	0.
222-040000	732.35	102.30	5.9784	5.9784	980.43	0.	-2.80710E+05	0.	0.
222-050000	732.34	102.10	5.9784	5.9784	980.40	0.	-1.98716E+05	0.	0.
222-060000	732.33	101.91	5.9785	5.9785	980.36	0.	-1.65731E+05	0.	0.
222-070000	732.31	101.73	5.9786	5.9786	980.31	0.	-1.36261E+05	0.	0.
222-080000	732.30	101.54	5.9787	5.9787	980.26	0.	-1.09929E+05	0.	0.
222-090000	732.28	101.36	5.9789	5.9789	980.19	0.	-86401.	0.	0.
222-100000	732.27	101.18	5.9790	5.9790	980.12	0.	-65378.	0.	0.
222-110000	732.25	101.00	5.9791	5.9791	980.05	0.	-51125.	0.	0.
224-010000	732.23	100.89	5.9793	5.9793	979.99	0.	-40571.	0.	0.
224-020000	732.22	100.82	5.9794	5.9794	979.95	0.	-73968.	0.	0.
224-030000	732.21	100.76	5.9795	5.9795	979.90	0.	-72623.	0.	0.
224-040000	732.20	100.69	5.9796	5.9796	979.86	0.	-71548.	0.	0.
224-050000	732.19	100.64	5.9796	5.9796	979.82	0.	-43072.	0.	0.
224-060000	732.18	100.60	5.9797	5.9797	979.80	0.	-39423.	0.	0.
224-070000	732.18	100.55	5.9798	5.9798	979.76	0.	-57551.	0.	0.
225-010000	732.18	100.64	1.9827	1.9827	979.79	0.	111.68	0.	0.

231-010000	732.12	99.964	13.045	13.045	979.53	0.	0.	0.	0.
231-020000	732.12	100.06	13.351	13.351	979.56	0.	0.	0.	0.
231-030000	732.13	100.11	13.350	13.350	979.58	0.	0.	0.	0.
232-010000	732.12	100.03	13.333	13.333	979.54	0.	0.	0.	0.
240-010000	732.48	104.12	2.4841	2.4841	980.95	0.	0.	0.	0.
251-010000	732.69	106.40	16.943	16.943	981.83	0.	0.	0.	0.
253-010000	732.69	106.36	16.941	16.941	981.80	0.	0.	0.	0.
253-020000	732.68	106.33	16.941	16.941	981.78	0.	0.	0.	0.
253-030000	732.70	106.55	14.950	14.950	981.86	0.	0.	0.	0.
282-010000	928.80	19.070	8.43645E-04	8.43645E-04	1467.8	0.	0.	0.	0.
311-010000	732.33	102.82	14.865	14.865	980.33	0.	0.	0.	0.
311-020000	732.32	102.78	14.866	14.866	980.31	0.	0.	0.	0.
313-010000	732.31	102.72	14.866	14.866	980.27	0.	0.	0.	0.
321-010000	732.36	103.17	1.9807	1.9807	980.45	0.	-251.10	0.	0.
322-010000	732.36	102.84	5.9738	5.9738	980.43	0.	-3.64878E+05	0.	0.
322-020000	732.35	102.67	5.9738	5.9738	980.44	0.	-3.06775E+05	0.	0.
322-030000	732.35	102.49	5.9738	5.9738	980.44	0.	-2.65588E+05	0.	0.
322-040000	732.35	102.30	5.9738	5.9738	980.43	0.	-2.80708E+05	0.	0.
322-050000	732.34	102.10	5.9739	5.9739	980.40	0.	-1.98712E+05	0.	0.
322-060000	732.33	101.91	5.9740	5.9740	980.36	0.	-1.65726E+05	0.	0.
322-070000	732.31	101.73	5.9741	5.9741	980.32	0.	-1.36256E+05	0.	0.
322-080000	732.30	101.55	5.9742	5.9742	980.26	0.	-1.09926E+05	0.	0.
322-090000	732.28	101.36	5.9743	5.9743	980.20	0.	-86402.	0.	0.
322-100000	732.27	101.18	5.9744	5.9744	980.12	0.	-65382.	0.	0.
322-110000	732.25	101.01	5.9746	5.9746	980.05	0.	-51135.	0.	0.
324-010000	732.23	100.89	5.9747	5.9747	980.00	0.	-40584.	0.	0.
324-020000	732.22	100.83	5.9748	5.9748	979.95	0.	-73985.	0.	0.
324-030000	732.21	100.76	5.9749	5.9749	979.91	0.	-72648.	0.	0.
324-040000	732.20	100.69	5.9750	5.9750	979.86	0.	-71579.	0.	0.
324-050000	732.19	100.64	5.9751	5.9751	979.83	0.	-43101.	0.	0.
324-060000	732.18	100.60	5.9751	5.9751	979.80	0.	-39451.	0.	0.
324-070000	732.18	100.55	5.9752	5.9752	979.76	0.	-57586.	0.	0.
325-010000	732.18	100.64	1.9812	1.9812	979.80	0.	118.69	0.	0.
331-010000	732.12	99.970	13.035	13.035	979.53	0.	0.	0.	0.
331-020000	732.13	100.07	13.340	13.340	979.57	0.	0.	0.	0.
331-030000	732.13	100.12	13.340	13.340	979.58	0.	0.	0.	0.
331-040000	732.12	100.04	13.340	13.340	979.55	0.	0.	0.	0.
340-010000	732.48	104.13	2.4854	2.4854	980.95	0.	0.	0.	0.
351-010000	732.69	106.40	16.952	16.951	981.83	0.	0.	0.	0.
352-010000	732.69	106.36	16.950	16.950	981.80	0.	0.	0.	0.
353-010000	732.68	106.32	16.950	16.950	981.78	0.	0.	0.	0.
353-020000	732.70	106.55	14.958	14.958	981.87	0.	0.	0.	0.
400-010000	606.54	102.74	1.06969E-03	1.89933E-03	644.82	0.	6766.3	0.	0.
400-020000	593.32	102.64	1.04651E-03	2.11600E-02	617.55	8.74165E-08	-3871.7	0.	-2.15212E-06
400-030000	592.96	102.54	9.42693E-04	3.00281E-02	103.94	3.41616E-06	-4298.5	0.	1.13935E-06
400-040000	593.06	102.45	8.34881E-04	3.17707E-02	103.93	6.59107E-06	-4267.8	0.	1.08957E-05
410-010000	593.96	102.39	2.23375E-05	5.06362E-03	617.83	2.33585E-07	-1260.0	0.	-7.88338E-06
410-020000	594.00	102.37	2.13937E-05	7.87550E-03	617.95	2.74835E-08	-2491.7	0.	-8.55061E-07
410-030000	593.98	102.33	1.12800E-05	1.57651E-03	618.33	0.	-3862.3	0.	0.
410-040000	593.96	102.26	-9.43471E-06	.96167	618.94	3.20872E-05	54947.	-2.83886E-02	1.25142E-02
410-050000	593.81	102.18	-9.42080E-05	4.83427E-04	181.51	.21514	3523.3	-18301.	3.27051E-04
410-060000	593.75	102.07	-.30872	1.14471E-04	432.81	.99997	-17357.	-17357.	-1.52030E-03
410-070000	593.81	102.06	-.10549	4.48758E-05	372.05	.99970	-16830.	-16830.	-1.44740E-03
410-080000	593.84	102.05	-.10354	1.84824E-05	372.09	.99983	-3845.2	-3845.2	-1.54713E-03
410-090000	593.85	102.05	-.11006	1.50100E-05	372.10	.99990	-1643.5	-1643.5	-2.07230E-03
420-010000	593.86	102.05	-8.28432E-02	1.08615E-05	372.11	.99993	-1146.2	-1146.2	-2.09242E-03
430-010000	732.77	107.17	-3.73793E-07	-3.73870E-07	982.16	0.	0.	0.	0.

440-010000	732.77	107.17	-3.75714E-07	-3.75790E-07	982.16	0.	0.	0.	0.
450-010000	732.32	102.39	-.39904	2.15460E-02	980.30	5.27904E-11	0.	0.	-4.16610E-12
490-010000	593.86	102.04	-2.20511E-05	1.20773E-06	372.13	1.0000	0.	0.	0.
940-010000	988.11	1.1294	0.	0.	1537.3	0.	89570.	0.	0.

VOL.NO.	LRGST.MASS ERR.		REDUCE-QUALITY		REDUCE-EXTRAP.		REDUCE-MASS		REDUCE-PROPTY.		MIN.COURANT		REDUCE-COURANT	
	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL
11-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-040000	0	0	0	0	0	0	0	0	0	0	12	12	93	93
140-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

211-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
213-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
221-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232-010000	0	0	0	0	0	0	0	0	0	0	1	1	0	0
240-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
251-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
282-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
311-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
311-020000	5	5	0	0	0	0	0	0	0	0	0	0	0	0
313-010000	2	2	0	0	0	0	0	0	0	0	0	0	0	0
321-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
325-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-0100[illegible]	0	0	0	0	0	0	0	[illegible]	0	0	0	0	0	0

331-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-040000	0	0	0	0	0	0	0	0	0	0	187	187	7	7
340-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
351-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
352-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
353-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
353-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400-010000	180	180	0	0	0	0	0	0	0	0	0	0	0	0
400-020000	12	12	0	0	0	0	0	0	0	0	0	0	0	0
400-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-010000	1	1	0	0	0	0	0	0	0	0	0	0	0	0
410-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
420-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
430-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
440-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
490-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
940-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

JUN.NO.	FROM VOL.	TO VOL.	LIQ.J.VEL. (M/SEC)	VAP.J.VEL. (M/SEC)	MASS FLOW (KG/SEC)	JUN.AREA (M2)	THROAT RATIO	JUNCTION FLAGS	CHOKE FLAG	NO.ADVS. EDIT	CHOKED TOTAL
SYSTEM 1											
UPDOWNC	BRANCH	COMPONENT									
11-010000	-13-010000	11-010000	3.58630E-02	3.58630E-02	48.666	1.8520	1.0000	00000	0	0	0
11-020000	11-010000	45-010000	17.950	17.951	48.675	3.70000E-03	1.0000	00000	0	0	0
UPDOWNOZZ	BRANCH	COMPONENT									
13-010000	153-020000	13-010000	14.975	14.975	4762.3	.43400	1.0000	00000	0	0	0
13-020000	253-030000	13-010000	14.950	14.950	4753.9	.43400	1.0000	00000	0	0	0
13-030000	353-020000	13-010000	14.958	14.958	4756.4	.43400	1.0000	00000	0	0	0
13-040000	13-010000	15-010000	7.8402	7.8402	14224.	2.4760	1.0000	00000	0	0	0
DOWNCTS	ANNULUS	COMPONENT									
15-010000	15-010000	15-020000	7.5532	7.5532	14224.	2.5700	1.0000	00000	0	0	0
15-020000	15-020000	15-030000	7.5531	7.5531	14224.	2.5700	1.0000	00000	0	0	0
LOWPLEN	BRANCH	COMPONENT									
23-010000	15-030000	23-010000	7.5529	7.5529	14224.	2.5700	1.0000	00000	0	0	0
23-020000	-23-010000	25-010000	5.0288	5.0288	14224.	3.8600	1.0000	00000	0	0	0
COREIN	BRANCH	COMPONENT									
25-010000	25-010000	31-010000	4.8811	4.8811	13805.	3.8600	1.0000	00000	0	0	0
25-020000	25-010000	35-010000	5.7173	5.7173	418.91	.10000	1.0000	00000	0	0	0
CORE	PIPE	COMPONENT									
31-010000	31-010000	31-020000	4.8814	4.8814	13805.	3.8600	1.0000	00000	0	0	0
31-020000	31-020000	31-030000	4.8817	4.8817	13805.	3.8600	1.0000	00000	0	0	0
31-030000	31-030000	31-040000	4.8820	4.8820	13805.	3.8600	1.0000	00000	0	0	0
31-040000	31-040000	31-050000	4.8823	4.8823	13805.	3.8600	1.0000	00000	0	0	0
COREEX	BRANCH	COMPONENT									
39-010000	31-050000	39-010000	4.8826	4.8826	13805.	3.8600	1.0000	00000	0	0	0
39-020000	35-010000	39-010000	5.7181	5.7181	418.91	.10000	1.0000	00000	0	0	0

UPPLEN1	BRANCH	COMPONENT									
41-010000	39-010000	41-010000	5.0309	5.0309	14224.	3.8600	1.0000	00000	0	0	0
41-020000	41-010000	43-010000	2.1906	2.1906	14224.	8.8650	1.0000	00000	0	0	0
UPPLEN2	BRANCH	COMPONENT									
43-010000	-43-010000	111-010000	14.863	14.863	4756.1	.43690	1.0000	00000	0	0	0
43-020000	-43-010000	211-010000	14.875	14.875	4760.0	.43690	1.0000	00000	0	0	0
43-030000	-43-010000	311-010000	14.864	14.864	4756.5	.43690	1.0000	00000	0	0	0
UPHEAD	BRANCH	COMPONENT									
45-010000	43-010000	45-010000	-7.49494E-03	-7.49494E-03	-48.673	8.8650	1.0000	00000	0	0	0
HTLEGR1	PIPE	COMPONENT									
111-010000	111-010000	111-020000	14.865	14.865	4756.1	.43690	1.0000	00000	0	0	0
HTLEGR2	BRANCH	COMPONENT									
113-010000	111-020000	113-010000	14.865	14.865	4756.1	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
121-010000	121-010000	122-010000	5.9733	5.9733	4756.1	1.0872	1.0000	00000	0	0	0
121-020000	113-010000	121-010000	14.865	14.865	4756.1	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
122-010000	122-010000	122-020000	5.9734	5.9734	4756.1	1.0872	1.0000	00000	0	0	0
122-020000	122-020000	122-030000	5.9734	5.9734	4756.1	1.0872	1.0000	00000	0	0	0
122-030000	122-030000	122-040000	5.9734	5.9734	4756.1	1.0872	1.0000	00000	0	0	0
122-040000	122-040000	122-050000	5.9734	5.9734	4756.1	1.0872	1.0000	00000	0	0	0
122-050000	122-050000	122-060000	5.9735	5.9735	4756.1	1.0872	1.0000	00000	0	0	0
122-060000	122-060000	122-070000	5.9736	5.9736	4756.1	1.0872	1.0000	00000	0	0	0
122-070000	122-070000	122-080000	5.9737	5.9737	4756.1	1.0872	1.0000	00000	0	0	0
122-080000	122-080000	122-090000	5.9738	5.9738	4756.1	1.0872	1.0000	00000	0	0	0
122-090000	122-090000	122-100000	5.9739	5.9739	4756.1	1.0872	1.0000	00000	0	0	0
122-100000	122-100000	122-110000	5.9741	5.9741	4756.1	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
123-000000	122-110000	124-010000	5.9742	5.9742	4756.1	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
124-010000	124-010000	124-020000	5.9743	5.9743	4756.1	1.0872	1.0000	00000	0	0	0
124-020000	124-020000	124-030000	5.9744	5.9744	4756.1	1.0872	1.0000	00000	0	0	0
124-030000	124-030000	124-040000	5.9745	5.9745	4756.1	1.0872	1.0000	00000	0	0	0
124-040000	124-040000	124-050000	5.9746	5.9746	4756.1	1.0872	1.0000	00000	0	0	0
124-050000	124-050000	124-060000	5.9747	5.9747	4756.1	1.0872	1.0000	00000	0	0	0
124-060000	124-060000	124-070000	5.9747	5.9747	4756.1	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
125-010000	124-070000	125-010000	5.9710	5.9710	4756.1	1.0879	1.0000	00000	0	0	0
125-020000	125-010000	131-010000	13.033	13.033	4756.1	.49840	1.0000	00000	0	0	0
SEALR	PIPE	COMPONENT									
131-010000	131-010000	131-020000	13.340	13.340	4756.1	.48700	1.0000	00000	0	0	0
131-020000	131-020000	131-030000	13.339	13.339	4756.1	.48700	1.0000	00000	0	0	0
131-030000	131-030000	131-040000	13.339	13.339	4756.1	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
140-010000	131-040000	140-010000	13.339	13.339	4756.1	.48700	1.0000	00000	0	0	0
140-020000	140-010000	151-010000	16.953	16.953	4756.1	.38300	1.0000	00000	0	0	0
COLDR2	BRANCH	COMPONENT									
152-010000	151-010000	152-010000	16.948	16.948	4756.1	.38300	1.0000	00000	0	0	0
152-020000	152-010000	153-010000	16.970	16.970	4762.3	.38300	1.0000	00000	0	0	0
COLDR3	PIPE	COMPONENT									
153-010000	153-010000	153-020000	16.970	16.970	4762.3	.38300	1.0000	00000	0	0	0
CVJUN	TMDPJUN	COMPONENT									
181-000000	180-010000	152-010000	2.3342	2.3342	6.1766	3.49000E-03	1.0000	00000	0	0	0
HTLEGG1	PIPE	COMPONENT									
211-010000	211-010000	211-020000	14.877	14.877	4760.0	.43690	1.0000	00000	0	0	0
HTLEGG2	BRANCH	COMPONENT									
213-010000	211-020000	213-010000	14.877	14.877	4760.0	.43690	1.0000	00000	0	0	0

INBOX	BRANCH	COMPONENT									
221-010000	221-010000	222-010000	5.9783	5.9783	4760.0	1.0872	1.0000	00000	0	0	0
221-020000	213-010000	221-010000	14.878	14.878	4760.0	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
222-010000	222-010000	222-020000	5.9784	5.9784	4760.0	1.0872	1.0000	00000	0	0	0
222-020000	222-020000	222-030000	5.9784	5.9784	4760.0	1.0872	1.0000	00000	0	0	0
222-030000	222-030000	222-040000	5.9784	5.9784	4760.0	1.0872	1.0000	00000	0	0	0
222-040000	222-040000	222-050000	5.9784	5.9784	4760.0	1.0872	1.0000	00000	0	0	0
222-050000	222-050000	222-060000	5.9785	5.9785	4760.0	1.0872	1.0000	00000	0	0	0
222-060000	222-060000	222-070000	5.9786	5.9786	4760.0	1.0872	1.0000	00000	0	0	0
222-070000	222-070000	222-080000	5.9787	5.9787	4760.0	1.0872	1.0000	00000	0	0	0
222-080000	222-080000	222-090000	5.9788	5.9788	4760.0	1.0872	1.0000	00000	0	0	0
222-090000	222-090000	222-100000	5.9789	5.9789	4760.0	1.0872	1.0000	00000	0	0	0
222-100000	222-100000	222-110000	5.9791	5.9791	4760.0	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
223-000000	222-110000	224-010000	5.9792	5.9792	4760.0	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
224-010000	224-010000	224-020000	5.9793	5.9793	4760.0	1.0872	1.0000	00000	0	0	0
224-020000	224-020000	224-030000	5.9794	5.9794	4760.0	1.0872	1.0000	00000	0	0	0
224-030000	224-030000	224-040000	5.9795	5.9795	4760.0	1.0872	1.0000	00000	0	0	0
224-040000	224-040000	224-050000	5.9796	5.9796	4760.0	1.0872	1.0000	00000	0	0	0
224-050000	224-050000	224-060000	5.9797	5.9797	4760.0	1.0872	1.0000	00000	0	0	0
224-060000	224-060000	224-070000	5.9797	5.9797	4760.0	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
225-010000	224-070000	225-010000	5.9760	5.9760	4760.0	1.0879	1.0000	00000	0	0	0
225-020000	225-010000	231-010000	13.044	13.044	4760.0	.49840	1.0000	00000	0	0	0
SEALG1	PIPE	COMPONENT									
231-010000	231-010000	231-020000	13.351	13.351	4760.0	.48700	1.0000	00000	0	0	0
231-020000	231-020000	231-030000	13.350	13.350	4760.0	.48700	1.0000	00000	0	0	0
SEALG2	BRANCH	COMPONENT									
232-010000	231-030000	232-010000	13.333	13.333	4753.9	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
240-010000	232-010000	240-010000	13.333	13.333	4753.9	.48700	1.0000	00000	0	0	0
240-020000	240-010000	251-010000	16.945	16.945	4753.9	.38300	1.0000	00000	0	0	0
COLG1	BRANCH	COMPONENT									
251-010000	251-010000	253-010000	16.941	16.941	4753.9	.38300	1.0000	00000	0	0	0
COLG2	PIPE	COMPONENT									
253-010000	253-010000	253-020000	16.941	16.941	4753.9	.38300	1.0000	00000	0	0	0
253-020000	253-020000	253-030000	16.941	16.941	4753.9	.38300	1.0000	00000	0	0	0
TJ183	TMDPJUN	COMPONENT									
283-000000	231-030000	282-010000	1.73233E-02	1.73233E-02	6.1766	.48700	1.0000	00000	0	0	0
HTLEGB1	PIPE	COMPONENT									
311-010000	311-010000	311-020000	14.866	14.866	4756.5	.43690	1.0000	00000	0	0	0
SURGEJUN	SNGLJUN	COMPONENT									
312-000000	-400-010000	-311-020000	-1.04406E-03	-1.04406E-03	-4.82593E-02	6.31180E-02	1.0000	10001	0	0	0
HTLEGB2	BRANCH	COMPONENT									
313-010000	311-020000	313-010000	14.866	14.866	4756.4	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
321-010000	321-010000	322-010000	5.9738	5.9738	4756.4	1.0872	1.0000	00000	0	0	0
321-020000	313-010000	321-010000	14.866	14.866	4756.4	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
322-010000	322-010000	322-020000	5.9738	5.9738	4756.4	1.0872	1.0000	00000	0	0	0
322-020000	322-020000	322-030000	5.9738	5.9738	4756.4	1.0872	1.0000	00000	0	0	0
322-030000	322-030000	322-040000	5.9738	5.9738	4756.4	1.0872	1.0000	00000	0	0	0
322-040000	322-040000	322-050000	5.9738	5.9738	4756.4	1.0872	1.0000	00000	0	0	0
322-050000	322-050000	322-060000	5.9739	5.9739	4756.4	1.0872	1.0000	00000	0	0	0
322-060000	322-060000	322-070000	5.9740	5.9740	4756.4	1.0872	1.0000	00000	0	0	0

322-070000	322-070000	322-080000	5.9741	5.9741	4756.4	1.0872	1.0000	00000	0	0	0
322-080000	322-080000	322-090000	5.9742	5.9742	4756.4	1.0872	1.0000	00000	0	0	0
322-090000	322-090000	322-100000	5.9744	5.9744	4756.4	1.0872	1.0000	00000	0	0	0
322-100000	322-100000	322-110000	5.9745	5.9745	4756.4	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
323-000000	322-110000	324-010000	5.9747	5.9747	4756.4	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
324-010000	324-010000	324-020000	5.9748	5.9748	4756.4	1.0872	1.0000	00000	0	0	0
324-020000	324-020000	324-030000	5.9749	5.9749	4756.4	1.0872	1.0000	00000	0	0	0
324-030000	324-030000	324-040000	5.9750	5.9750	4756.4	1.0872	1.0000	00000	0	0	0
324-040000	324-040000	324-050000	5.9751	5.9751	4756.4	1.0872	1.0000	00000	0	0	0
324-050000	324-050000	324-060000	5.9751	5.9751	4756.4	1.0872	1.0000	00000	0	0	0
324-060000	324-060000	324-070000	5.9752	5.9752	4756.4	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
325-010000	324-070000	325-010000	5.9714	5.9714	4756.4	1.0879	1.0000	00000	0	0	0
325-020000	325-010000	331-010000	13.034	13.034	4756.4	.49840	1.0000	00000	0	0	0
SEALB	PIPE	COMPONENT									
331-010000	331-010000	331-020000	13.340	13.340	4756.4	.48700	1.0000	00000	0	0	0
331-020000	331-020000	331-030000	13.340	13.340	4756.4	.48700	1.0000	00000	0	0	0
331-030000	331-030000	331-040000	13.340	13.340	4756.4	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
340-010000	331-040000	340-010000	13.340	13.340	4756.4	.48700	1.0000	00000	0	0	0
340-020000	340-010000	351-010000	16.955	16.955	4756.4	.38300	1.0000	00000	0	0	0
COLDR2	BRANCH	COMPONENT									
352-010000	351-010000	352-010000	16.950	16.950	4756.4	.38300	1.0000	00000	0	0	0
352-020000	352-010000	353-010000	16.950	16.950	4756.4	.38300	1.0000	00000	0	0	0
COLDR3	PIPE	COMPONENT									
353-010000	353-010000	353-020000	16.950	16.950	4756.4	.38300	1.0000	00000	0	0	0
SURGE	PIPE	COMPONENT									
400-010000	400-010000	400-020000	1.10063E-03	2.75500E-03	4.21361E-02	6.31180E-02	1.0000	00000	0	0	0
400-020000	400-020000	400-030000	9.96883E-04	2.11600E-02	3.75145E-02	6.34253E-02	1.0000	00000	0	0	0
400-030000	400-030000	400-040000	8.88469E-04	3.02552E-02	3.34173E-02	6.34253E-02	1.0000	00000	0	0	0
SURGE1	SNGLJUN	COMPONENT									
405-000000	400-040000	410-010000	7.81301E-04	3.25561E-02	2.93954E-02	6.34253E-02	1.0000	00100	0	0	0
PRESSU	PIPE	COMPONENT									
410-010000	410-010000	410-020000	2.23109E-05	8.49473E-03	2.82674E-02	2.1329	1.0000	00000	0	0	0
410-020000	410-020000	410-030000	2.04766E-05	2.61286E-03	2.59427E-02	2.1329	1.0000	00000	0	0	0
410-030000	410-030000	410-040000	1.06314E-05	2.64076E-02	2.23228E-02	3.5350	1.0000	00000	0	0	0
410-040000	410-040000	410-050000	-6.14797E-05	.96167	1.50096E-02	3.5350	1.0000	00000	0	0	0
410-050000	410-050000	410-060000	-2.1204	1.91653E-04	1.60787E-02	3.5350	1.0000	00000	0	0	0
410-060000	410-060000	410-070000	-.10106	6.70041E-05	1.31978E-02	3.5350	1.0000	00000	0	0	0
410-070000	410-070000	410-080000	-.11313	2.27441E-05	1.05901E-03	3.5350	1.0000	00000	0	0	0
410-080000	410-080000	410-090000	-.12733	1.89248E-05	1.23591E-03	2.1329	1.0000	00000	0	0	0
TOP	BRANCH	COMPONENT									
420-010000	410-090000	420-010000	-8.28859E-02	1.10952E-05	1.22217E-03	2.1329	1.0000	00000	0	0	0
SPRAYR	BRANCH	COMPONENT									
430-010000	151-010000	430-010000	-3.73793E-07	-3.73870E-07	-1.64042E-06	5.98900E-03	1.0000	00000	0	0	0
SPRAYR	VALVE	COMPONENT									
435-000000	430-010000	450-010000	0.	0.	0.	5.98900E-03	0.	00100	0	0	0
SPRAYB	BRANCH	COMPONENT									
440-010000	351-010000	440-010000	-3.75714E-07	-3.75790E-07	-1.64884E-06	5.98900E-03	1.0000	00000	0	0	0
SPRAYB	VALVE	COMPONENT									
445-000000	440-010000	450-010000	0.	0.	0.	5.98900E-03	0.	00100	0	0	0
SPRAYB	BRANCH	COMPONENT									
450-010000	450-010000	-420-010000	-1.3835	2.15460E-02	4.98976E-12	5.98900E-03	1.0000	00000	0	0	0
PRESVAL	VALVE	COMPONENT									
489-000000	420-010000	490-010000	-1.03332E-04	5.65947E-06	1.23243E-03	2.1340	4.68604E-02	00100	0	0	0

SYSTEM 2

JUN.NO.	VOIDFJ	VOIDGJ	FROM	TO	FIJ (N-S2/M5)	FWALFJ	FWALGJ	FJUNF	FJUNR	FORMFJ	FORMGJ
11-010000	1.0000	0.	BBY	BBY	20.182	2.71	0.	0.	0.	0.	0.
11-020000	1.0000	0.	BBY	BBY	2.69415E-02	1.933E-07	0.	2.30	2.30	0.	0.
13-010000	1.0000	0.	BBY	BBY	14.926	1.747E-02	0.	.429	.429	0.	0.
13-020000	1.0000	0.	BBY	BBY	14.926	1.748E-02	0.	.429	.429	0.	0.
13-030000	1.0000	0.	BBY	BBY	14.926	1.748E-02	0.	.429	.429	0.	0.
13-040000	1.0000	0.	BBY	BBY	22.008	3.487E-02	0.	.160	.160	0.	0.
15-010000	1.0000	0.	BBY	BBY	22.470	4.002E-02	0.	0.	0.	0.	0.
15-020000	1.0000	0.	BBY	BBY	22.480	4.002E-02	0.	0.	0.	0.	0.
23-010000	1.0000	0.	BBY	BBY	16.473	2.076E-02	0.	1.43	.500	0.	0.
23-020000	1.0000	0.	BBY	BBY	17.077	3.427E-03	0.	5.27	5.27	0.	0.
25-010000	1.0000	0.	BBY	BBY	22.414	.651	0.	2.46	2.46	0.	0
25-020000	1.0000	0.	BBY	BBY	2.4027	4.351E-04	0.	7.45	7.45	0.	0.
31-010000	1.0000	0.	BBY	BBY	22.382	1.30	0.	2.47	2.47	0.	0.
31-020000	1.0000	0.	BBY	BBY	22.349	1.30	0.	2.40	2.40	0.	0.
31-030000	1.0000	0.	BBY	BBY	22.316	1.30	0.	2.31	2.31	0.	0.
31-040000	1.0000	0.	BBY	BBY	22.283	1.30	0.	2.23	2.23	0.	0.
39-010000	1.0000	0.	BBY	BBY	22.260	.651	0.	.720	.720	0.	0.
39-020000	1.0000	0.	BBY	BBY	2.3934	4.351E-04	0.	6.45	6.45	0.	0.
41-010000	1.0000	0.	BBY	BBY	16.718	1.905E-03	0.	2.04	2.04	0.	0.
41-020000	1.0000	0.	BBY	BBY	22.232	3.898E-03	0.	0.	0.	0.	0.
43-010000	1.0000	0.	BBY	BBY	12.960	1.920E-02	0.	.380	.380	0.	0.
43-020000	1.0000	0.	BBY	BBY	12.960	1.920E-02	0.	.380	.380	0.	0.
43-030000	1.0000	0.	BBY	BBY	12.960	1.920E-02	0.	.380	.380	0.	0.
45-010000	1.0000	0.	BBY	BBY	22.009	.886	0.	2.60	2.60	0.	0.
111-010000	1.0000	0.	BBY	BBY	22.141	3.836E-02	0.	0.	0.	0.	0.
113-010000	1.0000	0.	BBY	BBY	22.137	3.836E-02	0.	0.	0.	0.	0.
121-010000	1.0000	0.	BBY	BBY	12.272	.377	0.	.226	.580	0.	0.
121-020000	1.0000	0.	BBY	BBY	14.196	1.926E-02	0.	.325	.255	0.	0.
122-010000	1.0000	0.	BBY	BBY	22.139	.740	0.	0.	0.	0.	0.
122-020000	1.0000	0.	BBY	BBY	22.126	.728	0.	0.	0.	0.	0.
122-030000	1.0000	0.	BBY	BBY	22.111	.824	0.	0.	0.	0.	0.
122-040000	1.0000	0.	BBY	BBY	22.098	.849	0.	0.	0.	0.	0.
122-050000	1.0000	0.	BBY	BBY	22.083	.778	0.	0.	0.	0.	0.
122-060000	1.0000	0.	BBY	BBY	22.069	.778	0.	0.	0.	0.	0.
122-070000	1.0000	0.	BBY	BBY	22.056	.778	0.	0.	0.	0.	0.
122-080000	1.0000	0.	BBY	BBY	22.042	.778	0.	0.	0.	0.	0.
122-090000	1.0000	0.	BBY	BBY	22.028	.778	0.	0.	0.	0.	0.
122-100000	1.0000	0.	BBY	BBY	22.014	.808	0.	0.	0	0.	0.
123-000000	1.0000	0.	BBY	BBY	22.003	.837	0.	0.	0	0.	0.
124-010000	1.0000	0.	BBY	BBY	21.995	1.20	0.	0.	0.	0.	0.
124-020000	1.0000	0.	BBY	BBY	21.991	1.56	0.	0.	0.	0.	0.
124-030000	1.0000	0.	BBY	BBY	21.986	1.56	0.	0.	0.	0.	0.
124-040000	1.0000	0.	BBY	BBY	21.982	1.24	0.	0.	0.	0.	0.
124-050000	1.0000	0.	BBY	BBY	21.977	.915	0.	0.	0.	0.	0.
124-060000	1.0000	0.	BBY	BBY	21.974	1.10	0.	0.	0.	0.	0.
125-010000	1.0000	0.	BBY	BBY	14.082	.650	0.	.580	.226	0.	0.
125-020000	1.0000	0.	BBY	BBY	12.760	1.316E-02	0.	.255	.325	0.	0.
131-010000	1.0000	0.	BBY	BBY	21.681	2.551E-02	0.	0.	0.	0.	0.
131-020000	1.0000	0.	BBY	BBY	21.938	3.326E-02	0.	0.	0.	0.	0.
131-030000	1.0000	0.	BBY	BBY	21.937	3.096E-02	0.	0.	0.	0.	0.
140-010000	1.0000	0.	BBY	CTB	13.799	1.074E-02	0.	.195	.195	0.	0.
140-020000	1.0000	0.	CTB	BBY	14.630	1.598E-02	0.	.270	.270	0.	0.
152-010000	1.0000	0.	BBY	BBY	22.419	3.198E-02	0.	0.	0.	0.	0.

152-020000	1.0000	0.	BBY	BBY	22.417	3.196E-02	0.	0.	0.	0.	0.
153-010000	1.0000	0.	BBY	BBY	21.107	2.842E-02	0.	0.	0.	0.	0.
181-000000	1.0000	0.	BBY	BBY	.20428	1.058E-03	0.	0.	0.	0.	0.
211-010000	1.0000	0.	BBY	BBY	22.141	3.836E-02	0.	0.	0.	0.	0.
213-010000	1.0000	0.	BBY	BBY	22.137	3.836E-02	0.	0.	0.	0.	0.
221-010000	1.0000	0.	BBY	BBY	12.272	.377	0.	.226	.580	0.	0.
221-020000	1.0000	0.	BBY	BBY	14.196	1.926E-02	0.	.325	.255	0.	0.
222-010000	1.0000	0.	BBY	BBY	22.139	.740	0.	0.	0.	0.	0.
222-020000	1.0000	0.	BBY	BBY	22.126	.727	0.	0.	0.	0.	0.
222-030000	1.0000	0.	BBY	BBY	22.111	.823	0.	0.	0.	0.	0.
222-040000	1.0000	0.	BBY	BBY	22.098	.849	0.	0.	0.	0.	0.
222-050000	1.0000	0.	BBY	BBY	22.083	.778	0.	0.	0.	0.	0.
222-060000	1.0000	0.	BBY	BBY	22.069	.778	0.	0.	0.	0.	0.
222-070000	1.0000	0.	BBY	BBY	22.055	.778	0.	0.	0.	0.	0.
222-080000	1.0000	0.	BBY	BBY	22.042	.778	0.	0.	0.	0.	0.
222-090000	1.0000	0.	BBY	BBY	22.028	.778	0.	0.	0.	0.	0.
222-100000	1.0000	0.	BBY	BBY	22.014	.808	0.	0.	0.	0.	0.
223-000000	1.0000	0.	BBY	BBY	22.003	.837	0.	0.	0.	0.	0.
224-010000	1.0000	0.	BBY	BBY	21.995	1.20	0.	0.	0.	0.	0.
224-020000	1.0000	0.	BBY	BBY	21.991	1.56	0.	0.	0.	0.	0.
224-030000	1.0000	0.	BBY	BBY	21.985	1.56	0.	0.	0.	0.	0.
224-040000	1.0000	0.	BBY	BBY	21.981	1.24	0.	0.	0.	0.	0.
224-050000	1.0000	0.	BBY	BBY	21.977	.914	0.	0.	0.	0.	0.
224-060000	1.0000	0.	BBY	BBY	21.973	1.10	0.	0.	0.	0.	0.
225-010000	1.0000	0.	BBY	BBY	14.082	.650	0.	.580	.226	0.	0.
225-020000	1.0000	0.	BBY	BBY	12.760	1.316E-02	0.	.255	.325	0.	0.
231-010000	1.0000	0.	BBY	BBY	21.680	2.551E-02	0.	0.	0.	0.	0.
231-020000	1.0000	0.	BBY	BBY	21.937	3.326E-02	0.	0.	0.	0.	0.
232-010000	1.0000	0.	BBY	BBY	21.937	3.098E-02	0.	0.	0.	0.	0.
240-010000	1.0000	0.	BBY	CTB	13.799	1.074E-02	0.	.195	.195	0.	0.
240-020000	1.0000	0.	CTB	BBY	14.630	1.598E-02	0.	.270	.270	0.	0.
251-010000	1.0000	0.	BBY	BBY	22.419	3.196E-02	0.	0.	0.	0.	0.
253-010000	1.0000	0.	BBY	BBY	22.416	3.196E-02	0.	0.	0.	0.	0.
253-020000	1.0000	0.	BBY	BBY	21.106	2.842E-02	0.	0.	0.	0.	0.
283-000000	1.0000	0.	BBY	BBY	21.939	15.6	0.	0.	0.	0.	0.
311-010000	1.0000	0.	BBY	BBY	22.141	3.836E-02	0.	0.	0.	0.	0.
312-000000	1.0000	0.	BBY	BBY	21.084	.304	0.	0.	0.	0.	0.
313-010000	1.0000	0.	BBY	BBY	22.137	3.837E-02	0.	0.	0.	0.	0.
321-010000	1.0000	0.	BBY	BBY	12.272	.377	0.	.226	.580	0.	0.
321-020000	1.0000	0.	BBY	BBY	14.196	1.927E-02	0.	.325	.255	0.	0.
322-010000	1.0000	0.	BBY	BBY	22.139	.740	0.	0.	0.	0.	0.
322-020000	1.0000	0.	BBY	BBY	22.126	.728	0.	0.	0.	0.	0.
322-030000	1.0000	0.	BBY	BBY	22.111	.824	0.	0.	0.	0.	0.
322-040000	1.0000	0.	BBY	BBY	22.098	.849	0.	0.	0.	0.	0.
322-050000	1.0000	0.	BBY	BBY	22.083	.778	0.	0.	0.	0.	0.
322-060000	1.0000	0.	BBY	BBY	22.069	.778	0.	0.	0.	0.	0.
322-070000	1.0000	0.	BBY	BBY	22.056	.778	0.	0.	0.	0.	0.
322-080000	1.0000	0.	BBY	BBY	22.042	.778	0.	0.	0.	0.	0.
322-090000	1.0000	0.	BBY	BBY	22.028	.778	0.	0.	0.	0.	0.
322-100000	1.0000	0.	BBY	BBY	22.014	.808	0.	0.	0.	0.	0.
323-000000	1.0000	0.	BBY	BBY	22.003	.837	0.	0.	0.	0.	0.
324-010000	1.0000	0.	BBY	BBY	21.995	1.20	0.	0.	0.	0.	0.
324-020000	1.0000	0.	BBY	BBY	21.991	1.56	0.	0.	0.	0.	0.
324-030000	1.0000	0.	BBY	BBY	21.986	1.56	0.	0.	0.	0.	0.
324-040000	1.0000	0.	BBY	BBY	21.981	1.24	0.	0.	0.	0.	0.
324-050000	1.0000	0.	BBY	BBY	21.977	.915	0.	0.	0.	0.	0.
324-0600[illegible]	[illegible].0000	0.	BBY	BBY	21.97[illegible]	1.10	0.	0.	0.	0.	0.

325-010000	1.0000	0.	BBY	BBY	14.082	.650	0.	.580	.225	0.	0.
325-020000	1.0000	0.	BBY	BBY	12.760	1.316E-02	0.	.255	.325	0.	0.
331-010000	1.0000	0.	BBY	BBY	21.681	2.551E-02	0.	0.	0.	0.	0.
331-020000	1.0000	0.	BBY	BBY	21.938	3.326E-02	0.	0.	0.	0.	0.
331-030000	1.0000	0.	BBY	BBY	21.937	3.096E-02	0.	0.	0.	0.	0.
340-010000	1.0000	0.	BBY	CTB	13.799	1.074E-02	0.	.195	.195	0.	0.
340-020000	1.0000	0.	CTB	BBY	14.630	1.598E-02	0.	.270	.270	0.	0.
352-010000	1.0000	0.	BBY	BBY	22.419	3.196E-02	0.	0.	0.	0.	0.
352-020000	1.0000	0.	BBY	BBY	22.416	3.196E-02	0.	0.	0.	0.	0.
353-010000	1.0000	0.	BBY	BBY	21.106	2.842E-02	0.	0.	0.	0.	0.
400-010000	1.0000	0.	BBY	BBY	17.336	.585	4.34	0.	0.	0.	0.
400-020000	1.0000	5.05324E-07	BBY	BBY	21.608	.630	.793	0.	0.	0.	0.
100-030000	.99998	1.97535E-05	BBY	BBY	32.480	.687	.589	0.	0.	0.	0.
105-000000	.99996	3.81529E-05	BBY	BBY	24.084	.387	.294	0.	0.	.941	.941
110-010000	1.0000	1.35498E-06	BBY	BBY	17.163	6.653E-02	4.454E-03	0.	0.	0.	0.
110-020000	1.0000	1.59476E-07	BBY	BBY	13.392	5.868E-02	2.798E-02	0.	0.	0.	0.
410-030000	1.0000	0.	BBY	BBY	632.15	6.756E-02	6.357E-04	0.	0.	0.	0.
410-040000	.38566	1.86344E-04	BBY	SLG	1250.7	.381	1.206E-07	0.	0.	0.	0.
410-050000	5.95340E-06	.61434	SLG	ANM	166.09	3.372E-05	2.961E-04	0.	0.	0.	0.
410-060000	5.19356E-05	.99999	ANM	ANM	12.375	7.895E-04	8.562E-07	0.	0.	0.	0.
410-070000	3.00620E-05	.99995	ANM	ANM	16.489	3.332E-04	1.914E-06	0.	0.	0.	0.
410-080000	1.78748E-05	.99997	ANM	ANM	9.5600	6.810E-05	2.966E-07	0.	0.	0.	0.
420-010000	1.13598E-05	.99998	ANM	ANM	9.4732	1.407E-04	4.064E-07	0.	0.	0.	0.
430-010000	1.0000	0.	BBY	BBY	18.728	2.045E+04	0.	0.	0.	0.	0.
435-000000	1.0000	1.84474E-10	BBY	BBY	22.307	4.458E+06	7.975E+05	0.	0.	0.	0.
440-010000	1.0000	0.	BBY	BBY	18.728	2.037E+04	0.	0.	0.	0.	0.
445-000000	1.0000	1.84475E-10	BBY	BBY	22.306	4.458E+06	7.975E+05	0.	0.	0.	0.
450-010000	0.	3.77561E-10	BBY	ANM	85.824	.329	2.389E-08	1.00	1.00	0.	0.
489-000000	0.	.99999	ANM	MST	8.1157	5.464E-02	2.894E-07	0.	0.	1.058E+03	1.170E+03

STR.NO.	SIDE	BDRY.VOL. NUMBER	SURFACE TEMP. (K)	HEAT TRF. RATE (WATT)	HEAT FLUX (WATT/M2)	CRITICAL HEAT FLUX (WATT/M2)	MODE	HEAT TRF. COEF. (WATT/M2-K)	INT. HEAT SOURCE (WATT)	NET HEAT LOSS (WATT)	VOL.AVE. TEMP. (K)
1211-001	LEFT	121-010000	570.49	-153.29	-16.509	0.	2	5986.2	0.	-153.29	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
1220-001	LEFT	122-010000	570.43	-3.64877E+05	-1497.0	0.	2	37789.	0.	-75.735	570.39
	RIGHT	0-000000	570.35	3.64801E+05	1325.4	0.	0	0.			
1220-002	LEFT	122-020000	570.42	-3.06772E+05	-1301.4	0.	2	37790.	0.	-66.802	570.38
	RIGHT	0-000000	570.35	3.06706E+05	1152.3	0.	0	0.			
1220-003	LEFT	122-030000	570.41	-2.65585E+05	-1126.7	0.	2	37791.	0.	-60.776	570.38
	RIGHT	0-000000	570.35	2.65524E+05	997.55	0.	0	0.			
1220-004	LEFT	122-040000	570.40	-2.80703E+05	-942.21	0.	2	37793.	0.	-68.069	570.37
	RIGHT	0-000000	570.35	2.80635E+05	834.18	0.	0	0.			
1220-005	LEFT	122-050000	570.39	-1.98708E+05	-788.17	0.	2	37794.	0.	-51.841	570.37
	RIGHT	0-000000	570.35	1.98657E+05	697.79	0.	0	0.			
1220-006	LEFT	122-060000	570.39	-1.65722E+05	-657.33	0.	2	37796.	0.	-46.546	570.37
	RIGHT	0-000000	570.35	1.65676E+05	581.94	0.	0	0.			
1220-007	LEFT	122-070000	570.38	-1.36253E+05	-540.44	0.	2	37798.	0.	-41.692	570.36
	RIGHT	0-000000	570.35	1.36211E+05	478.45	0.	0	0.			
1220-008	LEFT	122-080000	570.37	-1.09924E+05	-436.01	0.	2	37799.	0.	-37.256	570.36
	RIGHT	0-000000	570.35	1.09886E+05	385.98	0.	0	0.			
1220-009	LEFT	122-090000	570.37	-86400.	-342.70	0.	2	37801.	0.	-33.211	570.36
	RIGHT	0-000000	570.35	86366.	303.37	0.	0	0.			
1220-010	LEFT	122-100000	570.36	-65381.	-259.33	0.	2	37803.	0.	-29.533	570.36
	RIGHT	0-000000	570.35	65351.	229.55	0.	0	0.			
1220-011	LEFT	122-110000	570.36	-51134.	-188.56	0.	2	37805.	0.	-27.934	570.35

	RIGHT	0-000000	570.35	51106.	166.89	0.	0	0.				
1231-001	LEFT	121-010000	570.47	-138.57	-119.46	0.	2	5986.2	0.	-12.431	570.43
	RIGHT	125-010000	570.38	126.14	108.74	0.	2	5989.9			
1240-001	LEFT	124-010000	570.36	-40584.	-149.65	0.	2	37806.	0.	-24.496	570.35
	RIGHT	0-000000	570.35	40559.	132.45	0.	0	0.			
1240-002	LEFT	124-020000	570.36	-73984.	-146.73	0.	2	37807.	0.	-35.783	570.35
	RIGHT	0-000000	570.35	73949.	129.87	0.	0	0.			
1240-003	LEFT	124-030000	570.36	-72648.	-144.08	0.	2	37808.	0.	-27.969	570.35
	RIGHT	0-000000	570.35	72620.	127.54	0.	0	0.			
1240-004	LEFT	124-040000	570.36	-71580.	-141.96	0.	2	37808.	0.	-21.761	570.35
	RIGHT	0-000000	570.35	71558.	125.68	0.	0	0.			
1240-005	LEFT	124-050000	570.36	-43103.	-134.07	0.	2	37809.	0.	-11.798	570.35
	RIGHT	0-000000	570.35	43091.	118.70	0.	0	0.			
1240-006	LEFT	124-060000	570.36	-39453.	-133.87	0.	2	37810.	0.	-9.2609	570.35
	RIGHT	0-000000	570.35	39443.	118.53	0.	0	0.			
1240-007	LEFT	124-070000	570.36	-40360.	-136.95	0.	2	37810.	0.	-7.4873	570.35
	RIGHT	0-000000	570.35	40352.	121.26	0.	0	0.			
1240-008	LEFT	124-070000	570.36	-17228.	-136.95	0.	2	37810.	0.	-3.1961	570.35
	RIGHT	0-000000	570.35	17225.	121.26	0.	0	0.			
1251-001	LEFT	125-010000	570.36	-14.421	-1.5531	0.	2	5989.9	0.	-14.421	570.37
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
2211-001	LEFT	221-010000	570.49	-152.79	-16.455	0.	2	5990.2	0.	-152.79	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
2220-001	LEFT	222-010000	570.43	-3.64848E+05	-1496.9	0.	2	37814.	0.	-75.752	570.39
	RIGHT	0-000000	570.35	3.64772E+05	1325.3	0.	0	0.			
2220-002	LEFT	222-020000	570.42	-3.06758E+05	-1301.4	0.	2	37815.	0.	-66.822	570.38
	RIGHT	0-000000	570.35	3.06691E+05	1152.2	0.	0	0.			
2220-003	LEFT	222-030000	570.41	-2.65580E+05	-1126.7	0.	2	37816.	0.	-60.800	570.38
	RIGHT	0-000000	570.35	2.65519E+05	997.53	0.	0	0.			
2220-004	LEFT	222-040000	570.40	-2.80710E+05	-942.23	0.	2	37818.	0.	-68.102	570.37
	RIGHT	0-000000	570.35	2.80642E+05	834.20	0.	0	0.			
2220-005	LEFT	222-050000	570.39	-1.98716E+05	-788.20	0.	2	37819.	0.	-51.871	570.37
	RIGHT	0-000000	570.35	1.98664E+05	697.82	0.	0	0.			
2220-006	LEFT	222-060000	570.39	-1.65731E+05	-657.36	0.	2	37821.	0.	-46.577	570.37
	RIGHT	0-000000	570.35	1.65685E+05	581.97	0.	0	0.			
2220-007	LEFT	222-070000	570.38	-1.36261E+05	-540.47	0.	2	37823.	0.	-41.725	570.36
	RIGHT	0-000000	570.35	1.36219E+05	478.47	0.	0	0.			
2220-008	LEFT	222-080000	570.37	-1.09929E+05	-436.03	0.	2	37824.	0.	-37.289	570.36
	RIGHT	0-000000	570.35	1.09892E+05	386.00	0.	0	0.			
2220-009	LEFT	222-090000	570.37	-86401.	-342.71	0.	2	37826.	0.	-33.244	570.36
	RIGHT	0-000000	570.35	86368.	303.37	0.	0	0.			
2220-010	LEFT	222-100000	570.36	-65378.	-259.32	0.	2	37828.	0.	-29.566	570.36
	RIGHT	0-000000	570.35	65348.	229.54	0.	0	0.			
2220-011	LEFT	222-110000	570.36	-51125.	-188.52	0.	2	37830.	0.	-27.969	570.35
	RIGHT	0-000000	570.35	51097.	166.86	0.	0	0.			
2231-001	LEFT	221-010000	570.47	-138.54	-119.43	0.	2	5990.2	0.	-12.388	570.43
	RIGHT	225-010000	570.38	126.15	108.75	0.	2	5993.9			
2240-001	LEFT	224-010000	570.36	-40571.	-149.60	0.	2	37831.	0.	-24.530	570.35
	RIGHT	0-000000	570.35	40546.	132.40	0.	0	0.			
2240-002	LEFT	224-020000	570.36	-73968.	-146.70	0.	2	37832.	0.	-35.842	570.35
	RIGHT	0-000000	570.35	73932.	129.84	0.	0	0.			
2240-003	LEFT	224-030000	570.36	-72623.	-144.03	0.	2	37833.	0.	-28.021	570.35
	RIGHT	0-000000	570.35	72595.	127.50	0.	0	0.			
2240-004	LEFT	224-040000	570.36	-71548.	-141.90	0.	2	37834.	0.	-21.807	570.35
	RIGHT	0-000000	570.35	71527.	125.62	0.	0	0.			
2240-005	LEFT	224-050000	570.36	-43072.	-133.97	0.	2	37834.	0.	-11.825	570.35
	RIGHT	0-000000	570.35	43060.	118.61	0.	0	0.			

2240-006	LEFT	224-060000	570.36	-39423.	-133.77	0.	2	37835.	0.	-9.2836	570.35
	RIGHT	0-000000	570.35	39414.	118.44	0.	0	0.			
2240-007	LEFT	224-070000	570.36	-40334.	-136.86	0.	2	37836.	0.	-7.5070	570.35
	RIGHT	0-000000	570.35	40326.	121.18	0.	0	0.			
2240-008	LEFT	224-070000	570.36	-17217.	-136.86	0.	2	37836.	0.	-3.2045	570.35
	RIGHT	0-000000	570.35	17214.	121.18	0.	0	0.			
2251-001	LEFT	225-010000	570.36	-14.479	-1.5593	0.	2	5993.9	0.	-14.479	570.37
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
3211-001	LEFT	321-010000	570.49	-115.00	-12.385	0.	2	5986.5	0.	-115.00	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
3220-001	LEFT	322-010000	570.43	-3.64878E+05	-1497.0	0.	2	37791.	0.	-75.717	570.39
	RIGHT	0-000000	570.35	3.64803E+05	1325.4	0.	0	0.			
3220-002	LEFT	322-020000	570.42	-3.06775E+05	-1301.5	0.	2	37792.	0.	-66.787	570.38
	RIGHT	0-000000	570.35	3.06708E+05	1152.3	0.	0	0.			
3220-003	LEFT	322-030000	570.41	-2.65588E+05	-1126.7	0.	2	37793.	0.	-60.766	570.38
	RIGHT	0-000000	570.35	2.65527E+05	997.56	0.	0	0.			
3220-004	LEFT	322-040000	570.40	-2.80708E+05	-942.22	0.	2	37795.	0.	-68.060	570.37
	RIGHT	0-000000	570.35	2.80639E+05	834.19	0.	0	0.			
3220-005	LEFT	322-050000	570.39	-1.98712E+05	-788.18	0.	2	37796.	0.	-51.836	570.37
	RIGHT	0-000000	570.35	1.98660E+05	697.80	0.	0	0.			
3220-006	LEFT	322-060000	570.39	-1.65726E+05	-657.34	0.	2	37798.	0.	-46.544	570.37
	RIGHT	0-000000	570.35	1.65679E+05	581.96	0.	0	0.			
3220-007	LEFT	322-070000	570.38	-1.36256E+05	-540.45	0.	2	37800.	0.	-41.692	570.36
	RIGHT	0-000000	570.35	1.36214E+05	478.46	0.	0	0.			
3220-008	LEFT	322-080000	570.37	-1.09926E+05	-436.02	0.	2	37801.	0.	-37.258	570.36
	RIGHT	0-000000	570.35	1.09889E+05	385.99	0.	0	0.			
3220-009	LEFT	322-090000	570.37	-86402.	-342.71	0.	2	37803.	0.	-33.215	570.36
	RIGHT	0-000000	570.35	86368.	303.37	0.	0	0.			
3220-010	LEFT	322-100000	570.36	-65382.	-259.34	0.	2	37805.	0.	-29.539	570.36
	RIGHT	0-000000	570.35	65353.	229.55	0.	0	0.			
3220-011	LEFT	322-110000	570.36	-51135.	-188.56	0.	2	37807.	0.	-27.941	570.35
	RIGHT	0-000000	570.35	51107.	166.89	0.	0	0.			
3231-001	LEFT	321-010000	570.47.	-136.10	-117.33	0.	2	5986.5	0.	-8.2951	570.43
	RIGHT	325-010000	570.38	127.81	110.18	0.	2	5990.2			
3240-001	LEFT	324-010000	570.36	-40584.	-149.65	0.	2	37808.	0.	-24.504	570.35
	RIGHT	0-000000	570.35	40560.	132.45	0.	0	0.			
3240-002	LEFT	324-020000	570.36	-73985.	-146.73	0.	2	37809.	0.	-35.804	570.35
	RIGHT	0-000000	570.35	73950.	129.88	0.	0	0.			
3240-003	LEFT	324-030000	570.36	-72648.	-144.08	0.	2	37810.	0.	-27.991	570.35
	RIGHT	0-000000	570.35	72620.	127.54	0.	0	0.			
3240-004	LEFT	324-040000	570.36	-71579.	-141.96	0.	2	37811.	0.	-21.785	570.35
	RIGHT	0-000000	570.35	71557.	125.67	0.	0	0.			
3240-005	LEFT	324-050000	570.36	-43101.	-134.07	0.	2	37811.	0.	-11.814	570.35
	RIGHT	0-000000	570.35	43089.	118.69	0.	0	0.			
3240-006	LEFT	324-060000	570.36	-39451.	-133.87	0.	2	37812.	0.	-9.2752	570.35
	RIGHT	0-000000	570.35	39442.	118.52	0.	0	0.			
3240-007	LEFT	324-070000	570.36	-40358.	-136.95	0.	2	37812.	0.	-7.5021	570.35
	RIGHT	0-000000	570.35	40351.	121.25	0.	0	0.			
3240-008	LEFT	324-070000	570.36	-17228.	-136.95	0.	2	37812.	0.	-3.2024	570.35
	RIGHT	0-000000	570.35	17224.	121.25	0.	0	0.			
3251-001	LEFT	325-010000	570.36	-9.1197	-.98215	0.	2	5990.2	0.	-9.1197	570.37
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
4000-001	LEFT	400-010000	616.60	6766.3	1347.6	0.	2	1075.8	0.	11403.	616.77
	RIGHT	940-010000	616.68	4637.1	736.77	0.	0	2.5100			
4000-002	LEFT	400-020000	617.36	-3871.7	-771.11	0.	2	961.77	0.	766.48	617.04
	RIGHT	940-010000	616.75	4638.2	736.94	0.	0	2.5100			
4000-003	LEFT	400-030000	617.35	-4298.5	-856.11	0.	2	992.33	0.	339.29	617.02

	RIGHT	940-010000	616.72	4637.7	736.87	0.	0	2.5100			
4000-004	LEFT	400-040000	617.32	-4267.8	-850.00	0.	2	989.76	0.	369.57	616.99
	RIGHT	940-010000	616.70	4637.3	736.81	0.	0	2.5100			
4101-001	LEFT	410-010000	617.01	-1260.0	-860.04	0.	2	877.76	0.	-35.114	615.98
	RIGHT	940-010000	615.03	1224.9	732.61	0.	0	2.5100			
4101-002	LEFT	410-020000	617.01	-2491.7	-850.24	0.	2	875.22	0.	-41.534	615.98
	RIGHT	940-010000	615.03	2450.2	732.61	0.	0	2.5100			
4102-001	LEFT	410-030000	617.03	-3862.3	-825.46	0.	2	868.89	0.	-62.293	616.03
	RIGHT	940-010000	615.10	3800.0	732.79	0.	0	2.5100			
4102-002	LEFT	410-040000	617.14	-11994.	-1225.6	0.	11	1461.1	0.	-4046.3	616.05
	RIGHT	940-010000	615.10	7947.4	732.79	0.	0	2.5100			
4102-003	LEFT	410-050000	617.93	-18771.	-936.10	0.	11	9919.8	0.	-2437.9	616.90
	RIGHT	940-010000	615.95	16333.	734.94	0.	0	2.5100			
4102-004	LEFT	410-060000	617.91	-17357.	-865.55	0.	11	9936.7	0.	-1023.4	616.89
	RIGHT	940-010000	615.95	16333.	734.93	0.	0	2.5100			
4102-005	LEFT	410-070000	617.90	-16830.	-839.28	0.	11	10043.	0.	-496.66	616.89
	RIGHT	940-010000	615.95	16333.	734.93	0.	0	2.5100			
4102-006	LEFT	410-080000	617.92	-3845.2	-821.81	0.	11	16432.	0.	-33.728	616.92
	RIGHT	940-010000	615.98	3811.5	735.01	0.	0	2.5100			
4103-001	LEFT	410-090000	617.93	-1643.5	-832.98	0.	11	20054.	0.	-6.0773	616.99
	RIGHT	940-010000	616.12	1637.4	735.36	0.	0	2.5100			
4103-002	LEFT	420-010000	617.93	-1146.2	-828.36	0.	11	22615.	0.	2.1638	617.00
	RIGHT	940-010000	616.13	1148.4	735.38	0.	0	2.5100			
4113-001	LEFT	0-000000	619.97	0.	0.	0.	0	0.	66943.	-1.6526	619.10
	RIGHT	410-040000	618.60	66941.	6225.6	2.79940E+06	3	11843.			
4113-002	LEFT	0-000000	620.26	0.	0.	0.	0	0.	22314.	-19.746	619.39
	RIGHT	410-050000	618.89	22295.	6224.3	2.80172E+06	4	7247.2			

STR.NO.	MESH POINT TEMPERATURES (K)				
1211-001	570.49	570.49	570.49	570.49	570.49
1220-001	570.43	570.39	570.35		
1220-002	570.42	570.38	570.35		
1220-003	570.41	570.38	570.35		
1220-004	570.40	570.37	570.35		
1220-005	570.39	570.37	570.35		
1220-006	570.39	570.37	570.35		
1220-007	570.38	570.36	570.35		
1220-008	570.37	570.36	570.35		
1220-009	570.37	570.36	570.35		
1220-010	570.36	570.36	570.35		
1220-011	570.36	570.35	570.35		
1231-001	570.47	570.44	570.41	570.38	
1240-001	570.36	570.35	570.35		
1240-002	570.36	570.35	570.35		
1240-003	570.36	570.35	570.35		
1240-004	570.36	570.35	570.35		
1240-005	570.36	570.35	570.35		
1240-006	570.36	570.35	570.35		
1240-007	570.36	570.35	570.35		
1240-008	570.36	570.35	570.35		
1251-001	570.36	570.37	570.37	570.37	570.37
2211-001	570.49	570.49	570.49	570.49	570.49
2220-001	570.43	570.39	570.35		
2220-002	570.42	570.38	570.35		
2220-003	570.41	570.38	570.35		
2220-004	570.40	570.37	570.35		
2220-005	570.39	570.37	570.35		

2220-006	570.39	570.37	570.35		
2220-007	570.38	570.36	570.35		
2220-008	570.37	570.36	570.35		
2220-009	570.37	570.36	570.35		
2220-010	570.36	570.36	570.35		
2220-011	570.36	570.35	570.35		
2231-001	570.47	570.44	570.41	570.38	
2240-001	570.36	570.35	570.35		
2240-002	570.36	570.35	570.35		
2240-003	570.36	570.35	570.35		
2240-004	570.36	570.35	570.35		
2240-005	570.36	570.35	570.35		
2240-006	570.36	570.35	570.35		
2240-007	570.36	570.35	570.35		
2240-008	570.36	570.35	570.35		
2251-001	570.36	570.37	570.37	570.37	570.37
3211-001	570.49	570.49	570.49	570.49	570.49
3220-001	570.43	570.39	570.35		
3220-002	570.42	570.38	570.35		
3220-003	570.41	570.38	570.35		
3220-004	570.40	570.37	570.35		
3220-005	570.39	570.37	570.35		
3220-006	570.39	570.37	570.35		
3220-007	570.38	570.36	570.35		
3220-008	570.37	570.36	570.35		
3220-009	570.37	570.36	570.35		
3220-010	570.36	570.36	570.35		
3220-011	570.36	570.35	570.35		
3231-001	570.47	570.44	570.41	570.38	
3240-001	570.36	570.35	570.35		
3240-002	570.36	570.35	570.35		
3240-003	570.36	570.35	570.35		
3240-004	570.36	570.35	570.35		
3240-005	570.36	570.35	570.35		
3240-006	570.36	570.35	570.35		
3240-007	570.36	570.35	570.35		
3240-008	570.36	570.35	570.35		
3251-001	570.36	570.37	570.37	570.37	570.37
4000-001	616.60	616.83	616.83	616.68	
4000-002	617.36	617.15	616.95	616.75	
4000-003	617.35	617.13	616.92	616.72	
4000-004	617.32	617.11	616.90	616.70	
4101-001	617.01	616.32	615.66	615.03	
4101-002	617.01	616.32	615.66	615.03	
4102-001	617.03	616.36	615.72	615.10	
4102-002	617.14	616.37	615.72	615.10	
4102-003	617.93	617.22	616.58	615.95	
4102-004	617.91	617.22	616.57	615.95	
4102-005	617.90	617.22	616.57	615.95	
4102-006	617.92	617.25	616.60	615.98	
4103-001	617.93	617.30	616.70	616.12	
4103-002	617.93	617.31	616.71	616.13	
4113-001	619.97	619.22	618.60		
4113-002	620.26	619.51	618.89		

CONTROL VARIABLE EDIT

1 P/RHO180 DIV 26378.1 2 ENTHA180 SUM 1.268908E+06

3	CVENERGY	MULT	7.837492E+06	4	P/RHO231	DIV	20917.1
5	ENTHA231	SUM	1.322730E+06	6	LETDENER	MULT	8.169928E+06
7	PRZRHEAT	SUM	10035.3	8	PRZVAPH	SUM	-69121.8
9	BALANCE	SUM	5.762044E+06	10	CALC-P	MULT	1.551013E+07
11	MEAS-P	FUNCTION	1.551000E+07	12	MEAS-L	FUNCTION	26.3000
13	TEMPF420	MULT	617.967	14	TEMPG420	MULT	617.966
15	SAT420	MULT	617.967	16	SPRYTEMP	MULT	570.449
20	P/RHO450	DIV	21223.7	21	ENTHA450	SUM	1.323151E+06
22	SPRENER	MULT	6.602206E-06	23	P/RHO400	DIV	25677.6
24	ENTHA410	SUM	1.608245E+06	25	SURGENER	MULT	-67765.1
26	SPRBALAN	SUM	77800.4	27	HEATERW	SUM	89208.0
28	VAPGEN	SUM	3.005619E-02	31	POW	SUM	0.
32	TURBPOW	SUM	0.	100	TAVG(R)	SUM	570.538
101	LAG1	LAG	570.537	102	S1	SUM	-14.6125
103	LL1	LEAD-LAG	-.580484	104	S2	SUM	1.67227
105	???	SUM	122.716	106	DELTA-T	SUM	-.115152
107	LAG2	LAG	-.115467	108	LL2	LEAD-LAG	-.105882
109	LL3	LEAD-LAG	570.535	110	LAG3	LAG	570.534
111	S4	SUM	0.	112	S5	SUM	-3.314123E-02
113	S6	SUM	41.1826	134	LEVREG	PROP-INT	8.98480
135	LIMIT	MULT	9.50000	136	DELTAF	SUM	1.526485E-03
137	D(AREA)	PROP-INT	3.800168E-06	139	VALVAREA	SUM	.106972
140	AREA**2	MULT	1.144294E-02	141	K(VALV)	DIV	21165.5
142	K(T+DT)	SUM	21574.2	143	DELTA-K	SUM	1.503810E-02
144	K(T)	MULT	21574.2	145	DELTA-P	SUM	-2.98900
146	P(T)	MULT	1.590400E+07	153	KOQO2	MULT	816352.
154	DUM	SUM	857083.	155	A(T)	DIV	1.166748E-06
156	DUM	MULT	131.888	157	DUM	MULT	-38794.9
158	A	SUM	21442.3	159	DUM	MULT	245985.
160	DUM	MULT	1.952298E-02	170	B	SUM	38806.3
171	DUM	MULT	7.102653E-07	172	DUM	MULT	-2.84696
173	DUM	MULT	1.95498	174	C	SUM	-.891980
175	B**2	MULT	1.505929E+09	176	AC4	MULT	-76504.4
177	B2-4AC	SUM	1.506006E+09	178	SQRT	STDFNCTN	38807.3
179	DUM	SUM	.492854	180	DELTA-Q	DIV	2.298514E-05
181	Q(T+DT)	SUM	11.4019	182	DUM	STDFNCTN	.607796
183	QO(T+DT)	MULT	6.93000	184	QTOT	SUM	18.3319
185	P(PUMP)	FUNCTION	2.025560E+07	186	DFDQ	FUNCTION	-40730.7
200	TAVG(G)	SUM	570.538	201	LAG1	LAG	570.538
202	S1	SUM	-14.6125	203	LL1	LEAD-LAG	-.580481
204	S2	SUM	1.67227	205	???	SUM	122.716
206	DELTA-T	SUM	-.115405	207	LAG2	LAG	-.115710
208	LL2	LEAD-LAG	-.106318	209	LL3	LEAD-LAG	570.535
210	LAG3	LAG	570.534	211	S4	SUM	0.
212	S5	SUM	-3.314111E-02	213	S6	SUM	41.1826
281	LET1	SUM	2.302756E+07	282	LET2	MULT	1.685884E+10
283	LET3	STDFNCTN	6.17657	284	LETDOWN	MULT	22.3697
300	TAVG(B)	SUM	570.538	301	LAG1	LAG	570.537
302	S1	SUM	-14.6126	303	LL1	LEAD-LAG	-.580490
304	S2	SUM	1.67227	305	???	SUM	122.716
306	DELTA-T	SUM	-.115126	307	LAG2	LAG	-.115443
308	LL2	LEAD-LAG	-.105277	309	LL3	LEAD-LAG	570.535
310	LAG3	LAG	570.534	311	S4	SUM	0.
312	S5	SUM	-3.314127E-02	313	S6	SUM	41.1826
400	COLLEVEL	SUM	26.6108	402	DPLEVEL	SUM	26.3241
404	PRZMASS	SUM	11268.5	410	T-AUCT-H	STDFNCTN	570.528
411	L-REF	FUNCTION	25.4152	412	DELT-LEV	SUM	.908904

413	DELTA-P	SUM	997.338	414	DP-CORR	PROP-INT	1096.84
415	POW-HE11	TRIPUNIT	0.	416	POW-BKR	TRIPUNIT	0.
417	POWVAR	FUNCTION	152311.	418	TOTPOW	FUNCTION	89257.0
435	SPRAYVAL	FUNCTION	0.	445	SPRAYVAL	FUNCTION	0.
606	POWCOLDL	SUM	43102.5	607	POWPREH	SUM	97040.4
608	POWHOTLG	SUM	1.217937E+06	609	POWUBEND	SUM	1.072316E+06
610	SGPOWER	SUM	2.430577E+06	706	POWCOLDL	SUM	43071.6
707	POWPREH	SUM	96974.3	708	POWHOTLG	SUM	1.217896E+06
709	POWUBEND	SUM	1.072251E+06	710	SGPOWER	SUM	2.430373E+06
806	POWCOLDL	SUM	43100.9	807	POWPREH	SUM	97036.8
808	POWHOTLG	SUM	1.217948E+06	809	POWUBEND	SUM	1.072334E+06
810	SGPOWER	SUM	2.430552E+06	900	MG1	MULT	8.349994E-05
901	MG2	MULT	1.965287E-05	902	MG3	MULT	0.
903	MG4	MULT	9.861724E-02	904	MG5	MULT	665.747
905	MG6	MULT	1082.50	906	MG7	MULT	1082.33
907	MG8	MULT	252.514	908	MG9	MULT	82.7071
909	MG10	MULT	58.0329	911	PRZMASW	SUM	3223.94
912	PRZMASL	SUM	8044.60	920	SURGHEAT	SUM	-5671.63

---RESTART NO. 200 WRITTEN, BLOCK NO. 1---

NUMBER OF ELEMENTS IN SPARSE MATRIX 1: ORIGINAL = 410, FACTORED = 665 ROUNDOFF ERROR = 1.600000E-11 NCOUNT = 201

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ATTEMPTED ADV: TOT.=    300   EDIT=    100   MIN.DT=   1.000000E-01 SEC   LAST DT=   1.000000E-01 SEC   MS.ERR=   -.191180    KG
 REPEATED ADV: TOT.=      0   EDIT=      0   MAX.DT=    .100000     SEC   CRNT.DT=    .119937     SEC   TOT.MS=    196370.    KG
SUCCESSFUL ADV: TOT.=    300   EDIT=    100   AVG.DT=   1.000000E-01 SEC   ERR.EST=   7.247915E-08       M.RATN=  -9.735700E-07
 REQUESTED ADV: TOT.=    150   EDIT=     50   REQ.DT=    .200000     SEC       CPU=    640.404     SEC      TIME=    30.0000    SEC

TRIP NUMBER, TRIP TIME (SEC)
   697  1.0000000E-01     698   20.10000        699  -1.000000
   698  -1.000000
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VOL.NO.	PRESSURE (PA)	VOIDG	TEMPF (K)	TEMPG (K)	SAT. TEMP. (K)	NONCOND. VAPOR QUAL.	BORON DENS. (KG/M3)	UF (J/KG)	UG (J/KG)	VOL. FLAG
SYSTEM 1	MASS= 1.96370E+05 KG		MASS ERROR= -.19118 KG			ERR.EST.= 7.24792E-08				
UPDOWNC	BRANCH	COMPONENT								
11-010000	1.59589E+07	0.	570.56	620.27	620.27	0.	.73285	1.30167E+06	2.43688E+06	00
UPDOWNOZZ	BRANCH	COMPONENT								
13-010000	1.59490E+07	0.	570.61	620.22	620.22	0.	.73274	1.30195E+06	2.43716E+06	00
DOWNCTS	ANNULUS	COMPONENT								
16-010000	1.59576E+07	0.	570.61	620.26	620.26	0.	.73275	1.30195E+06	2.43692E+06	00
15-020000	1.59692E+07	0.	570.62	620.32	620.32	0.	.73276	1.30195E+06	2.43660E+06	00
15-030000	1.59809E+07	0.	570.62	620.38	620.38	0.	.73277	1.30195E+06	2.43629E+06	00
LOWPLEN	BRANCH	COMPONENT								
23-010000	1.59829E+07	0.	570.62	620.39	620.39	0.	.73277	1.30195E+06	2.43623E+06	00
COREIN	BRANCH	COMPONENT								
25-010000	1.59164E+07	0.	570.60	620.05	620.05	0.	.73270	1.30195E+06	2.43803E+06	00
CORE	PIPE	COMPONENT								
31-010000	1.58837E+07	0.	570.59	619.89	619.89	0.	.73266	1.30196E+06	2.43883E+06	00
31-020000	1.58446E+07	0.	570.57	619.69	619.69	0.	.73262	1.30198E+06	2.43974E+06	00
31-030000	1.58062E+07	0.	570.56	619.49	619.49	0.	.73257	1.30199E+06	2.44064E+06	00
31-040000	1.57685E+07	0.	570.55	619.30	619.30	0.	.73253	1.30201E+06	2.44152E+06	00
31-050000	1.57315E+07	0.	570.54	619.11	619.11	0.	.73248	1.30202E+06	2.44239E+06	00
BYPASS	SNGLVOL	COMPONENT								
35-010000	1.58177E+07	0.	570.56	619.55	619.55	0.	.73260	1.30194E+06	2.44037E+06	00
COREEX	BRANCH	COMPONENT								
39-010000	1.57129E+07	0.	570.53	619.01	619.01	0.	.73246	1.30202E+06	2.44283E+06	00
UPPLEN1	BRANCH	COMPONENT								
41-010000	1.56960E+07	0.	570.52	618.93	618.93	0.	.73245	1.30202E+06	2.44323E+06	00
UPPLEN2	BRANCH	COMPONENT								
43-010000	1.56878E+07	0.	570.52	618.89	618.89	0.	.73244	1.30201E+06	2.44342E+06	00
UPHEAD	BRANCH	COMPONENT								
45-010000	1.56729E+07	0.	570.45	618.81	618.81	0.	.73255	1.30166E+06	2.44377E+06	00
HTLEGR1	PIPE	COMPONENT								
111-010000	1.55821E+07	0.	570.48	618.34	618.34	0.	.73232	1.30202E+06	2.44592E+06	00
111-020000	1.55790E+07	0.	570.48	618.32	618.32	0.	.73232	1.30202E+06	2.44599E+06	00
HTLEGR2	BRANCH	COMPONENT								
113-010000	1.55727E+07	0.	570.48	618.29	618.29	0.	.73231	1.30202E+06	2.44614E+06	00
INBOX	BRANCH	COMPONENT								
121-010000	1.56142E+07	0.	570.49	618.51	618.51	0.	.73236	1.30203E+06	2.44516E+06	00
UTUBE	PIPE	COMPONENT								
122-010000	1.55845E+07	0.	570.47	618.35	618.35	0.	.73235	1.30196E+06	2.44586E+06	00
122-020000	1.55681E+07	0.	570.46	618.27	618.27	0.	.73235	1.30191E+06	2.44625E+06	00
122-030000	1.55521E+07	0.	570.44	618.18	618.18	0.	.73235	1.30187E+06	2.44663E+06	00
122-040000	1.55339E+07	0.	570.43	618.09	618.09	0.	.73235	1.30182E+06	2.44706E+06	00
122-050000	1.55151E+07	0.	570.41	617.99	617.99	0.	.73234	1.30179E+06	2.44751E+06	00
122-060000	1.54979E+07	0.	570.40	617.90	617.90	0.	.73233	1.30177E+06	2.44792E+06	00
122-070000	1.54807E+07	0.	570.39	617.81	617.81	0.	.73231	1.30176E+06	2.44833E+06	00
122-080000	1.54635E+07	0.	570.39	617.72	617.72	0.	.73230	1.30175E+06	2.44873E+06	00

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122-090000  1.54463E+07  0.        570.38    617.63    617.63    0.        .73228    1.30174E+06  2.44914E+06  00
122-100000  1.54292E+07  0.        570.37    617.55    617.55    0.        .73226    1.30174E+06  2.44956E+06  00
122-110000  1.54127E+07  0.        570.37    617.46    617.46    0.        .73225    1.30175E+06  2.44995E+06  00
UTUBE       PIPE        COMPONENT
124-010000  1.54017E+07  0.        570.36    617.40    617.40    0.        .73223    1.30175E+06  2.45021E+06  00
124-020000  1.53955E+07  0.        570.36    617.37    617.37    0.        .73222    1.30176E+06  2.45036E+06  00
124-030000  1.53892E+07  0.        570.36    617.34    617.34    0.        .73221    1.30177E+06  2.45051E+06  00
124-040000  1.53829E+07  0.        570.36    617.30    617.30    0.        .73220    1.30179E+06  2.45066E+06  00
124-050000  1.53779E+07  0.        570.36    617.28    617.28    0.        .73219    1.30179E+06  2.45078E+06  00
124-060000  1.53742E+07  0.        570.36    617.26    617.26    0.        .73218    1.30180E+06  2.45087E+06  00
124-070000  1.53698E+07  0.        570.36    617.24    617.24    0.        .73218    1.30181E+06  2.45098E+06  00
OUTBOX      BRANCH      COMPONENT
126-010000  1.53780E+07  0.        570.36    617.28    617.28    0.        .73218    1.30181E+06  2.45078E+06  00
SEALR       PIPE        COMPONENT
131-010000  1.53144E+07  0.        570.34    616.94    616.94    0.        .73212    1.30181E+06  2.45230E+06  00
131-020000  1.53237E+07  0.        570.34    616.99    616.99    0.        .73213    1.30182E+06  2.45208E+06  00
131-030000  1.53285E+07  0.        570.35    617.02    617.02    0.        .73213    1.30182E+06  2.45197E+06  00
131-040000  1.53208E+07  0.        570.34    616.98    616.98    0.        .73212    1.30182E+06  2.45215E+06  00
PUMPR       PUMP        COMPONENT
  RPM =   155.00     (RAD/SEC)     HEAD =  6.86166E+05 (PA)        TORQUE =  -32309.     (N-M)
  OCTANT = 1                                                     MTR.TORQUE =   32309.     (N-M)
140-010000  1.57026E+07  0.        570.51    618.96    618.96    0.        .73248    1.30195E+06  2.44307E+06  10
COLDR1      SNGLVOL     COMPONENT
151-010000  1.59075E+07  0.        570.60    620.01    620.01    0.        .73269    1.30196E+06  2.43827E+06  00
COLDR2      BRANCH      COMPONENT
152-010000  1.59040E+07  0.        570.58    619.99    619.99    0.        .73271    1.30188E+06  2.43836E+06  00
COLDR3      PIPE        COMPONENT
153-010000  1.59006E+07  0.        570.58    619.97    619.97    0.        .73271    1.30189E+06  2.43844E+06  00
153-020000  1.59209E+07  0.        570.59    620.08    620.08    0.        .73273    1.30189E+06  2.43791E+06  00
CVTANK      TMDPVOL     COMPONENT
180-010000  2.00000E+07  0.        560.58    638.85    638.85    0.        .75820    1.24253E+06  2.30082E+06  00
HTLEGG1     PIPE        COMPONENT
211-010000  1.55819E+07  0.        570.48    618.34    618.34    0.        .73232    1.30202E+06  2.44592E+06  00
211-020000  1.55788E+07  0.        570.48    618.32    618.32    0.        .73232    1.30202E+06  2.44600E+06  00
HTLEGG2     BRANCH      COMPONENT
213-010000  1.55725E+07  0.        570.48    618.29    618.29    0.        .73231    1.30202E+06  2.44615E+06  00
INBOX       BRANCH      COMPONENT
221-010000  1.56141E+07  0.        570.49    618.51    618.51    0.        .73236    1.30203E+06  2.44516E+06  00
UTUBE       PIPE        COMPONENT
222-010000  1.55843E+07  0.        570.47    618.35    618.35    0.        .73235    1.30196E+06  2.44586E+06  00
222-020000  1.55680E+07  0.        570.46    618.27    618.27    0.        .73235    1.30191E+06  2.44625E+06  00
222-030000  1.55519E+07  0.        570.44    618.18    618.18    0.        .73235    1.30187E+06  2.44663E+06  00
222-040000  1.55337E+07  0.        570.43    618.09    618.09    0.        .73235    1.30182E+06  2.44707E+06  00
222-050000  1.55149E+07  0.        570.41    617.99    617.99    0.        .73234    1.30179E+06  2.44751E+06  00
222-060000  1.54977E+07  0.        570.40    617.90    617.90    0.        .73233    1.30177E+06  2.44792E+06  00
222-070000  1.54805E+07  0.        570.39    617.81    617.81    0.        .73231    1.30176E+06  2.44833E+06  00
222-080000  1.54633E+07  0.        570.39    617.72    617.72    0.        .73230    1.30175E+06  2.44874E+06  00
222-090000  1.54461E+07  0.        570.38    617.63    617.63    0.        .73228    1.30174E+06  2.44915E+06  00
222-100000  1.54289E+07  0.        570.37    617.54    617.54    0.        .73226    1.30174E+06  2.44956E+06  00
222-110000  1.54124E+07  0.        570.37    617.46    617.46    0.        .73225    1.30175E+06  2.44996E+06  00
UTUBE       PIPE        COMPONENT
224-010000  1.54014E+07  0.        570.36    617.40    617.40    0.        .73223    1.30175E+06  2.45022E+06  00
224-020000  1.53952E+07  0.        570.36    617.37    617.37    0.        .73222    1.30176E+06  2.45037E+06  00
224-030000  1.53889E+07  0.        570.36    617.33    617.33    0.        .73221    1.30178E+06  2.45052E+06  00
224-040000  1.53825E+07  0.        570.36    617.30    617.30    0.        .73220    1.30179E+06  2.45067E+06  00
224-050000  1.53775E+07  0.        570.36    617.28    617.28    0.        .73219    1.30179E+06  2.45079E+06  00
224-060000  1.53738E+07  0.        570.36    617.26    617.26    0.        .73218    1.30180E+06  2.45088E+06  00
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224-070000  1.53693E+07  0.          570.36      617.23      617.23      0.          .73217      1.30181E+06  2.45099E+06  00
OUTBOX      BRANCH       COMPONENT
225-010000  1.53775E+07  0.          570.36      617.28      617.28      0.          .73218      1.30181E+06  2.45079E+06  00
SEALG1      PIPE         COMPONENT
231-010000  1.53138E+07  0.          570.34      616.94      616.94      0.          .73212      1.30181E+06  2.45232E+06  00
231-020000  1.53231E+07  0.          570.34      616.99      616.99      0.          .73212      1.30182E+06  2.45210E+06  00
231-030000  1.53279E+07  0.          570.35      617.02      617.02      0.          .73213      1.30182E+06  2.45198E+06  00
SEALG2      BRANCH       COMPONENT
232-010000  1.53203E+07  0.          570.34      616.98      616.98      0.          .73212      1.30182E+06  2.45216E+06  00
PUMPR       PUMP         COMPONENT
 RPM =   155.00     (RAD/SEC)     HEAD =  6.86480E+05 (PA)          TORQUE =  -32311.     (N-M)
  OCTANT = 1                                                     MTR.TORQUE =   32311.     (N-M)
240-010000  1.57022E+07  0.          570.51      618.96      618.96      0.          .73248      1.30195E+06  2.44308E+06  10
COLG1       BRANCH       COMPONENT
251-010000  1.59075E+07  0.          570.60      620.01      620.01      0.          .73269      1.30196E+06  2.43827E+06  00
COLG2       PIPE         COMPONENT
253-010000  1.59042E+07  0.          570.60      619.99      619.99      0.          .73269      1.30196E+06  2.43835E+06  00
253-020000  1.59008E+07  0.          570.59      619.98      619.98      0.          .73268      1.30197E+06  2.43843E+06  00
253-030000  1.59211E+07  0.          570.60      620.08      620.08      0.          .73270      1.30197E+06  2.43790E+06  00
LETDO1      TMDPVOL      COMPONENT
282-010000  3.80000E+06  0.          412.00      520.46      520.46      0.          .92880      5.82440E+05  2.60184E+06  00
HTLEGB1     PIPE         COMPONENT
311-010000  1.56821E+07  0.          570.48      618.34      618.34      0.          .73232      1.30202E+06  2.44592E+06  00
311-020000  1.55790E+07  0.          570.48      618.32      618.32      0.          .73232      1.30202E+06  2.44599E+06  00
HTLEGB2     BRANCH       COMPONENT
313-010000  1.55726E+07  0.          570.48      618.29      618.29      0.          .73231      1.30202E+06  2.44614E+06  00
INBOX       BRANCH       COMPONENT
321-010000  1.56142E+07  0.          570.49      618.51      618.51      0.          .73236      1.30203E+06  2.44516E+06  00
UTUBE       PIPE         COMPONENT
322-010000  1.55845E+07  0.          570.47      618.35      618.35      0.          .73235      1.30196E+06  2.44586E+06  00
322-020000  1.55681E+07  0.          570.46      618.27      618.27      0.          .73235      1.30191E+06  2.44625E+06  00
322-030000  1.55520E+07  0.          570.44      618.18      618.18      0.          .73235      1.30187E+06  2.44663E+06  00
322-040000  1.55339E+07  0.          570.43      618.09      618.09      0.          .73235      1.30182E+06  2.44706E+06  00
322-050000  1.55151E+07  0.          570.41      617.99      617.99      0.          .73234      1.30179E+06  2.44751E+06  00
322-060000  1.54979E+07  0.          570.40      617.90      617.90      0.          .73233      1.30177E+06  2.44792E+06  00
322-070000  1.54807E+07  0.          570.39      617.81      617.81      0.          .73231      1.30176E+06  2.44833E+06  00
322-080000  1.54635E+07  0.          570.39      617.72      617.72      0.          .73230      1.30175E+06  2.44874E+06  00
322-090000  1.54463E+07  0.          570.38      617.63      617.63      0.          .73228      1.30174E+06  2.44915E+06  00
322-100000  1.54291E+07  0.          570.37      617.55      617.55      0.          .73226      1.30174E+06  2.44956E+06  00
322-110000  1.54127E+07  0.          570.37      617.46      617.46      0.          .73225      1.30175E+06  2.44995E+06  00
UTUBE       PIPE         COMPONENT
324-010000  1.54017E+07  0.          570.36      617.40      617.40      0.          .73223      1.30175E+06  2.45021E+06  00
324-020000  1.53955E+07  0.          570.36      617.37      617.37      0.          .73222      1.30176E+06  2.45036E+06  00
324-030000  1.53892E+07  0.          570.36      617.34      617.34      0.          .73221      1.30177E+06  2.45051E+06  00
324-040000  1.53829E+07  0.          570.36      617.30      617.30      0.          .73220      1.30179E+06  2.45066E+06  00
324-050000  1.53779E+07  0.          570.36      617.28      617.28      0.          .73219      1.30179E+06  2.45078E+06  00
324-060000  1.53742E+07  0.          570.36      617.26      617.26      0.          .73218      1.30180E+06  2.45087E+06  00
324-070000  1.53697E+07  0.          570.36      617.23      617.23      0.          .73218      1.30181E+06  2.45098E+06  00
OUTBOX      BRANCH       COMPONENT
325-010000  1.53780E+07  0.          570.36      617.28      617.28      0.          .73218      1.30181E+06  2.45078E+06  00
SEALB       PIPE         COMPONENT
331-010000  1.53143E+07  0.          570.34      616.94      616.94      0.          .73212      1.30181E+06  2.45231E+06  00
331-020000  1.53237E+07  0.          570.34      616.99      616.99      0.          .73213      1.30182E+06  2.45208E+06  00
331-030000  1.53285E+07  0.          570.35      617.02      617.02      0.          .73213      1.30182E+06  2.45197E+06  00
331-040000  1.53207E+07  0.          570.34      616.98      616.98      0.          .73212      1.30182E+06  2.45215E+06  00
PUMPR       PUMP         COMPONENT
 RPM =   155.00     (RAD/SEC)     HEAD =  6.86116E+05 (PA)          TORQUE =  -32308.     (N-M)
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OCTANT = 1 MTR.TORQUE = 32308. (N-M)

340-010000	1.57025E+07	0.	570.51	618.96	618.96	0.	.73248	1.30195E+06	2.44307E+06	10
COLDB1	SNGLVOL	COMPONENT								
351-010000	1.59074E+07	0.	570.60	620.01	620.01	0.	.73269	1.30196E+06	2.43827E+06	00
COLDR2	BRANCH	COMPONENT								
352-010000	1.59041E+07	0.	570.59	619.99	619.99	0.	.73269	1.30196E+06	2.43835E+06	00
COLDR3	PIPE	COMPONENT								
353-010000	1.59007E+07	0.	570.59	619.97	619.97	0.	.73268	1.30197E+06	2.43843E+06	00
353-020000	1.59210E+07	0.	570.60	620.08	620.08	0.	.73270	1.30197E+06	2.43790E+06	00
SURGE	PIPE	COMPONENT								
400-010000	1.55745E+07	0.	615.35	618.30	618.30	0.	.60657	1.58265E+06	2.44610E+06	00
400-020000	1.55655E+07	3.04565E-07	618.13	618.25	618.25	0.	.59342	1.60624E+06	2.44631E+06	00
400-030000	1.55567E+07	1.87642E-05	618.19	618.21	618.21	0.	.59306	1.60681E+06	2.44652E+06	00
400-040000	1.55479E+07	3.73473E-05	618.16	618.16	618.16	0.	.59315	1.60660E+06	2.44673E+06	00
PRESSU	PIPE	COMPONENT								
410-010000	1.55426E+07	1.38742E-06	617.99	618.14	618.14	0.	.59396	1.60519E+06	2.44685E+06	00
410-020000	1.55402E+07	2.51375E-07	617.98	618.12	618.12	0.	.59400	1.60512E+06	2.44691E+06	00
410-030000	1.55365E+07	0.	617.98	618.10	618.10	0.	.59397	1.60515E+06	2.44700E+06	00
410-040000	1.55302E+07	1.85953E-04	617.97	618.07	618.07	0.	.59422	1.60514E+06	2.44715E+06	00
410-050000	1.55216E+07	.61438	618.00	618.00	618.03	0.	.22891	1.60544E+06	2.44707E+06	00
410-060000	1.55158E+07	.99999	618.00	618.01	618.00	0.	5.53979E-08	1.60544E+06	2.44764E+06	00
410-070000	1.55128E+07	.99993	617.98	617.99	617.98	0.	1.03423E-06	1.60532E+06	2.44761E+06	00
410-080000	1.55110E+07	.99997	617.97	617.97	617.97	0.	2.12498E-07	1.60526E+06	2.44762E+06	00
410-090000	1.55104E+07	.99998	617.97	617.97	617.97	0.	6.71452E-09	1.60524E+06	2.44763E+06	00
TOP	BRANCH	COMPONENT								
420-010000	1.55101E+07	.99999	617.97	617.97	617.97	0.	1.03662E-09	1.60522E+06	2.44762E+06	00
SPRAYR	BRANCH	COMPONENT								
430-010000	1.59759E+07	0.	570.62	620.36	620.36	0.	.73277	1.30194E+06	2.43642E+06	00
SPRAYB	BRANCH	COMPONENT								
440-010000	1.59758E+07	0.	570.62	620.36	620.36	0.	.73277	1.30194E+06	2.43642E+06	00
SPRAYB	BRANCH	COMPONENT								
450-010000	1.55426E+07	0.	570.45	618.14	618.14	0.	.73233	1.30193E+06	2.44685E+06	00
TV490	TMDPVOL	COMPONENT								
490-010000	1.55100E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60522E+06	2.44763E+06	00

SYSTEM 2 MASS= 0. KG MASS ERROR= 0. KG ERR.EST.= 0.

TV940	TMDPVOL	COMPONENT								
940-010000	2.00000E+05	0.	323.15	393.38	393.38	0.	0.	2.09218E+05	2.52920E+06	00

VOL.NO.	RHOF (KG/M3)	RHOG (KG/M3)	LIQ.V.VEL. (M/SEC)	VAP.V.VEL. (M/SEC)	SOUNDE (M/SEC)	STATIC QUAL.	TOT.HT.INP. (WATTS)	VAP.HT.INP. (WATTS)	VAPOR GEN. (KG/M3-SEC)
11-010000	732.85	106.98	3.58291E-02	3.58291E-02	982.52	0.	0.	0.	0.
13-010000	732.74	106.87	7.8403	7.8327	982.03	0.	0.	0.	0.
15-010000	732.75	106.96	7.5533	7.5533	982.06	0.	0.	0.	0.
15-020000	732.76	107.10	7.5532	7.5532	982.11	0.	0.	0.	0.
15-030000	732.77	107.23	7.5530	7.5530	982.16	0.	0.	0.	0.
23-010000	732.77	107.25	-3.78412E-08	-6.56704E-04	982.17	0.	0.	0.	0.
25-010000	732.70	106.50	5.0290	5.0290	981.88	0.	0.	0.	0.
31-010000	732.66	106.13	4.8813	4.8813	981.71	0.	0.	0.	0.
31-020000	732.62	105.70	4.8816	4.8816	981.52	0.	0.	0.	0.
31-030000	732.57	105.27	4.8819	4.8819	981.33	0.	0.	0.	0.
31-040000	732.53	104.85	4.8822	4.8822	981.14	0.	0.	0.	0.
31-050000	732.48	104.44	4.8825	4.8825	980.96	0.	0.	0.	0.
35-010000	732.60	105.40	.70685	.70685	981.46	0.	0.	0.	0.
39-010000	732.46	104.24	5.0308	5.0309	980.88	0.	0.	0.	0.
41-010000	732.45	104.05	2.1906	2.1906	980.81	0.	0.	0.	0.
43-010000	732.44	103.97	-7.48854E-03	-6.49192E-03	980.78	0.	0.	0.	0.

45-010000	732.55	103.80	4.66139E-08	2.21739E-04	981.27	0.	0.	0.	0.
111-010000	732.33	102.82	14.864	14.864	980.32	0.	0.	0.	0.
111-020000	732.32	102.78	14.865	14.865	980.30	0.	0.	0.	0.
113-010000	732.31	102.72	14.865	14.865	980.27	0.	0.	0.	0.
121-010000	732.36	103.17	1.9806	1.9806	980.44	0.	-209.98	0.	0.
122-010000	732.35	102.84	5.9734	5.9734	980.42	0.	-3.66994E+05	0.	0.
122-020000	732.35	102.67	5.9734	5.9734	980.43	0.	-3.08679E+05	0.	0.
122-030000	732.35	102.49	5.9734	5.9734	980.44	0.	-2.67360E+05	0.	0.
122-040000	732.35	102.30	5.9734	5.9734	980.43	0.	-2.82762E+05	0.	0.
122-050000	732.34	102.10	5.9735	5.9735	980.40	0.	-2.00312E+05	0.	0.
122-060000	732.33	101.91	5.9735	5.9735	980.36	0.	-1.67204E+05	0.	0.
122-070000	732.31	101.73	5.9736	5.9736	980.31	0.	-1.37620E+05	0.	0.
122-080000	732.30	101.55	5.9737	5.9737	980.26	0.	-1.11185E+05	0.	0.
122-090000	732.28	101.36	5.9739	5.9739	980.19	0.	-87561.	0.	0.
122-100000	732.26	101.18	5.9740	5.9740	980.12	0.	-66450.	0.	0.
122-110000	732.25	101.01	5.9742	5.9742	980.05	0.	-52184.	0.	0.
124-010000	732.23	100.89	5.9743	5.9743	979.99	0.	-41542.	0.	0.
124-020000	732.22	100.83	5.9744	5.9744	979.95	0.	-75491.	0.	0.
124-030000	732.21	100.76	5.9745	5.9745	979.90	0.	-73916.	0.	0.
124-040000	732.20	100.69	5.9746	5.9746	979.86	0.	-72643.	0.	0.
124-050000	732.19	100.64	5.9746	5.9746	979.83	0.	-43704.	0.	0.
124-060000	732.18	100.60	5.9747	5.9747	979.80	0.	-39946.	0.	0.
124-070000	732.18	100.55	5.9748	5.9748	979.76	0.	-58190.	0.	0.
125-010000	732.18	100.64	1.9810	1.9810	979.80	0.	125.72	0.	0.
131-010000	732.12	99.970	13.034	13.034	979.53	0.	0.	0.	0.
131-020000	732.13	100.07	13.339	13.339	979.57	0.	0.	0.	0.
131-030000	732.13	100.12	13.339	13.339	979.58	0.	0.	0.	0.
131-040000	732.12	100.04	13.339	13.339	979.55	0.	0.	0.	0.
140-010000	732.48	104.13	2.4852	2.4852	980.95	0.	0.	0.	0.
151-010000	732.69	106.40	16.951	16.950	981.83	0.	0.	0.	0.
152-010000	732.71	106.36	16.967	16.930	981.93	0.	0.	0.	0.
153-010000	732.71	106.32	16.970	16.970	981.90	0.	0.	0.	0.
153-020000	732.73	106.55	14.976	14.976	981.99	0.	0.	0.	0.
180-010000	758.20	170.17	8.14632E-03	8.14632E-03	1442.5	0.	0.	0.	0.
211-010000	732.33	102.82	14.876	14.876	980.32	0.	0.	0.	0.
211-020000	732.32	102.78	14.877	14.877	980.30	0.	0.	0.	0.
213-010000	732.31	102.71	14.878	14.878	980.27	0.	0.	0.	0.
221-010000	732.36	103.16	1.9822	1.9822	980.44	0.	-209.51	0.	0.
222-010000	732.35	102.84	5.9784	5.9784	980.42	0.	-3.66964E+05	0.	0.
222-020000	732.35	102.67	5.9784	5.9784	980.43	0.	-3.08664E+05	0.	0.
222-030000	732.35	102.49	5.9784	5.9784	980.44	0.	-2.67355E+05	0.	0.
222-040000	732.35	102.30	5.9784	5.9784	980.43	0.	-2.82760E+05	0.	0.
222-050000	732.34	102.10	5.9784	5.9784	980.39	0.	-2.00320E+05	0.	0.
222-060000	732.33	101.91	5.9785	5.9785	980.36	0.	-1.67213E+05	0.	0.
222-070000	732.31	101.73	5.9786	5.9786	980.31	0.	-1.37629E+05	0.	0.
222-080000	732.30	101.54	5.9787	5.9787	980.25	0.	-1.11191E+05	0.	0.
222-090000	732.28	101.36	5.9789	5.9789	980.19	0.	-87564.	0.	0.
222-100000	732.26	101.18	5.9790	5.9790	980.12	0.	-66447.	0.	0.
222-110000	732.25	101.00	5.9791	5.9791	980.05	0.	-52176.	0.	0.
224-010000	732.23	100.89	5.9793	5.9793	979.99	0.	-41530.	0.	0.
224-020000	732.22	100.82	5.9794	5.9794	979.95	0.	-75476.	0.	0.
224-030000	732.21	100.76	5.9795	5.9795	979.90	0.	-73892.	0.	0.
224-040000	732.20	100.69	5.9796	5.9796	979.85	0.	-72613.	0.	0.
224-050000	732.19	100.64	5.9796	5.9796	979.82	0.	-43674.	0.	0.
224-060000	732.18	100.60	5.9797	5.9797	979.79	0.	-39918.	0.	0.
224-070000	732.17	100.55	5.9798	5.9798	979.76	0.	-58154.	0.	0.
225-010000	732.18	100.64	1.9827	1.9827	979.79	0.	125.79	0.	0.

231-010000	732.12	99.964	13.045	13.045	979.53	0.	0.	0.	0.
231-020000	732.12	100.06	13.351	13.351	979.56	0.	0.	0.	0.
231-030000	732.13	100.11	13.350	13.350	979.58	0.	0.	0.	0.
232-010000	732.12	100.03	13.333	13.333	979.54	0.	0.	0.	0.
240-010000	732.48	104.12	2.4841	2.4841	980.95	0.	0.	0.	0.
251-010000	732.69	106.40	16.943	16.943	981.82	0.	0.	0.	0.
253-010000	732.69	106.36	16.941	16.941	981.80	0.	0.	0.	0.
253-020000	732.68	106.33	16.941	16.941	981.78	0.	0.	0.	0.
253-030000	732.70	106.55	14.950	14.950	981.86	0.	0.	0.	0.
282-010000	928.80	19.070	8.43645E-04	8.43645E-04	1467.8	0.	0.	0.	0.
311-010000	732.33	102.82	14.865	14.865	980.32	0.	0.	0.	0.
311-020000	732.32	102.78	14.866	14.866	980.30	0.	0.	0.	0.
313-010000	732.31	102.72	14.866	14.866	980.27	0.	0.	0.	0.
321-010000	732.36	103.17	1.9807	1.9807	980.44	0.	-194.93	0.	0.
322-010000	732.36	102.84	5.9738	5.9738	980.42	0.	-3.66992E+05	0.	0.
322-020000	732.35	102.67	5.9738	5.9738	980.43	0.	-3.08679E+05	0.	0.
322-030000	732.35	102.49	5.9738	5.9738	980.44	0.	-2.67361E+05	0.	0.
322-040000	732.35	102.30	5.9738	5.9738	980.43	0.	-2.82754E+05	0.	0.
322-050000	732.34	102.10	5.9739	5.9739	980.40	0.	-2.00314E+05	0.	0.
322-060000	732.33	101.91	5.9740	5.9740	980.36	0.	-1.67205E+05	0.	0.
322-070000	732.31	101.73	5.9741	5.9741	980.31	0.	-1.37622E+05	0.	0.
322-080000	732.30	101.55	5.9742	5.9742	980.26	0.	-1.11186E+05	0.	0.
322-090000	732.28	101.36	5.9743	5.9743	980.19	0.	-87562.	0.	0.
322-100000	732.26	101.18	5.9744	5.9744	980.12	0.	-66450.	0.	0.
322-110000	732.25	101.01	5.9746	5.9746	980.05	0.	-52184.	0.	0.
324-010000	732.23	100.89	5.9747	5.9747	979.99	0.	-41542.	0.	0.
324-020000	732.22	100.83	5.9748	5.9748	979.95	0.	-75491.	0.	0.
324-030000	732.21	100.76	5.9749	5.9749	979.90	0.	-73915.	0.	0.
324-040000	732.20	100.69	5.9750	5.9750	979.86	0.	-72641.	0.	0.
324-050000	732.19	100.64	5.9751	5.9751	979.83	0.	-43702.	0.	0.
324-060000	732.18	100.60	5.9751	5.9751	979.80	0.	-39944.	0.	0.
324-070000	732.18	100.55	5.9752	5.9752	979.76	0.	-58187.	0.	0.
325-010000	732.18	100.64	1.9812	1.9812	979.80	0.	128.71	0.	0.
331-010000	732.12	99.970	13.035	13.035	979.53	0.	0.	0.	0.
331-020000	732.13	100.07	13.340	13.340	979.57	0.	0.	0.	0.
331-030000	732.13	100.12	13.340	13.340	979.58	0.	0.	0.	0.
331-040000	732.12	100.04	13.340	13.340	979.55	0.	0.	0.	0.
340-010000	732.48	104.13	2.4854	2.4854	980.95	0.	0.	0.	0.
351-010000	732.69	106.40	16.952	16.951	981.83	0.	0.	0.	0.
352-010000	732.69	106.36	16.950	16.950	981.80	0.	0.	0.	0.
353-010000	732.68	106.32	16.950	16.950	981.78	0.	0.	0.	0.
353-020000	732.70	106.55	14.958	14.958	981.86	0.	0.	0.	0.
400-010000	606.55	102.74	3.11780E-04	8.42880E-04	644.89	0.	5693.2	0.	0.
400-020000	593.44	102.64	3.20019E-04	1.99332E-02	617.22	5.26764E-08	-3820.3	0.	-1.63184E-06
400-030000	593.08	102.54	2.18643E-04	2.91760E-02	619.08	3.24443E-06	-4209.6	0.	1.47079E-10
400-040000	593.17	102.45	1.12810E-04	3.08200E-02	619.63	6.45068E-06	-4187.8	0.	-3.47542E-09
410-010000	593.98	102.39	8.92382E-07	5.53197E-03	617.78	2.39170E-07	-1250.4	0.	-8.40882E-06
410-020000	594.02	102.37	-4.72382E-08	8.37385E-03	617.90	4.33195E-08	-2475.3	0.	-1.45414E-06
410-030000	593.99	102.33	-1.65070E-06	2.26508E-03	618.29	0.	-3841.4	0.	0.
410-040000	593.97	102.26	-2.78175E-05	.96203	618.90	3.20191E-05	55631.	-2.73293E-02	1.24915E-02
410-050000	593.77	102.22	-1.31822E-04	4.78895E-04	181.55	.21524	4401.4	-17415.	1.44278E-04
410-060000	593.75	102.07	-.29897	1.11834E-04	432.95	.99996	-17046.	-17046.	-1.47880E-03
410-070000	593.81	102.06	-.11373	4.22034E-05	372.03	.99961	-16677.	-16677.	-1.46220E-03
410-080000	593.84	102.05	-.10853	1.50313E-05	372.09	.99984	-3835.5	-3835.5	-1.55494E-03
410-090000	593.85	102.05	-.10905	9.36162E-06	372.10	.99990	-1641.8	-1641.8	-2.07393E-03
420-010000	593.86	102.05	-8.30010E-02	5.44604E-06	372.11	.99993	-1146.0	-1146.0	-2.09095E-03
430-010000	732.77	107.17	-3.36888E-08	-3.37651E-08	982.16	0.	0.	0.	0.

440-010000	732.77	107.17	-3.39789E-08	-3.40553E-08	982.16	0.	0.	0.	0.
450-010000	732.32	102.39	-.34347	.21781	980.30	0.	0.	0.	0.
490-010000	593.86	102.04	0.	0.	372.13	1.0000	0.	0.	0.
940-010000	988.11	1.1294	0.	0.	1537.3	0.	89568.	0.	0.

VOL.NO.	LRGST.MASS ERR.		REDUCE-QUALITY		REDUCE-EXTRAP.		REDUCE-MASS		REDUCE-PROPTY.		MIN.COURANT		REDUCE-COURANT	
	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT.	TOTAL
11-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-040000	0	0	0	0	0	0	0	0	0	0	0	12	50	143
140-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

211-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
213-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
221-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232-010000	0	0	0	0	0	0	0	0	0	0	0	1	0	0
240-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
251-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
282-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
311-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
311-020000	0	5	0	0	0	0	0	0	0	0	0	0	0	0
313-010000	0	2	0	0	0	0	0	0	0	0	0	0	0	0
321-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
325-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

331-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-040000	0	0	0	0	0	0	0	0	0	0	100	287	0	7
340-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
351-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
352-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
353-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
353-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400-010000	7	187	0	0	0	0	0	0	0	0	0	0	0	0
400-020000	24	36	0	0	0	0	0	0	0	0	0	0	0	0
400-030000	69	69	0	0	0	0	0	0	0	0	0	0	0	0
400-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-010000	0	1	0	0	0	0	0	0	0	0	0	0	0	0
410-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
420-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
430-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
440-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
490-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
940-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

JUN.NO.	FROM VOL.	TO VOL.	LIQ.J.VEL. (M/SEC)	VAP.J.VEL. (M/SEC)	MASS FLOW (KG/SEC)	JUN.AREA (M2)	THROAT RATIO	JUNCTION FLAGS	CHOKE FLAG	NO.ADVS.EDIT	CHOKED TOTAL
SYSTEM 1											
UPDOWNC	BRANCH	COMPONENT									
11-010000	-13-010000	11-010000	3.58291E-02	3.58291E-02	48.620	1.8520	1.0000	00000	0	0	0
11-020000	11-010000	45-010000	17.933	17.934	48.627	3.70000E-03	1.0000	00000	0	0	0
UPDOWNOZZ	BRANCH	COMPONENT									
13-010000	153-020000	13-010000	14.975	14.975	4762.3	.43400	1.0000	00000	0	0	0
13-020000	253-030000	13-010000	14.950	14.950	4753.9	.43400	1.0000	00000	0	0	0
13-030000	353-020000	13-010000	14.958	14.958	4756.4	.43400	1.0000	00000	0	0	0
13-040000	13-010000	15-010000	7.8402	7.8402	14224.	2.4760	1.0000	00000	0	0	0
DOWNCTS	ANNULUS	COMPONENT									
15-010000	15-010000	15-020000	7.5532	7.5532	14224.	2.5700	1.0000	00000	0	0	0
15-020000	15-020000	15-030000	7.5531	7.5531	14224.	2.5700	1.0000	00000	0	0	0
LOWPLEN	BRANCH	COMPONENT									
23-010000	15-030000	23-010000	7.5530	7.5530	14224.	2.5700	1.0000	00000	0	0	0
23-020000	-23-010000	25-010000	5.0288	5.0288	14224.	3.8600	1.0000	00000	0	0	0
COREIN	BRANCH	COMPONENT									
25-010000	25-010000	31-010000	4.8811	4.8811	13805.	3.8600	1.0000	00000	0	0	0
25-020000	25-010000	35-010000	5.7174	5.7174	418.92	.10000	1.0000	00000	0	0	0
CORE	PIPE	COMPONENT									
31-010000	31-010000	31-020000	4.8814	4.8814	13805.	3.8600	1.0000	00000	0	0	0
31-020000	31-020000	31-030000	4.8817	4.8817	13805.	3.8600	1.0000	00000	0	0	0
31-030000	31-030000	31-040000	4.8820	4.8820	13805.	3.8600	1.0000	00000	0	0	0
31-040000	31-040000	31-050000	4.8823	4.8823	13805.	3.8600	1.0000	00000	0	0	0
COREEX	BRANCH	COMPONENT									
39-010000	31-050000	39-010000	4.8825	4.8826	13805.	3.8600	1.0000	00000	0	0	0
39-020000	35-010000	39-010000	5.7182	5.7182	418.92	.10000	1.0000	00000	0	0	0

UPPLEN1	BRANCH	COMPONENT									
41-010000	39-010000	41-010000	5.0309	5.0309	14224.	3.8600	1.0000	00000	0	0	0
41-020000	41-010000	43-010000	2.1906	2.1906	14224.	8.8650	1.0000	00000	0	0	0
UPPLEN2	BRANCH	COMPONENT									
43-010000	-43-010000	111-010000	14.863	14.863	4756.1	.43690	1.0000	00000	0	0	0
43-020000	-43-010000	211-010000	14.875	14.875	4760.0	.43690	1.0000	00000	0	0	0
43-030000	-43-010000	311-010000	14.864	14.864	4756.4	.43690	1.0000	00000	0	0	0
UPHEAD	BRANCH	COMPONENT									
45-010000	43-010000	45-010000	-7.48790E-03	-7.48790E-03	-48.627	8.8650	1.0000	00000	0	0	0
HTLEGR1	PIPE	COMPONENT									
111-010000	111-010000	111-020000	14.865	14.865	4756.1	.43690	1.0000	00000	0	0	0
HTLEGR2	BRANCH	COMPONENT									
113-010000	111-020000	113-010000	14.865	14.865	4756.1	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
121-010000	121-010000	122-010000	5.9733	5.9733	4756.1	1.0872	1.0000	00000	0	0	0
121-020000	113-010000	121-010000	14.865	14.865	4756.1	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
122-010000	122-010000	122-020000	5.9734	5.9734	4756.1	1.0872	1.0000	00000	0	0	0
122-020000	122-020000	122-030000	5.9734	5.9734	4756.1	1.0872	1.0000	00000	0	0	0
122-030000	122-030000	122-040000	5.9734	5.9734	4756.1	1.0872	1.0000	00000	0	0	0
122-040000	122-040000	122-050000	5.9734	5.9734	4756.1	1.0872	1.0000	00000	0	0	0
122-050000	122-050000	122-060000	5.9735	5.9735	4756.1	1.0872	1.0000	00000	0	0	0
122-060000	122-060000	122-070000	5.9736	5.9736	4756.1	1.0872	1.0000	00000	0	0	0
122-070000	122-070000	122-080000	5.9737	5.9737	4756.1	1.0872	1.0000	00000	0	0	0
122-080000	122-080000	122-090000	5.9738	5.9738	4756.1	1.0872	1.0000	00000	0	0	0
122-090000	122-090000	122-100000	5.9739	5.9739	4756.1	1.0872	1.0000	00000	0	0	0
122-100000	122-100000	122-110000	5.9741	5.9741	4756.1	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
123-000000	122-110000	124-010000	5.9742	5.9742	4756.1	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
124-010000	124-010000	124-020000	5.9743	5.9743	4756.1	1.0872	1.0000	00000	0	0	0
124-020000	124-020000	124-030000	5.9744	5.9744	4756.1	1.0872	1.0000	00000	0	0	0
124-030000	124-030000	124-040000	5.9745	5.9745	4756.1	1.0872	1.0000	00000	0	0	0
124-040000	124-040000	124-050000	5.9746	5.9746	4756.1	1.0872	1.0000	00000	0	0	0
124-050000	124-050000	124-060000	5.9747	5.9747	4756.1	1.0872	1.0000	00000	0	0	0
124-060000	124-060000	124-070000	5.9747	5.9747	4756.1	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
125-010000	124-070000	125-010000	5.9710	5.9710	4756.1	1.0879	1.0000	00000	0	0	0
125-020000	125-010000	131-010000	13.033	13.033	4756.1	.49840	1.0000	00000	0	0	0
SEALR	PIPE	COMPONENT									
131-010000	131-010000	131-020000	13.339	13.339	4756.1	.48700	1.0000	00000	0	0	0
131-020000	131-020000	131-030000	13.339	13.339	4756.1	.48700	1.0000	00000	0	0	0
131-030000	131-030000	131-040000	13.339	13.339	4756.1	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
140-010000	131-040000	140-010000	13.339	13.339	4756.1	.48700	1.0000	00000	0	0	0
140-020000	140-010000	151-010000	16.953	16.953	4756.1	.38300	1.0000	00000	0	0	0
COLDR2	BRANCH	COMPONENT									
152-010000	151-010000	152-010000	16.948	16.948	4756.1	.38300	1.0000	00000	0	0	0
152-020000	152-010000	153-010000	16.970	16.970	4762.3	.38300	1.0000	00000	0	0	0
COLDR3	PIPE	COMPONENT									
153-010000	153-010000	153-020000	16.970	16.970	4762.3	.38300	1.0000	00000	0	0	0
CVJUN	TMDPJUN	COMPONENT									
181-000000	180-010000	152-010000	2.3342	2.3342	6.1766	3.49000E-03	1.0000	00000	0	0	0
HTLEGG1	PIPE	COMPONENT									
211-010000	211-010000	211-020000	14.877	14.877	4760.0	.43690	1.0000	00000	0	0	0
HTLEGG2	BRANCH	COMPONENT									
213-010000	211-020000	213-010000	14.877	14.877	4760.0	.43690	1.0000	00000	0	0	0

INBOX	BRANCH	COMPONENT									
221-010000	221-010000	222-010000	5.9783	5.9783	4760.0	1.0872	1.0000	00000	0	0	0
221-020000	213-010000	221-010000	14.878	14.878	4760.0	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
222-010000	222-010000	222-020000	5.9784	5.9784	4760.0	1.0872	1.0000	00000	0	0	0
222-020000	222-020000	222-030000	5.9784	5.9784	4760.0	1.0872	1.0000	00000	0	0	0
222-030000	222-030000	222-040000	5.9784	5.9784	4760.0	1.0872	1.0000	00000	0	0	0
222-040000	222-040000	222-050000	5.9784	5.9784	4760.0	1.0872	1.0000	00000	0	0	0
222-050000	222-050000	222-060000	5.9785	5.9785	4760.0	1.0872	1.0000	00000	0	0	0
222-060000	222-060000	222-070000	5.9786	5.9786	4760.0	1.0872	1.0000	00000	0	0	0
222-070000	222-070000	222-080000	5.9787	5.9787	4760.0	1.0872	1.0000	00000	0	0	0
222-080000	222-080000	222-090000	5.9788	5.9788	4760.0	1.0872	1.0000	00000	0	0	0
222-090000	222-090000	222-100000	5.9789	5.9789	4760.0	1.0872	1.0000	00000	0	0	0
222-100000	222-100000	222-110000	5.9791	5.9791	4760.0	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
223-000000	222-110000	224-010000	5.9792	5.9792	4760.0	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
224-010000	224-010000	224-020000	5.9793	5.9793	4760.0	1.0872	1.0000	00000	0	0	0
224-020000	224-020000	224-030000	5.9794	5.9794	4760.0	1.0872	1.0000	00000	0	0	0
224-030000	224-030000	224-040000	5.9795	5.9795	4760.0	1.0872	1.0000	00000	0	0	0
224-040000	224-040000	224-050000	5.9796	5.9796	4760.0	1.0872	1.0000	00000	0	0	0
224-050000	224-050000	224-060000	5.9797	5.9797	4760.0	1.0872	1.0000	00000	0	0	0
224-060000	224-060000	224-070000	5.9797	5.9797	4760.0	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
225-010000	224-070000	225-010000	5.9760	5.9760	4760.0	1.0879	1.0000	00000	0	0	0
225-020000	225-010000	231-010000	13.044	13.044	4760.0	.49840	1.0000	00000	0	0	0
SEALG1	PIPE	COMPONENT									
231-010000	231-010000	231-020000	13.351	13.351	4760.0	.48700	1.0000	00000	0	0	0
231-020000	231-020000	231-030000	13.350	13.350	4760.0	.48700	1.0000	00000	0	0	0
SEALG2	BRANCH	COMPONENT									
232-010000	231-030000	232-010000	13.333	13.333	4753.9	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
240-010000	232-010000	240-010000	13.333	13.333	4753.9	.48700	1.0000	00000	0	0	0
240-020000	240-010000	251-010000	16.945	16.945	4753.9	.38300	1.0000	00000	0	0	0
COLG1	BRANCH	COMPONENT									
251-010000	251-010000	253-010000	16.941	16.941	4753.9	.38300	1.0000	00000	0	0	0
COLG2	PIPE	COMPONENT									
253-010000	253-010000	253-020000	16.941	16.941	4753.9	.38300	1.0000	00000	0	0	0
253-020000	253-020000	253-030000	16.941	16.941	4753.9	.38300	1.0000	00000	0	0	0
TJ183	TMDPJUN	COMPONENT									
283-000000	231-030000	282-010000	1.73233E-02	1.73233E-02	6.1766	.48700	1.0000	00000	0	0	0
HTLEGB1	PIPE	COMPONENT									
311-010000	311-010000	311-020000	14.866	14.866	4756.4	.43690	1.0000	00000	0	0	0
SURGEJUN	SNGLJUN	COMPONENT									
312-000000	-400-010000	-311-020000	-2.64092E-04	-2.64092E-04	-1.22070E-02	6.31180E-02	1.0000	10001	0	0	0
HTLEGB2	BRANCH	COMPONENT									
313-010000	311-020000	313-010000	14.866	14.866	4756.4	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
321-010000	321-010000	322-010000	5.9738	5.9738	4756.4	1.0872	1.0000	00000	0	0	0
321-020000	313-010000	321-010000	14.866	14.866	4756.4	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
322-010000	322-010000	322-020000	5.9738	5.9738	4756.4	1.0872	1.0000	00000	0	0	0
322-020000	322-020000	322-030000	5.9738	5.9738	4756.4	1.0872	1.0000	00000	0	0	0
322-030000	322-030000	322-040000	5.9738	5.9738	4756.4	1.0872	1.0000	00000	0	0	0
322-040000	322-040000	322-050000	5.9739	5.9739	4756.4	1.0872	1.0000	00000	0	0	0
322-050000	322-050000	322-060000	5.9739	5.9739	4756.4	1.0872	1.0000	00000	0	0	0
322-060000	322-060000	322-070000	5.9740	5.9740	4756.4	1.0872	1.0000	00000	0	0	0

322-070000	322-070000	322-080000	5.9741	5.9741	4756.4	1.0872	1.0000	00000	0	0	0
322-080000	322-080000	322-090000	5.9742	5.9742	4756.4	1.0872	1.0000	00000	0	0	0
322-090000	322-090000	322-100000.	5.9744	5.9744	4756.4	1.0872	1.0000	00000	0	0	0
322-100000	322-100000	322-110000	5.9745	5.9745	4756.4	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
323-000000	322-110000	324-010000	5.9747	5.9747	4756.4	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
324-010000	324-010000	324-020000	5.9748	5.9748	4756.4	1.0872	1.0000	00000	0	0	0
324-020000	324-020000	324-030000	5.9749	5.9749	4756.4	1.0872	1.0000	00000	0	0	0
324-030000	324-030000	324-040000	5.9750	5.9750	4756.4	1.0872	1.0000	00000	0	0	0
324-040000	324-040000	324-050000	5.9751	5.9751	4756.4	1.0872	1.0000	00000	0	0	0
324-050000	324-050000	324-060000	5.9751	5.9751	4756.4	1.0872	1.0000	00000	0	0	0
324-060000	324-060000	324-070000	5.9752	5.9752	4756.4	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
325-010000	324-070000	325-010000	5.9714	5.9714	4756.4	1.0879	1.0000	00000	0	0	0
325-020000	325-010000	331-010000	13.034	13.034	4756.4	.49840	1.0000	00000	0	0	0
SEALB	PIPE	COMPONENT									
331-010000	331-010000	331-020000	13.340	13.340	4756.4	.48700	1.0000	00000	0	0	0
331-020000	331-020000	331-030000	13.340	13.340	4756.4	.48700	1.0000	00000	0	0	0
331-030000	331-030000	331-040000	13.340	13.340	4756.4	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
340-010000	331-040000	340-010000	13.340	13.340	4756.4	.48700	1.0000	00000	0	0	0
340-020000	340-010000	351-010000	16.955	16.955	4756.4	.38300	1.0000	00000	0	0	0
COLDR2	BRANCH	COMPONENT									
352-010000	351-010000	352-010000	16.950	16.950	4756.4	.38300	1.0000	00000	0	0	0
352-020000	352-010000	353-010000	16.950	16.950	4756.4	.38300	1.0000	00000	0	0	0
COLDR3	PIPE	COMPONENT									
353-010000	353-010000	353-020000	16.950	16.950	4756.4	.38300	1.0000	00000	0	0	0
SURGE	PIPE	COMPONENT									
400-010000	400-010000	400-020000	3.69357E-04	1.42194E-03	1.41405E-02	6.31180E-02	1.0000	00000	0	0	0
400-020000	400-020000	400-030000	2.71657E-04	1.99332E-02	1.02250E-02	6.34253E-02	1.0000	00000	0	0	0
400-030000	400-030000	400-040000	1.65595E-04	2.93261E-02	6.23250E-03	6.34253E-02	1.0000	00000	0	0	0
SURGE1	SNGLJUN	COMPONENT									
405-000000	400-040000	410-010000	6.00316E-05	3.15712E-02	2.26608E-03	6.34253E-02	1.0000	00100	0	0	0
PRESSU	PIPE	COMPONENT									
410-010000	410-010000	410-020000	8.65871E-07	9.21066E-03	1.09977E-03	2.1329	1.0000	00000	0	0	0
410-020000	410-020000	410-030000	-9.60334E-07	3.75406E-03	-1.21647E-03	2.1329	1.0000	00000	0	0	0
410-030000	410-030000	410-040000	-2.29720E-06	2.63792E-02	-4.82252E-03	3.5350	1.0000	00000	0	0	0
410-040000	410-040000	410-050000	-9.40078E-05	.96203	-1.14215E-02	3.5350	1.0000	00000	0	0	0
410-050000	410-050000	410-060000	-2.1217	1.87738E-04	1.11033E-02	3.5350	1.0000	00000	0	0	0
410-060000	410-060000	410-070000	-.11050	6.51350E-05	8.11082E-03	3.5350	1.0000	00000	0	0	0
410-070000	410-070000	410-080000	-.12154	1.92678E-05	-5.98764E-05	3.5350	1.0000	00000	0	0	0
410-080000	410-080000	410-090000	-.12538.	1.32743E-05	2.93411E-05	2.1329	1.0000	00000	0	0	0
TOP	BRANCH	COMPONENT									
420-010000	410-090000	420-010000	-8.30438E-02	5.44885E-06	-4.16927E-06	2.1329	1.0000	00000	0	0	0
SPRAYR	BRANCH	COMPONENT									
430-010000	151-010000	430-010000	-3.36888E-08	-3.37651E-08	-1.47829E-07	5.98900E-03	1.0000	00000	0	0	0
SPRAYR	VALVE	COMPONENT									
435-000000	430-010000	450-010000	0.	0.	0.	5.98900E-03	0.	00100	0	0	0
SPRAYB	BRANCH	COMPONENT									
440-010000	351-010000	440-010000	-3.39789E-08	-3.40553E-08	-1.49103E-07	5.98900E-03	1.0000	00000	0	0	0
SPRAYB	VALVE	COMPONENT									
445-000000	440-010000	450-010000	0.	0.	0.	5.98900E-03	0.	00100	0	0	0
SPRAYB	BRANCH	COMPONENT									
450-010000	450-010000	420-010000	-1.1908	.21781	0.	5.98900E-03	1.0000	00000	0	0	0
PRESVAL	VALVE	COMPONENT									
489-000000	420-010000	490-010000	0.	0.	0.	2.1340	0.	00100	0	0	0

SYSTEM 2

JUN.NO.	VOIDFJ	VOIDGJ	FROM	TO	FIJ (N-S2/M5)	FWALFJ	FWALGJ	FJUNF	FJUNR	FORMFJ	FORMGJ
11-010000	1.0000	0.	BBY	BBY	20.182	2.72	0.	0.	0.	0.	0.
11-020000	1.0000	0.	BBY	BBY	2.69414E-02	1.936E-07	0.	2.30	2.30	0.	0.
13-010000	1.0000	0.	BBY	BBY	14.926	1.747E-02	0.	.429	.429	0.	0.
13-020000	1.0000	0.	BBY	BBY	14.926	1.748E-02	0.	.429	.429	0.	0.
13-030000	1.0000	0.	BBY	BBY	14.926	1.748E-02	0.	.429	.429	0.	0.
13-040000	1.0000	0.	BBY	BBY	22.008	3.487E-02	0.	.160	.160	0.	0.
15-010000	1.0000	0.	BBY	BBY	22.470	4.002E-02	0.	0.	0.	0.	0.
15-020000	1.0000	0.	BBY	BBY	22.480	4.002E-02	0.	0.	0.	0.	0.
23-010000	1.0000	0.	BBY	BBY	16.473	2.076E-02	0.	1.43	.500	0.	0.
23-020000	1.0000	0.	BBY	BBY	17.077	3.427E-03	0.	5.27	5.27	0.	0.
25-010000	1.0000	0.	BBY	BBY	22.414	.651	0.	2.46	2.46	0.	0.
25-020000	1.0000	0.	BBY	BBY	2.4027	4.351E-04	0.	7.45	7.45	0.	0.
31-010000	1.0000	0.	BBY	BBY	22.382	1.30	0.	2.47	2.47	0.	0.
31-020000	1.0000	0.	BBY	BBY	22.349	1.30	0.	2.40	2.40	0.	0.
31-030000	1.0000	0.	BBY	BBY	22.316	1.30	0.	2.31	2.31	0.	0.
31-040000	1.0000	0.	BBY	BBY	22.283	1.30	0.	2.23	2.23	0.	0.
39-010000	1.0000	0.	BBY	BBY	22.260	.651	0.	.720	.720	0.	0.
39-020000	1.0000	0.	BBY	BBY	2.3934	4.350E-04	0.	6.45	6.45	0.	0.
41-010000	1.0000	0.	BBY	BBY	16.718	1.905E-03	0.	2.04	2.04	0.	0.
41-020000	1.0000	0.	BBY	BBY	22.232	3.898E-03	0.	0.	0.	0.	0.
43-010000	1.0000	0.	BBY	BBY	12.960	1.920E-02	0.	.380	.380	0.	0.
43-020000	1.0000	0.	BBY	BBY	12.960	1.920E-02	0.	.380	.380	0.	0.
43-030000	1.0000	0.	BBY	BBY	12.960	1.920E-02	0.	.380	.380	0.	0.
45-010000	1.0000	0.	BBY	BBY	22.009	.887	0.	2.60	2.60	0.	0.
111-010000	1.0000	0.	BBY	BBY	22.141	3.836E-02	0.	0.	0.	0.	0.
113-010000	1.0000	0.	BBY	BBY	22.137	3.836E-02	0.	0.	0.	0.	0.
121-010000	1.0000	0.	BBY	BBY	12.272	.377	0.	.226	.580	0.	0.
121-020000	1.0000	0.	BBY	BBY	14.196	1.926E-02	0.	.325	.255	0.	0.
122-010000	1.0000	0.	BBY	BBY	22.139	.740	0.	0.	0.	0.	0.
122-020000	1.0000	0.	BBY	BBY	22.126	.728	0.	0.	0.	0.	0.
122-030000	1.0000	0.	BBY	BBY	22.111	.824	0.	0.	0.	0.	0.
122-040000	1.0000	0.	BBY	BBY	22.098	.849	0.	0.	0.	0.	0.
122-050000	1.0000	0.	BBY	BBY	22.083	.778	0.	0.	0.	0.	0.
122-060000	1.0000	0.	BBY	BBY	22.069	.778	0.	0.	0.	0.	0.
122-070000	1.0000	0.	BBY	BBY	22.056	.778	0.	0.	0.	0.	0.
122-080000	1.0000	0.	BBY	BBY	22.042	.778	0.	0.	0.	0.	0.
122-090000	1.0000	0.	BBY	BBY	22.028	.778	0.	0.	0.	0.	0.
122-100000	1.0000	0.	BBY	BBY	22.014	.808	0.	0.	0.	0.	0.
123-000000	1.0000	0.	BBY	BBY	22.003	.837	0.	0.	0.	0.	0.
124-010000	1.0000	0.	BBY	BBY	21.995	1.20	0.	0.	0.	0.	0.
124-020000	1.0000	0.	BBY	BBY	21.991	1.56	0.	0.	0.	0.	0.
124-030000	1.0000	0.	BBY	BBY	21.986	1.56	0.	0.	0.	0.	0.
124-040000	1.0000	0.	BBY	BBY	21.982	1.24	0.	0.	0.	0.	0.
124-050000	1.0000	0.	BBY	BBY	21.977	.915	0.	0.	0.	0.	0.
124-060000	1.0000	0.	BBY	BBY	21.974	1.10	0.	0.	0.	0.	0.
125-010000	1.0000	0.	BBY	BBY	14.082	.650	0.	.580	.226	0.	0.
125-020000	1.0000	0.	BBY	BBY	12.760	1.316E-02	0.	.255	.325	0.	0.
131-010000	1.0000	0.	BBY	BBY	21.681	2.551E-02	0.	0.	0.	0.	0.
131-020000	1.0000	0.	BBY	BBY	21.938	3.326E-02	0.	0.	0.	0.	0.
131-030000	1.0000	0.	BBY	BBY	21.937	3.096E-02	0.	0.	0.	0.	0.
140-010000	1.0000	0.	BBY	CTB	13.799	1.074E-02	0.	.195	.195	0.	0.
140-020000	1.0000	0.	CTB	BBY	14.630	1.598E-02	0.	.270	.270	0.	0.
150-010000	1.0000	0.	BBY	BBY	22.419	3.198E-02	0.	0.	0.	0.	0.

152-020000	1.0000	0.	BBY	BBY	22.417	3.196E-02	0.	0.	0.	0.	0.
153-010000	1.0000	0.	BBY	BBY	21.107	2.842E-02	0.	0.	0.	0.	0.
181-000000	1.0000	0.	BBY	BBY	.20428	1.058E-03	0.	0.	0.	0.	0.
211-010000	1.0000	0.	BBY	BBY	22.141	3.836E-02	0.	0.	0.	0.	0.
213-010000	1.0000	0.	BBY	BBY	22.137	3.836E-02	0.	0.	0.	0.	0.
221-010000	1.0000	0.	BBY	BBY	12.272	.377	0.	.226	.580	0.	0.
221-020000	1.0000	0.	BBY	BBY	14.196	1.926E-02	0.	.325	.255	0.	0.
222-010000	1.0000	0.	BBY	BBY	22.139	.740	0.	0.	0.	0.	0.
222-020000	1.0000	0.	BBY	BBY	22.126	.727	0.	0.	0.	0.	0.
222-030000	1.0000	0.	BBY	BBY	22.111	.823	0.	0.	0.	0.	0.
222-040000	1.0000	0.	BBY	BBY	22.098	.849	0.	0.	0.	0.	0.
222-050000	1.0000	0.	BBY	BBY	22.083	.778	0.	0.	0.	0.	0.
222-060000	1.0000	0.	BBY	BBY	22.069	.778	0.	0.	0.	0.	0.
222-070000	1.0000	0.	BBY	BBY	22.055	.778	0.	0.	0.	0.	0.
222-080000	1.0000	0.	BBY	BBY	22.041	.778	0.	0.	0.	0.	0.
222-090000	1.0000	0.	BBY	BBY	22.028	.778	0.	0.	0.	0.	0.
222-100000	1.0000	0.	BBY	BBY	22.014	.808	0.	0.	0.	0.	0.
223-000000	1.0000	0.	BBY	BBY	22.003	.837	0.	0.	0.	0.	0.
224-010000	1.0000	0.	BBY	BBY	21.995	1.20	0.	0.	0.	0.	0.
224-020000	1.0000	0.	BBY	BBY	21.991	1.56	0.	0.	0.	0.	0.
224-030000	1.0000	0.	BBY	BBY	21.985	1.56	0.	0.	0.	0.	0.
224-040000	1.0000	0.	BBY	BBY	21.981	1.24	0.	0.	0.	0.	0.
224-050000	1.0000	0.	BBY	BBY	21.977	.914	0.	0.	0.	0.	0.
224-060000	1.0000	0.	BBY	BBY	21.973	1.10	0.	0.	0.	0.	0.
225-010000	1.0000	0.	BBY	BBY	14.082	.650	0.	.580	.226	0.	0.
225-020000	1.0000	0.	BBY	BBY	12.760	1.316E-02	0.	.255	.325	0.	0.
231-010000	1.0000	0.	BBY	BBY	21.880	2.551E-02	0.	0.	0.	0.	0.
231-020000	1.0000	0.	BBY	BBY	21.937	3.326E-02	0.	0.	0.	0.	0.
232-010000	1.0000	0.	BBY	BBY	21.937	3.098E-02	0.	0.	0.	0.	0.
240-010000	1.0000	0.	BBY	CTB	13.799	1.074E-02	0.	.195	.195	0.	0.
240-020000	1.0000	0.	CTB	BBY	14.630	1.598E-02	0.	.270	.270	0.	0.
251-010000	1.0000	0.	BBY	BBY	22.419	3.196E-02	0.	0.	0.	0.	0.
253-010000	1.0000	0.	BBY	BBY	22.416	3.196E-02	0.	0.	0.	0.	0.
253-020000	1.0000	0.	BBY	BBY	21.106	2.842E-02	0.	0.	0.	0.	0.
283-000000	1.0000	0.	BBY	BBY	21.939	15.6	0.	0.	0.	0.	0.
311-010000	1.0000	0.	BBY	BBY	22.141	3.836E-02	0.	0.	0.	0.	0.
312-000000	1.0000	0.	BBY	BBY	21.084	1.02	0.	0.	0.	0.	0.
313-010000	1.0000	0.	BBY	BBY	22.137	3.837E-02	0.	0.	0.	0.	0.
321-010000	1.0000	0.	BBY	BBY	12.272	.377	0.	.226	.580	0.	0.
321-020000	1.0000	0.	BBY	BBY	14.196	1.927E-02	0.	.325	.255	0.	0.
322-010000	1.0000	0.	BBY	BBY	22.139	.740	0.	0.	0.	0.	0.
322-020000	1.0000	0.	BBY	BBY	22.126	.728	0.	0.	0.	0.	0.
322-030000	1.0000	0.	BBY	BBY	22.111	.824	0.	0.	0.	0.	0.
322-040000	1.0000	0.	BBY	BBY	22.098	.849	0.	0.	0.	0.	0.
322-050000	1.0000	0.	BBY	BBY	22.083	.778	0.	0.	0.	0.	0.
322-060000	1.0000	0.	BBY	BBY	22.069	.778	0.	0.	0.	0.	0.
322-070000	1.0000	0.	BBY	BBY	22.056	.778	0.	0.	0.	0.	0.
322-080000	1.0000	0.	BBY	BBY	22.042	.778	0.	0.	0.	0.	0.
322-090000	1.0000	0.	BBY	BBY	22.028	.778	0.	0.	0.	0.	0.
322-100000	1.0000	0.	BBY	BBY	22.014	.808	0.	0.	0.	0.	0.
323-000000	1.0000	0.	BBY	BBY	22.003	.837	0.	0.	0.	0.	0.
324-010000	1.0000	0.	BBY	BBY	21.995	1.20	0.	0.	0.	0.	0.
324-020000	1.0000	0.	BBY	BBY	21.991	1.56	0.	0.	0.	0.	0
324-030000	1.0000	0.	BBY	BBY	21.986	1.56	0.	0.	0.	0.	0.
324-040000	1.0000	0.	BBY	BBY	21.981	1.24	0.	0.	0.	0.	0.
324-050000	1.0000	0.	BBY	BBY	21.977	.915	0.	0.	0.	0.	0.
324-060000	1.0000	0.	BBY	BBY	21.974	1.10	0.	0.	0.	0.	0.

325-010000	1.0000	0.	BBY	BBY	14.082	.650	0.	.580	.225	0.	0.
325-020000	1.0000	0.	BBY	BBY	12.760	1.316E-02	0.	.255	.325	0.	0.
331-010000	1.0000	0.	BBY	BBY	21.681	2.561E-02	0.	0.	0.	0.	0.
331-020000	1.0000	0.	BBY	BBY	21.938	3.326E-02	0.	0.	0.	0.	0.
331-030000	1.0000	0.	BBY	BBY	21.937	3.096E-02	0.	0.	0.	0.	0.
340-010000	1.0000	0.	BBY	CTB	13.799	1.074E-02	0.	.195	.195	0.	0.
340-020000	1.0000	0.	CTB	BBY	14.630	1.598E-02	0.	.270	.270	0.	0.
352-010000	1.0000	0.	BBY	BBY	22.419	3.196E-02	0.	0.	0.	0.	0.
352-020000	1.0000	0.	BBY	BBY	22.416	3.196E-02	0.	0.	0.	0.	0.
353-010000	1.0000	0.	BBY	BBY	21.106	2.842E-02	0.	0.	0.	0.	0.
400-010000	1.0000	0.	BBY	BBY	17.339	1.50	8.05	0.	0.	0.	0.
400-020000	1.0000	3.04565E-07	BBY	BBY	21.216	2.17	.872	0.	0.	0.	0.
400-030000	.99998	1.87642E-05	BBY	BBY	31.875	3.90	.650	0.	0.	0.	0.
405-000000	.99996	3.73473E-05	BBY	BBY	23.936	5.60	.330	0.	0.	.941	.941
410-010000	1.0000	1.38742E-06	BBY	BBY	17.163	1.46	6.124E-03	0.	0.	0.	0.
410-020000	1.0000	2.51375E-07	BBY	BBY	13.393	1.21	2.255E-02	0.	0.	0.	0.
410-030000	.99981	0.	BBY	BBY	631.48	.258	6.696E-04	0.	0.	0.	0.
410-040000	.38562	1.85953E-04	BBY	SLG	1249.6	.203	9.827E-08	0.	0.	0.	0.
410-050000	6.87341E-06	.61438	SLG	ANM	165.86	2.735E-05	2.432E-04	0.	0.	0.	0.
410-060000	6.64697E-05	.99999	ANM	ANM	13.236	5.908E-04	9.014E-07	0.	0.	0.	0.
410-070000	2.74580E-05	.99993	ANM	ANM	17.782	2.539E-04	2.248E-06	0.	0.	0.	0.
410-080000	1.80103E-05	.99997	ANM	ANM	9.2194	5.931E-05	3.394E-07	0.	0.	0.	0.
420-010000	1.13141E-05	.99998	ANM	ANM	9.4767	1.028E-04	6.020E-07	0.	0.	0.	0.
430-010000	1.0000	0.	BBY	BBY	18.728	7.247E+04	0.	0.	0.	0.	0.
435-000000	1.0000	0.	BBY	BBY	22.307	3.919E+06	0.	0.	0.	0.	0.
440-010000	1.0000	0.	BBY	BBY	18.728	7.232E+04	0.	0.	0.	0.	0.
445-000000	1.0000	0.	BBY	BBY	22.307	3.919E+06	0.	0.	0.	0.	0.
450-010000	0.	0.	BBY	ANM	85.824	.336	5.045E-13	1.00	1.00	0.	0.
489-000000	5.65703E-06	.99999	ANM	MST	8.0929	37.8	1.111E-05	0.	0.	0.	0.

STR.NO.	SIDE	BDRY.VOL. NUMBER	SURFACE TEMP. (K)	HEAT TRF. RATE (WATT)	HEAT FLUX (WATT/M2)	CRITICAL HEAT FLUX (WATT/M2)	MODE	HEAT TRF. COEF. (WATT/M2-K)	INT. HEAT SOURCE (WATT)	NET HEAT LOSS (WATT)	VOL.AVE. TEMP. (K)
1211-001	LEFT	121-010000	570.49	-74.474	-8.0205	0.	2	5986.2	0.	-74.474	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
1220-001	LEFT	122-010000	570.43	-3.66994E+05	-1505.7	0.	2	37789.	0.	-7.8451	570.39
	RIGHT	0-000000	570.35	3.66986E+05	1333.4	0.	0	0.			
1220-002	LEFT	122-020000	570.42	-3.08679E+05	-1309.5	0.	2	37790.	0.	-6.8778	570.38
	RIGHT	0-000000	570.35	3.08672E+05	1159.7	0.	0	0.			
1220-003	LEFT	122-030000	570.41	-2.67360E+05	-1134.2	0.	2	37791.	0.	-6.2311	570.38
	RIGHT	0-000000	570.35	2.67354E+05	1004.4	0.	0	0.			
1220-004	LEFT	122-040000	570.40	-2.82752E+05	-949.08	0.	2	37793.	0.	-6.9678	570.37
	RIGHT	0-000000	570.35	2.82745E+05	840.45	0.	0	0.			
1220-005	LEFT	122-050000	570.39	-2.00312E+05	-794.53	0.	2	37794.	0.	-5.3150	570.37
	RIGHT	0-000000	570.35	2.00307E+05	703.59	0.	0	0.			
1220-006	LEFT	122-060000	570.39	-1.67204E+05	-663.21	0.	2	37796.	0.	-4.7943	570.37
	RIGHT	0-000000	570.35	1.67199E+05	587.29	0.	0	0.			
1220-007	LEFT	122-070000	570.38	-1.37620E+05	-545.86	0.	2	37798.	0.	-4.3292	570.36
	RIGHT	0-000000	570.35	1.37616E+05	483.38	0.	0	0.			
1220-008	LEFT	122-080000	570.37	-1.11185E+05	-441.01	0.	2	37799.	0.	-3.9145	570.36
	RIGHT	0-000000	570.35	1.11181E+05	390.53	0.	0	0.			
1220-009	LEFT	122-090000	570.37	-87561.	-347.31	0.	2	37801.	0.	-3.5452	570.36
	RIGHT	0-000000	570.35	87558.	307.55	0.	0	0.			
1220-010	LEFT	122-100000	570.36	-66450.	-263.57	0.	2	37803.	0.	-3.2171	570.36
	RIGHT	0-000000	570.35	66447.	233.40	0.	0	0.			
1220-0[illegible]	LEFT	122-110000	570.36	-52[illegible].	-192.43	0.	2	37805.	0.	-3.1258	570.36

	RIGHT	0-000000	570.35	52181.	170.40	0.	0	0.			
1231-001	LEFT	121-010000	570.48	-135.50	-116.81	0.	2	5986.2	0.	-8.9291	570.43
	RIGHT	125-010000	570.38	126.57	109.12	0.	2	5989.9			
1240-001	LEFT	124-010000	570.36	-41542.	-153.19	0.	2	37806.	0.	-2.8321	570.35
	RIGHT	0-000000	570.35	41540.	135.65	0.	0	0.			
1240-002	LEFT	124-020000	570.36	-75491.	-149.72	0.	2	37807.	0.	-4.4527	570.35
	RIGHT	0-000000	570.35	75487.	132.58	0.	0	0.			
1240-003	LEFT	124-030000	570.36	-73916.	-146.59	0.	2	37808.	0.	-3.8201	570.35
	RIGHT	0-000000	570.35	73912.	129.81	0.	0	0.			
1240-004	LEFT	124-040000	570.36	-72643.	-144.07	0.	2	37809.	0.	-3.3245	570.35
	RIGHT	0-000000	570.35	72640.	127.58	0.	0	0.			
1240-005	LEFT	124-050000	570.36	-43704.	-135.94	0.	2	37809.	0.	-1.9477	570.35
	RIGHT	0-000000	570.35	43702.	120.38	0.	0	0.			
1240-006	LEFT	124-060000	570.36	-39946.	-135.55	0.	2	37810.	0.	-1.6618	570.35
	RIGHT	0-000000	570.35	39945.	120.03	0.	0	0.			
1240-007	LEFT	124-070000	570.36	-40782.	-138.38	0.	2	37810.	0.	-1.5180	570.35
	RIGHT	0-000000	570.35	40780.	122.64	0.	0	0.			
1240-008	LEFT	124-070000	570.36	-17408.	-138.38	0.	2	37810.	0.	-.64801	570.35
	RIGHT	0-000000	570.35	17408.	122.54	0.	0	0.			
1251-001	LEFT	125-010000	570.36	-.85391	-9.19627E-02	0.	2	5989.9	0.	-.85391	570.37
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
2211-001	LEFT	221-010000	570.49	-74.027	-7.9724	0.	2	5990.2	0.	-74.027	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
2220-001	LEFT	222-010000	570.43	-3.66964E+05	-1505.6	0.	2	37814.	0.	-7.8470	570.39
	RIGHT	0-000000	570.35	3.66956E+05	1333.3	0.	0	0.			
2220-002	LEFT	222-020000	570.42	-3.08664E+05	-1309.5	0.	2	37815.	0.	-6.8800	570.38
	RIGHT	0-000000	570.35	3.08658E+05	1159.6	0.	0	0.			
2220-003	LEFT	222-030000	570.41	-2.67355E+05	-1134.2	0.	2	37816.	0.	-6.2335	570.38
	RIGHT	0-000000	570.35	2.67349E+05	1004.4	0.	0	0.			
2220-004	LEFT	222-040000	570.40	-2.82760E+05	-949.11	0.	2	37818.	0.	-6.9710	570.37
	RIGHT	0-000000	570.35	2.82753E+05	840.48	0.	0	0.			
2220-005	LEFT	222-050000	570.39	-2.00320E+05	-794.56	0.	2	37820.	0.	-5.3178	570.37
	RIGHT	0-000000	570.35	2.00315E+05	703.61	0.	0	0.			
2220-006	LEFT	222-060000	570.39	-1.67213E+05	-663.24	0.	2	37821.	0.	-4.7971	570.37
	RIGHT	0-000000	570.35	1.67208E+05	587.33	0.	0	0.			
2220-007	LEFT	222-070000	570.38	-1.37629E+05	-545.90	0.	2	37823.	0.	-4.3321	570.36
	RIGHT	0-000000	570.35	1.37624E+05	483.41	0.	0	0.			
2220-008	LEFT	222-080000	570.37	-1.11191E+05	-441.03	0.	2	37825.	0.	-3.9174	570.36
	RIGHT	0-000000	570.35	1.11187E+05	390.55	0.	0	0.			
2220-009	LEFT	222-090000	570.37	-87564.	-347.32	0.	2	37826.	0.	-3.5481	570.36
	RIGHT	0-000000	570.35	87560.	307.56	0.	0	0.			
2220-010	LEFT	222-100000	570.36	-66447.	-263.56	0.	2	37828.	0.	-3.2198	570.36
	RIGHT	0-000000	570.35	66444.	233.39	0.	0	0.			
2220-011	LEFT	222-110000	570.36	-52176.	-192.40	0.	2	37830.	0.	-3.1286	570.36
	RIGHT	0-000000	570.35	52173.	170.37	0.	0	0.			
2231-001	LEFT	221-010000	570.48	-135.48	-116.80	0.	2	5990.2	0.	-8.8994	570.43
	RIGHT	225-010000	570.38	126.58	109.12	0.	2	5993.9			
2240-001	LEFT	224-010000	570.36	-41530.	-153.14	0.	2	37831.	0.	-2.8350	570.35
	RIGHT	0-000000	570.35	41527.	135.61	0.	0	0.			
2240-002	LEFT	224-020000	570.36	-75476.	-149.69	0.	2	37832.	0.	-4.4575	570.35
	RIGHT	0-000000	570.35	75471.	132.55	0.	0	0.			
2240-003	LEFT	224-030000	570.36	-73892.	-146.55	0.	2	37833.	0.	-3.8245	570.35
	RIGHT	0-000000	570.35	73889.	129.77	0.	0	0.			
2240-004	LEFT	224-040000	570.36	-72613.	-144.01	0.	2	37834.	0.	-3.3287	570.35
	RIGHT	0-000000	570.35	72609.	127.52	0.	0	0.			
2240-005	LEFT	224-050000	570.36	-43674.	-135.85	0.	2	37834.	0.	-1.9503	570.35
	RIGHT	0-000000	570.35	43672.	120.30	0.	0	0.			

2240-006	LEFT	224-060000	570.36	-39918.	-135.45	0.	2	37835.	0.	-1.6641	570.35
	RIGHT	0-000000	570.35	39916.	119.95	0.	0	0.			
2240-007	LEFT	224-070000	570.36	-40757.	-138.30	0.	2	37836.	0.	-1.5201	570.35
	RIGHT	0-000000	570.35	40755.	122.47	0.	0	0.			
2240-008	LEFT	224-070000	570.36	-17398.	-138.30	0.	2	37836.	0.	-.64888	570.35
	RIGHT	0-000000	570.35	17397.	122.47	0.	0	0.			
2251-001	LEFT	225-010000	570.36	-.80624	-8.68283E-02	0.	2	5993.9	0.	-.80624	570.37
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
3211-001	LEFT	321-010000	570.49	-60.809	-6.5488	0.	2	5986.6	0.	-60.809	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
3220-001	LEFT	322-010000	570.43	-3.66992E+05	-1505.7	0.	2	37791.	0.	-7.8327	570.39
	RIGHT	0-000000	570.35	3.66985E+05	1333.4	0.	0	0.			
3220-002	LEFT	322-020000	570.42	-3.08679E+05	-1309.6	0.	2	37792.	0.	-6.8671	570.38
	RIGHT	0-000000	570.35	3.08672E+05	1159.7	0.	0	0.			
3220-003	LEFT	322-030000	570.41	-2.67361E+05	-1134.2	0.	2	37793.	0.	-6.2216	570.38
	RIGHT	0-000000	570.35	2.67354E+05	1004.4	0.	0	0.			
3220-004	LEFT	322-040000	570.40	-2.82754E+05	-949.09	0.	2	37795.	0.	-6.9574	570.37
	RIGHT	0-000000	570.35	2.82747E+05	840.46	0.	0	0.			
3220-005	LEFT	322-050000	570.39	-2.00314E+05	-794.53	0.	2	37796.	0.	-5.3073	570.37
	RIGHT	0-000000	570.35	2.00308E+05	703.59	0.	0	0.			
3220-006	LEFT	322-060000	570.39	-1.67205E+05	-663.21	0.	2	37798.	0.	-4.7876	570.37
	RIGHT	0-000000	570.35	1.67201E+05	587.30	0.	0	0.			
3220-007	LEFT	322-070000	570.38	-1.37622E+05	-545.87	0.	2	37800.	0.	-4.3234	570.36
	RIGHT	0-000000	570.35	1.37617E+05	483.39	0.	0	0.			
3220-008	LEFT	322-080000	570.37	-1.11186E+05	-441.01	0.	2	37801.	0.	-3.9095	570.36
	RIGHT	0-000000	570.35	1.11182E+05	390.53	0.	0	0.			
3220-009	LEFT	322-090000	570.37	-87562.	-347.31	0.	2	37803.	0.	-3.5410	570.36
	RIGHT	0-000000	570.35	87559.	307.55	0.	0	0.			
3220-010	LEFT	322-100000	570.36	-66450.	-263.57	0.	2	37805.	0.	-3.2135	570.36
	RIGHT	0-000000	570.35	66447.	233.40	0.	0	0.			
3220-011	LEFT	322-110000	570.36	-52184.	-192.43	0.	2	37807.	0.	-3.1225	570.36
	RIGHT	0-000000	570.35	52181.	170.40	0.	0	0.			
3231-001	LEFT	321-010000	570.48	-134.12	-115.62	0.	2	5986.6	0.	-6.3026	570.43
	RIGHT	325-010000	570.38	127.82	110.19	0.	2	5990.2			
3240-001	LEFT	324-010000	570.36	-41542.	-153.18	0.	2	37808.	0.	-2.8295	570.35
	RIGHT	0-000000	570.35	41539.	135.64	0.	0	0.			
3240-002	LEFT	324-020000	570.36	-75491.	-149.71	0.	2	37809.	0.	-4.4495	570.35
	RIGHT	0-000000	570.35	75486.	132.57	0.	0	0.			
3240-003	LEFT	324-030000	570.36	-73915.	-146.59	0.	2	37810.	0.	-3.8183	570.35
	RIGHT	0-000000	570.35	73911.	129.81	0.	0	0.			
3240-004	LEFT	324-040000	570.36	-72641.	-144.06	0.	2	37811.	0.	-3.3238	570.35
	RIGHT	0-000000	570.35	72638.	127.57	0.	0	0.			
3240-005	LEFT	324-050000	570.36	-43702.	-135.94	0.	2	37811.	0.	-1.9475	570.35
	RIGHT	0-000000	570.35	43700.	120.37	0.	0	0.			
3240-006	LEFT	324-060000	570.36	-39944.	-135.54	0.	2	37812.	0.	-1.6619	570.35
	RIGHT	0-000000	570.35	39943.	120.03	0.	0	0.			
3240-007	LEFT	324-070000	570.36	-40780.	-138.38	0.	2	37812.	0.	-1.5184	570.35
	RIGHT	0-000000	570.35	40778.	122.54	0.	0	0.			
3240-008	LEFT	324-070000	570.36	-17408.	-138.38	0.	2	37812.	0.	-.64816	570.35
	RIGHT	0-000000	570.35	17407.	122.54	0.	0	0.			
3251-001	LEFT	325-010000	570.36	.89053	9.59060E-02	0.	2	5990.2	0.	.89053	570.37
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
4000-001	LEFT	400-010000	616.46	5693.2	1133.9	0.	2	1023.8	0.	10329.	616.63
	RIGHT	940-010000	616.57	4635.4	736.49	0.	0	2.5100			
4000-002	LEFT	400-020000	617.34	-3820.3	-760.87	0.	2	957.68	0.	817.84	617.03
	RIGHT	940-010000	616.75	4538.1	736.93	0.	0	2.5100			
4000-00[illegible]	LEFT	400-030000	617.34	-4209.6	-838.42	0.	2	986.22	0.	428.08	617.01

	RIGHT	940-010000	616.72	4637.7	736.87	0.	0	2.5100				
4000-004	LEFT	400-040000	617.31	-4187.8	-834.06	0.	2	984.65	0.	449.54	616.99	
	RIGHT	940-010000	616.70	4637.3	736.80	0.	0	2.5100				
4101-001	LEFT	410-010000	617.02	-1250.4	-853.48	0.	2	876.03	0.	-25.497	615.98	
	RIGHT	940-010000	615.03	1224.9	732.61	0.	0	2.5100				
4101-002	LEFT	410-020000	617.01	-2475.3	-844.64	0.	2	873.72	0.	-25.114	615.98	
	RIGHT	940-010000	615.03	2450.2	732.61	0.	0	2.5100				
4102-001	LEFT	410-030000	617.03	-3841.4	-821.01	0.	2	867.67	0.	-41.450	616.03	
	RIGHT	940-010000	615.10	3800.0	732.79	0.	0	2.5100				
4102-002	LEFT	410-040000	617.17	-11312.	-1156.0	0.	11	1436.8	0.	-3365.0	616.06	
	RIGHT	940-010000	615.10	7947.4	732.79	0.	0	2.5100				
4102-003	LEFT	410-050000	617.94	-17906.	-892.97	0.	11	10082.	0.	-1573.1	616.90	
	RIGHT	940-010000	615.95	16333.	734.94	0.	0	2.5100				
4102-004	LEFT	410-060000	617.91	-17046.	-850.07	0.	11	9997.4	0.	-713.05	616.89	
	RIGHT	940-010000	615.95	16333.	734.93	0.	0	2.5100				
4102-005	LEFT	410-070000	617.90	-16677.	-831.68	0.	11	10074.	0.	-344.11	616.89	
	RIGHT	940-010000	615.95	16333.	734.93	0.	0	2.5100				
4102-006	LEFT	410-080000	617.92	-3835.5	-819.74	0.	11	16446.	0.	-24.047	616.92	
	RIGHT	940-010000	615.98	3811.5	735.01	0.	0	2.5100				
4103-001	LEFT	410-090000	617.93	-1641.8	-832.16	0.	11	20061.	0.	-4.4584	616.99	
	RIGHT	940-010000	616.12	1637.4	735.36	0.	0	2.5100				
4103-002	LEFT	420-010000	617.93	-1146.0	-828.23	0.	11	22616.	0.	2.3384	617.00	
	RIGHT	940-010000	616.13	1148.4	735.38	0.	0	2.5100				
4113-001	LEFT	0-000000	619.97	0.	0.	0.	0	0.	66943.	.65496	619.10	
	RIGHT	410-040000	618.60	66943.	6225.8	2.79943E+06	3	11843.				
4113-002	LEFT	0-000000	620.26	0.	0.	0.	0	0.	22314.	-6.4091	619.39	
	RIGHT	410-050000	618.89	22308.	6228.0	2.80208E+06	4	7237.7				

STR.NO.	MESH POINT TEMPERATURES (K)				
1211-001	570.49	570.49	570.49	570.49	570.49
1220-001	570.43	570.39	570.35		
1220-002	570.42	570.38	570.35		
1220-003	570.41	570.38	570.35		
1220-004	570.40	570.37	570.35		
1220-005	570.39	570.37	570.35		
1220-006	570.39	570.37	570.35		
1220-007	570.38	570.36	570.35		
1220-008	570.37	570.36	570.35		
1220-009	570.37	570.36	570.35		
1220-010	570.36	570.36	570.35		
1220-011	570.36	570.36	570.35		
1231-001	570.48	570.44	570.41	570.38	
1240-001	570.36	570.35	570.35		
1240-002	570.36	570.35	570.35		
1240-003	570.36	570.35	570.35		
1240-004	570.36	570.35	570.35		
1240-005	570.36	570.35	570.35		
1240-006	570.36	570.35	570.35		
1240-007	570.36	570.35	570.35		
1240-008	570.36	570.35	570.35		
1251-001	570.36	570.37	570.37	570.37	570.37
2211-001	570.49	570.49	570.49	570.49	570.49
2220-001	570.43	570.39	570.35		
2220-002	570.42	570.38	570.35		
2220-003	570.41	570.38	570.35		
2220-004	570.40	570.37	570.35		
2220-005	570.39	570.37	570.35		

2220-006	570.39	570.37	570.35		
2220-007	570.38	570.36	570.35		
2220-008	570.37	570.36	570.35		
2220-009	570.37	570.36	570.35		
2220-010	570.36	570.36	570.35		
2220-011	570.36	570.36	570.35		
2231-001	570.48	570.44	570.41	570.38	
2240-001	570.36	570.35	570.35		
2240-002	570.36	570.35	570.35		
2240-003	570.36	570.35	570.35		
2240-004	570.36	570.35	570.35		
2240-005	570.36	570.35	570.35		
2240-006	570.36	570.35	570.35		
2240-007	570.36	570.35	570.35		
2240-008	570.36	570.35	570.35		
2251-001	570.36	570.37	570.37	570.37	570.37
3211-001	570.49	570.49	570.49	570.49	570.49
3220-001	570.43	570.39	570.35		
3220-002	570.42	570.38	570.35		
3220-003	570.41	570.38	570.35		
3220-004	570.40	570.37	570.35		
3220-005	570.39	570.37	570.35		
3220-006	570.39	570.37	570.35		
3220-007	570.38	570.36	570.35		
3220-008	570.37	570.36	570.35		
3220-009	570.37	570.36	570.35		
3220-010	570.36	570.36	570.35		
3220-011	570.36	570.36	570.35		
3231-001	570.48	570.44	570.41	570.38	
3240-001	570.36	570.35	570.35		
3240-002	570.36	570.35	570.35		
3240-003	570.36	570.35	570.35		
3240-004	570.36	570.35	570.35		
3240-005	570.36	570.35	570.35		
3240-006	570.36	570.35	570.35		
3240-007	570.36	570.35	570.35		
3240-008	570.36	570.35	570.35		
3251-001	570.36	570.37	570.37	570.37	570.37
4000-001	616.46	616.67	616.70	616.57	
4000-002	617.34	617.14	616.94	616.75	
4000-003	617.34	617.13	616.92	616.72	
4000-004	617.31	617.10	616.89	616.70	
4101-001	617.02	616.32	615.66	615.03	
4101-002	617.01	616.32	615.66	615.03	
4102-001	617.03	616.36	615.72	615.10	
4102-002	617.17	616.38	615.72	615.10	
4102-003	617.94	617.23	616.58	615.95	
4102-004	617.91	617.22	616.57	615.95	
4102-005	617.90	617.22	616.57	615.95	
4102-006	617.92	617.25	616.61	615.98	
4103-001	617.93	617.30	616.70	616.12	
4103-002	617.93	617.31	616.71	616.13	
4113-001	619.97	619.22	618.60		
4113-002	620.26	619.51	618.89		

CONTROL VARIABLE EDIT

P/RHO180 DIV 25378.2 2 ENTHA180 SUM 1.268909E+06

3	CVENERGY	MULT	7.837495E+06	4	P/RHO231	DIV	20917.2
5	ENTHA231	SUM	1.322731E+06	6	LETDENER	MULT	8.169930E+06
7	PRZRHEAT	SUM	12118.4	8	PRZVAPH	SUM	-57761.9
9	BALANCE	SUM	5.692104E+06	10	CALC-P	MULT	1.551012E+07
11	MEAS-P	FUNCTION	1.551000E+07	12	MEAS-L	FUNCTION	26.3000
13	TEMPF420	MULT	617.967	14	TEMPG420	MULT	617.966
15	SAT420	MULT	617.967	16	SPRYTEMP	MULT	570.449
20	P/RHO450	DIV	21223.9	21	ENTHA450	SUM	1.323151E+06
22	SPRENER	MULT	0.	23	P/RHO400	DIV	25677.1
24	ENTHA410	SUM	1.608226E+06	25	SURGENER	MULT	-22741.2
26	SPRBALAN	SUM	34859.6	27	HEATERW	SUM	89223.6
28	VAPGEN	SUM	2.826277E-02	31	POW	SUM	0.
32	TURBPOW	SUM	0.	100	TAVG(R)	SUM	570.538
101	LAG1	LAG	570.538	102	S1	SUM	-14.6120
103	LL1	LEAD-LAG	-.580580	104	S2	SUM	1.56274
105	???	SUM	118.700	106	DELTA-T	SUM	-.114790
107	LAG2	LAG	-.114819	108	LL2	LEAD-LAG	-.110231
109	LL3	LEAD-LAG	570.537	110	LAG3	LAG	570.537
111	S4	SUM	0.	112	S5	SUM	-3.313996E-02
113	S6	SUM	41.1825	134	LEVREG	PROP-INT	8.91710
135	LIMIT	MULT	9.50000	136	DELTAF	SUM	-5.571317E-05
137	D(AREA)	PROP-INT	-9.063710E-08	139	VALVAREA	SUM	.106970
140	AREA**2	MULT	1.144263E-02	141	K(VALV)	DIV	21166.1
142	K(T+DT)	SUM	21574.8	143	DELTA-K	SUM	-3.586860E-04
144	K(T)	MULT	21574.8	145	DELTA-P	SUM	-.295668
146	P(T)	MULT	1.590400E+07	153	KOQO2	MULT	816228.
154	DUM	SUM	856942.	155	A(T)	DIV	1.166941E-06
156	DUM	MULT	131.825	157	DUM	MULT	-38779.7
158	A	SUM	21442.9	159	DUM	MULT	245951.
160	DUM	MULT	1.931044E-03	170	B	SUM	38791.1
171	DUM	MULT	6.952168E-09	172	DUM	MULT	-.281621
173	DUM	MULT	-4.661432E-02	174	C	SUM	-.328235
175	B**2	MULT	1.504749E+09	176	AC4	MULT	-28153.3
177	B2-4AC	SUM	1.504777E+09	178	SQRT	STDFNCTN	38791.5
179	DUM	SUM	.181441	180	DELTA-Q	DIV	8.461574E-06
181	Q(T+DT)	SUM	11.3999	182	DUM	STDFNCTN	.607804
183	QO(T+DT)	MULT	6.92893	184	QTOT	SUM	18.3289
185	P(PUMP)	FUNCTION	2.025570E+07	186	DFDQ	FUNCTION	-40714.1
200	TAVG(G)	SUM	570.538	201	LAG1	LAG	570.538
202	S1	SUM	-14.6119	203	LL1	LEAD-LAG	-.580577
204	S2	SUM	1.56274	205	???	SUM	118.699
206	DELTA-T	SUM	-.115043	207	LAG2	LAG	-.115073
208	LL2	LEAD-LAG	-.110552	209	LL3	LEAD-LAG	570.537
210	LAG3	LAG	570.537	211	S4	SUM	0.
212	S5	SUM	-3.313984E-02	213	S6	SUM	41.1825
281	LET1	SUM	2.302755E+07	282	LET2	MULT	1.685884E+10
283	LET3	STDFNCTN	6.17656	284	LETDOWN	MULT	22.3697
300	TAVG(B)	SUM	570.538	301	LAG1	LAG	570.538
302	S1	SUM	-14.6120	303	LL1	LEAD-LAG	-.580583
304	S2	SUM	1.56274	305	???	SUM	118.700
306	DELTA-T	SUM	-.114763	307	LAG2	LAG	-.114793
308	LL2	LEAD-LAG	-.109967	309	LL3	LEAD-LAG	570.537
310	LAG3	LAG	570.537	311	S4	SUM	0.
312	S5	SUM	-3.314000E-02	313	S6	SUM	41.1825
400	COLLEVEL	SUM	26.6101	402	DPLEVEL	SUM	26.3244
404	PRZMASS	SUM	11268.7	410	T-AUCT-H	STDFNCTN	570.538
411	L-REF	FUNCTION	25.4159	412	DELT-LEV	SUM	.908529

413	DELTA-P	SUM	988.604	414	DP-CORR	PROP-INT	1137.84
415	POW-HE11	TRIPUNIT	0.	416	POW-BKR	TRIPUNIT	0.
417	POWVAR	FUNCTION	152248.	418	TOTPOW	FUNCTION	89257.0
435	SPRAYVAL	FUNCTION	0.	445	SPRAYVAL	FUNCTION	0.
606	POWCOLDL	SUM	43704.1	607	POWPREH	SUM	98136.7
608	POWHOTLG	SUM	1.225785E+06	609	POWUBEND	SUM	1.086109E+06
610	SGPOWER	SUM	2.453819E+06	706	POWCOLDL	SUM	43673.8
707	POWPREH	SUM	98071.9	708	POWHOTLG	SUM	1.225744E+06
709	POWUBEND	SUM	1.086050E+06	710	SGPOWER	SUM	2.453624E+06
806	POWCOLDL	SUM	43701.7	807	POWPREH	SUM	98131.7
808	POWHOTLG	SUM	1.225786E+06	809	POWUBEND	SUM	1.086111E+06
810	SGPOWER	SUM	2.453797E+06	900	MG1	MULT	8.549907E-05
901	MG2	MULT	3.097788E-05	902	MG3	MULT	0.
903	MG4	MULT	9.841025E-02	904	MG5	MULT	666.011
905	MG6	MULT	1082.53	906	MG7	MULT	1082.35
907	MG8	MULT	252.517	908	MG9	MULT	82.7073
909	MG10	MULT	58.0328	911	PRZMASW	SUM	3224.25
912	PRZMASL	SUM	8044.41	920	SURGHEAT	SUM	-6524.45

---RESTART NO. 300 WRITTEN, BLOCK NO. 2---

NUMBER OF ELEMENTS IN SPARSE MATRIX 1: ORIGINAL = 410, FACTORED = 669 ROUNDOFF ERROR = 1.600000E-11 NCOUNT = 301

TIME (SEC)	P 420010000 (PA)	P 410090000 (PA)	P 410080000 (PA)	P 151010000 (PA)	P 351010000 (PA)	P 231010000 (PA)	P 430010000 (PA)	P 440010000 (PA)	P 450010000 (PA)
0.	1.55104E+07	1.55100E+07	1.55100E+07	1.59451E+07	1.59451E+07	1.53390E+07	1.59104E+07	1.59104E+07	1.59104E+07
1.00000	1.55101E+07	1.55105E+07	1.55110E+07	1.58944E+07	1.58944E+07	1.53009E+07	1.59629E+07	1.59629E+07	1.55414E+07
2.00000	1.55101E+07	1.55105E+07	1.55110E+07	1.59142E+07	1.59141E+07	1.53205E+07	1.59826E+07	1.59825E+07	1.55414E+07
3.00000	1.55101E+07	1.55105E+07	1.55110E+07	1.59048E+07	1.59047E+07	1.53111E+07	1.59732E+07	1.59731E+07	1.55414E+07
4.00000	1.55101E+07	1.55105E+07	1.55110E+07	1.59087E+07	1.59086E+07	1.53149E+07	1.59771E+07	1.59770E+07	1.55415E+07
5.00000	1.55101E+07	1.55105E+07	1.55110E+07	1.59072E+07	1.59071E+07	1.53135E+07	1.59756E+07	1.59755E+07	1.55422E+07
6.00000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55420E+07
7.00000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55423E+07
8.00000	1.55101E+07	1.55105E+07	1.55110E+07	1.59074E+07	1.59073E+07	1.53137E+07	1.59758E+07	1.59757E+07	1.55423E+07
9.00000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55423E+07
10.0000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53137E+07	1.59759E+07	1.59758E+07	1.55423E+07
11.0000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55424E+07
12.0000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55424E+07
13.0000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55424E+07
14.0000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55424E+07
15.0000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55424E+07
16.0000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55424E+07
17.0000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55424E+07
18.0000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55425E+07
19.0000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55425E+07
20.0000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55425E+07
21.0000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55425E+07
22.0000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55425E+07
23.0000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55425E+07
24.0000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55426E+07
25.0000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55426E+07
26.0000	1.55101E+07	1.55105E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55426E+07
27.0000	1.55101E+07	1.55104E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55426E+07
28.0000	1.55101E+07	1.55104E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55426E+07
29.0000	1.55101E+07	1.55104E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55426E+07
30.0000	1.55101E+07	1.55104E+07	1.55110E+07	1.59075E+07	1.59074E+07	1.53138E+07	1.59759E+07	1.59758E+07	1.55426E+07
31.0000	1.55090E+07	1.55093E+07	1.55098E+07	1.59055E+07	1.59054E+07	1.53120E+07	1.59644E+07	1.59643E+07	1.55584E+07
32.0000	1.55063E+07	1.55066E+07	1.55071E+07	1.59028E+07	1.59026E+07	1.53091E+07	1.59694E+07	1.59693E+07	1.55422E+07
33.0000	1.55018E+07	1.55022E+07	1.55027E+07	1.58985E+07	1.58984E+07	1.53049E+07	1.59657E+07	1.59656E+07	1.55368E+07
34.0000	1.54958E+07	1.54961E+07	1.54967E+07	1.58921E+07	1.58920E+07	1.52986E+07	1.59590E+07	1.59589E+07	1.55312E+07
35.0000	1.54881E+07	1.54885E+07	1.54890E+07	1.58843E+07	1.58842E+07	1.52908E+07	1.59509E+07	1.59508E+07	1.55242E+07
36.0000	1.54791E+07	1.54794E+07	1.54800E+07	1.58750E+07	1.58748E+07	1.52816E+07	1.59411E+07	1.59410E+07	1.55159E+07
37.0000	1.54699E+07	1.54702E+07	1.54708E+07	1.58651E+07	1.58650E+07	1.52718E+07	1.59308E+07	1.59307E+07	1.55076E+07
38.0000	1.54616E+07	1.54620E+07	1.54625E+07	1.58567E+07	1.58566E+07	1.52635E+07	1.59218E+07	1.59217E+07	1.55004E+07
39.0000	1.54526E+07	1.54530E+07	1.54535E+07	1.58478E+07	1.58477E+07	1.52546E+07	1.59122E+07	1.59121E+07	1.54925E+07
40.0000	1.54422E+07	1.54425E+07	1.54431E+07	1.58374E+07	1.58373E+07	1.52442E+07	1.59010E+07	1.59009E+07	1.54834E+07
41.0000	1.54309E+07	1.54312E+07	1.54318E+07	1.58270E+07	1.58268E+07	1.52338E+07	1.58913E+07	1.58912E+07	1.54707E+07
42.0000	1.54195E+07	1.54199E+07	1.54205E+07	1.58154E+07	1.58153E+07	1.52223E+07	1.58798E+07	1.58797E+07	1.54593E+07
43.0000	1.54085E+07	1.54089E+07	1.54095E+07	1.58045E+07	1.58044E+07	1.52114E+07	1.58689E+07	1.58688E+07	1.54483E+07
44.0000	1.53979E+07	1.53983E+07	1.53988E+07	1.57939E+07	1.57938E+07	1.52008E+07	1.58583E+07	1.58582E+07	1.54377E+07
45.0000	1.53875E+07	1.53879E+07	1.53885E+07	1.57835E+07	1.57834E+07	1.51905E+07	1.58479E+07	1.58478E+07	1.54273E+07
46.0000	1.53773E+07	1.53777E+07	1.53783E+07	1.57732E+07	1.57731E+07	1.51802E+07	1.58376E+07	1.58375E+07	1.54171E+07
47.0000	1.53672E+07	1.53675E+07	1.53681E+07	1.57630E+07	1.57629E+07	1.51700E+07	1.58274E+07	1.58273E+07	1.54069E+07
48.0000	1.53571E+07	1.53575E+07	1.53581E+07	1.57530E+07	1.57528E+07	1.51600E+07	1.58173E+07	1.58172E+07	1.53969E+07
49.0000	1.53472E+07	1.53476E+07	1.53482E+07	1.57430E+07	1.57429E+07	1.51500E+07	1.58074E+07	1.58073E+07	1.53870E+07

TIME (SEC)	MFLOWJ 430010000 (KG/SEC)	MFLOWJ 440010000 (KG/SEC)	MFLOWJ 435000000 (KG/SEC)	MFLOWJ 445000000 (KG/SEC)	MFLOWJ 450010000 (KG/SEC)	MFLOWJ 283000000 (KG/SEC)	MFLOWJ 181000000 (KG/SEC)	MFLOWJ 153010000 (KG/SEC)	MFLOWJ 253010000 (KG/SEC)
0.	2.19427E-02	2.19427E-02	0.	0.	2.19408E-02	0.	6.2000	4695.4	4695.2
1.00000	2.75219E-06	-1.46367E-06	0.	0.	0.	6.1731	6.1736	4763.3	4755.0
2.00000	-3.31813E-04	-3.31016E-04	0.	0.	0.	6.1786	6.1785	4762.7	4754.3
3.00000	3.06234E-04	3.01256E-04	0.	0.	0.	6.1757	6.1757	4762.3	4753.9
4.00000	-2.83056E-04	-2.81173E-04	0.	0.	-1.80331E-06	6.1770	6.1771	4762.5	4754.1
5.00000	1.21401E-04	1.20341E-04	0.	0.	6.65632E-09	6.1764	6.1764	4762.3	4753.9
6.00000	-1.01077E-04	-1.00748E-04	0.	0.	1.01623E-09	6.1766	6.1766	4762.3	4754.0
7.00000	1.31207E-05	1.28406E-05	0.	0.	-3.38947E-05	6.1766	6.1765	4762.3	4753.9
8.00000	-2.89297E-05	-2.89452E-05	0.	0.	-1.39672E-05	6.1766	6.1766	4762.3	4753.9
9.00000	-9.22862E-06	-9.29894E-06	0.	0.	8.34541E-10	6.1766	6.1766	4762.3	4753.9
10.0000	-1.13298E-05	-1.13804E-05	0.	0.	4.94511E-11	6.1766	6.1766	4762.3	4753.9
11.0000	-8.96621E-06	-9.00467E-06	0.	0.	1.32306E-09	6.1766	6.1766	4762.3	4753.9
12.0000	-6.78040E-06	-6.82108E-06	0.	0.	1.63821E-09	6.1766	6.1766	4762.3	4753.9
13.0000	-6.16441E-06	-6.19482E-06	0.	0.	7.05215E-10	6.1766	6.1766	4762.3	4753.9
14.0000	-4.78649E-06	-4.81476E-06	0.	0.	4.02328E-12	6.1766	6.1766	4762.3	4753.9
15.0000	-4.22270E-06	-4.24502E-06	0.	0.	5.46890E-10	6.1766	6.1766	4762.3	4753.9
16.0000	-3.46584E-06	-3.48469E-06	0.	0.	9.11559E-12	6.1766	6.1766	4762.3	4753.9
17.0000	-2.93923E-06	-2.95446E-06	0.	0.	1.58444E-12	6.1766	6.1766	4762.3	4753.9
18.0000	-2.42655E-06	-2.43904E-06	0.	0.	1.67533E-12	6.1766	6.1766	4762.3	4753.9
19.0000	-2.00173E-06	-2.01197E-06	0.	0.	2.88006E-12	6.1766	6.1766	4762.3	4753.9
20.0000	-1.64042E-06	-1.64884E-06	0.	0.	4.98976E-12	6.1766	6.1766	4762.3	4753.9
21.0000	-1.01814E-06	-1.02609E-06	0.	0.	7.66700E-12	6.1766	6.1766	4762.3	4753.9
22.0000	-1.13349E-06	-1.13918E-06	0.	0.	1.07927E-11	6.1766	6.1766	4762.3	4753.9
23.0000	-1.02502E-06	-1.02976E-06	0.	0.	1.43938E-11	6.1766	6.1766	4762.3	4753.9
24.0000	-9.15789E-07	-9.19902E-07	0.	0.	1.83565E-11	6.1766	6.1766	4762.3	4753.9
25.0000	-8.14152E-07	-8.17465E-07	0.	0.	2.19252E-11	6.1766	6.1766	4762.3	4753.9
26.0000	-6.77714E-07	-6.80501E-07	0.	0.	2.31953E-11	6.1766	6.1766	4762.3	4753.9
27.0000	-5.43129E-07	-5.45421E-07	0.	0.	2.12370E-11	6.1766	6.1766	4762.3	4753.9
28.0000	-4.06150E-07	-4.08036E-07	0.	0.	1.75275E-11	6.1766	6.1766	4762.3	4753.9
29.0000	-2.73702E-07	-2.75254E-07	0.	0.	1.36587E-11	6.1766	6.1766	4762.3	4753.9
30.0000	-1.47829E-07	-1.49103E-07	0.	0.	0.	6.1766	6.1766	4762.3	4753.9
31.0000	1.5685	1.5682	1.5811	1.5808	3.1427	6.1761	6.1761	4761.2	4754.1
32.0000	1.9903	1.9899	1.9919	1.9915	3.9816	6.1754	6.1755	4760.8	4754.2
33.0000	2.9698	2.9694	2.9702	2.9698	5.9403	6.1743	6.1744	4760.0	4754.3
34.0000	3.9944	3.9938	3.9949	3.9944	7.9896	6.1728	6.1728	4759.1	4754.4
35.0000	5.0278	5.0271	5.0284	5.0278	10.057	6.1705	6.1707	4758.3	4754.6
36.0000	6.0654	6.0646	6.0661	6.0653	12.132	6.1680	6.1683	4757.4	4754.7
37.0000	7.1034	7.1025	7.1042	7.1033	14.208	6.1653	6.1656	4756.5	4754.7
38.0000	8.1476	8.1465	8.1483	8.1473	16.296	6.1630	6.1632	4755.6	4754.8
39.0000	9.1948	9.1936	9.1958	9.1946	18.391	6.1606	6.1608	4754.7	4754.9
40.0000	10.240	10.239	10.241	10.240	20.482	6.1577	6.1580	4753.8	4755.0
41.0000	10.364	10.363	10.365	10.364	20.730	6.1549	6.1552	4753.6	4754.9
42.0000	10.362	10.360	10.363	10.361	20.725	6.1517	6.1520	4753.4	4754.8
43.0000	10.363	10.362	10.364	10.363	20.728	6.1487	6.1490	4753.3	4754.7
44.0000	10.363	10.362	10.364	10.363	20.728	6.1457	6.1460	4753.2	4754.6
45.0000	10.363	10.361	10.364	10.362	20.727	6.1428	6.1431	4753.1	4754.4
46.0000	10.362	10.360	10.363	10.361	20.725	6.1400	6.1403	4753.0	4754.3
47.0000	10.361	10.359	10.362	10.360	20.723	6.1372	6.1374	4752.8	4754.2
48.0000	10.360	10.358	10.361	10.360	20.722	6.1344	6.1346	4752.7	4754.1
49.0000	10.359	10.357	10.360	10.359	20.720	6.1316	6.1319	4752.6	4754.0

TIME (SEC)	MFLOWJ 353010000 (KG/SEC)	MFLOWJ 312000000 (KG/SEC)	VOIDG 410010000	VOIDG 410020000	VOIDG 410030000	VOIDG 410040000	VOIDG 410080000	VOIDG 410090000	VOIDG 420010000
0.	4695.5	0.	0.	0.	0.	0.	1.0000	1.0000	1.0000
1.00000	4758.1	-1.2846	1.43491E-07	0.	0.	7.36056E-05	1.0000	.99998	.99995
2.00000	4756.5	-1.4119	1.47638E-07	0.	0.	1.15257E-04	.99999	.99997	.99996
3.00000	4756.7	.73298	3.94626E-07	1.89138E-09	0.	1.41807E-04	.99999	.99997	.99997
4.00000	4756.5	-1.5096	4.26867E-07	3.59812E-09	0.	1.58523E-04	.99998	.99997	.99998
5.00000	4756.5	-5.08189E-02	5.63702E-07	7.23615E-09	0.	1.68916E-04	.99998	.99997	.99998
6.00000	4756.4	-1.0133	6.72847E-07	1.20188E-08	0.	1.75431E-04	.99997	.99997	.99998
7.00000	4756.4	-.50852	7.82203E-07	1.84064E-08	0.	1.79531E-04	.99997	.99998	.99999
8.00000	4756.4	-.59223	8.82047E-07	2.60621E-08	0.	1.82123E-04	.99997	.99998	.99999
9.00000	4756.4	-.40383	9.65865E-07	3.48477E-08	0.	1.83766E-04	.99997	.99998	.99999
10.0000	4756.4	-.31555	1.03804E-06	4.45870E-08	0.	1.84807E-04	.99997	.99998	.99999
11.0000	4756.5	-.22349	1.09681E-06	5.50505E-08	0.	1.85465E-04	.99997	.99998	.99999
12.0000	4756.4	-.15537	1.14592E-06	6.60647E-08	0.	1.85876E-04	.99997	.99998	.99999
13.0000	4756.4	-.11495	1.18681E-06	7.74573E-08	0.	1.86127E-04	.99997	.99998	.99999
14.0000	4756.4	-8.95224E-02	1.22178E-06	8.91056E-08	0.	1.86276E-04	.99997	.99998	.99999
15.0000	4756.4	-7.90533E-02	1.25220E-06	1.00907E-07	0.	1.86357E-04	.99997	.99998	.99999
16.0000	4756.4	-7.31986E-02	1.27898E-06	1.12778E-07	0.	1.86394E-04	.99997	.99998	.99999
17.0000	4756.4	-6.90457E-02	1.30255E-06	1.24644E-07	0.	1.86402E-04	.99997	.99998	.99999
18.0000	4756.4	-6.34275E-02	1.32303E-06	1.36430E-07	0.	1.86392E-04	.99997	.99998	.99999
19.0000	4756.4	-5.63080E-02	1.34048E-06	1.48064E-07	0.	1.86373E-04	.99997	.99998	.99999
20.0000	4756.4	-4.82593E-02	1.35498E-06	1.59476E-07	0.	1.86344E-04	.99997	.99998	.99999
21.0000	4756.4	-3.87930E-02	1.36660E-06	1.70600E-07	0.	1.86308E-04	.99997	.99998	.99999
22.0000	4756.4	-3.30747E-02	1.37573E-06	1.81380E-07	0.	1.86268E-04	.99997	.99998	.99999
23.0000	4756.4	-2.75422E-02	1.38260E-06	1.91771E-07	0.	1.86228E-04	.99997	.99998	.99999
24.0000	4756.4	-2.32884E-02	1.38750E-06	2.01734E-07	0.	1.86190E-04	.99997	.99998	.99999
25.0000	4756.4	-2.02076E-02	1.39068E-06	2.11242E-07	0.	1.86152E-04	.99997	.99998	.99999
26.0000	4756.4	-1.78761E-02	1.39235E-06	2.20272E-07	0.	1.86114E-04	.99997	.99998	.99999
27.0000	4756.4	-1.61366E-02	1.39271E-06	2.28809E-07	0.	1.86076E-04	.99997	.99998	.99999
28.0000	4756.4	-1.47051E-02	1.39192E-06	2.36841E-07	0.	1.86036E-04	.99997	.99998	.99999
29.0000	4756.4	-1.34260E-02	1.39011E-06	2.44364E-07	0.	1.85995E-04	.99997	.99998	.99999
30.0000	4756.4	-1.22070E-02	1.38742E-06	2.51375E-07	0.	1.85953E-04	.99997	.99998	.99999
31.0000	4755.5	1.8473	1.30110E-06	2.56099E-07	0.	1.87580E-04	.99976	.99838	.99785
32.0000	4755.1	2.3231	1.19331E-06	2.57541E-07	0.	1.98025E-04	.99819	.99765	.99650
33.0000	4754.4	4.0004	1.10362E-06	2.56705E-07	0.	2.21538E-04	.99693	.99613	.99451
34.0000	4753.6	5.3393	1.03217E-06	2.55460E-07	0.	2.59356E-04	.99636	.99415	.99186
35.0000	4752.8	6.8059	9.78281E-07	2.54522E-07	0.	3.10238E-04	.99539	.99239	.98890
36.0000	4752.0	8.3406	9.41941E-07	2.54946E-07	5.86788E-10	3.98743E-04	.99390	.99051	.98605
37.0000	4751.2	10.280	9.40097E-07	2.66491E-07	6.67818E-10	1.01429E-03	.99226	.98835	.98319
38.0000	4750.4	12.531	1.56170E-06	5.69356E-07	6.82945E-10	2.67175E-03	.99058	.98602	.98020
39.0000	4749.5	14.010	9.94168E-06	6.01543E-06	1.55371E-08	4.33919E-03	.98891	.98363	.97709
40.0000	4748.6	15.728	5.22776E-05	4.73910E-05	1.78179E-06	5.56921E-03	.98726	.98126	.97396
41.0000	4748.3	15.772	1.42862E-04	1.63586E-04	2.53246E-05	6.55814E-03	.98573	.97940	.97198
42.0000	4748.2	16.024	3.01463E-04	4.02706E-04	1.38156E-04	7.39135E-03	.98478	.97828	.97081
43.0000	4748.0	15.993	5.48329E-04	8.30509E-04	4.55526E-04	8.04262E-03	.98414	.97749	.96998
44.0000	4747.9	16.100	8.87588E-04	1.47360E-03	1.10871E-03	8.47326E-03	.98363	.97696	.96942
45.0000	4747.7	16.107	1.29400E-03	2.18825E-03	2.12344E-03	8.68987E-03	.98322	.97655	.96904
46.0000	4747.6	16.101	1.65068E-03	2.88448E-03	3.36191E-03	8.74351E-03	.98287	.97624	.96876
47.0000	4747.4	16.115	1.92702E-03	3.52946E-03	4.74896E-03	8.69635E-03	.98257	.97598	.96855
48.0000	4747.3	16.133	2.14182E-03	4.10548E-03	6.22396E-03	8.59947E-03	.98230	.97576	.96837
49.0000	4747.2	16.161	2.31229E-03	4.60565E-03	7.72121E-03	8.49911E-03	.98205	.97556	.96823

TIME (SEC)	VAPGEN 410070000 (KG/M3-SEC)	VAPGEN 410080000 (KG/M3-SEC)	VAPGEN 410090000 (KG/M3-SEC)	VAPGEN 420010000 (KG/M3-SEC)	CNTRLVAR 400 COLLEVEL SUM	CNTRLVAR 402 DPLEVEL SUM	Q 940010000 (WATTS)	CNTRLVAR 418 TOTPOW FUNCTION	CNTRLVAR 610 SGPOWER SUM
0.	0.	0.	0.	0.	26.578	26.282	89824.	89257.	2.10498E+06
1.00000	-1.77064E-03	-1.69601E-03	-2.15755E-03	-2.07491E-03	26.608	26.318	89571.	89257.	1.55783E+06
2.00000	-1.72778E-03	-1.66757E-03	-2.13043E-03	-2.07841E-03	26.591	26.302	89571.	89257.	2.27439E+06
3.00000	-1.67242E-03	-1.63444E-03	-2.10959E-03	-2.08124E-03	26.600	26.311	89571.	89257.	1.96075E+06
4.00000	-1.61915E-03	-1.60847E-03	-2.09692E-03	-2.08368E-03	26.598	26.309	89571.	89257.	2.03074E+06
5.00000	-1.58119E-03	-1.59010E-03	-2.08906E-03	-2.08572E-03	26.601	26.312	89571.	89257.	1.94299E+06
6.00000	-1.55359E-03	-1.57732E-03	-2.08398E-03	-2.08738E-03	26.603	26.314	89571.	89257.	1.96583E+06
7.00000	-1.53229E-03	-1.56817E-03	-2.08048E-03	-2.08876E-03	26.605	26.316	89571.	89257.	2.02606E+06
8.00000	-1.51515E-03	-1.56148E-03	-2.07800E-03	-2.08984E-03	26.606	26.318	89571.	89257.	2.10378E+06
9.00000	-1.50105E-03	-1.55654E-03	-2.07621E-03	-2.09066E-03	26.608	26.319	89571.	89257.	2.18622E+06
10.0000	-1.48934E-03	-1.55289E-03	-2.07491E-03	-2.09129E-03	26.609	26.321	89571.	89257.	2.25688E+06
11.0000	-1.47964E-03	-1.55023E-03	-2.07396E-03	-2.09174E-03	26.609	26.322	89571.	89257.	2.31612E+06
12.0000	-1.47163E-03	-1.54834E-03	-2.07328E-03	-2.09208E-03	26.610	26.322	89571.	89257.	2.35895E+06
13.0000	-1.46510E-03	-1.54706E-03	-2.07281E-03	-2.09230E-03	26.610	26.323	89571.	89257.	2.38710E+06
14.0000	-1.45985E-03	-1.54626E-03	-2.07248E-03	-2.09245E-03	26.610	26.323	89570.	89257.	2.40283E+06
15.0000	-1.45572E-03	-1.54584E-03	-2.07227E-03	-2.09254E-03	26.610	26.323	89570.	89257.	2.41048E+06
16.0000	-1.45256E-03	-1.54571E-03	-2.07216E-03	-2.09259E-03	26.611	26.323	89570.	89257.	2.41421E+06
17.0000	-1.45025E-03	-1.54583E-03	-2.07212E-03	-2.09259E-03	26.611	26.324	89570.	89257.	2.41713E+06
18.0000	-1.44869E-03	-1.54612E-03	-2.07213E-03	-2.09256E-03	26.611	26.324	89570.	89257.	2.42076E+06
19.0000	-1.44776E-03	-1.54657E-03	-2.07220E-03	-2.09250E-03	26.611	26.324	89570.	89257.	2.42538E+06
20.0000	-1.44740E-03	-1.54713E-03	-2.07230E-03	-2.09242E-03	26.611	26.324	89570.	89257.	2.43058E+06
21.0000	-1.44745E-03	-1.54788E-03	-2.07279E-03	-2.09273E-03	26.611	26.324	89570.	89257.	2.43585E+06
22.0000	-1.44797E-03	-1.54860E-03	-2.07300E-03	-2.09268E-03	26.611	26.324	89569.	89257.	2.44051E+06
23.0000	-1.44889E-03	-1.54926E-03	-2.07293E-03	-2.09229E-03	26.611	26.324	89569.	89257.	2.44434E+06
24.0000	-1.45015E-03	-1.54992E-03	-2.07278E-03	-2.09178E-03	26.611	26.324	89569.	89257.	2.44725E+06
25.0000	-1.45170E-03	-1.55062E-03	-2.07266E-03	-2.09129E-03	26.611	26.324	89569.	89257.	2.44934E+06
26.0000	-1.45350E-03	-1.55138E-03	-2.07264E-03	-2.09093E-03	26.611	26.324	89569.	89257.	2.45079E+06
27.0000	-1.45549E-03	-1.55220E-03	-2.07277E-03	-2.09072E-03	26.610	26.324	89568.	89257.	2.45181E+06
28.0000	-1.45762E-03	-1.55308E-03	-2.07304E-03	-2.09067E-03	26.610	26.324	89568.	89257.	2.45258E+06
29.0000	-1.45987E-03	-1.55400E-03	-2.07344E-03	-2.09076E-03	26.610	26.324	89568.	89257.	2.45322E+06
30.0000	-1.46220E-03	-1.55494E-03	-2.07393E-03	-2.09095E-03	26.610	26.324	89568.	89257.	2.45382E+06
31.0000	-1.49885E-03	-1.51990E-02	-.19063	-.69387	26.618	26.321	89568.	1.13193E+05	2.42987E+06
32.0000	-2.46817E-03	-5.65090E-02	-.39151	-.93088	26.628	26.318	89567.	1.37129E+05	2.37638E+06
33.0000	-8.73198E-03	-.10902	-.59136	-1.2904	26.645	26.316	89567.	1.61064E+05	2.32092E+06
34.0000	-1.82407E-02	-.16806	-.76247	-1.6505	26.668	26.319	89567.	1.85000E+05	2.23436E+06
35.0000	-3.12298E-02	-.23903	-.94007	-2.0023	26.696	26.323	89567.	1.85000E+05	2.14185E+06
36.0000	-4.95059E-02	-.31138	-1.1158	-2.3336	26.730	26.329	89567.	1.85000E+05	2.03390E+06
37.0000	-6.85429E-02	-.38130	-1.2846	-2.6365	26.766	26.336	89566.	1.85000E+05	1.93209E+06
38.0000	-8.40619E-02	-.44638	-1.4443	-2.9134	26.796	26.342	89566.	1.85000E+05	1.86861E+06
39.0000	-9.94272E-02	-.51201	-1.6019	-3.1749	26.820	26.350	89566.	1.85000E+05	1.78773E+06
40.0000	-.11694	-.57982	-1.7574	-3.4231	26.818	26.362	89566.	1.85000E+05	1.68353E+06
41.0000	-.13455	-.63714	-1.8557	-3.5557	26.762	26.382	89565.	1.85000E+05	1.59647E+06
42.0000	-.14341	-.65127	-1.8707	-3.5959	26.724	26.408	89565.	1.85000E+05	1.50505E+06
43.0000	-.14442	-.65215	-1.8745	-3.6133	26.680	26.436	89565.	1.85000E+05	1.44654E+06
44.0000	-.14332	-.65149	-1.8753	-3.6201	26.635	26.467	89565.	1.85000E+05	1.40422E+06
45.0000	-.14189	-.65032	-1.8745	-3.6216	26.587	26.500	89565.	1.85000E+05	1.37451E+06
46.0000	-.14056	-.64897	-1.8729	-3.6203	26.540	26.533	89564.	1.85000E+05	1.35313E+06
47.0000	-.13936	-.64758	-1.8709	-3.6174	26.492	26.566	89564.	1.85000E+05	1.33891E+06
48.0000	-.13824	-.64615	-1.8687	-3.6135	26.443	26.600	89564.	1.85000E+05	1.33180E+06
49.0000	-.13715	-.64468	-1.8663	-3.6092	26.394	26.633	89564.	1.85000E+05	1.33156E+06

TIME (SEC)	CNTRLVAR 710 SGPOWER SUM	CNTRLVAR 810 SGPOWER SUM	CNTRLVAR 9 BALANCE SUM	CNTRLVAR 7 PRZRHEAT SUM	CNTRLVAR 26 SPRBALAN SUM	PMPVEL 140 (RAD/SEC)	PMPVEL 240 (RAD/SEC)	PMPVEL 340 (RAD/SEC)	CNTRLVAR 435 SPRAYVAL FUNCTION
0.	2.10498E+06	2.10499E+06	1.35683E+07	18238.	47280.	155.00	155.00	155.00	0.
1.00000	1.55560E+06	1.56229E+06	8.44979E+06	-2333.4	1.52973E+06	155.00	155.00	155.00	0.
2.00000	2.27356E+06	2.38747E+06	6.10036E+06	-8865.5	1.68628E+06	155.00	155.00	155.00	0.
3.00000	1.96010E+06	2.33785E+06	6.82109E+06	-5430.7	-1.16721E+06	155.00	155.00	155.00	0.
4.00000	2.03010E+06	2.36506E+06	6.56591E+06	4599.1	1.82830E+06	155.00	155.00	155.00	0.
5.00000	1.94237E+06	2.19021E+06	6.96684E+06	-1335.6	85449.	155.00	155.00	155.00	0.
6.00000	1.96529E+06	2.09313E+06	7.00767E+06	-632.05	1.22908E+06	155.00	155.00	155.00	0.
7.00000	2.02565E+06	2.08128E+06	6.93251E+06	1478.7	6.23277E+05	155.00	155.00	155.00	0.
8.00000	2.10346E+06	2.12409E+06	6.73462E+06	2646.5	7.27085E+05	155.00	155.00	155.00	0.
9.00000	2.18598E+06	2.19303E+06	6.50460E+06	3891.7	5.01612E+05	155.00	155.00	155.00	0.
10.0000	2.25667E+06	2.25913E+06	6.29474E+06	4875.0	3.96527E+05	155.00	155.00	155.00	0.
11.0000	2.31593E+06	2.31685E+06	6.11520E+06	5743.8	2.86410E+05	155.00	155.00	155.00	0.
12.0000	2.35877E+06	2.35919E+06	5.98332E+06	6545.8	2.04930E+05	155.00	155.00	155.00	0.
13.0000	2.38692E+06	2.38717E+06	5.89513E+06	7062.9	1.56525E+05	155.00	155.00	155.00	0.
14.0000	2.40263E+06	2.40283E+06	5.84529E+06	7560.9	1.26142E+05	155.00	155.00	155.00	0.
15.0000	2.41027E+06	2.41046E+06	5.82089E+06	8080.8	1.13841E+05	155.00	155.00	155.00	0.
16.0000	2.41400E+06	2.41419E+06	5.80937E+06	8551.2	1.07064E+05	155.00	155.00	155.00	0.
17.0000	2.41691E+06	2.41710E+06	5.80099E+06	8977.1	1.02309E+05	155.00	155.00	155.00	0.
18.0000	2.42054E+06	2.42073E+06	5.79068E+06	9365.0	95755.	155.00	155.00	155.00	0.
19.0000	2.42517E+06	2.42535E+06	5.77733E+06	9715.7	87354.	155.00	155.00	155.00	0.
20.0000	2.43037E+06	2.43055E+06	5.76204E+06	10035.	77800.	155.00	155.00	155.00	0.
21.0000	2.43565E+06	2.43582E+06	5.74636E+06	10316.	66487.	155.00	155.00	155.00	0.
22.0000	2.44031E+06	2.44049E+06	5.73230E+06	10582.	59696.	155.00	155.00	155.00	0.
23.0000	2.44415E+06	2.44432E+06	5.72068E+06	10834.	53111.	155.00	155.00	155.00	0.
24.0000	2.44706E+06	2.44723E+06	5.71183E+06	11068.	48055.	155.00	155.00	155.00	0.
25.0000	2.44915E+06	2.44932E+06	5.70546E+06	11286.	44401.	155.00	155.00	155.00	0.
26.0000	2.45059E+06	2.45077E+06	5.70106E+06	11486.	41635.	155.00	155.00	155.00	0.
27.0000	2.45161E+06	2.45179E+06	5.69801E+06	11668.	39571.	155.00	155.00	155.00	0.
28.0000	2.45238E+06	2.45255E+06	5.69573E+06	11833.	37865.	155.00	155.00	155.00	0.
29.0000	2.45303E+06	2.45320E+06	5.69384E+06	11983.	36331.	155.00	155.00	155.00	0.
30.0000	2.45362E+06	2.45380E+06	5.69210E+06	12118.	34860.	155.00	155.00	155.00	0.
31.0000	2.42746E+06	2.43626E+06	5.81550E+06	17538.	1.27794E+06	155.00	155.00	155.00	.10000
32.0000	2.37607E+06	2.49851E+06	5.82047E+06	35094.	1.65630E+06	155.00	155.00	155.00	.20000
33.0000	2.32082E+06	2.63291E+06	5.83281E+06	62344.	1.62915E+06	155.00	155.00	155.00	.30000
34.0000	2.23424E+06	2.82433E+06	5.85241E+06	1.01097E+05	2.26464E+06	155.00	155.00	155.00	.40000
35.0000	2.14170E+06	3.05514E+06	5.84522E+06	1.41792E+05	2.71978E+06	155.00	155.00	155.00	.50000
36.0000	2.03371E+06	3.30496E+06	5.82534E+06	1.57541E+05	3.04516E+06	155.00	155.00	155.00	.60000
37.0000	1.93186E+06	3.58330E+06	5.76939E+06	1.68985E+05	2.71592E+06	155.00	155.00	155.00	.70000
38.0000	1.86835E+06	3.94411E+06	5.55810E+06	1.78188E+05	1.89070E+06	155.00	155.00	155.00	.80000
39.0000	1.78742E+06	4.35598E+06	5.30678E+06	1.88009E+05	2.29114E+06	155.00	155.00	155.00	.90000
40.0000	1.68320E+06	4.74951E+06	5.12939E+06	1.98143E+05	2.29821E+06	155.00	155.00	155.00	1.0000
41.0000	1.59796E+06	5.14165E+06	4.91001E+06	2.05397E+05	2.54795E+06	155.00	155.00	155.00	1.0000
42.0000	1.50454E+06	5.41607E+06	4.82549E+06	2.11052E+05	2.11714E+06	155.00	155.00	155.00	1.0000
43.0000	1.44600E+06	5.56821E+06	4.78859E+06	2.18434E+05	2.15237E+06	155.00	155.00	155.00	1.0000
44.0000	1.40368E+06	5.64061E+06	4.80752E+06	2.25302E+05	1.96098E+06	155.00	155.00	155.00	1.0000
45.0000	1.37397E+06	5.67393E+06	4.85323E+06	2.44801E+05	1.94671E+06	155.00	155.00	155.00	1.0000
46.0000	1.35258E+06	5.69106E+06	4.88828E+06	2.53088E+05	1.94320E+06	155.00	155.00	155.00	1.0000
47.0000	1.33836E+06	5.70135E+06	4.91690E+06	2.61325E+05	1.91172E+06	155.00	155.00	155.00	1.0000
48.0000	1.33126E+06	5.71171E+06	4.93142E+06	2.69453E+05	1.87874E+06	155.00	155.00	155.00	1.0000
49.0000	1.33102E+06	5.72630E+06	4.92822E+06	2.77436E+05	1.83158E+06	155.00	155.00	155.00	1.0000

TIME (SEC)	CNTRLVAR 445 SPRAYVAL FUNCTION	TEMPF 125010000 (K)	TEMPF 131040000 (K)	TEMPF 151010000 (K)	TEMPF 111010000 (K)	TEMPF 121010000 (K)	TEMPF 225010000 (K)	TEMPF 232010000 (K)	TEMPF 251010000 (K)
0.	0.	570.37	570.35	570.59	570.47	570.49	570.37	570.35	570.59
1.00000	0.	570.35	570.33	570.58	570.45	570.48	570.35	570.33	570.58
2.00000	0.	570.36	570.34	570.59	570.46	570.48	570.36	570.34	570.59
3.00000	0.	570.36	570.34	570.59	570.46	570.47	570.36	570.34	570.59
4.00000	0.	570.36	570.34	570.59	570.46	570.47	570.36	570.34	570.59
5.00000	0.	570.36	570.34	570.59	570.46	570.47	570.36	570.34	570.59
6.00000	0.	570.36	570.34	570.59	570.47	570.48	570.36	570.34	570.59
7.00000	0.	570.36	570.34	570.59	570.47	570.48	570.36	570.34	570.59
8.00000	0.	570.36	570.34	570.59	570.47	570.48	570.36	570.34	570.59
9.00000	0.	570.36	570.34	570.59	570.48	570.49	570.36	570.34	570.59
10.0000	0.	570.36	570.34	570.59	570.48	570.49	570.36	570.34	570.59
11.0000	0.	570.36	570.34	570.59	570.48	570.49	570.36	570.34	570.59
12.0000	0.	570.36	570.34	570.59	570.48	570.49	570.36	570.34	570.59
13.0000	0.	570.36	570.34	570.59	570.48	570.49	570.36	570.34	570.59
14.0000	0.	570.36	570.34	570.59	570.48	570.49	570.36	570.34	570.59
15.0000	0.	570.36	570.34	570.59	570.48	570.49	570.36	570.34	570.60
16.0000	0.	570.36	570.34	570.60	570.48	570.49	570.36	570.34	570.60
17.0000	0.	570.36	570.34	570.60	570.48	570.49	570.36	570.34	570.60
18.0000	0.	570.36	570.34	570.60	570.48	570.49	570.36	570.34	570.60
19.0000	0.	570.36	570.34	570.60	570.48	570.49	570.36	570.34	570.60
20.0000	0.	570.36	570.34	570.60	570.48	570.49	570.36	570.34	570.60
21.0000	0.	570.36	570.34	570.60	570.48	570.49	570.36	570.34	570.60
22.0000	0.	570.36	570.34	570.60	570.48	570.49	570.36	570.34	570.60
23.0000	0.	570.36	570.34	570.60	570.48	570.49	570.36	570.34	570.60
24.0000	0.	570.36	570.34	570.60	570.48	570.49	570.36	570.34	570.60
25.0000	0.	570.36	570.34	570.60	570.48	570.49	570.36	570.34	570.60
26.0000	0.	570.36	570.34	570.60	570.48	570.49	570.36	570.34	570.60
27.0000	0.	570.36	570.34	570.60	570.48	570.49	570.36	570.34	570.60
28.0000	0.	570.36	570.34	570.60	570.48	570.49	570.36	570.34	570.60
29.0000	0.	570.36	570.34	570.60	570.48	570.49	570.36	570.34	570.60
30.0000	0.	570.36	570.34	570.60	570.48	570.49	570.36	570.34	570.60
31.0000	.10000	570.36	570.34	570.59	570.48	570.49	570.36	570.34	570.59
32.0000	.20000	570.36	570.34	570.59	570.48	570.49	570.36	570.34	570.59
33.0000	.30000	570.36	570.34	570.59	570.48	570.49	570.36	570.34	570.59
34.0000	.40000	570.36	570.34	570.59	570.47	570.49	570.36	570.34	570.59
35.0000	.50000	570.36	570.34	570.59	570.47	570.49	570.36	570.34	570.59
36.0000	.60000	570.36	570.34	570.59	570.47	570.48	570.36	570.34	570.59
37.0000	.70000	570.36	570.33	570.58	570.46	570.48	570.36	570.33	570.58
38.0000	.80000	570.36	570.33	570.58	570.46	570.48	570.36	570.33	570.58
39.0000	.90000	570.36	570.33	570.58	570.46	570.47	570.36	570.33	570.58
40.0000	1.0000	570.36	570.33	570.58	570.46	570.47	570.36	570.33	570.58
41.0000	1.0000	570.35	570.33	570.58	570.45	570.47	570.35	570.33	570.58
42.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
43.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
44.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
45.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
46.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
47.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
48.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
49.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58

TIME (SEC)	TEMPF 211010000 (K)	TEMPF 221010000 (K)	TEMPF 325010000 (K)	TEMPF 331040000 (K)	TEMPF 351010000 (K)	TEMPF 311010000 (K)	TEMPF 321010000 (K)	TEMPF 450010000 (K)	TEMPF 420010000 (K)
0.	570.47	570.49	570.37	570.35	570.59	570.47	570.49	570.59	617.97
1.00000	570.45	570.48	570.35	570.33	570.58	570.45	570.48	570.45	617.97
2.00000	570.46	570.48	570.36	570.34	570.59	570.46	570.51	570.45	617.97
3.00000	570.46	570.47	570.36	570.34	570.59	570.46	570.49	570.45	617.97
4.00000	570.46	570.47	570.36	570.34	570.59	570.46	570.48	570.45	617.97
5.00000	570.46	570.47	570.36	570.34	570.59	570.46	570.48	570.45	617.97
6.00000	570.47	570.48	570.36	570.34	570.59	570.47	570.48	570.45	617.97
7.00000	570.47	570.48	570.36	570.34	570.59	570.47	570.48	570.45	617.97
8.00000	570.47	570.48	570.36	570.34	570.59	570.47	570.48	570.45	617.97
9.00000	570.48	570.49	570.36	570.34	570.59	570.48	570.49	570.45	617.97
10.0000	570.48	570.49	570.36	570.34	570.59	570.48	570.49	570.45	617.97
11.0000	570.48	570.49	570.36	570.34	570.59	570.48	570.49	570.45	617.97
12.0000	570.48	570.49	570.36	570.34	570.59	570.48	570.49	570.45	617.97
13.0000	570.48	570.49	570.36	570.34	570.59	570.48	570.49	570.45	617.97
14.0000	570.48	570.49	570.36	570.34	570.59	570.48	570.49	570.45	617.97
15.0000	570.48	570.49	570.36	570.34	570.59	570.48	570.49	570.45	617.97
16.0000	570.48	570.49	570.36	570.34	570.60	570.48	570.49	570.45	617.97
17.0000	570.48	570.49	570.36	570.34	570.60	570.48	570.49	570.45	617.97
18.0000	570.48	570.49	570.36	570.34	570.60	570.48	570.49	570.45	617.97
19.0000	570.48	570.49	570.36	570.34	570.60	570.48	570.49	570.45	617.97
20.0000	570.48	570.49	570.36	570.34	570.60	570.48	570.49	570.45	617.97
21.0000	570.48	570.49	570.36	570.34	570.60	570.48	570.49	570.45	617.97
22.0000	570.48	570.49	570.36	570.34	570.60	570.48	570.49	570.45	617.97
23.0000	570.48	570.49	570.36	570.34	570.60	570.48	570.49	570.45	617.97
24.0000	570.48	570.49	570.36	570.34	570.60	570.48	570.49	570.45	617.97
25.0000	570.48	570.49	570.36	570.34	570.60	570.48	570.49	570.45	617.97
26.0000	570.48	570.49	570.36	570.34	570.60	570.48	570.49	570.45	617.97
27.0000	570.48	570.49	570.36	570.34	570.60	570.48	570.49	570.45	617.97
28.0000	570.48	570.49	570.36	570.34	570.60	570.48	570.49	570.45	617.97
29.0000	570.48	570.49	570.36	570.34	570.60	570.48	570.49	570.45	617.97
30.0000	570.48	570.49	570.36	570.34	570.60	570.48	570.49	570.45	617.97
31.0000	570.48	570.49	570.36	570.34	570.59	570.48	570.50	570.46	600.80
32.0000	570.48	570.49	570.36	570.34	570.59	570.48	570.51	570.45	597.23
33.0000	570.48	570.49	570.36	570.34	570.59	570.48	570.52	570.45	595.08
34.0000	570.47	570.49	570.36	570.34	570.59	570.47	570.53	570.44	593.95
35.0000	570.47	570.49	570.36	570.34	570.59	570.47	570.54	570.44	593.15
36.0000	570.47	570.48	570.36	570.34	570.59	570.47	570.55	570.44	592.46
37.0000	570.46	570.48	570.36	570.34	570.58	570.46	570.57	570.44	591.79
38.0000	570.46	570.48	570.36	570.34	570.59	570.46	570.59	570.43	591.15
39.0000	570.46	570.47	570.36	570.34	570.59	570.46	570.60	570.43	590.55
40.0000	570.46	570.47	570.36	570.34	570.59	570.46	570.62	570.43	590.00
41.0000	570.45	570.47	570.36	570.34	570.59	570.45	570.63	570.43	590.12
42.0000	570.45	570.46	570.36	570.34	570.59	570.45	570.64	570.43	590.36
43.0000	570.45	570.46	570.36	570.34	570.59	570.45	570.64	570.43	590.48
44.0000	570.45	570.46	570.37	570.34	570.59	570.45	570.64	570.43	590.54
45.0000	570.45	570.46	570.37	570.34	570.59	570.45	570.64	570.42	590.56
46.0000	570.45	570.46	570.37	570.34	570.59	570.45	570.64	570.42	590.57
47.0000	570.45	570.46	570.37	570.34	570.59	570.45	570.64	570.42	590.57
48.0000	570.45	570.46	570.37	570.34	570.59	570.45	570.64	570.42	590.56
49.0000	570.45	570.46	570.37	570.34	570.59	570.45	570.64	570.42	590.54

TIME (SEC)	TEMPG 420010000 (K)	SATTEMP 420010000 (K)	CNTRLVAR 8 PRZVAPH SUM	CNTRLVAR 28 VAPGEN SUM	CNTRLVAR 27 HEATERW SUM	CNTRLVAR 912 PRZMASL SUM	CNTRLVAR 911 PRZMASW SUM	CNTRLVAR 920 SURGHEAT SUM	CPUTIME (SEC)
0.	617.97	617.97	0.	0.	89229.	8035.9	3223.9	-18552.	44.560
1.00000	617.97	617.97	-60512.	1.29001E-02	74617.	8043.9	3223.4	-8948.5	68.816
2.00000	617.97	617.97	-69606.	1.29968E-02	83340.	8040.0	3224.1	-9659.4	89.176
3.00000	617.97	617.97	-68887.	1.63961E-02	85866.	8042.1	3223.7	-6480.6	108.73
4.00000	617.97	617.97	-68584.	2.66205E-02	85384.	8041.6	3223.9	-6907.2	130.51
5.00000	617.97	617.97	-67118.	2.03574E-02	87807.	8042.3	3223.8	-5985.1	151.03
6.00000	617.97	617.97	-66103.	2.08133E-02	87311.	8042.7	3223.8	-5843.4	170.96
7.00000	617.97	617.97	-65192.	2.28948E-02	88333.	8043.2	3223.7	-5368.9	190.59
8.00000	617.97	617.97	-64372.	2.39432E-02	88516.	8043.6	3223.7	-5036.7	210.01
9.00000	617.97	617.97	-63636.	2.50974E-02	88865.	8043.9	3223.7	-4834.3	229.65
10.0000	617.97	617.97	-62974.	2.59846E-02	89037.	8044.2	3223.7	-4726.3	249.27
11.0000	617.97	617.97	-62379.	2.67573E-02	89169.	8044.3	3223.7	-4733.5	268.67
12.0000	617.97	617.97	-61845.	2.74712E-02	89301.	8044.4	3223.7	-4800.5	288.05
13.0000	617.97	617.97	-61364.	2.78744E-02	89210.	8044.5	3223.7	-4913.2	307.67
14.0000	617.97	617.97	-60932.	2.82722E-02	89165.	8044.5	3223.8	-5039.6	327.05
15.0000	617.97	617.97	-60544.	2.86956E-02	89173.	8044.5	3223.8	-5165.7	346.45
16.0000	617.97	617.97	-60195.	2.90680E-02	89185.	8044.6	3223.8	-5282.2	365.85
17.0000	617.97	617.97	-59882.	2.93951E-02	89194.	8044.6	3223.9	-5388.0	385.25
18.0000	617.97	617.97	-59601.	2.96768E-02	89202.	8044.6	3223.9	-5485.8	404.62
19.0000	617.97	617.97	-59349.	2.98968E-02	89206.	8044.6	3223.9	-5579.4	423.99
20.0000	617.97	617.97	-59122.	3.00562E-02	89208.	8044.6	3223.9	-5671.6	443.36
21.0000	617.97	617.97	-58926.	3.01485E-02	89207.	8044.6	3224.0	-5765.2	466.20
22.0000	617.97	617.97	-58745.	3.01880E-02	89210.	8044.6	3224.0	-5858.6	485.57
23.0000	617.97	617.97	-58576.	3.01687E-02	89214.	8044.6	3224.0	-5951.2	504.93
24.0000	617.97	617.97	-58419.	3.00869E-02	89217.	8044.5	3224.1	-6041.2	524.28
25.0000	617.97	617.97	-58276.	2.99404E-02	89220.	8044.5	3224.1	-6128.9	543.64
26.0000	617.97	617.97	-58147.	2.97282E-02	89222.	8044.5	3224.1	-6213.9	562.98
27.0000	617.97	617.97	-58032.	2.94512E-02	89224.	8044.5	3224.2	-6295.9	582.32
28.0000	617.97	617.97	-57930.	2.91120E-02	89224.	8044.5	3224.2	-6375.0	601.67
29.0000	617.97	617.97	-57840.	2.87142E-02	89224.	8044.4	3224.2	-6451.3	621.02
30.0000	617.97	617.97	-57762.	2.82628E-02	89224.	8044.4	3224.2	-6524.4	640.40
31.0000	617.96	617.96	-55000.	-.54969	91683.	8045.4	3223.9	-6637.8	664.45
32.0000	617.94	617.95	-48108.	-.94995	1.01939E+05	8047.2	3223.2	-6807.0	684.04
33.0000	617.90	617.92	-36437.	-1.5030	1.16934E+05	8050.2	3222.0	-7026.3	703.40
34.0000	617.86	617.89	-19378.	-2.1053	1.36378E+05	8054.5	3220.1	-7278.1	722.79
35.0000	617.80	617.85	468.23	-2.8082	1.55329E+05	8060.0	3217.6	-9716.7	744.29
36.0000	617.75	617.81	613.02	-3.5538	1.68644E+05	8067.0	3214.4	-11665.	766.08
37.0000	617.70	617.76	918.82	-3.7299	1.76580E+05	8074.8	3210.7	-13994.	786.03
38.0000	617.65	617.71	1998.7	-3.6697	1.81497E+05	8082.5	3207.0	-16789.	805.58
39.0000	617.61	617.67	2773.8	-4.2405	1.86486E+05	8090.8	3203.0	-18618.	825.13
40.0000	617.55	617.61	3524.5	-4.8707	1.90950E+05	8100.7	3198.4	-19798.	844.71
41.0000	617.49	617.55	4524.8	-5.2742	1.94392E+05	8111.8	3193.3	-18663.	864.34
42.0000	617.43	617.49	5462.3	-5.3201	1.96765E+05	8123.1	3187.9	-17972.	884.07
43.0000	617.37	617.44	6222.0	-5.2112	1.98226E+05	8134.2	3182.7	-17064.	903.87
44.0000	617.32	617.38	6839.9	-5.0666	1.99098E+05	8145.1	3177.5	-16299.	923.67
45.0000	617.27	617.33	6550.6	-4.9568	1.99593E+05	8155.8	3172.5	-15448.	943.48
46.0000	617.21	617.27	6936.3	-4.8819	1.99919E+05	8166.4	3167.6	-14590.	963.31
47.0000	617.16	617.22	7292.6	-4.8099	2.00101E+05	8176.8	3162.7	-13729.	983.12
48.0000	617.11	617.17	7624.2	-4.7397	2.00174E+05	8187.2	3158.0	-12843.	1003.0
49.0000	617.06	617.12	7933.6	-4.6703	2.00173E+05	8197.5	3153.3	-11905.	1022.8

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 ATTEMPTED ADV: TOT.=    600   EDIT=    300   MIN.DT=    .100000    SEC   LAST DT=    .100000    SEC   MS.ERR=   -.423286    KG
  REPEATED ADV: TOT.=      0   EDIT=      0   MAX.DT=    .100000    SEC   CRNT.DT=    .119862    SEC   TOT.MS=    196371.    KG
SUCCESSFUL ADV: TOT.=    600   EDIT=    300   AVG.DT=    .100000    SEC   ERR.EST=  3.299297E-07        M.RATN=  -2.155544E-06
 REQUESTED ADV: TOT.=    300   EDIT=    150   REQ.DT=    .200000    SEC       CPU=   1247.21    SEC     TIME=    60.0000    SEC

TRIP NUMBER, TRIP TIME (SEC)
   597  1.0000000E-01     598   20.10000      599  -1.000000
   698  -1.000000
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VOL.NO.	PRESSURE (PA)	VOIDG	TEMPF (K)	TEMPG (K)	SAT. TEMP. (K)	NONCOND. VAPOR QUAL.	BORON DENS. (KG/M3)	UF (J/KG)	UG (J/KG)	VOL. FLAG
SYSTEM 1	MASS= 1.96371E+05 KG		MASS ERROR= -.42329 KG			ERR.EST.= 3.29930E-07				
UPDOWNC	BRANCH	COMPONENT								
11-010000	1.56936E+07	0.	570.50	618.91	618.91	0.	.73250	1.30186E+06	2.44328E+06	00
UPDOWNOZZ	BRANCH	COMPONENT								
13-010000	1.56837E+07	0.	570.60	618.86	618.86	0.	.73227	1.30244E+06	2.44352E+06	00
DOWNCTS	ANNULUS	COMPONENT								
16-010000	1.56923E+07	0.	570.60	618.91	618.91	0.	.73228	1.30244E+06	2.44332E+06	00
15-020000	1.57039E+07	0.	570.60	618.97	618.97	0.	.73230	1.30244E+06	2.44304E+06	00
15-030000	1.57156E+07	0.	570.61	619.03	619.03	0.	.73231	1.30243E+06	2.44277E+06	00
LOWPLEN	BRANCH	COMPONENT								
23-010000	1.57177E+07	0.	570.61	619.04	619.04	0.	.73232	1.30242E+06	2.44272E+06	00
COREIN	BRANCH	COMPONENT								
25-010000	1.56513E+07	0.	570.58	618.70	618.70	0.	.73225	1.30242E+06	2.44428E+06	00
CORE	PIPE	COMPONENT								
31-010000	1.56186E+07	0.	570.57	618.63	618.53	0.	.73221	1.30243E+06	2.44505E+06	00
31-020000	1.55796E+07	0.	570.56	618.33	618.33	0.	.73216	1.30244E+06	2.44598E+06	00
31-030000	1.55413E+07	0.	570.54	618.13	618.13	0.	.73212	1.30245E+06	2.44689E+06	00
31-040000	1.55037E+07	0.	570.53	617.93	617.93	0.	.73208	1.30246E+06	2.44778E+06	00
31-050000	1.54668E+07	0.	570.52	617.74	617.74	0.	.73203	1.30247E+06	2.44866E+06	00
BYPASS	SNGLVOL	COMPONENT								
35-010000	1.55528E+07	0.	570.52	618.19	618.19	0.	.73219	1.30229E+06	2.44661E+06	00
COREEX	BRANCH	COMPONENT								
39-010000	1.54481E+07	0.	570.51	617.64	617.64	0.	.73202	1.30246E+06	2.44910E+06	00
UPPLEN1	BRANCH	COMPONENT								
41-010000	1.54313E+07	0.	570.50	617.56	617.56	0.	.73200	1.30246E+06	2.44950E+06	00
UPPLEN2	BRANCH	COMPONENT								
43-010000	1.54231E+07	0.	570.50	617.51	617.51	0.	.73200	1.30243E+06	2.44970E+06	00
UPHEAD	BRANCH	COMPONENT								
45-010000	1.54082E+07	0.	570.35	617.44	617.44	0.	.73227	1.30166E+06	2.45006E+06	00
HTLEGR1	PIPE	COMPONENT								
111-010000	1.53174E+07	0.	570.45	616.96	616.96	0.	.73189	1.30243E+06	2.45223E+06	00
111-020000	1.53143E+07	0.	570.45	616.94	616.94	0.	.73189	1.30243E+06	2.45231E+06	00
HTLEGR2	BRANCH	COMPONENT								
113-010000	1.53080E+07	0.	570.45	616.91	616.91	0.	.73188	1.30243E+06	2.45246E+06	00
INBOX	BRANCH	COMPONENT								
121-010000	1.53495E+07	0.	570.46	617.13	617.13	0.	.73193	1.30241E+06	2.45146E+06	00
UTUBE	PIPE	COMPONENT								
122-010000	1.53198E+07	0.	570.44	616.97	616.97	0.	.73192	1.30236E+06	2.45217E+06	00
122-020000	1.53035E+07	0.	570.43	616.89	616.89	0.	.73191	1.30232E+06	2.45257E+06	00
122-030000	1.52874E+07	0.	570.42	616.80	616.80	0.	.73191	1.30229E+06	2.45295E+06	00
122-040000	1.52692E+07	0.	570.40	616.71	616.71	0.	.73190	1.30226E+06	2.45339E+06	00
122-050000	1.52505E+07	0.	570.39	616.61	616.61	0.	.73189	1.30224E+06	2.45384E+06	00
122-060000	1.52333E+07	0.	570.38	616.52	616.52	0.	.73187	1.30223E+06	2.45426E+06	00
122-070000	1.52161E+07	0.	570.38	616.43	616.43	0.	.73186	1.30222E+06	2.45467E+06	00
122-080000	1.51989E+07	0.	570.37	616.34	616.34	0.	.73184	1.30222E+06	2.45509E+06	00

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122-090000  1.51817E+07  0.          570.36      616.25      616.25      0.          .73182      1.30222E+06  2.45550E+06  00
122-100000  1.51645E+07  0.          570.36      616.16      616.16      0.          .73180      1.30223E+06  2.45592E+06  00
122-110000  1.51481E+07  0.          570.35      616.07      616.07      0.          .73178      1.30224E+06  2.45632E+06  00
UTUBE       PIPE        COMPONENT
124-010000  1.51371E+07  0.          570.35      616.01      616.01      0.          .73176      1.30225E+06  2.45659E+06  00
124-020000  1.51309E+07  0.          570.35      615.98      615.98      0.          .73175      1.30227E+06  2.45674E+06  00
124-030000  1.51246E+07  0.          570.35      615.94      615.94      0.          .73174      1.30228E+06  2.45689E+06  00
124-040000  1.51183E+07  0.          570.35      615.91      615.91      0.          .73172      1.30230E+06  2.45704E+06  00
124-050000  1.51133E+07  0.          570.35      615.88      615.88      0.          .73172      1.30231E+06  2.45716E+06  00
124-060000  1.51096E+07  0.          570.35      615.86      615.86      0.          .73171      1.30232E+06  2.45725E+06  00
124-070000  1.51051E+07  0.          570.35      615.84      615.84      0.          .73170      1.30233E+06  2.45736E+06  00
OUTBOX      BRANCH      COMPONENT
125-010000  1.51133E+07  0.          570.35      615.88      615.88      0.          .73171      1.30231E+06  2.45716E+06  00
SEALR       PIPE        COMPONENT
131-010000  1.50496E+07  0.          570.33      615.55      615.55      0.          .73165      1.30231E+06  2.45871E+06  00
131-020000  1.50590E+07  0.          570.33      615.59      615.59      0.          .73166      1.30231E+06  2.45849E+06  00
131-030000  1.50638E+07  0.          570.33      615.62      615.62      0.          .73166      1.30231E+06  2.45837E+06  00
131-040000  1.50560E+07  0.          570.33      615.58      615.58      0.          .73165      1.30231E+06  2.45856E+06  00
PUMPR       PUMP        COMPONENT
  RPM =   155.00      (RAD/SEC)     HEAD =  6.85392E+05 (PA)          TORQUE =  -32288.     (N-M)
  OCTANT = 1                                                        MTR.TORQUE =   32288.     (N-M)
140-010000  1.54375E+07  0.          570.50      617.59      617.59      0.          .73202      1.30243E+06  2.44936E+06  10
COLDR1      SNGLVOL     COMPONENT
151-010000  1.56420E+07  0.          570.58      618.65      618.65      0.          .73223      1.30243E+06  2.44450E+06  00
COLDR2      BRANCH      COMPONENT
152-010000  1.56389E+07  0.          570.57      618.63      618.63      0.          .73226      1.30236E+06  2.44457E+06  00
COLDR3      PIPE        COMPONENT
153-010000  1.56355E+07  0.          570.56      618.62      618.62      0.          .73225      1.30236E+06  2.44465E+06  00
153-020000  1.56558E+07  0.          570.57      618.72      618.72      0.          .73227      1.30236E+06  2.44418E+06  00
CVTANK      TMDPVOL     COMPONENT
180-010000  2.00000E+07  0.          560.57      638.85      638.85      0.          .75823      1.24245E+06  2.30082E+06  00
HTLEGG1     PIPE        COMPONENT
211-010000  1.53173E+07  0.          570.45      616.98      616.98      0.          .73189      1.30243E+06  2.45224E+06  00
211-020000  1.53141E+07  0.          570.45      616.94      616.94      0.          .73188      1.30243E+06  2.45231E+06  00
HTLEGG2     BRANCH      COMPONENT
213-010000  1.53078E+07  0.          570.45      616.91      616.91      0.          .73188      1.30243E+06  2.45246E+06  00
INBOX       BRANCH      COMPONENT
221-010000  1.53494E+07  0.          570.46      617.13      617.13      0.          .73193      1.30241E+06  2.45146E+06  00
UTUBE       PIPE        COMPONENT
222-010000  1.53197E+07  0.          570.44      616.97      616.97      0.          .73192      1.30236E+06  2.45218E+06  00
222-020000  1.53033E+07  0.          570.43      616.89      616.89      0.          .73191      1.30232E+06  2.45257E+06  00
222-030000  1.52873E+07  0.          570.42      616.80      616.80      0.          .73191      1.30229E+06  2.45296E+06  00
222-040000  1.52691E+07  0.          570.40      616.71      616.71      0.          .73190      1.30226E+06  2.45340E+06  00
222-050000  1.52503E+07  0.          570.39      616.61      616.61      0.          .73189      1.30224E+06  2.45385E+06  00
222-060000  1.52331E+07  0.          570.38      616.52      616.52      0.          .73187      1.30223E+06  2.45426E+06  00
222-070000  1.52159E+07  0.          570.38      616.43      616.43      0.          .73186      1.30222E+06  2.45468E+06  00
222-080000  1.51987E+07  0.          570.37      616.34      616.34      0.          .73184      1.30222E+06  2.45509E+06  00
222-090000  1.51815E+07  0.          570.36      616.24      616.24      0.          .73182      1.30222E+06  2.45551E+06  00
222-100000  1.51643E+07  0.          570.36      616.15      616.15      0.          .73180      1.30223E+06  2.45593E+06  00
222-110000  1.51478E+07  0.          570.35      616.07      616.07      0.          .73178      1.30224E+06  2.45633E+06  00
UTUBE       PIPE        COMPONENT
224-010000  1.51369E+07  0.          570.35      616.01      616.01      0.          .73176      1.30225E+06  2.45659E+06  00
224-020000  1.51306E+07  0.          570.35      615.98      615.98      0.          .73175      1.30227E+06  2.45674E+06  00
224-030000  1.51243E+07  0.          570.35      615.94      615.94      0.          .73174      1.30228E+06  2.45690E+06  00
224-040000  1.51179E+07  0.          570.35      615.91      615.91      0.          .73172      1.30230E+06  2.45705E+06  00
224-050000  1.51129E+07  0.          570.35      615.88      615.88      0.          .73172      1.30231E+06  2.45717E+06  00
224-060000  1.51092E+07  0.          570.35      615.86      615.86      0.          .73171      1.30232E+06  2.45726E+06  00
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224-070000  1.51047E+07  0.          570.35     615.84     615.84     0.          .73170     1.30233E+06  2.45737E+06  00
OUTBOX      BRANCH       COMPONENT
225-010000  1.51129E+07  0.          570.35     615.88     615.88     0.          .73171     1.30232E+06  2.45717E+06  00
SEALG1      PIPE         COMPONENT
231-010000  1.50491E+07  0.          570.33     615.54     615.54     0.          .73165     1.30231E+06  2.45872E+06  00
231-020000  1.50585E+07  0.          570.33     615.59     615.59     0.          .73166     1.30231E+06  2.45850E+06  00
231-030000  1.50633E+07  0.          570.33     615.62     615.62     0.          .73166     1.30231E+06  2.45838E+06  00
SEALG2      BRANCH       COMPONENT
232-010000  1.50557E+07  0.          570.33     615.58     615.58     0.          .73165     1.30231E+06  2.45857E+06  00
PUMPR       PUMP         COMPONENT
 RPM =   155.00     (RAD/SEC)     HEAD =  6.85795E+05 (PA)          TORQUE =  -32291.     (N-M)
 OCTANT = 1                                                      MTR.TORQUE =   32291.     (N-M)
240-010000  1.54373E+07  0.          570.50     617.59     617.59     0.          .73202     1.30243E+06  2.44936E+06  10
COLG1       BRANCH       COMPONENT
251-010000  1.56421E+07  0.          570.58     618.65     618.65     0.          .73223     1.30244E+06  2.44450E+06  00
COLG2       PIPE         COMPONENT
253-010000  1.56388E+07  0.          570.58     618.63     618.63     0.          .73223     1.30244E+06  2.44458E+06  00
253-020000  1.56355E+07  0.          570.58     618.62     618.62     0.          .73222     1.30244E+06  2.44466E+06  00
253-030000  1.56557E+07  0.          570.59     618.72     618.72     0.          .73224     1.30244E+06  2.44418E+06  00
LETDO1      TMDPVOL      COMPONENT
282-010000  3.80000E+06  0.          412.00     520.46     520.46     0.          .92880     5.82440E+05  2.60184E+06  00
HTLEGB1     PIPE         COMPONENT
311-010000  1.53182E+07  0.          570.45     616.96     616.96     0.          .73189     1.30243E+06  2.45221E+06  00
311-020000  1.53149E+07  1.69246E-05 570.64     616.95     616.95     0.          .73149     1.30347E+06  2.45232E+06  00
HTLEGB2     BRANCH       COMPONENT
313-010000  1.53081E+07  6.36986E-06 570.64     616.91     616.91     0.          .73149     1.30347E+06  2.45243E+06  00
INBOX       BRANCH       COMPONENT
321-010000  1.53497E+07  6.38672E-07 570.65     617.13     617.13     0.          .73155     1.30346E+06  2.45146E+06  00
UTUBE       PIPE         COMPONENT
322-010000  1.53200E+07  2.61295E-07 570.61     616.97     616.97     0.          .73157     1.30330E+06  2.45217E+06  00
322-020000  1.53036E+07  1.08731E-07 570.58     616.89     616.89     0.          .73160     1.30317E+06  2.45256E+06  00
322-030000  1.52876E+07  4.63311E-08 570.56     616.80     616.80     0.          .73163     1.30305E+06  2.45295E+06  00
322-040000  1.52694E+07  2.01508E-08 570.53     616.71     616.71     0.          .73166     1.30293E+06  2.45339E+06  00
322-050000  1.52506E+07  1.22412E-08 570.50     616.61     616.61     0.          .73167     1.30284E+06  2.45384E+06  00
322-060000  1.52334E+07  8.92229E-09 570.48     616.52     616.52     0.          .73168     1.30276E+06  2.45425E+06  00
322-070000  1.52162E+07  7.23229E-09 570.46     616.43     616.43     0.          .73169     1.30270E+06  2.45467E+06  00
322-080000  1.51990E+07  6.23189E-09 570.45     616.34     616.34     0.          .73169     1.30264E+06  2.45508E+06  00
322-090000  1.51819E+07  5.57316E-09 570.43     616.25     616.25     0.          .73168     1.30260E+06  2.45550E+06  00
322-100000  1.51647E+07  5.10535E-09 570.42     616.16     616.16     0.          .73168     1.30256E+06  2.45592E+06  00
322-110000  1.51482E+07  4.73106E-09 570.41     616.07     616.07     0.          .73167     1.30253E+06  2.45632E+06  00
UTUBE       PIPE         COMPONENT
324-010000  1.51372E+07  4.43292E-09 570.40     616.01     616.01     0.          .73167     1.30251E+06  2.45658E+06  00
324-020000  1.51310E+07  4.01781E-09 570.39     615.98     615.98     0.          .73167     1.30248E+06  2.45673E+06  00
324-030000  1.51247E+07  3.69528E-09 570.38     615.94     615.94     0.          .73168     1.30246E+06  2.45689E+06  00
324-040000  1.51184E+07  3.43503E-09 570.38     615.91     615.91     0.          .73168     1.30244E+06  2.45704E+06  00
324-050000  1.51134E+07  3.29896E-09 570.38     615.88     615.88     0.          .73167     1.30243E+06  2.45716E+06  00
324-060000  1.51097E+07  3.17748E-09 570.37     615.86     615.86     0.          .73167     1.30243E+06  2.45725E+06  00
324-070000  1.51052E+07  3.02555E-09 570.37     615.84     615.84     0.          .73167     1.30242E+06  2.45736E+06  00
OUTBOX      BRANCH       COMPONENT
325-010000  1.51134E+07  2.66679E-09 570.37     615.88     615.88     0.          .73168     1.30240E+06  2.45716E+06  00
SEALB       PIPE         COMPONENT
331-010000  1.50497E+07  2.60798E-09 570.34     615.55     615.55     0.          .73162     1.30240E+06  2.45871E+06  00
331-020000  1.50590E+07  2.53884E-09 570.35     615.60     615.60     0.          .73163     1.30240E+06  2.45848E+06  00
331-030000  1.50638E+07  2.43706E-09 570.35     615.62     615.62     0.          .73163     1.30240E+06  2.45837E+06  00
331-040000  1.50561E+07  2.38693E-09 570.35     615.58     615.58     0.          .73162     1.30240E+06  2.45855E+06  00
PUMPR       PUMP         COMPONENT
 RPM =   155.00     (RAD/SEC)     HEAD =  6.85230E+05 (PA)          TORQUE =  -32285.     (N-M)
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OCTANT = 1 MTR.TORQUE = 32285. (N-M)

340-010000	1.54375E+07	1.64334E-10	570.52	617.59	617.59	0.	.73199	1.30251E+06	2.44936E+06	10
COLDB1	SNGLVOL	COMPONENT								
351-010000	1.56419E+07	1.29704E-10	570.60	618.65	618.65	0.	.73220	1.30252E+06	2.44451E+06	00
COLDR2	BRANCH	COMPONENT								
352-010000	1.56390E+07	0.	570.60	618.63	618.63	0.	.73220	1.30252E+06	2.44457E+06	00
COLDR3	PIPE	COMPONENT								
353-010000	1.56357E+07	0.	570.60	618.62	618.62	0.	.73219	1.30253E+06	2.44465E+06	00
353-020000	1.56659E+07	0.	570.60	618.72	618.72	0.	.73221	1.30253E+06	2.44417E+06	00
SURGE	PIPE	COMPONENT								
400-010000	1.53106E+07	1.93979E-02	617.00	616.92	616.92	0.	.58781	1.59850E+06	2.45238E+06	00
400-020000	1.53019E+07	4.24717E-02	617.03	616.88	616.88	0.	.57583	1.59881E+06	2.45258E+06	00
400-030000	1.52923E+07	4.13468E-02	617.02	616.83	616.83	0.	.57636	1.59878E+06	2.45279E+06	00
400-040000	1.52847E+07	3.25364E-02	617.05	616.79	616.79	0.	.58103	1.59912E+06	2.45300E+06	00
PRESSU	PIPE	COMPONENT								
410-010000	1.52797E+07	3.13412E-03	617.21	616.76	616.76	0.	.59693	1.60047E+06	2.45313E+06	00
410-020000	1.52772E+07	7.83199E-03	617.11	616.75	616.75	0.	.59509	1.59965E+06	2.45319E+06	00
410-030000	1.52735E+07	1.38052E-02	617.09	616.73	616.73	0.	.59167	1.59954E+06	2.45328E+06	00
410-040000	1.52673E+07	1.28191E-02	616.76	616.70	616.70	0.	.59476	1.59672E+06	2.45343E+06	00
410-050000	1.52586E+07	.59449	616.92	616.54	616.65	0.	.23068	1.59815E+06	2.45244E+06	00
410-060000	1.52526E+07	.99729	616.39	616.54	616.62	0.	1.20943E-03	1.59368E+06	2.45288E+06	00
410-070000	1.52496E+07	.98744	615.54	616.53	616.60	0.	5.77106E-03	1.58651E+06	2.45310E+06	00
410-080000	1.52477E+07	.98031	610.51	616.53	616.59	0.	9.87183E-03	1.54721E+06	2.45319E+06	00
410-090000	1.52471E+07	.97424	601.53	616.53	616.59	0.	1.44298E-02	1.48455E+06	2.45329E+06	00
TOP	BRANCH	COMPONENT								
420-010000	1.52467E+07	.96733	590.34	616.53	616.59	0.	2.04342E-02	1.41449E+06	2.45332E+06	00
SPRAYR	BRANCH	COMPONENT								
430-010000	1.57063E+07	0.	570.59	618.98	618.98	0.	.73233	1.30235E+06	2.44298E+06	00
SPRAYB	BRANCH	COMPONENT								
440-010000	1.57062E+07	0.	570.61	618.98	618.98	0.	.73230	1.30244E+06	2.44299E+06	00
SPRAYB	BRANCH	COMPONENT								
450-010000	1.52864E+07	0.	570.43	616.80	616.80	0.	.73188	1.30236E+06	2.45298E+06	00
TV490	TMDPVOL	COMPONENT								
490-010000	1.55100E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60522E+06	2.44763E+06	00

SYSTEM 2 MASS= 0. KG MASS ERROR= 0. KG ERR.EST.= 0.

TV940	TMDPVOL	COMPONENT								
940-010000	2.00000E+05	0.	323.15	393.38	393.38	0.	0.	2.09218E+05	2.52920E+06	00

VOL.NO.	RHOF (KG/M3)	RHOG (KG/M3)	LIQ.V.VEL. (M/SEC)	VAP.V.VEL. (M/SEC)	SOUNDE (M/SEC)	STATIC QUAL.	TOT.HT.INP. (WATTS)	VAP.HT.INP. (WATTS)	VAPOR GEN. (KG/M3-SEC)
11-010000	732.50	104.03	3.57612E-02	3.57612E-02	981.05	0.	0.	0.	0.
13-010000	732.28	103.92	7.8329	7.8254	980.08	0.	0.	0.	0.
15-010000	732.29	104.01	7.5462	7.5462	980.12	0.	0.	0.	0.
15-020000	732.30	104.14	7.5461	7.5461	980.18	0.	0.	0.	0.
15-030000	732.31	104.27	7.5460	7.5460	980.23	0.	0.	0.	0.
23-010000	732.32	104.29	-3.34096E-05	-6.78188E-04	980.26	0.	0.	0.	0.
25-010000	732.25	103.57	5.0244	5.0244	979.98	0.	0.	0.	0.
31-010000	732.21	103.21	4.8768	4.8768	979.82	0.	0.	0.	0.
31-020000	732.17	102.79	4.8771	4.8771	979.64	0.	0.	0.	0.
31-030000	732.12	102.38	4.8774	4.8774	979.45	0.	0.	0.	0.
31-040000	732.08	101.98	4.8777	4.8777	979.28	0.	0.	0.	0.
31-050000	732.03	101.58	4.8780	4.8780	979.10	0.	0.	0.	0.
35-010000	732.19	102.50	.70621	.70621	979.76	0.	0.	0.	0.
39-010000	732.02	101.38	5.0263	5.0264	979.04	0.	0.	0.	0.
41-010000	732.00	101.20	2.1885	2.1886	978.98	0.	0.	0.	0.
43-010000	732.00	101.12	-7.53351E-03	-6.52746E-03	978.98	0.	0.	0.	0.

45-010000	732.27	100.96	-2.69110E-05	1.93691E-04	980.16	0.	0.	0.	0.
111-010000	731.89	100.00	14.868	14.868	978.55	0.	0.	0.	0.
111-020000	731.89	99.970	14.870	14.870	978.53	0.	0.	0.	0.
113-010000	731.88	99.903	14.870	14.870	978.51	0.	0.	0.	0.
121-010000	731.93	100.34	1.9812	1.9812	978.71	0.	216.77	0.	0.
122-010000	731.92	100.03	5.9754	5.9754	978.66	0.	-2.80302E+05	0.	0.
122-020000	731.92	99.856	5.9755	5.9755	978.66	0.	-2.31703E+05	0.	0.
122-030000	731.91	99.688	5.9755	5.9755	978.64	0.	-1.96561E+05	0.	0.
122-040000	731.90	99.497	5.9756	5.9756	978.62	0.	-2.01931E+05	0.	0.
122-050000	731.89	99.301	5.9757	5.9757	978.57	0.	-1.37445E+05	0.	0.
122-060000	731.88	99.122	5.9758	5.9758	978.52	0.	-1.09284E+05	0.	0.
122-070000	731.86	98.943	5.9760	5.9760	978.46	0.	-84122.	0.	0.
122-080000	731.84	98.764	5.9761	5.9761	978.40	0.	-61638.	0.	0.
122-090000	731.82	98.585	5.9763	5.9763	978.33	0.	-41546.	0.	0.
122-100000	731.80	98.407	5.9765	5.9765	978.26	0.	-23592.	0.	0.
122-110000	731.78	98.236	5.9767	5.9767	978.17	0.	-9333.1	0.	0.
124-010000	731.77	98.122	5.9769	5.9769	978.10	0.	-1699.8	0.	0.
124-020000	731.75	98.058	5.9770	5.9770	978.05	0.	-9490.8	0.	0.
124-030000	731.74	97.993	5.9772	5.9772	977.99	0.	-14603.	0.	0.
124-040000	731.73	97.928	5.9773	5.9773	977.94	0.	-18746.	0.	0.
124-050000	731.72	97.876	5.9774	5.9774	977.90	0.	-11435.	0.	0.
124-060000	731.71	97.837	5.9775	5.9775	977.87	0.	-11762.	0.	0.
124-070000	731.70	97.791	5.9776	5.9776	977.83	0.	-20360.	0.	0.
125-010000	731.72	97.876	1.9820	1.9820	977.90	0.	254.27	0.	0.
131-010000	731.65	97.220	13.040	13.040	977.64	0.	0.	0.	0.
131-020000	731.66	97.316	13.346	13.346	977.68	0.	0.	0.	0.
131-030000	731.66	97.365	13.346	13.346	977.70	0.	0.	0.	0.
131-040000	731.66	97.285	13.346	13.346	977.67	0.	0.	0.	0.
140-010000	732.02	101.27	2.4865	2.4865	979.05	0.	0.	0.	0.
151-010000	732.23	103.47	16.960	16.959	979.91	0.	0.	0.	0.
152-010000	732.26	103.43	16.939	16.899	980.02	0.	0.	0.	0.
153-010000	732.25	103.40	16.941	16.941	980.00	0.	0.	0.	0.
153-020000	732.27	103.62	14.951	14.951	980.08	0.	0.	0.	0.
180-010000	758.23	170.17	8.04996E-03	8.04996E-03	1442.5	0.	0.	0.	0.
211-010000	731.89	100.00	14.879	14.879	978.55	0.	0.	0.	0.
211-020000	731.89	99.968	14.880	14.880	978.53	0.	0.	0.	0.
213-010000	731.88	99.902	14.880	14.880	978.50	0.	0.	0.	0.
221-010000	731.93	100.34	1.9826	1.9826	978.71	0.	216.89	0.	0.
222-010000	731.92	100.03	5.9795	5.9795	978.66	0.	-2.80269E+05	0.	0.
222-020000	731.92	99.855	5.9796	5.9796	978.66	0.	-2.31680E+05	0.	0.
222-030000	731.91	99.686	5.9796	5.9796	978.64	0.	-1.96544E+05	0.	0.
222-040000	731.90	99.495	5.9797	5.9797	978.62	0.	-2.01919E+05	0.	0.
222-050000	731.89	99.299	5.9798	5.9798	978.57	0.	-1.37435E+05	0.	0.
222-060000	731.87	99.120	5.9800	5.9800	978.52	0.	-1.09274E+05	0.	0.
222-070000	731.86	98.941	5.9801	5.9801	978.46	0.	-84111.	0.	0.
222-080000	731.84	98.761	5.9803	5.9803	978.40	0.	-61625.	0.	0.
222-090000	731.82	98.583	5.9804	5.9804	978.32	0.	-41531.	0.	0.
222-100000	731.80	98.404	5.9806	5.9806	978.25	0.	-23573.	0.	0.
222-110000	731.78	98.233	5.9808	5.9808	978.16	0.	-9308.5	0.	0.
224-010000	731.77	98.120	5.9810	5.9810	978.10	0.	-1572.1	0.	0.
224-020000	731.75	98.055	5.9811	5.9811	978.05	0.	-9448.2	0.	0.
224-030000	731.74	97.990	5.9813	5.9813	977.99	0.	-14556.	0.	0.
224-040000	731.73	97.924	5.9814	5.9814	977.94	0.	-18697.	0.	0.
224-050000	731.72	97.872	5.9816	5.9816	977.90	0.	-11395.	0.	0.
224-060000	731.71	97.834	5.9817	5.9817	977.87	0.	-11725.	0.	0.
224-070000	731.70	97.787	5.9818	5.9818	977.83	0.	-20315.	0.	0.
225-010000	731.72	97.872	1.9834	1.9834	977.89	0.	254.31	0.	0.

231-010000	731.65	97.214	13.049	13.049	977.64	0.	0.	0.	0.
231-020000	731.66	97.310	13.355	13.355	977.68	0.	0.	0.	0.
231-030000	731.66	97.360	13.355	13.355	977.70	0.	0.	0.	0.
232-010000	731.66	97.282	13.338	13.338	977.67	0.	0.	0.	0.
240-010000	732.02	101.27	2.4850	2.4850	979.05	0.	0.	0.	0.
251-010000	732.23	103.47	16.949	16.949	979.91	0.	0.	0.	0.
253-010000	732.23	103.43	16.947	16.947	979.89	0.	0.	0.	0.
253-020000	732.22	103.40	16.947	16.947	979.87	0.	0.	0.	0.
253-030000	732.25	103.62	14.956	14.956	979.96	0.	0.	0.	0.
282-010000	928.80	19.070	8.34188E-04	8.34188E-04	1467.8	0.	0.	0.	0.
311-010000	731.89	100.01	14.819	14.826	978.55	0.	0.	0.	0.
311-020000	731.50	99.970	14.850	14.907	976.87	2.31304E-06	0.	0.	-1.52291E-02
313-010000	731.49	99.909	14.880	14.879	976.84	8.70016E-07	0.	0.	-5.72820E-03
321-010000	731.54	100.34	1.9826	1.9770	977.05	8.76033E-08	-2742.8	0.	-5.76943E-04
322-010000	731.67	100.03	5.9793	6.0048	977.17	3.67274E-08	-7.97770E+05	0.	-2.35198E-04
322-020000	731.60	99.858	5.9790	5.9854	977.31	1.48408E-08	-6.81894E+05	0.	-9.72164E-05
322-030000	731.63	99.689	5.9788	5.9821	977.43	6.31292E-09	-6.01538E+05	0.	-3.96253E-05
322-040000	731.66	99.499	5.9786	5.9803	977.55	2.74033E-09	-6.50489E+05	0.	-1.30732E-05
322-050000	731.67	99.303	5.9785	5.9794	977.62	1.66139E-09	-4.76539E+05	0.	-4.62060E-06
322-060000	731.68	99.123	5.9784	5.9790	977.67	1.20874E-09	-4.12212E+05	0.	-1.91202E-06
322-070000	731.68	98.944	5.9784	5.9789	977.70	9.78009E-10	-3.54749E+05	0.	-9.57598E-07
322-080000	731.69	98.765	5.9784	5.9788	977.72	8.41200E-10	-3.03413E+05	0.	-5.56085E-07
322-090000	731.68	98.587	5.9784	5.9788	977.72	7.50923E-10	-2.57550E+05	0.	-3.58429E-07
322-100000	731.68	98.408	5.9785	5.9788	977.70	6.86651E-10	-2.16571E+05	0.	-2.48857E-07
322-110000	731.67	98.237	5.9785	5.9788	977.68	6.35213E-10	-1.93302E+05	0.	-1.80367E-07
324-010000	731.67	98.124	5.9786	5.9787	977.68	5.94498E-10	-1.64645E+05	0.	-1.39685E-07
324-020000	731.67	98.060	5.9786	5.9787	977.70	5.38470E-10	-2.54247E+05	0.	-1.00692E-07
324-030000	731.68	97.994	5.9786	5.9787	977.71	4.94914E-10	-2.12196E+05	0.	-7.60680E-08
324-040000	731.68	97.929	5.9787	5.9787	977.71	4.59751E-10	-1.78263E+05	0.	-5.92732E-08
324-050000	731.67	97.877	5.9787	5.9788	977.71	4.41306E-10	-99707.	0.	-5.12961E-08
324-060000	731.67	97.839	5.9788	5.9788	977.70	4.24891E-10	-82771.	0.	-4.49681E-08
324-070000	731.67	97.792	5.9788	5.9788	977.69	4.04386E-10	-1.04862E+05	0.	-3.79677E-08
325-010000	731.68	97.677	1.9824	1.9824	977.75	3.56736E-10	39.471	0.	-1.69674E-08
331-010000	731.62	97.220	13.043	13.043	977.50	3.46560E-10	0.	0.	-3.03517E-08
331-020000	731.63	97.316	13.349	13.349	977.54	3.37700E-10	0.	0.	-2.44491E-08
331-030000	731.63	97.366	13.349	13.349	977.56	3.24325E-10	0.	0.	-2.24549E-08
331-040000	731.62	97.286	13.349	13.347	977.53	3.17397E-10	0.	0.	-2.11312E-08
340-010000	731.99	101.27	2.4870	2.4870	978.91	2.27356E-11	0.	0.	-3.76713E-07
351-010000	732.20	103.47	16.963	16.963	979.77	1.83280E-11	0.	0.	8.67680E-10
352-010000	732.20	103.43	16.924	16.923	979.76	0.	0.	0.	0.
353-010000	732.19	103.40	16.924	16.924	979.74	0.	0.	0.	0.
353-020000	732.21	103.62	14.935	14.935	979.82	0.	0.	0.	0.
400-010000	597.14	99.932	-.44614	-.29539	103.79	3.29953E-03	-3724.2	-18.853	.13003
400-020000	596.95	99.843	-.43780	-.31205	105.74	7.36410E-03	4447.2	21.200	.20791
400-030000	596.94	99.753	-.42845	-.30160	105.73	7.15582E-03	4778.5	23.686	.22343
400-040000	596.72	99.663	-.41597	-.30022	105.34	5.58549E-03	4816.6	22.423	.26470
410-010000	595.95	99.608	-1.23569E-02	.15055	103.94	5.25207E-04	983.45	0.	.18517
410-020000	596.41	99.582	-1.25916E-02	.21093	103.89	1.31629E-03	2093.1	0.	.24145
410-030000	596.46	99.544	-7.88383E-03	.16439	104.31	2.33079E-03	4304.0	0.	.20797
410-040000	598.03	99.477	-1.18572E-02	.30868	102.91	2.15538E-03	1.61888E+05	0.	.25232
410-050000	597.20	99.584	-5.18064E-02	3.02106E-02	175.88	.19644	98469.	10349.	5.99537E-02
410-060000	599.70	99.472	-1.6138	1.66367E-02	371.34	.98391	39244.	0.	-5.07976E-02
410-070000	603.63	99.418	-.73569	1.37472E-02	360.19	.92832	39390.	0.	-.12725
410-080000	624.56	99.391	-.50539	1.21086E-02	350.85	.88794	12455.	0.	-.62894
410-090000	655.32	99.369	-.55912	1.28962E-02	340.59	.85153	5393.5	0.	-1.8376
420-010000	686.64	99.362	-.43577	9.51923E-03	327.41	.81079	4539.7	0.	-3.5529
430-010000	732.33	104.17	2.3603	2.3603	980.32	0.	0.	0.	0.

440-010000	732.30	104.17	2.3600	2.3601	980.18	0.	0.	0.	0.
450-010000	731.89	99.677	4.7226	4.8384	978.54	0.	0.	0.	0.
490-010000	593.86	102.04	0.	0.	372.13	1.0000	0.	0.	0.
940-010000	988.11	1.1294	0.	0.	1537.3	0.	89562.	0.	0.

VOL.NO.	LRGST.MASS ERR.		REDUCE-QUALITY		REDUCE-EXTRAP.		REDUCE-MASS		REDUCE-PROPTY.		MIN.COURANT		REDUCE-COURANT	
	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL
11-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-040000	0	0	0	0	0	0	0	0	0	0	0	12	150	293
140-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

211-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
213-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
221-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
226-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232-010000	0	0	0	0	0	0	0	0	0	0	0	1	0	0
240-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
251-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
262-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
311-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
311-020000	0	5	0	0	0	0	0	0	0	0	0	0	0	0
313-010000	0	2	0	0	0	0	0	0	0	0	0	0	0	0
321-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
325-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

331-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-040000	0	0	0	0	0	0	0	0	0	0	300	587	0	7
340-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
351-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
352-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
353-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
353-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400-010000	247	434	0	0	0	0	0	0	0	0	0	0	0	0
400-020000	0	36	0	0	0	0	0	0	0	0	0	0	0	0
400-030000	1	70	0	0	0	0	0	0	0	0	0	0	0	0
400-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-010000	0	1	0	0	0	0	0	0	0	0	0	0	0	0
410-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-030000	13	13	0	0	0	0	0	0	0	0	0	0	0	0
410-040000	30	30	0	0	0	0	0	0	0	0	0	0	0	0
410-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
420-010000	6	6	0	0	0	0	0	0	0	0	0	0	0	0
430-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
440-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450-010000	3	3	0	0	0	0	0	0	0	0	0	0	0	0
490-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
940-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

JUN.NO.	FROM VOL.	TO VOL.	LIQ.J.VEL. (M/SEC)	VAP.J.VEL. (M/SEC)	MASS FLOW (KG/SEC)	JUN.AREA (M2)	THROAT RATIO	JUNCTION FLAGS	CHOKE FLAG	NO.ADVS.EDIT	CHOKED TOTAL
SYSTEM 1											
UPDOWNC	BRANCH	COMPONENT									
11-010000	-13-010000	11-010000	3.57612E-02	3.57612E-02	48.497	1.8520	1.0000	00000	0	0	0
11-020000	11-010000	45-010000	17.913	17.913	48.548	3.70000E-03	1.0000	00000	0	0	0
UPDOWNOZZ	BRANCH	COMPONENT									
13-010000	153-020000	13-010000	14.950	14.950	4751.3	.43400	1.0000	00000	0	0	0
13-020000	253-030000	13-010000	14.955	14.955	4752.8	.43400	1.0000	00000	0	0	0
13-030000	353-020000	13-010000	14.935	14.935	4746.0	.43400	1.0000	00000	0	0	0
13-040000	13-010000	15-010000	7.8329	7.8329	14202.	2.4760	1.0000	00000	0	0	0
DOWNCTS	ANNULUS	COMPONENT									
15-010000	15-010000	15-020000	7.5462	7.5462	14202.	2.5700	1.0000	00000	0	0	0
15-020000	15-020000	15-030000	7.5461	7.5461	14202.	2.5700	1.0000	00000	0	0	0
LOWPLEN	BRANCH	COMPONENT									
23-010000	15-030000	23-010000	7.5460	7.5460	14202.	2.5700	1.0000	00000	0	0	0
23-020000	-23-010000	25-010000	5.0241	5.0241	14202.	3.8600	1.0000	00000	0	0	0
COREIN	BRANCH	COMPONENT									
25-010000	25-010000	31-010000	4.8766	4.8766	13784.	3.8600	1.0000	00000	0	0	0
25-020000	25-010000	35-010000	5.7120	5.7120	418.26	.10000	1.0000	00000	0	0	0
CORE	PIPE	COMPONENT									
31-010000	31-010000	31-020000	4.8769	4.8769	13784.	3.8600	1.0000	00000	0	0	0
31-020000	31-020000	31-030000	4.8772	4.8772	13784.	3.8600	1.0000	00000	0	0	0
31-030000	31-030000	31-040000	4.8776	4.8776	13784.	3.8600	1.0000	00000	0	0	0
31-040000	31-040000	31-050000	4.8779	4.8779	13784.	3.8600	1.0000	00000	0	0	0
COREEX	BRANCH	COMPONENT									
39-010000	31-050000	39-010000	4.8782	4.8782	13784.	3.8600	1.0000	00000	0	0	0
39-020000	35-010000	39-010000	5.7133	5.7133	418.32	.10000	1.0000	00000	0	0	0

UPPLEN1	BRANCH	COMPONENT									
41-010000	39-010000	41-010000	5.0264	5.0264	14202.	3.8600	1.0000	00000	0	0	0
41-020000	41-010000	43-010000	2.1886	2.1886	14203.	8.8650	1.0000	00000	0	0	0
UPPLEN2	BRANCH	COMPONENT									
43-010000	-43-010000	111-010000	14.867	14.867	4754.7	.43690	1.0000	00000	0	0	0
43-020000	-43-010000	211-010000	14.878	14.878	4758.0	.43690	1.0000	00000	0	0	0
43-030000	-43-010000	311-010000	14.818	14.818	4738.8	.43690	1.0000	00000	0	0	0
UPHEAD	BRANCH	COMPONENT									
45-010000	43-010000	45-010000	-7.50604E-03	-7.50604E-03	-48.726	8.8650	1.0000	00000	0	0	0
HTLEGR1	PIPE	COMPONENT									
111-010000	111-010000	111-020000	14.870	14.870	4754.8	.43690	1.0000	00000	0	0	0
HTLEGR2	BRANCH	COMPONENT									
113-010000	111-020000	113-010000	14.870	14.870	4754.8	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
121-010000	121-010000	122-010000	5.9753	5.9753	4754.9	1.0872	1.0000	00000	0	0	0
121-020000	113-010000	121-010000	14.870	14.870	4754.8	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
122-010000	122-010000	122-020000	5.9754	5.9754	4754.9	1.0872	1.0000	00000	0	0	0
122-020000	122-020000	122-030000	5.9755	5.9755	4754.9	1.0872	1.0000	00000	0	0	0
122-030000	122-030000	122-040000	5.9756	5.9756	4755.0	1.0872	1.0000	00000	0	0	0
122-040000	122-040000	122-050000	5.9756	5.9756	4755.0	1.0872	1.0000	00000	0	0	0
122-050000	122-050000	122-060000	5.9758	5.9758	4755.0	1.0872	1.0000	00000	0	0	0
122-060000	122-060000	122-070000	5.9759	5.9759	4755.0	1.0872	1.0000	00000	0	0	0
122-070000	122-070000	122-080000	5.9761	5.9761	4755.0	1.0872	1.0000	00000	0	0	0
122-080000	122-080000	122-090000	5.9762	5.9762	4755.0	1.0872	1.0000	00000	0	0	0
122-090000	122-090000	122-100000	5.9764	5.9764	4755.1	1.0872	1.0000	00000	0	0	0
122-100000	122-100000	122-110000	5.9766	5.9766	4755.1	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
123-000000	122-110000	124-010000	5.9768	5.9768	4755.1	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
124-010000	124-010000	124-020000	5.9769	5.9769	4755.1	1.0872	1.0000	00000	0	0	0
124-020000	124-020000	124-030000	5.9771	5.9771	4755.2	1.0872	1.0000	00000	0	0	0
124-030000	124-030000	124-040000	5.9772	5.9772	4755.2	1.0872	1.0000	00000	0	0	0
124-040000	124-040000	124-050000	5.9774	5.9774	4755.2	1.0872	1.0000	00000	0	0	0
124-050000	124-050000	124-060000	5.9775	5.9775	4755.2	1.0872	1.0000	00000	0	0	0
124-060000	124-060000	124-070000	5.9776	5.9776	4755.3	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
125-010000	124-070000	125-010000	5.9739	5.9739	4755.3	1.0879	1.0000	00000	0	0	0
125-020000	125-010000	131-010000	13.040	13.040	4755.4	.49840	1.0000	00000	0	0	0
SEALR	PIPE	COMPONENT									
131-010000	131-010000	131-020000	13.346	13.346	4755.4	.48700	1.0000	00000	0	0	0
131-020000	131-020000	131-030000	13.346	13.346	4755.4	.48700	1.0000	00000	0	0	0
131-030000	131-030000	131-040000	13.346	13.346	4755.5	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
140-010000	131-040000	140-010000	13.346	13.346	4755.5	.48700	1.0000	00000	0	0	0
140-020000	140-010000	151-010000	16.962	16.962	4755.5	.38300	1.0000	00000	0	0	0
COLDR2	BRANCH	COMPONENT									
152-010000	151-010000	152-010000	16.920	16.920	4745.2	.38300	1.0000	00000	0	0	0
152-020000	152-010000	153-010000	16.941	16.941	4751.3	.38300	1.0000	00000	0	0	0
COLDR3	PIPE	COMPONENT									
153-010000	153-010000	153-020000	16.942	16.942	4751.3	.38300	1.0000	00000	0	0	0
CVJUN	TMDPJUN	COMPONENT									
181-000000	180-010000	152-010000	2.3066	2.3066	6.1037	3.49000E-03	1.0000	00000	0	0	0
HTLEGG1	PIPE	COMPONENT									
211-010000	211-010000	211-020000	14.880	14.880	4758.0	.43690	1.0000	00000	0	0	0
HTLEGG2	BRANCH	COMPONENT									
213-010000	211-020000	213-010000	14.880	14.880	4758.1	.43690	1.0000	00000	0	0	0

INBOX	BRANCH	COMPONENT									
221-010000	221-010000	222-010000	5.9794	5.9794	4758.2	1.0872	1.0000	00000	0	0	0
221-020000	213-010000	221-010000	14.880	14.880	4758.1	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
222-010000	222-010000	222-020000	5.9796	5.9796	4758.2	1.0872	1.0000	00000	0	0	0
222-020000	222-020000	222-030000	5.9796	5.9796	4758.2	1.0872	1.0000	00000	0	0	0
222-030000	222-030000	222-040000	5.9797	5.9797	4758.2	1.0872	1.0000	00000	0	0	0
222-040000	222-040000	222-050000	5.9798	5.9798	4758.3	1.0872	1.0000	00000	0	0	0
222-050000	222-050000	222-060000	5.9799	5.9799	4758.3	1.0872	1.0000	00000	0	0	0
222-060000	222-060000	222-070000	5.9800	5.9800	4758.3	1.0872	1.0000	00000	0	0	0
222-070000	222-070000	222-080000	5.9802	5.9802	4758.3	1.0872	1.0000	00000	0	0	0
222-080000	222-080000	222-090000	5.9804	5.9804	4758.3	1.0872	1.0000	00000	0	0	0
222-090000	222-090000	222-100000	5.9805	5.9805	4758.3	1.0872	1.0000	00000	0	0	0
222-100000	222-100000	222-110000	5.9807	5.9807	4758.4	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
223-000000	222-110000	224-010000	5.9809	5.9809	4758.4	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
224-010000	224-010000	224-020000	5.9811	5.9811	4758.4	1.0872	1.0000	00000	0	0	0
224-020000	224-020000	224-030000	5.9812	5.9812	4758.4	1.0872	1.0000	00000	0	0	0
224-030000	224-030000	224-040000	5.9814	5.9814	4758.5	1.0872	1.0000	00000	0	0	0
224-040000	224-040000	224-050000	5.9815	5.9815	4758.5	1.0872	1.0000	00000	0	0	0
224-050000	224-050000	224-060000	5.9816	5.9816	4758.5	1.0872	1.0000	00000	0	0	0
224-060000	224-060000	224-070000	5.9817	5.9817	4758.6	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
225-010000	224-070000	225-010000	5.9780	5.9780	4758.6	1.0879	1.0000	00000	0	0	0
225-020000	225-010000	231-010000	13.049	13.049	4758.7	.49840	1.0000	00000	0	0	0
SEALG1	PIPE	COMPONENT									
231-010000	231-010000	231-020000	13.355	13.355	4758.7	.48700	1.0000	00000	0	0	0
231-020000	231-020000	231-030000	13.355	13.355	4758.7	.48700	1.0000	00000	0	0	0
SEALG2	BRANCH	COMPONENT									
232-010000	231-030000	232-010000	13.338	13.338	4752.6	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
240-010000	232-010000	240-010000	13.338	13.338	4752.7	.48700	1.0000	00000	0	0	0
240-020000	240-010000	251-010000	16.952	16.952	4752.7	.38300	1.0000	00000	0	0	0
COLG1	BRANCH	COMPONENT									
251-010000	251-010000	253-010000	16.947	16.947	4752.7	.38300	1.0000	00000	0	0	0
COLG2	PIPE	COMPONENT									
253-010000	253-010000	253-020000	16.947	16.947	4752.7	.38300	1.0000	00000	0	0	0
253-020000	253-020000	253-030000	16.947	16.947	4752.8	.38300	1.0000	00000	0	0	0
TJ183	TMDPJUN	COMPONENT									
283-000000	231-030000	282-010000	1.71291E-02	1.71291E-02	6.1035	.48700	1.0000	00000	0	0	0
HTLEGB1	PIPE	COMPONENT									
311-010000	311-010000	311-020000	14.820	14.834	4738.9	.43690	1.0000	00000	0	0	0
SURGEJUN	SNGLJUN	COMPONENT									
312-000000	-400-010000	-311-020000	.44807	.24042	16.594	6.31180E-02	1.0000	10001	0	0	0
HTLEGB2	BRANCH	COMPONENT									
313-010000	311-020000	313-010000	14.880	14.907	4755.5	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
321-010000	321-010000	322-010000	5.9794	6.0123	4755.6	1.0872	1.0000	00000	0	0	0
321-020000	313-010000	321-010000	14.880	14.807	4755.5	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
322-010000	322-010000	322-020000	5.9792	5.9865	4755.6	1.0872	1.0000	00000	0	0	0
322-020000	322-020000	322-030000	5.9789	5.9827	4755.6	1.0872	1.0000	00000	0	0	0
322-030000	322-030000	322-040000	5.9787	5.9806	4755.7	1.0872	1.0000	00000	0	0	0
322-040000	322-040000	322-050000	5.9785	5.9796	4755.7	1.0872	1.0000	00000	0	0	0
322-050000	322-050000	322-060000	5.9785	5.9791	4755.7	1.0872	1.0000	00000	0	0	0
322-060000	322-060000	322-070000	5.9784	5.9789	4755.7	1.0872	1.0000	00000	0	0	0

322-070000	322-070000	322-080000	5.9784	5.9788	4755.7	1.0872	1.0000	00000	0	0	0
322-080000	322-080000	322-090000	5.9784	5.9788	4755.8	1.0872	1.0000	00000	0	0	0
322-090000	322-090000	322-100000	5.9784	5.9788	4755.8	1.0872	1.0000	00000	0	0	0
322-100000	322-100000	322-110000	5.9785	5.9788	4755.8	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
323-000000	322-110000	324-010000	5.9786	5.9788	4755.8	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
324-010000	324-010000	324-020000	5.9786	5.9787	4755.8	1.0872	1.0000	00000	0	0	0
324-020000	324-020000	324-030000	5.9786	5.9787	4755.9	1.0872	1.0000	00000	0	0	0
324-030000	324-030000	324-040000	5.9787	5.9787	4755.9	1.0872	1.0000	00000	0	0	0
324-040000	324-040000	324-050000	5.9787	5.9787	4755.9	1.0872	1.0000	00000	0	0	0
324-050000	324-050000	324-060000	5.9788	5.9788	4756.0	1.0872	1.0000	00000	0	0	0
324-060000	324-060000	324-070000	5.9788	5.9788	4756.0	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
325-010000	324-070000	325-010000	5.9750	5.9749	4756.0	1.0879	1.0000	00000	0	0	0
325-020000	325-010000	331-010000	13.042	13.043	4756.1	.49840	1.0000	00000	0	0	0
SEALB	PIPE	COMPONENT									
331-010000	331-010000	331-020000	13.349	13.349	4756.1	.48700	1.0000	00000	0	0	0
331-020000	331-020000	331-030000	13.349	13.349	4756.1	.48700	1.0000	00000	0	0	0
331-030000	331-030000	331-040000	13.349	13.349	4756.2	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
340-010000	331-040000	340-010000	13.349	13.346	4756.2	.48700	1.0000	00000	0	0	0
340-020000	340-010000	351-010000	16.965	16.965	4756.2	.38300	1.0000	00000	0	0	0
COLDR2	BRANCH	COMPONENT									
352-010000	351-010000	352-010000	16.923	16.923	4745.9	.38300	1.0000	00000	0	0	0
352-020000	352-010000	353-010000	16.924	16.924	4745.9	.38300	1.0000	00000	0	0	0
COLDR3	PIPE	COMPONENT									
353-010000	353-010000	353-020000	16.924	16.924	4745.9	.38300	1.0000	00000	0	0	0
SURGE	PIPE	COMPONENT									
400-010000	400-010000	400-020000	-.44416	-.32052	-16.113	6.31180E-02	1.0000	00000	0	0	0
400-020000	400-020000	400-030000	-.43362	-.30497	-15.821	6.34253E-02	1.0000	00000	0	0	0
400-030000	400-030000	400-040000	-.42332	-.29732	-15.563	6.34253E-02	1.0000	00000	0	0	0
SURGE1	SNGLJUN	COMPONENT									
405-000000	400-040000	410-010000	-.40882	-.33030	-15.410	6.34253E-02	1.0000	00100	0	0	0
PRESSU	PIPE	COMPONENT									
410-010000	410-010000	410-020000	-1.23629E-02	.15532	-15.500	2.1329	1.0000	00000	0	0	0
410-020000	410-020000	410-030000	-1.28216E-02	.23319	-15.699	2.1329	1.0000	00000	0	0	0
410-030000	410-030000	410-040000	-7.97264E-03	.17250	-15.802	3.5350	1.0000	00000	0	0	0
410-040000	410-040000	410-050000	-2.13271E-02	.45544	-16.202	3.5350	1.0000	00000	0	0	0
410-050000	410-050000	410-060000	-4.6018	2.10512E-02	-21.940	3.5350	1.0000	00000	0	0	0
410-060000	410-060000	410-070000	-.97441	1.40023E-02	-21.174	3.5350	1.0000	00000	0	0	0
410-070000	410-070000	410-080000	-.58852	1.34894E-02	-20.886	3.5350	1.0000	00000	0	0	0
410-080000	410-080000	410-090000	-.67128	1.62466E-02	-20.785	2.1329	1.0000	00000	0	0	0
TOP	BRANCH	COMPONENT									
420-010000	410-090000	420-010000	-.47472	9.52414E-03	-20.742	2.1329	1.0000	00000	0	0	0
SPRAYR	BRANCH	COMPONENT									
430-010000	151-010000	430-010000	2.3603	2.3603	10.351	5.98900E-03	1.0000	00000	0	0	0
SPRAYR	VALVE	COMPONENT									
435-000000	430-010000	450-010000	2.3602	2.3602	10.352	5.98900E-03	.11611	00100	0	1	1
SPRAYB	BRANCH	COMPONENT									
440-010000	351-010000	440-010000	2.3601	2.3601	10.349	5.98900E-03	1.0000	00000	0	0	0
SPRAYB	VALVE	COMPONENT									
445-000000	440-010000	450-010000	2.3600	2.3600	10.350	5.98900E-03	.11611	00100	0	1	1
SPRAYB	BRANCH	COMPONENT									
450-010000	450-010000	420-010000	4.7232	4.8671	20.703	5.98900E-03	1.0000	00000	0	0	0
PRESVAL	VALVE	COMPONENT									
489-000000	420-010000	490-010000	0.	0.	0.	2.1340	0.	00100	0	0	0

SYSTEM 2

JUN.NO.	VOIDFJ	VOIDGJ	FROM	TO	FIJ (N-S2/M5)	FWALFJ	FWALGJ	FJUNF	FJUNR	FORMFJ	FORMGJ
11-010000	1.0000	0.	BBY	BBY	19.973	2.72	0.	0.	0.	0.	0.
11-020000	1.0000	0.	BBY	BBY	2.66765E-02	1.936E-07	0.	2.30	2.30	0.	0.
13-010000	1.0000	0.	BBY	BBY	14.771	1.748E-02	0.	.429	.429	0.	0.
13-020000	1.0000	0.	BBY	BBY	14.771	1.748E-02	0.	.429	.429	0.	0.
13-030000	1.0000	0.	BBY	BBY	14.770	1.748E-02	0.	.429	.429	0.	0.
13-040000	1.0000	0.	BBY	BBY	21.778	3.487E-02	0.	.160	.160	0.	0.
15-010000	1.0000	0.	BBY	BBY	22.235	4.002E-02	0.	0.	0.	0.	0.
15-020000	1.0000	0.	BBY	BBY	22.245	4.002E-02	0.	0.	0.	0.	0.
23-010000	1.0000	0.	BBY	BBY	16.300	2.076E-02	0.	1.43	.500	0.	0.
23-020000	1.0000	0.	BBY	BBY	16.899	3.427E-03	0.	5.27	5.27	0.	0.
25-010000	1.0000	0.	BBY	BBY	22.182	.651	0.	2.45	2.45	0.	0.
25-020000	1.0000	0.	BBY	BBY	2.3780	4.351E-04	0.	7.45	7.45	0.	0.
31-010000	1.0000	0.	BBY	BBY	22.152	1.30	0.	2.47	2.47	0.	0.
31-020000	1.0000	0.	BBY	BBY	22.120	1.30	0.	2.40	2.40	0.	0.
31-030000	1.0000	0.	BBY	BBY	22.088	1.30	0.	2.31	2.31	0.	0.
31-040000	1.0000	0.	BBY	BBY	22.058	1.30	0.	2.23	2.23	0.	0.
39-010000	1.0000	0.	BBY	BBY	22.035	.651	0.	.720	.720	0.	0.
39-020000	1.0000	0.	BBY	BBY	2.3692	4.351E-04	0.	6.45	6.45	0.	0.
41-010000	1.0000	0.	BBY	BBY	16.550	1.905E-03	0.	2.04	2.04	0.	0.
41-020000	1.0000	0.	BBY	BBY	22.009	3.898E-03	0.	0.	0.	0.	0.
43-010000	1.0000	0.	BBY	BBY	12.830	1.920E-02	0.	.380	.380	0.	0.
43-020000	1.0000	0.	BBY	BBY	12.830	1.920E-02	0.	.380	.380	0.	0.
43-030000	1.0000	0.	BBY	BBY	12.830	1.920E-02	0.	.380	.380	0.	0.
45-010000	1.0000	0.	BBY	BBY	21.792	.884	0.	2.60	2.60	0.	0.
111-010000	1.0000	0.	BBY	BBY	21.922	3.836E-02	0.	0.	0.	0.	0.
113-010000	1.0000	0.	BBY	BBY	21.918	3.836E-02	0.	0.	0.	0.	0.
121-010000	1.0000	0.	BBY	BBY	12.151	.377	0.	.226	.580	0.	0.
121-020000	1.0000	0.	BBY	BBY	14.056	1.926E-02	0.	.325	.255	0.	0.
122-010000	1.0000	0.	BBY	BBY	21.920	.740	0.	0.	0.	0.	0.
122-020000	1.0000	0.	BBY	BBY	21.908	.728	0.	0.	0.	0.	0.
122-030000	1.0000	0.	BBY	BBY	21.894	.824	0.	0.	0.	0.	0.
122-040000	1.0000	0.	BBY	BBY	21.881	.849	0.	0.	0.	0.	0.
122-050000	1.0000	0.	BBY	BBY	21.866	.778	0.	0.	0.	0.	0.
122-060000	1.0000	0.	BBY	BBY	21.853	.778	0.	0.	0.	0.	0.
122-070000	1.0000	0.	BBY	BBY	21.840	.778	0.	0.	0.	0.	0.
122-080000	1.0000	0.	BBY	BBY	21.826	.778	0.	0.	0.	0.	0.
122-090000	1.0000	0.	BBY	BBY	21.813	.778	0.	0.	0.	0.	0.
122-100000	1.0000	0.	BBY	BBY	21.800	.808	0.	0.	0.	0.	0.
123-000000	1.0000	0.	BBY	BBY	21.789	.837	0.	0.	0.	0.	0.
124-010000	1.0000	0.	BBY	BBY	21.782	1.20	0.	0.	0.	0.	0.
124-020000	1.0000	0.	BBY	BBY	21.777	1.56	0.	0.	0.	0.	0.
124-030000	1.0000	0.	BBY	BBY	21.772	1.56	0.	0.	0.	0.	0.
124-040000	1.0000	0.	BBY	BBY	21.768	1.24	0.	0.	0.	0.	0.
124-050000	1.0000	0.	BBY	BBY	21.764	.914	0.	0.	0.	0.	0.
124-060000	1.0000	0.	BBY	BBY	21.761	1.10	0.	0.	0.	0.	0.
125-010000	1.0000	0.	BBY	BBY	13.945	.650	0.	.580	.226	0.	0.
125-020000	1.0000	0.	BBY	BBY	12.636	1.316E-02	0.	.255	.325	0.	0.
131-010000	1.0000	0.	BBY	BBY	21.472	2.551E-02	0.	0.	0.	0.	0.
131-020000	1.0000	0.	BBY	BBY	21.726	3.326E-02	0.	0.	0.	0.	0.
131-030000	1.0000	0.	BBY	BBY	21.726	3.096E-02	0.	0.	0.	0.	0.
140-010000	1.0000	0.	BBY	CTB	13.661	1.074E-02	0.	.195	.195	0.	0.
140-020000	1.0000	0.	CTB	BBY	14.482	1.598E-02	0.	.270	.270	0.	0.
152-010000	1.0000	0.	BBY	BBY	22.187	3.201E-02	0.	0.	0.	0.	0.

152-020000	1.0000	0.	BBY	BBY	22.185	3.196E-02	0.	0.	0.	0.	0.
153-010000	1.0000	0.	BBY	BBY	20.888	2.842E-02	0.	0.	0.	0.	0.
181-000000	1.0000	0.	BBY	BBY	.20217	1.069E-03	0.	0.	0.	0.	0.
211-010000	1.0000	0.	BBY	BBY	21.922	3.836E-02	0.	0.	0.	0.	0.
213-010000	1.0000	0.	BBY	BBY	21.918	3.836E-02	0.	0.	0.	0.	0.
221-010000	1.0000	0.	BBY	BBY	12.151	.377	0.	.226	.580	0.	0.
221-020000	1.0000	0.	BBY	BBY	14.056	1.926E-02	0.	.325	.255	0.	0.
222-010000	1.0000	0.	BBY	BBY	21.920	.740	0.	0.	0.	0.	0.
222-020000	1.0000	0.	BBY	BBY	21.908	.727	0.	0.	0.	0.	0.
222-030000	1.0000	0.	BBY	BBY	21.894	.823	0.	0.	0.	0.	0.
222-040000	1.0000	0.	BBY	BBY	21.881	.849	0.	0.	0.	0.	0.
222-050000	1.0000	0.	BBY	BBY	21.866	.778	0.	0.	0.	0.	0.
222-060000	1.0000	0.	BBY	BBY	21.853	.778	0.	0.	0.	0.	0.
222-070000	1.0000	0.	BBY	BBY	21.840	.778	0.	0.	0.	0.	0.
222-080000	1.0000	0.	BBY	BBY	21.826	.778	0.	0.	0.	0.	0.
222-090000	1.0000	0.	BBY	BBY	21.813	.778	0.	0.	0.	0.	0.
222-100000	1.0000	0.	BBY	BBY	21.800	.807	0.	0.	0.	0.	0.
223-000000	1.0000	0.	BBY	BBY	21.789	.837	0.	0.	0.	0.	0.
224-010000	1.0000	0.	BBY	BBY	21.781	1.20	0.	0.	0.	0.	0.
224-020000	1.0000	0.	BBY	BBY	21.777	1.56	0.	0.	0.	0.	0.
224-030000	1.0000	0.	BBY	BBY	21.772	1.56	0.	0.	0.	0.	0.
224-040000	1.0000	0.	BBY	BBY	21.768	1.24	0.	0.	0.	0.	0.
224-050000	1.0000	0.	BBY	BBY	21.764	.914	0.	0.	0.	0.	0.
224-060000	1.0000	0.	BBY	BBY	21.760	1.10	0.	0.	0.	0.	0.
225-010000	1.0000	0.	BBY	BBY	13.945	.650	0.	.580	.226	0.	0.
225-020000	1.0000	0.	BBY	BBY	12.636	1.316E-02	0.	.255	.325	0.	0.
231-010000	1.0000	0.	BBY	BBY	21.472	2.551E-02	0.	0.	0.	0.	0.
231-020000	1.0000	0.	BBY	BBY	21.726	3.326E-02	0.	0.	0.	0.	0.
232-010000	1.0000	0.	BBY	BBY	21.725	3.098E-02	0.	0.	0.	0.	0.
240-010000	1.0000	0.	BBY	CTB	13.661	1.074E-02	0.	.195	.195	0.	0.
240-020000	1.0000	0.	CTB	BBY	14.482	1.598E-02	0.	.270	.270	0.	0.
251-010000	1.0000	0.	BBY	BBY	22.187	3.196E-02	0.	0.	0.	0.	0.
253-010000	1.0000	0.	BBY	BBY	22.184	3.196E-02	0.	0.	0.	0.	0.
253-020000	1.0000	0.	BBY	BBY	20.887	2.842E-02	0.	0.	0.	0.	0.
283-000000	1.0000	0.	BBY	BBY	21.727	15.8	0.	0.	0.	0.	0.
311-010000	1.0000	0.	BBY	BBY	25.819	3.840E-02	3.803E-02	0.	0.	0.	0.
312-000000	.98060	1.93979E-02	BBY	BBY	431.98	.160	.260	0.	0.	0.	0.
313-010000	.99998	1.69246E-05	BBY	BBY	25.808	3.833E-02	3.784E-02	0.	0.	0.	0.
321-010000	1.0000	6.38672E-07	BBY	BBY	12.143	.377	.212	.226	.580	0.	0.
321-020000	.99999	6.36986E-06	BBY	BBY	14.047	1.927E-02	3.030E-02	.325	.255	0.	0.
322-010000	1.0000	2.61295E-07	BBY	BBY	21.908	.740	.822	0.	0.	0.	0.
322-020000	1.0000	1.08731E-07	BBY	BBY	21.897	.727	.807	0.	0.	0.	0.
322-030000	1.0000	4.63311E-08	BBY	BBY	21.884	.823	.914	0.	0.	0.	0.
322-040000	1.0000	2.01508E-08	BBY	BBY	21.872	.849	.944	0.	0.	0.	0.
322-050000	1.0000	1.22412E-08	BBY	BBY	21.859	.778	.867	0.	0.	0.	0.
322-060000	1.0000	8.92229E-09	BBY	BBY	21.846	.778	.868	0.	0.	0.	0.
322-070000	1.0000	7.23229E-09	BBY	BBY	21.834	.778	.869	0.	0.	0.	0.
322-080000	1.0000	6.23189E-09	BBY	BBY	21.821	.778	.870	0.	0.	0.	0.
322-090000	1.0000	5.57316E-09	BBY	BBY	21.808	.778	.870	0.	0.	0.	0.
322-100000	1.0000	5.10535E-09	BBY	BBY	21.795	.808	.904	0.	0.	0.	0.
323-000000	1.0000	4.73106E-09	BBY	BBY	21.785	.837	.937	0.	0.	0.	0.
324-010000	1.0000	4.43292E-09	BBY	BBY	21.779	1.20	1.34	0.	0.	0.	0.
324-020000	1.0000	4.01781E-09	BBY	BBY	21.775	1.56	1.74	0.	0.	0.	0.
324-030000	1.0000	3.69528E-09	BBY	BBY	21.770	1.56	1.74	0.	0.	0.	0.
324-040000	1.0000	3.43503E-09	BBY	BBY	21.766	1.24	1.39	0.	0.	0.	0.
324-050000	1.0000	3.29896E-09	BBY	BBY	21.763	.914	1.03	0.	0.	0.	0.
324-060000	1.0000	3.17748E-09	BBY	BBY	21.759	1.10	1.24	0.	0.	0.	0.

325-010000	1.0000	3.02555E-09	BBY	BBY	13.945	.650	.778	.580	.225	0.	0.
325-020000	1.0000	2.66679E-09	BBY	BBY	12.636	1.316E-02	1.289E-02	.255	.325	0.	0.
331-010000	1.0000	2.60798E-09	BBY	BBY	21.471	2.551E-02	2.532E-02	0.	0.	0.	0.
331-020000	1.0000	2.53884E-09	BBY	BBY	21.725	3.326E-02	3.300E-02	0.	0.	0.	0.
331-030000	1.0000	2.43706E-09	BBY	BBY	21.725	3.096E-02	3.070E-02	0.	0.	0.	0.
340-010000	1.0000	2.38693E-09	BBY	CTB	13.660	1.074E-02	1.843E-02	.195	.195	0.	0.
340-020000	1.0000	1.64334E-10	CTB	BBY	14.481	1.598E-02	0.	.270	.270	0.	0.
352-010000	1.0000	1.29704E-10	BBY	BBY	22.185	3.200E-02	0.	0.	0.	0.	0.
352-020000	1.0000	0.	BBY	BBY	22.183	3.196E-02	0.	0.	0.	0.	0.
353-010000	1.0000	0.	BBY	BBY	20.886	2.842E-02	0.	0.	0.	0.	0.
400-010000	.95753	4.24717E-02	BBY	BBY	2365.5	.331	.360	0.	0.	0.	0.
400-020000	.95865	4.13468E-02	BBY	BBY	2937.2	.335	.382	0.	0.	0.	0.
400-030000	.96746	3.25364E-02	BBY	BBY	2709.8	.335	.385	0.	0.	0.	0.
405-000000	.99687	3.13412E-03	BBY	BBY	1242.1	.171	.180	0.	0.	.376	.425
410-010000	.99217	3.13412E-03	BBY	BBY	1014.7	6.342E-03	4.979E-03	0.	0.	0.	0.
410-020000	.98619	7.83199E-03	BBY	BBY	1089.3	4.697E-03	2.879E-03	0.	0.	0.	0.
410-030000	.98718	1.38052E-02	BBY	BBY	1730.4	1.193E-02	9.429E-03	0.	0.	0.	0.
410-040000	.40551	1.28191E-02	BBY	SLG	5086.7	2.914E-02	8.971E-05	0.	0.	0.	0.
410-050000	2.70507E-03	.59449	SLG	ANM	37.367	3.234E-04	3.623E-05	0.	0.	0.	0.
410-060000	1.25584E-02	.99729	ANM	ANM	37.367	1.209E-03	2.732E-05	0.	0.	0.	0.
410-070000	1.96873E-02	.98744	ANM	ANM	183.74	1.150E-03	3.131E-05	0.	0.	0.	0.
410-080000	2.57581E-02	.98031	ANM	ANM	316.03	2.688E-04	1.070E-05	0.	0.	0.	0.
420-010000	3.26660E-02	.97424	ANM	ANM	615.43	3.157E-04	1.847E-05	0.	0.	0.	0.
430-010000	1.0000	0.	BBY	BBY	18.534	1.02	0.	0.	0.	0.	0.
435-000000	1.0000	0.	BBY	BBY	22.081	2.74	0.	0.	0.	166.	166.
440-010000	1.0000	1.29704E-10	BBY	BBY	18.533	1.02	0.	0.	0.	0.	0.
445-000000	1.0000	0.	BBY	BBY	22.081	2.74	0.	0.	0.	166.	166.
450-010000	1.0000	0.	BBY	ANM	9486.5	.884	1.418E-09	1.00	1.00	0.	0.
489-000000	1.75165E-02	.98388	ANM	MST	2608.8	557.	.698	0.	0.	0.	0.

STR.NO.	SIDE	BDRY.VOL. NUMBER	SURFACE TEMP. (K)	HEAT TRF. RATE (WATT)	HEAT FLUX (WATT/M2)	CRITICAL HEAT FLUX (WATT/M2)	MODE	HEAT TRF. COEF. (WATT/M2-K)	INT. HEAT SOURCE (WATT)	NET HEAT LOSS (WATT)	VOL.AVE. TEMP. (K)
1211-001	LEFT	121-010000	570.47	308.38	33.211	0.	2	5990.2	0.	308.38	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
1220-001	LEFT	122-010000	570.41	-2.80302E+05	-1150.0	0.	2	37814.	0.	-97.233	570.38
	RIGHT	0-000000	570.35	2.80205E+05	1018.1	0.	0	0.			
1220-002	LEFT	122-020000	570.40	-2.31703E+05	-982.97	0.	2	37816.	0.	-86.382	570.38
	RIGHT	0-000000	570.35	2.31617E+05	870.16	0.	0	0.			
1220-003	LEFT	122-030000	570.40	-1.96561E+05	-833.88	0.	2	37817.	0.	-79.174	570.37
	RIGHT	0-000000	570.35	1.96481E+05	738.16	0.	0	0.			
1220-004	LEFT	122-040000	570.39	-2.01931E+05	-677.80	0.	2	37819.	0.	-89.483	570.37
	RIGHT	0-000000	570.35	2.01842E+05	599.97	0.	0	0.			
1220-005	LEFT	122-050000	570.38	-1.37445E+05	-545.17	0.	2	37821.	0.	-68.616	570.36
	RIGHT	0-000000	570.35	1.37376E+05	482.54	0.	0	0.			
1220-006	LEFT	122-060000	570.37	-1.09284E+05	-433.47	0.	2	37823.	0.	-62.102	570.36
	RIGHT	0-000000	570.35	1.09222E+05	383.65	0.	0	0.			
1220-007	LEFT	122-070000	570.37	-84122.	-333.66	0.	2	37824.	0.	-56.147	570.36
	RIGHT	0-000000	570.35	84065.	295.28	0.	0	0.			
1220-008	LEFT	122-080000	570.36	-61638.	-244.48	0.	2	37826.	0.	-50.730	570.36
	RIGHT	0-000000	570.35	61587.	216.33	0.	0	0.			
1220-009	LEFT	122-090000	570.36	-41546.	-164.79	0.	2	37828.	0.	-45.807	570.35
	RIGHT	0-000000	570.35	41501.	145.77	0.	0	0.			
1220-010	LEFT	122-100000	570.36	-23592.	-93.576	0.	2	37830.	0.	-41.322	570.35
	RIGHT	0-000000	570.35	23551.	82.723	0.	0	0.			
1220-011	LEFT	122-110000	570.35	-9333.1	-34.415	0.	2	37832.	0.	-39.764	570.35

	RIGHT	0-000000	570.35	9293.3	30.347	0.	0	0.			
1231-001	LEFT	121-010000	570.45	-91.609	-78.974	0.	2	5990.2	0.	39.775	570.41
	RIGHT	125-010000	570.37	131.38	113.26	0.	2	5994.6			
1240-001	LEFT	124-010000	570.35	-1599.8	-5.8990	0.	2	37834.	0.	-35.588	570.35
	RIGHT	0-000000	570.35	1564.2	5.1078	0.	0	0.			
1240-002	LEFT	124-020000	570.35	-9490.8	-18.822	0.	2	37835.	0.	-54.294	570.35
	RIGHT	0-000000	570.35	9436.5	16.573	0.	0	0.			
1240-003	LEFT	124-030000	570.35	-14603.	-28.960	0.	2	37836.	0.	-44.215	570.35
	RIGHT	0-000000	570.35	14558.	25.569	0.	0	0.			
1240-004	LEFT	124-040000	570.35	-18746.	-37.178	0.	2	37837.	0.	-35.822	570.35
	RIGHT	0-000000	570.35	18710.	32.861	0.	0	0.			
1240-005	LEFT	124-050000	570.35	-11435.	-35.569	0.	2	37838.	0.	-19.797	570.35
	RIGHT	0-000000	570.35	11415.	31.444	0.	0	0.			
1240-006	LEFT	124-060000	570.35	-11762.	-39.911	0.	2	37839.	0.	-15.902	570.35
	RIGHT	0-000000	570.35	11746.	35.296	0.	0	0.			
1240-007	LEFT	124-070000	570.35	-14269.	-48.420	0.	2	37840.	0.	-13.219	570.35
	RIGHT	0-000000	570.35	14256.	42.839	0.	0	0.			
1240-008	LEFT	124-070000	570.35	-6091.1	-48.420	0.	2	37840.	0.	-5.6426	570.35
	RIGHT	0-000000	570.35	6085.5	42.839	0.	0	0.			
1251-001	LEFT	125-010000	570.36	122.88	13.234	0.	2	5994.6	0.	122.88	570.36
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
2211-001	LEFT	221-010000	570.47	308.50	33.224	0.	2	5993.5	0.	308.50	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
2220-001	LEFT	222-010000	570.41	-2.80269E+05	-1149.9	0.	2	37835.	0.	-97.237	570.38
	RIGHT	0-000000	570.35	2.80172E+05	1017.9	0.	0	0.			
2220-002	LEFT	222-020000	570.40	-2.31680E+05	-982.87	0.	2	37837.	0.	-86.389	570.38
	RIGHT	0-000000	570.35	2.31593E+05	870.07	0.	0	0.			
2220-003	LEFT	222-030000	570.40	-1.96544E+05	-833.81	0.	2	37838.	0.	-79.183	570.37
	RIGHT	0-000000	570.35	1.96465E+05	738.10	0.	0	0.			
2220-004	LEFT	222-040000	570.39	-2.01919E+05	-677.76	0.	2	37840.	0.	-89.498	570.37
	RIGHT	0-000000	570.35	2.01830E+05	599.93	0.	0	0.			
2220-005	LEFT	222-050000	570.38	-1.37435E+05	-545.13	0.	2	37842.	0.	-68.631	570.36
	RIGHT	0-000000	570.35	1.37366E+05	482.51	0.	0	0.			
2220-006	LEFT	222-060000	570.37	-1.09274E+05	-433.43	0.	2	37844.	0.	-62.118	570.36
	RIGHT	0-000000	570.35	1.09212E+05	383.61	0.	0	0.			
2220-007	LEFT	222-070000	570.37	-84111.	-333.62	0.	2	37845.	0.	-56.164	570.36
	RIGHT	0-000000	570.35	84055.	295.25	0.	0	0.			
2220-008	LEFT	222-080000	570.36	-61625.	-244.43	0.	2	37847.	0.	-50.747	570.36
	RIGHT	0-000000	570.35	61574.	216.28	0.	0	0.			
2220-009	LEFT	222-090000	570.36	-41531.	-164.73	0.	2	37849.	0.	-45.825	570.35
	RIGHT	0-000000	570.35	41485.	145.72	0.	0	0.			
2220-010	LEFT	222-100000	570.36	-23573.	-93.499	0.	2	37851.	0.	-41.340	570.35
	RIGHT	0-000000	570.35	23531.	82.655	0.	0	0.			
2220-011	LEFT	222-110000	570.35	-9308.5	-34.325	0.	2	37853.	0.	-39.784	570.35
	RIGHT	0-000000	570.35	9268.7	30.267	0.	0	0.			
2231-001	LEFT	221-010000	570.45	-91.613	-78.976	0.	2	5993.5	0.	39.764	570.41
	RIGHT	225-010000	570.37	131.38	113.26	0.	2	5997.9			
2240-001	LEFT	224-010000	570.35	-1572.1	-5.7970	0.	2	37855.	0.	-35.609	570.35
	RIGHT	0-000000	570.35	1536.5	5.0173	0.	0	0.			
2240-002	LEFT	224-020000	570.35	-9448.2	-18.738	0.	2	37856.	0.	-54.330	570.35
	RIGHT	0-000000	570.35	9393.9	16.498	0.	0	0.			
2240-003	LEFT	224-030000	570.35	-14556.	-28.868	0.	2	37857.	0.	-44.250	570.35
	RIGHT	0-000000	570.35	14512.	25.487	0.	0	0.			
2240-004	LEFT	224-040000	570.35	-18697.	-37.080	0.	2	37858.	0.	-35.853	570.35
	RIGHT	0-000000	570.35	18661.	32.773	0.	0	0.			
2240-005	LEFT	224-050000	570.35	-11395.	-35.445	0.	2	37859.	0.	-19.815	570.35
	RIGHT	0-000000	570.35	11375.	31.334	0.	0	0.			

2240-006	LEFT	224-060000	570.35	-11725.	-39.787	0.	2	37860.	0.	-15.917	570.35
	RIGHT	0-000000	570.35	11709.	35.186	0.	0	0.			
2240-007	LEFT	224-070000	570.35	-14237.	-48.311	0.	2	37861.	0.	-13.232	570.35
	RIGHT	0-000000	570.35	14224.	42.743	0.	0	0.			
2240-008	LEFT	224-070000	570.35	-6077.4	-48.311	0.	2	37861.	0.	-5.6482	570.35
	RIGHT	0-000000	570.35	6071.7	42.743	0.	0	0.			
2251-001	LEFT	225-010000	570.36	122.94	13.240	0.	2	5997.9	0.	122.94	570.36
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
3211-001	LEFT	321-010000	570.61	-2331.9	-251.13	0.	2	5992.7	0.	-2331.9	570.51
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
3220-001	LEFT	322-010000	570.53	-7.97770E+05	-3273.1	0.	2	37830.	0.	-179.19	570.44
	RIGHT	0-000000	570.35	7.97591E+05	2897.9	0.	0	0.			
3220-002	LEFT	322-020000	570.51	-6.81894E+05	-2892.9	0.	2	37830.	0.	-165.07	570.43
	RIGHT	0-000000	570.35	6.81729E+05	2561.2	0.	0	0.			
3220-003	LEFT	322-030000	570.49	-6.01538E+05	-2552.0	0.	2	37831.	0.	-154.33	570.42
	RIGHT	0-000000	570.35	6.01383E+05	2259.3	0.	0	0.			
3220-004	LEFT	322-040000	570.47	-6.50489E+05	-2183.4	0.	2	37831.	0.	-173.75	570.41
	RIGHT	0-000000	570.35	6.50315E+05	1933.0	0.	0	0.			
3220-005	LEFT	322-050000	570.45	-4.76539E+05	-1890.2	0.	2	37832.	0.	-130.47	570.40
	RIGHT	0-000000	570.35	4.76408E+05	1673.4	0.	0	0.			
3220-006	LEFT	322-060000	570.44	-4.12212E+05	-1635.0	0.	2	37833.	0.	-114.47	570.39
	RIGHT	0-000000	570.35	4.12098E+05	1447.5	0.	0	0.			
3220-007	LEFT	322-070000	570.43	-3.54749E+05	-1407.1	0.	2	37835.	0.	-100.63	570.39
	RIGHT	0-000000	570.35	3.54648E+05	1245.7	0.	0	0.			
3220-008	LEFT	322-080000	570.42	-3.03413E+05	-1203.5	0.	2	37836.	0.	-89.960	570.38
	RIGHT	0-000000	570.35	3.03323E+05	1065.4	0.	0	0.			
3220-009	LEFT	322-090000	570.41	-2.57550E+05	-1021.6	0.	2	37837.	0.	-82.617	570.38
	RIGHT	0-000000	570.35	2.57467E+05	904.36	0.	0	0.			
3220-010	LEFT	322-100000	570.40	-2.16571E+05	-859.02	0.	2	37839.	0.	-77.919	570.37
	RIGHT	0-000000	570.35	2.16493E+05	760.44	0.	0	0.			
3220-011	LEFT	322-110000	570.39	-1.93302E+05	-712.79	0.	2	37840.	0.	-80.110	570.37
	RIGHT	0-000000	570.35	1.93222E+05	630.96	0.	0	0.			
3231-001	LEFT	321-010000	570.60	-410.96	-354.27	0.	2	5992.7	0.	-235.67	570.48
	RIGHT	325-010000	570.40	175.28	151.11	0.	2	5995.4			
3240-001	LEFT	324-010000	570.38	-1.64645E+05	-607.12	0.	2	37842.	0.	-76.580	570.37
	RIGHT	0-000000	570.35	1.64569E+05	537.40	0.	0	0.			
3240-002	LEFT	324-020000	570.38	-2.54247E+05	-504.23	0.	2	37842.	0.	-124.55	570.36
	RIGHT	0-000000	570.35	2.54122E+05	446.31	0.	0	0.			
3240-003	LEFT	324-030000	570.37	-2.12196E+05	-420.83	0.	2	37843.	0.	-103.62	570.36
	RIGHT	0-000000	570.35	2.12092E+05	372.49	0.	0	0.			
3240-004	LEFT	324-040000	570.37	-1.78263E+05	-353.53	0.	2	37844.	0.	-84.271	570.36
	RIGHT	0-000000	570.35	1.78178E+05	312.93	0.	0	0.			
3240-005	LEFT	324-050000	570.37	-99707.	-310.14	0.	2	37844.	0.	-46.741	570.36
	RIGHT	0-000000	570.35	99660.	274.52	0.	0	0.			
3240-006	LEFT	324-060000	570.37	-82771.	-280.87	0.	2	37845.	0.	-37.846	570.36
	RIGHT	0-000000	570.35	82733.	248.61	0.	0	0.			
3240-007	LEFT	324-070000	570.36	-73491.	-249.38	0.	2	37845.	0.	-32.213	570.36
	RIGHT	0-000000	570.35	73459.	220.74	0.	0	0.			
3240-008	LEFT	324-070000	570.36	-31371.	-249.38	0.	2	37845.	0.	-13.751	570.36
	RIGHT	0-000000	570.35	31357.	220.74	0.	0	0.			
3251-001	LEFT	325-010000	570.37	-135.81	-14.626	0.	2	5995.4	0.	-135.81	570.37
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
4000-001	LEFT	400-010000	616.72	-3724.2	-741.73	0.	11	2630.4	0.	905.97	616.47
	RIGHT	940-010000	616.24	4630.1	735.66	0.	0	2.5100			
4000-002	LEFT	400-020000	617.07	4447.2	885.74	2.05529E+05	4	6695.2	0.	9085.2	616.96
	RIGHT	940-010000	616.74	4637.9	736.90	0.	0	2.5100			
4000-003	LEFT	400-030000	617.04	4778.5	951.73	2.10016E+05	4	6938.8	0.	9416.2	616.94

	RIGHT	940-010000	616.72	4637.7	736.86	0.	0	2.5100			
4000-004	LEFT	400-040000	617.01	4816.6	959.31	2.14944E+05	4	7262.2	0.	9453.9	616.92
	RIGHT	940-010000	616.69	4637.2	736.79	0.	0	2.5100			
4101-001	LEFT	410-010000	616.94	983.45	671.27	2.84736E+06	4	4043.5	0.	2208.3	615.97
	RIGHT	940-010000	615.03	1224.9	732.61	0.	0	2.5100			
4101-002	LEFT	410-020000	616.94	2093.1	714.23	2.83512E+06	4	4139.8	0.	4543.3	615.96
	RIGHT	940-010000	615.03	2450.2	732.61	0.	0	2.5100			
4102-001	LEFT	410-030000	616.94	4304.0	919.87	2.81897E+06	4	4621.3	0.	8104.0	616.02
	RIGHT	940-010000	615.10	3800.0	732.79	0.	0	2.5100			
4102-002	LEFT	410-040000	616.94	12996.	1328.1	2.82529E+06	4	5498.4	0.	20944.	616.03
	RIGHT	940-010000	615.10	7947.5	732.80	0.	0	2.5100			
4102-003	LEFT	410-050000	617.36	48418.	2414.5	2.86515E+06	4	3403.3	0.	64751.	616.79
	RIGHT	940-010000	615.95	16333.	734.94	0.	0	2.5100			
4102-004	LEFT	410-060000	617.41	39244.	1957.1	7749.6	3	2439.6	0.	55578.	616.80
	RIGHT	940-010000	615.95	16333.	734.93	0.	0	2.5100			
4102-005	LEFT	410-070000	617.38	39390.	1964.3	36073.	3	2356.4	0.	55723.	616.79
	RIGHT	940-010000	615.95	16333.	734.93	0.	0	2.5100			
4102-006	LEFT	410-080000	617.23	12455.	2661.9	57165.	3	3396.1	0.	16266.	616.79
	RIGHT	940-010000	615.98	3811.5	735.01	0.	0	2.5100			
4103-001	LEFT	410-090000	617.03	5393.5	2733.7	75880.	3	2157.8	0.	7030.9	616.82
	RIGHT	940-010000	616.12	1637.4	735.36	0.	0	2.5100			
4103-002	LEFT	420-010000	616.76	4539.7	3280.9	97572.	3	914.46	0.	5688.0	616.76
	RIGHT	940-010000	616.13	1148.3	735.38	0.	0	2.5100			
4113-001	LEFT	0-000000	620.46	0.	0.	0.	0	0.	1.38750E+05	10142.	618.60
	RIGHT	410-040000	617.50	1.48892E+05	13847.	2.82529E+06	4	17456.			
4113-002	LEFT	0-000000	621.43	0.	0.	0.	0	0.	46250.	3800.9	619.56
	RIGHT	410-050000	618.45	50051.	13973.	2.98667E+06	4	7779.4			

STR.NO.	MESH POINT TEMPERATURES (K)				
1211-001	570.47	570.49	570.49	570.49	570.49
1220-001	570.41	570.38	570.35		
1220-002	570.40	570.38	570.35		
1220-003	570.40	570.37	570.35		
1220-004	570.39	570.37	570.35		
1220-005	570.38	570.36	570.35		
1220-006	570.37	570.36	570.35		
1220-007	570.37	570.36	570.35		
1220-008	570.36	570.36	570.35		
1220-009	570.36	570.35	570.35		
1220-010	570.36	570.35	570.35		
1220-011	570.35	570.35	570.35		
1231-001	570.45	570.43	570.40	570.37	
1240-001	570.35	570.35	570.35		
1240-002	570.35	570.35	570.35		
1240-003	570.35	570.35	570.35		
1240-004	570.35	570.35	570.35		
1240-005	570.35	570.35	570.35		
1240-006	570.35	570.35	570.35		
1240-007	570.35	570.35	570.35		
1240-008	570.35	570.35	570.35		
1251-001	570.36	570.36	570.37	570.37	570.37
2211-001	570.47	570.49	570.49	570.49	570.49
2220-001	570.41	570.38	570.35		
2220-002	570.40	570.38	570.35		
2220-003	570.40	570.37	570.35		
2220-004	570.39	570.37	570.35		
2220-005	570.38	570.36	570.35		

2220-006	570.37	570.36	570.35		
2220-007	570.37	570.36	570.35		
2220-008	570.36	570.36	570.35		
2220-009	570.36	570.35	570.35		
2220-010	570.36	570.35	570.35		
2220-011	570.35	570.35	570.35		
2231-001	570.45	570.43	570.40	570.37	
2240-001	570.35	570.35	570.35		
2240-002	570.35	570.35	570.35		
2240-003	570.35	570.35	570.35		
2240-004	570.35	570.35	570.35		
2240-005	570.35	570.35	570.35		
2240-006	570.35	570.35	570.35		
2240-007	570.35	570.35	570.35		
2240-008	570.35	570.35	570.35		
2251-001	570.36	570.36	570.37	570.37	570.37
3211-001	570.61	570.51	570.50	570.49	570.49
3220-001	570.53	570.44	570.35		
3220-002	570.51	570.43	570.35		
3220-003	570.49	570.42	570.35		
3220-004	570.47	570.41	570.35		
3220-005	570.45	570.40	570.35		
3220-006	570.44	570.39	570.35		
3220-007	570.43	570.39	570.35		
3220-008	570.42	570.38	570.35		
3220-009	570.41	570.38	570.35		
3220-010	570.40	570.37	570.35		
3220-011	570.39	570.37	570.35		
3231-001	570.60	570.51	570.44	570.40	
3240-001	570.38	570.37	570.35		
3240-002	570.38	570.36	570.35		
3240-003	570.37	570.36	570.35		
3240-004	570.37	570.36	570.35		
3240-005	570.37	570.36	570.35		
3240-006	570.37	570.36	570.35		
3240-007	570.36	570.36	570.35		
3240-008	570.36	570.36	570.35		
3251-001	570.37	570.37	570.37	570.37	570.37
4000-001	616.72	616.54	616.41	616.24	
4000-002	617.07	617.08	616.92	616.74	
4000-003	617.04	617.06	616.91	616.72	
4000-004	617.01	617.03	616.88	616.69	
4101-001	616.94	616.32	615.66	615.03	
4101-002	616.94	616.32	615.66	615.03	
4102-001	616.94	616.36	615.72	615.10	
4102-002	616.94	616.39	615.73	615.10	
4102-003	617.36	617.19	616.58	615.95	
4102-004	617.41	617.19	616.57	615.95	
4102-005	617.38	617.18	616.57	615.95	
4102-006	617.23	617.20	616.60	615.98	
4103-001	617.03	617.21	616.69	616.12	
4103-002	616.76	617.18	616.70	616.13	
4113-001	620.46	618.85	617.50		
4113-002	621.43	619.82	618.45		

CONTROL VARIABLE EDIT

1 P/RHO180 DIV 26377.2 2 ENTHA180 SUM 1.268831E+06

3	CVENERGY	MULT	7.744587E+06	4	P/RHO231	DIV	20568.8
5	ENTHA231	SUM	1.322882E+06	6	LETDENER	MULT	8.074170E+06
7	PRZRHEAT	SUM	368760.	8	PRZVAPH	SUM	10348.8
9	BALANCE	SUM	4.457275E+06	10	CALC-P	MULT	1.524670E+07
11	MEAS-P	FUNCTION	1.524900E+07	12	MEAS-L	FUNCTION	27.3500
13	TEMPF420	MULT	590.344	14	TEMPG420	MULT	616.533
15	SAT420	MULT	616.589	16	SPRYTEMP	MULT	570.428
20	P/RHO450	DIV	20886.4	21	ENTHA450	SUM	1.323242E+06
22	SPRENER	MULT	2.739519E+07	23	P/RHO400	DIV	25639.5
24	ENTHA410	SUM	1.624139E+06	25	SURGENER	MULT	2.616907E+07
26	SPRBALAN	SUM	1.594879E+06	27	HEATERW	SUM	198881.
28	VAPGEN	SUM	-4.09612	31	POW	SUM	0.
32	TURBPOW	SUM	0.	100	TAVG(R)	SUM	570.517
101	LAG1	LAG	570.517	102	S1	SUM	-14.6330
103	LL1	LEAD-LAG	-.681601	104	S2	SUM	-3301.80
105	???	SUM	-121115.	106	DELTA-T	SUM	-.126483
107	LAG2	LAG	-.126828	108	LL2	LEAD-LAG	-.129071
109	LL3	LEAD-LAG	570.518	110	LAG3	LAG	570.518
111	S4	SUM	-4.653273E-05	112	S5	SUM	-3.318768E-02
113	S6	SUM	41.1860	134	LEVREG	PROP-INT	6.86422
135	LIMIT	MULT	9.50000	136	DELTAF	SUM	-6.881980E-03
137	D(AREA)	PROP-INT	1.444567E-03	139	VALVAREA	SUM	.102392
140	AREA**2	MULT	1.048417E-02	141	K(VALV)	DIV	23101.1
142	K(T+DT)	SUM	23509.7	143	DELTA-K	SUM	6.51690
144	K(T)	MULT	23509.7	145	DELTA-P	SUM	-895.330
146	P(T)	MULT	1.563891E+07	153	KOQO2	MULT	851314.
154	DUM	SUM	893638.	155	A(T)	DIV	1.119022E-06
156	DUM	MULT	130.995	157	DUM	MULT	-40319.1
158	A	SUM	23378.8	159	DUM	MULT	267817.
160	DUM	MULT	5.58969	170	B	SUM	40336.1
171	DUM	MULT	5.862134E-02	172	DUM	MULT	-852.926
173	DUM	MULT	845.711	174	C	SUM	-7.27373
175	B**2	MULT	1.626999E+09	176	AC4	MULT	-680203.
177	B2-4AC	SUM	1.627679E+09	178	SQRT	STDFNCTN	40344.5
179	DUM	SUM	4.21540	180	DELTA-Q	DIV	1.803092E-04
181	Q(T+DT)	SUM	11.3919	182	DUM	STDFNCTN	.634475
183	QO(T+DT)	MULT	7.22789	184	QTOT	SUM	18.6198
185	P(PUMP)	FUNCTION	2.024601E+07	186	DFDQ	FUNCTION	-42330.8
200	TAVG(G)	SUM	570.517	201	LAG1	LAG	570.517
202	S1	SUM	-14.6329	203	LL1	LEAD-LAG	-.581598
204	S2	SUM	-3301.80	205	???	SUM	-121115.
206	DELTA-T	SUM	-.126788	207	LAG2	LAG	-.127133
208	LL2	LEAD-LAG	-.129390	209	LL3	LEAD-LAG	570.518
210	LAG3	LAG	570.518	211	S4	SUM	-4.541045E-05
212	S5	SUM	-3.318747E-02	213	S6	SUM	41.1859
281	LET1	SUM	2.249828E+07	282	LET2	MULT	1.646083E+10
283	LET3	STDFNCTN	6.10322	284	LETDOWN	MULT	22.1040
300	TAVG(B)	SUM	570.526	301	LAG1	LAG	570.525
302	S1	SUM	-14.6249	303	LL1	LEAD-LAG	-.581150
304	S2	SUM	-3301.80	305	???	SUM	-121115.
306	DELTA-T	SUM	-.142238	307	LAG2	LAG	-.142419
308	LL2	LEAD-LAG	-.157146	309	LL3	LEAD-LAG	570.524
310	LAG3	LAG	570.524	311	S4	SUM	0.
312	S5	SUM	-3.316934E-02	313	S6	SUM	41.1836
400	COLLEVEL	SUM	25.6979	402	DPLEVEL	SUM	26.9385
404	PRZMASS	SUM	11409.7	410	T-AUCT-H	STDFNCTN	570.526
411	L-REF	FUNCTION	25.3881	412	DELT-LEV	SUM	1.55039

413	DELTA-P	SUM	-262348.	414	DP-CORR	PROP-INT	-280364.
415	POW-HE11	TRIPUNIT	0.	416	POW-BKR	TRIPUNIT	0.
417	POWVAR	FUNCTION	308000.	418	TOTPOW	FUNCTION	185000.
435	SPRAYVAL	FUNCTION	1.00000	445	SPRAYVAL	FUNCTION	1.00000
606	POWCOLDL	SUM	11435.1	607	POWPREH	SUM	32122.1
608	POWHOTLG	SUM	910498.	609	POWUBEND	SUM	511399.
610	SGPOWER	SUM	1.464983E+06	706	POWCOLDL	SUM	11395.3
707	POWPREH	SUM	32039.7	708	POWHOTLG	SUM	910412.
709	POWUBEND	SUM	511130.	710	SGPOWER	SUM	1.464505E+06
806	POWCOLDL	SUM	99706.8	807	POWPREH	SUM	187633.
808	POWHOTLG	SUM	2.731691E+06	809	POWUBEND	SUM	3.023686E+06
810	SGPOWER	SUM	6.045420E+06	900	MG1	MULT	.187884
901	MG2	MULT	.938907	902	MG3	MULT	3.40060
903	MG4	MULT	6.59951	904	MG5	MULT	627.860
905	MG6	MULT	1052.09	906	MG7	MULT	1041.13
907	MG8	MULT	241.100	908	MG9	MULT	78.4640
909	MG10	MULT	54.6613	911	PRZMASW	SUM	3106.43
912	PRZMASL	SUM	8303.2	920	SURGHEAT	SUM	10318.3

---RESTART NO. 600 WRITTEN, BLOCK NO. 3---

NUMBER OF ELEMENTS IN SPARSE MATRIX 1: ORIGINAL = 410, FACTORED = 665 ROUNDOFF ERROR = 1.600000E-11 NCOUNT = 601

ATTEMPTED ADV:	TOT.=	900	EDIT=	300	MIN.DT=	.100000	SEC	LAST DT=	.100000	SEC	MS.ERR=	-.729442	KG
REPEATED ADV:	TOT.=	0	EDIT=	0	MAX.DT=	.100000	SEC	CRNT.DT=	.119862	SEC	TOT.MS=	196371.	KG
SUCCESSFUL ADV:	TOT.=	900	EDIT=	300	AVG.DT=	.100000	SEC	ERR.EST=	7.123527E-07		M.RATN=	-3.714615E-06	
REQUESTED ADV:	TOT.=	450	EDIT=	150	REQ.DT=	.200000	SEC	CPU=	1865.61	SEC	TIME=	90.0000	SEC

TRIP NUMBER, TRIP TIME (SEC)
597 1.0000000E-01 598 20.10000 599 -1.000000
698 -1.000000

VOL.NO.	PRESSURE (PA)	VOIDG	TEMPF (K)	TEMPG (K)	SAT. TEMP. (K)	NONCOND. VAPOR QUAL.	BORON DENS. (KG/M3)	UF (J/KG)	UG (J/KG)	VOL. FLAG
SYSTEM 1	MASS= 1.96371E+05 KG		MASS ERROR= -.72944 KG			ERR.EST.= 7.12353E-07				
UPDOWNC	BRANCH	COMPONENT								
11-010000	1.54308E+07	0.	570.46	617.55	617.55	0.	.73209	1.30221E+06	2.44952E+06	00
UPDOWNOZZ	BRANCH	COMPONENT								
13-010000	1.54209E+07	0.	570.60	617.50	617.50	0.	.73179	1.30300E+06	2.44975E+06	00
DOWNCTS	ANNULUS	COMPONENT								
15-010000	1.54295E+07	0.	570.60	617.55	617.55	0.	.73180	1.30300E+06	2.44955E+06	00
15-020000	1.54412E+07	0.	570.61	617.61	617.61	0.	.73182	1.30300E+06	2.44927E+06	00
15-030000	1.54528E+07	0.	570.61	617.67	617.67	0.	.73183	1.30300E+06	2.44899E+06	00
LOWPLEN	BRANCH	COMPONENT								
23-010000	1.54549E+07	0.	570.61	617.68	617.68	0.	.73184	1.30299E+06	2.44894E+06	00
COREIN	BRANCH	COMPONENT								
25-010000	1.53885E+07	0.	570.58	617.33	617.33	0.	.73177	1.30298E+06	2.45053E+06	00
CORE	PIPE	COMPONENT								
31-010000	1.53559E+07	0.	570.57	617.16	617.16	0.	.73173	1.30299E+06	2.45131E+06	00
31-020000	1.53169E+07	0.	570.56	616.96	616.96	0.	.73168	1.30300E+06	2.45224E+06	00
31-030000	1.52786E+07	0.	570.55	616.76	616.76	0.	.73164	1.30302E+06	2.45317E+06	00
31-040000	1.52410E+07	0.	570.53	616.56	616.56	0.	.73159	1.30303E+06	2.45407E+06	00
31-050000	1.52041E+07	0.	570.52	616.36	616.36	0.	.73155	1.30304E+06	2.45496E+06	00
BYPASS	SNGLVOL	COMPONENT								
35-010000	1.52901E+07	0.	570.52	616.82	616.82	0.	.73170	1.30287E+06	2.45289E+06	00
COREEX	BRANCH	COMPONENT								
39-010000	1.51855E+07	0.	570.51	616.27	616.27	0.	.73153	1.30303E+06	2.45541E+06	00
UPPLEN1	BRANCH	COMPONENT								
41-010000	1.51687E+07	0.	570.50	616.18	616.18	0.	.73152	1.30302E+06	2.45582E+06	00
UPPLEN2	BRANCH	COMPONENT								
43-010000	1.51605E+07	0.	570.50	616.13	616.13	0.	.73152	1.30300E+06	2.45602E+06	00
UPHEAD	BRANCH	COMPONENT								
45-010000	1.51456E+07	0.	570.25	616.05	616.05	0.	.73199	1.30169E+06	2.45638E+06	00
HTLEGR1	PIPE	COMPONENT								
111-010000	1.50549E+07	0.	570.46	615.57	615.57	0.	.73140	1.30300E+06	2.45858E+06	00
111-020000	1.50518E+07	0.	570.45	615.56	615.56	0.	.73140	1.30300E+06	2.45866E+06	00
HTLEGR2	BRANCH	COMPONENT								
113-010000	1.50454E+07	0.	570.45	615.52	615.52	0.	.73139	1.30300E+06	2.45881E+06	00
INBOX	BRANCH	COMPONENT								
121-010000	1.50870E+07	0.	570.47	615.74	615.74	0.	.73144	1.30298E+06	2.45780E+06	00
UTUBE	PIPE	COMPONENT								
122-010000	1.50573E+07	0.	570.44	615.59	615.59	0.	.73143	1.30293E+06	2.45853E+06	00
122-020000	1.50410E+07	0.	570.43	615.50	615.50	0.	.73143	1.30289E+06	2.45892E+06	00
122-030000	1.50249E+07	0.	570.42	615.41	615.41	0.	.73142	1.30286E+06	2.45932E+06	00
122-040000	1.50067E+07	0.	570.41	615.32	615.32	0.	.73142	1.30283E+06	2.45976E+06	00
122-050000	1.49880E+07	0.	570.40	615.22	615.22	0.	.73140	1.30281E+06	2.46020E+06	00
122-060000	1.49708E+07	0.	570.39	615.12	615.12	0.	.73139	1.30280E+06	2.46059E+06	00
122-070000	1.49536E+07	0.	570.38	615.03	615.03	0.	.73137	1.30279E+06	2.46098E+06	00
122-080000	1.49364E+07	0.	570.37	614.94	614.94	0.	.73136	1.30278E+06	2.46135E+06	00

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122-090000  1.49193E+07  0.          570.36      614.85      614.85      0.          .73134      1.30279E+06  2.46171E+06  00
122-100000  1.49021E+07  0.          570.36      614.76      614.76      0.          .73132      1.30279E+06  2.46207E+06  00
122-110000  1.48856E+07  0.          570.35      614.67      614.67      0.          .73130      1.30280E+06  2.46241E+06  00
UTUBE       PIPE        COMPONENT
124-010000  1.48747E+07  0.          570.35      614.61      614.61      0.          .73128      1.30281E+06  2.46264E+06  00
124-020000  1.48685E+07  0.          570.35      614.58      614.58      0.          .73127      1.30283E+06  2.46277E+06  00
124-030000  1.48622E+07  0.          570.35      614.54      614.54      0.          .73125      1.30284E+06  2.46291E+06  00
124-040000  1.48559E+07  0.          570.35      614.51      614.51      0.          .73124      1.30286E+06  2.46304E+06  00
124-050000  1.48509E+07  0.          570.35      614.48      614.48      0.          .73123      1.30287E+06  2.46314E+06  00
124-060000  1.48472E+07  0.          570.35      614.46      614.46      0.          .73122      1.30288E+06  2.46322E+06  00
124-070000  1.48427E+07  0.          570.35      614.44      614.44      0.          .73121      1.30289E+06  2.46332E+06  00
OUTBOX      BRANCH      COMPONENT
125-010000  1.48509E+07  0.          570.35      614.48      614.48      0.          .73123      1.30287E+06  2.46314E+06  00
SEALR       PIPE        COMPONENT
131-010000  1.47873E+07  0.          570.33      614.14      614.14      0.          .73116      1.30287E+06  2.46449E+06  00
131-020000  1.47966E+07  0.          570.33      614.19      614.19      0.          .73117      1.30287E+06  2.46429E+06  00
131-030000  1.48014E+07  0.          570.33      614.21      614.21      0.          .73118      1.30287E+06  2.46419E+06  00
131-040000  1.47936E+07  0.          570.33      614.17      614.17      0.          .73117      1.30287E+06  2.46435E+06  00
PUMPR       PUMP        COMPONENT
  RPM =   155.00      (RAD/SEC)     HEAD =  6.84933E+05 (PA)          TORQUE =  -32268.     (N-M)
  OCTANT = 1                                                        MTR.TORQUE =   32268.     (N-M)
140-010000  1.51748E+07  0.          570.50      616.21      616.21      0.          .73153      1.30299E+06  2.45567E+06  10
COLDR1      SNGLVOL     COMPONENT
151-010000  1.53792E+07  0.          570.58      617.28      617.28      0.          .73175      1.30300E+06  2.45075E+06  00
COLDR2      BRANCH      COMPONENT
152-010000  1.53762E+07  0.          570.57      617.27      617.27      0.          .73177      1.30292E+06  2.45082E+06  00
COLDR3      PIPE        COMPONENT
153-010000  1.53728E+07  0.          570.57      617.25      617.25      0.          .73177      1.30292E+06  2.45090E+06  00
153-020000  1.53930E+07  0.          570.57      617.36      617.36      0.          .73179      1.30292E+06  2.45042E+06  00
CVTANK      TMDPVOL     COMPONENT
180-010000  2.00000E+07  0.          560.57      638.85      638.85      0.          .75823      1.24246E+06  2.30082E+06  00
HTLEGG1     PIPE        COMPONENT
211-010000  1.50547E+07  0.          570.46      615.57      615.57      0.          .73140      1.30300E+06  2.45859E+06  00
211-020000  1.50516E+07  0.          570.45      615.56      615.56      0.          .73140      1.30300E+06  2.45866E+06  00
HTLEGG2     BRANCH      COMPONENT
213-010000  1.50453E+07  0.          570.45      615.52      615.52      0.          .73139      1.30300E+06  2.45882E+06  00
INBOX       BRANCH      COMPONENT
221-010000  1.50869E+07  0.          570.47      615.74      615.74      0.          .73144      1.30298E+06  2.45780E+06  00
UTUBE       PIPE        COMPONENT
222-010000  1.50572E+07  0.          570.44      615.59      615.59      0.          .73143      1.30293E+06  2.45853E+06  00
222-020000  1.50408E+07  0.          570.43      615.50      615.50      0.          .73143      1.30289E+06  2.45893E+06  00
222-030000  1.50248E+07  0.          570.42      615.41      615.41      0.          .73142      1.30286E+06  2.45932E+06  00
222-040000  1.50066E+07  0.          570.41      615.32      615.32      0.          .73141      1.30283E+06  2.45976E+06  00
222-050000  1.49878E+07  0.          570.40      615.22      615.22      0.          .73140      1.30281E+06  2.46020E+06  00
222-060000  1.49706E+07  0.          570.39      615.12      615.12      0.          .73139      1.30280E+06  2.46059E+06  00
222-070000  1.49534E+07  0.          570.38      615.03      615.03      0.          .73137      1.30279E+06  2.46098E+06  00
222-080000  1.49362E+07  0.          570.37      614.94      614.94      0.          .73136      1.30278E+06  2.46135E+06  00
222-090000  1.49190E+07  0.          570.36      614.85      614.85      0.          .73134      1.30279E+06  2.46171E+06  00
222-100000  1.49019E+07  0.          570.36      614.76      614.76      0.          .73132      1.30279E+06  2.46207E+06  00
222-110000  1.48854E+07  0.          570.35      614.67      614.67      0.          .73130      1.30280E+06  2.46242E+06  00
UTUBE       PIPE        COMPONENT
224-010000  1.48744E+07  0.          570.35      614.61      614.61      0.          .73128      1.30281E+06  2.46265E+06  00
224-020000  1.48682E+07  0.          570.35      614.57      614.57      0.          .73127      1.30283E+06  2.46278E+06  00
224-030000  1.48619E+07  0.          570.35      614.54      614.54      0.          .73125      1.30284E+06  2.46291E+06  00
224-040000  1.48556E+07  0.          570.35      614.51      614.51      0.          .73124      1.30286E+06  2.46305E+06  00
224-050000  1.48505E+07  0.          570.35      614.48      614.48      0.          .73123      1.30287E+06  2.46315E+06  00
224-060000  1.48468E+07  0.          570.35      614.46      614.46      0.          .73122      1.30288E+06  2.46323E+06  00
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224-070000  1.48423E+07  0.          570.35      614.44      614.44      0.          .73121      1.30289E+06  2.46333E+06  00
OUTBOX      BRANCH       COMPONENT
225-010000  1.48505E+07  0.          570.35      614.48      614.48      0.          .73123      1.30288E+06  2.46315E+06  00
SEALG1      PIPE         COMPONENT
231-010000  1.47868E+07  0.          570.33      614.14      614.14      0.          .73116      1.30287E+06  2.46450E+06  00
231-020000  1.47961E+07  0.          570.33      614.19      614.19      0.          .73117      1.30287E+06  2.46430E+06  00
231-030000  1.48009E+07  0.          570.33      614.21      614.21      0.          .73118      1.30287E+06  2.46420E+06  00
SEALG2      BRANCH       COMPONENT
232-010000  1.47933E+07  0.          570.33      614.17      614.17      0.          .73117      1.30287E+06  2.46436E+06  00
PUMPR       PUMP         COMPONENT
 RPM =    155.00     (RAD/SEC)     HEAD =  6.85332E+05 (PA)        TORQUE =  -32272.     (N-M)
 OCTANT = 1                                                     MTR.TORQUE =   32272.     (N-M)
240-010000  1.51747E+07  0.          570.50      616.21      616.21      0.          .73153      1.30299E+06  2.45568E+06  10
COLG1       BRANCH       COMPONENT
251-010000  1.53794E+07  0.          570.58      617.29      617.29      0.          .73175      1.30300E+06  2.45075E+06  00
COLG2       PIPE         COMPONENT
253-010000  1.53761E+07  0.          570.58      617.27      617.27      0.          .73174      1.30300E+06  2.45082E+06  00
253-020000  1.53727E+07  0.          570.58      617.25      617.25      0.          .73174      1.30300E+06  2.45091E+06  00
253-030000  1.53930E+07  0.          570.59      617.36      617.36      0.          .73176      1.30300E+06  2.45042E+06  00
LETDO1      TMDPVOL      COMPONENT
282-010000  3.80000E+06  0.          412.00      520.46      520.46      0.          .92880      5.82440E+05  2.60184E+06  00
HTLEGB1     PIPE         COMPONENT
311-010000  1.50557E+07  0.          570.46      615.58      615.58      0.          .73141      1.30300E+06  2.45857E+06  00
311-020000  1.50524E+07  1.17991E-04 570.64      615.56      615.56      0.          .73096      1.30403E+06  2.45868E+06  00
HTLEGB2     BRANCH       COMPONENT
313-010000  1.50456E+07  4.52294E-05 570.64      615.52      615.52      0.          .73099      1.30404E+06  2.45875E+06  00
INBOX       BRANCH       COMPONENT
321-010000  1.50872E+07  4.59194E-06 570.66      615.75      615.74      0.          .73107      1.30403E+06  2.45782E+06  00
UTUBE       PIPE         COMPONENT
322-010000  1.50574E+07  1.92243E-06 570.62      615.59      615.59      0.          .73110      1.30388E+06  2.45851E+06  00
322-020000  1.50411E+07  8.11089E-07 570.59      615.50      615.50      0.          .73113      1.30374E+06  2.45892E+06  00
322-030000  1.50250E+07  3.42944E-07 570.56      615.41      615.41      0.          .73116      1.30362E+06  2.45931E+06  00
322-040000  1.50069E+07  1.29444E-07 570.53      615.32      615.32      0.          .73118      1.30350E+06  2.45975E+06  00
322-050000  1.49881E+07  5.03869E-08 570.50      615.22      615.22      0.          .73120      1.30341E+06  2.46019E+06  00
322-060000  1.49709E+07  7.41068E-09 570.48      615.13      615.13      0.          .73121      1.30333E+06  2.46058E+06  00
322-070000  1.49538E+07  1.08211E-09 570.47      615.03      615.03      0.          .73121      1.30327E+06  2.46097E+06  00
322-080000  1.49366E+07  1.59886E-10 570.45      614.94      614.94      0.          .73121      1.30321E+06  2.46134E+06  00
322-090000  1.49194E+07  1.02955E-10 570.43      614.85      614.85      0.          .73121      1.30317E+06  2.46171E+06  00
322-100000  1.49022E+07  0.          570.42      614.76      614.76      0.          .73121      1.30313E+06  2.46206E+06  00
322-110000  1.48858E+07  0.          570.41      614.67      614.67      0.          .73120      1.30310E+06  2.46241E+06  00
UTUBE       PIPE         COMPONENT
324-010000  1.48748E+07  0.          570.40      614.61      614.61      0.          .73120      1.30308E+06  2.46264E+06  00
324-020000  1.48686E+07  0.          570.39      614.58      614.58      0.          .73120      1.30304E+06  2.46277E+06  00
324-030000  1.48623E+07  0.          570.39      614.54      614.54      0.          .73120      1.30302E+06  2.46290E+06  00
324-040000  1.48560E+07  0.          570.38      614.51      614.51      0.          .73120      1.30300E+06  2.46304E+06  00
324-050000  1.48510E+07  0.          570.38      614.48      614.48      0.          .73120      1.30299E+06  2.46314E+06  00
324-060000  1.48473E+07  0.          570.37      614.46      614.46      0.          .73120      1.30299E+06  2.46322E+06  00
324-070000  1.48428E+07  0.          570.37      614.44      614.44      0.          .73120      1.30298E+06  2.46332E+06  00
OUTBOX      BRANCH       COMPONENT
325-010000  1.48510E+07  0.          570.37      614.48      614.48      0.          .73121      1.30296E+06  2.46314E+06  00
SEALB       PIPE         COMPONENT
331-010000  1.47873E+07  0.          570.35      614.14      614.14      0.          .73114      1.30296E+06  2.46449E+06  00
331-020000  1.47967E+07  0.          570.35      614.19      614.19      0.          .73115      1.30296E+06  2.46429E+06  00
331-030000  1.48015E+07  0.          570.35      614.22      614.22      0.          .73116      1.30296E+06  2.46419E+06  00
331-040000  1.47937E+07  0.          570.35      614.17      614.17      0.          .73115      1.30296E+06  2.46435E+06  00
PUMPR       PUMP         COMPONENT
 RPM =    155.00     (RAD/SEC)     HEAD =  6.84772E+05 (PA)        TORQUE =  -32[illegible]     (N-M)
```

OCTANT = 1 MTR.TORQUE = 32266. (N-M)

340-010000	1.51748E+07	0.	570.52	616.21	616.21	0.	.73152	1.30308E+06	2.45567E+06	10
COLDB1	SNGLVOL	COMPONENT								
351-010000	1.53791E+07	0.	570.60	617.28	617.28	0.	.73173	1.30309E+06	2.45075E+06	00
COLDR2	BRANCH	COMPONENT								
352-010000	1.53763E+07	0.	570.60	617.27	617.27	0.	.73173	1.30309E+06	2.45082E+06	00
COLDR3	PIPE	COMPONENT								
353-010000	1.53729E+07	0.	570.60	617.25	617.25	0.	.73172	1.30309E+06	2.45090E+06	00
353-020000	1.53931E+07	0.	570.60	617.36	617.36	0.	.73174	1.30309E+06	2.45042E+06	00
SURGE	PIPE	COMPONENT								
400-010000	1.50483E+07	.11339	615.59	615.54	615.54	0.	.54383	1.58842E+06	2.45873E+06	00
400-020000	1.50401E+07	9.42665E-02	615.61	615.49	615.49	0.	.55548	1.58865E+06	2.45892E+06	00
400-030000	1.50319E+07	8.35106E-02	615.60	615.45	615.45	0.	.56189	1.58862E+06	2.45912E+06	00
400-040000	1.50235E+07	5.49054E-02	615.64	615.40	615.41	0.	.57871	1.58899E+06	2.45932E+06	00
PRESSU	PIPE	COMPONENT								
410-010000	1.50184E+07	3.23391E-03	615.80	615.38	615.38	0.	.60828	1.59038E+06	2.45947E+06	00
410-020000	1.50160E+07	7.20012E-03	615.69	615.37	615.37	0.	.60673	1.58948E+06	2.45962E+06	00
410-030000	1.50123E+07	1.41969E-02	615.66	615.35	615.35	0.	.60164	1.58923E+06	2.45961E+06	00
410-040000	1.50059E+07	1.16576E-02	615.37	615.31	615.31	0.	.59864	1.58683E+06	2.45977E+06	00
410-050000	1.49970E+07	.56432	615.54	615.16	615.26	0.	.23768	1.58832E+06	2.45890E+06	00
410-060000	1.49909E+07	.99729	615.02	615.15	615.23	0.	1.24152E-03	1.58404E+06	2.45931E+06	00
410-070000	1.49879E+07	.98662	614.22	615.15	615.22	0.	6.28243E-03	1.57778E+06	2.45951E+06	00
410-080000	1.49860E+07	.98003	609.35	615.14	615.21	0.	1.01609E-02	1.54010E+06	2.45959E+06	00
410-090000	1.49854E+07	.97442	600.54	615.15	615.20	0.	1.44721E-02	1.47910E+06	2.45969E+06	00
TOP	BRANCH	COMPONENT								
420-010000	1.49851E+07	.96796	589.61	615.15	615.20	0.	2.01652E-02	1.41095E+06	2.45971E+06	00
SPRAYR	BRANCH	COMPONENT								
430-010000	1.54435E+07	0.	570.59	617.62	617.62	0.	.73184	1.30292E+06	2.44921E+06	00
SPRAYB	BRANCH	COMPONENT								
440-010000	1.54434E+07	0.	570.61	617.62	617.62	0.	.73182	1.30301E+06	2.44921E+06	00
SPRAYB	BRANCH	COMPONENT								
450-010000	1.50248E+07	0.	570.43	615.41	615.41	0.	.73140	1.30293E+06	2.45932E+06	00
TV490	TMDPVOL	COMPONENT								
490-010000	1.55100E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60522E+06	2.44763E+06	00

SYSTEM 2 MASS= 0. KG MASS ERROR= 0. KG ERR.EST.= 0.

TV940	TMDPVOL	COMPONENT								
940-010000	2.00000E+05	0.	323.15	393.38	393.38	0.	0.	2.09218E+05	2.52920E+06	00

VOL.NO.	RHOF (KG/M3)	RHOG (KG/M3)	LIQ.V.VEL. (M/SEC)	VAP.V.VEL. (M/SEC)	SOUNDE (M/SEC)	STATIC QUAL.	TOT.HT.INP. (WATTS)	VAP.HT.INP. (WATTS)	VAPOR GEN. (KG/M3-SEC)
11-010000	732.09	101.20	3.57601E-02	3.57601E-02	979.37	0.	0.	0.	0.
13-010000	731.79	101.09	7.8329	7.8254	978.06	0.	0.	0.	0.
15-010000	731.80	101.19	7.5462	7.5462	978.10	0.	0.	0.	0.
15-020000	731.81	101.31	7.5461	7.5461	978.16	0.	0.	0.	0.
15-030000	731.82	101.43	7.5460	7.5460	978.21	0.	0.	0.	0.
23-010000	731.83	101.46	-3.16685E-05	-6.75400E-04	978.23	0.	0.	0.	0.
25-010000	731.76	100.75	5.0244	5.0244	977.96	0.	0.	0.	0.
31-010000	731.72	100.41	4.8768	4.8768	977.80	0.	0.	0.	0.
31-020000	731.68	99.997	4.8771	4.8771	977.62	0.	0.	0.	0.
31-030000	731.63	99.595	4.8774	4.8774	977.45	0.	0.	0.	0.
31-040000	731.59	99.202	4.8777	4.8777	977.27	0.	0.	0.	0.
31-050000	731.54	98.818	4.8780	4.8780	977.10	0.	0.	0.	0.
35-010000	731.70	99.716	.70621	.70621	977.73	0.	0.	0.	0.
39-010000	731.53	98.625	5.0263	5.0264	977.04	0.	0.	0.	0.
41-010000	731.51	98.450	2.1886	2.1886	976.98	0.	0.	0.	0.
43-010000	731.51	98.365	-7.53152E-03	-6.52104E-03	976.98	0.	0.	0.	0.

45-010000	731.98	98.211	-2.70339E-05	1.95014E-04	979.04	0.	0.	0.	0.
111-010000	731.40	97.274	14.869	14.869	976.56	0.	0.	0.	0.
111-020000	731.40	97.241	14.870	14.870	976.54	0.	0.	0.	0.
113-010000	731.39	97.176	14.870	14.870	976.52	0.	0.	0.	0.
121-010000	731.44	97.604	1.9813	1.9813	976.71	0.	107.99	0.	0.
122-010000	731.43	97.298	5.9754	5.9754	976.67	0.	-2.86398E+05	0.	0.
122-020000	731.42	97.130	5.9755	5.9755	976.67	0.	-2.37097E+05	0.	0.
122-030000	731.42	96.965	5.9756	5.9756	976.66	0.	-2.01494E+05	0.	0.
122-040000	731.41	96.778	5.9757	5.9757	976.63	0.	-2.07514E+05	0.	0.
122-050000	731.40	96.587	5.9758	5.9758	976.58	0.	-1.41888E+05	0.	0.
122-060000	731.39	96.412	5.9759	5.9759	976.51	0.	-1.13557E+05	0.	0.
122-070000	731.37	96.238	5.9760	5.9760	976.44	0.	-88235.	0.	0.
122-080000	731.35	96.063	5.9762	5.9762	976.36	0.	-65602.	0.	0.
122-090000	731.33	95.888	5.9764	5.9764	976.27	0.	-45371.	0.	0.
122-100000	731.31	95.713	5.9765	5.9765	976.18	0.	-27287.	0.	0.
122-110000	731.29	95.547	5.9767	5.9767	976.08	0.	-13148.	0.	0.
124-010000	731.28	95.436	5.9769	5.9769	976.01	0.	-5212.4	0.	0.
124-020000	731.26	95.373	5.9771	5.9771	975.95	0.	-15384.	0.	0.
124-030000	731.25	95.310	5.9772	5.9772	975.89	0.	-19817.	0.	0.
124-040000	731.24	95.246	5.9774	5.9774	975.83	0.	-23399.	0.	0.
124-050000	731.23	95.195	5.9775	5.9775	975.79	0.	-14202.	0.	0.
124-060000	731.22	95.158	5.9776	5.9776	975.76	0.	-14148.	0.	0.
124-070000	731.21	95.113	5.9777	5.9777	975.71	0.	-23493.	0.	0.
125-010000	731.23	95.196	1.9820	1.9820	975.78	0.	195.07	0.	0.
131-010000	731.16	94.557	13.040	13.040	975.47	0.	0.	0.	0.
131-020000	731.17	94.651	13.346	13.346	975.52	0.	0.	0.	0.
131-030000	731.17	94.699	13.346	13.346	975.54	0.	0.	0.	0.
131-040000	731.17	94.621	13.346	13.346	975.51	0.	0.	0.	0.
140-010000	731.53	98.514	2.4865	2.4865	977.08	0.	0.	0.	0.
151-010000	731.75	100.65	16.960	16.959	977.90	0.	0.	0.	0.
152-010000	731.77	100.62	16.939	16.895	978.00	0.	0.	0.	0.
153-010000	731.77	100.59	16.941	16.941	977.99	0.	0.	0.	0.
153-020000	731.79	100.80	14.950	14.950	978.07	0.	0.	0.	0.
180-010000	758.23	170.17	7.96288E-03	7.95288E-03	1442.5	0.	0.	0.	0.
211-010000	731.40	97.272	14.879	14.879	976.56	0.	0.	0.	0.
211-020000	731.40	97.240	14.880	14.880	976.54	0.	0.	0.	0.
213-010000	731.39	97.175	14.880	14.880	976.52	0.	0.	0.	0.
221-010000	731.44	97.603	1.9826	1.9826	976.71	0.	108.19	0.	0.
222-010000	731.43	97.297	5.9795	5.9795	976.67	0.	-2.86365E+05	0.	0.
222-020000	731.42	97.129	5.9796	5.9796	976.67	0.	-2.37074E+05	0.	0.
222-030000	731.42	96.964	5.9797	5.9797	976.66	0.	-2.01477E+05	0.	0.
222-040000	731.41	96.777	5.9797	5.9797	976.63	0.	-2.07501E+05	0.	0.
222-050000	731.40	96.585	5.9798	5.9798	976.58	0.	-1.41881E+05	0.	0.
222-060000	731.38	96.410	5.9800	5.9800	976.51	0.	-1.13550E+05	0.	0.
222-070000	731.37	96.236	5.9801	5.9801	976.44	0.	-88227.	0.	0.
222-080000	731.35	96.061	5.9803	5.9803	976.36	0.	-65592.	0.	0.
222-090000	731.33	95.886	5.9804	5.9804	976.27	0.	-45358.	0.	0.
222-100000	731.31	95.711	5.9806	5.9806	976.18	0.	-27270.	0.	0.
222-110000	731.29	95.544	5.9808	5.9808	976.08	0.	-13126.	0.	0.
224-010000	731.28	95.433	5.9810	5.9810	976.01	0.	-5187.9	0.	0.
224-020000	731.26	95.370	5.9811	5.9811	975.95	0.	-15347.	0.	0.
224-030000	731.25	95.307	5.9813	5.9813	975.89	0.	-19775.	0.	0.
224-040000	731.24	95.243	5.9814	5.9814	975.83	0.	-23355.	0.	0.
224-050000	731.23	95.192	5.9816	5.9816	975.79	0.	-14166.	0.	0.
224-060000	731.22	95.155	5.9816	5.9816	975.76	0.	-14114.	0.	0.
224-070000	731.21	95.109	5.9817	5.9817	975.71	0.	-23451.	0.	0.
225-010000	731.23	95.192	1.9824	1.9834	975.76	0.	103.11	0.	0.

231-010000	731.16	94.553	13.049	13.049	975.47	0.	0.	0.	0.
231-020000	731.17	94.646	13.355	13.355	975.52	0.	0.	0.	0.
231-030000	731.17	94.694	13.355	13.355	975.54	0.	0.	0.	0.
232-010000	731.17	94.618	13.338	13.338	975.50	0.	0.	0.	0.
240-010000	731.53	98.512	2.4850	2.4850	977.06	0.	0.	0.	0.
251-010000	731.75	100.66	16.950	16.950	977.90	0.	0.	0.	0.
253-010000	731.74	100.62	16.947	16.947	977.88	0.	0.	0.	0.
253-020000	731.74	100.58	16.947	16.947	977.86	0.	0.	0.	0.
253-030000	731.76	100.80	14.956	14.956	977.95	0.	0.	0.	0.
282-010000	928.80	19.070	8.24680E-04	8.24680E-04	1467.8	0.	0.	0.	0.
311-010000	731.40	97.281	14.818	14.832	976.56	0.	0.	0.	0.
311-020000	731.01	97.241	14.850	14.925	974.90	1.56971E-05	0.	0.	-.10327
313-010000	731.00	97.187	14.881	14.862	974.86	6.01354E-06	0.	0.	-3.95649E-02
321-010000	731.05	97.602	1.9826	1.9697	975.03	6.13072E-07	-1792.4	0.	-4.03376E-03
322-010000	731.08	97.302	6.9794	6.0557	975.16	2.65864E-07	-8.08005E+05	0.	-1.68329E-03
322-020000	731.11	97.132	5.9791	6.0023	975.31	1.07758E-07	-6.91096E+05	0.	-7.08227E-04
322-030000	731.13	96.967	5.9789	5.9924	975.43	4.54830E-08	-6.10049E+05	0.	-2.97118E-04
322-040000	731.16	96.780	5.9787	5.9861	975.56	1.71339E-08	-6.60219E+05	0.	-1.06818E-04
322-050000	731.18	96.588	5.9786	5.9823	975.61	6.65610E-09	-4.84230E+05	0.	-4.66186E-05
322-060000	731.19	96.414	5.9785	5.9800	975.65	9.77167E-10	-4.19483E+05	0.	-2.52806E-05
322-070000	731.19	96.239	5.9784	5.9787	975.66	1.42428E-10	-3.61620E+05	0.	-3.71819E-06
322-080000	731.19	96.064	5.9784	5.9785	975.66	2.10058E-11	-3.09909E+05	0.	-5.48266E-07
322-090000	731.19	95.889	5.9785	5.9785	975.65	1.35016E-11	-2.63696E+05	0.	-8.28099E-11
322-100000	731.19	95.715	5.9785	5.9785	975.62	0.	-2.22394E+05	0.	0.
322-110000	731.18	95.548	5.9786	5.9786	975.59	0.	-1.99206E+05	0.	0.
324-010000	731.18	95.437	5.9786	5.9786	975.57	0.	-1.70168E+05	0.	0.
324-020000	731.18	95.374	5.9787	5.9787	975.60	0.	-2.63180E+05	0.	0.
324-030000	731.19	95.311	5.9787	5.9787	975.61	0.	-2.20014E+05	0.	0.
324-040000	731.18	95.247	5.9787	5.9787	975.60	0.	-1.85142E+05	0.	0.
324-050000	731.18	95.197	5.9787	5.9787	975.59	0.	-1.03751E+05	0.	0.
324-060000	731.18	95.159	5.9788	5.9788	975.58	0.	-86220.	0.	0.
324-070000	731.18	95.114	5.9788	5.9788	975.57	0.	-1.09317E+05	0.	0.
325-010000	731.19	95.197	1.9824	1.9824	975.64	0.	182.50	0.	0.
331-010000	731.13	94.558	13.043	13.043	975.33	0.	0.	0.	0.
331-020000	731.14	94.651	13.349	13.349	975.37	0.	0.	0.	0.
331-030000	731.14	94.699	13.349	13.349	975.40	0.	0.	0.	0.
331-040000	731.13	94.622	13.349	13.349	975.36	0.	0.	0.	0.
340-010000	731.50	98.514	2.4870	2.4870	976.92	0.	0.	0.	0.
351-010000	731.71	100.65	16.963	16.963	977.76	0.	0.	0.	0.
352-010000	731.71	100.62	16.924	16.924	977.74	0.	0.	0.	0.
353-010000	731.70	100.59	16.924	16.924	977.72	0.	0.	0.	0.
353-020000	731.73	100.80	14.935	14.935	977.80	0.	0.	0.	0.
400-010000	602.04	97.208	-.48086	-.31056	109.09	2.02326E-02	11681.	48.359	.22104
400-020000	601.89	97.126	-.46295	-.32894	107.73	1.65174E-02	15796.	67.810	.22564
400-030000	601.89	97.042	-.45036	-.30892	106.95	1.44785E-02	15966.	68.444	.24868
400-040000	601.66	96.955	-.43234	-.30417	105.01	9.27504E-03	16035.	55.130	.30298
410-010000	600.88	96.900	-1.27581E-02	.15266	102.00	5.22931E-04	5472.8	0.	.18557
410-020000	601.37	96.875	-1.29794E-02	.21173	101.86	1.16692E-03	10986.	0.	.20367
410-030000	601.49	96.837	-8.18238E-03	.16175	102.28	2.31317E-03	17638.	0.	.18848
410-040000	602.80	96.771	-1.22943E-02	.32700	100.98	1.88996E-03	1.86021E+05	0.	.23607
410-050000	601.95	96.852	-5.06441E-02	3.25727E-02	167.46	.17246	1.33816E+05	11513.	6.80861E-02
410-060000	604.31	96.747	-1.5739	1.71345E-02	373.34	.98334	73869.	0.	-4.20554E-02
410-070000	607.89	96.695	-.71756	1.37111E-02	360.81	.92144	73634.	0.	-.11474
410-080000	627.68	96.670	-.49943	1.19364E-02	351.84	.88317	19456.	0.	-.59440
410-090000	657.39	96.651	-.56266	1.26596E-02	341.94	.84852	7968.9	0.	-1.7507
420-010000	687.82	96.645	-.44061	9.32661E-03	329.20	.80932	5649.8	0.	-3.3769
430-010000	731.84	101.33	2.3574	2.3574	978.29	0.	0.	0.	0.

440-010000	731.81	101.33	2.3572	2.3572	978.14	0.	0.	0.	0.
450-010000	731.39	96.964	4.7168	4.8387	976.54	0.	0.	0.	0.
490-010000	593.86	102.04	0.	0.	372.13	1.0000	0.	0.	0.
940-010000	988.11	1.1294	0.	0.	1537.3	0.	89545.	0.	0.

VOL.NO.	LRGST.MASS ERR.		REDUCE-QUALITY		REDUCE-EXTRAP.		REDUCE-MASS		REDUCE-PROPTY.		MIN.COURANT		REDUCE-COURANT	
	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL
11-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-040000	0	0	0	0	0	0	0	0	0	0	0	12	150	443
140-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

211-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
213-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
221-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232-010000	0	0	0	0	0	0	0	0	0	0	0	1	0	0
240-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
251-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
282-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
311-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
311-020000	0	5	0	0	0	0	0	0	0	0	0	0	0	0
313-010000	0	2	0	0	0	0	0	0	0	0	0	0	0	0
321-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
325-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

331-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-040000	0	0	0	0	0	0	0	0	0	0	300	887	0	7
340-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
351-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
352-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
353-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
353-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400-010000	0	434	0	0	0	0	0	0	0	0	0	0	0	0
400-020000	0	36	0	0	0	0	0	0	0	0	0	0	0	0
400-030000	0	70	0	0	0	0	0	0	0	0	0	0	0	0
400-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-010000	0	1	0	0	0	0	0	0	0	0	0	0	0	0
410-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-030000	0	13	0	0	0	0	0	0	0	0	0	0	0	0
410-040000	300	330	0	0	0	0	0	0	0	0	0	0	0	0
410-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
420-010000	0	6	0	0	0	0	0	0	0	0	0	0	0	0
430-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
440-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450-010000	0	3	0	0	0	0	0	0	0	0	0	0	0	0
490-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
940-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

JUN.NO.	FROM VOL.	TO VOL.	LIQ.J.VEL. (M/SEC)	VAP.J.VEL. (M/SEC)	MASS FLOW (KG/SEC)	JUN.AREA (M2)	THROAT RATIO	JUNCTION FLAGS	CHOKE FLAG	NO.ADVS.EDIT	CHOKED TOTAL
SYSTEM 1											
UPDOWNC	BRANCH	COMPONENT									
11-010000	-13-010000	11-010000	3.57601E-02	3.57601E-02	48.464	1.8520	1.0000	00000	0	0	0
11-020000	11-010000	45-010000	17.912	17.912	48.518	3.70000E-03	1.0000	00000	0	0	0
UPDOWNOZZ	BRANCH	COMPONENT									
13-010000	153-020000	13-010000	14.950	14.950	4748.1	.43400	1.0000	00000	0	0	0
13-020000	253-030000	13-010000	14.955	14.955	4749.6	.43400	1.0000	00000	0	0	0
13-030000	353-020000	13-010000	14.935	14.935	4742.8	.43400	1.0000	00000	0	0	0
13-040000	13-010000	15-010000	7.8328	7.8328	14192.	2.4760	1.0000	00000	0	0	0
DOWNCTS	ANNULUS	COMPONENT									
15-010000	15-010000	15-020000	7.5461	7.5461	14192.	2.5700	1.0000	00000	0	0	0
15-020000	15-020000	15-030000	7.5460	7.5460	14192.	2.5700	1.0000	00000	0	0	0
LOWPLEN	BRANCH	COMPONENT									
23-010000	15-030000	23-010000	7.5459	7.5459	14192.	2.5700	1.0000	00000	0	0	0
23-020000	-23-010000	25-010000	5.0241	5.0241	14192.	3.8600	1.0000	00000	0	0	0
COREIN	BRANCH	COMPONENT									
25-010000	25-010000	31-010000	4.8766	4.8766	13775.	3.8600	1.0000	00000	0	0	0
25-020000	25-010000	35-010000	5.7120	5.7120	417.98	.10000	1.0000	00000	0	0	0
CORE	PIPE	COMPONENT									
31-010000	31-010000	31-020000	4.8769	4.8769	13775.	3.8600	1.0000	00000	0	0	0
31-020000	31-020000	31-030000	4.8772	4.8772	13775.	3.8600	1.0000	00000	0	0	0
31-030000	31-030000	31-040000	4.8775	4.8775	13775.	3.8600	1.0000	00000	0	0	0
31-040000	31-040000	31-050000	4.8779	4.8779	13775.	3.8600	1.0000	00000	0	0	0
COREEX	BRANCH	COMPONENT									
39-010000	31-050000	39-010000	4.8782	4.8782	13775.	3.8600	1.0000	00000	0	0	0
39-020000	35-010000	39-010000	5.7132	5.7132	418.04	.10000	1.0000	00000	0	0	0

UPPLEN1	BRANCH	COMPONENT									
41-010000	39-010000	41-010000	5.0263	5.0263	14193.	3.8600	1.0000	00000	0	0	0
41-020000	41-010000	43-010000	2.1886	2.1886	14193.	8.8650	1.0000	00000	0	0	0
UPPLEN2	BRANCH	COMPONENT									
43-010000	-43-010000	111-010000	14.867	14.867	4751.6	.43690	1.0000	00000	0	0	0
43-020000	-43-010000	211-010000	14.878	14.878	4754.8	.43690	1.0000	00000	0	0	0
43-030000	-43-010000	311-010000	14.817	14.817	4735.5	.43690	1.0000	00000	0	0	0
UPHEAD	BRANCH	COMPONENT									
45-010000	43-010000	45-010000	-7.50452E-03	-7.50452E-03	-48.697	8.8650	1.0000	00000	0	0	0
HTLEGR1	PIPE	COMPONENT									
111-010000	111-010000	111-020000	14.870	14.870	4751.6	.43690	1.0000	00000	0	0	0
HTLEGR2	BRANCH	COMPONENT									
113-010000	111-020000	113-010000	14.870	14.870	4751.6	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
121-010000	121-010000	122-010000	5.9754	5.9754	4751.8	1.0872	1.0000	00000	0	0	0
121-020000	113-010000	121-010000	14.870	14.870	4751.7	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
122-010000	122-010000	122-020000	5.9755	5.9755	4751.8	1.0872	1.0000	00000	0	0	0
122-020000	122-020000	122-030000	5.9756	5.9756	4751.8	1.0872	1.0000	00000	0	0	0
122-030000	122-030000	122-040000	5.9756	5.9756	4751.8	1.0872	1.0000	00000	0	0	0
122-040000	122-040000	122-050000	5.9757	5.9757	4751.8	1.0872	1.0000	00000	0	0	0
122-050000	122-050000	122-060000	5.9758	5.9758	4751.8	1.0872	1.0000	00000	0	0	0
122-060000	122-060000	122-070000	5.9760	5.9760	4751.9	1.0872	1.0000	00000	0	0	0
122-070000	122-070000	122-080000	5.9761	5.9761	4751.9	1.0872	1.0000	00000	0	0	0
122-080000	122-080000	122-090000	5.9763	5.9763	4751.9	1.0872	1.0000	00000	0	0	0
122-090000	122-090000	122-100000	5.9764	5.9764	4751.9	1.0872	1.0000	00000	0	0	0
122-100000	122-100000	122-110000	5.9766	5.9766	4751.9	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
123-000000	122-110000	124-010000	5.9768	5.9768	4752.0	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
124-010000	124-010000	124-020000	5.9770	5.9770	4752.0	1.0872	1.0000	00000	0	0	0
124-020000	124-020000	124-030000	5.9771	5.9771	4752.0	1.0872	1.0000	00000	0	0	0
124-030000	124-030000	124-040000	5.9773	5.9773	4752.0	1.0872	1.0000	00000	0	0	0
124-040000	124-040000	124-050000	5.9774	5.9774	4752.1	1.0872	1.0000	00000	0	0	0
124-050000	124-050000	124-060000	5.9775	5.9775	4752.1	1.0872	1.0000	00000	0	0	0
124-060000	124-060000	124-070000	5.9776	5.9776	4752.1	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
125-010000	124-070000	125-010000	5.9739	5.9739	4752.1	1.0879	1.0000	00000	0	0	0
125-020000	125-010000	131-010000	13.040	13.040	4752.2	.49840	1.0000	00000	0	0	0
SEALR	PIPE	COMPONENT									
131-010000	131-010000	131-020000	13.346	13.346	4752.3	.48700	1.0000	00000	0	0	0
131-020000	131-020000	131-030000	13.346	13.346	4752.3	.48700	1.0000	00000	0	0	0
131-030000	131-030000	131-040000	13.346	13.346	4752.3	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
140-010000	131-040000	140-010000	13.346	13.346	4752.3	.48700	1.0000	00000	0	0	0
140-020000	140-010000	151-010000	16.962	16.962	4752.4	.38300	1.0000	00000	0	0	0
COLDR2	BRANCH	COMPONENT									
152-010000	151-010000	152-010000	16.920	16.920	4742.0	.38300	1.0000	00000	0	0	0
152-020000	152-010000	153-010000	16.941	16.941	4748.1	.38300	1.0000	00000	0	0	0
COLDR3	PIPE	COMPONENT									
153-010000	153-010000	153-020000	16.941	16.941	4748.1	.38300	1.0000	00000	0	0	0
CVJUN	TMDPJUN	COMPONENT									
181-000000	180-010000	152-010000	2.2788	2.2788	6.0301	3.49000E-03	1.0000	00000	0	0	0
HTLEGG1	PIPE	COMPONENT									
211-010000	211-010000	211-020000	14.880	14.880	4754.9	.43690	1.0000	00000	0	0	0
HTLEGG2	BRANCH	COMPONENT									
213-010000	211-020000	213-010000	14.880	14.880	4754.9	.43690	1.0000	00000	0	0	0

INBOX	BRANCH	COMPONENT									
221-010000	221-010000	222-010000	5.9795	5.9795	4755.0	1.0872	1.0000	00000	0	0	0
221-020000	213-010000	221-010000	14.880	14.880	4754.9	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
222-010000	222-010000	222-020000	5.9796	5.9796	4755.0	1.0872	1.0000	00000	0	0	0
222-020000	222-020000	222-030000	5.9796	5.9796	4755.0	1.0872	1.0000	00000	0	0	0
222-030000	222-030000	222-040000	5.9797	5.9797	4755.0	1.0872	1.0000	00000	0	0	0
222-040000	222-040000	222-050000	5.9798	5.9798	4755.1	1.0872	1.0000	00000	0	0	0
222-050000	222-050000	222-060000	5.9799	5.9799	4755.1	1.0872	1.0000	00000	0	0	0
222-060000	222-060000	222-070000	5.9800	5.9800	4755.1	1.0872	1.0000	00000	0	0	0
222-070000	222-070000	222-080000	5.9802	5.9802	4755.1	1.0872	1.0000	00000	0	0	0
222-080000	222-080000	222-090000	5.9803	5.9803	4755.1	1.0872	1.0000	00000	0	0	0
222-090000	222-090000	222-100000	5.9805	5.9805	4755.2	1.0872	1.0000	00000	0	0	0
222-100000	222-100000	222-110000	5.9807	5.9807	4755.2	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
223-000000	222-110000	224-010000	5.9809	5.9809	4755.2	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
224-010000	224-010000	224-020000	5.9811	5.9811	4755.2	1.0872	1.0000	00000	0	0	0
224-020000	224-020000	224-030000	5.9812	5.9812	4755.2	1.0872	1.0000	00000	0	0	0
224-030000	224-030000	224-040000	5.9814	5.9814	4755.3	1.0872	1.0000	00000	0	0	0
224-040000	224-040000	224-050000	5.9815	5.9815	4755.3	1.0872	1.0000	00000	0	0	0
224-050000	224-050000	224-060000	5.9816	5.9816	4755.3	1.0872	1.0000	00000	0	0	0
224-060000	224-060000	224-070000	5.9817	5.9817	4755.3	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
225-010000	224-070000	225-010000	5.9780	5.9780	4755.4	1.0879	1.0000	00000	0	0	0
225-020000	225-010000	231-010000	13.049	13.049	4755.5	.49840	1.0000	00000	0	0	0
SEALG1	PIPE	COMPONENT									
231-010000	231-010000	231-020000	13.355	13.355	4755.5	.48700	1.0000	00000	0	0	0
231-020000	231-020000	231-030000	13.355	13.355	4755.5	.48700	1.0000	00000	0	0	0
SEALG2	BRANCH	COMPONENT									
232-010000	231-030000	232-010000	13.338	13.338	4749.5	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
240-010000	232-010000	240-010000	13.338	13.338	4749.5	.48700	1.0000	00000	0	0	0
240-020000	240-010000	251-010000	16.952	16.952	4749.6	.38300	1.0000	00000	0	0	0
COLG1	BRANCH	COMPONENT									
251-010000	251-010000	253-010000	16.947	16.947	4749.6	.38300	1.0000	00000	0	0	0
COLG2	PIPE	COMPONENT									
253-010000	253-010000	253-020000	16.947	16.947	4749.6	.38300	1.0000	00000	0	0	0
253-020000	253-020000	253-030000	16.947	16.947	4749.6	.38300	1.0000	00000	0	0	0
TJ183	TMDPJUN	COMPONENT									
283-000000	231-030000	282-010000	1.69339E-02	1.69339E-02	6.0298	.48700	1.0000	00000	0	0	0
HTLEGB1	PIPE	COMPONENT									
311-010000	311-010000	311-020000	14.819	14.846	4735.5	.43690	1.0000	00000	0	0	0
SURGEJUN	SNGLJUN	COMPONENT									
312-000000	-400-010000	-311-020000	.49184	.28223	16.771	6.31180E-02	1.0000	10001	0	0	0
HTLEGB2	BRANCH	COMPONENT									
313-010000	311-020000	313-010000	14.881	14.925	4752.3	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
321-010000	321-010000	322-010000	5.9795	6.0766	4752.5	1.0872	1.0000	00000	0	0	0
321-020000	313-010000	321-010000	14.881	14.697	4752.4	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
322-010000	322-010000	322-020000	5.9793	6.0056	4752.5	1.0872	1.0000	00000	0	0	0
322-020000	322-020000	322-030000	5.9790	5.9946	4752.5	1.0872	1.0000	00000	0	0	0
322-030000	322-030000	322-040000	5.9788	5.9872	4752.5	1.0872	1.0000	00000	0	0	0
322-040000	322-040000	322-050000	5.9786	5.9831	4752.5	1.0872	1.0000	00000	0	0	0
322-050000	322-050000	322-060000	5.9785	5.9802	4752.5	1.0872	1.0000	00000	0	0	0
322-060000	322-060000	322-070000	5.9785	5.9787	4752.6	1.0872	1.0000	00000	0	0	0

322-070000	322-070000	322-080000	5.9784	5.9785	4752.6	1.0872	1.0000	00000	0	0	0
322-080000	322-080000	322-090000	5.9784	5.9784	4752.6	1.0872	1.0000	00000	0	0	0
322-090000	322-090000	322-100000	5.9785	5.9785	4752.6	1.0872	1.0000	00000	0	0	0
322-100000	322-100000	322-110000	5.9785	5.9785	4752.6	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
323-000000	322-110000	324-010000	5.9786	5.9786	4752.6	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
324-010000	324-010000	324-020000	5.9787	5.9787	4752.7	1.0872	1.0000	00000	0	0	0
324-020000	324-020000	324-030000	5.9787	5.9787	4752.7	1.0872	1.0000	00000	0	0	0
324-030000	324-030000	324-040000	5.9787	5.9787	4752.7	1.0872	1.0000	00000	0	0	0
324-040000	324-040000	324-050000	5.9787	5.9787	4752.8	1.0872	1.0000	00000	0	0	0
324-050000	324-050000	324-060000	5.9788	5.9788	4752.8	1.0872	1.0000	00000	0	0	0
324-060000	324-060000	324-070000	5.9788	5.9788	4752.8	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
325-010000	324-070000	325-010000	5.9750	5.9750	4752.8	1.0879	1.0000	00000	0	0	0
325-020000	325-010000	331-010000	13.042	13.042	4752.9	.49840	1.0000	00000	0	0	0
SEALB	PIPE	COMPONENT									
331-010000	331-010000	331-020000	13.349	13.349	4752.9	.48700	1.0000	00000	0	0	0
331-020000	331-020000	331-030000	13.349	13.349	4753.0	.48700	1.0000	00000	0	0	0
331-030000	331-030000	331-040000	13.349	13.349	4753.0	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
340-010000	331-040000	340-010000	13.349	13.349	4753.0	.48700	1.0000	00000	0	0	0
340-020000	340-010000	351-010000	16.965	16.965	4753.1	.38300	1.0000	00000	0	0	0
COLDR2	BRANCH	COMPONENT									
352-010000	351-010000	352-010000	16.923	16.923	4742.7	.38300	1.0000	00000	0	0	0
352-020000	352-010000	353-010000	16.924	16.924	4742.8	.38300	1.0000	00000	0	0	0
COLDR3	PIPE	COMPONENT									
353-010000	353-010000	353-020000	16.924	16.924	4742.8	.38300	1.0000	00000	0	0	0
SURGE	PIPE	COMPONENT									
400-010000	400-010000	400-020000	-.47011	-.34466	-16.377	6.31180E-02	1.0000	00000	0	0	0
400-020000	400-020000	400-030000	-.45815	-.31313	-16.191	6.34253E-02	1.0000	00000	0	0	0
400-030000	400-030000	400-040000	-.44282	-.30252	-16.072	6.34253E-02	1.0000	00000	0	0	0
SURGE1	SNGLJUN	COMPONENT									
405-000000	400-040000	410-010000	-.42239	-.33234	-16.052	6.34253E-02	1.0000	00100	0	0	0
PRESSU	PIPE	COMPONENT									
410-010000	410-010000	410-020000	-1.27640E-02	.15750	-16.148	2.1329	1.0000	00000	0	0	0
410-020000	410-020000	410-030000	-1.31962E-02	.23610	-16.338	2.1329	1.0000	00000	0	0	0
410-030000	410-030000	410-040000	-8.31462E-03	.16766	-16.696	3.5350	1.0000	00000	0	0	0
410-040000	410-040000	410-050000	-2.13350E-02	.52118	-17.694	3.5350	1.0000	00000	0	0	0
410-050000	410-050000	410-060000	-4.7525	2.24876E-02	-23.143	3.5350	1.0000	00000	0	0	0
410-060000	410-060000	410-070000	-.93507	1.41021E-02	-22.078	3.5350	1.0000	00000	0	0	0
410-070000	410-070000	410-080000	-.57641	1.33157E-02	-21.049	3.5350	1.0000	00000	0	0	0
410-080000	410-080000	410-090000	-.67014	1.59680E-02	-20.808	2.1329	1.0000	00000	0	0	0
TOP	BRANCH	COMPONENT									
420-010000	410-090000	420-010000	-.48068	9.33142E-03	-20.725	2.1329	1.0000	00000	0	0	0
SPRAYR	BRANCH	COMPONENT									
430-010000	151-010000	430-010000	2.3574	2.3574	10.331	5.98900E-03	1.0000	00000	0	0	0
SPRAYR	VALVE	COMPONENT									
435-000000	430-010000	450-010000	2.3573	2.3573	10.332	5.98900E-03	.11611	00100	0	0	1
SPRAYB	BRANCH	COMPONENT									
440-010000	351-010000	440-010000	2.3572	2.3572	10.330	5.98900E-03	1.0000	00000	0	0	0
SPRAYB	VALVE	COMPONENT									
445-000000	440-010000	450-010000	2.3571	2.3571	10.331	5.98900E-03	.11611	00100	0	0	1
SPRAYB	BRANCH	COMPONENT									
450-010000	450-010000	420-010000	4.7174	4.8688	20.664	5.98900E-03	1.0000	00000	0	0	0
PRESVAL	VALVE	COMPONENT									
489-000000	420-010000	490-010000	0.	0.	0.	2.1340	0.	00100	0	0	0

SYSTEM 2

JUN.NO.	VOIDFJ	VOIDGJ	FROM	TO	FIJ (N-S2/M5)	FWALFJ	FWALGJ	FJUNF	FJUNR	FORMFJ	FORMGJ
11-010000	1.0000	0.	BBY	BBY	19.772	2.72	0.	0.	0.	0.	0.
11-020000	1.0000	0.	BBY	BBY	2.64224E-02	1.936E-07	0.	2.30	2.30	0.	0.
13-010000	1.0000	0.	BBY	BBY	14.622	1.748E-02	0.	.429	.429	0.	0.
13-020000	1.0000	0.	BBY	BBY	14.621	1.748E-02	0.	.429	.429	0.	0.
13-030000	1.0000	0.	BBY	BBY	14.621	1.748E-02	0.	.429	.429	0.	0.
13-040000	1.0000	0.	BBY	BBY	21.558	3.487E-02	0.	.160	.160	0.	0.
15-010000	1.0000	0.	BBY	BBY	22.010	4.002E-02	0.	0.	0.	0.	0.
15-020000	1.0000	0.	BBY	BBY	22.019	4.002E-02	0.	0.	0.	0.	0.
23-010000	1.0000	0.	BBY	BBY	16.135	2.076E-02	0.	1.43	.500	0.	0.
23-020000	1.0000	0.	BBY	BBY	16.728	3.427E-03	0.	5.27	5.27	0.	0.
25-010000	1.0000	0.	BBY	BBY	21.959	.651	0.	2.45	2.45	0.	0.
25-020000	1.0000	0.	BBY	BBY	2.3542	4.351E-04	0.	7.45	7.45	0.	0.
31-010000	1.0000	0.	BBY	BBY	21.931	1.30	0.	2.47	2.47	0.	0.
31-020000	1.0000	0.	BBY	BBY	21.900	1.30	0.	2.40	2.40	0.	0.
31-030000	1.0000	0.	BBY	BBY	21.870	1.30	0.	2.31	2.31	0.	0.
31-040000	1.0000	0.	BBY	BBY	21.840	1.30	0.	2.23	2.23	0.	0.
39-010000	1.0000	0.	BBY	BBY	21.819	.651	0.	.720	.720	0.	0.
39-020000	1.0000	0.	BBY	BBY	2.3458	4.351E-04	0.	6.45	6.45	0.	0.
41-010000	1.0000	0.	BBY	BBY	16.388	1.905E-03	0.	2.04	2.04	0.	0.
41-020000	1.0000	0.	BBY	BBY	21.794	3.898E-03	0.	0.	0.	0.	0.
43-010000	1.0000	0.	BBY	BBY	12.705	1.920E-02	0.	.380	.380	0.	0.
43-020000	1.0000	0.	BBY	BBY	12.705	1.920E-02	0.	.380	.380	0.	0.
43-030000	1.0000	0.	BBY	BBY	12.705	1.920E-02	0.	.380	.380	0.	0.
45-010000	1.0000	0.	BBY	BBY	21.582	.884	0.	2.60	2.60	0.	0.
111-010000	1.0000	0.	BBY	BBY	21.710	3.836E-02	0.	0.	0.	0.	0.
113-010000	1.0000	0.	BBY	BBY	21.707	3.836E-02	0.	0.	0.	0.	0.
121-010000	1.0000	0.	BBY	BBY	12.033	.377	0.	.226	.580	0.	0.
121-020000	1.0000	0.	BBY	BBY	13.920	1.926E-02	0.	.325	.255	0.	0.
122-010000	1.0000	0.	BBY	BBY	21.709	.740	0.	0.	0.	0.	0.
122-020000	1.0000	0.	BBY	BBY	21.697	.728	0.	0.	0.	0.	0.
122-030000	1.0000	0.	BBY	BBY	21.683	.824	0.	0.	0.	0.	0.
122-040000	1.0000	0.	BBY	BBY	21.671	.849	0.	0.	0.	0.	0.
122-050000	1.0000	0.	BBY	BBY	21.657	.778	0.	0.	0.	0.	0.
122-060000	1.0000	0.	BBY	BBY	21.644	.778	0.	0.	0.	0.	0.
122-070000	1.0000	0.	BBY	BBY	21.632	.778	0.	0.	0.	0.	0.
122-080000	1.0000	0.	BBY	BBY	21.619	.778	0.	0.	0.	0.	0.
122-090000	1.0000	0.	BBY	BBY	21.606	.778	0.	0.	0.	0.	0.
122-100000	1.0000	0.	BBY	BBY	21.593	.808	0.	0.	0.	0.	0.
123-000000	1.0000	0.	BBY	BBY	21.583	.837	0.	0.	0.	0.	0.
124-010000	1.0000	0.	BBY	BBY	21.576	1.20	0.	0.	0.	0.	0.
124-020000	1.0000	0.	BBY	BBY	21.572	1.56	0.	0.	0.	0.	0.
124-030000	1.0000	0.	BBY	BBY	21.567	1.56	0.	0.	0.	0.	0.
124-040000	1.0000	0.	BBY	BBY	21.563	1.24	0.	0.	0.	0.	0.
124-050000	1.0000	0.	BBY	BBY	21.559	.914	0.	0.	0.	0.	0.
124-060000	1.0000	0.	BBY	BBY	21.556	1.10	0.	0.	0.	0.	0.
125-010000	1.0000	0.	BBY	BBY	13.814	.650	0.	.580	.226	0.	0.
125-020000	1.0000	0.	BBY	BBY	12.517	1.316E-02	0.	.255	.325	0.	0.
131-010000	1.0000	0.	BBY	BBY	21.271	2.551E-02	0.	0.	0.	0.	0.
131-020000	1.0000	0.	BBY	BBY	21.523	3.326E-02	0.	0.	0.	0.	0.
131-030000	1.0000	0.	BBY	BBY	21.522	3.096E-02	0.	0.	0.	0.	0.
140-010000	1.0000	0.	BBY	CTB	13.528	1.074E-02	0.	.195	.195	0.	0.
140-020000	1.0000	0.	CTB	BBY	14.340	1.598E-02	0.	.270	.270	0.	0.
152-010000	1.0000	0.	BBY	BBY	21.964	3.201E-02	0.	0.	0.	0.	0.

152-020000	1.0000	0.	BBY	BBY	21.962	3.196E-02	0.	0.	0.	0.	0.
153-010000	1.0000	0.	BBY	BBY	20.678	2.842E-02	0.	0.	0.	0.	0.
181-000000	1.0000	0.	BBY	BBY	.20014	1.082E-03	0.	0.	0.	0.	0.
211-010000	1.0000	0.	BBY	BBY	21.710	3.836E-02	0.	0.	0.	0.	0.
213-010000	1.0000	0.	BBY	BBY	21.707	3.836E-02	0.	0.	0.	0.	0.
221-010000	1.0000	0.	BBY	BBY	12.033	.377	0.	.226	.580	0.	0.
221-020000	1.0000	0.	BBY	BBY	13.919	1.926E-02	0.	.325	.255	0.	0.
222-010000	1.0000	0.	BBY	BBY	21.708	.740	0.	0.	0.	0.	0.
222-020000	1.0000	0.	BBY	BBY	21.697	.727	0.	0.	0.	0.	0.
222-030000	1.0000	0.	BBY	BBY	21.683	.823	0.	0.	0.	0.	0.
222-040000	1.0000	0.	BBY	BBY	21.671	.849	0.	0.	0.	0.	0.
222-050000	1.0000	0.	BBY	BBY	21.657	.778	0.	0.	0.	0.	0.
222-060000	1.0000	0.	BBY	BBY	21.644	.778	0.	0.	0.	0.	0.
222-070000	1.0000	0.	BBY	BBY	21.631	.778	0.	0.	0.	0.	0.
222-080000	1.0000	0.	BBY	BBY	21.619	.778	0.	0.	0.	0.	0.
222-090000	1.0000	0.	BBY	BBY	21.606	.778	0.	0.	0.	0.	0.
222-100000	1.0000	0.	BBY	BBY	21.593	.807	0.	0.	0.	0.	0.
223-000000	1.0000	0.	BBY	BBY	21.583	.837	0.	0.	0.	0.	0.
224-010000	1.0000	0.	BBY	BBY	21.576	1.20	0.	0.	0.	0.	0.
224-020000	1.0000	0.	BBY	BBY	21.571	1.56	0.	0.	0.	0.	0.
224-030000	1.0000	0.	BBY	BBY	21.567	1.56	0.	0.	0.	0.	0.
224-040000	1.0000	0.	BBY	BBY	21.563	1.24	0.	0.	0.	0.	0.
224-050000	1.0000	0.	BBY	BBY	21.559	.914	0.	0.	0.	0.	0.
224-060000	1.0000	0.	BBY	BBY	21.555	1.10	0.	0.	0.	0.	0.
225-010000	1.0000	0.	BBY	BBY	13.814	.850	0.	.580	.226	0.	0.
225-020000	1.0000	0.	BBY	BBY	12.517	1.316E-02	0.	.255	.325	0.	0.
231-010000	1.0000	0.	BBY	BBY	21.271	2.851E-02	0.	0.	0.	0.	0.
231-020000	1.0000	0.	BBY	BBY	21.522	3.326E-02	0.	0.	0.	0.	0.
232-010000	1.0000	0.	BBY	BBY	21.522	3.098E-02	0.	0.	0.	0.	0.
240-010000	1.0000	0.	BBY	CTB	13.528	1.074E-02	0.	.195	.195	0.	0.
240-020000	1.0000	0.	CTB	BBY	14.339	1.598E-02	0.	.270	.270	0.	0.
251-010000	1.0000	0.	BBY	BBY	21.964	3.196E-02	0.	0.	0.	0.	0.
253-010000	1.0000	0.	BBY	BBY	21.961	3.196E-02	0.	0.	0.	0.	0.
253-020000	1.0000	0.	BBY	BBY	20.677	2.842E-02	0.	0.	0.	0.	0.
283-000000	1.0000	0.	BBY	BBY	21.524	15.9	0.	0.	0.	0.	0.
311-010000	1.0000	0.	BBY	BBY	59.884	3.840E-02	3.847E-02	0.	0.	0.	0.
312-000000	.88661	.11339	BBY	BBY	2314.8	.158	.240	0.	0.	0.	0.
313-010000	.99988	1.17991E-04	BBY	BBY	76.245	3.833E-02	3.823E-02	0.	0.	0.	0.
321-010000	1.0000	4.59194E-06	BBY	BBY	12.025	.377	.218	.226	.580	0.	0.
321-020000	.99995	4.52294E-05	BBY	BBY	17.230	1.927E-02	3.081E-02	.325	.255	0.	0.
322-010000	1.0000	1.92243E-06	BBY	BBY	21.696	.740	.836	0.	0.	0.	0.
322-020000	1.0000	8.11089E-07	BBY	BBY	21.686	.727	.819	0.	0.	0.	0.
322-030000	1.0000	3.42944E-07	BBY	BBY	21.674	.823	.927	0.	0.	0.	0.
322-040000	1.0000	1.29444E-07	BBY	BBY	21.663	.849	.955	0.	0.	0.	0.
322-050000	1.0000	5.03869E-08	BBY	BBY	21.650	.778	.876	0.	0.	0.	0.
322-060000	1.0000	7.41068E-09	BBY	BBY	21.638	.778	.877	0.	0.	0.	0.
322-070000	1.0000	1.08211E-09	BBY	BBY	21.626	.778	.890	0.	0.	0.	0.
322-080000	1.0000	1.59886E-10	BBY	BBY	21.613	.778	.563	0.	0.	0.	0.
322-090000	1.0000	1.02955E-10	BBY	BBY	21.601	.778	0.	0.	0.	0.	0.
322-100000	1.0000	0.	BBY	BBY	21.589	.808	0.	0.	0.	0.	0.
323-000000	1.0000	0.	BBY	BBY	21.579	.837	0.	0.	0.	0.	0.
324-010000	1.0000	0.	BBY	BBY	21.573	1.20	0.	0.	0.	0.	0.
324-020000	1.0000	0.	BBY	BBY	21.569	1.56	0.	0.	0.	0.	0.
324-030000	1.0000	0.	BBY	BBY	21.565	1.56	0.	0.	0.	0.	0.
324-040000	1.0000	0.	BBY	BBY	21.561	1.24	0.	0.	0.	0.	0.
324-050000	1.0000	0.	BBY	BBY	21.558	.914	0.	0.	0.	0.	0.
324-060000	1.0000	0.	BBY	BBY	21.554	1.10	0.	0.	0.	0.	0.

325-010000	1.0000	0.	BBY	BBY	13.813	.650	0.	.580	.225	0.	0.
325-020000	1.0000	0.	BBY	BBY	12.517	1.316E-02	0.	.255	.325	0.	0.
331-010000	1.0000	0.	BBY	BBY	21.270	2.551E-02	0.	0.	0.	0.	0.
331-020000	1.0000	0.	BBY	BBY	21.522	3.326E-02	0.	0.	0.	0.	0.
331-030000	1.0000	0.	BBY	BBY	21.521	3.096E-02	0.	0.	0.	0.	0.
340-010000	1.0000	0.	BBY	CTB	13.528	1.074E-02	0.	.195	.195	0.	0.
340-020000	1.0000	0.	CTB	BBY	14.339	1.598E-02	0.	.270	.270	0.	0.
352-010000	1.0000	0.	BBY	BBY	21.962	3.199E-02	0.	0.	0.	0.	0.
352-020000	1.0000	0.	BBY	BBY	21.960	3.196E-02	0.	0.	0.	0.	0.
353-010000	1.0000	0.	BBY	BBY	20.676	2.842E-02	0.	0.	0.	0.	0.
400-010000	.90573	9.42665E-02	BBY	BBY	7287.0	.338	.356	0.	0.	0.	0.
400-020000	.91649	8.35106E-02	BBY	BBY	4785.3	.337	.393	0.	0.	0.	0.
400-030000	.94509	5.49054E-02	BBY	BBY	4057.7	.336	.391	0.	0.	0.	0.
405-000000	.99677	3.23391E-03	BBY	BBY	1607.7	.172	.184	0.	0.	.375	.433
410-010000	.99280	3.23391E-03	BBY	BBY	939.61	5.359E-03	4.975E-03	0.	0.	0.	0.
410-020000	.98580	7.20012E-03	BBY	BBY	1073.4	4.780E-03	2.780E-03	0.	0.	0.	0.
410-030000	.98834	1.41969E-02	BBY	BBY	1865.6	1.207E-02	9.988E-03	0.	0.	0.	0.
410-040000	.43568	1.16576E-02	BBY	SLG	3927.5	3.087E-02	8.184E-05	0.	0.	0.	0.
410-050000	2.70521E-03	.56432	SLG	ANM	36.894	3.227E-04	5.878E-05	0.	0.	0.	0.
410-060000	1.33796E-02	.99729	ANM	ANM	43.389	1.272E-03	2.927E-05	0.	0.	0.	0.
410-070000	1.99674E-02	.98662	ANM	ANM	204.21	1.178E-03	3.356E-05	0.	0.	0.	0.
410-080000	2.55764E-02	.98003	ANM	ANM	322.83	2.663E-04	1.073E-05	0.	0.	0.	0.
420-010000	3.20443E-02	.97442	ANM	ANM	598.22	3.097E-04	1.819E-05	0.	0.	0.	0.
430-010000	1.0000	0.	BBY	BBY	18.347	1.02	0.	0.	0.	0.	0.
435-000000	1.0000	0.	BBY	BBY	21.863	2.74	0.	0.	0.	166.	166.
440-010000	1.0000	0.	BBY	BBY	18.346	1.02	0.	0.	0.	0.	0.
445-000000	1.0000	0.	BBY	BBY	21.862	2.74	0.	0.	0.	166.	166.
450-010000	1.0000	0.	BBY	ANM	8620.9	.884	1.355E-09	1.00	1.00	0.	0.
489-000000	1.71968E-02	.98441	ANM	MST	2367.8	552.	.667	0.	0.	0.	0.

STR.NO.	SIDE	BDRY.VOL. NUMBER	SURFACE TEMP. (K)	HEAT TRF. RATE (WATT)	HEAT FLUX (WATT/M2)	CRITICAL HEAT FLUX (WATT/M2)	MODE	HEAT TRF. COEF. (WATT/M2-K)	INT. HEAT SOURCE (WATT)	NET HEAT LOSS (WATT)	VOL.AVE. TEMP. (K)
1211-001	LEFT	121-010000	570.47	215.82	23.243	0.	2	5992.6	0.	215.82	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
1220-001	LEFT	122-010000	570.41	-2.86398E+05	-1175.0	0.	2	37829.	0.	-5.0389	570.38
	RIGHT	0-000000	570.35	2.86393E+05	1040.6	0.	0	0.			
1220-002	LEFT	122-020000	570.40	-2.37097E+05	-1005.9	0.	2	37831.	0.	-4.3549	570.38
	RIGHT	0-000000	570.35	2.37093E+05	890.73	0.	0	0.			
1220-003	LEFT	122-030000	570.40	-2.01494E+05	-854.81	0.	2	37832.	0.	-3.7956	570.37
	RIGHT	0-000000	570.35	2.01490E+05	756.98	0.	0	0.			
1220-004	LEFT	122-040000	570.39	-2.07514E+05	-696.54	0.	2	37834.	0.	-3.9028	570.37
	RIGHT	0-000000	570.35	2.07510E+05	616.82	0.	0	0.			
1220-005	LEFT	122-050000	570.38	-1.41888E+05	-562.79	0.	2	37836.	0.	-18.051	570.36
	RIGHT	0-000000	570.35	1.41870E+05	498.33	0.	0	0.			
1220-006	LEFT	122-060000	570.37	-1.13557E+05	-450.42	0.	2	37838.	0.	-15.737	570.36
	RIGHT	0-000000	570.35	1.13541E+05	398.82	0.	0	0.			
1220-007	LEFT	122-070000	570.37	-88235.	-349.98	0.	2	37839.	0.	-13.632	570.36
	RIGHT	0-000000	570.35	88221.	309.88	0.	0	0.			
1220-008	LEFT	122-080000	570.36	-65602.	-260.21	0.	2	37841.	0.	-11.728	570.36
	RIGHT	0-000000	570.35	65590.	230.39	0.	0	0.			
1220-009	LEFT	122-090000	570.36	-45371.	-179.96	0.	2	37844.	0.	-10.023	570.35
	RIGHT	0-000000	570.35	45361.	159.33	0.	0	0.			
1220-010	LEFT	122-100000	570.36	-27287.	-108.23	0.	2	37846.	0.	-8.5176	570.35
	RIGHT	0-000000	570.35	27278.	95.816	0.	0	0.			
1220-011	LEFT	122-110000	570.35	-13148.	-48.482	0.	2	37848.	0.	-7.7114	570.35

	RIGHT	0-000000	570.35	13140.	42.909	0.	0	0.			
1231-001	LEFT	121-010000	570.45	-107.83	-92.955	0.	2	5992.6	0.	6.8916	570.41
	RIGHT	125-010000	570.37	114.72	98.896	0.	2	5997.0			
1240-001	LEFT	124-010000	570.35	-5212.4	-19.221	0.	2	37849.	0.	-6.5895	570.35
	RIGHT	0-000000	570.35	5205.9	17.000	0.	0	0.			
1240-002	LEFT	124-020000	570.35	-15384.	-30.510	0.	2	37850.	0.	-9.4994	570.35
	RIGHT	0-000000	570.35	15374.	27.001	0.	0	0.			
1240-003	LEFT	124-030000	570.35	-19817.	-39.301	0.	2	37851.	0.	-7.0119	570.35
	RIGHT	0-000000	570.35	19810.	34.791	0.	0	0.			
1240-004	LEFT	124-040000	570.35	-23399.	-46.406	0.	2	37853.	0.	-4.8551	570.35
	RIGHT	0-000000	570.35	23395.	41.087	0.	0	0.			
1240-005	LEFT	124-050000	570.35	-14202.	-44.176	0.	2	37854.	0.	-2.3083	570.35
	RIGHT	0-000000	570.35	14200.	39.114	0.	0	0.			
1240-006	LEFT	124-060000	570.35	-14148.	-48.007	0.	2	37854.	0.	-1.5336	570.35
	RIGHT	0-000000	570.35	14146.	42.509	0.	0	0.			
1240-007	LEFT	124-070000	570.35	-16465.	-55.869	0.	2	37855.	0.	-.86480	570.35
	RIGHT	0-000000	570.35	16464.	49.473	0.	0	0.			
1240-008	LEFT	124-070000	570.35	-7028.2	-55.869	0.	2	37855.	0.	-.36915	570.35
	RIGHT	0-000000	570.35	7027.8	49.473	0.	0	0.			
1251-001	LEFT	125-010000	570.36	80.351	8.6534	0.	2	5997.0	0.	80.351	570.36
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
2211-001	LEFT	221-010000	570.47	216.01	23.264	0.	2	5995.8	0.	216.01	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
2220-001	LEFT	222-010000	570.41	-2.86365E+05	-1174.9	0.	2	37850.	0.	-5.0370	570.38
	RIGHT	0-000000	570.35	2.86360E+05	1040.4	0.	0	0.			
2220-002	LEFT	222-020000	570.40	-2.37074E+05	-1005.8	0.	2	37851.	0.	-4.3528	570.38
	RIGHT	0-000000	570.35	2.37069E+05	890.65	0.	0	0.			
2220-003	LEFT	222-030000	570.40	-2.01477E+05	-854.74	0.	2	37853.	0.	-3.7934	570.37
	RIGHT	0-000000	570.35	2.01473E+05	756.91	0.	0	0.			
2220-004	LEFT	222-040000	570.39	-2.07501E+05	-696.50	0.	2	37854.	0.	-3.8998	570.37
	RIGHT	0-000000	570.35	2.07497E+05	616.78	0.	0	0.			
2220-005	LEFT	222-050000	570.38	-1.41881E+05	-562.76	0.	2	37856.	0.	-18.052	570.36
	RIGHT	0-000000	570.35	1.41863E+05	498.30	0.	0	0.			
2220-006	LEFT	222-060000	570.37	-1.13550E+05	-450.39	0.	2	37858.	0.	-15.739	570.36
	RIGHT	0-000000	570.35	1.13534E+05	398.79	0.	0	0.			
2220-007	LEFT	222-070000	570.37	-88227.	-349.95	0.	2	37860.	0.	-13.634	570.36
	RIGHT	0-000000	570.35	88213.	309.85	0.	0	0.			
2220-008	LEFT	222-080000	570.36	-65592.	-260.17	0.	2	37862.	0.	-11.729	570.36
	RIGHT	0-000000	570.35	65580.	230.35	0.	0	0.			
2220-009	LEFT	222-090000	570.36	-45358.	-179.91	0.	2	37864.	0.	-10.022	570.35
	RIGHT	0-000000	570.35	45348.	159.29	0.	0	0.			
2220-010	LEFT	222-100000	570.36	-27270.	-108.17	0.	2	37866.	0.	-8.5127	570.35
	RIGHT	0-000000	570.35	27262.	95.758	0.	0	0.			
2220-011	LEFT	222-110000	570.35	-13126.	-48.403	0.	2	37868.	0.	-7.6978	570.35
	RIGHT	0-000000	570.35	13119.	42.839	0.	0	0.			
2231-001	LEFT	221-010000	570.45	-107.83	-92.955	0.	2	5995.8	0.	6.8845	570.41
	RIGHT	225-010000	570.37	114.71	98.890	0.	2	6000.3			
2240-001	LEFT	224-010000	570.35	-5187.9	-19.130	0.	2	37870.	0.	-6.5685	570.35
	RIGHT	0-000000	570.35	5181.3	16.919	0.	0	0.			
2240-002	LEFT	224-020000	570.35	-15347.	-30.436	0.	2	37871.	0.	-9.4687	570.35
	RIGHT	0-000000	570.35	15337.	26.936	0.	0	0.			
2240-003	LEFT	224-030000	570.35	-19775.	-39.219	0.	2	37872.	0.	-7.0008	570.35
	RIGHT	0-000000	570.35	19768.	34.718	0.	0	0.			
2240-004	LEFT	224-040000	570.35	-23355.	-46.318	0.	2	37873.	0.	-4.8541	570.35
	RIGHT	0-000000	570.35	23350.	41.009	0.	0	0.			
2240-005	LEFT	224-050000	570.35	-14166.	-44.063	0.	2	37874.	0.	-2.3093	570.35
	RIGHT	0-000000	570.35	14163.	39.014	0.	0	0.			

2240-006	LEFT	224-060000	570.35	-14114.	-47.893	0.	2	37875.	0.	-1.5343	570.35
	RIGHT	0-000000	570.35	14113.	42.408	0.	0	0.			
2240-007	LEFT	224-070000	570.35	-16435.	-55.769	0.	2	37876.	0.	-.86439	570.35
	RIGHT	0-000000	570.35	16434.	49.385	0.	0	0.			
2240-008	LEFT	224-070000	570.35	-7015.6	-55.769	0.	2	37876.	0.	-.36898	570.35
	RIGHT	0-000000	570.35	7015.3	49.385	0.	0	0.			
2251-001	LEFT	225-010000	570.36	80.399	8.6586	0.	2	6000.3	0.	80.399	570.36
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
3211-001	LEFT	321-010000	570.63	-1468.9	-158.19	0.	2	5995.2	0.	-1468.9	570.52
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
3220-001	LEFT	322-010000	570.53	-8.08005E+05	-3315.1	0.	2	37845.	0.	-1.8122	570.44
	RIGHT	0-000000	570.35	8.08003E+05	2935.7	0.	0	0.			
3220-002	LEFT	322-020000	570.51	-6.91096E+05	-2931.9	0.	2	37845.	0.	-5.6391	570.43
	RIGHT	0-000000	570.35	6.91091E+05	2596.4	0.	0	0.			
3220-003	LEFT	322-030000	570.49	-6.10049E+05	-2588.1	0.	2	37846.	0.	-8.1024	570.42
	RIGHT	0-000000	570.35	6.10041E+05	2291.9	0.	0	0.			
3220-004	LEFT	322-040000	570.47	-6.60219E+05	-2216.1	0.	2	37846.	0.	-11.910	570.41
	RIGHT	0-000000	570.35	6.60207E+05	1962.4	0.	0	0.			
3220-005	LEFT	322-050000	570.45	-4.84230E+05	-1920.7	0.	2	37847.	0.	-25.728	570.40
	RIGHT	0-000000	570.35	4.84204E+05	1700.8	0.	0	0.			
3220-006	LEFT	322-060000	570.44	-4.19483E+05	-1663.9	0.	2	37848.	0.	-23.531	570.39
	RIGHT	0-000000	570.35	4.19460E+05	1473.4	0.	0	0.			
3220-007	LEFT	322-070000	570.43	-3.61620E+05	-1434.3	0.	2	37850.	0.	-21.143	570.39
	RIGHT	0-000000	570.35	3.61599E+05	1270.1	0.	0	0.			
3220-008	LEFT	322-080000	570.42	-3.09909E+05	-1229.2	0.	2	37851.	0.	-18.773	570.38
	RIGHT	0-000000	570.35	3.09890E+05	1088.5	0.	0	0.			
3220-009	LEFT	322-090000	570.41	-2.63696E+05	-1045.9	0.	2	37853.	0.	-16.553	570.38
	RIGHT	0-000000	570.35	2.63679E+05	926.19	0.	0	0.			
3220-010	LEFT	322-100000	570.40	-2.22394E+05	-882.11	0.	2	37854.	0.	-14.505	570.37
	RIGHT	0-000000	570.35	2.22380E+05	781.12	0.	0	0.			
3220-011	LEFT	322-110000	570.39	-1.99206E+05	-734.56	0.	2	37856.	0.	-13.586	570.37
	RIGHT	0-000000	570.35	1.99192E+05	650.46	0.	0	0.			
3231-001	LEFT	321-010000	570.61	-323.53	-278.91	0.	2	5995.2	0.	-71.648	570.50
	RIGHT	325-010000	570.41	251.89	217.14	0.	2	5997.8			
3240-001	LEFT	324-010000	570.38	-1.70168E+05	-627.49	0.	2	37857.	0.	-11.942	570.37
	RIGHT	0-000000	570.35	1.70156E+05	555.64	0.	0	0.			
3240-002	LEFT	324-020000	570.38	-2.63180E+05	-521.94	0.	2	37858.	0.	-17.873	570.36
	RIGHT	0-000000	570.35	2.63162E+05	462.18	0.	0	0.			
3240-003	LEFT	324-030000	570.37	-2.20014E+05	-436.34	0.	2	37858.	0.	-14.016	570.36
	RIGHT	0-000000	570.35	2.20000E+05	386.38	0.	0	0.			
3240-004	LEFT	324-040000	570.37	-1.85142E+05	-367.18	0.	2	37859.	0.	-10.697	570.36
	RIGHT	0-000000	570.35	1.85131E+05	325.14	0.	0	0.			
3240-005	LEFT	324-050000	570.37	-1.03751E+05	-322.72	0.	2	37859.	0.	-5.6112	570.36
	RIGHT	0-000000	570.35	1.03745E+05	285.77	0.	0	0.			
3240-006	LEFT	324-060000	570.37	-86220.	-292.57	0.	2	37860.	0.	-4.2447	570.36
	RIGHT	0-000000	570.35	86215.	259.08	0.	0	0.			
3240-007	LEFT	324-070000	570.36	-76613.	-259.97	0.	2	37861.	0.	-3.1885	570.36
	RIGHT	0-000000	570.35	76610.	230.21	0.	0	0.			
3240-008	LEFT	324-070000	570.36	-32704.	-259.97	0.	2	37861.	0.	-1.3611	570.36
	RIGHT	0-000000	570.35	32702.	230.21	0.	0	0.			
3251-001	LEFT	325-010000	570.37	-69.333	-7.4723	0.	2	5997.8	0.	-69.383	570.37
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
4000-001	LEFT	400-010000	615.83	11681.	2326.5	2.55355E+05	4	8537.4	0.	16308.	616.11
	RIGHT	940-010000	616.07	4627.5	735.24	0.	0	2.5100			
4000-002	LEFT	400-020000	615.85	15796.	3146.1	2.60591E+05	4	9758.8	0.	20430.	616.37
	RIGHT	940-010000	616.45	4633.4	736.19	0.	0	2.5100			
4000-003	LEFT	400-030000	615.82	15966.	3179.9	2.65719E+05	4	9857.6	0.	20599.	616.35

	RIGHT	940-010000	616.43	4633.1	736.13	0.	0	2.5100				
4000-004	LEFT	400-040000	615.78	16035.	3193.6	2.71116E+05	4	10131.	0.	20667.	616.32	
	RIGHT	940-010000	616.40	4632.6	736.06	0.	0	2.5100				
4101-001	LEFT	410-010000	615.80	5472.8	3735.6	2.90934E+06	4	9010.4	0.	6697.7	615.74	
	RIGHT	940-010000	615.03	1224.9	732.61	0.	0	2.5100				
4101-002	LEFT	410-020000	615.79	10986.	3748.8	2.89899E+06	4	9016.5	0.	13436.	615.74	
	RIGHT	940-010000	615.03	2450.2	732.61	0.	0	2.5100				
4102-001	LEFT	410-030000	615.77	17638.	3769.7	2.87952E+06	4	9009.3	0.	21438.	615.79	
	RIGHT	940-010000	615.10	3800.0	732.79	0.	0	2.5100				
4102-002	LEFT	410-040000	615.74	37482.	3830.3	2.89008E+06	4	9080.7	0.	45429.	615.79	
	RIGHT	940-010000	615.10	7947.6	732.80	0.	0	2.5100				
4102-003	LEFT	410-050000	616.16	83996.	4188.8	2.92721E+06	4	4708.7	0.	1.00329E+05	616.53	
	RIGHT	940-010000	615.95	16333.	734.93	0.	0	2.5100				
4102-004	LEFT	410-060000	616.36	73869.	3683.8	16477.	3	3260.9	0.	90202.	616.56	
	RIGHT	940-010000	615.95	16333.	734.92	0.	0	2.5100				
4102-005	LEFT	410-070000	616.33	73634.	3672.0	53175.	3	3182.7	0.	89967.	616.56	
	RIGHT	940-010000	615.95	16333.	734.92	0.	0	2.5100				
4102-006	LEFT	410-080000	616.05	19456.	4158.1	59212.	3	4337.1	0.	23267.	616.52	
	RIGHT	940-010000	615.98	3811.4	734.99	0.	0	2.5100				
4103-001	LEFT	410-090000	615.90	7968.9	4039.0	76883.	3	3279.8	0.	9606.3	616.53	
	RIGHT	940-010000	616.11	1637.3	735.33	0.	0	2.5100				
4103-002	LEFT	420-010000	615.66	5649.8	4083.2	97608.	3	2270.1	0.	6798.1	616.46	
	RIGHT	940-010000	616.11	1148.3	735.34	0.	0	2.5100				
4113-001	LEFT	0-000000	619.09	0.	0.	0.	0	0.	1.38750E+05	9789.0	617.23	
	RIGHT	410-040000	616.13	1.48539E+05	13814.	2.89008E+06	4	17103.				
4113-002	LEFT	0-000000	619.91	0.	0.	0.	0	0.	46250.	3569.9	618.05	
	RIGHT	410-050000	616.94	49820.	13909.	3.11511E+06	4	8333.2				

STR.NO.	MESH POINT TEMPERATURES (K)				
1211-001	570.47	570.48	570.49	570.49	570.49
1220-001	570.41	570.38	570.35		
1220-002	570.40	570.38	570.35		
1220-003	570.40	570.37	570.35		
1220-004	570.39	570.37	570.35		
1220-005	570.38	570.36	570.35		
1220-006	570.37	570.36	570.35		
1220-007	570.37	570.36	570.35		
1220-008	570.36	570.36	570.35		
1220-009	570.36	570.35	570.35		
1220-010	570.36	570.35	570.35		
1220-011	570.35	570.35	570.35		
1231-001	570.45	570.42	570.40	570.37	
1240-001	570.35	570.35	570.35		
1240-002	570.35	570.35	570.35		
1240-003	570.35	570.35	570.35		
1240-004	570.35	570.35	570.35		
1240-005	570.35	570.35	570.35		
1240-006	570.35	570.35	570.35		
1240-007	570.35	570.35	570.35		
1240-008	570.35	570.35	570.35		
1251-001	570.36	570.36	570.36	570.37	570.37
2211-001	570.47	570.48	570.49	570.49	570.49
2220-001	570.41	570.38	570.35		
2220-002	570.40	570.38	570.35		
2220-003	570.40	570.37	570.35		
2220-004	570.39	570.37	570.35		
2220-005	570.38	570.36	570.35		

2220-006	570.37	570.36	570.35		
2220-007	570.37	570.36	570.35		
2220-008	570.36	570.36	570.35		
2220-009	570.36	570.35	570.35		
2220-010	570.36	570.35	570.35		
2220-011	570.35	570.35	570.35		
2231-001	570.46	570.42	570.40	570.37	
2240-001	570.35	570.35	570.35		
2240-002	570.35	570.35	570.35		
2240-003	570.35	570.35	570.35		
2240-004	570.35	570.35	570.35		
2240-005	570.35	570.35	570.35		
2240-006	570.35	570.35	570.35		
2240-007	570.35	570.35	570.35		
2240-008	570.35	570.35	570.35		
2251-001	570.36	570.36	570.36	570.37	570.37
3211-001	570.63	570.64	570.50	570.50	570.49
3220-001	570.53	570.44	570.35		
3220-002	570.51	570.43	570.35		
3220-003	570.49	570.42	570.35		
3220-004	570.47	570.41	570.35		
3220-005	570.45	570.40	570.35		
3220-006	570.44	570.39	570.35		
3220-007	570.43	570.39	570.35		
3220-008	570.42	570.38	570.35		
3220-009	570.41	570.38	570.35		
3220-010	570.40	570.37	570.35		
3220-011	570.39	570.37	570.35		
3231-001	570.61	570.54	570.47	570.41	
3240-001	570.38	570.37	570.35		
3240-002	570.38	570.36	570.35		
3240-003	570.37	570.36	570.35		
3240-004	570.37	570.36	570.35		
3240-005	570.37	570.36	570.35		
3240-006	570.37	570.36	570.35		
3240-007	570.36	570.36	570.35		
3240-008	570.36	570.36	570.35		
3251-001	570.37	570.37	570.37	570.37	570.37
4000-001	615.83	616.17	616.21	616.07	
4000-002	615.85	616.39	616.55	616.45	
4000-003	615.82	616.36	616.52	616.43	
4000-004	615.78	616.33	616.49	616.40	
4101-001	615.80	616.20	615.65	615.03	
4101-002	615.79	616.20	615.65	615.03	
4102-001	615.77	616.23	615.71	615.10	
4102-002	615.74	616.25	615.72	615.10	
4102-003	616.16	616.98	616.55	615.95	
4102-004	616.36	617.01	616.55	615.95	
4102-005	616.33	617.00	616.55	615.95	
4102-006	616.05	616.97	616.57	615.98	
4103-001	615.90	616.92	616.65	616.11	
4103-002	615.66	616.85	616.64	616.11	
4113-001	619.09	617.48	616.13		
4113-002	619.91	618.30	616.94		

CONTROL VARIABLE EDIT

[illegible] DIV 26377.2 3. ENTHA180 SUM 1.2688375+06

3	CVENERGY	MULT	7.651201E+06	4	P/RHO231	DIV	20223.8
5	ENTHA231	SUM	1.323097E+06	6	LETDENER	MULT	7.978076E+06
7	PRZRHEAT	SUM	534511.	8	PRZVAPH	SUM	11513.2
9	BALANCE	SUM	4.392608E+06	10	CALC-P	MULT	1.498509E+07
11	MEAS-P	FUNCTION	1.498800E+07	12	MEAS-L	FUNCTION	28.4000
13	TEMPF420	MULT	589.607	14	TEMPG420	MULT	615.148
15	SAT420	MULT	615.201	16	SPRYTEMP	MULT	570.432
20	P/RHO450	DIV	20542.7	21	ENTHA450	SUM	1.323474E+06
22	SPRENER	MULT	2.734795E+07	23	P/RHO400	DIV	24995.4
24	ENTHA410	SUM	1.613420E+06	25	SURGENER	MULT	2.642269E+07
26	SPRBALAN	SUM	1.459774E+06	27	HEATERW	SUM	198297.
28	VAPGEN	SUM	-3.70591	31	POW	SUM	0.
32	TURBPOW	SUM	0.	100	TAVG(R)	SUM	570.519
101	LAG1	LAG	570.519	102	S1	SUM	-14.6313
103	LL1	LEAD-LAG	-.581428	104	S2	SUM	-6582.34
105	???	SUM	-241511.	106	DELTA-T	SUM	-.125948
107	LAG2	LAG	-.125962	108	LL2	LEAD-LAG	-.125645
109	LL3	LEAD-LAG	570.519	110	LAG3	LAG	570.518
111	S4	SUM	0.	112	S5	SUM	-3.318368E-02
113	S6	SUM	41.1841	134	LEVREG	PROP-INT	4.38828
135	LIMIT	MULT	9.50000	136	DELTAF	SUM	-3.560500E-03
137	D(AREA)	PROP-INT	1.229140E-03	139	VALVAREA	SUM	9.837220E-02
140	AREA**2	MULT	9.677090E-03	141	K(VALV)	DIV	25027.8
142	K(T+DT)	SUM	25436.4	143	DELTA-K	SUM	6.25316
144	K(T)	MULT	25436.4	145	DELTA-P	SUM	-855.434
146	P(T)	MULT	1.537617E+07	153	KOOO2	MULT	885834.
154	DUM	SUM	929809.	155	A(T)	DIV	1.075490E-06
156	DUM	MULT	130.623	157	DUM	MULT	-41894.4
158	A	SUM	25305.8	159	DUM	MULT	289867.
160	DUM	MULT	5.12556	170	B	SUM	41910.9
171	DUM	MULT	4.943094E-02	172	DUM	MULT	-814.977
173	DUM	MULT	812.052	174	C	SUM	-2.97442
175	B**2	MULT	1.756523E+09	176	AC4	MULT	-301081.
177	B2-4AC	SUM	1.756824E+09	178	SQRT	STDFNCTN	41914.5
179	DUM	SUM	1.79588	180	DELTA-Q	DIV	7.096714E-05
181	Q(T+DT)	SUM	11.3958	182	DUM	STDFNCTN	.659961
183	QO(T+DT)	MULT	7.52079	184	QTOT	SUM	18.9166
185	P(PUMP)	FUNCTION	2.023611E+07	186	DFDQ	FUNCTION	-43979.9
200	TAVG(G)	SUM	570.519	201	LAG1	LAG	570.519
202	S1	SUM	-14.6312	203	LL1	LEAD-LAG	-.581424
204	S2	SUM	-6582.34	205	???	SUM	-241511.
206	DELTA-T	SUM	-.126249	207	LAG2	LAG	-.126263
208	LL2	LEAD-LAG	-.125943	209	LL3	LEAD-LAG	570.519
210	LAG3	LAG	570.519	211	S4	SUM	0.
212	S5	SUM	-3.318348E-02	213	S6	SUM	41.1841
281	LET1	SUM	2.197358E+07	282	LET2	MULT	1.606615E+10
283	LET3	STDFNCTN	6.02961	284	LETDOWN	MULT	21.8374
300	TAVG(B)	SUM	570.527	301	LAG1	LAG	570.527
302	S1	SUM	-14.6229	303	LL1	LEAD-LAG	-.581087
304	S2	SUM	-6582.34	305	???	SUM	-241511.
306	DELTA-T	SUM	-.142075	307	LAG2	LAG	-.142078
308	LL2	LEAD-LAG	-.142637	309	LL3	LEAD-LAG	570.527
310	LAG3	LAG	570.527	311	S4	SUM	0.
312	S5	SUM	-3.316474E-02	313	S6	SUM	41.1834
400	COLLEVEL	SUM	23.6881	402	DPLEVEL	SUM	27.6703
404	PRZMASS	SUM	11560.5	410	T-AUCT-H	STDFNCTN	570.527
411	L-REF	FUNCTION	25.3916	412	DELT-LEV	SUM	2.27873

413	DELTA-P	SUM	-523977.	414	DP-CORR	PROP-INT	-601138.
415	POW-HE11	TRIPUNIT	0.	416	POW-BKR	TRIPUNIT	0.
417	POWVAR	FUNCTION	308000.	418	TOTPOW	FUNCTION	185000.
435	SPRAYVAL	FUNCTION	1.00000	445	SPRAYVAL	FUNCTION	1.00000
606	POWCOLDL	SUM	14202.1	607	POWPREH	SUM	37640.3
608	POWHOTLG	SUM	932502.	609	POWUBEND	SUM	558900.
610	SGPOWER	SUM	1.542942E+06	706	POWCOLDL	SUM	14165.7
707	POWPREH	SUM	37564.9	708	POWHOTLG	SUM	932416.
709	POWUBEND	SUM	558669.	710	SGPOWER	SUM	1.542613E+06
806	POWCOLDL	SUM	103751.	807	POWPREH	SUM	195536.
808	POWHOTLG	SUM	2.769369E+06	809	POWUBEND	SUM	3.099042E+06
810	SGPOWER	SUM	6.169308E+06	900	MG1	MULT	.188596
901	MG2	MULT	.839691	902	MG3	MULT	3.40197
903	MG4	MULT	5.83831	904	MG5	MULT	579.651
905	MG6	MULT	1023.26	906	MG7	MULT	1011.77
907	MG8	MULT	234.435	908	MG9	MULT	76.3321
909	MG10	MULT	53.2007	911	PRZMASW	SUM	2988.92
912	PRZMASL	SUM	8571.62	920	SURGHEAT	SUM	59478.0

---RESTART NO. 900 WRITTEN, BLOCK NO. 4---

NUMBER OF ELEMENTS IN SPARSE MATRIX 1: ORIGINAL = 410, FACTORED = 665 ROUNDOFF ERROR = 1.600000E-11 NCOUNT = 901

TIME (SEC)	P 420010000 (PA)	P 410090000 (PA)	P 410080000 (PA)	P 151010000 (PA)	P 351010000 (PA)	P 231010000 (PA)	P 430010000 (PA)	P 440010000 (PA)	P 450010000 (PA)
50.0000	1.53375E+07	1.53378E+07	1.53384E+07	1.57332E+07	1.57331E+07	1.51402E+07	1.57975E+07	1.57974E+07	1.53772E+07
51.0000	1.53278E+07	1.53282E+07	1.53288E+07	1.57235E+07	1.57234E+07	1.51305E+07	1.57878E+07	1.57877E+07	1.53676E+07
52.0000	1.53184E+07	1.53188E+07	1.53194E+07	1.57140E+07	1.57139E+07	1.51211E+07	1.57783E+07	1.57783E+07	1.53582E+07
53.0000	1.53092E+07	1.53096E+07	1.53102E+07	1.57048E+07	1.57047E+07	1.51119E+07	1.57691E+07	1.57691E+07	1.53490E+07
54.0000	1.53002E+07	1.53006E+07	1.53012E+07	1.56958E+07	1.56957E+07	1.51029E+07	1.57601E+07	1.57600E+07	1.53400E+07
55.0000	1.52913E+07	1.52917E+07	1.52922E+07	1.56868E+07	1.56867E+07	1.50939E+07	1.57511E+07	1.57510E+07	1.53310E+07
56.0000	1.52824E+07	1.52827E+07	1.52833E+07	1.56778E+07	1.56777E+07	1.50849E+07	1.57421E+07	1.57420E+07	1.53221E+07
57.0000	1.52734E+07	1.52738E+07	1.52744E+07	1.56688E+07	1.56687E+07	1.50759E+07	1.57332E+07	1.57331E+07	1.53132E+07
58.0000	1.52646E+07	1.52649E+07	1.52654E+07	1.56599E+07	1.56598E+07	1.50670E+07	1.57242E+07	1.57241E+07	1.53042E+07
59.0000	1.52556E+07	1.52560E+07	1.52566E+07	1.56509E+07	1.56508E+07	1.50581E+07	1.57153E+07	1.57152E+07	1.52953E+07
60.0000	1.52467E+07	1.52471E+07	1.52477E+07	1.56420E+07	1.56419E+07	1.50491E+07	1.57063E+07	1.57062E+07	1.52864E+07
61.0000	1.52377E+07	1.52381E+07	1.52387E+07	1.56330E+07	1.56328E+07	1.50401E+07	1.56973E+07	1.56972E+07	1.52775E+07
62.0000	1.52288E+07	1.52291E+07	1.52297E+07	1.56240E+07	1.56238E+07	1.50311E+07	1.56883E+07	1.56882E+07	1.52685E+07
63.0000	1.52198E+07	1.52202E+07	1.52208E+07	1.56150E+07	1.56149E+07	1.50222E+07	1.56793E+07	1.56792E+07	1.52596E+07
64.0000	1.52110E+07	1.52113E+07	1.52119E+07	1.56061E+07	1.56059E+07	1.50133E+07	1.56704E+07	1.56703E+07	1.52507E+07
65.0000	1.52021E+07	1.52025E+07	1.52030E+07	1.55972E+07	1.55970E+07	1.50044E+07	1.56615E+07	1.56614E+07	1.52418E+07
66.0000	1.51933E+07	1.51936E+07	1.51942E+07	1.55883E+07	1.55881E+07	1.49955E+07	1.56526E+07	1.56525E+07	1.52330E+07
67.0000	1.51844E+07	1.51848E+07	1.51854E+07	1.55794E+07	1.55793E+07	1.49866E+07	1.56437E+07	1.56436E+07	1.52242E+07
68.0000	1.51756E+07	1.51760E+07	1.51766E+07	1.55705E+07	1.55704E+07	1.49778E+07	1.56348E+07	1.56348E+07	1.52153E+07
69.0000	1.51668E+07	1.51672E+07	1.51678E+07	1.55617E+07	1.55616E+07	1.49690E+07	1.56260E+07	1.56259E+07	1.52065E+07
70.0000	1.51580E+07	1.51584E+07	1.51590E+07	1.55528E+07	1.55527E+07	1.49601E+07	1.56172E+07	1.56171E+07	1.51977E+07
71.0000	1.51492E+07	1.51496E+07	1.51502E+07	1.55440E+07	1.55439E+07	1.49513E+07	1.56083E+07	1.56082E+07	1.51890E+07
72.0000	1.51405E+07	1.51408E+07	1.51414E+07	1.55352E+07	1.55351E+07	1.49425E+07	1.55995E+07	1.55994E+07	1.51802E+07
73.0000	1.51317E+07	1.51321E+07	1.51327E+07	1.55264E+07	1.55263E+07	1.49337E+07	1.55907E+07	1.55906E+07	1.51714E+07
74.0000	1.51230E+07	1.51233E+07	1.51239E+07	1.55176E+07	1.55175E+07	1.49250E+07	1.55819E+07	1.55818E+07	1.51627E+07
75.0000	1.51142E+07	1.51146E+07	1.51152E+07	1.55088E+07	1.55087E+07	1.49162E+07	1.55732E+07	1.55731E+07	1.51539E+07
76.0000	1.51055E+07	1.51059E+07	1.51064E+07	1.55001E+07	1.55000E+07	1.49075E+07	1.55644E+07	1.55643E+07	1.51452E+07
77.0000	1.50968E+07	1.50972E+07	1.50977E+07	1.54913E+07	1.54912E+07	1.48987E+07	1.55556E+07	1.55556E+07	1.51365E+07
78.0000	1.50881E+07	1.50885E+07	1.50890E+07	1.54826E+07	1.54825E+07	1.48900E+07	1.55469E+07	1.55468E+07	1.51278E+07
79.0000	1.50794E+07	1.50798E+07	1.50804E+07	1.54739E+07	1.54738E+07	1.48813E+07	1.55382E+07	1.55381E+07	1.51191E+07
80.0000	1.50708E+07	1.50711E+07	1.50717E+07	1.54652E+07	1.54651E+07	1.48726E+07	1.55295E+07	1.55294E+07	1.51105E+07
81.0000	1.50621E+07	1.50625E+07	1.50631E+07	1.54565E+07	1.54564E+07	1.48640E+07	1.55208E+07	1.55207E+07	1.51018E+07
82.0000	1.50535E+07	1.50539E+07	1.50544E+07	1.54479E+07	1.54477E+07	1.48553E+07	1.55122E+07	1.55121E+07	1.50932E+07
83.0000	1.50449E+07	1.50453E+07	1.50458E+07	1.54392E+07	1.54391E+07	1.48467E+07	1.55035E+07	1.55034E+07	1.50846E+07
84.0000	1.50363E+07	1.50367E+07	1.50372E+07	1.54306E+07	1.54305E+07	1.48381E+07	1.54949E+07	1.54948E+07	1.50760E+07
85.0000	1.50277E+07	1.50281E+07	1.50287E+07	1.54220E+07	1.54219E+07	1.48295E+07	1.54863E+07	1.54862E+07	1.50674E+07
86.0000	1.50192E+07	1.50195E+07	1.50201E+07	1.54134E+07	1.54133E+07	1.48209E+07	1.54777E+07	1.54776E+07	1.50589E+07
87.0000	1.50106E+07	1.50110E+07	1.50116E+07	1.54049E+07	1.54047E+07	1.48124E+07	1.54692E+07	1.54691E+07	1.50504E+07
88.0000	1.50021E+07	1.50025E+07	1.50031E+07	1.53963E+07	1.53962E+07	1.48038E+07	1.54606E+07	1.54605E+07	1.50418E+07
89.0000	1.49936E+07	1.49940E+07	1.49945E+07	1.53878E+07	1.53876E+07	1.47953E+07	1.54521E+07	1.54520E+07	1.50333E+07
90.0000	1.49851E+07	1.49854E+07	1.49860E+07	1.53792E+07	1.53791E+07	1.47868E+07	1.54435E+07	1.54434E+07	1.50248E+07
91.0000	1.49765E+07	1.49769E+07	1.49775E+07	1.53707E+07	1.53705E+07	1.47782E+07	1.54350E+07	1.54349E+07	1.50162E+07
92.0000	1.49680E+07	1.49683E+07	1.49689E+07	1.53621E+07	1.53619E+07	1.47696E+07	1.54263E+07	1.54263E+07	1.50077E+07
93.0000	1.49594E+07	1.49597E+07	1.49603E+07	1.53534E+07	1.53533E+07	1.47610E+07	1.54177E+07	1.54176E+07	1.49991E+07
94.0000	1.49508E+07	1.49511E+07	1.49517E+07	1.53448E+07	1.53447E+07	1.47524E+07	1.54091E+07	1.54090E+07	1.49905E+07
95.0000	1.49422E+07	1.49426E+07	1.49431E+07	1.53362E+07	1.53361E+07	1.47439E+07	1.54005E+07	1.54004E+07	1.49819E+07
96.0000	1.49337E+07	1.49340E+07	1.49346E+07	1.53277E+07	1.53275E+07	1.47353E+07	1.53919E+07	1.53919E+07	1.49734E+07
97.0000	1.49251E+07	1.49254E+07	1.49260E+07	1.53191E+07	1.53189E+07	1.47267E+07	1.53833E+07	1.53832E+07	1.49648E+07
98.0000	1.49164E+07	1.49168E+07	1.49174E+07	1.53104E+07	1.53103E+07	1.47181E+07	1.53747E+07	1.53746E+07	1.49561E+07
99.0000	1.49078E+07	1.49082E+07	1.49087E+07	1.53018E+07	1.53016E+07	1.47094E+07	1.53661E+07	1.53660E+07	1.49475E+07

TIME (SEC)	MFLOWJ 430010000 (KG/SEC)	MFLOWJ 440010000 (KG/SEC)	MFLOWJ 435000000 (KG/SEC)	MFLOWJ 445000000 (KG/SEC)	MFLOWJ 450010000 (KG/SEC)	MFLOWJ 283000000 (KG/SEC)	MFLOWJ 181000000 (KG/SEC)	MFLOWJ 153010000 (KG/SEC)	MFLOWJ 253010000 (KG/SEC)
50.0000	10.358	10.357	10.359	10.358	20.718	6.1289	6.1291	4752.5	4753.9
51.0000	10.357	10.356	10.358	10.357	20.716	6.1262	6.1264	4752.3	4753.7
52.0000	10.356	10.355	10.357	10.356	20.714	6.1236	6.1238	4752.2	4753.6
53.0000	10.356	10.354	10.357	10.355	20.713	6.1210	6.1212	4752.1	4753.5
54.0000	10.355	10.353	10.356	10.354	20.711	6.1184	6.1187	4752.0	4753.4
55.0000	10.354	10.353	10.355	10.354	20.710	6.1159	6.1162	4751.9	4753.3
56.0000	10.354	10.352	10.355	10.353	20.709	6.1134	6.1137	4751.8	4753.2
57.0000	10.353	10.351	10.354	10.352	20.707	6.1109	6.1112	4751.7	4753.1
58.0000	10.353	10.351	10.354	10.352	20.707	6.1085	6.1087	4751.6	4753.0
59.0000	10.352	10.350	10.353	10.351	20.705	6.1060	6.1062	4751.4	4752.8
60.0000	10.351	10.349	10.352	10.350	20.703	6.1035	6.1037	4751.3	4752.7
61.0000	10.350	10.349	10.351	10.350	20.702	6.1010	6.1012	4751.2	4752.6
62.0000	10.349	10.348	10.350	10.349	20.700	6.0984	6.0987	4751.1	4752.5
63.0000	10.348	10.347	10.349	10.348	20.698	6.0959	6.0962	4751.0	4752.4
64.0000	10.348	10.346	10.349	10.347	20.697	6.0936	6.0937	4750.9	4752.3
65.0000	10.347	10.345	10.348	10.346	20.695	6.0910	6.0912	4750.8	4752.2
66.0000	10.346	10.345	10.347	10.346	20.694	6.0885	6.0887	4750.7	4752.1
67.0000	10.345	10.344	10.346	10.345	20.692	6.0860	6.0863	4750.6	4752.0
68.0000	10.345	10.343	10.346	10.344	20.691	6.0835	6.0838	4750.5	4751.9
69.0000	10.344	10.342	10.345	10.343	20.689	6.0811	6.0813	4750.3	4751.8
70.0000	10.343	10.342	10.344	10.343	20.688	6.0786	6.0788	4750.2	4751.7
71.0000	10.343	10.341	10.344	10.342	20.686	6.0761	6.0764	4750.1	4751.6
72.0000	10.342	10.340	10.343	10.341	20.685	6.0736	6.0739	4750.0	4751.5
73.0000	10.341	10.340	10.342	10.341	20.684	6.0712	6.0714	4749.9	4751.4
74.0000	10.340	10.339	10.341	10.340	20.682	6.0687	6.0690	4749.8	4751.3
75.0000	10.340	10.338	10.341	10.339	20.681	6.0663	6.0665	4749.7	4751.1
76.0000	10.339	10.338	10.340	10.339	20.679	6.0638	6.0641	4749.6	4751.0
77.0000	10.338	10.337	10.339	10.338	20.678	6.0614	6.0616	4749.5	4750.9
78.0000	10.338	10.336	10.339	10.337	20.677	6.0589	6.0592	4749.4	4750.8
79.0000	10.337	10.336	10.338	10.337	20.676	6.0565	6.0567	4749.3	4750.7
80.0000	10.337	10.335	10.338	10.336	20.674	6.0540	6.0543	4749.2	4750.6
81.0000	10.336	10.334	10.337	10.335	20.673	6.0516	6.0518	4749.1	4750.5
82.0000	10.335	10.334	10.336	10.335	20.672	6.0492	6.0494	4748.9	4750.4
83.0000	10.335	10.333	10.336	10.334	20.671	6.0467	6.0470	4748.8	4750.3
84.0000	10.334	10.333	10.335	10.334	20.670	6.0443	6.0446	4748.7	4750.2
85.0000	10.334	10.332	10.335	10.333	20.669	6.0419	6.0421	4748.6	4750.1
86.0000	10.333	10.332	10.334	10.333	20.668	6.0395	6.0397	4748.5	4750.0
87.0000	10.333	10.331	10.334	10.332	20.666	6.0371	6.0373	4748.4	4749.9
88.0000	10.332	10.331	10.333	10.332	20.665	6.0347	6.0349	4748.3	4749.8
89.0000	10.332	10.330	10.333	10.331	20.665	6.0323	6.0325	4748.2	4749.7
90.0000	10.331	10.330	10.332	10.331	20.664	6.0298	6.0301	4748.1	4749.6
91.0000	10.331	10.329	10.332	10.330	20.663	6.0274	6.0277	4748.0	4749.5
92.0000	10.330	10.329	10.331	10.330	20.662	6.0250	6.0253	4747.9	4749.4
93.0000	10.330	10.328	10.331	10.329	20.661	6.0226	6.0228	4747.8	4749.3
94.0000	10.330	10.328	10.330	10.329	20.660	6.0202	6.0204	4747.7	4749.2
95.0000	10.329	10.328	10.330	10.329	20.659	6.0177	6.0180	4747.6	4749.1
96.0000	10.329	10.327	10.330	10.328	20.659	6.0153	6.0156	4747.5	4749.0
97.0000	10.328	10.327	10.329	10.328	20.658	6.0129	6.0131	4747.4	4748.9
98.0000	10.328	10.326	10.329	10.327	20.657	6.0104	6.0107	4747.3	4748.8
99.0000	10.328	10.326	10.329	10.327	20.657	6.0080	6.0082	4747.2	4748.7

TIME (SEC)	MFLOWJ 353010000 (KG/SEC)	MFLOWJ 312000000 (KG/SEC)	VOIDG 410010000	VOIDG 410020000	VOIDG 410030000	VOIDG 410040000	VOIDG 410080000	VOIDG 410090000	VOIDG 420010000
50.0000	4747.1	16.197	2.45040E-03	5.03081E-03	9.18117E-03	8.43091E-03	.98182	.97538	.96809
51.0000	4746.9	16.248	2.56749E-03	5.41243E-03	1.05119E-02	8.44581E-03	.98161	.97521	.96798
52.0000	4746.8	16.336	2.67272E-03	5.80803E-03	1.15152E-02	8.69805E-03	.98141	.97506	.96787
53.0000	4746.7	16.421	2.76503E-03	6.20393E-03	1.21972E-02	9.20776E-03	.98123	.97492	.96778
54.0000	4746.6	16.472	2.84396E-03	6.57688E-03	1.26944E-02	9.83247E-03	.98106	.97480	.96769
55.0000	4746.5	16.503	2.91130E-03	6.91195E-03	1.30779E-02	1.04578E-02	.98091	.97468	.96761
56.0000	4746.4	16.527	2.96969E-03	7.20101E-03	1.33618E-02	1.10483E-02	.98077	.97457	.96754
57.0000	4746.3	16.546	3.02083E-03	7.43868E-03	1.35610E-02	1.15877E-02	.98064	.97448	.96748
58.0000	4746.2	16.564	3.06528E-03	7.62234E-03	1.36888E-02	1.20671E-02	.98052	.97439	.96742
59.0000	4746.0	16.587	3.10251E-03	7.75174E-03	1.37571E-02	1.24811E-02	.98041	.97431	.96738
60.0000	4745.9	16.594	3.13412E-03	7.83199E-03	1.38052E-02	1.28191E-02	.98031	.97424	.96733
61.0000	4745.8	16.575	3.16238E-03	7.86777E-03	1.40675E-02	1.29096E-02	.98022	.97418	.96730
62.0000	4745.7	16.605	3.18872E-03	7.87530E-03	1.42610E-02	1.29668E-02	.98014	.97413	.96727
63.0000	4745.6	16.615	3.21165E-03	7.85889E-03	1.43974E-02	1.30249E-02	.98007	.97408	.96725
64.0000	4745.5	16.628	3.23013E-03	7.82403E-03	1.44840E-02	1.30822E-02	.98001	.97404	.96723
65.0000	4745.4	16.636	3.24399E-03	7.77561E-03	1.45288E-02	1.31336E-02	.97995	.97401	.96722
66.0000	4745.3	16.643	3.25377E-03	7.71816E-03	1.45397E-02	1.31755E-02	.97990	.97398	.96721
67.0000	4745.2	16.649	3.26007E-03	7.65574E-03	1.45243E-02	1.32047E-02	.97986	.97396	.96721
68.0000	4745.1	16.654	3.26363E-03	7.59181E-03	1.44897E-02	1.32197E-02	.97983	.97394	.96721
69.0000	4745.0	16.659	3.26477E-03	7.52918E-03	1.44422E-02	1.32197E-02	.97980	.97393	.96722
70.0000	4744.9	16.664	3.26432E-03	7.46999E-03	1.43873E-02	1.32048E-02	.97978	.97392	.96723
71.0000	4744.7	16.669	3.26270E-03	7.41576E-03	1.43295E-02	1.31760E-02	.97976	.97392	.96725
72.0000	4744.6	16.673	3.26033E-03	7.36747E-03	1.42723E-02	1.31342E-02	.97975	.97393	.96727
73.0000	4744.5	16.678	3.25758E-03	7.32567E-03	1.42184E-02	1.30811E-02	.97975	.97394	.96729
74.0000	4744.4	16.682	3.25475E-03	7.29044E-03	1.41696E-02	1.30185E-02	.97975	.97395	.96731
75.0000	4744.3	16.687	3.25207E-03	7.26153E-03	1.41272E-02	1.29482E-02	.97975	.97397	.96734
76.0000	4744.2	16.693	3.24962E-03	7.23858E-03	1.40920E-02	1.28714E-02	.97976	.97399	.96737
77.0000	4744.1	16.699	3.24728E-03	7.22106E-03	1.40645E-02	1.27897E-02	.97977	.97401	.96741
78.0000	4744.0	16.705	3.24511E-03	7.20832E-03	1.40446E-02	1.27041E-02	.97979	.97404	.96745
79.0000	4743.9	16.711	3.24320E-03	7.19968E-03	1.40321E-02	1.26158E-02	.97981	.97407	.96749
80.0000	4743.8	16.718	3.24159E-03	7.19442E-03	1.40266E-02	1.25258E-02	.97983	.97410	.96753
81.0000	4743.7	16.724	3.24026E-03	7.19184E-03	1.40275E-02	1.24349E-02	.97985	.97413	.96757
82.0000	4743.6	16.731	3.23918E-03	7.19129E-03	1.40340E-02	1.23438E-02	.97987	.97416	.96761
83.0000	4743.5	16.737	3.23831E-03	7.19214E-03	1.40454E-02	1.22532E-02	.97989	.97420	.96766
84.0000	4743.4	16.744	3.23759E-03	7.19385E-03	1.40608E-02	1.21634E-02	.97991	.97423	.96770
85.0000	4743.3	16.750	3.23696E-03	7.19597E-03	1.40794E-02	1.20749E-02	.97993	.97426	.96774
86.0000	4743.2	16.757	3.23638E-03	7.19806E-03	1.41004E-02	1.19878E-02	.97995	.97430	.96779
87.0000	4743.1	16.763	3.23579E-03	7.19972E-03	1.41233E-02	1.19023E-02	.97997	.97433	.96783
88.0000	4743.0	16.770	3.23517E-03	7.20066E-03	1.41472E-02	1.18184E-02	.97999	.97436	.96787
89.0000	4742.9	16.775	3.23449E-03	7.20070E-03	1.41718E-02	1.17363E-02	.98001	.97439	.96791
90.0000	4742.8	16.771	3.23391E-03	7.20012E-03	1.41969E-02	1.16576E-02	.98003	.97442	.96796
91.0000	4742.7	16.764	3.23378E-03	7.19971E-03	1.42227E-02	1.15847E-02	.98006	.97446	.96800
92.0000	4742.6	16.756	3.23444E-03	7.20032E-03	1.42496E-02	1.15021E-02	.98009	.97450	.96804
93.0000	4742.5	16.756	3.23474E-03	7.19910E-03	1.42747E-02	1.14138E-02	.98013	.97454	.96809
94.0000	4742.4	16.758	3.23309E-03	7.19438E-03	1.42982E-02	1.13250E-02	.98017	.97459	.96814
95.0000	4742.2	16.760	3.23045E-03	7.18679E-03	1.43179E-02	1.12385E-02	.98021	.97463	.96820
96.0000	4742.1	16.756	3.22734E-03	7.17745E-03	1.43181E-02	1.11674E-02	.98026	.97468	.96825
97.0000	4742.0	16.750	3.22418E-03	7.16759E-03	1.42990E-02	1.11166E-02	.98030	.97473	.96831
98.0000	4741.9	16.740	3.22138E-03	7.15815E-03	1.42714E-02	1.10648E-02	.98035	.97479	.96836
99.0000	4741.8	16.739	3.21840E-03	7.14753E-03	1.42380E-02	1.10074E-02	.98039	.97484	.96842

TIME (SEC)	VAPGEN 410070000 (KG/M3-SEC)	VAPGEN 410080000 (KG/M3-SEC)	VAPGEN 410090000 (KG/M3-SEC)	VAPGEN 420010000 (KG/M3-SEC)	CNTRLVAR 400 COLLEVEL SUM	CNTRLVAR 402 DPLEVEL SUM	Q 940010000 (WATTS)	CNTRLVAR 418 TOTPOW FUNCTION	CNTRLVAR 610 SGPOWER SUM
50.0000	-.13609	-.64318	-1.8638	-3.6044	26.342	26.665	89564.	1.85000E+05	1.33745E+06
51.0000	-.13503	-.64164	-1.8612	-3.5994	26.289	26.696	89564.	1.85000E+05	1.34820E+06
52.0000	-.13383	-.63993	-1.8584	-3.5941	26.232	26.727	89564.	1.85000E+05	1.36374E+06
53.0000	-.13247	-.63807	-1.8554	-3.5887	26.172	26.755	89563.	1.85000E+05	1.38228E+06
54.0000	-.13119	-.63629	-1.8525	-3.5833	26.109	26.783	89563.	1.85000E+05	1.39979E+06
55.0000	-.13016	-.63476	-1.8498	-3.5782	26.045	26.810	89563.	1.85000E+05	1.41435E+06
56.0000	-.12938	-.63345	-1.8473	-3.5732	25.980	26.836	89563.	1.85000E+05	1.42676E+06
57.0000	-.12878	-.63230	-1.8450	-3.5682	25.915	26.862	89563.	1.85000E+05	1.43758E+06
58.0000	-.12824	-.63118	-1.8426	-3.5633	25.846	26.888	89563.	1.85000E+05	1.44822E+06
59.0000	-.12773	-.63007	-1.8401	-3.5581	25.773	26.913	89563.	1.85000E+05	1.45680E+06
60.0000	-.12725	-.62894	-1.8376	-3.5529	25.698	26.939	89562.	1.85000E+05	1.46498E+06
61.0000	-.12692	-.62796	-1.8352	-3.5478	25.621	26.965	89562.	1.85000E+05	1.47041E+06
62.0000	-.12664	-.62690	-1.8327	-3.5424	25.544	26.990	89562.	1.85000E+05	1.47541E+06
63.0000	-.12606	-.62573	-1.8301	-3.5369	25.466	27.016	89562.	1.85000E+05	1.48029E+06
64.0000	-.12555	-.62451	-1.8273	-3.5314	25.386	27.041	89562.	1.85000E+05	1.48468E+06
65.0000	-.12503	-.62328	-1.8246	-3.5257	25.307	27.067	89561.	1.85000E+05	1.48812E+06
66.0000	-.12454	-.62207	-1.8218	-3.5200	25.227	27.092	89561.	1.85000E+05	1.49115E+06
67.0000	-.12408	-.62086	-1.8191	-3.5143	25.148	27.117	89561.	1.85000E+05	1.49373E+06
68.0000	-.12363	-.61967	-1.8163	-3.5086	25.069	27.142	89560.	1.85000E+05	1.49600E+06
69.0000	-.12320	-.61848	-1.8135	-3.5028	24.991	27.167	89560.	1.85000E+05	1.49827E+06
70.0000	-.12278	-.61729	-1.8107	-3.4970	24.913	27.192	89560.	1.85000E+05	1.50042E+06
71.0000	-.12237	-.61610	-1.8079	-3.4911	24.837	27.216	89559.	1.85000E+05	1.50252E+06
72.0000	-.12196	-.61491	-1.8050	-3.4852	24.762	27.241	89559.	1.85000E+05	1.50453E+06
73.0000	-.12168	-.61371	-1.8022	-3.4792	24.689	27.266	89558.	1.85000E+05	1.50669E+06
74.0000	-.12142	-.61252	-1.7993	-3.4733	24.617	27.290	89558.	1.85000E+05	1.50888E+06
75.0000	-.12110	-.61155	-1.7964	-3.4673	24.546	27.315	89557.	1.85000E+05	1.51124E+06
76.0000	-.12076	-.61052	-1.7935	-3.4613	24.477	27.340	89557.	1.85000E+05	1.51362E+06
77.0000	-.12041	-.60947	-1.7905	-3.4554	24.410	27.364	89556.	1.85000E+05	1.51592E+06
78.0000	-.12005	-.60841	-1.7876	-3.4494	24.344	27.388	89556.	1.85000E+05	1.51822E+06
79.0000	-.11968	-.60734	-1.7846	-3.4435	24.280	27.413	89555.	1.85000E+05	1.52050E+06
80.0000	-.11931	-.60626	-1.7816	-3.4375	24.217	27.437	89554.	1.85000E+05	1.52280E+06
81.0000	-.11894	-.60518	-1.7786	-3.4315	24.156	27.461	89553.	1.85000E+05	1.52506E+06
82.0000	-.11857	-.60409	-1.7756	-3.4255	24.097	27.485	89553.	1.85000E+05	1.52728E+06
83.0000	-.11820	-.60301	-1.7726	-3.4195	24.040	27.509	89552.	1.85000E+05	1.52945E+06
84.0000	-.11783	-.60192	-1.7696	-3.4135	23.984	27.532	89551.	1.85000E+05	1.53156E+06
85.0000	-.11747	-.60084	-1.7666	-3.4075	23.931	27.556	89550.	1.85000E+05	1.53361E+06
86.0000	-.11710	-.59977	-1.7636	-3.4016	23.879	27.579	89549.	1.85000E+05	1.53564E+06
87.0000	-.11674	-.59870	-1.7607	-3.3957	23.828	27.602	89548.	1.85000E+05	1.53762E+06
88.0000	-.11638	-.59763	-1.7577	-3.3898	23.780	27.625	89547.	1.85000E+05	1.53960E+06
89.0000	-.11579	-.59612	-1.7542	-3.3833	23.733	27.648	89546.	1.85000E+05	1.54154E+06
90.0000	-.11474	-.59440	-1.7507	-3.3769	23.688	27.670	89545.	1.85000E+05	1.54294E+06
91.0000	-.11401	-.59305	-1.7475	-3.3708	23.645	27.693	89544.	1.85000E+05	1.54357E+06
92.0000	-.11358	-.59197	-1.7446	-3.3650	23.603	27.715	89543.	1.85000E+05	1.54365E+06
93.0000	-.11329	-.59101	-1.7417	-3.3593	23.563	27.738	89542.	1.85000E+05	1.54371E+06
94.0000	-.11303	-.59004	-1.7389	-3.3534	23.524	27.761	89541.	1.85000E+05	1.54399E+06
95.0000	-.11259	-.58872	-1.7355	-3.3471	23.487	27.783	89539.	1.85000E+05	1.54429E+06
96.0000	-.11151	-.58700	-1.7319	-3.3406	23.451	27.805	89538.	1.85000E+05	1.54431E+06
97.0000	-.11072	-.58558	-1.7286	-3.3344	23.417	27.826	89537.	1.85000E+05	1.54372E+06
98.0000	-.11021	-.58443	-1.7256	-3.3285	23.385	27.848	89535.	1.85000E+05	1.54265E+06
99.0000	-.10986	-.58340	-1.7227	-3.3226	23.355	27.870	89534.	1.85000E+05	1.54152E+06

TIME (SEC)	CNTRLVAR 710 SGPOWER SUM	CNTRLVAR 810 SGPOWER SUM	CNTRLVAR 9 BALANCE SUM	CNTRLVAR 7 PRZRHEAT SUM	CNTRLVAR 26 SPRBALAN SUM	PMPVEL 140 (RAD/SEC)	PMPVEL 240 (RAD/SEC)	PMPVEL 340 (RAD/SEC)	CNTRLVAR 435 SPRAYVAL FUNCTION
50.0000	1.33692E+06	5.74690E+06	4.90676E+06	2.85240E+05	1.77700E+06	155.00	155.00	155.00	1.0000
51.0000	1.34768E+06	5.77324E+06	4.86985E+06	2.92793E+05	1.70195E+06	155.00	155.00	155.00	1.0000
52.0000	1.36323E+06	5.80615E+06	4.81722E+06	3.00206E+05	1.56939E+06	155.00	155.00	155.00	1.0000
53.0000	1.38177E+06	5.84624E+06	4.74993E+06	3.06937E+05	1.44822E+06	155.00	155.00	155.00	1.0000
54.0000	1.39930E+06	5.88904E+06	4.68261E+06	3.15688E+05	1.38602E+06	155.00	155.00	155.00	1.0000
55.0000	1.41386E+06	5.92827E+06	4.62437E+06	3.24647E+05	1.35997E+06	155.00	155.00	155.00	1.0000
56.0000	1.42627E+06	5.96120E+06	4.57577E+06	3.32639E+05	1.34705E+06	155.00	155.00	155.00	1.0000
57.0000	1.43710E+06	5.98790E+06	4.53733E+06	3.41283E+05	1.34574E+06	155.00	155.00	155.00	1.0000
58.0000	1.44774E+06	6.01087E+06	4.50362E+06	3.50309E+05	1.47587E+06	155.00	155.00	155.00	1.0000
59.0000	1.45632E+06	6.02961E+06	4.47877E+06	3.59507E+05	1.53871E+06	155.00	155.00	155.00	1.0000
60.0000	1.46451E+06	6.04542E+06	4.45727E+06	3.68760E+05	1.59488E+06	155.00	155.00	155.00	1.0000
61.0000	1.46994E+06	6.05659E+06	4.44548E+06	3.78184E+05	1.67252E+06	155.00	155.00	155.00	1.0000
62.0000	1.47494E+06	6.06384E+06	4.43972E+06	3.87293E+05	1.66453E+06	155.00	155.00	155.00	1.0000
63.0000	1.47982E+06	6.07061E+06	4.43359E+06	3.95936E+05	1.67749E+06	155.00	155.00	155.00	1.0000
64.0000	1.48421E+06	6.07734E+06	4.42814E+06	4.04135E+05	1.69309E+06	155.00	155.00	155.00	1.0000
65.0000	1.48765E+06	6.08352E+06	4.42460E+06	4.11895E+05	1.70654E+06	155.00	155.00	155.00	1.0000
66.0000	1.49068E+06	6.08911E+06	4.42208E+06	4.19250E+05	1.71662E+06	155.00	155.00	155.00	1.0000
67.0000	1.49326E+06	6.09391E+06	4.42109E+06	4.26217E+05	1.72191E+06	155.00	155.00	155.00	1.0000
68.0000	1.49559E+06	6.09802E+06	4.42103E+06	4.32840E+05	1.72531E+06	155.00	155.00	155.00	1.0000
69.0000	1.49780E+06	6.10164E+06	4.42141E+06	4.39149E+05	1.72558E+06	155.00	155.00	155.00	1.0000
70.0000	1.49995E+06	6.10494E+06	4.42187E+06	4.45157E+05	1.72456E+06	155.00	155.00	155.00	1.0000
71.0000	1.50204E+06	6.10802E+06	4.42237E+06	4.50903E+05	1.72019E+06	155.00	155.00	155.00	1.0000
72.0000	1.50407E+06	6.11093E+06	4.42293E+06	4.56421E+05	1.71371E+06	155.00	155.00	155.00	1.0000
73.0000	1.50624E+06	6.11394E+06	4.42283E+06	4.61748E+05	1.70575E+06	155.00	155.00	155.00	1.0000
74.0000	1.50844E+06	6.11697E+06	4.42236E+06	4.66900E+05	1.69845E+06	155.00	155.00	155.00	1.0000
75.0000	1.51081E+06	6.12011E+06	4.42136E+06	4.71887E+05	1.68497E+06	155.00	155.00	155.00	1.0000
76.0000	1.51318E+06	6.12337E+06	4.41987E+06	4.76735E+05	1.67175E+06	155.00	155.00	155.00	1.0000
77.0000	1.51549E+06	6.12666E+06	4.41839E+06	4.81461E+05	1.65795E+06	155.00	155.00	155.00	1.0000
78.0000	1.51779E+06	6.13005E+06	4.41661E+06	4.86073E+05	1.64302E+06	155.00	155.00	155.00	1.0000
79.0000	1.52007E+06	6.13350E+06	4.41471E+06	4.90579E+05	1.62759E+06	155.00	155.00	155.00	1.0000
80.0000	1.52236E+06	6.13703E+06	4.41252E+06	4.94986E+05	1.61140E+06	155.00	155.00	155.00	1.0000
81.0000	1.52462E+06	6.14056E+06	4.41029E+06	4.99298E+05	1.59487E+06	155.00	155.00	155.00	1.0000
82.0000	1.52685E+06	6.14409E+06	4.40796E+06	5.03523E+05	1.57797E+06	155.00	155.00	155.00	1.0000
83.0000	1.52901E+06	6.14757E+06	4.40573E+06	5.07663E+05	1.56093E+06	155.00	155.00	155.00	1.0000
84.0000	1.53113E+06	6.15099E+06	4.40350E+06	5.11726E+05	1.54373E+06	155.00	155.00	155.00	1.0000
85.0000	1.53318E+06	6.15434E+06	4.40141E+06	5.15713E+05	1.52650E+06	155.00	155.00	155.00	1.0000
86.0000	1.53521E+06	6.15761E+06	4.39930E+06	5.19631E+05	1.50924E+06	155.00	155.00	155.00	1.0000
87.0000	1.53720E+06	6.16081E+06	4.39730E+06	5.23482E+05	1.49199E+06	155.00	155.00	155.00	1.0000
88.0000	1.53917E+06	6.16394E+06	4.39521E+06	5.27244E+05	1.47474E+06	155.00	155.00	155.00	1.0000
89.0000	1.54111E+06	6.16698E+06	4.39315E+06	5.30852E+05	1.45966E+06	155.00	155.00	155.00	1.0000
90.0000	1.54251E+06	6.16931E+06	4.39261E+06	5.34511E+05	1.45977E+06	155.00	155.00	155.00	1.0000
91.0000	1.54315E+06	6.17000E+06	4.39552E+06	5.38384E+05	1.46591E+06	155.00	155.00	155.00	1.0000
92.0000	1.54323E+06	6.16892E+06	4.40143E+06	5.42434E+05	1.47539E+06	155.00	155.00	155.00	1.0000
93.0000	1.54328E+06	6.16680E+06	4.40876E+06	5.46473E+05	1.47046E+06	155.00	155.00	155.00	1.0000
94.0000	1.54356E+06	6.16494E+06	4.41531E+06	5.50427E+05	1.46350E+06	155.00	155.00	155.00	1.0000
95.0000	1.54386E+06	6.16363E+06	4.42115E+06	5.54288E+05	1.45511E+06	155.00	155.00	155.00	1.0000
96.0000	1.54387E+06	6.16255E+06	4.42700E+06	5.58106E+05	1.45440E+06	155.00	155.00	155.00	1.0000
97.0000	1.54329E+06	6.16070E+06	4.43497E+06	5.62052E+05	1.45614E+06	155.00	155.00	155.00	1.0000
98.0000	1.54222E+06	6.15766E+06	4.44512E+06	5.66130E+05	1.46675E+06	155.00	155.00	155.00	1.0000
99.0000	1.54108E+06	6.15374E+06	4.45657E+06	5.70187E+05	1.46553E+06	155.00	155.00	155.00	1.0000

TIME (SEC)	CNTRLVAR 445 SPRAYVAL FUNCTION	TEMPF 125010000 (K)	TEMPF 131040000 (K)	TEMPF 151010000 (K)	TEMPF 111010000 (K)	TEMPF 121010000 (K)	TEMPF 225010000 (K)	TEMPF 232010000 (K)	TEMPF 251010000 (K)
50.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
51.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
52.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
53.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
54.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
55.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
56.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
57.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
58.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
59.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
60.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
61.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
62.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
63.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
64.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
65.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
66.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
67.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
68.0000	1.0000	570.35	570.33	570.58	570.45	570.46	570.35	570.33	570.58
69.0000	1.0000	570.35	570.33	570.58	570.46	570.46	570.35	570.33	570.58
70.0000	1.0000	570.35	570.33	570.58	570.46	570.46	570.35	570.33	570.58
71.0000	1.0000	570.35	570.33	570.58	570.46	570.46	570.35	570.33	570.58
72.0000	1.0000	570.35	570.33	570.58	570.46	570.46	570.35	570.33	570.58
73.0000	1.0000	570.35	570.33	570.58	570.46	570.46	570.35	570.33	570.58
74.0000	1.0000	570.35	570.33	570.58	570.46	570.46	570.35	570.33	570.58
75.0000	1.0000	570.35	570.33	570.58	570.46	570.46	570.35	570.33	570.58
76.0000	1.0000	570.35	570.33	570.58	570.46	570.46	570.35	570.33	570.58
77.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
78.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
79.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
80.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
81.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
82.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
83.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
84.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
85.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
86.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
87.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
88.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
89.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
90.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
91.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
92.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
93.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
94.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
95.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
96.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
97.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
98.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
99.0000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58

TIME (SEC)	TEMPF 211010000 (K)	TEMPF 221010000 (K)	TEMPF 325010000 (K)	TEMPF 331040000 (K)	TEMPF 351010000 (K)	TEMPF 311010000 (K)	TEMPF 321010000 (K)	TEMPF 450010000 (K)	TEMPF 420010000 (K)
50.0000	570.45	570.46	570.37	570.34	570.59	570.45	570.64	570.42	590.53
51.0000	570.45	570.46	570.37	570.34	570.59	570.45	570.64	570.42	590.51
52.0000	570.45	570.46	570.37	570.35	570.59	570.45	570.65	570.42	590.50
53.0000	570.45	570.46	570.37	570.35	570.59	570.45	570.65	570.43	590.48
54.0000	570.45	570.46	570.37	570.35	570.60	570.45	570.65	570.43	590.46
55.0000	570.45	570.46	570.37	570.35	570.60	570.45	570.65	570.43	590.44
56.0000	570.45	570.46	570.37	570.35	570.60	570.45	570.65	570.43	590.42
57.0000	570.45	570.46	570.37	570.35	570.60	570.45	570.65	570.43	590.40
58.0000	570.45	570.46	570.37	570.35	570.60	570.45	570.65	570.43	590.38
59.0000	570.45	570.46	570.37	570.35	570.60	570.45	570.65	570.43	590.36
60.0000	570.45	570.46	570.37	570.35	570.60	570.45	570.65	570.43	590.34
61.0000	570.45	570.46	570.37	570.35	570.60	570.45	570.65	570.43	590.32
62.0000	570.45	570.46	570.37	570.35	570.60	570.45	570.65	570.43	590.30
63.0000	570.45	570.46	570.37	570.35	570.60	570.45	570.66	570.43	590.28
64.0000	570.45	570.46	570.37	570.35	570.60	570.45	570.66	570.43	590.26
65.0000	570.45	570.46	570.37	570.35	570.60	570.45	570.66	570.43	590.24
66.0000	570.45	570.46	570.37	570.35	570.60	570.46	570.66	570.43	590.21
67.0000	570.45	570.46	570.37	570.35	570.60	570.46	570.66	570.43	590.19
68.0000	570.45	570.46	570.37	570.35	570.60	570.46	570.66	570.43	590.17
69.0000	570.45	570.46	570.37	570.35	570.60	570.46	570.66	570.43	590.14
70.0000	570.46	570.46	570.37	570.35	570.60	570.46	570.66	570.43	590.12
71.0000	570.46	570.46	570.37	570.35	570.60	570.46	570.66	570.43	590.10
72.0000	570.46	570.46	570.37	570.35	570.60	570.46	570.66	570.43	590.07
73.0000	570.46	570.46	570.37	570.35	570.60	570.46	570.66	570.43	590.05
74.0000	570.46	570.46	570.37	570.35	570.60	570.46	570.66	570.43	590.02
75.0000	570.46	570.46	570.37	570.35	570.60	570.46	570.66	570.43	590.00
76.0000	570.46	570.46	570.37	570.35	570.60	570.46	570.66	570.43	589.97
77.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.95
78.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.92
79.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.90
80.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.87
81.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.84
82.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.82
83.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.79
84.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.76
85.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.74
86.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.71
87.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.69
88.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.66
89.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.63
90.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.61
91.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.58
92.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.56
93.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.53
94.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.50
95.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.48
96.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.45
97.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.42
98.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.40
99.0000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.37

TIME (SEC)	TEMPG 420010000 (K)	SATTEMP 420010000 (K)	CNTRLVAR 8 PRZVAPH SUM	CNTRLVAR 28 VAPGEN SUM	CNTRLVAR 27 HEATERW SUM	CNTRLVAR 912 PRZMASL SUM	CNTRLVAR 911 PRZMASW SUM	CNTRLVAR 920 SURGHEAT SUM	CPUTIME (SEC)
50.0000	617.01	617.07	8225.1	-4.6019	2.00121E+05	8207.7	3148.6	-10540.	1044.0
51.0000	616.96	617.02	8507.1	-4.5171	2.00024E+05	8217.8	3144.1	-8659.5	1064.0
52.0000	616.91	616.97	8787.3	-4.3920	1.99839E+05	8227.7	3139.6	-6484.3	1083.9
53.0000	616.86	616.92	9055.3	-4.2689	1.99592E+05	8237.4	3135.3	-4240.9	1104.0
54.0000	616.81	616.87	9299.3	-4.1896	1.99370E+05	8247.0	3131.1	-2031.9	1124.2
55.0000	616.77	616.82	9516.1	-4.1446	1.99214E+05	8256.5	3126.9	115.95	1144.4
56.0000	616.72	616.78	9712.8	-4.1185	1.99107E+05	8265.8	3122.8	2195.9	1164.8
57.0000	616.67	616.73	9892.6	-4.1045	1.99034E+05	8275.2	3118.7	4215.6	1185.3
58.0000	616.63	616.68	10063.	-4.0989	1.98969E+05	8284.5	3114.6	6238.8	1205.9
59.0000	616.58	616.64	10212.	-4.0974	1.98917E+05	8293.9	3110.5	8281.8	1226.6
60.0000	616.53	616.59	10349.	-4.0961	1.98881E+05	8303.3	3106.4	10318.	1247.2
61.0000	616.49	616.54	10473.	-4.1286	1.98901E+05	8312.7	3102.3	12372.	1271.3
62.0000	616.44	616.49	10589.	-4.1176	1.98894E+05	8322.1	3098.2	14373.	1292.0
63.0000	616.39	616.45	10695.	-4.1020	1.98864E+05	8331.5	3094.1	16309.	1312.6
64.0000	616.34	616.40	10791.	-4.0870	1.98830E+05	8340.9	3090.0	18191.	1333.3
65.0000	616.30	616.35	10878.	-4.0735	1.98798E+05	8350.2	3086.0	20041.	1354.2
66.0000	616.25	616.31	10956.	-4.0611	1.98767E+05	8359.5	3081.9	21930.	1375.0
67.0000	616.20	616.26	11027.	-4.0495	1.98734E+05	8368.8	3077.9	23979.	1395.8
68.0000	616.16	616.21	11091.	-4.0385	1.98708E+05	8378.1	3073.9	26072.	1416.5
69.0000	616.11	616.17	11149.	-4.0275	1.98687E+05	8387.3	3069.9	28145.	1437.2
70.0000	616.07	616.12	11201.	-4.0163	1.98664E+05	8396.5	3065.9	30160.	1457.8
71.0000	616.02	616.07	11248.	-4.0048	1.98643E+05	8405.7	3061.9	32104.	1478.4
72.0000	615.97	616.03	11290.	-3.9928	1.98625E+05	8414.8	3057.9	33971.	1499.0
73.0000	615.93	615.98	11329.	-3.9816	1.98609E+05	8423.9	3054.0	35764.	1519.6
74.0000	615.88	615.93	11364.	-3.9695	1.98595E+05	8432.9	3050.0	37497.	1540.1
75.0000	615.83	615.89	11395.	-3.9569	1.98581E+05	8442.0	3046.1	39172.	1560.5
76.0000	615.79	615.84	11422.	-3.9433	1.98566E+05	8450.9	3042.2	40794.	1580.9
77.0000	615.74	615.80	11444.	-3.9291	1.98550E+05	8459.9	3038.2	42367.	1601.3
78.0000	615.69	615.75	11461.	-3.9143	1.98533E+05	8468.7	3034.4	43894.	1621.6
79.0000	615.65	615.70	11475.	-3.8991	1.98515E+05	8477.6	3030.5	45380.	1642.0
80.0000	615.60	615.66	11486.	-3.8837	1.98495E+05	8486.4	3026.6	46825.	1662.4
81.0000	615.56	615.61	11495.	-3.8680	1.98475E+05	8495.1	3022.8	48233.	1682.7
82.0000	615.51	615.57	11500.	-3.8523	1.98453E+05	8503.8	3019.0	49604.	1703.1
83.0000	615.47	615.52	11504.	-3.8365	1.98431E+05	8512.5	3015.2	50942.	1723.4
84.0000	615.42	615.47	11506.	-3.8207	1.98409E+05	8521.1	3011.4	52247.	1743.8
85.0000	615.37	615.43	11506.	-3.8050	1.98386E+05	8529.6	3007.6	53520.	1764.1
86.0000	615.33	615.38	11505.	-3.7894	1.98363E+05	8538.1	3003.8	54763.	1784.4
87.0000	615.28	615.34	11502.	-3.7739	1.98340E+05	8546.6	3000.1	55977.	1804.7
88.0000	615.24	615.29	11500.	-3.7587	1.98317E+05	8555.0	2996.4	57164.	1825.0
89.0000	615.19	615.25	11504.	-3.7394	1.98297E+05	8563.3	2992.7	58324.	1845.3
90.0000	615.15	615.20	11513.	-3.7059	1.98297E+05	8571.6	2988.9	59478.	1865.6
91.0000	615.10	615.16	11511.	-3.6814	1.98320E+05	8579.9	2985.2	60645.	1889.4
92.0000	615.06	615.11	11509.	-3.6712	1.98355E+05	8588.2	2981.5	61818.	1909.7
93.0000	615.01	615.06	11509.	-3.6613	1.98377E+05	8596.4	2977.9	62974.	1930.0
94.0000	614.96	615.02	11509.	-3.6506	1.98386E+05	8604.7	2974.2	64099.	1950.4
95.0000	614.92	614.97	11508.	-3.6353	1.98386E+05	8612.9	2970.5	65192.	1970.7
96.0000	614.87	614.93	11511.	-3.6014	1.98393E+05	8621.0	2966.8	66269.	1991.0
97.0000	614.83	614.88	11502.	-3.5716	1.98414E+05	8629.1	2963.2	67345.	2011.3
98.0000	614.78	614.83	11492.	-3.5594	1.98447E+05	8637.2	2959.5	68414.	2031.7
99.0000	614.74	614.79	11487.	-3.5488	1.98470E+05	8645.3	2955.9	69471.	2052.1

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ATTEMPTED ADV: TOT.=  1200  EDIT=   300  MIN.DT=   .100000   SEC  LAST DT=   .100000    SEC  MS.ERR=  -.512299    KG
 REPEATED ADV: TOT.=     0  EDIT=     0  MAX.DT=   .100000   SEC  CRNT.DT=  .119862     SEC  TOT.MS=   196371.    KG
SUCCESSFUL ADV: TOT.=  1200  EDIT=   300  AVG.DT=   .100000   SEC  ERR.EST= 5.898452E-07      M.RATN= -2.608834E-06
 REQUESTED ADV: TOT.=   600  EDIT=   150  REQ.DT=   .200000   SEC      CPU=  2480.98    SEC     TIME=   120.000    SEC

TRIP NUMBER, TRIP TIME (SEC)
  597  1.0000000E-01    598   20.10000        599  -1.000000
  698  -1.000000
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VOL.NO.	PRESSURE (PA)	VOIDG	TEMPF (K)	TEMPG (K)	SAT. TEMP. (K)	NONCOND. VAPOR QUAL.	BORON DENS. (KG/M3)	UF (J/KG)	UG (J/KG)	VOL. FLAG
SYSTEM 1	MASS= 1.96371E+05 KG		MASS ERROR= -.51230 KG			ERR.EST.= 5.89845E-07				
UPDOWNC	BRANCH	COMPONENT								
11-010000	1.51751E+07	0.	570.44	616.21	616.21	0.	.73167	1.30264E+06	2.45566E+06	00
UPDOWNOZZ	BRANCH	COMPONENT								
13-010000	1.51652E+07	0.	570.60	616.16	616.16	0.	.73134	1.30355E+06	2.45590E+06	00
DOWNCTS	ANNULUS	COMPONENT								
16-010000	1.51738E+07	0.	570.60	616.20	616.20	0.	.73135	1.30354E+06	2.45570E+06	00
15-020000	1.51855E+07	0.	570.61	616.27	616.27	0.	.73136	1.30354E+06	2.45541E+06	00
15-030000	1.51971E+07	0.	570.61	616.33	616.33	0.	.73138	1.30354E+06	2.45513E+06	00
LOWPLEN	BRANCH	COMPONENT								
23-010000	1.51992E+07	0.	570.61	616.34	616.34	0.	.73138	1.30353E+06	2.45508E+06	00
COREIN	BRANCH	COMPONENT								
25-010000	1.51329E+07	0.	570.58	615.99	615.99	0.	.73131	1.30353E+06	2.45669E+06	00
CORE	PIPE	COMPONENT								
31-010000	1.51003E+07	0.	570.57	615.81	615.81	0.	.73127	1.30354E+06	2.45748E+06	00
31-020000	1.50613E+07	0.	570.56	615.61	615.61	0.	.73123	1.30355E+06	2.45843E+06	00
31-030000	1.50230E+07	0.	570.55	615.40	615.40	0.	.73118	1.30356E+06	2.45936E+06	00
31-040000	1.49854E+07	0.	570.53	615.20	615.20	0.	.73114	1.30357E+06	2.46025E+06	00
31-050000	1.49486E+07	0.	570.52	615.01	615.01	0.	.73109	1.30358E+06	2.46109E+06	00
BYPASS	SNGLVOL	COMPONENT								
35-010000	1.50345E+07	0.	570.52	615.46	615.46	0.	.73124	1.30341E+06	2.45908E+06	00
COREEX	BRANCH	COMPONENT								
39-010000	1.49300E+07	0.	570.51	614.91	614.91	0.	.73108	1.30357E+06	2.46148E+06	00
UPPLEN1	BRANCH	COMPONENT								
41-010000	1.49132E+07	0.	570.50	614.82	614.82	0.	.73106	1.30357E+06	2.46183E+06	00
UPPLEN2	BRANCH	COMPONENT								
43-010000	1.49050E+07	0.	570.50	614.77	614.77	0.	.73106	1.30354E+06	2.46201E+06	00
UPHEAD	BRANCH	COMPONENT								
45-010000	1.48901E+07	0.	570.17	614.69	614.69	0.	.73169	1.30176E+06	2.46232E+06	00
HTLEGR1	PIPE	COMPONENT								
111-010000	1.47994E+07	0.	570.46	614.20	614.20	0.	.73094	1.30354E+06	2.46423E+06	00
111-020000	1.47963E+07	0.	570.45	614.19	614.19	0.	.73094	1.30354E+06	2.46430E+06	00
HTLEGR2	BRANCH	COMPONENT								
113-010000	1.47900E+07	0.	570.45	614.15	614.15	0.	.73093	1.30354E+06	2.46443E+06	00
INBOX	BRANCH	COMPONENT								
121-010000	1.48315E+07	0.	570.47	614.38	614.38	0.	.73098	1.30353E+06	2.46355E+06	00
UTUBE	PIPE	COMPONENT								
122-010000	1.48018E+07	0.	570.45	614.22	614.22	0.	.73097	1.30348E+06	2.46418E+06	00
122-020000	1.47855E+07	0.	570.43	614.13	614.13	0.	.73097	1.30344E+06	2.46452E+06	00
122-030000	1.47695E+07	0.	570.42	614.04	614.04	0.	.73096	1.30340E+06	2.46486E+06	00
122-040000	1.47513E+07	0.	570.41	613.94	613.94	0.	.73095	1.30337E+06	2.46525E+06	00
122-050000	1.47326E+07	0.	570.40	613.84	613.84	0.	.73094	1.30335E+06	2.46565E+06	00
122-060000	1.47154E+07	0.	570.39	613.75	613.75	0.	.73093	1.30334E+06	2.46601E+06	00
122-070000	1.46982E+07	0.	570.38	613.66	613.66	0.	.73091	1.30333E+06	2.46637E+06	00
122-080000	1.46811E+07	0.	570.37	613.56	613.56	0.	.73089	1.30333E+06	2.46674E+06	00

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122-090000  1.46639E+07  0.        570.36    613.47    613.47    0.        .73088    1.30333E+06  2.46710E+06  00
122-100000  1.46467E+07  0.        570.36    613.38    613.38    0.        .73086    1.30333E+06  2.46747E+06  00
122-110000  1.46303E+07  0.        570.35    613.29    613.29    0.        .73083    1.30334E+06  2.46782E+06  00
UTUBE       PIPE         COMPONENT
124-010000  1.46194E+07  0.        570.35    613.23    613.23    0.        .73082    1.30335E+06  2.46805E+06  00
124-020000  1.46132E+07  0.        570.35    613.19    613.19    0.        .73080    1.30337E+06  2.46819E+06  00
124-030000  1.46069E+07  0.        570.35    613.16    613.16    0.        .73079    1.30339E+06  2.46832E+06  00
124-040000  1.46006E+07  0.        570.35    613.12    613.12    0.        .73078    1.30340E+06  2.46845E+06  00
124-050000  1.45956E+07  0.        570.35    613.10    613.10    0.        .73077    1.30341E+06  2.46856E+06  00
124-060000  1.45919E+07  0.        570.35    613.08    613.08    0.        .73076    1.30342E+06  2.46864E+06  00
124-070000  1.45874E+07  0.        570.35    613.05    613.05    0.        .73075    1.30343E+06  2.46874E+06  00
OUTBOX      BRANCH       COMPONENT
126-010000  1.45956E+07  0.        570.35    613.10    613.10    0.        .73077    1.30342E+06  2.46856E+06  00
SEALR       PIPE         COMPONENT
131-010000  1.46320E+07  0.        570.33    612.75    612.75    0.        .73070    1.30341E+06  2.46992E+06  00
131-020000  1.45413E+07  0.        570.33    612.80    612.80    0.        .73071    1.30341E+06  2.46972E+06  00
131-030000  1.45461E+07  0.        570.33    612.83    612.83    0.        .73071    1.30341E+06  2.46962E+06  00
131-040000  1.45384E+07  0.        570.33    612.78    612.78    0.        .73070    1.30341E+06  2.46979E+06  00
PUMPR       PUMP         COMPONENT
  RPM =   155.00     (RAD/SEC)     HEAD =  6.84486E+05 (PA)        TORQUE =  -32250.     (N-M)
 OCTANT = 1                                                     MTR.TORQUE =   32250.     (N-M)
140-010000  1.49193E+07  0.        570.50    614.85    614.85    0.        .73107    1.30353E+06  2.46171E+06  10
COLDR1      SNGLVOL      COMPONENT
151-010000  1.51236E+07  0.        570.58    615.94    615.94    0.        .73129    1.30354E+06  2.45691E+06  00
COLDR2      BRANCH       COMPONENT
152-010000  1.51205E+07  0.        570.57    615.92    615.92    0.        .73131    1.30346E+06  2.45699E+06  00
COLDR3      PIPE         COMPONENT
153-010000  1.51171E+07  0.        570.57    615.90    615.90    0.        .73131    1.30347E+06  2.45707E+06  00
153-020000  1.51373E+07  0.        570.57    616.01    616.01    0.        .73133    1.30347E+06  2.45658E+06  00
CVTANK      TMDPVOL      COMPONENT
180-010000  2.00000E+07  0.        560.57    638.85    638.85    0.        .75823    1.24246E+06  2.30082E+06  00
HTLEGG1     PIPE         COMPONENT
211-010000  1.47993E+07  0.        570.46    614.20    614.20    0.        .73094    1.30354E+06  2.46423E+06  00
211-020000  1.47962E+07  0.        570.45    614.19    614.19    0.        .73094    1.30354E+06  2.46430E+06  00
HTLEGG2     BRANCH       COMPONENT
213-010000  1.47899E+07  0.        570.45    614.15    614.15    0.        .73093    1.30354E+06  2.46443E+06  00
INBOX       BRANCH       COMPONENT
221-010000  1.48314E+07  0.        570.47    614.38    614.38    0.        .73098    1.30353E+06  2.46355E+06  00
UTUBE       PIPE         COMPONENT
222-010000  1.48017E+07  0.        570.45    614.22    614.22    0.        .73097    1.30348E+06  2.46418E+06  00
222-020000  1.47854E+07  0.        570.43    614.13    614.13    0.        .73097    1.30344E+06  2.46453E+06  00
222-030000  1.47693E+07  0.        570.42    614.04    614.04    0.        .73096    1.30340E+06  2.46487E+06  00
222-040000  1.47511E+07  0.        570.41    613.94    613.94    0.        .73095    1.30337E+06  2.46525E+06  00
222-050000  1.47324E+07  0.        570.40    613.84    613.84    0.        .73094    1.30335E+06  2.46565E+06  00
222-060000  1.47152E+07  0.        570.39    613.75    613.75    0.        .73093    1.30334E+06  2.46601E+06  00
222-070000  1.46981E+07  0.        570.38    613.66    613.66    0.        .73091    1.30333E+06  2.46638E+06  00
222-080000  1.46809E+07  0.        570.37    613.56    613.56    0.        .73089    1.30333E+06  2.46674E+06  00
222-090000  1.46637E+07  0.        570.36    613.47    613.47    0.        .73088    1.30333E+06  2.46711E+06  00
222-100000  1.46465E+07  0.        570.36    613.38    613.38    0.        .73085    1.30333E+06  2.46747E+06  00
222-110000  1.46301E+07  0.        570.35    613.29    613.29    0.        .73083    1.30334E+06  2.46783E+06  00
UTUBE       PIPE         COMPONENT
224-010000  1.46191E+07  0.        570.35    613.23    613.23    0.        .73082    1.30335E+06  2.46806E+06  00
224-020000  1.46129E+07  0.        570.35    613.19    613.19    0.        .73080    1.30337E+06  2.46819E+06  00
224-030000  1.46066E+07  0.        570.35    613.16    613.16    0.        .73079    1.30339E+06  2.46833E+06  00
224-040000  1.46002E+07  0.        570.35    613.12    613.12    0.        .73078    1.30340E+06  2.46846E+06  00
224-050000  1.45952E+07  0.        570.35    613.10    613.10    0.        .73077    1.30341E+06  2.46857E+06  00
224-060000  1.45915E+07  0.        570.35    613.08    613.08    0.        .73075    1.30342E+06  2.46865E+06  00
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224-070000  1.45870E+07  0.          570.35     613.05     613.05     0.          .73075     1.30343E+06  2.46874E+06  00
OUTBOX      BRANCH       COMPONENT
225-010000  1.45952E+07  0.          570.35     613.10     613.10     0.          .73077     1.30342E+06  2.46857E+06  00
SEALG1      PIPE         COMPONENT
231-010000  1.45315E+07  0.          570.33     612.75     612.75     0.          .73070     1.30342E+06  2.46993E+06  00
231-020000  1.45408E+07  0.          570.33     612.80     612.80     0.          .73071     1.30342E+06  2.46973E+06  00
231-030000  1.45466E+07  0.          570.33     612.82     612.82     0.          .73071     1.30342E+06  2.46963E+06  00
SEALG2      BRANCH       COMPONENT
232-010000  1.45380E+07  0.          570.33     612.78     612.78     0.          .73070     1.30341E+06  2.46979E+06  00
PUMPR       PUMP         COMPONENT
 RPM =  155.00    (RAD/SEC)     HEAD =  6.84880E+05 (PA)          TORQUE =  -32253.     (N-M)
 OCTANT = 1                                                   MTR.TORQUE =   32253.     (N-M)
240-010000  1.49191E+07  0.          570.50     614.85     614.85     0.          .73107     1.30353E+06  2.46171E+06  10
COLG1       BRANCH       COMPONENT
251-010000  1.51237E+07  0.          570.58     615.94     615.94     0.          .73129     1.30354E+06  2.45691E+06  00
COLG2       PIPE         COMPONENT
253-010000  1.51204E+07  0.          570.58     615.92     615.92     0.          .73128     1.30354E+06  2.45699E+06  00
253-020000  1.51171E+07  0.          570.58     615.90     615.90     0.          .73128     1.30354E+06  2.45707E+06  00
253-030000  1.51373E+07  0.          570.59     616.01     616.01     0.          .73130     1.30355E+06  2.45658E+06  00
LETDO1      TMDPVOL      COMPONENT
282-010000  3.80000E+06  0.          412.00     520.46     520.46     0.          .92880     5.82440E+05  2.60184E+06  00
HTLEGB1     PIPE         COMPONENT
311-010000  1.48002E+07  0.          570.46     614.21     614.21     0.          .73095     1.30354E+06  2.46421E+06  00
311-020000  1.47969E+07  1.88492E-04 570.64     614.20     614.19     0.          .73048     1.30455E+06  2.46431E+06  00
HTLEGB2     BRANCH       COMPONENT
313-010000  1.47901E+07  7.25187E-05 570.64     614.15     614.15     0.          .73053     1.30457E+06  2.46437E+06  00
INBOX       BRANCH       COMPONENT
321-010000  1.48317E+07  7.36255E-06 570.66     614.38     614.38     0.          .73062     1.30457E+06  2.46358E+06  00
UTUBE       PIPE         COMPONENT
322-010000  1.48020E+07  3.10059E-06 570.62     614.22     614.22     0.          .73065     1.30441E+06  2.46416E+06  00
322-020000  1.47857E+07  1.31100E-06 570.59     614.13     614.13     0.          .73068     1.30428E+06  2.46452E+06  00
322-030000  1.47696E+07  5.52613E-07 570.56     614.04     614.04     0.          .73071     1.30416E+06  2.46486E+06  00
322-040000  1.47515E+07  1.99422E-07 570.53     613.94     613.94     0.          .73074     1.30404E+06  2.46525E+06  00
322-050000  1.47327E+07  3.03376E-08 570.50     613.84     613.84     0.          .73075     1.30395E+06  2.46564E+06  00
322-060000  1.47156E+07  4.20247E-09 570.48     613.75     613.75     0.          .73076     1.30387E+06  2.46601E+06  00
322-070000  1.46984E+07  5.71006E-10 570.47     613.66     613.66     0.          .73076     1.30381E+06  2.46637E+06  00
322-080000  1.46812E+07  3.74691E-10 570.45     613.56     613.56     0.          .73077     1.30375E+06  2.46674E+06  00
322-090000  1.46641E+07  0.          570.43     613.47     613.47     0.          .73076     1.30371E+06  2.46710E+06  00
322-100000  1.46469E+07  0.          570.42     613.38     613.38     0.          .73076     1.30367E+06  2.46747E+06  00
322-110000  1.46304E+07  0.          570.41     613.29     613.29     0.          .73075     1.30364E+06  2.46782E+06  00
UTUBE       PIPE         COMPONENT
324-010000  1.46195E+07  0.          570.40     613.23     613.23     0.          .73075     1.30362E+06  2.46805E+06  00
324-020000  1.46133E+07  0.          570.39     613.19     613.19     0.          .73075     1.30358E+06  2.46818E+06  00
324-030000  1.46070E+07  0.          570.39     613.16     613.16     0.          .73076     1.30356E+06  2.46832E+06  00
324-040000  1.46007E+07  0.          570.38     613.13     613.13     0.          .73075     1.30354E+06  2.46845E+06  00
324-050000  1.45957E+07  0.          570.38     613.10     613.10     0.          .73075     1.30353E+06  2.46856E+06  00
324-060000  1.45920E+07  0.          570.37     613.08     613.08     0.          .73075     1.30353E+06  2.46864E+06  00
324-070000  1.45875E+07  0.          570.37     613.05     613.05     0.          .73075     1.30352E+06  2.46873E+06  00
OUTBOX      BRANCH       COMPONENT
325-010000  1.45957E+07  0.          570.37     613.10     613.10     0.          .73076     1.30351E+06  2.46856E+06  00
SEALB       PIPE         COMPONENT
331-010000  1.45321E+07  0.          570.35     612.75     612.75     0.          .73069     1.30350E+06  2.46992E+06  00
331-020000  1.45414E+07  0.          570.35     612.80     612.80     0.          .73070     1.30350E+06  2.46972E+06  00
331-030000  1.45462E+07  0.          570.35     612.83     612.83     0.          .73071     1.30350E+06  2.46962E+06  00
331-040000  1.45384E+07  0.          570.35     612.79     612.79     0.          .73070     1.30350E+06  2.46978E+06  00
PUMPR       PUMP         COMPONENT
 RPM =  155.00    (RAD/SEC)     HEAD =  6.84326E+05 (PA)          TORQUE =  -32247.     (N-M)
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OCTANT = 1 MTR.TORQUE = 32247. (N-M)

340-010000	1.49193E+07	0.	570.52	614.85	614.85	0.	.73107	1.30362E+06	2.46171E+06	10
COLDB1	SNGLVOL	COMPONENT								
351-010000	1.51234E+07	0.	570.60	615.94	615.94	0.	.73128	1.30363E+06	2.45692E+06	00
COLDR2	BRANCH	COMPONENT								
352-010000	1.51206E+07	0.	570.60	615.92	615.92	0.	.73128	1.30363E+06	2.45699E+06	00
COLDR3	PIPE	COMPONENT								
353-010000	1.51173E+07	0.	570.60	615.90	615.90	0.	.73127	1.30363E+06	2.45707E+06	00
353-020000	1.51374E+07	0.	570.60	616.01	616.01	0.	.73129	1.30363E+06	2.45658E+06	00
SURGE	PIPE	COMPONENT								
400-010000	1.47930E+07	.16515	614.20	614.17	614.17	0.	.52214	1.57888E+06	2.46435E+06	00
400-020000	1.47851E+07	.12062	614.22	614.12	614.13	0.	.54954	1.57905E+06	2.46451E+06	00
400-030000	1.47769E+07	.10043	614.20	614.08	614.08	0.	.56176	1.57894E+06	2.46468E+06	00
400-040000	1.47686E+07	6.11071E-02	614.23	614.04	614.04	0.	.58518	1.57931E+06	2.46486E+06	00
PRESSU	PIPE	COMPONENT								
410-010000	1.47635E+07	3.13777E-03	614.41	614.01	614.01	0.	.61855	1.58081E+06	2.46498E+06	00
410-020000	1.47610E+07	6.95191E-03	614.32	614.00	614.00	0.	.61600	1.58007E+06	2.46504E+06	00
410-030000	1.47573E+07	1.35190E-02	614.27	613.98	613.98	0.	.60869	1.57970E+06	2.46511E+06	00
410-040000	1.47509E+07	9.77460E-03	613.99	613.94	613.94	0.	.59850	1.57748E+06	2.46525E+06	00
410-050000	1.47417E+07	.53655	614.17	613.80	613.89	0.	.24673	1.57902E+06	2.46449E+06	00
410-060000	1.47354E+07	.99809	613.65	613.78	613.86	0.	8.98226E-04	1.57484E+06	2.46482E+06	00
410-070000	1.47326E+07	.98778	612.88	613.78	613.84	0.	5.86336E-03	1.56885E+06	2.46501E+06	00
410-080000	1.47307E+07	.98138	608.10	613.77	613.83	0.	9.62184E-03	1.53256E+06	2.46508E+06	00
410-090000	1.47302E+07	.97594	599.48	613.78	613.83	0.	1.37564E-02	1.47319E+06	2.46517E+06	00
TOP	BRANCH	COMPONENT								
420-010000	1.47298E+07	.96962	588.81	613.78	613.83	0.	1.92368E-02	1.40710E+06	2.46520E+06	00
SPRAYR	BRANCH	COMPONENT								
430-010000	1.51878E+07	0.	570.59	616.28	616.28	0.	.73138	1.30347E+06	2.45536E+06	00
SPRAYB	BRANCH	COMPONENT								
440-010000	1.51877E+07	0.	570.61	616.28	616.28	0.	.73137	1.30356E+06	2.45536E+06	00
SPRAYB	BRANCH	COMPONENT								
450-010000	1.47695E+07	0.	570.43	614.04	614.04	0.	.73094	1.30348E+06	2.46486E+06	00
TV490	TMDPVOL	COMPONENT								
490-010000	1.55100E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60522E+06	2.44763E+06	00

SYSTEM 2 MASS= 0. KG MASS ERROR= 0. KG ERR.EST.= 0.

TV940	TMDPVOL	COMPONENT								
940-010000	2.00000E+05	0.	323.15	393.38	393.38	0.	0.	2.09218E+05	2.52920E+06	00

VOL.NO.	RHOF (KG/M3)	RHOG (KG/M3)	LIQ.V.VEL. (M/SEC)	VAP.V.VEL. (M/SEC)	SOUNDE (M/SEC)	STATIC QUAL.	TOT.HT.INP. (WATTS)	VAP.HT.INP. (WATTS)	VAPOR GEN. (KG/M3-SEC)
11-010000	731.66	98.516	3.57594E-02	3.57594E-02	977.62	0.	0.	0.	0.
13-010000	731.31	98.414	7.8328	7.8253	976.13	0	0.	0.	0.
15-010000	731.32	98.503	7.5461	7.5461	976.17	0.	0.	0.	0.
15-020000	731.34	98.624	7.5460	7.5460	976.22	0.	0.	0.	0.
15-030000	731.35	98.745	7.5459	7.5459	976.27	0.	0.	0.	0.
23-010000	731.36	98.766	-3.10154E-05	-6.77292E-04	976.30	0.	0.	0.	0.
25-010000	731.29	98.078	5.0243	5.0243	976.03	0.	0.	0.	0.
31-010000	731.25	97.741	4.8767	4.8767	975.88	0.	0.	0.	0.
31-020000	731.20	97.340	4.8770	4.8770	975.70	0.	0.	0.	0.
31-030000	731.16	96.945	4.8774	4.8774	975.53	0.	0.	0.	0.
31-040000	731.11	96.561	4.8777	4.8777	975.34	0.	0.	0.	0.
31-050000	731.07	96.187	4.8780	4.8780	975.13	0.	0.	0.	0.
35-010000	731.22	97.064	.70621	.70621	975.81	0.	0.	0.	0.
39-010000	731.05	95.997	5.0262	5.0263	975.05	0.	0.	0.	0.
41-010000	731.04	95.826	2.1886	2.1886	974.97	0.	0.	0.	0.
43-010000	731.04	95.742	-7.53111E-03	-6.51514E-03	974.97	0.	0.	0.	0.

45-010000	731.68	95.592	-2.77876E-05	1.96761E-04	977.82	0.	0.	0.	0.
111-010000	730.92	94.679	14.869	14.869	974.44	0.	0.	0.	0.
111-020000	730.92	94.648	14.870	14.870	974.42	0.	0.	0.	0.
113-010000	730.91	94.585	14.870	14.870	974.39	0.	0.	0.	0.
121-010000	730.96	95.001	1.9813	1.9813	974.63	0.	69.068	0.	0.
122-010000	730.95	94.703	5.9755	5.9755	974.56	0.	-2.87342E+05	0.	0.
122-020000	730.95	94.540	5.9756	5.9756	974.54	0.	-2.38115E+05	0.	0.
122-030000	730.94	94.380	5.9756	5.9756	974.52	0.	-2.02601E+05	0.	0.
122-040000	730.93	94.199	5.9757	5.9757	974.48	0.	-2.09012E+05	0.	0.
122-050000	730.92	94.013	5.9758	5.9758	974.42	0.	-1.43085E+05	0.	0.
122-060000	730.91	93.842	5.9759	5.9759	974.36	0.	-1.14590E+05	0.	0.
122-070000	730.89	93.672	5.9761	5.9761	974.29	0.	-89118.	0.	0.
122-080000	730.87	93.503	5.9762	5.9762	974.21	0.	-66347.	0.	0.
122-090000	730.86	93.334	5.9764	5.9764	974.12	0.	-45991.	0.	0.
122-100000	730.84	93.165	5.9766	5.9766	974.03	0.	-27791.	0.	0.
122-110000	730.81	93.003	5.9768	5.9768	973.94	0.	-13579.	0.	0.
124-010000	730.80	92.896	5.9769	5.9769	973.87	0.	-5569.8	0.	0.
124-020000	730.79	92.835	5.9771	5.9771	973.81	0.	-15956.	0.	0.
124-030000	730.77	92.773	5.9772	5.9772	973.75	0.	-20312.	0.	0.
124-040000	730.76	92.712	5.9774	5.9774	973.69	0.	-23832.	0.	0.
124-050000	730.75	92.663	5.9775	5.9775	973.65	0.	-14446.	0.	0.
124-060000	730.74	92.627	5.9776	5.9776	973.62	0.	-14355.	0.	0.
124-070000	730.73	92.583	5.9777	5.9777	973.58	0.	-23765.	0.	0.
125-010000	730.75	92.663	1.9820	1.9820	973.64	0.	181.78	0.	0.
131-010000	730.68	92.044	13.040	13.040	973.34	0.	0.	0.	0.
131-020000	730.69	92.134	13.346	13.346	973.39	0.	0.	0.	0.
131-030000	730.70	92.181	13.346	13.346	973.41	0.	0.	0.	0.
131-040000	730.69	92.105	13.346	13.346	973.37	0.	0.	0.	0.
140-010000	731.06	95.888	2.4865	2.4865	975.06	0.	0.	0.	0.
151-010000	731.27	97.982	16.960	16.959	975.97	0.	0.	0.	0.
152-010000	731.30	97.951	16.938	16.892	976.08	0.	0.	0.	0.
153-010000	731.29	97.916	16.941	16.941	976.06	0.	0.	0.	0.
153-020000	731.31	98.125	14.950	14.950	976.14	0.	0.	0.	0.
180-010000	758.23	170.17	7.85737E-03	7.85737E-03	1442.5	0.	0.	0.	0.
211-010000	730.92	94.678	14.879	14.879	974.44	0.	0.	0.	0.
211-020000	730.92	94.646	14.880	14.880	974.42	0.	0.	0.	0.
213-010000	730.91	94.583	14.880	14.880	974.39	0.	0.	0.	0.
221-010000	730.96	95.000	1.9826	1.9826	974.63	0.	69.231	0.	0.
222-010000	730.95	94.702	5.9795	5.9795	974.56	0.	-2.87309E+05	0.	0.
222-020000	730.95	94.539	5.9796	5.9796	974.54	0.	-2.38093E+05	0.	0.
222-030000	730.94	94.378	5.9796	5.9796	974.52	0.	-2.02586E+05	0.	0.
222-040000	730.93	94.197	5.9797	5.9797	974.48	0.	-2.09001E+05	0.	0.
222-050000	730.92	94.011	5.9798	5.9798	974.42	0.	-1.43077E+05	0.	0.
222-060000	730.91	93.840	5.9800	5.9800	974.35	0.	-1.14582E+05	0.	0.
222-070000	730.89	93.670	5.9801	5.9801	974.28	0.	-89109.	0.	0.
222-080000	730.87	93.501	5.9802	5.9802	974.21	0.	-66336.	0.	0.
222-090000	730.86	93.331	5.9804	5.9804	974.12	0.	-45977.	0.	0.
222-100000	730.84	93.162	5.9806	5.9806	974.03	0.	-27774.	0.	0.
222-110000	730.81	93.001	5.9808	5.9808	973.94	0.	-13557.	0.	0.
224-010000	730.80	92.893	5.9810	5.9810	973.87	0.	-5544.6	0.	0.
224-020000	730.79	92.832	5.9811	5.9811	973.81	0.	-15918.	0.	0.
224-030000	730.77	92.770	5.9813	5.9813	973.75	0.	-20270.	0.	0.
224-040000	730.76	92.709	5.9814	5.9814	973.69	0.	-23786.	0.	0.
224-050000	730.75	92.659	5.9815	5.9815	973.65	0.	-14409.	0.	0.
224-060000	730.74	92.623	5.9816	5.9816	973.62	0.	-14321.	0.	0.
224-070000	730.73	92.579	5.9817	5.9817	973.57	0.	-23723.	0.	0.
225-010000	730.75	92.659	1.9833	1.9833	973.64	0.	181.82	0.	0.

231-010000	730.68	92.039	13.049	13.049	973.34	0.	0.	0.	0.
231-020000	730.69	92.129	13.355	13.355	973.38	0.	0.	0.	0.
231-030000	730.69	92.176	13.355	13.355	973.41	0.	0.	0.	0.
232-010000	730.69	92.102	13.338	13.338	973.37	0.	0.	0.	0.
240-010000	731.06	95.886	2.4851	2.4851	975.06	0.	0.	0.	0.
251-010000	731.27	97.984	16.950	16.950	975.97	0.	0.	0.	0.
253-010000	731.27	97.950	16.947	16.947	975.95	0.	0.	0.	0.
253-020000	731.26	97.915	16.947	16.947	975.94	0.	0.	0.	0.
253-030000	731.28	98.125	14.956	14.956	976.02	0.	0.	0.	0.
282-010000	928.80	19.070	8.15310E-04	8.15310E-04	1467.8	0.	0.	0.	0.
311-010000	730.92	94.687	14.818	14.833	974.46	0.	0.	0.	0.
311-020000	730.54	94.647	14.851	14.931	972.79	2.44246E-05	0.	0.	-.16058
313-010000	730.53	94.696	14.882	14.865	972.72	9.39096E-06	0.	0.	-6.17449E-02
321-010000	730.57	94.995	1.9826	1.9673	972.95	9.57343E-07	-1478.7	0.	-6.29547E-03
322-010000	730.60	94.707	6.9794	6.0778	973.06	4.01930E-07	-8.03911E+05	0.	-2.64338E-03
322-020000	730.63	94.542	5.9792	6.0100	973.18	1.69639E-07	-6.87844E+05	0.	-1.11619E-03
322-030000	730.66	94.381	5.9789	5.9972	973.28	7.13824E-08	-6.07395E+05	0.	-4.70800E-04
322-040000	730.69	94.200	5.9787	5.9887	973.39	2.57095E-08	-5.57647E+05	0.	-1.72771E-04
322-050000	730.70	94.014	5.9786	5.9835	973.46	3.90332E-09	-4.82414E+05	0.	-9.70481E-06
322-060000	730.71	93.844	5.9785	5.9795	973.48	5.39715E-10	-4.17874E+05	0.	-1.43505E-05
322-070000	730.71	93.674	5.9785	5.9786	973.51	7.31999E-11	-3.60187E+05	0.	-1.91366E-06
322-080000	730.72	93.504	5.9785	5.9785	973.54	4.79462E-11	-3.08627E+05	0.	-1.56108E-10
322-090000	730.71	93.335	5.9785	5.9785	973.50	0.	-2.62541E+05	0.	0.
322-100000	730.71	93.166	5.9785	5.9785	973.47	0.	-2.21346E+05	0.	0.
322-110000	730.70	93.004	5.9786	5.9786	973.44	0.	-1.98191E+05	0.	0.
324-010000	730.70	92.897	5.9787	5.9787	973.43	0.	-1.69275E+05	0.	0.
324-020000	730.71	92.836	5.9787	5.9787	973.45	0.	-2.61952E+05	0.	0.
324-030000	730.71	92.775	5.9787	5.9787	973.46	0.	-2.19119E+05	0.	0.
324-040000	730.71	92.713	5.9787	5.9787	973.46	0.	-1.84502E+05	0.	0.
324-050000	730.70	92.664	5.9788	5.9788	973.45	0.	-1.03420E+05	0.	0.
324-060000	730.70	92.628	5.9788	5.9788	973.44	0.	-85979.	0.	0.
324-070000	730.70	92.584	5.9789	5.9789	973.43	0.	-1.09080E+05	0.	0.
325-010000	730.71	92.664	1.9824	1.9824	973.49	0.	226.06	0.	0.
331-010000	730.65	92.044	13.043	13.043	973.19	0.	0.	0.	0.
331-020000	730.66	92.135	13.349	13.349	973.24	0.	0.	0.	0.
331-030000	730.66	92.181	13.349	13.349	973.26	0.	0.	0.	0.
331-040000	730.65	92.106	13.349	13.349	973.23	0.	0.	0.	0.
340-010000	731.02	95.888	2.4870	2.4870	974.92	0.	0.	0.	0.
351-010000	731.24	97.981	16.963	16.963	975.83	0.	0.	0.	0.
352-010000	731.23	97.952	16.923	16.923	975.81	0.	0.	0.	0.
353-010000	731.23	97.917	16.924	16.924	975.80	0.	0.	0.	0.
353-020000	731.25	98.126	14.935	14.935	975.88	0.	0.	0.	0.
400-010000	606.73	94.617	-.50169	-.33136	111.41	2.99256E-02	19690.	66.443	.21276
400-020000	606.62	94.539	-.47970	-.34497	107.72	2.09284E-02	22108.	84.372	.21720
400-030000	606.66	94.457	-.46558	-.32222	106.09	1.70850E-02	22228.	83.297	.24493
400-040000	606.44	94.374	-.44553	-.31623	103.29	1.00268E-02	22289.	64.479	.30763
410-010000	605.61	94.321	-1.31164E-02	.15531	99.883	4.89988E-04	7259.5	0.	.17829
410-020000	606.01	94.296	-1.33220E-02	.21286	99.807	1.08812E-03	14555.	0.	.19008
410-030000	606.20	94.260	-8.37635E-03	.16540	100.12	2.12637E-03	23306.	0.	.17672
410-040000	607.41	94.195	-1.22667E-02	.35498	98.810	1.52844E-03	1.97691E+05	0.	.22643
410-050000	606.54	94.252	-4.74072E-02	3.32566E-02	159.89	.15247	1.57981E+05	.11251.	7.37796E-02
410-060000	608.85	94.159	-1.7596	1.68787E-02	377.59	.98779	99804.	0.	-3.44025E-02
410-070000	612.17	94.110	-.76411	1.33439E-02	364.83	.92553	97549.	0.	-.10318
410-080000	631.09	94.087	-.52670	1.16434E-02	355.79	.88711	24716.	0.	-.56152
410-090000	659.70	94.069	-.59035	1.23365E-02	345.97	.85262	10228.	0.	-1.6639
420-010000	689.17	94.063	-.45955	9.07851E-03	333.30	.81332	7226.5	0.	-3.2014
430-010000	731.37	98.649	2.3570	2.3570	976.35	0.	0.	0.	0.

440-010000	731.33	98.648	2.3567	2.3567	976.21	0.	0.	0.	0.
450-010000	730.91	94.380	4.7160	4.8480	974.40	0.	0.	0.	0.
490-010000	593.86	102.04	0.	0.	372.13	1.0000	0.	0.	0.
940-010000	988.11	1.1294	0.	0.	1537.3	0.	89498.	0.	0.

VOL.NO.	LRGST.MASS ERR.		REDUCE-QUALITY		REDUCE-EXTRAP.		REDUCE-MASS		REDUCE-PROPTY.		MIN.COURANT		REDUCE-COURANT	
	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL
11-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-080000	0	0	0	0	0	0	0	0		0	0	0	0	0
122-090000	0	0	0	0	0	0	0	0		0	0	0	0	0
122-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-040000	0	0	0	0	0	0	0	0	0	0	0	12	150	593
140-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

211-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
213-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
221-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232-010000	0	0	0	0	0	0	0	0	0	0	0	1	0	0
240-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
251-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
282-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
311-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
311-020000	0	5	0	0	0	0	0	0	0	0	0	0	0	0
313-010000	0	2	0	0	0	0	0	0	0	0	0	0	0	0
321-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
325-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

331-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-040000	0	0	0	0	0	0	0	0	0	0	300	1187	0	7
340-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
351-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
352-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
353-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
353-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400-010000	49	483	0	0	0	0	0	0	0	0	0	0	0	0
400-020000	0	36	0	0	0	0	0	0	0	0	0	0	0	0
400-030000	0	70	0	0	0	0	0	0	0	0	0	0	0	0
400-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-010000	217	218	0	0	0	0	0	0	0	0	0	0	0	0
410-020000	3	3	0	0	0	0	0	0	0	0	0	0	0	0
410-030000	4	17	0	0	0	0	0	0	0	0	0	0	0	0
410-040000	15	345	0	0	0	0	0	0	0	0	0	0	0	0
410-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-060000	12	12	0	0	0	0	0	0	0	0	0	0	0	0
410-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
420-010000	0	6	0	0	0	0	0	0	0	0	0	0	0	0
430-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
440-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
460-010000	0	3	0	0	0	0	0	0	0	0	0	0	0	0
490-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
940-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

JUN.NO.	FROM VOL.	TO VOL.	LIQ.J.VEL. (M/SEC)	VAP.J.VEL. (M/SEC)	MASS FLOW (KG/SEC)	JUN.AREA (M2)	THROAT RATIO	JUNCTION FLAGS	CHOKE FLAG	NO.ADVS. EDIT	CHOKED TOTAL
SYSTEM 1											
UPDOWNC	BRANCH	COMPONENT									
11-010000	-13-010000	11-010000	3.57594E-02	3.57594E-02	48.431	1.8520	1.0000	00000	0	0	0
11-020000	11-010000	45-010000	17.911	17.911	48.488	3.70000E-03	1.0000	00000	0	0	0
UPDOWNOZZ	BRANCH	COMPONENT									
13-010000	153-020000	13-010000	14.950	14.950	4745.0	.43400	1.0000	00000	0	0	0
13-020000	253-030000	13-010000	14.956	14.956	4746.6	.43400	1.0000	00000	0	0	0
13-030000	353-020000	13-010000	14.935	14.935	4739.7	.43400	1.0000	00000	0	0	0
13-040000	13-010000	15-010000	7.8328	7.8328	14183.	2.4760	1.0000	00000	0	0	0
DOWNCTS	ANNULUS	COMPONENT									
15-010000	15-010000	15-020000	7.5461	7.5461	14183.	2.5700	1.0000	00000	0	0	0
15-020000	15-020000	15-030000	7.5460	7.5460	14183.	2.5700	1.0000	00000	0	0	0
LOWPLEN	BRANCH	COMPONENT									
23-010000	15-030000	23-010000	7.5459	7.5459	14183.	2.5700	1.0000	00000	0	0	0
23-020000	-23-010000	25-010000	5.0241	5.0241	14183.	3.8600	1.0000	00000	0	0	0
COREIN	BRANCH	COMPONENT									
25-010000	25-010000	31-010000	4.8766	4.8766	13766.	3.8600	1.0000	00000	0	0	0
25-020000	25-010000	35-010000	5.7120	5.7120	417.71	.10000	1.0000	00000	0	0	0
CORE	PIPE	COMPONENT									
31-010000	31-010000	31-020000	4.8769	4.8769	13766.	3.8600	1.0000	00000	0	0	0
31-020000	31-020000	31-030000	4.8772	4.8772	13766.	3.8600	1.0000	00000	0	0	0
31-030000	31-030000	31-040000	4.8775	4.8775	13766.	3.8600	1.0000	00000	0	0	0
31-040000	31-040000	31-050000	4.8778	4.8778	13766.	3.8600	1.0000	00000	0	0	0
COREEX	BRANCH	COMPONENT									
39-010000	31-050000	39-010000	4.8781	4.8781	13766.	3.8600	1.0000	00000	0	0	0
39-020000	35-010000	39-010000	5.7132	5.7132	417.76	.10000	1.0000	00000	0	0	0

UPPLEN1	BRANCH	COMPONENT									
41-010000	39-010000	41-010000	5.0263	5.0263	14184.	3.8600	1.0000	00000	0	0	0
41-020000	41-010000	43-010000	2.1886	2.1886	14184.	8.8650	1.0000	00000	0	0	0
UPPLEN2	BRANCH	COMPONENT									
43-010000	-43-010000	111-010000	14.868	14.868	4748.5	.43690	1.0000	00000	0	0	0
43-020000	-43-010000	211-010000	14.877	14.877	4751.7	.43690	1.0000	00000	0	0	0
43-030000	-43-010000	311-010000	14.817	14.817	4732.4	.43690	1.0000	00000	0	0	0
UPHEAD	BRANCH	COMPONENT									
45-010000	43-010000	45-010000	-7.50365E-03	-7.50365E-03	-48.672	8.8650	1.0000	00000	0	0	0
HTLEGR1	PIPE	COMPONENT									
111-010000	111-010000	111-020000	14.870	14.870	4748.6	.43690	1.0000	00000	0	0	0
HTLEGR2	BRANCH	COMPONENT									
113-010000	111-020000	113-010000	14.870	14.870	4748.6	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
121-010000	121-010000	122-010000	5.9754	5.9754	4748.7	1.0872	1.0000	00000	0	0	0
121-020000	113-010000	121-010000	14.870	14.870	4748.6	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
122-010000	122-010000	122-020000	5.9755	5.9755	4748.7	1.0872	1.0000	00000	0	0	0
122-020000	122-020000	122-030000	5.9756	5.9756	4748.7	1.0872	1.0000	00000	0	0	0
122-030000	122-030000	122-040000	5.9757	5.9757	4748.7	1.0872	1.0000	00000	0	0	0
122-040000	122-040000	122-050000	5.9757	5.9757	4748.8	1.0872	1.0000	00000	0	0	0
122-050000	122-050000	122-060000	5.9759	5.9759	4748.8	1.0872	1.0000	00000	0	0	0
122-060000	122-060000	122-070000	5.9760	5.9760	4748.8	1.0872	1.0000	00000	0	0	0
122-070000	122-070000	122-080000	5.9761	5.9761	4748.8	1.0872	1.0000	00000	0	0	0
122-080000	122-080000	122-090000	5.9763	5.9763	4748.8	1.0872	1.0000	00000	0	0	0
122-090000	122-090000	122-100000	5.9765	5.9765	4748.8	1.0872	1.0000	00000	0	0	0
122-100000	122-100000	122-110000	5.9767	5.9767	4748.9	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
123-000000	122-110000	124-010000	5.9769	5.9769	4748.9	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
124-010000	124-010000	124-020000	5.9770	5.9770	4748.9	1.0872	1.0000	00000	0	0	0
124-020000	124-020000	124-030000	5.9772	5.9772	4748.9	1.0872	1.0000	00000	0	0	0
124-030000	124-030000	124-040000	5.9773	5.9773	4749.0	1.0872	1.0000	00000	0	0	0
124-040000	124-040000	124-050000	5.9775	5.9775	4749.0	1.0872	1.0000	00000	0	0	0
124-050000	124-050000	124-060000	5.9776	5.9776	4749.0	1.0872	1.0000	00000	0	0	0
124-060000	124-060000	124-070000	5.9776	5.9776	4749.0	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
125-010000	124-070000	125-010000	5.9739	5.9739	4749.1	1.0879	1.0000	00000	0	0	0
125-020000	125-010000	131-010000	13.040	13.040	4749.2	.49840	1.0000	00000	0	0	0
SEALR	PIPE	COMPONENT									
131-010000	131-010000	131-020000	13.346	13.346	4749.2	.48700	1.0000	00000	0	0	0
131-020000	131-020000	131-030000	13.346	13.346	4749.2	.48700	1.0000	00000	0	0	0
131-030000	131-030000	131-040000	13.346	13.346	4749.2	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
140-010000	131-040000	140-010000	13.346	13.346	4749.2	.48700	1.0000	00000	0	0	0
140-020000	140-010000	151-010000	16.962	16.962	4749.3	.38300	1.0000	00000	0	0	0
COLDR2	BRANCH	COMPONENT									
152-010000	151-010000	152-010000	16.920	16.920	4739.0	.38300	1.0000	00000	0	0	0
152-020000	152-010000	153-010000	16.941	16.941	4744.9	.38300	1.0000	00000	0	0	0
COLDR3	PIPE	COMPONENT									
153-010000	153-010000	153-020000	16.941	16.941	4745.0	.38300	1.0000	00000	0	0	0
CVJUN	TMDPJUN	COMPONENT									
181-000000	180-010000	152-010000	2.2514	2.2514	5.9577	3.49000E-03	1.0000	00000	0	0	0
HTLEGG1	PIPE	COMPONENT									
211-010000	211-010000	211-020000	14.880	14.880	4751.7	.43690	1.0000	00000	0	0	0
HTLEGG2	BRANCH	COMPONENT									
213-010000	211-020000	213-010000	14.880	14.880	4751.8	.43690	1.0000	00000	0	0	0

INBOX	BRANCH	COMPONENT									
221-010000	221-010000	222-010000	5.9794	5.9794	4751.9	1.0872	1.0000	00000	0	0	0
221-020000	213-010000	221-010000	14.880	14.880	4751.8	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
222-010000	222-010000	222-020000	5.9796	5.9796	4751.9	1.0872	1.0000	00000	0	0	0
222-020000	222-020000	222-030000	5.9796	5.9796	4751.9	1.0872	1.0000	00000	0	0	0
222-030000	222-030000	222-040000	5.9797	5.9797	4751.9	1.0872	1.0000	00000	0	0	0
222-040000	222-040000	222-050000	5.9798	5.9798	4751.9	1.0872	1.0000	00000	0	0	0
222-050000	222-050000	222-060000	5.9799	5.9799	4752.0	1.0872	1.0000	00000	0	0	0
222-060000	222-060000	222-070000	5.9800	5.9800	4752.0	1.0872	1.0000	00000	0	0	0
222-070000	222-070000	222-080000	5.9802	5.9802	4752.0	1.0872	1.0000	00000	0	0	0
222-080000	222-080000	222-090000	5.9803	5.9803	4752.0	1.0872	1.0000	00000	0	0	0
222-090000	222-090000	222-100000	5.9805	5.9805	4752.0	1.0872	1.0000	00000	0	0	0
222-100000	222-100000	222-110000	5.9807	5.9807	4752.0	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
223-000000	222-110000	224-010000	5.9809	5.9809	4752.1	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
224-010000	224-010000	224-020000	5.9810	5.9810	4752.1	1.0872	1.0000	00000	0	0	0
224-020000	224-020000	224-030000	5.9812	5.9812	4752.1	1.0872	1.0000	00000	0	0	0
224-030000	224-030000	224-040000	5.9813	5.9813	4752.2	1.0872	1.0000	00000	0	0	0
224-040000	224-040000	224-050000	5.9815	5.9815	4752.2	1.0872	1.0000	00000	0	0	0
224-050000	224-050000	224-060000	5.9816	5.9816	4752.2	1.0872	1.0000	00000	0	0	0
224-060000	224-060000	224-070000	5.9817	5.9817	4752.2	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
225-010000	224-070000	225-010000	5.9779	5.9779	4752.3	1.0879	1.0000	00000	0	0	0
225-020000	225-010000	231-010000	13.049	13.049	4752.3	.49840	1.0000	00000	0	0	0
SEALG1	PIPE	COMPONENT									
231-010000	231-010000	231-020000	13.355	13.355	4752.4	.48700	1.0000	00000	0	0	0
231-020000	231-020000	231-030000	13.355	13.355	4752.4	.48700	1.0000	00000	0	0	0
SEALG2	BRANCH	COMPONENT									
232-010000	231-030000	232-010000	13.338	13.338	4746.4	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
240-010000	232-010000	240-010000	13.339	13.339	4746.5	.48700	1.0000	00000	0	0	0
240-020000	240-010000	251-010000	16.952	16.952	4746.5	.38300	1.0000	00000	0	0	0
COLG1	BRANCH	COMPONENT									
251-010000	251-010000	253-010000	16.947	16.947	4746.5	.38300	1.0000	00000	0	0	0
COLG2	PIPE	COMPONENT									
253-010000	253-010000	253-020000	16.947	16.947	4746.5	.38300	1.0000	00000	0	0	0
253-020000	253-020000	253-030000	16.947	16.947	4746.5	.38300	1.0000	00000	0	0	0
TJ183	TMDPJUN	COMPONENT									
283-000000	231-030000	282-010000	1.67415E-02	1.67415E-02	5.9574	.48700	1.0000	00000	0	0	0
HTLEGB1	PIPE	COMPONENT									
311-010000	311-010000	311-020000	14.819	14.850	4732.4	.43690	1.0000	00000	0	0	0
SURGEJUN	SNGLJUN	COMPONENT									
312-000000	-400-010000	-311-020000	.51678	.30898	16.828	6.31180E-02	1.0000	10001	0	0	0
HTLEGB2	BRANCH	COMPONENT									
313-010000	311-020000	313-010000	14.882	14.931	4749.3	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
321-010000	321-010000	322-010000	5.9795	6.1045	4749.4	1.0872	1.0000	00000	0	0	0
321-020000	313-010000	321-010000	14.881	14.657	4749.3	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
322-010000	322-010000	322-020000	5.9793	6.0141	4749.4	1.0872	1.0000	00000	0	0	0
322-020000	322-020000	322-030000	5.9790	6.0001	4749.4	1.0872	1.0000	00000	0	0	0
322-030000	322-030000	322-040000	5.9788	5.9904	4749.4	1.0872	1.0000	00000	0	0	0
322-040000	322-040000	322-050000	5.9786	5.9841	4749.4	1.0872	1.0000	00000	0	0	0
322-050000	322-050000	322-060000	5.9785	5.9796	4749.5	1.0872	1.0000	00000	0	0	0
322-060000	322-060000	322-070000	5.9785	5.9786	4749.5	1.0872	1.0000	00000	0	0	0

322-070000	322-070000	322-080000	5.9785	5.9785	4749.5	1.0872	1.0000	00000	0	0	0
322-080000	322-080000	322-090000	5.9785	5.9785	4749.5	1.0872	1.0000	00000	0	0	0
322-090000	322-090000	322-100000	5.9785	5.9785	4749.5	1.0872	1.0000	00000	0	0	0
322-100000	322-100000	322-110000	5.9786	5.9786	4749.5	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
323-000000	322-110000	324-010000	5.9786	5.9786	4749.6	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
324-010000	324-010000	324-020000	5.9787	5.9787	4749.6	1.0872	1.0000	00000	0	0	0
324-020000	324-020000	324-030000	5.9787	5.9787	4749.6	1.0872	1.0000	00000	0	0	0
324-030000	324-030000	324-040000	5.9787	5.9787	4749.6	1.0872	1.0000	00000	0	0	0
324-040000	324-040000	324-050000	5.9788	5.9788	4749.7	1.0872	1.0000	00000	0	0	0
324-050000	324-050000	324-060000	5.9788	5.9788	4749.7	1.0872	1.0000	00000	0	0	0
324-060000	324-060000	324-070000	5.9788	5.9788	4749.7	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
325-010000	324-070000	325-010000	5.9750	5.9750	4749.7	1.0879	1.0000	00000	0	0	0
325-020000	325-010000	331-010000	13.042	13.042	4749.8	.49840	1.0000	00000	0	0	0
SEALB	PIPE	COMPONENT									
331-010000	331-010000	331-020000	13.349	13.349	4749.9	.48700	1.0000	00000	0	0	0
331-020000	331-020000	331-030000	13.349	13.349	4749.9	.48700	1.0000	00000	0	0	0
331-030000	331-030000	331-040000	13.349	13.349	4749.9	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
340-010000	331-040000	340-010000	13.349	13.349	4749.9	.48700	1.0000	00000	0	0	0
340-020000	340-010000	351-010000	16.965	16.965	4750.0	.38300	1.0000	00000	0	0	0
COLDR2	BRANCH	COMPONENT									
352-010000	351-010000	352-010000	16.923	16.923	4739.7	.38300	1.0000	00000	0	0	0
352-020000	352-010000	353-010000	16.924	16.924	4739.7	.38300	1.0000	00000	0	0	0
COLDR3	PIPE	COMPONENT									
353-010000	353-010000	353-020000	16.924	16.924	4739.7	.38300	1.0000	00000	0	0	0
SURGE	PIPE	COMPONENT									
400-010000	400-010000	400-020000	-.48737	-.36204	-16.671	6.31180E-02	1.0000	00000	0	0	0
400-020000	400-020000	400-030000	-.47454	-.32665	-16.622	6.34253E-02	1.0000	00000	0	0	0
400-030000	400-030000	400-040000	-.45699	-.31493	-16.618	6.34253E-02	1.0000	00000	0	0	0
SURGE1	SNGLJUN	COMPONENT									
405-000000	400-040000	410-010000	-.43472	-.34166	-16.652	6.34253E-02	1.0000	00100	0	0	0
PRESSU	PIPE	COMPONENT									
410-010000	410-010000	410-020000	-1.31221E-02	.16023	-16.742	2.1329	1.0000	00000	0	0	0
410-020000	410-020000	410-030000	-1.35232E-02	.23663	-16.917	2.1329	1.0000	00000	0	0	0
410-030000	410-030000	410-040000	-8.50646E-03	.17242	-17.309	3.5350	1.0000	00000	0	0	0
410-040000	410-040000	410-050000	-2.03122E-02	.60764	-18.201	3.5350	1.0000	00000	0	0	0
410-050000	410-050000	410-060000	-6.6035	2.27990E-02	-23.075	3.5350	1.0000	00000	0	0	0
410-060000	410-060000	410-070000	-1.0072	1.36930E-02	-22.090	3.5350	1.0000	00000	0	0	0
410-070000	410-070000	410-080000	-.60935	1.29908E-02	-21.047	3.5350	1.0000	00000	0	0	0
410-080000	410-080000	410-090000	-.70484	1.55713E-02	-20.795	2.1329	1.0000	00000	0	0	0
TOP	BRANCH	COMPONENT									
420-010000	410-090000	420-010000	-.50357	9.08319E-03	-20.709	2.1329	1.0000	00000	0	0	0
SPRAYR	BRANCH	COMPONENT									
430-010000	151-010000	430-010000	2.3570	2.3570	10.323	5.98900E-03	1.0000	00000	0	0	0
SPRAYR	VALVE	COMPONENT									
435-000000	430-010000	450-010000	2.3569	2.3569	10.324	5.98900E-03	.11611	00100	0	0	1
SPRAYB	BRANCH	COMPONENT									
440-010000	351-010000	440-010000	2.3567	2.3567	10.321	5.98900E-03	1.0000	00000	0	0	0
SPRAYB	VALVE	COMPONENT									
445-000000	440-010000	450-010000	2.3567	2.3567	10.322	5.98900E-03	.11611	00100	0	0	1
SPRAYB	BRANCH	COMPONENT									
450-010000	450-010000	-420-010000	4.7166	4.8806	20.647	5.98900E-03	1.0000	00000	0	0	0
PRESVAL	VALVE	COMPONENT									
489-000000	420-010000	490-010000	0.	0.	0.	2.1340	0.	00100	0	0	0

SYSTEM 2

JUN.NO.	VOIDFJ	VOIDGJ	FROM	TO	FIJ (N-S2/M5)	FWALFJ	FWALGJ	FJUNF	FJUNR	FORMFJ	FORMGJ
11-010000	1.0000	0.	BBY	BBY	19.585	2.72	0.	0.	0.	0.	0.
11-020000	1.0000	0.	BBY	BBY	2.61842E-02	1.935E-07	0.	2.30	2.30	0.	0.
13-010000	1.0000	0.	BBY	BBY	14.482	1.748E-02	0.	.429	.429	0.	0.
13-020000	1.0000	0.	BBY	BBY	14.482	1.748E-02	0.	.429	.429	0.	0.
13-030000	1.0000	0.	BBY	BBY	14.482	1.748E-02	0.	.429	.429	0.	0.
13-040000	1.0000	0.	BBY	BBY	21.352	3.487E-02	0.	.160	.160	0.	0.
15-010000	1.0000	0.	BBY	BBY	21.800	4.002E-02	0.	0.	0.	0.	0.
15-020000	1.0000	0.	BBY	BBY	21.809	4.002E-02	0.	0.	0.	0.	0.
23-010000	1.0000	0.	BBY	BBY	16.980	2.076E-02	0.	1.43	.500	0.	0.
23-020000	1.0000	0.	BBY	BBY	16.568	3.427E-03	0.	5.27	5.27	0.	0.
25-010000	1.0000	0.	BBY	BBY	21.751	.651	0.	2.45	2.45	0.	0.
25-020000	1.0000	0.	BBY	BBY	2.3321	4.351E-04	0.	7.45	7.45	0.	0.
31-010000	1.0000	0.	BBY	BBY	21.724	1.30	0.	2.47	2.47	0.	0.
31-020000	1.0000	0.	BBY	BBY	21.694	1.30	0.	2.40	2.40	0.	0.
31-030000	1.0000	0.	BBY	BBY	21.666	1.30	0.	2.31	2.31	0.	0.
31-040000	1.0000	0.	BBY	BBY	21.637	1.30	0.	2.23	2.23	0.	0.
39-010000	1.0000	0.	BBY	BBY	21.617	.651	0.	.720	.720	0.	0.
39-020000	1.0000	0.	BBY	BBY	2.3240	4.351E-04	0.	6.45	6.45	0.	0.
41-010000	1.0000	0.	BBY	BBY	16.236	1.905E-03	0.	2.04	2.04	0.	0.
41-020000	1.0000	0.	BBY	BBY	21.593	3.897E-03	0.	0.	0.	0.	0.
43-010000	1.0000	0.	BBY	BBY	12.587	1.920E-02	0.	.380	.380	0.	0.
43-020000	1.0000	0.	BBY	BBY	12.587	1.920E-02	0.	.380	.380	0.	0.
43-030000	1.0000	0.	BBY	BBY	12.587	1.920E-02	0.	.380	.380	0.	0.
45-010000	1.0000	0.	BBY	BBY	21.386	.884	0.	2.60	2.60	0.	0.
111-010000	1.0000	0.	BBY	BBY	21.512	3.836E-02	0.	0.	0.	0.	0.
113-010000	1.0000	0.	BBY	BBY	21.509	3.836E-02	0.	0.	0.	0.	0.
121-010000	1.0000	0.	BBY	BBY	11.923	.377	0.	.226	.580	0.	0.
121-020000	1.0000	0.	BBY	BBY	13.792	1.926E-02	0.	.325	.255	0.	0.
122-010000	1.0000	0.	BBY	BBY	21.511	.740	0.	0.	0.	0.	0.
122-020000	1.0000	0.	BBY	BBY	21.499	.728	0.	0.	0.	0.	0.
122-030000	1.0000	0.	BBY	BBY	21.486	.824	0.	0.	0.	0.	0.
122-040000	1.0000	0.	BBY	BBY	21.475	.849	0.	0.	0.	0.	0.
122-050000	1.0000	0.	BBY	BBY	21.461	.778	0.	0.	0.	0.	0.
122-060000	1.0000	0.	BBY	BBY	21.449	.778	0.	0.	0.	0.	0.
122-070000	1.0000	0.	BBY	BBY	21.437	.778	0.	0.	0.	0.	0.
122-080000	1.0000	0.	BBY	BBY	21.424	.778	0.	0.	0.	0.	0.
122-090000	1.0000	0.	BBY	BBY	21.412	.778	0.	0.	0.	0.	0.
122-100000	1.0000	0.	BBY	BBY	21.400	.808	0.	0.	0.	0.	0.
123-000000	1.0000	0.	BBY	BBY	21.390	.837	0.	0.	0.	0.	0.
124-010000	1.0000	0.	BBY	BBY	21.383	1.20	0.	0.	0.	0.	0.
124-020000	1.0000	0.	BBY	BBY	21.379	1.56	0.	0.	0.	0.	0.
124-030000	1.0000	0.	BBY	BBY	21.374	1.56	0.	0.	0.	0.	0.
124-040000	1.0000	0.	BBY	BBY	21.371	1.24	0.	0.	0.	0.	0.
124-050000	1.0000	0.	BBY	BBY	21.367	.914	0.	0.	0.	0.	0.
124-060000	1.0000	0.	BBY	BBY	21.364	1.10	0.	0.	0.	0.	0.
125-010000	1.0000	0.	BBY	BBY	13.691	.650	0.	.580	.226	0.	0.
125-020000	1.0000	0.	BBY	BBY	12.406	1.316E-02	0.	.255	.325	0.	0.
131-010000	1.0000	0.	BBY	BBY	21.083	2.551E-02	0.	0.	0.	0.	0.
131-020000	1.0000	0.	BBY	BBY	21.332	3.326E-02	0.	0.	0.	0.	0.
131-030000	1.0000	0.	BBY	BBY	21.331	3.096E-02	0.	0.	0.	0.	0.
140-010000	1.0000	0.	BBY	CTB	13.404	1.074E-02	0.	.195	.195	0.	0.
140-020000	1.0000	0.	CTB	BBY	14.206	1.598E-02	0.	.270	.270	0.	0.
152-010000	1.0000	0.	BBY	BBY	21.756	3.201E-02	0.	0.	0.	0.	0.

152-020000	1.0000	0.	BBY	BBY	21.754	3.196E-02	0.	0.	0.	0.	0.
153-010000	1.0000	0.	BBY	BBY	20.482	2.842E-02	0.	0.	0.	0.	0.
181-000000	1.0000	0.	BBY	BBY	.19824	1.095E-03	0.	0.	0.	0.	0.
211-010000	1.0000	0.	BBY	BBY	21.512	3.836E-02	0.	0.	0.	0.	0.
213-010000	1.0000	0.	BBY	BBY	21.509	3.836E-02	0.	0.	0.	0.	0.
221-010000	1.0000	0.	BBY	BBY	11.923	.377	0.	.226	.580	0.	0.
221-020000	1.0000	0.	BBY	BBY	13.792	1.926E-02	0.	.325	.255	0.	0.
222-010000	1.0000	0.	BBY	BBY	21.511	.740	0.	0.	0.	0.	0.
222-020000	1.0000	0.	BBY	BBY	21.499	.727	0.	0.	0.	0.	0.
222-030000	1.0000	0.	BBY	BBY	21.486	.823	0.	0.	0.	0.	0.
222-040000	1.0000	0.	BBY	BBY	21.475	.849	0.	0.	0.	0.	0.
222-050000	1.0000	0.	BBY	BBY	21.461	.778	0.	0.	0.	0.	0.
222-060000	1.0000	0.	BBY	BBY	21.449	.778	0.	0.	0.	0.	0.
222-070000	1.0000	0.	BBY	BBY	21.437	.778	0.	0.	0.	0.	0.
222-080000	1.0000	0.	BBY	BBY	21.424	.778	0.	0.	0.	0.	0.
222-090000	1.0000	0.	BBY	BBY	21.412	.778	0.	0.	0.	0.	0.
222-100000	1.0000	0.	BBY	BBY	21.400	.807	0.	0.	0.	0.	0.
223-000000	1.0000	0.	BBY	BBY	21.390	.837	0.	0.	0.	0.	0.
224-010000	1.0000	0.	BBY	BBY	21.383	1.20	0.	0.	0.	0.	0.
224-020000	1.0000	0.	BBY	BBY	21.379	1.56	0.	0.	0.	0.	0.
224-030000	1.0000	0.	BBY	BBY	21.374	1.56	0.	0.	0.	0.	0.
224-040000	1.0000	0.	BBY	BBY	21.370	1.24	0.	0.	0.	0.	0.
224-050000	1.0000	0.	BBY	BBY	21.367	.914	0.	0.	0.	0.	0.
224-060000	1.0000	0.	BBY	BBY	21.363	1.10	0.	0.	0.	0.	0.
225-010000	1.0000	0.	BBY	BBY	13.690	.650	0.	.580	.226	0.	0.
225-020000	1.0000	0.	BBY	BBY	12.406	1.316E-02	0.	.255	.325	0.	0.
231-010000	1.0000	0.	BBY	BBY	21.082	2.551E-02	0.	0.	0.	0.	0.
231-020000	1.0000	0.	BBY	BBY	21.331	3.326E-02	0.	0.	0.	0.	0.
232-010000	1.0000	0.	BBY	BBY	21.331	3.098E-02	0.	0.	0.	0.	0.
240-010000	1.0000	0.	BBY	CTB	13.404	1.074E-02	0.	.195	.195	0.	0.
240-020000	1.0000	0.	CTB	BBY	14.206	1.598E-02	0.	.270	.270	0.	0.
251-010000	1.0000	0.	BBY	BBY	21.756	3.196E-02	0.	0.	0.	0.	0.
253-010000	1.0000	0.	BBY	BBY	21.753	3.196E-02	0.	0.	0.	0.	0.
253-020000	1.0000	0.	BBY	BBY	20.481	2.842E-02	0.	0.	0.	0.	0.
283-000000	1.0000	0.	BBY	BBY	21.333	16.1	0.	0.	0.	0.	0.
311-010000	1.0000	0.	BBY	BBY	75.720	3.840E-02	3.854E-02	0.	0.	0.	0.
312-000000	.83485	.16515	BBY	BBY	3288.1	.158	.237	0.	0.	0.	0.
313-010000	.99981	1.88492E-04	BBY	BBY	101.08	3.833E-02	3.829E-02	0.	0.	0.	0.
321-010000	.99999	7.36255E-06	BBY	BBY	11.915	.377	.220	.226	.580	0.	0.
321-020000	.99993	7.25187E-05	BBY	BBY	18.927	1.927E-02	3.093E-02	.325	.255	0.	0.
322-010000	1.0000	3.10059E-06	BBY	BBY	21.499	.740	.840	0.	0.	0.	0.
322-020000	1.0000	1.31100E-06	BBY	BBY	21.488	.728	.822	0.	0.	0.	0.
322-030000	1.0000	5.52613E-07	BBY	BBY	21.477	.823	.931	0.	0.	0.	0.
322-040000	1.0000	1.99422E-07	BBY	BBY	21.466	.849	.957	0.	0.	0.	0.
322-050000	1.0000	3.03376E-08	BBY	BBY	21.454	.778	.848	0.	0.	0.	0.
322-060000	1.0000	4.20247E-09	BBY	BBY	21.442	.778	.830	0.	0.	0.	0.
322-070000	1.0000	5.71006E-10	BBY	BBY	21.431	.778	.571	0.	0.	0.	0.
322-080000	1.0000	3.74691E-10	BBY	BBY	21.419	.778	0.	0.	0.	0.	0.
322-090000	1.0000	0.	BBY	BBY	21.407	.778	5.609E+04	0.	0.	0.	0.
322-100000	1.0000	0.	BBY	BBY	21.395	.808	5.619E+04	0.	0.	0.	0.
323-000000	1.0000	0.	BBY	BBY	21.386	.837	0.	0.	0.	0.	0.
324-010000	1.0000	0.	BBY	BBY	21.380	1.20	0.	0.	0.	0.	0.
324-020000	1.0000	0.	BBY	BBY	21.376	1.56	0.	0.	0.	0.	0.
324-030000	1.0000	0.	BBY	BBY	21.372	1.56	0.	0.	0.	0.	0.
324-040000	1.0000	0.	BBY	BBY	21.369	1.24	0.	0.	0.	0.	0.
324-050000	1.0000	0.	BBY	BBY	21.365	.914	0.	0.	0.	0.	0.
324-060000	1.0000	0.	BBY	BBY	21.362	1.10	0.	0.	0.	0.	0.

325-010000	1.0000	0.	BBY	BBY	13.690	.650	0.	.580	.225	0.	0.
325-020000	1.0000	0.	BBY	BBY	12.405	1.316E-02	0.	.255	.325	0.	0.
331-010000	1.0000	0.	BBY	BBY	21.081	2.551E-02	0.	0.	0.	0.	0.
331-020000	1.0000	0.	BBY	BBY	21.331	3.326E-02	0.	0.	0.	0.	0.
331-030000	1.0000	0.	BBY	BBY	21.330	3.096E-02	0.	0.	0.	0.	0.
340-010000	1.0000	0.	BBY	CTB	13.403	1.074E-02	0.	.195	.195	0.	0.
340-020000	1.0000	0.	CTB	BBY	14.206	1.598E-02	0.	.270	.270	0.	0.
352-010000	1.0000	0.	BBY	BBY	21.754	3.200E-02	0.	0.	0.	0.	0.
352-020000	1.0000	0.	BBY	BBY	21.752	3.196E-02	0.	0.	0.	0.	0.
353-010000	1.0000	0.	BBY	BBY	20.480	2.842E-02	0.	0.	0.	0.	0.
400-010000	.87938	.12062	BBY	BBY	9755.4	.342	.361	0.	0.	0.	0.
400-020000	.89957	.10043	BBY	BBY	5677.8	.339	.397	0.	0.	0.	0.
400-030000	.93889	6.11071E-02	BBY	BBY	4634.3	.337	.392	0.	0.	0.	0.
405-000000	.99686	3.13777E-03	BBY	BBY	1694.1	.172	.186	0.	0.	.375	.431
410-010000	.99305	3.13777E-03	BBY	BBY	889.69	5.366E-03	4.969E-03	0.	0.	0.	0.
410-020000	.98648	6.95191E-03	BBY	BBY	1034.9	4.819E-03	2.857E-03	0.	0.	0.	0.
410-030000	.99023	1.35190E-02	BBY	BBY	1580.9	1.186E-02	1.017E-02	0.	0.	0.	0.
410-040000	.46345	9.77460E-03	BBY	SLG	2923.0	3.268E-02	6.944E-05	0.	0.	0.	0.
410-050000	1.90811E-03	.53655	SLG	ANM	20.182	2.291E-04	9.156E-05	0.	0.	0.	0.
410-060000	1.22180E-02	.99809	ANM	ANM	33.449	1.163E-03	2.495E-05	0.	0.	0.	0.
410-070000	1.86191E-02	.98778	ANM	ANM	170.78	1.098E-03	2.966E-05	0.	0.	0.	0.
410-080000	2.40553E-02	.98138	ANM	ANM	277.57	2.503E-04	9.758E-06	0.	0.	0.	0.
420-010000	3.03752E-02	.97594	ANM	ANM	518.97	2.919E-04	1.671E-05	0.	0.	0.	0.
430-010000	1.0000	0.	BBY	BBY	18.173	1.02	0.	0.	0.	0.	0.
435-000000	1.0000	0.	BBY	BBY	21.659	2.74	0.	0.	0.	166.	166.
440-010000	1.0000	0.	BBY	BBY	18.172	1.02	0.	0.	0.	0.	0.
445-000000	1.0000	0.	BBY	BBY	21.658	2.74	0.	0.	0.	166.	166.
450-010000	1.0000	0.	BBY	ANM	7411.8	.884	1.217E-09	1.00	1.00	0.	0.
489-000000	1.63158E-02	.98543	ANM	MST	2028.7	545.	.600	0.	0.	0.	0.

STR.NO.	SIDE	BDRY.VOL. NUMBER	SURFACE TEMP. (K)	HEAT TRF. RATE (WATT)	HEAT FLUX (WATT/M2)	CRITICAL HEAT FLUX (WATT/M2)	MODE	HEAT TRF. COEF. (WATT/M2-K)	INT. HEAT SOURCE (WATT)	NET HEAT LOSS (WATT)	VOL.AVE. TEMP. (K)
1211-001	LEFT	121-010000	570.47	180.66	19.456	0.	2	5995.0	0.	180.66	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
1220-001	LEFT	122-010000	570.41	-2.87342E+05	-1178.9	0.	2	37844.	0.	-19.723	570.38
	RIGHT	0-000000	570.35	2.87322E+05	1043.9	0.	0	0.			
1220-002	LEFT	122-020000	570.40	-2.38115E+05	-1010.2	0.	2	37846.	0.	-17.217	570.38
	RIGHT	0-000000	570.35	2.38098E+05	894.51	0.	0	0.			
1220-003	LEFT	122-030000	570.40	-2.02601E+05	-859.51	0.	2	37848.	0.	-15.537	570.37
	RIGHT	0-000000	570.35	2.02586E+05	761.09	0.	0	0.			
1220-004	LEFT	122-040000	570.39	-2.09012E+05	-701.57	0.	2	37849.	0.	-17.313	570.37
	RIGHT	0-000000	570.35	2.08995E+05	621.23	0.	0	0.			
1220-005	LEFT	122-050000	570.38	-1.43085E+05	-567.54	0.	2	37851.	0.	-13.088	570.36
	RIGHT	0-000000	570.35	1.43072E+05	502.55	0.	0	0.			
1220-006	LEFT	122-060000	570.37	-1.14590E+05	-454.51	0.	2	37853.	0.	-11.709	570.36
	RIGHT	0-000000	570.35	1.14578E+05	402.46	0.	0	0.			
1220-007	LEFT	122-070000	570.37	-89118.	-353.48	0.	2	37855.	0.	-10.468	570.36
	RIGHT	0-000000	570.35	89107.	312.99	0.	0	0.			
1220-008	LEFT	122-080000	570.36	-66347.	-263.16	0.	2	37857.	0.	-9.3496	570.36
	RIGHT	0-000000	570.35	66338.	233.02	0.	0	0.			
1220-009	LEFT	122-090000	570.36	-45991.	-182.42	0.	2	37859.	0.	-8.3427	570.35
	RIGHT	0-000000	570.35	45982.	161.52	0.	0	0.			
1220-010	LEFT	122-100000	570.36	-27791.	-110.23	0.	2	37861.	0.	-7.4361	570.35
	RIGHT	0-000000	570.35	27783.	97.591	0.	0	0.			
1220-011	LEFT	122-110000	570.35	-13579.	-50.072	0.	2	37863.	0.	-7.1032	570.35

	RIGHT	0-000000	570.35	13572.	44.318	0.	0	0.			
1231-001	LEFT	121-010000	570.45	-111.59	-96.198	0.	2	5995.0	0.	-6.92095E-02	570.41
	RIGHT	125-010000	570.37	111.52	96.139	0.	2	5999.5			
1240-001	LEFT	124-010000	570.35	-5569.8	-20.539	0.	2	37865.	0.	-6.4182	570.35
	RIGHT	0-000000	570.35	5563.4	18.167	0.	0	0.			
1240-002	LEFT	124-020000	570.35	-15956.	-31.645	0.	2	37866.	0.	-10.515	570.35
	RIGHT	0-000000	570.35	15946.	28.005	0.	0	0.			
1240-003	LEFT	124-030000	570.35	-20312.	-40.284	0.	2	37867.	0.	-9.3764	570.35
	RIGHT	0-000000	570.35	20303.	35.658	0.	0	0.			
1240-004	LEFT	124-040000	570.35	-23832.	-47.263	0.	2	37868.	0.	-8.4645	570.35
	RIGHT	0-000000	570.35	23823.	41.840	0.	0	0.			
1240-005	LEFT	124-050000	570.35	-14446.	-44.936	0.	2	37869.	0.	-5.0178	570.35
	RIGHT	0-000000	570.35	14441.	39.780	0.	0	0.			
1240-006	LEFT	124-060000	570.35	-14355.	-48.710	0.	2	37870.	0.	-4.3705	570.35
	RIGHT	0-000000	570.35	14351.	43.123	0.	0	0.			
1240-007	LEFT	124-070000	570.35	-16656.	-56.518	0.	2	37871.	0.	-4.1176	570.35
	RIGHT	0-000000	570.35	16652.	50.038	0.	0	0.			
1240-008	LEFT	124-070000	570.35	-7109.8	-56.518	0.	2	37871.	0.	-1.7577	570.35
	RIGHT	0-000000	570.35	7108.0	50.038	0.	0	0.			
1251-001	LEFT	125-010000	570.36	70.257	7.5664	0.	2	5999.5	0.	70.257	570.36
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
2211-001	LEFT	221-010000	570.47	180.82	19.474	0.	2	5998.2	0.	180.82	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
2220-001	LEFT	222-010000	570.41	-2.87309E+05	-1178.8	0.	2	37865.	0.	-19.724	570.38
	RIGHT	0-000000	570.35	2.87290E+05	1043.8	0.	0	0.			
2220-002	LEFT	222-020000	570.40	-2.38093E+05	-1010.1	0.	2	37866.	0.	-17.218	570.38
	RIGHT	0-000000	570.35	2.38076E+05	894.43	0.	0	0.			
2220-003	LEFT	222-030000	570.40	-2.02586E+05	-859.45	0.	2	37868.	0.	-15.539	570.37
	RIGHT	0-000000	570.35	2.02570E+05	761.04	0.	0	0.			
2220-004	LEFT	222-040000	570.39	-2.09001E+05	-701.53	0.	2	37870.	0.	-17.315	570.37
	RIGHT	0-000000	570.35	2.08984E+05	621.20	0.	0	0.			
2220-005	LEFT	222-050000	570.38	-1.43077E+05	-567.51	0.	2	37872.	0.	-13.089	570.36
	RIGHT	0-000000	570.35	1.43064E+05	502.52	0.	0	0.			
2220-006	LEFT	222-060000	570.37	-1.14582E+05	-454.48	0.	2	37874.	0.	-11.710	570.36
	RIGHT	0-000000	570.35	1.14570E+05	402.43	0.	0	0.			
2220-007	LEFT	222-070000	570.37	-89109.	-353.45	0.	2	37875.	0.	-10.469	570.36
	RIGHT	0-000000	570.35	89098.	312.96	0.	0	0.			
2220-008	LEFT	222-080000	570.36	-66336.	-263.12	0.	2	37877.	0.	-9.3508	570.36
	RIGHT	0-000000	570.35	66327.	232.98	0.	0	0.			
2220-009	LEFT	222-090000	570.36	-45977.	-182.36	0.	2	37879.	0.	-8.3440	570.35
	RIGHT	0-000000	570.35	45969.	161.47	0.	0	0.			
2220-010	LEFT	222-100000	570.36	-27774.	-110.16	0.	2	37882.	0.	-7.4374	570.35
	RIGHT	0-000000	570.35	27766.	97.530	0.	0	0.			
2220-011	LEFT	222-110000	570.35	-13557.	-49.990	0.	2	37884.	0.	-7.1046	570.35
	RIGHT	0-000000	570.35	13550.	44.246	0.	0	0.			
2231-001	LEFT	221-010000	570.45	-111.59	-96.197	0.	2	5998.2	0.	-7.30205E-02	570.41
	RIGHT	225-010000	570.37	111.52	96.134	0.	2	6002.7			
2240-001	LEFT	224-010000	570.35	-5544.6	-20.445	0.	2	37885.	0.	-6.4195	570.35
	RIGHT	0-000000	570.35	5538.2	18.085	0.	0	0.			
2240-002	LEFT	224-020000	570.35	-15918.	-31.569	0.	2	37886.	0.	-10.517	570.35
	RIGHT	0-000000	570.35	15907.	27.938	0.	0	0.			
2240-003	LEFT	224-030000	570.35	-20270.	-40.200	0.	2	37887.	0.	-9.3773	570.35
	RIGHT	0-000000	570.35	20260.	35.583	0.	0	0.			
2240-004	LEFT	224-040000	570.35	-23786.	-47.173	0.	2	37889.	0.	-8.4647	570.35
	RIGHT	0-000000	570.35	23777.	41.760	0.	0	0.			
2240-005	LEFT	224-050000	570.35	-14409.	-44.820	0.	2	37890.	0.	-5.0182	570.35
	RIGHT	0-000000	570.35	14404.	39.678	0.	0	0.			

2240-006	LEFT	224-060000	570.35	-14321.	-48.595	0.	2	37890.	0.	-4.3706	570.35
	RIGHT	0-000000	570.35	14316.	43.021	0.	0	0.			
2240-007	LEFT	224-070000	570.35	-16626.	-56.416	0.	2	37891.	0.	-4.1172	570.35
	RIGHT	0-000000	570.35	16622.	49.948	0.	0	0.			
2240-008	LEFT	224-070000	570.35	-7097.0	-56.416	0.	2	37891.	0.	-1.7575	570.35
	RIGHT	0-000000	570.35	7095.2	49.948	0.	0	0.			
2251-001	LEFT	225-010000	570.36	70.305	7.5716	0.	2	6002.7	0.	70.305	570.36
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
3211-001	LEFT	321-010000	570.63	-1184.3	-127.54	0.	2	5997.6	0.	-1184.3	570.63
	RIGHT	0-000000	570.50	0.	0.	0.	0	0.			
3220-001	LEFT	322-010000	570.53	-8.03911E+05	-3298.3	0.	2	37860.	0.	-1.8852	570.44
	RIGHT	0-000000	570.35	8.03909E+05	2920.8	0.	0	0.			
3220-002	LEFT	322-020000	570.51	-6.87844E+05	-2918.1	0.	2	37861.	0.	-2.1198	570.43
	RIGHT	0-000000	570.35	6.87842E+05	2584.2	0.	0	0.			
3220-003	LEFT	322-030000	570.49	-6.07395E+05	-2576.8	0.	2	37861.	0.	-2.2647	570.42
	RIGHT	0-000000	570.35	6.07393E+05	2281.9	0.	0	0.			
3220-004	LEFT	322-040000	570.47	-6.57647E+05	-2207.5	0.	2	37862.	0.	-2.9825	570.41
	RIGHT	0-000000	570.35	6.57644E+05	1954.8	0.	0	0.			
3220-005	LEFT	322-050000	570.45	-4.82414E+05	-1913.5	0.	2	37863.	0.	-2.2388	570.40
	RIGHT	0-000000	570.35	4.82412E+05	1694.5	0.	0	0.			
3220-006	LEFT	322-060000	570.44	-4.17874E+05	-1657.5	0.	2	37864.	0.	-2.4351	570.39
	RIGHT	0-000000	570.35	4.17871E+05	1467.8	0.	0	0.			
3220-007	LEFT	322-070000	570.43	-3.60187E+05	-1428.7	0.	2	37865.	0.	-2.3743	570.39
	RIGHT	0-000000	570.35	3.60185E+05	1265.2	0.	0	0.			
3220-008	LEFT	322-080000	570.42	-3.08627E+05	-1224.2	0.	2	37867.	0.	-2.2718	570.38
	RIGHT	0-000000	570.35	3.08625E+05	1084.1	0.	0	0.			
3220-009	LEFT	322-090000	570.41	-2.62541E+05	-1041.4	0.	2	37868.	0.	-2.1546	570.38
	RIGHT	0-000000	570.35	2.62539E+05	922.18	0.	0	0.			
3220-010	LEFT	322-100000	570.40	-2.21346E+05	-877.96	0.	2	37870.	0.	-1.9922	570.37
	RIGHT	0-000000	570.35	2.21344E+05	777.48	0.	0	0.			
3220-011	LEFT	322-110000	570.39	-1.98191E+05	-730.82	0.	2	37871.	0.	-2.0613	570.37
	RIGHT	0-000000	570.35	1.98189E+05	647.19	0.	0	0.			
3231-001	LEFT	321-010000	570.61	-294.45	-253.84	0.	2	5997.6	0.	-17.956	570.51
	RIGHT	325-010000	570.41	276.50	238.36	0.	2	6000.3			
3240-001	LEFT	324-010000	570.38	-1.69275E+05	-624.19	0.	2	37872.	0.	-2.0582	570.37
	RIGHT	0-000000	570.35	1.69273E+05	552.76	0.	0	0.			
3240-002	LEFT	324-020000	570.38	-2.61952E+05	-519.51	0.	2	37873.	0.	-4.2444	570.36
	RIGHT	0-000000	570.35	2.61948E+05	460.05	0.	0	0.			
3240-003	LEFT	324-030000	570.37	-2.19119E+05	-434.56	0.	2	37874.	0.	-4.5409	570.36
	RIGHT	0-000000	570.35	2.19115E+05	384.83	0.	0	0.			
3240-004	LEFT	324-040000	570.37	-1.84502E+05	-365.91	0.	2	37874.	0.	-4.7427	570.36
	RIGHT	0-000000	570.35	1.84498E+05	324.03	0.	0	0.			
3240-005	LEFT	324-050000	570.37	-1.03420E+05	-321.69	0.	2	37875.	0.	-3.0261	570.36
	RIGHT	0-000000	570.35	1.03417E+05	284.87	0.	0	0.			
3240-006	LEFT	324-060000	570.37	-85979.	-291.75	0.	2	37875.	0.	-2.8198	570.36
	RIGHT	0-000000	570.35	85976.	258.36	0.	0	0.			
3240-007	LEFT	324-070000	570.36	-76447.	-259.41	0.	2	37876.	0.	-2.8821	570.36
	RIGHT	0-000000	570.35	76444.	229.71	0.	0	0.			
3240-008	LEFT	324-070000	570.36	-32633.	-259.41	0.	2	37876.	0.	-1.2303	570.36
	RIGHT	0-000000	570.35	32632.	229.71	0.	0	0.			
3251-001	LEFT	325-010000	570.37	-50.442	-5.4324	0.	2	6000.3	0.	-50.442	570.37
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
4000-001	LEFT	400-010000	614.56	19690.	3921.7	3.10668E+05	4	10278.	0.	24309.	615.32
	RIGHT	940-010000	615.53	4618.8	733.86	0.	0	2.5100			
4000-002	LEFT	400-020000	614.56	22108.	4403.1	3.14513E+05	4	10905.	0.	26730.	615.46
	RIGHT	940-010000	615.74	4622.1	734.39	0.	0	2.5100			
4000-003	LEFT	400-030000	614.52	22228.	4427.0	3.19546E+05	4	10962.	0.	26850.	615.43

	RIGHT	940-010000	615.71	4621.7	734.32	0.	0	2.5100				
4000-004	LEFT	400-040000	614.48	22289.	4439.2	3.24791E+05	4	11224.	0.	26910.	615.39	
	RIGHT	940-010000	615.68	4621.2	734.24	0.	0	2.5100				
4101-001	LEFT	410-010000	614.51	7259.5	4955.1	2.96643E+06	4	10160.	0.	8484.3	615.42	
	RIGHT	940-010000	615.01	1224.8	732.58	0.	0	2.5100				
4101-002	LEFT	410-020000	614.49	14555.	4966.6	2.95614E+06	4	10165.	0.	17005.	615.42	
	RIGHT	940-010000	615.01	2450.1	732.58	0.	0	2.5100				
4102-001	LEFT	410-030000	614.47	23306.	4981.1	2.93757E+06	4	10148.	0.	27106.	615.45	
	RIGHT	940-010000	615.09	3799.8	732.76	0.	0	2.5100				
4102-002	LEFT	410-040000	614.44	49218.	5029.6	2.95165E+06	4	10199.	0.	57166.	615.45	
	RIGHT	940-010000	615.09	7947.2	732.77	0.	0	2.5100				
4102-003	LEFT	410-050000	614.86	1.08255E+05	5398.6	2.98347E+06	4	5616.8	0.	1.24587E+05	616.17	
	RIGHT	940-010000	615.93	16332.	734.87	0.	0	2.5100				
4102-004	LEFT	410-060000	615.15	99804.	4977.1	6482.6	3	3855.2	0.	1.16136E+05	616.23	
	RIGHT	940-010000	615.93	16332.	734.87	0.	0	2.5100				
4102-005	LEFT	410-070000	615.14	97549.	4864.7	43685.	3	3646.0	0.	1.13881E+05	616.23	
	RIGHT	940-010000	615.93	16332.	734.87	0.	0	2.5100				
4102-006	LEFT	410-080000	614.81	24716.	5282.4	56241.	3	4915.8	0.	28527.	616.16	
	RIGHT	940-010000	615.95	3811.1	734.93	0.	0	2.5100				
4103-001	LEFT	410-090000	614.71	10228.	5183.9	73607.	3	3991.8	0.	11865.	616.15	
	RIGHT	940-010000	616.07	1637.1	735.23	0.	0	2.5100				
4103-002	LEFT	420-010000	614.52	7226.5	5222.7	94132.	3	3280.5	0.	8374.6	616.08	
	RIGHT	940-010000	616.06	1148.1	735.21	0.	0	2.5100				
4113-001	LEFT	0-000000	617.73	0.	0.	0.	0	0.	1.38750E+05	9722.2	615.87	
	RIGHT	410-040000	614.77	1.48472E+05	13808.	2.95165E+06	4	16798.				
4113-002	LEFT	0-000000	618.44	0.	0.	0.	0	0.	46250.	3475.6	616.58	
	RIGHT	410-050000	615.47	49726.	13883.	3.25053E+06	4	8827.1				

STR.NO.	MESH POINT TEMPERATURES (K)				
1211-001	570.47	570.48	570.49	570.49	570.49
1220-001	570.41	570.38	570.35		
1220-002	570.40	570.38	570.35		
1220-003	570.40	570.37	570.35		
1220-004	570.39	570.37	570.35		
1220-005	570.38	570.36	570.35		
1220-006	570.37	570.36	570.35		
1220-007	570.37	570.36	570.35		
1220-008	570.36	570.36	570.35		
1220-009	570.36	570.35	570.35		
1220-010	570.36	570.35	570.35		
1220-011	570.35	570.35	570.35		
1231-001	570.45	570.42	570.40	570.37	
1240-001	570.35	570.35	570.35		
1240-002	570.35	570.35	570.35		
1240-003	570.35	570.35	570.35		
1240-004	570.35	570.35	570.35		
1240-005	570.35	570.35	570.35		
1240-006	570.35	570.35	570.35		
1240-007	570.35	570.35	570.35		
1240-008	570.35	570.35	570.35		
1251-001	570.36	570.36	570.36	570.37	570.37
2211-001	570.47	570.48	570.49	570.49	570.49
2220-001	570.41	570.38	570.35		
2220-002	570.40	570.38	570.35		
2220-003	570.40	570.37	570.35		
2220-004	570.39	570.37	570.35		
2220-005	570.38	570.36	570.35		

2220-006	570.37	570.36	570.35		
2220-007	570.37	570.36	570.35		
2220-008	570.36	570.36	570.35		
2220-009	570.36	570.35	570.35		
2220-010	570.36	570.35	570.35		
2220-011	570.35	570.35	570.35		
2231-001	570.46	570.42	570.40	570.37	
2240-001	570.35	570.35	570.35		
2240-002	570.35	570.35	570.35		
2240-003	570.35	570.35	570.35		
2240-004	570.35	570.35	570.35		
2240-005	570.35	570.35	570.35		
2240-006	570.35	570.35	570.35		
2240-007	570.35	570.35	570.35		
2240-008	570.35	570.35	570.35		
2251-001	570.36	570.36	570.36	570.37	570.37
3211-001	570.63	570.56	570.51	570.50	570.50
3220-001	570.53	570.44	570.35		
3220-002	570.51	570.43	570.35		
3220-003	570.49	570.42	570.35		
3220-004	570.47	570.41	570.35		
3220-005	570.45	570.40	570.35		
3220-006	570.44	570.39	570.35		
3220-007	570.43	570.39	570.35		
3220-008	570.42	570.38	570.35		
3220-009	570.41	570.38	570.35		
3220-010	570.40	570.37	570.35		
3220-011	570.39	570.37	570.35		
3231-001	570.61	570.54	570.48	570.41	
3240-001	570.38	570.37	570.35		
3240-002	570.38	570.36	570.35		
3240-003	570.37	570.36	570.35		
3240-004	570.37	570.36	570.35		
3240-005	570.37	570.36	570.35		
3240-006	570.37	570.36	570.35		
3240-007	570.36	570.36	570.35		
3240-008	570.36	570.36	570.35		
3251-001	570.37	570.37	570.37	570.37	570.37
4000-001	614.56	615.29	615.58	615.53	
4000-002	614.56	615.40	615.76	615.74	
4000-003	614.52	615.37	615.73	615.71	
4000-004	614.48	615.33	615.70	615.68	
4101-001	614.51	615.89	615.60	615.01	
4101-002	614.49	615.89	615.60	615.01	
4102-001	614.47	615.91	615.66	615.09	
4102-002	614.44	615.91	615.67	615.09	
4102-003	614.86	616.60	616.48	615.93	
4102-004	615.15	616.67	616.49	615.93	
4102-005	615.14	616.66	616.48	615.93	
4102-006	614.81	616.58	616.49	615.95	
4103-001	614.71	616.50	616.53	616.07	
4103-002	614.52	616.41	616.51	616.06	
4113-001	617.73	616.12	614.77		
4113-002	618.44	616.83	615.47		

CONTROL VARIABLE EDIT

1 P/RHO180 DIV 26377.3 2 ENTHA180 SUM 1.268836E+06

3	CVENERGY	MULT	7.559312E+06	4	P/RHO231	DIV	19887.7
5	ENTHA231	SUM	1.323303E+06	6	LETDENER	MULT	7.883498E+06
7	PRZRHEAT	SUM	640316.	8	PRZVAFH	SUM	11251.5
9	BALANCE	SUM	4.529481E+06	10	CALC-P	MULT	1.472982E+07
11	MEAS-P	FUNCTION	1.472700E+07	12	MEAS-L	FUNCTION	29.4500
13	TEMPF420	MULT	588.808	14	TEMPG420	MULT	613.777
15	SAT420	MULT	613.828	16	SPRYTEMP	MULT	570.433
20	P/RHO450	DIV	20206.9	21	ENTHA450	SUM	1.323683E+06
22	SPRENER	MULT	2.732946E+07	23	P/RHO400	DIV	24381.6
24	ENTHA410	SUM	1.603262E+06	25	SURGENER	MULT	2.672790E+07
26	SPRBALAN	SUM	1.241872E+06	27	HEATERW	SUM	198136.
28	VAPGEN	SUM	-3.29003	31	POW	SUM	0.
32	TURBPOW	SUM	0.	100	TAVG(R)	SUM	570.519
101	LAG1	LAG	570.519	102	S1	SUM	-14.6313
103	LL1	LEAD-LAG	-.581439	104	S2	SUM	-9783.47
105	???	SUM	-358992.	106	DELTA-T	SUM	-.125433
107	LAG2	LAG	-.125515	108	LL2	LEAD-LAG	-.124611
109	LL3	LEAD-LAG	570.519	110	LAG3	LAG	570.519
111	S4	SUM	0.	112	S5	SUM	-3.318381E-02
113	S6	SUM	41.1841	134	LEVREG	PROP-INT	2.03443
135	LIMIT	MULT	9.50000	136	DELTAF	SUM	-3.168440E-03
137	D(AREA)	PROP-INT	1.075601E-03	139	VALVAREA	SUM	9.488178E-02
140	AREA**2	MULT	9.002553E-03	141	K(VALV)	DIV	26903.0
142	K(T+DT)	SUM	27311.7	143	DELTA-K	SUM	6.09854
144	K(T)	MULT	27311.7	145	DELTA-P	SUM	-831.359
146	P(T)	MULT	1.512052E+07	153	KOQO2	MULT	917956.
154	DUM	SUM	963447.	155	A(T)	DIV	1.037939E-06
156	DUM	MULT	130.204	157	DUM	MULT	-43343.8
158	A	SUM	27181.5	159	DUM	MULT	311249.
160	DUM	MULT	4.79967	170	B	SUM	43360.0
171	DUM	MULT	4.348451E-02	172	DUM	MULT	-792.105
173	DUM	MULT	792.038	174	C	SUM	-.110068
175	B**2	MULT	1.880091E+09	176	AC4	MULT	-11967.3
177	B2-4AC	SUM	1.880103E+09	178	SQRT	STDFNCTN	43360.2
179	DUM	SUM	6.899948E-02	180	DELTA-Q	DIV	2.538475E-06
181	Q(T+DT)	SUM	11.3962	182	DUM	STDFNCTN	.683856
183	QO(T+DT)	MULT	7.79336	184	QTOT	SUM	19.1896
185	P(PUMP)	FUNCTION	2.022701E+07	186	DFDQ	FUNCTION	-45496.7
200	TAVG(G)	SUM	570.519	201	LAG1	LAG	570.519
202	S1	SUM	-14.6312	203	LL1	LEAD-LAG	-.581436
204	S2	SUM	-9783.47	205	???	SUM	-358992.
206	DELTA-T	SUM	-.125732	207	LAG2	LAG	-.125813
208	LL2	LEAD-LAG	-.124907	209	LL3	LEAD-LAG	570.519
210	LAG3	LAG	570.519	211	S4	SUM	0.
212	S5	SUM	-3.318360E-02	213	S6	SUM	41.1841
281	LET1	SUM	2.146305E+07	282	LET2	MULT	1.568261E+10
283	LET3	STDFNCTN	5.95720	284	LETDOWN	MULT	21.5752
300	TAVG(B)	SUM	570.527	301	LAG1	LAG	570.527
302	S1	SUM	-14.6230	303	LL1	LEAD-LAG	-.581109
304	S2	SUM	-9783.47	305	???	SUM	-358992.
306	DELTA-T	SUM	-.141482	307	LAG2	LAG	-.141568
308	LL2	LEAD-LAG	-.140611	309	LL3	LEAD-LAG	570.527
310	LAG3	LAG	570.527	311	S4	SUM	0.
312	S5	SUM	-3.316494E-02	313	S6	SUM	41.1835
400	COLLEVEL	SUM	23.0193	402	DPLEVEL	SUM	28.2997
404	PRZMASS	SUM	11689.4	410	T-AUCT-H	STDFNCTN	570.527
411	L-REF	FUNCTION	25.3915	412	DELT-LEV	SUM	2.90828

413	DELTA-P	SUM	-779278.	414	DP-CORR	PROP-INT	-954293.
415	POW-HE11	TRIPUNIT	0.	416	POW-BKR	TRIPUNIT	0.
417	POWVAR	FUNCTION	308000.	418	TOTPOW	FUNCTION	185000.
435	SPRAYVAL	FUNCTION	1.00000	445	SPRAYVAL	FUNCTION	1.00000
606	POWCOLDL	SUM	14446.4	607	POWPREH	SUM	38120.4
608	POWHOTLG	SUM	937070.	609	POWUBEND	SUM	566171.
610	SGPOWER	SUM	1.555556E+06	706	POWCOLDL	SUM	14409.3
707	POWPREH	SUM	38043.5	708	POWHOTLG	SUM	936989.
709	POWUBEND	SUM	565929.	710	SGPOWER	SUM	1.555120E+06
806	POWCOLDL	SUM	103420.	807	POWPREH	SUM	195059.
808	POWHOTLG	SUM	2.756797E+06	809	POWUBEND	SUM	3.086029E+06
810	SGPOWER	SUM	6.142558E+06	900	MG1	MULT	.178119
901	MG2	MULT	.789166	902	MG3	MULT	3.15330
903	MG4	MULT	4.76495	904	MG5	MULT	536.320
905	MG6	MULT	996.691	906	MG7	MULT	985.878
907	MG8	MULT	228.483	908	MG9	MULT	74.4090
909	MG10	MULT	51.8689	911	PRZMASW	SUM	2882.54
912	PRZMASL	SUM	8806.82	920	SURGHEAT	SUM	86314.9

---RESTART NO. 1200 WRITTEN, BLOCK NO. 5---

NUMBER OF ELEMENTS IN SPARSE MATRIX 1: ORIGINAL = 410, FACTORED = 665 ROUNDOFF ERROR = 1.600000E-11 NCOUNT = 1201

TIME (SEC)	P 420010000 (PA)	P 410090000 (PA)	P 410080000 (PA)	P 151010000 (PA)	P 351010000 (PA)	P 231010000 (PA)	P 430010000 (PA)	P 440010000 (PA)	P 450010000 (PA)
100.000	1.48992E+07	1.48995E+07	1.49001E+07	1.52931E+07	1.52930E+07	1.47008E+07	1.53574E+07	1.53573E+07	1.49389E+07
101.000	1.48906E+07	1.48909E+07	1.48915E+07	1.52845E+07	1.52844E+07	1.46922E+07	1.53488E+07	1.53487E+07	1.49303E+07
102.000	1.48820E+07	1.48823E+07	1.48829E+07	1.52759E+07	1.52758E+07	1.46836E+07	1.53402E+07	1.53401E+07	1.49217E+07
103.000	1.48734E+07	1.48738E+07	1.48743E+07	1.52673E+07	1.52672E+07	1.46750E+07	1.53316E+07	1.53315E+07	1.49131E+07
104.000	1.48648E+07	1.48652E+07	1.48658E+07	1.52587E+07	1.52586E+07	1.46665E+07	1.53230E+07	1.53229E+07	1.49045E+07
105.000	1.48563E+07	1.48566E+07	1.48572E+07	1.52501E+07	1.52500E+07	1.46579E+07	1.53144E+07	1.53143E+07	1.48960E+07
106.000	1.48477E+07	1.48481E+07	1.48487E+07	1.52416E+07	1.52415E+07	1.46494E+07	1.53059E+07	1.53058E+07	1.48874E+07
107.000	1.48392E+07	1.48396E+07	1.48401E+07	1.52331E+07	1.52329E+07	1.46408E+07	1.52973E+07	1.52972E+07	1.48789E+07
108.000	1.48307E+07	1.48311E+07	1.48316E+07	1.52245E+07	1.52244E+07	1.46323E+07	1.52888E+07	1.52887E+07	1.48704E+07
109.000	1.48222E+07	1.48226E+07	1.48231E+07	1.52160E+07	1.52159E+07	1.46238E+07	1.52803E+07	1.52802E+07	1.48619E+07
110.000	1.48137E+07	1.48141E+07	1.48146E+07	1.52075E+07	1.52074E+07	1.46154E+07	1.52718E+07	1.52717E+07	1.48534E+07
111.000	1.48053E+07	1.48056E+07	1.48062E+07	1.51991E+07	1.51989E+07	1.46069E+07	1.52633E+07	1.52632E+07	1.48450E+07
112.000	1.47968E+07	1.47972E+07	1.47977E+07	1.51906E+07	1.51905E+07	1.45985E+07	1.52549E+07	1.52548E+07	1.48365E+07
113.000	1.47884E+07	1.47887E+07	1.47893E+07	1.51822E+07	1.51821E+07	1.45900E+07	1.52464E+07	1.52464E+07	1.48281E+07
114.000	1.47800E+07	1.47803E+07	1.47809E+07	1.51738E+07	1.51736E+07	1.45816E+07	1.52380E+07	1.52379E+07	1.48197E+07
115.000	1.47716E+07	1.47719E+07	1.47725E+07	1.51653E+07	1.51652E+07	1.45732E+07	1.52296E+07	1.52295E+07	1.48113E+07
116.000	1.47632E+07	1.47635E+07	1.47641E+07	1.51570E+07	1.51568E+07	1.45649E+07	1.52212E+07	1.52211E+07	1.48029E+07
117.000	1.47548E+07	1.47552E+07	1.47557E+07	1.51486E+07	1.51485E+07	1.45565E+07	1.52128E+07	1.52128E+07	1.47945E+07
118.000	1.47465E+07	1.47468E+07	1.47474E+07	1.51402E+07	1.51401E+07	1.45482E+07	1.52045E+07	1.52044E+07	1.47862E+07
119.000	1.47381E+07	1.47385E+07	1.47390E+07	1.51319E+07	1.51318E+07	1.45398E+07	1.51961E+07	1.51961E+07	1.47778E+07
120.000	1.47298E+07	1.47302E+07	1.47307E+07	1.51236E+07	1.51234E+07	1.45315E+07	1.51878E+07	1.51877E+07	1.47695E+07
121.000	1.47215E+07	1.47219E+07	1.47224E+07	1.51153E+07	1.51151E+07	1.45232E+07	1.51795E+07	1.51794E+07	1.47612E+07
122.000	1.47132E+07	1.47136E+07	1.47141E+07	1.51070E+07	1.51069E+07	1.45150E+07	1.51712E+07	1.51711E+07	1.47529E+07
123.000	1.47050E+07	1.47053E+07	1.47059E+07	1.50987E+07	1.50986E+07	1.45067E+07	1.51630E+07	1.51629E+07	1.47446E+07
124.000	1.46967E+07	1.46971E+07	1.46976E+07	1.50905E+07	1.50903E+07	1.44985E+07	1.51547E+07	1.51546E+07	1.47364E+07
125.000	1.46885E+07	1.46888E+07	1.46894E+07	1.50822E+07	1.50821E+07	1.44902E+07	1.51465E+07	1.51464E+07	1.47282E+07
126.000	1.46803E+07	1.46806E+07	1.46812E+07	1.50740E+07	1.50739E+07	1.44820E+07	1.51382E+07	1.51382E+07	1.47199E+07
127.000	1.46720E+07	1.46724E+07	1.46729E+07	1.50658E+07	1.50657E+07	1.44738E+07	1.51300E+07	1.51300E+07	1.47117E+07
128.000	1.46639E+07	1.46642E+07	1.46648E+07	1.50576E+07	1.50575E+07	1.44657E+07	1.51218E+07	1.51218E+07	1.47035E+07
129.000	1.46557E+07	1.46560E+07	1.46566E+07	1.50494E+07	1.50493E+07	1.44575E+07	1.51137E+07	1.51136E+07	1.46953E+07
130.000	1.46475E+07	1.46478E+07	1.46484E+07	1.50412E+07	1.50411E+07	1.44493E+07	1.51055E+07	1.51054E+07	1.46871E+07
131.000	1.46393E+07	1.46396E+07	1.46402E+07	1.50334E+07	1.50333E+07	1.44415E+07	1.50983E+07	1.50982E+07	1.46778E+07
132.000	1.46314E+07	1.46318E+07	1.46323E+07	1.50255E+07	1.50254E+07	1.44336E+07	1.50907E+07	1.50906E+07	1.46695E+07
133.000	1.46240E+07	1.46243E+07	1.46249E+07	1.50182E+07	1.50181E+07	1.44262E+07	1.50836E+07	1.50835E+07	1.46616E+07
134.000	1.46170E+07	1.46173E+07	1.46179E+07	1.50112E+07	1.50111E+07	1.44193E+07	1.50769E+07	1.50768E+07	1.46541E+07
135.000	1.46103E+07	1.46107E+07	1.46112E+07	1.50046E+07	1.50045E+07	1.44126E+07	1.50706E+07	1.50705E+07	1.46470E+07
136.000	1.46041E+07	1.46044E+07	1.46050E+07	1.49984E+07	1.49983E+07	1.44064E+07	1.50647E+07	1.50646E+07	1.46403E+07
137.000	1.45983E+07	1.45986E+07	1.45991E+07	1.49926E+07	1.49925E+07	1.44006E+07	1.50591E+07	1.50590E+07	1.46340E+07
138.000	1.45929E+07	1.45932E+07	1.45938E+07	1.49873E+07	1.49872E+07	1.43953E+07	1.50540E+07	1.50539E+07	1.46283E+07
139.000	1.45880E+07	1.45883E+07	1.45889E+07	1.49824E+07	1.49823E+07	1.43904E+07	1.50493E+07	1.50492E+07	1.46230E+07
140.000	1.45835E+07	1.45839E+07	1.45844E+07	1.49780E+07	1.49779E+07	1.43859E+07	1.50451E+07	1.50450E+07	1.46182E+07
141.000	1.45790E+07	1.45794E+07	1.45799E+07	1.49747E+07	1.49745E+07	1.43826E+07	1.50420E+07	1.50419E+07	1.46134E+07
142.000	1.45758E+07	1.45761E+07	1.45767E+07	1.49701E+07	1.49700E+07	1.43781E+07	1.50376E+07	1.50375E+07	1.46099E+07
143.000	1.45723E+07	1.45726E+07	1.45732E+07	1.49679E+07	1.49678E+07	1.43758E+07	1.50356E+07	1.50355E+07	1.46061E+07
144.000	1.45698E+07	1.45701E+07	1.45706E+07	1.49644E+07	1.49643E+07	1.43723E+07	1.50322E+07	1.50321E+07	1.46033E+07
145.000	1.45673E+07	1.45676E+07	1.45682E+07	1.49627E+07	1.49626E+07	1.43706E+07	1.50306E+07	1.50305E+07	1.46006E+07
146.000	1.45656E+07	1.45659E+07	1.45664E+07	1.49604E+07	1.49603E+07	1.43683E+07	1.50285E+07	1.50284E+07	1.45986E+07
147.000	1.45640E+07	1.45643E+07	1.45648E+07	1.49592E+07	1.49591E+07	1.43671E+07	1.50274E+07	1.50273E+07	1.45968E+07
148.000	1.45630E+07	1.45633E+07	1.45638E+07	1.49579E+07	1.49578E+07	1.43658E+07	1.50262E+07	1.50261E+07	1.45956E+07
149.000	1.45622E+07	1.45625E+07	1.45630E+07	1.49574E+07	1.49573E+07	1.43652E+07	1.50257E+07	1.50256E+07	1.45947E+07

TIME (SEC)	MFLOWJ 430010000 (KG/SEC)	MFLOWJ 440010000 (KG/SEC)	MFLOWJ 435000000 (KG/SEC)	MFLOWJ 445000000 (KG/SEC)	MFLOWJ 450010000 (KG/SEC)	MFLOWJ 283000000 (KG/SEC)	MFLOWJ 181000000 (KG/SEC)	MFLOWJ 153010000 (KG/SEC)	MFLOWJ 253010000 (KG/SEC)
100.000	10.327	10.326	10.328	10.327	20.656	6.0056	6.0058	4747.0	4748.6
101.000	10.327	10.325	10.328	10.326	20.655	6.0031	6.0034	4746.9	4748.5
102.000	10.327	10.325	10.328	10.326	20.655	6.0007	6.0009	4746.8	4748.4
103.000	10.326	10.325	10.327	10.326	20.654	5.9982	5.9985	4746.7	4748.3
104.000	10.326	10.324	10.327	10.325	20.653	5.9958	5.9961	4746.6	4748.2
105.000	10.326	10.324	10.327	10.325	20.653	5.9934	5.9936	4746.5	4748.1
106.000	10.325	10.324	10.326	10.325	20.652	5.9910	5.9912	4746.4	4748.0
107.000	10.325	10.324	10.326	10.325	20.652	5.9885	5.9888	4746.3	4747.9
108.000	10.325	10.323	10.326	10.324	20.651	5.9861	5.9864	4746.2	4747.8
109.000	10.325	10.323	10.326	10.324	20.651	5.9837	5.9840	4746.1	4747.7
110.000	10.324	10.323	10.325	10.324	20.650	5.9813	5.9816	4746.0	4747.5
111.000	10.324	10.323	10.325	10.324	20.650	5.9789	5.9791	4745.9	4747.4
112.000	10.324	10.322	10.325	10.323	20.649	5.9766	5.9767	4745.8	4747.3
113.000	10.324	10.322	10.325	10.323	20.649	5.9741	5.9743	4745.7	4747.2
114.000	10.324	10.322	10.325	10.323	20.649	5.9717	5.9720	4745.6	4747.1
115.000	10.323	10.322	10.324	10.323	20.648	5.9693	5.9696	4745.5	4747.0
116.000	10.323	10.322	10.324	10.323	20.648	5.9669	5.9672	4745.4	4746.9
117.000	10.323	10.322	10.324	10.323	20.647	5.9646	5.9648	4745.3	4746.8
118.000	10.323	10.321	10.324	10.322	20.647	5.9622	5.9624	4745.2	4746.7
119.000	10.323	10.321	10.324	10.322	20.647	5.9598	5.9600	4745.1	4746.6
120.000	10.323	10.321	10.324	10.322	20.647	5.9574	5.9577	4745.0	4746.5
121.000	10.323	10.321	10.323	10.322	20.646	5.9551	5.9553	4744.8	4746.4
122.000	10.322	10.321	10.323	10.322	20.646	5.9527	5.9529	4744.7	4746.3
123.000	10.322	10.321	10.323	10.322	20.646	5.9504	5.9506	4744.6	4746.2
124.000	10.322	10.321	10.323	10.322	20.645	5.9480	5.9482	4744.5	4746.1
125.000	10.322	10.320	10.323	10.321	20.645	5.9456	5.9459	4744.4	4746.0
126.000	10.322	10.320	10.323	10.321	20.645	5.9433	5.9435	4744.3	4745.9
127.000	10.322	10.320	10.323	10.321	20.645	5.9410	5.9412	4744.2	4745.8
128.000	10.322	10.320	10.323	10.321	20.645	5.9386	5.9389	4744.1	4745.7
129.000	10.322	10.320	10.323	10.321	20.645	5.9363	5.9365	4744.0	4745.6
130.000	10.322	10.320	10.323	10.321	20.644	5.9339	5.9342	4743.9	4745.5
131.000	9.9523	9.9508	9.9532	9.9517	19.906	5.9317	5.9319	4744.1	4745.4
132.000	9.5305	9.5290	9.5313	9.5299	19.062	5.9294	5.9296	4744.3	4745.2
133.000	9.1111	9.1097	9.1119	9.1105	18.223	5.9273	5.9275	4744.6	4745.1
134.000	8.6905	8.6892	8.6913	8.6900	17.382	5.9253	5.9255	4744.8	4744.9
135.000	8.2699	8.2686	8.2706	8.2694	16.541	5.9234	5.9236	4745.0	4744.7
136.000	7.8494	7.8482	7.8501	7.8489	15.700	5.9216	5.9218	4745.3	4744.6
137.000	7.4287	7.4276	7.4294	7.4283	14.858	5.9199	5.9201	4745.5	4744.4
138.000	7.0088	7.0078	7.0095	7.0084	14.018	5.9184	5.9185	4745.7	4744.3
139.000	6.5887	6.5878	6.5893	6.5883	13.178	5.9169	5.9171	4746.0	4744.2
140.000	6.1694	6.1685	6.1700	6.1690	12.339	5.9156	5.9158	4746.2	4744.0
141.000	5.7600	5.7591	5.7605	5.7596	11.520	5.9147	5.9148	4746.5	4743.9
142.000	5.3318	5.3310	5.3322	5.3315	10.664	5.9133	5.9135	4746.8	4743.7
143.000	4.9229	4.9222	4.9234	4.9226	9.8463	5.9127	5.9128	4747.1	4743.7
144.000	4.5007	4.5001	4.5010	4.5004	9.0017	5.9116	5.9117	4747.3	4743.5
145.000	4.0890	4.0885	4.0894	4.0888	8.1785	5.9112	5.9113	4747.6	4743.4
146.000	3.6729	3.6724	3.6731	3.6725	7.3459	5.9105	5.9105	4747.9	4743.3
147.000	3.2613	3.2608	3.2615	3.2610	6.5228	5.9101	5.9102	4748.2	4743.2
148.000	2.8493	2.8489	2.8494	2.8490	5.6986	5.9097	5.9097	4748.4	4743.1
149.000	2.4402	2.4398	2.4403	2.4400	4.8804	5.9095	5.9096	4748.7	4743.0

TIME (SEC)	MFLOWJ 353010000 (KG/SEC)	MFLOWJ 312000000 (KG/SEC)	VOIDG 410010000	VOIDG 410020000	VOIDG 410030000	VOIDG 410040000	VOIDG 410080000	VOIDG 410090000	VOIDG 420010000
100.000	4741.7	16.738	3.21365E-03	7.13409E-03	1.42007E-02	1.09479E-02	.98044	.97489	.96848
101.000	4741.6	16.739	3.20809E-03	7.11879E-03	1.41612E-02	1.08872E-02	.98049	.97495	.96854
102.000	4741.5	16.741	3.20227E-03	7.10247E-03	1.41206E-02	1.08260E-02	.98054	.97500	.96860
103.000	4741.4	16.743	3.19652E-03	7.08590E-03	1.40798E-02	1.07644E-02	.98058	.97505	.96865
104.000	4741.3	16.746	3.19100E-03	7.06966E-03	1.40393E-02	1.07028E-02	.98063	.97511	.96871
105.000	4741.2	16.749	3.18573E-03	7.05417E-03	1.39994E-02	1.06412E-02	.98068	.97516	.96877
106.000	4741.1	16.753	3.18076E-03	7.03970E-03	1.39603E-02	1.05797E-02	.98073	.97521	.96883
107.000	4741.0	16.757	3.17608E-03	7.02646E-03	1.39222E-02	1.05184E-02	.98078	.97527	.96889
108.000	4740.9	16.761	3.17173E-03	7.01455E-03	1.38850E-02	1.04575E-02	.98082	.97532	.96895
109.000	4740.8	16.766	3.16768E-03	7.00401E-03	1.38490E-02	1.03972E-02	.98087	.97537	.96900
110.000	4740.7	16.771	3.16394E-03	6.99482E-03	1.38140E-02	1.03373E-02	.98092	.97543	.96906
111.000	4740.6	16.776	3.16048E-03	6.98690E-03	1.37802E-02	1.02782E-02	.98097	.97548	.96912
112.000	4740.5	16.781	3.15727E-03	6.98017E-03	1.37475E-02	1.02197E-02	.98101	.97553	.96918
113.000	4740.4	16.787	3.15430E-03	6.97448E-03	1.37159E-02	1.01618E-02	.98106	.97558	.96923
114.000	4740.3	16.792	3.15153E-03	6.96969E-03	1.36853E-02	1.01047E-02	.98111	.97564	.96929
115.000	4740.2	16.798	3.14894E-03	6.96566E-03	1.36556E-02	1.00482E-02	.98115	.97569	.96935
116.000	4740.1	16.804	3.14651E-03	6.96223E-03	1.36269E-02	9.99239E-03	.98120	.97574	.96940
117.000	4740.0	16.810	3.14419E-03	6.95927E-03	1.35989E-02	9.93716E-03	.98125	.97579	.96946
118.000	4739.9	16.816	3.14198E-03	6.95664E-03	1.35717E-02	9.88249E-03	.98129	.97584	.96951
119.000	4739.8	16.822	3.13984E-03	6.95423E-03	1.35451E-02	9.82832E-03	.98134	.97589	.96957
120.000	4739.7	16.828	3.13777E-03	6.95191E-03	1.35190E-02	9.77460E-03	.98138	.97594	.96962
121.000	4739.6	16.834	3.13573E-03	6.94961E-03	1.34934E-02	9.72129E-03	.98143	.97599	.96968
122.000	4739.5	16.841	3.13371E-03	6.94725E-03	1.34681E-02	9.66832E-03	.98147	.97604	.96973
123.000	4739.4	16.847	3.13171E-03	6.94477E-03	1.34432E-02	9.61566E-03	.98151	.97609	.96979
124.000	4739.3	16.853	3.12970E-03	6.94213E-03	1.34186E-02	9.56324E-03	.98156	.97614	.96984
125.000	4739.2	16.860	3.12768E-03	6.93928E-03	1.33941E-02	9.51104E-03	.98160	.97619	.96989
126.000	4739.1	16.866	3.12564E-03	6.93622E-03	1.33698E-02	9.45900E-03	.98164	.97624	.96995
127.000	4739.0	16.872	3.12358E-03	6.93293E-03	1.33456E-02	9.40709E-03	.98168	.97629	.97000
128.000	4738.9	16.877	3.12151E-03	6.92942E-03	1.33215E-02	9.35540E-03	.98173	.97634	.97005
129.000	4738.8	16.877	3.11956E-03	6.92599E-03	1.32978E-02	9.30547E-03	.98177	.97638	.97010
130.000	4738.7	16.879	3.11792E-03	6.92299E-03	1.32752E-02	9.25817E-03	.98181	.97643	.97016
131.000	4738.8	16.307	3.11595E-03	6.91935E-03	1.32537E-02	9.21433E-03	.98189	.97667	.97066
132.000	4739.0	15.664	3.10330E-03	6.90184E-03	1.32235E-02	9.14197E-03	.98219	.97720	.97147
133.000	4739.2	14.989	3.07745E-03	6.86160E-03	1.31721E-02	9.01812E-03	.98260	.97783	.97237
134.000	4739.4	14.320	3.03822E-03	6.79235E-03	1.30850E-02	8.83642E-03	.98306	.97853	.97335
135.000	4739.6	13.623	2.98737E-03	6.69234E-03	1.29533E-02	8.60643E-03	.98358	.97928	.97438
136.000	4739.8	12.945	2.92565E-03	6.56093E-03	1.27732E-02	8.33411E-03	.98413	.98007	.97544
137.000	4740.1	12.257	2.85397E-03	6.39913E-03	1.25456E-02	8.02618E-03	.98472	.98089	.97654
138.000	4740.3	11.607	2.77280E-03	6.20932E-03	1.22720E-02	7.68037E-03	.98534	.98174	.97766
139.000	4740.5	10.943	2.68611E-03	6.00723E-03	1.19544E-02	7.29710E-03	.98599	.98261	.97880
140.000	4740.8	10.293	2.59600E-03	5.80357E-03	1.15985E-02	6.88304E-03	.98665	.98350	.97995
141.000	4741.0	9.7450	2.49911E-03	5.59348E-03	1.12023E-02	6.40945E-03	.98733	.98440	.98111
142.000	4741.3	8.9978	2.40437E-03	5.38793E-03	1.07849E-02	5.98300E-03	.98801	.98533	.98230
143.000	4741.5	8.2529	2.30547E-03	5.17742E-03	1.03458E-02	5.52000E-03	.98871	.98625	.98348
144.000	4741.8	7.9003	2.20515E-03	4.96562E-03	9.89625E-03	5.08165E-03	.98940	.98719	.98469
145.000	4742.0	6.8727	2.10438E-03	4.74988E-03	9.43599E-03	4.63225E-03	.99009	.98811	.98589
146.000	4742.3	6.6214	2.00015E-03	4.52994E-03	8.96866E-03	4.20048E-03	.99078	.98905	.98709
147.000	4742.6	5.5972	1.89644E-03	4.30671E-03	8.49511E-03	3.77376E-03	.99147	.98997	.98829
148.000	4742.9	5.2165	1.79248E-03	4.08247E-03	8.01995E-03	3.37492E-03	.99216	.99091	.98949
149.000	4743.2	4.4132	1.69035E-03	3.85704E-03	7.54399E-03	2.99276E-03	.99286	.99184	.99070

TIME (SEC)	VAPGEN 410070000 (KG/M3-SEC)	VAPGEN 410080000 (KG/M3-SEC)	VAPGEN 410090000 (KG/M3-SEC)	VAPGEN 420010000 (KG/M3-SEC)	CNTRLVAR 400 COLLEVEL SUM	CNTRLVAR 402 DPLEVEL SUM	Q 940010000 (WATTS)	CNTRLVAR 418 TOTPOW FUNCTION	CNTRLVAR 610 SGPOWER SUM
100.000	-.10956	-.58240	-1.7198	-3.3168	23.326	27.891	89533.	1.85000E+05	1.54070E+06
101.000	-.10926	-.58139	-1.7168	-3.3109	23.298	27.912	89531.	1.85000E+05	1.54015E+06
102.000	-.10895	-.58036	-1.7139	-3.3050	23.272	27.934	89530.	1.85000E+05	1.53977E+06
103.000	-.10864	-.57933	-1.7109	-3.2991	23.247	27.955	89528.	1.85000E+05	1.53953E+06
104.000	-.10831	-.57829	-1.7080	-3.2932	23.224	27.976	89527.	1.85000E+05	1.53944E+06
105.000	-.10799	-.57725	-1.7050	-3.2874	23.203	27.997	89525.	1.85000E+05	1.53951E+06
106.000	-.10766	-.57621	-1.7021	-3.2815	23.183	28.018	89523.	1.85000E+05	1.53976E+06
107.000	-.10734	-.57516	-1.6994	-3.2757	23.164	28.039	89522.	1.85000E+05	1.54021E+06
108.000	-.10701	-.57410	-1.6966	-3.2699	23.146	28.059	89520.	1.85000E+05	1.54086E+06
109.000	-.10668	-.57304	-1.6938	-3.2641	23.130	28.080	89518.	1.85000E+05	1.54167E+06
110.000	-.10636	-.57198	-1.6911	-3.2583	23.114	28.100	89517.	1.85000E+05	1.54261E+06
111.000	-.10603	-.57092	-1.6883	-3.2525	23.100	28.121	89515.	1.85000E+05	1.54366E+06
112.000	-.10571	-.56987	-1.6856	-3.2468	23.087	28.141	89513.	1.85000E+05	1.54479E+06
113.000	-.10539	-.56881	-1.6828	-3.2410	23.075	28.161	89511.	1.85000E+05	1.54599E+06
114.000	-.10507	-.56776	-1.6801	-3.2353	23.064	28.181	89509.	1.85000E+05	1.54724E+06
115.000	-.10475	-.56672	-1.6774	-3.2296	23.054	28.201	89507.	1.85000E+05	1.54854E+06
116.000	-.10443	-.56567	-1.6747	-3.2239	23.045	28.221	89506.	1.85000E+05	1.54988E+06
117.000	-.10412	-.56463	-1.6719	-3.2182	23.038	28.241	89504.	1.85000E+05	1.55126E+06
118.000	-.10380	-.56359	-1.6693	-3.2126	23.031	28.261	89502.	1.85000E+05	1.55267E+06
119.000	-.10349	-.56255	-1.6666	-3.2070	23.024	28.280	89500.	1.85000E+05	1.55410E+06
120.000	-.10318	-.56152	-1.6639	-3.2014	23.019	28.300	89498.	1.85000E+05	1.55556E+06
121.000	-.10287	-.56049	-1.6612	-3.1958	23.015	28.319	89496.	1.85000E+05	1.55703E+06
122.000	-.10256	-.55946	-1.6585	-3.1902	23.012	28.338	89493.	1.85000E+05	1.55853E+06
123.000	-.10225	-.55844	-1.6559	-3.1846	23.009	28.358	89491.	1.85000E+05	1.56003E+06
124.000	-.10195	-.55742	-1.6532	-3.1791	23.007	28.377	89489.	1.85000E+05	1.56155E+06
125.000	-.10165	-.55640	-1.6506	-3.1735	23.006	28.396	89487.	1.85000E+05	1.56308E+06
126.000	-.10134	-.55538	-1.6480	-3.1680	23.006	28.415	89485.	1.85000E+05	1.56462E+06
127.000	-.10104	-.55437	-1.6454	-3.1624	23.006	28.434	89483.	1.85000E+05	1.56616E+06
128.000	-.10075	-.55337	-1.6428	-3.1569	23.007	28.452	89480.	1.85000E+05	1.56769E+06
129.000	-.10047	-.55239	-1.6402	-3.1514	23.009	28.471	89478.	1.85000E+05	1.56877E+06
130.000	-.10022	-.55144	-1.6377	-3.1459	23.012	28.490	89476.	1.85000E+05	1.56968E+06
131.000	-9.98797E-02	-.54733	-1.6168	-3.1027	23.015	28.509	89474.	1.85000E+05	1.57827E+06
132.000	-9.70237E-02	-.52793	-1.5642	-3.0263	23.025	28.530	89471.	1.85000E+05	1.58058E+06
133.000	-9.15333E-02	-.50271	-1.5067	-2.9423	23.039	28.549	89469.	1.85000E+05	1.59510E+06
134.000	-8.51628E-02	-.47682	-1.4486	-2.8541	23.058	28.568	89466.	1.85000E+05	1.61179E+06
135.000	-7.87623E-02	-.45095	-1.3900	-2.7630	23.084	28.585	89464.	1.85000E+05	1.63196E+06
136.000	-7.24660E-02	-.42510	-1.3304	-2.6705	23.111	28.602	89462.	1.85000E+05	1.65619E+06
137.000	-6.63048E-02	-.39923	-1.2697	-2.5759	23.135	28.618	89459.	1.85000E+05	1.68346E+06
138.000	-6.02092E-02	-.37326	-1.2080	-2.4788	23.151	28.634	89457.	1.85000E+05	1.71660E+06
139.000	-5.41859E-02	-.34727	-1.1452	-2.3791	23.157	28.650	89454.	1.85000E+05	1.75263E+06
140.000	-4.83079E-02	-.32134	-1.0815	-2.2768	23.152	28.665	89452.	1.85000E+05	1.79234E+06
141.000	-4.30225E-02	-.29605	-1.0179	-2.1735	23.140	28.678	89449.	1.85000E+05	1.84901E+06
142.000	-3.71672E-02	-.27028	-.95171	-2.0637	23.115	28.694	89446.	1.85000E+05	1.86630E+06
143.000	-3.20520E-02	-.24491	-.88565	-1.9538	23.087	28.706	89444.	1.85000E+05	1.93588E+06
144.000	-2.66017E-02	-.21978	-.81715	-1.8372	23.048	28.721	89441.	1.85000E+05	1.95939E+06
145.000	-2.18439E-02	-.19553	-.74898	-1.7193	23.004	28.733	89439.	1.85000E+05	2.01947E+06
146.000	-1.69070E-02	-.17125	-.67833	-1.5948	22.952	28.745	89436.	1.85000E+05	2.05339E+06
147.000	-1.25787E-02	-.14757	-.60865	-1.4680	22.901	28.756	89434.	1.85000E+05	2.10409E+06
148.000	-8.33068E-03	-.12404	-.53709	-1.3348	22.852	28.767	89431.	1.85000E+05	2.14245E+06
149.000	-4.54369E-03	-.10111	-.46442	-1.1957	22.804	28.776	89428.	1.85000E+05	2.18960E+06

TIME (SEC)	CNTRLVAR 710 SGPOWER SUM	CNTRLVAR 810 SGPOWER SUM	CNTRLVAR 9 BALANCE SUM	CNTRLVAR 7 PRZRHEAT SUM	CNTRLVAR 26 SPRBALAN SUM	PMPVEL 140 (RAD/SEC)	PMPVEL 240 (RAD/SEC)	PMPVEL 340 (RAD/SEC)	CNTRLVAR 435 SPRAYVAL FUNCTION
100.000	1.54027E+06	6.15002E+06	4.46710E+06	5.74148E+05	1.46235E+06	155.00	155.00	155.00	1.0000
101.000	1.53972E+06	6.14700E+06	4.47630E+06	5.78005E+05	1.45644E+06	155.00	155.00	155.00	1.0000
102.000	1.53934E+06	6.14468E+06	4.48429E+06	5.81770E+05	1.44873E+06	155.00	155.00	155.00	1.0000
103.000	1.53909E+06	6.14287E+06	4.49141E+06	5.85460E+05	1.43537E+06	155.00	155.00	155.00	1.0000
104.000	1.53900E+06	6.14146E+06	4.49775E+06	5.89145E+05	1.42552E+06	155.00	155.00	155.00	1.0000
105.000	1.53907E+06	6.14036E+06	4.50336E+06	5.92753E+05	1.41533E+06	155.00	155.00	155.00	1.0000
106.000	1.53933E+06	6.13955E+06	4.50823E+06	5.96289E+05	1.40529E+06	155.00	155.00	155.00	1.0000
107.000	1.53978E+06	6.13900E+06	4.51235E+06	5.99760E+05	1.39497E+06	155.00	155.00	155.00	1.0000
108.000	1.54042E+06	6.13870E+06	4.51575E+06	6.03169E+05	1.38407E+06	155.00	155.00	155.00	1.0000
109.000	1.54123E+06	6.13860E+06	4.51853E+06	6.06520E+05	1.37284E+06	155.00	155.00	155.00	1.0000
110.000	1.54217E+06	6.13868E+06	4.52079E+06	6.09816E+05	1.36131E+06	155.00	155.00	155.00	1.0000
111.000	1.54322E+06	6.13889E+06	4.52262E+06	6.13061E+05	1.34957E+06	155.00	155.00	155.00	1.0000
112.000	1.54435E+06	6.13919E+06	4.52411E+06	6.16257E+05	1.33767E+06	155.00	155.00	155.00	1.0000
113.000	1.54555E+06	6.13956E+06	4.52534E+06	6.19406E+05	1.32567E+06	155.00	155.00	155.00	1.0000
114.000	1.54681E+06	6.13997E+06	4.52635E+06	6.22511E+05	1.31362E+06	155.00	155.00	155.00	1.0000
115.000	1.54811E+06	6.14041E+06	4.52718E+06	6.25574E+05	1.30156E+06	155.00	155.00	155.00	1.0000
116.000	1.54945E+06	6.14086E+06	4.52786E+06	6.28597E+05	1.28951E+06	155.00	155.00	155.00	1.0000
117.000	1.55082E+06	6.14130E+06	4.52841E+06	6.31581E+05	1.27750E+06	155.00	155.00	155.00	1.0000
118.000	1.55223E+06	6.14174E+06	4.52885E+06	6.34527E+05	1.26554E+06	155.00	155.00	155.00	1.0000
119.000	1.55366E+06	6.14216E+06	4.52920E+06	6.37439E+05	1.25366E+06	155.00	155.00	155.00	1.0000
120.000	1.55512E+06	6.14256E+06	4.52948E+06	6.40316E+05	1.24187E+06	155.00	155.00	155.00	1.0000
121.000	1.55660E+06	6.14293E+06	4.52970E+06	6.43159E+05	1.23019E+06	155.00	155.00	155.00	1.0000
122.000	1.55809E+06	6.14326E+06	4.52986E+06	6.45971E+05	1.21862E+06	155.00	155.00	155.00	1.0000
123.000	1.55960E+06	6.14356E+06	4.53000E+06	6.48752E+05	1.20717E+06	155.00	155.00	155.00	1.0000
124.000	1.56112E+06	6.14382E+06	4.53010E+06	6.51503E+05	1.19587E+06	155.00	155.00	155.00	1.0000
125.000	1.56264E+06	6.14403E+06	4.53019E+06	6.54225E+05	1.18468E+06	155.00	155.00	155.00	1.0000
126.000	1.56418E+06	6.14420E+06	4.53026E+06	6.56919E+05	1.17364E+06	155.00	155.00	155.00	1.0000
127.000	1.56572E+06	6.14432E+06	4.53033E+06	6.59585E+05	1.16276E+06	155.00	155.00	155.00	1.0000
128.000	1.56726E+06	6.14438E+06	4.52650E+06	6.58321E+05	1.15057E+06	155.00	155.00	155.00	1.0000
129.000	1.56833E+06	6.14382E+06	4.52024E+06	6.53243E+05	1.14449E+06	155.00	155.00	155.00	1.0000
130.000	1.56924E+06	6.14246E+06	4.51402E+06	6.46977E+05	1.13431E+06	155.00	155.00	155.00	1.0000
131.000	1.57778E+06	6.14704E+06	4.48627E+06	6.41577E+05	1.07849E+06	155.00	155.00	155.00	.96000
132.000	1.58008E+06	6.10690E+06	4.50921E+06	6.33649E+05	9.94029E+05	155.00	155.00	155.00	.92000
133.000	1.59461E+06	6.01231E+06	4.55726E+06	6.21621E+05	9.67374E+05	155.00	155.00	155.00	.88000
134.000	1.61130E+06	5.87830E+06	4.64051E+06	6.07224E+05	9.19050E+05	155.00	155.00	155.00	.84000
135.000	1.63147E+06	5.72274E+06	4.73999E+06	5.93634E+05	9.07321E+05	155.00	155.00	155.00	.80000
136.000	1.65571E+06	5.55975E+06	4.82462E+06	5.84247E+05	8.35739E+05	155.00	155.00	155.00	.76000
137.000	1.68298E+06	5.39544E+06	4.93140E+06	5.61663E+05	7.75606E+05	155.00	155.00	155.00	.72000
138.000	1.71613E+06	5.23572E+06	5.02227E+06	5.58215E+05	7.39714E+05	155.00	155.00	155.00	.68000
139.000	1.75217E+06	5.08170E+06	5.10010E+06	5.54005E+05	7.54095E+05	155.00	155.00	155.00	.64000
140.000	1.79189E+06	4.93316E+06	5.16435E+06	5.49343E+05	7.43646E+05	155.00	155.00	155.00	.60000
141.000	1.84858E+06	4.80617E+06	5.17429E+06	5.43792E+05	5.81411E+05	155.00	155.00	155.00	.56000
142.000	1.86588E+06	4.64814E+06	5.28919E+06	5.38959E+05	6.98373E+05	155.00	155.00	155.00	.52000
143.000	1.93548E+06	4.52298E+06	5.26506E+06	5.34062E+05	8.75846E+05	155.00	155.00	155.00	.48000
144.000	1.95900E+06	4.36936E+06	5.37378E+06	5.27820E+05	3.29791E+05	155.00	155.00	155.00	.44000
145.000	2.01908E+06	4.24256E+06	5.35998E+06	5.22140E+05	9.77473E+05	155.00	155.00	155.00	.40000
146.000	2.05303E+06	4.09650E+06	5.44262E+06	5.15679E+05	2.76690E+05	155.00	155.00	155.00	.36000
147.000	2.10373E+06	3.96550E+06	5.45228E+06	5.09219E+05	5.87041E+05	155.00	155.00	155.00	.32000
148.000	2.14210E+06	3.82599E+06	5.51614E+06	5.03398E+05	2757.5	155.00	155.00	155.00	.28000
149.000	2.18927E+06	3.70124E+06	5.53365E+06	4.97110E+05	14410.	155.00	155.00	155.00	.24000

DOEL4 - SPRAY CAPACITY TEST AT ZERO POWER 87/01/22.

TIME (SEC)	CNTRLVAR 445 SPRAYVAL FUNCTION	TEMPF 125010000 (K)	TEMPF 131040000 (K)	TEMPF 151010000 (K)	TEMPF 111010000 (K)	TEMPF 121010000 (K)	TEMPF 225010000 (K)	TEMPF 232010000 (K)	TEMPF 251010000 (K)
100.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
101.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
102.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
103.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
104.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
105.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
106.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
107.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
108.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
109.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
110.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
111.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
112.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
113.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
114.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
115.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
116.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
117.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
118.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
119.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
120.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
121.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
122.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
123.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
124.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
125.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
126.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
127.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
128.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
129.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
130.000	1.0000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
131.000	.96000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
132.000	.92000	570.35	570.33	570.58	570.46	570.47	570.35	570.33	570.58
133.000	.88000	570.36	570.33	570.58	570.46	570.47	570.36	570.33	570.58
134.000	.84000	570.36	570.33	570.58	570.46	570.47	570.36	570.33	570.58
135.000	.80000	570.36	570.33	570.58	570.46	570.47	570.36	570.33	570.58
136.000	.76000	570.36	570.33	570.58	570.46	570.47	570.36	570.33	570.58
137.000	.72000	570.36	570.33	570.58	570.46	570.47	570.36	570.33	570.58
138.000	.68000	570.36	570.33	570.58	570.46	570.47	570.36	570.33	570.58
139.000	.64000	570.36	570.34	570.59	570.46	570.47	570.36	570.34	570.59
140.000	.60000	570.36	570.34	570.59	570.46	570.47	570.36	570.34	570.59
141.000	.56000	570.36	570.34	570.59	570.46	570.48	570.36	570.34	570.59
142.000	.52000	570.36	570.34	570.59	570.47	570.48	570.36	570.34	570.59
143.000	.48000	570.36	570.34	570.59	570.47	570.48	570.36	570.34	570.59
144.000	.44000	570.36	570.34	570.59	570.47	570.48	570.36	570.34	570.59
145.000	.40000	570.36	570.34	570.59	570.47	570.48	570.36	570.34	570.59
146.000	.36000	570.36	570.34	570.59	570.47	570.48	570.36	570.34	570.59
147.000	.32000	570.36	570.34	570.59	570.47	570.48	570.36	570.34	570.59
148.000	.28000	570.36	570.34	570.59	570.47	570.48	570.36	570.34	570.59
149.000	.24000	570.36	570.34	570.59	570.47	570.49	570.36	570.34	570.59

TIME (SEC)	TEMPF 211010000 (K)	TEMPF 221010000 (K)	TEMPF 325010000 (K)	TEMPF 331040000 (K)	TEMPF 351010000 (K)	TEMPF 311010000 (K)	TEMPF 321010000 (K)	TEMPF 450010000 (K)	TEMPF 420010000 (K)
100.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.34
101.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.31
102.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.29
103.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.26
104.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.23
105.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.21
106.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.18
107.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.15
108.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.13
109.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.10
110.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.07
111.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.05
112.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	589.02
113.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.99
114.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.97
115.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.94
116.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.91
117.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.89
118.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.86
119.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.83
120.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.81
121.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.78
122.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.76
123.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.73
124.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.70
125.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.68
126.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.65
127.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.63
128.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.60
129.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.57
130.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.55
131.000	570.46	570.47	570.37	570.35	570.60	570.46	570.66	570.43	588.77
132.000	570.46	570.47	570.37	570.35	570.60	570.46	570.65	570.43	589.08
133.000	570.46	570.47	570.37	570.35	570.60	570.46	570.64	570.43	589.38
134.000	570.46	570.47	570.37	570.35	570.60	570.46	570.64	570.43	589.67
135.000	570.46	570.47	570.37	570.35	570.60	570.46	570.63	570.43	589.97
136.000	570.46	570.47	570.37	570.35	570.60	570.46	570.62	570.43	590.27
137.000	570.46	570.47	570.37	570.35	570.60	570.46	570.61	570.43	590.59
138.000	570.46	570.47	570.37	570.35	570.60	570.46	570.61	570.43	590.93
139.000	570.46	570.47	570.37	570.35	570.60	570.46	570.60	570.43	591.29
140.000	570.46	570.47	570.37	570.35	570.60	570.46	570.59	570.43	591.67
141.000	570.46	570.48	570.37	570.35	570.60	570.46	570.59	570.43	592.07
142.000	570.47	570.48	570.37	570.35	570.60	570.47	570.58	570.43	592.53
143.000	570.47	570.48	570.37	570.35	570.60	570.47	570.58	570.43	593.00
144.000	570.47	570.48	570.37	570.35	570.60	570.47	570.57	570.43	593.53
145.000	570.47	570.48	570.37	570.35	570.60	570.47	570.57	570.43	594.10
146.000	570.47	570.48	570.37	570.35	570.60	570.47	570.56	570.43	594.74
147.000	570.47	570.48	570.37	570.35	570.60	570.47	570.55	570.43	595.42
148.000	570.47	570.48	570.37	570.35	570.60	570.47	570.55	570.43	596.21
149.000	570.47	570.49	570.37	570.35	570.60	570.47	570.54	570.43	597.11

TIME (SEC)	TEMPG 420010000 (K)	SATTEMP 420010000 (K)	CNTRLVAR 8 PRZVAPH SUM	CNTRLVAR 28 VAPGEN SUM	CNTRLVAR 27 HEATERW SUM	CNTRLVAR 912 PRZMASL SUM	CNTRLVAR 911 PRZMASW SUM	CNTRLVAR 920 SURGHEAT SUM	CPUTIME (SEC)
100.000	614.69	614.74	11482.	-3.5383	1.98480E+05	8653.3	2952.2	70498.	2073.8
101.000	614.64	614.69	11477.	-3.5272	1.98480E+05	8661.4	2948.6	71498.	2094.1
102.000	614.60	614.65	11471.	-3.5156	1.98475E+05	8669.3	2945.0	72472.	2114.5
103.000	614.55	614.60	11463.	-3.5034	1.98466E+05	8677.3	2941.4	73420.	2134.9
104.000	614.50	614.56	11456.	-3.4909	1.98454E+05	8685.2	2937.8	74335.	2155.2
105.000	614.46	614.51	11447.	-3.4783	1.98439E+05	8693.0	2934.3	75225.	2175.6
106.000	614.41	614.46	11437.	-3.4657	1.98423E+05	8700.9	2930.7	76093.	2195.9
107.000	614.37	614.42	11427.	-3.4530	1.98405E+05	8708.7	2927.2	76942.	2216.3
108.000	614.32	614.37	11416.	-3.4403	1.98387E+05	8716.4	2923.7	77771.	2236.7
109.000	614.28	614.33	11404.	-3.4275	1.98368E+05	8724.2	2920.2	78580.	2257.0
110.000	614.23	614.28	11392.	-3.4148	1.98348E+05	8731.8	2916.7	79371.	2277.4
111.000	614.18	614.24	11379.	-3.4020	1.98328E+05	8739.5	2913.2	80143.	2297.7
112.000	614.14	614.19	11366.	-3.3893	1.98307E+05	8747.1	2909.7	80897.	2318.1
113.000	614.09	614.14	11353.	-3.3766	1.98287E+05	8754.7	2906.3	81633.	2338.5
114.000	614.05	614.10	11339.	-3.3640	1.98266E+05	8762.2	2902.8	82352.	2358.8
115.000	614.00	614.05	11325.	-3.3515	1.98244E+05	8769.8	2899.4	83053.	2379.2
116.000	613.96	614.01	11311.	-3.3390	1.98223E+05	8777.2	2896.0	83738.	2399.5
117.000	613.91	613.96	11296.	-3.3267	1.98202E+05	8784.7	2892.6	84406.	2419.9
118.000	613.87	613.92	11282.	-3.3144	1.98180E+05	8792.1	2889.2	85058.	2440.3
119.000	613.82	613.87	11267.	-3.3021	1.98158E+05	8799.5	2885.9	85694.	2460.6
120.000	613.78	613.83	11251.	-3.2900	1.98136E+05	8806.8	2882.5	86315.	2481.0
121.000	613.73	613.78	11236.	-3.2780	1.98115E+05	8814.1	2879.2	86920.	2504.8
122.000	613.69	613.74	11221.	-3.2661	1.98093E+05	8821.4	2875.9	87511.	2525.2
123.000	613.64	613.69	11205.	-3.2543	1.98071E+05	8828.7	2872.6	88087.	2545.5
124.000	613.60	613.65	11189.	-3.2426	1.98049E+05	8835.9	2869.3	88648.	2565.9
125.000	613.55	613.60	11174.	-3.2309	1.98027E+05	8843.1	2866.0	89196.	2586.3
126.000	613.51	613.56	11158.	-3.2194	1.98005E+05	8850.2	2862.7	89729.	2606.6
127.000	613.46	613.51	11142.	-3.2079	1.97983E+05	8857.4	2859.5	90249.	2627.0
128.000	613.42	613.47	11185.	-3.1997	1.97965E+05	8864.5	2856.2	90756.	2647.4
129.000	613.37	613.43	11304.	-3.1948	1.97958E+05	8871.5	2853.0	91266.	2667.9
130.000	613.33	613.38	11463.	-3.1906	1.97957E+05	8878.6	2849.7	91782.	2688.3
131.000	613.29	613.34	11718.	-3.1415	1.97959E+05	8885.5	2846.5	91112.	2708.7
132.000	613.24	613.29	11962.	-3.0144	1.97717E+05	8892.1	2843.4	90473.	2729.1
133.000	613.20	613.25	12210.	-2.8543	1.97339E+05	8898.3	2840.5	89457.	2749.5
134.000	613.17	613.21	12472.	-2.6933	1.96880E+05	8904.1	2837.7	88375.	2769.9
135.000	613.13	613.18	12775.	-2.5343	1.96378E+05	8909.5	2835.0	87146.	2790.4
136.000	613.10	613.14	14287.	-2.3972	1.95829E+05	8914.5	2832.6	85919.	2810.8
137.000	613.07	613.11	14192.	-2.2372	1.95263E+05	8919.3	2830.2	84870.	2831.2
138.000	613.04	613.08	14036.	-2.0844	1.94631E+05	8923.9	2828.1	83919.	2851.5
139.000	613.02	613.06	13840.	-1.9356	1.93956E+05	8928.3	2826.0	82809.	2871.9
140.000	612.99	613.03	13605.	-1.7894	1.93280E+05	8932.4	2824.2	81487.	2892.3
141.000	612.97	613.01	12994.	-1.6749	1.92494E+05	8936.2	2822.4	79438.	2914.0
142.000	612.95	612.99	12949.	-1.5137	1.91738E+05	8940.2	2820.8	78700.	2934.8
143.000	612.94	612.97	12489.	-1.3567	1.91387E+05	8943.4	2819.4	76309.	2956.1
144.000	612.92	612.96	12200.	-1.2241	1.90334E+05	8946.8	2818.1	75135.	2977.1
145.000	612.91	612.94	11884.	-1.0627	1.90020E+05	8949.6	2817.0	72680.	2997.9
146.000	612.91	612.93	11521.	-.92606	1.89085E+05	8952.5	2816.0	71118.	3018.7
147.000	612.90	612.93	11177.	-.77363	1.88617E+05	8954.8	2815.1	68753.	3038.9
148.000	612.90	612.92	10840.	-.62131	1.87970E+05	8956.9	2814.4	66983.	3058.9
149.000	612.89	612.92	10464.	-.47050	1.87412E+05	8958.5	2813.9	64628.	3078.8

ATTEMPTED ADV:	TOT.=	1500	EDIT=	300	MIN.DT=	.100000	SEC	LAST DT=	.100000	SEC	MS.ERR=	-.529773	KG
REPEATED ADV:	TOT.=	0	EDIT=	0	MAX.DT=	.100000	SEC	CRNT.DT=	.119921	SEC	TOT.MS=	196371.	KG
SUCCESSFUL ADV:	TOT.=	1500	EDIT=	300	AVG.DT=	.100000	SEC	ERR.EST=	3.443697E-08		M.RATN=	-2.697821E-06	
REQUESTED ADV:	TOT.=	750	EDIT=	150	REQ.DT=	.200000	SEC	CPU=	3100.00	SEC	TIME=	150.000	SEC

TRIP NUMBER, TRIP TIME (SEC)
597 1.0000000E-01 598 20.10000 599 -1.000000
698 -1.000000

VOL.NO.	PRESSURE (PA)	VOIDG	TEMPF (K)	TEMPG (K)	SAT. TEMP. (K)	NONCOND. VAPOR QUAL.	BORON DENS. (KG/M3)	UF (J/KG)	UG (J/KG)	VOL. FLAG
SYSTEM 1	MASS= 1.96371E+05 KG		MASS ERROR= -.52977 KG			ERR.EST.= 3.44370E-08				
UPDOWNC	BRANCH	COMPONENT								
11-010000	1.50083E+07	0.	570.46	615.32	615.32	0.	.73133	1.30311E+06	2.45972E+06	00
UPDOWNOZZ	BRANCH	COMPONENT								
13-010000	1.49984E+07	0.	570.61	615.27	615.27	0.	.73104	1.30396E+06	2.45996E+06	00
DOWNCTS	ANNULUS	COMPONENT								
15-010000	1.50069E+07	0.	570.61	615.32	615.32	0.	.73105	1.30396E+06	2.45975E+06	00
15-020000	1.50186E+07	0.	570.62	615.38	615.38	0.	.73106	1.30396E+06	2.45947E+06	00
15-030000	1.50302E+07	0.	570.62	615.44	615.44	0.	.73107	1.30396E+06	2.45919E+06	00
LOWPLEN	BRANCH	COMPONENT								
23-010000	1.50323E+07	0.	570.62	615.45	615.45	0.	.73107	1.30396E+06	2.45914E+06	00
COREIN	BRANCH	COMPONENT								
25-010000	1.49659E+07	0.	570.60	615.10	615.10	0.	.73100	1.30396E+06	2.46070E+06	00
CORE	PIPE	COMPONENT								
31-010000	1.49333E+07	0.	570.59	614.92	614.92	0.	.73096	1.30397E+06	2.46141E+06	00
31-020000	1.48943E+07	0.	570.57	614.72	614.72	0.	.73091	1.30398E+06	2.46223E+06	00
31-030000	1.48560E+07	0.	570.56	614.51	614.51	0.	.73087	1.30400E+06	2.46304E+06	00
31-040000	1.48184E+07	0.	570.55	614.31	614.31	0.	.73082	1.30401E+06	2.46383E+06	00
31-050000	1.47815E+07	0.	570.54	614.11	614.11	0.	.73078	1.30402E+06	2.46461E+06	00
BYPASS	SNGLVOL	COMPONENT								
35-010000	1.48675E+07	0.	570.55	614.57	614.57	0.	.73091	1.30390E+06	2.46279E+06	00
COREEX	BRANCH	COMPONENT								
39-010000	1.47629E+07	0.	570.53	614.01	614.01	0.	.73076	1.30402E+06	2.46500E+06	00
UPPLEN1	BRANCH	COMPONENT								
41-010000	1.47461E+07	0.	570.52	613.92	613.92	0.	.73074	1.30401E+06	2.46536E+06	00
UPPLEN2	BRANCH	COMPONENT								
43-010000	1.47379E+07	0.	570.52	613.87	613.87	0.	.73074	1.30400E+06	2.46553E+06	00
UPHEAD	BRANCH	COMPONENT								
45-010000	1.47230E+07	0.	570.12	613.79	613.79	0.	.73147	1.30187E+06	2.46585E+06	00
HTLEGR1	PIPE	COMPONENT								
111-010000	1.46325E+07	0.	570.48	613.30	613.30	0.	.73062	1.30400E+06	2.46777E+06	00
111-020000	1.46294E+07	0.	570.47	613.28	613.28	0.	.73062	1.30400E+06	2.46784E+06	00
HTLEGR2	BRANCH	COMPONENT								
113-010000	1.46230E+07	0.	570.47	613.25	613.25	0.	.73061	1.30401E+06	2.46797E+06	00
INBOX	BRANCH	COMPONENT								
121-010000	1.46645E+07	0.	570.49	613.47	613.47	0.	.73066	1.30400E+06	2.46709E+06	00
UTUBE	PIPE	COMPONENT								
122-010000	1.46349E+07	0.	570.46	613.31	613.31	0.	.73065	1.30394E+06	2.46772E+06	00
122-020000	1.46185E+07	0.	570.45	613.22	613.22	0.	.73065	1.30389E+06	2.46807E+06	00
122-030000	1.46025E+07	0.	570.44	613.14	613.14	0.	.73064	1.30385E+06	2.46841E+06	00
122-040000	1.45844E+07	0.	570.42	613.04	613.04	0.	.73064	1.30381E+06	2.46880E+06	00
122-050000	1.45656E+07	0.	570.41	612.93	612.93	0.	.73063	1.30378E+06	2.46920E+06	00
122-060000	1.45485E+07	0.	570.40	612.84	612.84	0.	.73062	1.30376E+06	2.46957E+06	00
122-070000	1.45313E+07	0.	570.39	612.75	612.75	0.	.73060	1.30375E+06	2.46994E+06	00
122-080000	1.45142E+07	0.	570.38	612.65	612.65	0.	.73059	1.30374E+06	2.47030E+06	00

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122-090000  1.44970E+07  0.          570.37      612.56      612.56      0.          .73057      1.30374E+06  2.47067E+06  00
122-100000  1.44799E+07  0.          570.37      612.46      612.46      0.          .73055      1.30374E+06  2.47104E+06  00
122-110000  1.44635E+07  0.          570.36      612.37      612.37      0.          .73053      1.30374E+06  2.47140E+06  00
UTUBE       PIPE         COMPONENT
124-010000  1.44525E+07  0.          570.36      612.31      612.31      0.          .73052      1.30375E+06  2.47163E+06  00
124-020000  1.44463E+07  0.          570.36      612.28      612.28      0.          .73050      1.30376E+06  2.47176E+06  00
124-030000  1.44401E+07  0.          570.36      612.25      612.25      0.          .73049      1.30378E+06  2.47190E+06  00
124-040000  1.44338E+07  0.          570.36      612.21      612.21      0.          .73048      1.30379E+06  2.47203E+06  00
124-050000  1.44288E+07  0.          570.36      612.18      612.18      0.          .73047      1.30380E+06  2.47214E+06  00
124-060000  1.44251E+07  0.          570.36      612.16      612.16      0.          .73046      1.30381E+06  2.47222E+06  00
124-070000  1.44206E+07  0.          570.36      612.14      612.14      0.          .73045      1.30382E+06  2.47232E+06  00
OUTBOX      BRANCH       COMPONENT
125-010000  1.44288E+07  0.          570.36      612.18      612.18      0.          .73046      1.30382E+06  2.47214E+06  00
SEALR       PIPE         COMPONENT
131-010000  1.43653E+07  0.          570.34      611.83      611.83      0.          .73039      1.30382E+06  2.47351E+06  00
131-020000  1.43747E+07  0.          570.34      611.88      611.88      0.          .73040      1.30382E+06  2.47331E+06  00
131-030000  1.43795E+07  0.          570.34      611.91      611.91      0.          .73041      1.30382E+06  2.47321E+06  00
131-040000  1.43717E+07  0.          570.34      611.87      611.87      0.          .73040      1.30382E+06  2.47337E+06  00
PUMPR       PUMP         COMPONENT
  RPM =   155.00     (RAD/SEC)     HEAD =  6.84443E+05 (PA)        TORQUE =  -32239.     (N-M)
  OCTANT = 1                                                     MTR.TORQUE =   32239.     (N-M)
140-010000  1.47526E+07  0.          570.51      613.95      613.95      0.          .73076      1.30395E+06  2.46522E+06  10
COLDR1      SNGLVOL      COMPONENT
151-010000  1.49570E+07  0.          570.59      615.05      615.05      0.          .73098      1.30396E+06  2.46090E+06  00
COLDR2      BRANCH       COMPONENT
152-010000  1.49536E+07  0.          570.58      615.03      615.03      0.          .73100      1.30388E+06  2.46098E+06  00
COLDR3      PIPE         COMPONENT
153-010000  1.49501E+07  0.          570.58      615.01      615.01      0.          .73100      1.30389E+06  2.46105E+06  00
153-020000  1.49704E+07  0.          570.59      615.12      615.12      0.          .73102      1.30389E+06  2.46059E+06  00
CVTANK      TMDPVOL      COMPONENT
180-010000  2.00000E+07  0.          560.58      638.85      638.85      0.          .75821      1.24252E+06  2.30082E+06  00
HTLEGG1     PIPE         COMPONENT
211-010000  1.46323E+07  0.          570.48      613.30      613.30      0.          .73062      1.30400E+06  2.46778E+06  00
211-020000  1.46292E+07  0.          570.47      613.28      613.28      0.          .73062      1.30400E+06  2.46784E+06  00
HTLEGG2     BRANCH       COMPONENT
213-010000  1.46229E+07  0.          570.47      613.25      613.25      0.          .73061      1.30401E+06  2.46798E+06  00
INBOX       BRANCH       COMPONENT
221-010000  1.46644E+07  0.          570.49      613.47      613.47      0.          .73066      1.30400E+06  2.46709E+06  00
UTUBE       PIPE         COMPONENT
222-010000  1.46347E+07  0.          570.46      613.31      613.31      0.          .73065      1.30394E+06  2.46773E+06  00
222-020000  1.46184E+07  0.          570.45      613.22      613.22      0.          .73065      1.30389E+06  2.46807E+06  00
222-030000  1.46023E+07  0.          570.44      613.13      613.13      0.          .73064      1.30385E+06  2.46842E+06  00
222-040000  1.45842E+07  0.          570.42      613.04      613.04      0.          .73064      1.30381E+06  2.46881E+06  00
222-050000  1.45655E+07  0.          570.41      612.93      612.93      0.          .73063      1.30378E+06  2.46921E+06  00
222-060000  1.45483E+07  0.          570.40      612.84      612.84      0.          .73062      1.30376E+06  2.46957E+06  00
222-070000  1.45311E+07  0.          570.39      612.75      612.75      0.          .73060      1.30375E+06  2.46994E+06  00
222-080000  1.45140E+07  0.          570.38      612.65      612.65      0.          .73059      1.30374E+06  2.47031E+06  00
222-090000  1.44968E+07  0.          570.37      612.56      612.56      0.          .73057      1.30374E+06  2.47068E+06  00
222-100000  1.44796E+07  0.          570.37      612.46      612.46      0.          .73055      1.30374E+06  2.47105E+06  00
222-110000  1.44632E+07  0.          570.36      612.37      612.37      0.          .73053      1.30374E+06  2.47140E+06  00
UTUBE       PIPE         COMPONENT
224-010000  1.44522E+07  0.          570.36      612.31      612.31      0.          .73052      1.30375E+06  2.47164E+06  00
224-020000  1.44460E+07  0.          570.36      612.28      612.28      0.          .73050      1.30376E+06  2.47177E+06  00
224-030000  1.44397E+07  0.          570.36      612.24      612.24      0.          .73049      1.30378E+06  2.47191E+06  00
224-040000  1.44334E+07  0.          570.36      612.21      612.21      0.          .73048      1.30379E+06  2.47204E+06  00
224-050000  1.44284E+07  0.          570.36      612.18      612.18      0.          .73047      1.30380E+06  2.47215E+06  00
224-060000  1.44247E+07  0.          570.36      612.16      612.16      0.          .73046      1.30381E+06  2.47223E+06  00
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224-070000  1.44202E+07  0.        570.36      612.14      612.14      0.          .73045      1.30382E+06  2.47233E+06  00
OUTBOX      BRANCH       COMPONENT
225-010000  1.44284E+07  0.        570.36      612.18      612.18      0.          .73046      1.30382E+06  2.47215E+06  00
SEALG1      PIPE         COMPONENT
231-010000  1.43648E+07  0.        570.34      611.83      611.83      0.          .73039      1.30382E+06  2.47352E+06  00
231-020000  1.43741E+07  0.        570.34      611.88      611.88      0.          .73040      1.30382E+06  2.47332E+06  00
231-030000  1.43789E+07  0.        570.34      611.91      611.91      0.          .73041      1.30382E+06  2.47322E+06  00
SEALG2      BRANCH       COMPONENT
232-010000  1.43713E+07  0.        570.34      611.87      611.87      0.          .73040      1.30382E+06  2.47338E+06  00
PUMPR       PUMP         COMPONENT
  RPM =  155.00    (RAD/SEC)    HEAD =  6.84759E+05 (PA)        TORQUE =  -32241.    (N-M)
  OCTANT = 1                                              MTR.TORQUE =   32241.    (N-M)
240-010000  1.47523E+07  0.        570.51      613.95      613.95      0.          .73076      1.30396E+06  2.46523E+06  10
COLG1       BRANCH       COMPONENT
251-010000  1.49570E+07  0.        570.59      615.05      615.05      0.          .73098      1.30396E+06  2.46090E+06  00
COLG2       PIPE         COMPONENT
253-010000  1.49537E+07  0.        570.59      615.03      615.03      0.          .73098      1.30396E+06  2.46097E+06  00
253-020000  1.49503E+07  0.        570.59      615.02      615.02      0.          .73097      1.30397E+06  2.46105E+06  00
253-030000  1.49705E+07  0.        570.60      615.12      615.12      0.          .73099      1.30397E+06  2.46059E+06  00
LETDO1      TMDPVOL      COMPONENT
282-010000  3.80000E+06  0.        412.00      520.46      520.46      0.          .92880      5.82440E+05  2.60184E+06  00
HTLEGB1     PIPE         COMPONENT
311-010000  1.46326E+07  0.        570.48      613.30      613.30      0.          .73062      1.30400E+06  2.46777E+06  00
311-020000  1.46295E+07  0.        570.52      613.28      613.28      0.          .73056      1.30423E+06  2.46784E+06  00
HTLEGB2     BRANCH       COMPONENT
313-010000  1.46231E+07  0.        570.51      613.25      613.25      0.          .73055      1.30423E+06  2.46797E+06  00
INBOX       BRANCH       COMPONENT
321-010000  1.46645E+07  0.        570.54      613.47      613.47      0.          .73058      1.30426E+06  2.46709E+06  00
UTUBE       PIPE         COMPONENT
322-010000  1.46349E+07  0.        570.51      613.31      613.31      0.          .73058      1.30418E+06  2.46772E+06  00
322-020000  1.46186E+07  0.        570.49      613.22      613.22      0.          .73059      1.30411E+06  2.46807E+06  00
322-030000  1.46025E+07  0.        570.47      613.14      613.14      0.          .73060      1.30405E+06  2.46841E+06  00
322-040000  1.45844E+07  0.        570.45      613.04      613.04      0.          .73060      1.30399E+06  2.46880E+06  00
322-050000  1.45657E+07  0.        570.44      612.93      612.93      0.          .73060      1.30395E+06  2.46920E+06  00
322-060000  1.45485E+07  0.        570.43      612.84      612.84      0.          .73059      1.30391E+06  2.46957E+06  00
322-070000  1.45314E+07  0.        570.42      612.75      612.75      0.          .73058      1.30389E+06  2.46994E+06  00
322-080000  1.45142E+07  0.        570.40      612.65      612.65      0.          .73057      1.30387E+06  2.47030E+06  00
322-090000  1.44970E+07  0.        570.40      612.56      612.56      0.          .73056      1.30385E+06  2.47067E+06  00
322-100000  1.44799E+07  0.        570.39      612.46      612.46      0.          .73055      1.30384E+06  2.47104E+06  00
322-110000  1.44635E+07  0.        570.38      612.37      612.37      0.          .73053      1.30384E+06  2.47139E+06  00
UTUBE       PIPE         COMPONENT
324-010000  1.44525E+07  0.        570.38      612.31      612.31      0.          .73052      1.30383E+06  2.47163E+06  00
324-020000  1.44463E+07  0.        570.37      612.28      612.28      0.          .73051      1.30383E+06  2.47176E+06  00
324-030000  1.44401E+07  0.        570.37      612.25      612.25      0.          .73051      1.30384E+06  2.47190E+06  00
324-040000  1.44338E+07  0.        570.37      612.21      612.21      0.          .73050      1.30384E+06  2.47203E+06  00
324-050000  1.44288E+07  0.        570.37      612.18      612.18      0.          .73049      1.30384E+06  2.47214E+06  00
324-060000  1.44251E+07  0.        570.37      612.16      612.16      0.          .73049      1.30385E+06  2.47222E+06  00
324-070000  1.44206E+07  0.        570.37      612.14      612.14      0.          .73048      1.30385E+06  2.47232E+06  00
OUTBOX      BRANCH       COMPONENT
325-010000  1.44288E+07  0.        570.37      612.18      612.18      0.          .73049      1.30385E+06  2.47214E+06  00
SEALB       PIPE         COMPONENT
331-010000  1.43653E+07  0.        570.34      611.83      611.83      0.          .73042      1.30385E+06  2.47351E+06  00
331-020000  1.43746E+07  0.        570.35      611.88      611.88      0.          .73043      1.30386E+06  2.47331E+06  00
331-030000  1.43794E+07  0.        570.35      611.91      611.91      0.          .73043      1.30386E+06  2.47321E+06  00
331-040000  1.43717E+07  0.        570.35      611.87      611.87      0.          .73042      1.30386E+06  2.47338E+06  00
PUMPR       PUMP         COMPONENT
  RPM =  155.00    (RAD/SEC)    HEAD =  6.84368E+05 (PA)        TORQUE =  -32238.    (N-M)
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OCTANT = 1 MTR.TORQUE = 32238. (N-M)

340-010000	1.47525E+07	0.	570.52	613.95	613.95	0.	.73079	1.30399E+06	2.46522E+06	10
COLDB1	SNGLVOL	COMPONENT								
351-010000	1.49569E+07	0.	570.60	615.05	615.05	0.	.73100	1.30400E+06	2.46090E+06	00
COLDR2	BRANCH	COMPONENT								
352-010000	1.49537E+07	0.	570.60	615.03	615.03	0.	.73100	1.30400E+06	2.46097E+06	00
COLDR3	PIPE	COMPONENT								
353-010000	1.49503E+07	0.	570.60	615.02	615.02	0.	.73099	1.30401E+06	2.46105E+06	00
353-020000	1.49705E+07	0.	570.61	615.12	615.12	0.	.73101	1.30401E+06	2.46059E+06	00
SURGE	PIPE	COMPONENT								
400-010000	1.46257E+07	.19574	613.39	613.26	613.26	0.	.50850	1.57354E+06	2.46789E+06	00
400-020000	1.46178E+07	.12588	613.42	613.22	613.22	0.	.55182	1.57377E+06	2.46805E+06	00
400-030000	1.46096E+07	.10723	613.39	613.17	613.17	0.	.56287	1.57361E+06	2.46823E+06	00
400-040000	1.46012E+07	6.76408E-02	613.38	613.13	613.13	0.	.58662	1.57361E+06	2.46844E+06	00
PRESSU	PIPE	COMPONENT								
410-010000	1.45960E+07	1.66164E-03	613.34	613.10	613.10	0.	.62661	1.57335E+06	2.46855E+06	00
410-020000	1.45936E+07	3.63803E-03	613.27	613.09	613.09	0.	.62398	1.57276E+06	2.46861E+06	00
410-030000	1.45897E+07	7.07008E-03	613.20	613.07	613.07	0.	.61620	1.57225E+06	2.46869E+06	00
410-040000	1.45833E+07	2.63779E-03	613.04	613.03	613.03	0.	.59975	1.57101E+06	2.46882E+06	00
410-050000	1.45738E+07	.51217	613.16	612.93	612.98	0.	.25678	1.57205E+06	2.46857E+06	00
410-060000	1.45672E+07	.99909	612.93	612.91	612.94	0.	4.40630E-04	1.57018E+06	2.46888E+06	00
410-070000	1.45645E+07	.99470	612.81	612.90	612.93	0.	2.57708E-03	1.56928E+06	2.46900E+06	00
410-080000	1.45627E+07	.99355	611.56	612.90	612.92	0.	3.19234E-03	1.55949E+06	2.46904E+06	00
410-090000	1.45622E+07	.99283	607.31	612.90	612.92	0.	3.75409E-03	1.52770E+06	2.46909E+06	00
TOP	BRANCH	COMPONENT								
420-010000	1.45619E+07	.99191	598.16	612.90	612.91	0.	4.69266E-03	1.46536E+06	2.46910E+06	00
SPRAYR	BRANCH	COMPONENT								
430-010000	1.50254E+07	0.	570.60	615.42	615.42	0.	.73108	1.30387E+06	2.45930E+06	00
SPRAYB	BRANCH	COMPONENT								
440-010000	1.50253E+07	0.	570.62	615.42	615.42	0.	.73109	1.30394E+06	2.45931E+06	00
SPRAYB	BRANCH	COMPONENT								
450-010000	1.45943E+07	0.	570.43	613.09	613.09	0.	.73063	1.30386E+06	2.46859E+06	00
TV490	TMDPVOL	COMPONENT								
490-010000	1.55100E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60522E+06	2.44763E+06	00

SYSTEM 2 MASS= 0. KG MASS ERROR= 0. KG ERR.EST.= 0.

TV940	TMDPVOL	COMPONENT								
940-010000	2.00000E+05	0.	323.15	393.38	393.38	0.	0.	2.09218E+05	2.52920E+06	00

VOL.NO.	RHOF (KG/M3)	RHOG (KG/M3)	LIQ.V.VEL. (M/SEC)	VAP.V.VEL. (M/SEC)	SOUNDE (M/SEC)	STATIC QUAL.	TOT.HT.INP. (WATTS)	VAP.HT.INP. (WATTS)	VAPOR GEN. (KG/M3-SEC)
11-010000	731.31	96.794	3.58102E-02	3.58102E-02	976.19	0.	0.	0.	0.
13-010000	730.98	96.693	7.8387	7.8312	974.79	0.	0.	0.	0.
15-010000	730.99	96.781	7.5517	7.5517	974.83	0.	0.	0.	0.
15-020000	731.00	96.900	7.5516	7.5516	974.87	0.	0.	0.	0.
15-030000	731.02	97.020	7.5515	7.5515	974.92	0.	0.	0.	0.
23-010000	731.02	97.041	-3.24931E-06	-6.59406E-04	974.93	0.	0.	0.	0.
25-010000	730.95	96.363	5.0280	5.0280	974.62	0.	0.	0.	0.
31-010000	730.91	96.031	4.8803	4.8803	974.43	0.	0.	0.	0.
31-020000	730.86	95.635	4.8806	4.8806	974.21	0.	0.	0.	0.
31-030000	730.81	95.247	4.8809	4.8809	973.99	0.	0.	0.	0.
31-040000	730.77	94.869	4.8812	4.8812	973.78	0.	0.	0.	0.
31-050000	730.72	94.500	4.8815	4.8815	973.57	0.	0.	0.	0.
35-010000	730.86	95.363	.70671	.70671	974.21	0.	0.	0.	0.
39-010000	730.71	94.314	5.0298	5.0299	973.48	0.	0.	0.	0.
41-010000	730.69	94.147	2.1902	2.1902	973.40	0.	0.	0.	0.
43-010000	730.68	94.066	-7.49244E-03	-6.48614E-03	973.38	0.	0.	0.	0.

45-010000	731.46	93.918	-4.81438E-06	2.21465E-04	976.84	0.	0.	0.	0.
111-010000	730.57	93.024	14.865	14.865	972.86	0.	0.	0.	0.
111-020000	730.57	92.994	14.866	14.866	972.84	0.	0.	0.	0.
113-010000	730.56	92.932	14.866	14.866	972.80	0.	0.	0.	0.
121-010000	730.61	93.339	1.9807	1.9807	973.02	0.	-653.66	0.	0.
122-010000	730.60	93.048	5.9739	5.9739	972.97	0.	-3.46893E+05	0.	0.
122-020000	730.60	92.888	5.9739	5.9739	972.97	0.	-2.90738E+05	0.	0.
122-030000	730.59	92.731	5.9739	5.9739	972.96	0.	-2.50789E+05	0.	0.
122-040000	730.59	92.553	5.9739	5.9739	972.94	0.	-2.63770E+05	0.	0.
122-050000	730.58	92.371	5.9740	5.9740	972.89	0.	-1.85513E+05	0.	0.
122-060000	730.57	92.204	5.9741	5.9741	972.84	0.	-1.53565E+05	0.	0.
122-070000	730.56	92.037	5.9742	5.9742	972.78	0.	-1.25014E+05	0.	0.
122-080000	730.54	91.871	5.9743	5.9743	972.72	0.	-99524.	0.	0.
122-090000	730.52	91.704	5.9745	5.9745	972.64	0.	-76759.	0.	0.
122-100000	730.50	91.539	5.9746	5.9746	972.56	0.	-56428.	0.	0.
122-110000	730.48	91.380	5.9748	5.9748	972.47	0.	-42225.	0.	0.
124-010000	730.47	91.275	5.9749	5.9749	972.41	0.	-32343.	0.	0.
124-020000	730.46	91.215	5.9750	5.9750	972.35	0.	-60676.	0.	0.
124-030000	730.45	91.154	5.9751	5.9751	972.30	0.	-61026.	0.	0.
124-040000	730.43	91.094	5.9752	5.9752	972.25	0.	-61367.	0.	0.
124-050000	730.42	91.046	5.9753	5.9753	972.21	0.	-37122.	0.	0.
124-060000	730.42	91.010	5.9754	5.9754	972.18	0.	-34350.	0.	0.
124-070000	730.41	90.968	5.9754	5.9754	972.14	0.	-50975.	0.	0.
125-010000	730.42	91.047	1.9813	1.9813	972.18	0.	-71.857	0.	0.
131-010000	730.35	90.438	13.035	13.035	971.88	0.	0.	0.	0.
131-020000	730.36	90.527	13.341	13.341	971.92	0.	0.	0.	0.
131-030000	730.36	90.573	13.341	13.341	971.94	0.	0.	0.	0.
131-040000	730.35	90.499	13.341	13.341	971.90	0.	0.	0.	0.
140-010000	730.72	94.211	2.4855	2.4855	973.55	0.	0.	0.	0.
151-010000	730.94	96.272	16.953	16.953	974.58	0.	0.	0.	0.
152-010000	730.96	96.237	16.961	16.912	974.67	0.	0.	0.	0.
153-010000	730.96	96.202	16.963	16.963	974.65	0.	0.	0.	0.
153-020000	730.98	96.408	14.970	14.970	974.75	0.	0.	0.	0.
180-010000	758.21	170.17	7.79392E-03	7.79392E-03	1442.5	0.	0.	0.	0.
211-010000	730.57	93.023	14.877	14.877	972.86	0.	0.	0.	0.
211-020000	730.57	92.992	14.878	14.878	972.84	0.	0.	0.	0.
213-010000	730.56	92.930	14.878	14.878	972.80	0.	0.	0.	0.
221-010000	730.61	93.338	1.9823	1.9823	973.02	0.	-653.49	0.	0.
222-010000	730.60	93.046	5.9785	5.9785	972.97	0.	-3.46864E+05	0.	0.
222-020000	730.60	92.886	5.9786	5.9786	972.97	0.	-2.90722E+05	0.	0.
222-030000	730.59	92.729	5.9786	5.9786	972.96	0.	-2.50782E+05	0.	0.
222-040000	730.59	92.552	5.9786	5.9786	972.94	0.	-2.63773E+05	0.	0.
222-050000	730.58	92.369	5.9787	5.9787	972.89	0.	-1.85516E+05	0.	0.
222-060000	730.57	92.202	5.9788	5.9788	972.84	0.	-1.53559E+05	0.	0.
222-070000	730.55	92.035	5.9789	5.9789	972.78	0.	-1.25016E+05	0.	0.
222-080000	730.54	91.868	5.9790	5.9790	972.71	0.	-99524.	0.	0.
222-090000	730.52	91.702	5.9791	5.9791	972.64	0.	-76755.	0.	0.
222-100000	730.50	91.536	5.9793	5.9793	972.55	0.	-56419.	0.	0.
222-110000	730.48	91.377	5.9794	5.9794	972.47	0.	-42210.	0.	0.
224-010000	730.47	91.272	5.9796	5.9796	972.40	0.	-32324.	0.	0.
224-020000	730.46	91.212	5.9797	5.9797	972.35	0.	-60647.	0.	0.
224-030000	730.44	91.151	5.9798	5.9798	972.30	0.	-60990.	0.	0.
224-040000	730.43	91.090	5.9799	5.9799	972.25	0.	-61324.	0.	0.
224-050000	730.42	91.042	5.9800	5.9800	972.21	0.	-37084.	0.	0.
224-060000	730.42	91.006	5.9800	5.9800	972.18	0.	-34315.	0.	0.
224-070000	730.41	90.963	5.9801	5.9801	972.14	0.	-50929.	0.	0.
226-010000	730.42	91.042	1.9828	1.9828	972.18	0.	-71.739	0.	0.

231-010000	730.35	90.432	13.045	13.045	971.88	0.	0.	0.	0.
231-020000	730.36	90.521	13.351	13.351	971.92	0.	0.	0.	0.
231-030000	730.36	90.567	13.351	13.351	971.94	0.	0.	0.	0.
232-010000	730.35	90.495	13.335	13.335	971.90	0.	0.	0.	0.
240-010000	730.72	94.208	2.4844	2.4843	973.54	0.	0.	0.	0.
251-010000	730.94	96.272	16.945	16.945	974.57	0.	0.	0.	0.
253-010000	730.93	96.238	16.942	16.942	974.55	0.	0.	0.	0.
253-020000	730.93	96.204	16.942	16.942	974.53	0.	0.	0.	0.
253-030000	730.95	96.409	14.951	14.951	974.63	0.	0.	0.	0.
282-010000	928.80	19.070	8.09106E-04	8.09106E-04	1467.8	0.	0.	0.	0.
311-010000	730.57	93.026	14.855	14.855	972.86	0.	0.	0.	0.
311-020000	730.48	92.995	14.863	14.863	972.48	0.	0.	0.	0.
313-010000	730.47	92.932	14.870	14.870	972.43	0.	0.	0.	0.
321-010000	730.51	93.340	1.9812	1.9812	972.59	0.	2246.6	0.	0.
322-010000	730.51	93.048	5.9752	5.9752	972.58	0.	-4.80765E+05	0.	0.
322-020000	730.51	92.888	5.9752	5.9752	972.61	0.	-4.09616E+05	0.	0.
322-030000	730.52	92.731	5.9751	5.9751	972.63	0.	-3.59949E+05	0.	0.
322-040000	730.52	92.553	5.9751	5.9751	972.64	0.	-3.87742E+05	0.	0.
322-050000	730.52	92.371	5.9751	5.9751	972.62	0.	-2.81216E+05	0.	0.
322-060000	730.51	92.204	5.9751	5.9751	972.59	0.	-2.40783E+05	0.	0.
322-070000	730.50	92.037	5.9751	5.9751	972.55	0.	-2.04432E+05	0.	0.
322-080000	730.49	91.871	5.9752	5.9752	972.51	0.	-1.71751E+05	0.	0.
322-090000	730.48	91.705	5.9753	5.9753	972.45	0.	-1.42383E+05	0.	0.
322-100000	730.46	91.539	5.9754	5.9754	972.38	0.	-1.16011E+05	0.	0.
322-110000	730.45	91.380	5.9755	5.9755	972.31	0.	-99999.	0.	0.
324-010000	730.44	91.275	5.9756	5.9756	972.26	0.	-84435.	0.	0.
324-020000	730.43	91.215	5.9757	5.9757	972.24	0.	-1.41359E+05	0.	0.
324-030000	730.42	91.154	5.9758	5.9758	972.20	0.	-1.28330E+05	0.	0.
324-040000	730.42	91.094	5.9758	5.9758	972.17	0.	-1.17513E+05	0.	0.
324-050000	730.41	91.046	5.9759	5.9759	972.14	0.	-68830.	0.	0.
324-060000	730.40	91.010	5.9759	5.9759	972.12	0.	-60363.	0.	0.
324-070000	730.40	90.968	5.9760	5.9760	972.08	0.	-82717.	0.	0.
325-010000	730.40	91.047	1.9814	1.9814	972.12	0.	307.74	0.	0.
331-010000	730.34	90.437	13.036	13.036	971.82	0.	0.	0.	0.
331-020000	730.34	90.527	13.342	13.342	971.86	0.	0.	0.	0.
331-030000	730.35	90.572	13.342	13.342	971.88	0.	0.	0.	0.
331-040000	730.34	90.498	13.342	13.342	971.84	0.	0.	0.	0.
340-010000	730.71	94.211	2.4857	2.4857	973.48	0.	0.	0.	0.
351-010000	730.92	96.271	16.954	16.954	974.51	0.	0.	0.	0.
352-010000	730.92	96.238	16.944	16.944	974.49	0.	0.	0.	0.
353-010000	730.91	96.204	16.944	16.944	974.46	0.	0.	0.	0.
353-020000	730.93	96.409	14.953	14.953	974.56	0.	0.	0.	0.
400-010000	609.28	92.962	-.12026	2.39405E-02	113.22	3.58039E-02	14368.	45.150	6.32746E-02
400-020000	609.14	92.885	-.11248	2.91215E-02	107.23	2.14876E-02	15936.	34.948	7.76537E-02
400-030000	609.21	92.805	-.10474	4.04117E-02	105.70	1.79676E-02	16064.	38.983	8.18224E-02
400-040000	609.20	92.718	-9.31756E-02	3.53139E-02	102.69	1.09210E-02	16233.	21.435	8.66559E-02
410-010000	609.32	92.667	-2.62837E-03	6.97389E-02	97.843	2.53063E-04	4631.3	0.	7.06348E-02
410-020000	609.64	92.643	-2.75239E-03	.19763	97.711	5.54559E-04	9289.1	0.	6.95776E-02
410-030000	609.91	92.606	-2.02030E-03	.17002	97.733	1.07997E-03	14982.	0.	6.40130E-02
410-040000	610.56	92.543	-3.39072E-03	.39733	96.872	4.00704E-04	1.71430E+05	0.	5.09460E-02
410-050000	609.98	92.520	-1.55470E-02	1.53933E-02	153.69	.13737	1.29456E+05	4671.5	2.96613E-02
410-060000	610.98	92.429	-1.5060	7.08323E-03	380.99	.99400	5618.8	5459.6	-5.32920E-03
410-070000	611.48	92.394	-.67271	4.81061E-03	375.31	.96597	1.16558E+05	0.	-1.01572E-03
410-080000	616.76	92.376	-.45351	3.87639E-03	373.70	.95847	22620.	0.	-7.94319E-02
410-090000	633.21	92.365	-.52084	4.36505E-03	372.20	.95284	9937.7	0.	-.39025
420-010000	663.10	92.362	-.32104	3.36703E-03	369.64	.94471	6500.8	0.	-1.0479
430-010000	731.04	96.970	.46412	.46412	975.04	0.	0.	0.	0.

440-010000	731.02	96.969	.46406	.46406	974.93	0.	0.	0.	0.
450-010000	730.58	92.651	.92865	1.3726	972.90	0.	0.	0.	0.
490-010000	593.86	102.04	0.	0.	372.13	1.0000	0.	0.	0.
940-010000	988.11	1.1294	0.	0.	1537.3	0.	89426.	0.	0.

VOL.NO.	LRGST.MASS ERR.		REDUCE-QUALITY		REDUCE-EXTRAP.		REDUCE-MASS		REDUCE-PROPTY.		MIN.COURANT		REDUCE-COURANT	
	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL
11-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-040000	0	0	0	0	0	0	0	0	0	0	0	12	150	743
140-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

211-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
213-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
221-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232-010000	0	0	0	0	0	0	0	0	0	0	0	1	0	0
240-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
251-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
282-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
311-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
311-020000	5	10	0	0	0	0	0	0	0	0	0	0	0	0
313-010000	7	9	0	0	0	0	0	0	0	0	0	0	0	0
321-010000	6	6	0	0	0	0	0	0	0	0	0	0	0	0
322-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
325-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

331-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-040000	0	0	0	0	0	0	0	0	0	0	300	1487	0	7
340-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
351-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
352-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
353-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
353-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400-010000	0	483	0	0	0	0	0	0	0	0	0	0	0	0
400-020000	2	38	0	0	0	0	0	0	0	0	0	0	0	0
400-030000	0	70	0	0	0	0	0	0	0	0	0	0	0	0
400-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-010000	236	454	0	0	0	0	0	0	0	0	0	0	0	0
410-020000	0	3	0	0	0	0	0	0	0	0	0	0	0	0
410-030000	0	17	0	0	0	0	0	0	0	0	0	0	0	0
410-040000	0	345	0	0	0	0	0	0	0	0	0	0	0	0
410-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-060000	0	12	0	0	0	0	0	0	0	0	0	0	0	0
410-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-080000	4	4	0	0	0	0	0	0	0	0	0	0	0	0
410-090000	39	39	0	0	0	0	0	0	0	0	0	0	0	0
420-010000	1	7	0	0	0	0	0	0	0	0	0	0	0	0
430-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
440-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450-010000	0	3	0	0	0	0	0	0	0	0	0	0	0	0
490-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
940-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

JUN.NO.	FROM VOL.	TO VOL.	LIQ.J.VEL. (M/SEC)	VAP.J.VEL. (M/SEC)	MASS FLOW (KG/SEC)	JUN.AREA (M2)	THROAT RATIO	JUNCTION FLAGS	CHOKE FLAG	NO.ADVS. EDIT	CHOKED TOTAL
SYSTEM 1											
UPDOWNC	BRANCH	COMPONENT									
11-010000	-13-010000	11-010000	3.58102E-02	3.58102E-02	48.478	1.8520	1.0000	00000	0	0	0
11-020000	11-010000	45-010000	17.924	17.924	48.500	3.70000E-03	1.0000	00000	0	0	0
UPDOWNOZZ	BRANCH	COMPONENT									
13-010000	153-020000	13-010000	14.970	14.970	4749.0	.43400	1.0000	00000	0	0	0
13-020000	253-030000	13-010000	14.951	14.951	4742.9	.43400	1.0000	00000	0	0	0
13-030000	353-020000	13-010000	14.953	14.953	4743.4	.43400	1.0000	00000	0	0	0
13-040000	13-010000	15-010000	7.8386	7.8386	14187.	2.4760	1.0000	00000	0	0	0
DOWNCTS	ANNULUS	COMPONENT									
15-010000	15-010000	15-020000	7.5517	7.5517	14187.	2.5700	1.0000	00000	0	0	0
15-020000	15-020000	15-030000	7.5516	7.5516	14187.	2.5700	1.0000	00000	0	0	0
LOWPLEN	BRANCH	COMPONENT									
23-010000	15-030000	23-010000	7.5514	7.5514	14187.	2.5700	1.0000	00000	0	0	0
23-020000	-23-010000	25-010000	5.0278	5.0278	14187.	3.8600	1.0000	00000	0	0	0
COREIN	BRANCH	COMPONENT									
25-010000	25-010000	31-010000	4.8802	4.8802	13769.	3.8600	1.0000	00000	0	0	0
25-020000	25-010000	35-010000	5.7162	5.7162	417.83	.10000	1.0000	00000	0	0	0
CORE	PIPE	COMPONENT									
31-010000	31-010000	31-020000	4.8804	4.8804	13769.	3.8600	1.0000	00000	0	0	0
31-020000	31-020000	31-030000	4.8807	4.8807	13769.	3.8600	1.0000	00000	0	0	0
31-030000	31-030000	31-040000	4.8811	4.8811	13769.	3.8600	1.0000	00000	0	0	0
31-040000	31-040000	31-050000	4.8814	4.8814	13769.	3.8600	1.0000	00000	0	0	0
COREEX	BRANCH	COMPONENT									
39-010000	31-050000	39-010000	4.8817	4.8817	13769.	3.8600	1.0000	00000	0	0	0
39-020000	35-010000	39-010000	5.7171	5.7171	417.84	.10000	1.0000	00000	0	0	0

UPPLEN1	BRANCH	COMPONENT									
41-010000	39-010000	41-010000	5.0299	5.0299	14187.	3.8600	1.0000	00000	0	0	0
41-020000	41-010000	43-010000	2.1902	2.1902	14187.	8.8650	1.0000	00000	0	0	0
UPPLEN2	BRANCH	COMPONENT									
43-010000	-43-010000	111-010000	14.864	14.864	4745.1	.43690	1.0000	00000	0	0	0
43-020000	-43-010000	211-010000	14.875	14.875	4748.8	.43690	1.0000	00000	0	0	0
43-030000	-43-010000	311-010000	14.854	14.854	4741.8	.43690	1.0000	00000	0	0	0
UPHEAD	BRANCH	COMPONENT									
45-010000	43-010000	45-010000	-7.48431E-03	-7.48431E-03	-48.531	8.8650	1.0000	00000	0	0	0
HTLEGR1	PIPE	COMPONENT									
111-010000	111-010000	111-020000	14.866	14.866	4745.1	.43690	1.0000	00000	0	0	0
HTLEGR2	BRANCH	COMPONENT									
113-010000	111-020000	113-010000	14.866	14.866	4745.1	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
121-010000	121-010000	122-010000	5.9738	5.9738	4745.1	1.0872	1.0000	00000	0	0	0
121-020000	113-010000	121-010000	14.866	14.866	4745.1	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
122-010000	122-010000	122-020000	5.9739	5.9739	4745.1	1.0872	1.0000	00000	0	0	0
122-020000	122-020000	122-030000	5.9739	5.9739	4745.1	1.0872	1.0000	00000	0	0	0
122-030000	122-030000	122-040000	5.9739	5.9739	4745.1	1.0872	1.0000	00000	0	0	0
122-040000	122-040000	122-050000	5.9740	5.9740	4745.1	1.0872	1.0000	00000	0	0	0
122-050000	122-050000	122-060000	5.9741	5.9741	4745.1	1.0872	1.0000	00000	0	0	0
122-060000	122-060000	122-070000	5.9742	5.9742	4745.1	1.0872	1.0000	00000	0	0	0
122-070000	122-070000	122-080000	5.9743	5.9743	4745.1	1.0872	1.0000	00000	0	0	0
122-080000	122-080000	122-090000	5.9744	5.9744	4745.1	1.0872	1.0000	00000	0	0	0
122-090000	122-090000	122-100000	5.9745	5.9745	4745.1	1.0872	1.0000	00000	0	0	0
122-100000	122-100000	122-110000	5.9747	5.9747	4745.1	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
123-000000	122-110000	124-010000	5.9749	5.9749	4745.1	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
124-010000	124-010000	124-020000	5.9750	5.9750	4745.1	1.0872	1.0000	00000	0	0	0
124-020000	124-020000	124-030000	5.9751	5.9751	4745.1	1.0872	1.0000	00000	0	0	0
124-030000	124-030000	124-040000	5.9752	5.9752	4745.1	1.0872	1.0000	00000	0	0	0
124-040000	124-040000	124-050000	5.9753	5.9753	4745.1	1.0872	1.0000	00000	0	0	0
124-050000	124-050000	124-060000	5.9753	5.9753	4745.1	1.0872	1.0000	00000	0	0	0
124-060000	124-060000	124-070000	5.9754	5.9754	4745.1	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
125-010000	124-070000	125-010000	5.9716	5.9716	4745.1	1.0879	1.0000	00000	0	0	0
125-020000	125-010000	131-010000	13.035	13.035	4745.1	.49840	1.0000	00000	0	0	0
SEALR	PIPE	COMPONENT									
131-010000	131-010000	131-020000	13.341	13.341	4745.1	.48700	1.0000	00000	0	0	0
131-020000	131-020000	131-030000	13.341	13.341	4745.1	.48700	1.0000	00000	0	0	0
131-030000	131-030000	131-040000	13.341	13.341	4745.1	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
140-010000	131-040000	140-010000	13.341	13.341	4745.1	.48700	1.0000	00000	0	0	0
140-020000	140-010000	151-010000	16.955	16.955	4745.2	.38300	1.0000	00000	0	0	0
COLDR2	BRANCH	COMPONENT									
152-010000	151-010000	152-010000	16.943	16.943	4743.1	.38300	1.0000	00000	0	0	0
152-020000	152-010000	153-010000	16.963	16.963	4749.0	.38300	1.0000	00000	0	0	0
COLDR3	PIPE	COMPONENT									
153-010000	153-010000	153-020000	16.963	16.963	4749.0	.38300	1.0000	00000	0	0	0
CVJUN	TMDPJUN	COMPONENT									
181-000000	180-010000	152-010000	2.2332	2.2332	5.9094	3.49000E-03	1.0000	00000	0	0	0
HTLEGG1	PIPE	COMPONENT									
211-010000	211-010000	211-020000	14.878	14.878	4748.8	.43690	1.0000	00000	0	0	0
HTLEGG2	BRANCH	COMPONENT									
213-010000	211-020000	213-010000	14.878	14.878	4748.8	.43690	1.0000	00000	0	0	0

INBOX	BRANCH	COMPONENT									
221-010000	221-010000	222-010000	5.9785	5.9785	4748.8	1.0872	1.0000	00000	0	0	0
221-020000	213-010000	221-010000	14.878	14.878	4748.8	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
222-010000	222-010000	222-020000	5.9786	5.9786	4748.8	1.0872	1.0000	00000	0	0	0
222-020000	222-020000	222-030000	5.9786	5.9786	4748.8	1.0872	1.0000	00000	0	0	0
222-030000	222-030000	222-040000	5.9786	5.9786	4748.8	1.0872	1.0000	00000	0	0	0
222-040000	222-040000	222-050000	5.9786	5.9786	4748.8	1.0872	1.0000	00000	0	0	0
222-050000	222-050000	222-060000	5.9787	5.9787	4748.8	1.0872	1.0000	00000	0	0	0
222-060000	222-060000	222-070000	5.9788	5.9788	4748.8	1.0872	1.0000	00000	0	0	0
222-070000	222-070000	222-080000	5.9789	5.9789	4748.8	1.0872	1.0000	00000	0	0	0
222-080000	222-080000	222-090000	5.9790	5.9790	4748.8	1.0872	1.0000	00000	0	0	0
222-090000	222-090000	222-100000	5.9792	5.9792	4748.8	1.0872	1.0000	00000	0	0	0
222-100000	222-100000	222-110000	5.9793	5.9793	4748.8	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
223-000000	222-110000	224-010000	5.9795	5.9795	4748.8	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
224-010000	224-010000	224-020000	5.9796	5.9796	4748.8	1.0872	1.0000	00000	0	0	0
224-020000	224-020000	224-030000	5.9797	5.9797	4748.8	1.0872	1.0000	00000	0	0	0
224-030000	224-030000	224-040000	5.9798	5.9798	4748.8	1.0872	1.0000	00000	0	0	0
224-040000	224-040000	224-050000	5.9799	5.9799	4748.8	1.0872	1.0000	00000	0	0	0
224-050000	224-050000	224-060000	5.9800	5.9800	4748.8	1.0872	1.0000	00000	0	0	0
224-060000	224-060000	224-070000	5.9801	5.9801	4748.8	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
225-010000	224-070000	225-010000	5.9763	5.9763	4748.8	1.0879	1.0000	00000	0	0	0
225-020000	225-010000	231-010000	13.045	13.045	4748.8	.49840	1.0000	00000	0	0	0
SEALG1	PIPE	COMPONENT									
231-010000	231-010000	231-020000	13.351	13.351	4748.8	.48700	1.0000	00000	0	0	0
231-020000	231-020000	231-030000	13.351	13.351	4748.8	.48700	1.0000	00000	0	0	0
SEALG2	BRANCH	COMPONENT									
232-010000	231-030000	232-010000	13.335	13.335	4742.9	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
240-010000	232-010000	240-010000	13.335	13.335	4742.9	.48700	1.0000	00000	0	0	0
240-020000	240-010000	251-010000	16.947	16.947	4742.9	.38300	1.0000	00000	0	0	0
COLG1	BRANCH	COMPONENT									
251-010000	251-010000	253-010000	16.942	16.942	4742.9	.38300	1.0000	00000	0	0	0
COLG2	PIPE	COMPONENT									
253-010000	253-010000	253-020000	16.942	16.942	4742.9	.38300	1.0000	00000	0	0	0
253-020000	253-020000	253-030000	16.942	16.942	4742.9	.38300	1.0000	00000	0	0	0
TJ183	TMDPJUN	COMPONENT									
283-000000	231-030000	282-010000	1.66141E-02	1.66141E-02	5.9094	.48700	1.0000	00000	0	0	0
HTLEGB1	PIPE	COMPONENT									
311-010000	311-010000	311-020000	14.856	14.856	4741.8	.43690	1.0000	00000	0	0	0
SURGEJUN	SNGLJUN	COMPONENT									
312-000000	-400-010000	-311-020000	.12449	-.12860	3.8504	6.31180E-02	1.0000	10001	0	0	0
HTLEGB2	BRANCH	COMPONENT									
313-010000	311-020000	313-010000	14.870	14.870	4745.6	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
321-010000	321-010000	322-010000	5.9752	5.9752	4745.6	1.0872	1.0000	00000	0	0	0
321-020000	313-010000	321-010000	14.870	14.870	4745.6	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
322-010000	322-010000	322-020000	5.9752	5.9752	4745.5	1.0872	1.0000	00000	0	0	0
322-020000	322-020000	322-030000	5.9751	5.9751	4745.5	1.0872	1.0000	00000	0	0	0
322-030000	322-030000	322-040000	5.9751	5.9751	4745.5	1.0872	1.0000	00000	0	0	0
322-040000	322-040000	322-050000	5.9750	5.9750	4745.5	1.0872	1.0000	00000	0	0	0
322-050000	322-050000	322-060000	5.9751	5.9751	4745.5	1.0872	1.0000	00000	0	0	0
322-060000	322-060000	322-070000	5.9751	5.9751	4745.5	1.0872	1.0000	00000	0	0	0

322-070000	322-070000	322-080000	5.9752	5.9752	4745.5	1.0872	1.0000	00000	0	0	0
322-080000	322-080000	322-090000	5.9753	5.9753	4745.5	1.0872	1.0000	00000	0	0	0
322-090000	322-090000	322-100000	5.9754	5.9754	4745.5	1.0872	1.0000	00000	0	0	0
322-100000	322-100000	322-110000	5.9755	5.9755	4745.5	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
323-000000	322-110000	324-010000	5.9756	5.9756	4745.5	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
324-010000	324-010000	324-020000	5.9757	5.9757	4745.5	1.0872	1.0000	00000	0	0	0
324-020000	324-020000	324-030000	5.9757	5.9757	4745.5	1.0872	1.0000	00000	0	0	0
324-030000	324-030000	324-040000	5.9758	5.9758	4745.5	1.0872	1.0000	00000	0	0	0
324-040000	324-040000	324-050000	5.9759	5.9759	4745.5	1.0872	1.0000	00000	0	0	0
324-050000	324-050000	324-060000	5.9759	5.9759	4745.5	1.0872	1.0000	00000	0	0	0
324-060000	324-060000	324-070000	5.9760	5.9760	4745.5	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
325-010000	324-070000	325-010000	5.9722	5.9722	4745.5	1.0879	1.0000	00000	0	0	0
325-020000	325-010000	331-010000	13.036	13.036	4745.5	.49840	1.0000	00000	0	0	0
SEALB	PIPE	COMPONENT									
331-010000	331-010000	331-020000	13.342	13.342	4745.5	.48700	1.0000	00000	0	0	0
331-020000	331-020000	331-030000	13.342	13.342	4745.5	.48700	1.0000	00000	0	0	0
331-030000	331-030000	331-040000	13.342	13.342	4745.5	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
340-010000	331-040000	340-010000	13.342	13.342	4745.5	.48700	1.0000	00000	0	0	0
340-020000	340-010000	351-010000	16.957	16.957	4745.5	.38300	1.0000	00000	0	0	0
COLDR2	BRANCH	COMPONENT									
352-010000	351-010000	352-010000	16.944	16.944	4743.4	.38300	1.0000	00000	0	0	0
352-020000	352-010000	353-010000	16.944	16.944	4743.4	.38300	1.0000	00000	0	0	0
COLDR3	PIPE	COMPONENT									
353-010000	353-010000	353-020000	16.945	16.945	4743.4	.38300	1.0000	00000	0	0	0
SURGE	PIPE	COMPONENT									
400-010000	400-010000	400-020000	-.11637	2.39405E-02	-3.8837	6.31180E-02	1.0000	00000	0	0	0
400-020000	400-020000	400-030000	-.10924	3.73249E-02	-3.7412	6.34253E-02	1.0000	00000	0	0	0
400-030000	400-030000	400-040000	-.10043	4.40388E-02	-3.5907	6.34253E-02	1.0000	00000	0	0	0
SURGE1	SNGLJUN	COMPONENT									
405-000000	400-040000	410-010000	-8.64046E-02	2.14698E-02	-3.3251	6.34253E-02	1.0000	00100	0	0	0
PRESSU	PIPE	COMPONENT									
410-010000	410-010000	410-020000	-2.63012E-03	.15343	-3.3570	2.1329	1.0000	00000	0	0	0
410-020000	410-020000	410-030000	-2.87503E-03	.21782	-3.5559	2.1329	1.0000	00000	0	0	0
410-030000	410-030000	410-040000	-2.19167E-03	.18200	-4.2937	3.5350	1.0000	00000	0	0	0
410-040000	410-040000	410-050000	-5.84450E-03	.97488	-5.2949	3.5350	1.0000	00000	0	0	0
410-050000	410-050000	410-060000	-5.1947	1.04505E-02	-8.5130	3.5350	1.0000	00000	0	0	0
410-060000	410-060000	410-070000	-.87101	5.35536E-03	-8.3029	3.5350	1.0000	00000	0	0	0
410-070000	410-070000	410-080000	-.51123	4.26325E-03	-5.8777	3.5350	1.0000	00000	0	0	0
410-080000	410-080000	410-090000	-.61270	5.36050E-03	-4.9710	2.1329	1.0000	00000	0	0	0
TOP	BRANCH	COMPONENT									
420-010000	410-090000	420-010000	-.44309	3.36877E-03	-4.4899	2.1329	1.0000	00000	0	0	0
SPRAYR	BRANCH	COMPONENT									
430-010000	151-010000	430-010000	.46412	.46412	2.0317	5.98900E-03	1.0000	00000	0	0	0
SPRAYR	VALVE	COMPONENT									
435-000000	430-010000	450-010000	.46407	.46407	2.0318	5.98900E-03	2.36870E-02	00100	0	0	1
SPRAYB	BRANCH	COMPONENT									
440-010000	351-010000	440-010000	.46407	.46407	2.0314	5.98900E-03	1.0000	00000	0	0	0
SPRAYB	VALVE	COMPONENT									
445-000000	440-010000	450-010000	.46402	.46402	2.0315	5.98900E-03	2.36870E-02	00100	0	0	1
SPRAYB	BRANCH	COMPONENT									
450-010000	450-010000	420-010000	.92868	1.3946	4.0634	5.98900E-03	1.0000	00000	0	0	0
PRESVAL	VALVE	COMPONENT									
489-000000	420-010000	490-010000	0.	0.	0.	2.1340	0.	00100	0	0	0

SYSTEM 2

JUN.NO.	VOIDFJ	VOIDGJ	FROM	TO	FIJ (N-S2/M5)	FWALFJ	FWALGJ	FJUNF	FJUNR	FORMFJ	FORMGJ
11-010000	1.0000	0.	BBY	BBY	19.464	2.72	0.	0.	0.	0.	0.
11-020000	1.0000	0.	BBY	BBY	2.60306E-02	1.936E-07	0.	2.30	2.30	0.	0.
13-010000	1.0000	0.	BBY	BBY	14.393	1.748E-02	0.	.429	.429	0.	0.
13-020000	1.0000	0.	BBY	BBY	14.393	1.748E-02	0.	.429	.429	0.	0.
13-030000	1.0000	0.	BBY	BBY	14.393	1.748E-02	0.	.429	.429	0.	0.
13-040000	1.0000	0.	BBY	BBY	21.221	3.487E-02	0.	.160	.160	0.	0.
15-010000	1.0000	0.	BBY	BBY	21.665	4.002E-02	0.	0.	0.	0.	0.
15-020000	1.0000	0.	BBY	BBY	21.674	4.002E-02	0.	0.	0.	0.	0.
23-010000	1.0000	0.	BBY	BBY	15.881	2.076E-02	0.	1.43	.500	0.	0.
23-020000	1.0000	0.	BBY	BBY	16.466	3.426E-03	0.	5.27	5.27	0.	0.
25-010000	1.0000	0.	BBY	BBY	21.618	.651	0.	2.45	2.45	0.	0.
25-020000	1.0000	0.	BBY	BBY	2.3177	4.351E-04	0.	7.45	7.45	0.	0.
31-010000	1.0000	0.	BBY	BBY	21.591	1.30	0.	2.47	2.47	0.	0.
31-020000	1.0000	0.	BBY	BBY	21.562	1.30	0.	2.40	2.40	0.	0.
31-030000	1.0000	0.	BBY	BBY	21.534	1.30	0.	2.31	2.31	0.	0.
31-040000	1.0000	0.	BBY	BBY	21.506	1.30	0.	2.23	2.23	0.	0.
39-010000	1.0000	0.	BBY	BBY	21.486	.651	0.	.720	.720	0.	0.
39-020000	1.0000	0.	BBY	BBY	2.3098	4.350E-04	0.	6.45	6.45	0.	0.
41-010000	1.0000	0.	BBY	BBY	16.139	1.905E-03	0.	2.04	2.04	0.	0.
41-020000	1.0000	0.	BBY	BBY	21.463	3.897E-03	0.	0.	0.	0.	0.
43-010000	1.0000	0.	BBY	BBY	12.512	1.920E-02	0.	.380	.380	0.	0.
43-020000	1.0000	0.	BBY	BBY	12.512	1.920E-02	0.	.380	.380	0.	0.
43-030000	1.0000	0.	BBY	BBY	12.512	1.920E-02	0.	.380	.380	0.	0.
45-010000	1.0000	0.	BBY	BBY	21.260	.886	0.	2.60	2.60	0.	0.
111-010000	1.0000	0.	BBY	BBY	21.384	3.836E-02	0.	0.	0.	0.	0.
113-010000	1.0000	0.	BBY	BBY	21.381	3.836E-02	0.	0.	0.	0.	0.
121-010000	1.0000	0.	BBY	BBY	11.852	.377	0.	.226	.580	0.	0.
121-020000	1.0000	0.	BBY	BBY	13.710	1.926E-02	0.	.325	.255	0.	0.
122-010000	1.0000	0.	BBY	BBY	21.383	.740	0.	0.	0.	0.	0.
122-020000	1.0000	0.	BBY	BBY	21.372	.728	0.	0.	0.	0.	0.
122-030000	1.0000	0.	BBY	BBY	21.359	.824	0.	0.	0.	0.	0.
122-040000	1.0000	0.	BBY	BBY	21.348	.849	0.	0.	0.	0.	0.
122-050000	1.0000	0.	BBY	BBY	21.335	.778	0.	0.	0.	0.	0.
122-060000	1.0000	0.	BBY	BBY	21.323	.778	0.	0.	0.	0.	0.
122-070000	1.0000	0.	BBY	BBY	21.311	.778	0.	0.	0.	0.	0.
122-080000	1.0000	0.	BBY	BBY	21.299	.778	0.	0.	0.	0.	0.
122-090000	1.0000	0.	BBY	BBY	21.287	.778	0.	0.	0.	0.	0.
122-100000	1.0000	0.	BBY	BBY	21.275	.808	0.	0.	0.	0.	0.
123-000000	1.0000	0.	BBY	BBY	21.266	.837	0.	0.	0.	0.	0.
124-010000	1.0000	0.	BBY	BBY	21.259	1.20	0.	0.	0.	0.	0.
124-020000	1.0000	0.	BBY	BBY	21.255	1.56	0.	0.	0.	0.	0.
124-030000	1.0000	0.	BBY	BBY	21.251	1.56	0.	0.	0.	0.	0.
124-040000	1.0000	0.	BBY	BBY	21.247	1.24	0.	0.	0.	0.	0.
124-050000	1.0000	0.	BBY	BBY	21.243	.915	0.	0.	0.	0.	0.
124-060000	1.0000	0.	BBY	BBY	21.240	1.10	0.	0.	0.	0.	0.
125-010000	1.0000	0.	BBY	BBY	13.611	.650	0.	.580	.226	0.	0.
125-020000	1.0000	0.	BBY	BBY	12.334	1.316E-02	0.	.255	.325	0.	0.
131-010000	1.0000	0.	BBY	BBY	20.961	2.551E-02	0.	0.	0.	0.	0.
131-020000	1.0000	0.	BBY	BBY	21.209	3.326E-02	0.	0.	0.	0.	0.
131-030000	1.0000	0.	BBY	BBY	21.208	3.096E-02	0.	0.	0.	0.	0.
140-010000	1.0000	0.	BBY	CTB	13.324	1.074E-02	0.	.195	.195	0.	0.
140-020000	1.0000	0.	CTB	BBY	14.121	1.598E-02	0.	.270	.270	0.	0.
152-010000	1.0000	0.	BBY	BBY	21.623	3.198E-02	0.	0.	0.	0.	0.

152-020000	1.0000	0.	BBY	BBY	21.620	3.196E-02	0.	0.	0.	0.	0.
153-010000	1.0000	0.	BBY	BBY	20.357	2.842E-02	0.	0.	0.	0.	0.
181-000000	1.0000	0.	BBY	BBY	.19702	1.106E-03	0.	0.	0.	0.	0.
211-010000	1.0000	0.	BBY	BBY	21.384	3.836E-02	0.	0.	0.	0.	0.
213-010000	1.0000	0.	BBY	BBY	21.381	3.836E-02	0.	0.	0.	0.	0.
221-010000	1.0000	0.	BBY	BBY	11.852	.377	0.	.226	.580	0.	0.
221-020000	1.0000	0.	BBY	BBY	13.710	1.926E-02	0.	.325	.255	0.	0.
222-010000	1.0000	0.	BBY	BBY	21.382	.740	0.	0.	0.	0.	0.
222-020000	1.0000	0.	BBY	BBY	21.371	.727	0.	0.	0.	0.	0.
222-030000	1.0000	0.	BBY	BBY	21.359	.823	0.	0.	0.	0.	0.
222-040000	1.0000	0.	BBY	BBY	21.348	.849	0.	0.	0.	0.	0.
222-050000	1.0000	0.	BBY	BBY	21.335	.778	0.	0.	0.	0.	0.
222-060000	1.0000	0.	BBY	BBY	21.323	.778	0.	0.	0.	0.	0.
222-070000	1.0000	0.	BBY	BBY	21.311	.778	0.	0.	0.	0.	0.
222-080000	1.0000	0.	BBY	BBY	21.299	.778	0.	0.	0.	0.	0.
222-090000	1.0000	0.	BBY	BBY	21.287	.778	0.	0.	0.	0.	0.
222-100000	1.0000	0.	BBY	BBY	21.275	.807	0.	0.	0.	0.	0.
223-000000	1.0000	0.	BBY	BBY	21.266	.837	0.	0.	0.	0.	0.
224-010000	1.0000	0.	BBY	BBY	21.259	1.20	0.	0.	0.	0.	0.
224-020000	1.0000	0.	BBY	BBY	21.255	1.56	0.	0.	0.	0.	0.
224-030000	1.0000	0.	BBY	BBY	21.250	1.56	0.	0.	0.	0.	0.
224-040000	1.0000	0.	BBY	BBY	21.247	1.24	0.	0.	0.	0.	0.
224-050000	1.0000	0.	BBY	BBY	21.243	.914	0.	0.	0.	0.	0.
224-060000	1.0000	0.	BBY	BBY	21.240	1.10	0.	0.	0.	0.	0.
225-010000	1.0000	0.	BBY	BBY	13.611	.650	0.	.580	.226	0.	0.
225-020000	1.0000	0.	BBY	BBY	12.334	1.316E-02	0.	.255	.325	0.	0.
231-010000	1.0000	0.	BBY	BBY	20.961	2.551E-02	0.	0.	0.	0.	0.
231-020000	1.0000	0.	BBY	BBY	21.209	3.326E-02	0.	0.	0.	0.	0.
232-010000	1.0000	0.	BBY	BBY	21.208	3.098E-02	0.	0.	0.	0.	0.
240-010000	1.0000	0.	BBY	CTB	13.324	1.074E-02	0.	.195	.195	0.	0.
240-020000	1.0000	0.	CTB	BBY	14.121	1.598E-02	0.	.270	.270	0.	0.
251-010000	1.0000	0.	BBY	BBY	21.622	3.196E-02	0.	0.	0.	0.	0.
253-010000	1.0000	0.	BBY	BBY	21.620	3.196E-02	0.	0.	0.	0.	0.
253-020000	1.0000	0.	BBY	BBY	20.356	2.842E-02	0.	0.	0.	0.	0.
283-000000	1.0000	0.	BBY	BBY	21.210	16.2	0.	0.	0.	0.	0.
311-010000	1.0000	0.	BBY	BBY	21.383	3.837E-02	0.	0.	0.	0.	0.
312-000000	.80426	0.	BBY	BBY	2563.8	.166	5.145E-02	0.	0.	0.	0.
313-010000	1.0000	0.	BBY	BBY	21.378	3.836E-02	0.	0.	0.	0.	0.
321-010000	1.0000	0.	BBY	BBY	11.850	.377	0.	.226	.580	0.	0.
321-020000	1.0000	0.	BBY	BBY	13.707	1.927E-02	0.	.325	.255	0.	0.
322-010000	1.0000	0.	BBY	BBY	21.379	.740	0.	0.	0.	0.	0.
322-020000	1.0000	0.	BBY	BBY	21.369	.728	0.	0.	0.	0.	0.
322-030000	1.0000	0.	BBY	BBY	21.357	.824	0.	0.	0.	0.	0.
322-040000	1.0000	0.	BBY	BBY	21.345	.849	0.	0.	0.	0.	0.
322-050000	1.0000	0.	BBY	BBY	21.333	.778	0.	0.	0.	0.	0.
322-060000	1.0000	0.	BBY	BBY	21.321	.778	0.	0.	0.	0.	0.
322-070000	1.0000	0.	BBY	BBY	21.309	.778	0.	0.	0.	0.	0.
322-080000	1.0000	0.	BBY	BBY	21.298	.778	0.	0.	0.	0.	0.
322-090000	1.0000	0.	BBY	BBY	21.286	.778	0.	0.	0.	0.	0.
322-100000	1.0000	0.	BBY	BBY	21.274	.808	0.	0.	0.	0.	0.
323-000000	1.0000	0.	BBY	BBY	21.265	.837	0.	0.	0.	0.	0.
324-010000	1.0000	0.	BBY	BBY	21.258	1.20	0.	0.	0.	0.	0.
324-020000	1.0000	0.	BBY	BBY	21.254	1.56	0.	0.	0.	0.	0.
324-030000	1.0000	0.	BBY	BBY	21.250	1.56	0.	0.	0.	0.	0.
324-040000	1.0000	0.	BBY	BBY	21.246	1.24	0.	0.	0.	0.	0.
324-050000	1.0000	0.	BBY	BBY	21.243	.915	0.	0.	0.	0.	0.
324-060000	1.0000	0.	BBY	BBY	21.240	1.10	0.	0.	0.	0.	0.

325-010000	1.0000	0.	BBY	BBY	13.611	.650	0.	.580	.225	0.	0.
325-020000	1.0000	0.	BBY	BBY	12.334	1.316E-02	0.	.255	.325	0.	0.
331-010000	1.0000	0.	BBY	BBY	20.961	2.551E-02	0.	0.	0.	0.	0.
331-020000	1.0000	0.	BBY	BBY	21.208	3.326E-02	0.	0.	0.	0.	0.
331-030000	1.0000	0.	BBY	BBY	21.208	3.096E-02	0.	0.	0.	0.	0.
340-010000	1.0000	0.	BBY	CTB	13.324	1.074E-02	0.	.195	.195	0.	0.
340-020000	1.0000	0.	CTB	BBY	14.120	1.598E-02	0.	.270	.270	0.	0.
352-010000	1.0000	0.	BBY	BBY	21.621	3.197E-02	0.	0.	0.	0.	0.
352-020000	1.0000	0.	BBY	BBY	21.619	3.196E-02	0.	0.	0.	0.	0.
353-010000	1.0000	0.	BBY	BBY	20.355	2.842E-02	0.	0.	0.	0.	0.
400-010000	.87412	.19574	BBY	BBY	8796.6	.371	.534	0.	0.	0.	0.
400-020000	.89277	.12588	BBY	BBY	6150.0	.389	.458	0.	0.	0.	0.
400-030000	.93236	.10723	BBY	BBY	4897.9	.396	.434	0.	0.	0.	0.
405-000000	.99834	6.76408E-02	BBY	BBY	1655.2	.217	.428	0.	0.	.377	37.3
410-010000	.99636	1.66164E-03	BBY	BBY	682.38	5.362E-03	2.917E-03	0.	0.	0.	0.
410-020000	.99293	3.63803E-03	BBY	BBY	706.50	3.642E-03	1.637E-03	0.	0.	0.	0.
410-030000	.99736	7.07008E-03	BBY	BBY	580.40	7.676E-03	4.659E-03	0.	0.	0.	0.
410-040000	.48783	2.63779E-03	BBY	SLG	1181.3	5.148E-02	1.050E-05	0.	0.	0.	0.
410-050000	9.12395E-04	.51217	SLG	ANM	36.172	1.455E-04	1.823E-04	0.	0.	0.	0.
410-060000	5.29566E-03	.99909	ANM	ANM	20.300	6.202E-04	7.828E-06	0.	0.	0.	0.
410-070000	6.44751E-03	.99470	ANM	ANM	103.43	5.814E-04	9.829E-06	0.	0.	0.	0.
410-080000	7.16710E-03	.99355	ANM	ANM	122.11	1.178E-04	2.434E-06	0.	0.	0.	0.
420-010000	8.08613E-03	.99283	ANM	ANM	192.99	1.416E-04	4.004E-06	0.	0.	0.	0.
430-010000	1.0000	0.	BBY	BBY	18.062	1.24	0.	0.	0.	0.	0.
435-000000	1.0000	0.	BBY	BBY	21.527	3.28	0.	0.	0.	4.501E+03	4.501E+03
440-010000	1.0000	0.	BBY	BBY	18.062	1.24	0.	0.	0.	0.	0.
445-000000	1.0000	0.	BBY	BBY	21.527	3.28	0.	0.	0.	4.501E+03	4.501E+03
450-010000	1.0000	0.	BBY	ANM	785.10	1.05	4.094E-10	1.00	1.00	0.	0.
489-000000	4.26578E-03	.99616	ANM	MST	199.62	228.	5.770E-02	0.	0.	0.	0.

STR.NO.	SIDE	BDRY.VOL. NUMBER	SURFACE TEMP. (K)	HEAT TRF. RATE (WATT)	HEAT FLUX (WATT/M2)	CRITICAL HEAT FLUX (WATT/M2)	MODE	HEAT TRF. COEF. (WATT/M2-K)	INT. HEAT SOURCE (WATT)	NET HEAT LOSS (WATT)	VOL.AVE. TEMP. (K)
1211-001	LEFT	121-010000	570.48	-478.42	-51.524	0.	2	5995.3	0.	-478.42	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
1220-001	LEFT	122-010000	570.43	-3.46893E+05	-1423.2	0.	2	37846.	0.	-497.77	570.39
	RIGHT	0-000000	570.35	3.46395E+05	1258.6	0.	0	0.			
1220-002	LEFT	122-020000	570.42	-2.90738E+05	-1233.4	0.	2	37847.	0.	-442.95	570.38
	RIGHT	0-000000	570.35	2.90295E+05	1090.6	0.	0	0.			
1220-003	LEFT	122-030000	570.41	-2.50789E+05	-1063.9	0.	2	37849.	0.	-409.24	570.38
	RIGHT	0-000000	570.35	2.50380E+05	940.65	0.	0	0.			
1220-004	LEFT	122-040000	570.40	-2.63770E+05	-885.37	0.	2	37850.	0.	-471.03	570.37
	RIGHT	0-000000	570.35	2.63299E+05	782.65	0.	0	0.			
1220-005	LEFT	122-050000	570.39	-1.85513E+05	-735.83	0.	2	37852.	0.	-369.19	570.37
	RIGHT	0-000000	570.35	1.85144E+05	650.33	0.	0	0.			
1220-006	LEFT	122-060000	570.38	-1.53555E+05	-609.07	0.	2	37854.	0.	-342.59	570.37
	RIGHT	0-000000	570.35	1.53212E+05	538.17	0.	0	0.			
1220-007	LEFT	122-070000	570.38	-1.25014E+05	-495.86	0.	2	37856.	0.	-318.18	570.36
	RIGHT	0-000000	570.35	1.24696E+05	438.00	0.	0	0.			
1220-008	LEFT	122-080000	570.37	-99524.	-394.76	0.	2	37857.	0.	-295.55	570.36
	RIGHT	0-000000	570.35	99229.	348.55	0.	0	0.			
1220-009	LEFT	122-090000	570.37	-76759.	-304.46	0.	2	37859.	0.	-274.51	570.36
	RIGHT	0-000000	570.35	76485.	268.66	0.	0	0.			
1220-010	LEFT	122-100000	570.36	-56428.	-223.82	0.	2	37861.	0.	-255.09	570.36
	RIGHT	0-000000	570.35	56173.	197.31	0.	0	0.			
1220-0[illegible]	LEFT	122-110000	570.36	-42225.	-155.70	0.	2	37863.	0.	-254.09	570.35

	RIGHT	0-000000	570.35	41971.	137.06	0.	0	0.			
1231-001	LEFT	121-010000	570.46	-175.24	-151.07	0.	2	5995.3	0.	-85.006	570.42
	RIGHT	125-010000	570.38	90.230	77.785	0.	2	5999.2			
1240-001	LEFT	124-010000	570.36	-32343.	-119.26	0.	2	37865.	0.	-236.12	570.35
	RIGHT	0-000000	570.35	32107.	104.84	0.	0	0.			
1240-002	LEFT	124-020000	570.36	-60676.	-120.33	0.	2	37865.	0.	-391.41	570.35
	RIGHT	0-000000	570.35	60285.	105.88	0.	0	0.			
1240-003	LEFT	124-030000	570.36	-61026.	-121.03	0.	2	37866.	0.	-355.63	570.35
	RIGHT	0-000000	570.35	60671.	106.55	0.	0	0.			
1240-004	LEFT	124-040000	570.36	-61367.	-121.71	0.	2	37867.	0.	-328.07	570.35
	RIGHT	0-000000	570.35	61039.	107.20	0.	0	0.			
1240-005	LEFT	124-050000	570.36	-37122.	-115.47	0.	2	37868.	0.	-198.38	570.35
	RIGHT	0-000000	570.35	36923.	101.71	0.	0	0.			
1240-006	LEFT	124-060000	570.36	-34350.	-116.56	0.	2	37869.	0.	-174.94	570.35
	RIGHT	0-000000	570.35	34175.	102.70	0.	0	0.			
1240-007	LEFT	124-070000	570.36	-35725.	-121.23	0.	2	37869.	0.	-166.22	570.35
	RIGHT	0-000000	570.35	35559.	106.85	0.	0	0.			
1240-008	LEFT	124-070000	570.36	-15250.	-121.23	0.	2	37869.	0.	-70.955	570.35
	RIGHT	0-000000	570.35	15179.	106.85	0.	0	0.			
1251-001	LEFT	125-010000	570.36	-162.09	-17.456	0.	2	5999.2	0.	-162.09	570.36
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
2211-001	LEFT	221-010000	570.48	-478.26	-51.506	0.	2	5999.0	0.	-478.26	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
2220-001	LEFT	222-010000	570.43	-3.46864E+05	-1423.1	0.	2	37869.	0.	-497.80	570.39
	RIGHT	0-000000	570.35	3.46366E+05	1258.5	0.	0	0.			
2220-002	LEFT	222-020000	570.42	-2.90722E+05	-1233.4	0.	2	37871.	0.	-443.01	570.38
	RIGHT	0-000000	570.35	2.90279E+05	1090.5	0.	0	0.			
2220-003	LEFT	222-030000	570.41	-2.50782E+05	-1063.9	0.	2	37872.	0.	-409.31	570.38
	RIGHT	0-000000	570.35	2.50373E+05	940.63	0.	0	0.			
2220-004	LEFT	222-040000	570.40	-2.63773E+05	-885.38	0.	2	37874.	0.	-471.14	570.37
	RIGHT	0-000000	570.35	2.63301E+05	782.66	0.	0	0.			
2220-005	LEFT	222-050000	570.39	-1.85516E+05	-735.84	0.	2	37876.	0.	-369.29	570.37
	RIGHT	0-000000	570.35	1.85147E+05	650.34	0.	0	0.			
2220-006	LEFT	222-060000	570.38	-1.53559E+05	-609.08	0.	2	37877.	0.	-342.71	570.37
	RIGHT	0-000000	570.35	1.53216E+05	538.18	0.	0	0.			
2220-007	LEFT	222-070000	570.38	-1.25016E+05	-495.87	0.	2	37879.	0.	-318.30	570.36
	RIGHT	0-000000	570.35	1.24698E+05	438.01	0.	0	0.			
2220-008	LEFT	222-080000	570.37	-99524.	-394.76	0.	2	37881.	0.	-295.67	570.36
	RIGHT	0-000000	570.35	99228.	348.54	0.	0	0.			
2220-009	LEFT	222-090000	570.37	-76755.	-304.45	0.	2	37883.	0.	-274.63	570.36
	RIGHT	0-000000	570.35	76480.	268.64	0.	0	0.			
2220-010	LEFT	222-100000	570.36	-56419.	-223.78	0.	2	37885.	0.	-255.21	570.36
	RIGHT	0-000000	570.35	56164.	197.28	0.	0	0.			
2220-011	LEFT	222-110000	570.36	-42210.	-155.65	0.	2	37887.	0.	-254.20	570.35
	RIGHT	0-000000	570.35	41956.	137.01	0.	0	0.			
2231-001	LEFT	221-010000	570.46	-175.23	-151.06	0.	2	5999.0	0.	-84.997	570.42
	RIGHT	225-010000	570.38	90.236	77.790	0.	2	6002.9			
2240-001	LEFT	224-010000	570.36	-32324.	-119.19	0.	2	37888.	0.	-236.22	570.35
	RIGHT	0-000000	570.35	32088.	104.78	0.	0	0.			
2240-002	LEFT	224-020000	570.36	-60647.	-120.28	0.	2	37889.	0.	-391.58	570.35
	RIGHT	0-000000	570.35	60256.	105.83	0.	0	0.			
2240-003	LEFT	224-030000	570.36	-60990.	-120.96	0.	2	37890.	0.	-355.76	570.35
	RIGHT	0-000000	570.35	60634.	106.49	0.	0	0.			
2240-004	LEFT	224-040000	570.36	-61324.	-121.62	0.	2	37891.	0.	-328.18	570.35
	RIGHT	0-000000	570.35	60996.	107.13	0.	0	0.			
2240-005	LEFT	224-050000	570.36	-37084.	-115.35	0.	2	37892.	0.	-198.44	570.35
	RIGHT	0-000000	570.35	36885.	101.60	0.	0	0.			

2240-006	LEFT	224-060000	570.36	-34315.	-116.44	0.	2	37892.	0.	-174.98	570.35
	RIGHT	0-000000	570.35	34140.	102.59	0.	0	0.			
2240-007	LEFT	224-070000	570.36	-35693.	-121.12	0.	2	37893.	0.	-166.27	570.35
	RIGHT	0-000000	570.35	35527.	106.76	0.	0	0.			
2240-008	LEFT	224-070000	570.36	-15236.	-121.12	0.	2	37893.	0.	-70.975	570.35
	RIGHT	0-000000	570.35	15165.	106.76	0.	0	0.			
2251-001	LEFT	225-010000	570.36	-162.01	-17.447	0.	2	6002.9	0.	-162.01	570.36
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
3211-001	LEFT	321-010000	570.58	2206.0	237.58	0.	2	5996.2	0.	2206.0	570.53
	RIGHT	0-000000	570.50	0.	0.	0.	0	0.			
3220-001	LEFT	322-010000	570.46	-4.80765E+05	-1972.5	0.	2	37852.	0.	1977.6	570.40
	RIGHT	0-000000	570.35	4.82743E+05	1753.9	0.	0	0.			
3220-002	LEFT	322-020000	570.44	-4.09616E+05	-1737.7	0.	2	37853.	0.	1758.1	570.40
	RIGHT	0-000000	570.35	4.11374E+05	1545.5	0.	0	0.			
3220-003	LEFT	322-030000	570.43	-3.59949E+05	-1527.0	0.	2	37854.	0.	1590.3	570.39
	RIGHT	0-000000	570.35	3.61540E+05	1358.3	0.	0	0.			
3220-004	LEFT	322-040000	570.42	-3.87742E+05	-1301.5	0.	2	37855.	0.	1721.3	570.38
	RIGHT	0-000000	570.35	3.89463E+05	1157.7	0.	0	0.			
3220-005	LEFT	322-050000	570.41	-2.81216E+05	-1115.4	0.	2	37857.	0.	1246.9	570.38
	RIGHT	0-000000	570.35	2.82463E+05	992.16	0.	0	0.			
3220-006	LEFT	322-060000	570.40	-2.40783E+05	-955.05	0.	2	37858.	0.	1047.1	570.37
	RIGHT	0-000000	570.35	2.41830E+05	849.44	0.	0	0.			
3220-007	LEFT	322-070000	570.39	-2.04432E+05	-810.87	0.	2	37860.	0.	869.80	570.37
	RIGHT	0-000000	570.35	2.05302E+05	721.13	0.	0	0.			
3220-008	LEFT	322-080000	570.39	-1.71751E+05	-681.24	0.	2	37861.	0.	724.17	570.37
	RIGHT	0-000000	570.35	1.72475E+05	605.83	0.	0	0.			
3220-009	LEFT	322-090000	570.38	-1.42383E+05	-564.75	0.	2	37863.	0.	614.21	570.36
	RIGHT	0-000000	570.35	1.42997E+05	502.28	0.	0	0.			
3220-010	LEFT	322-100000	570.38	-1.16011E+05	-460.15	0.	2	37865.	0.	538.28	570.36
	RIGHT	0-000000	570.35	1.16550E+05	409.39	0.	0	0.			
3220-011	LEFT	322-110000	570.37	-99999.	-368.74	0.	2	37867.	0.	524.75	570.36
	RIGHT	0-000000	570.35	1.00524E+05	328.26	0.	0	0.			
3231-001	LEFT	321-010000	570.54	40.613	35.011	0.	2	5996.2	0.	317.31	570.49
	RIGHT	325-010000	570.41	276.69	238.53	0.	2	5999.6			
3240-001	LEFT	324-010000	570.37	-84435.	-311.35	0.	2	37868.	0.	491.59	570.36
	RIGHT	0-000000	570.35	84927.	277.33	0.	0	0.			
3240-002	LEFT	324-020000	570.37	-1.41359E+05	-280.35	0.	2	37869.	0.	811.50	570.36
	RIGHT	0-000000	570.35	1.42170E+05	249.69	0.	0	0.			
3240-003	LEFT	324-030000	570.36	-1.28330E+05	-254.51	0.	2	37869.	0.	671.04	570.36
	RIGHT	0-000000	570.35	1.29001E+05	226.56	0.	0	0.			
3240-004	LEFT	324-040000	570.36	-1.17513E+05	-233.05	0.	2	37870.	0.	504.18	570.36
	RIGHT	0-000000	570.35	1.18017E+05	207.27	0.	0	0.			
3240-005	LEFT	324-050000	570.36	-68830.	-214.10	0.	2	37871.	0.	254.75	570.36
	RIGHT	0-000000	570.35	69085.	190.30	0.	0	0.			
3240-006	LEFT	324-060000	570.36	-60363.	-204.83	0.	2	37871.	0.	179.20	570.36
	RIGHT	0-000000	570.35	60542.	181.93	0.	0	0.			
3240-007	LEFT	324-070000	570.36	-57971.	-196.71	0.	2	37872.	0.	118.21	570.36
	RIGHT	0-000000	570.35	58089.	174.56	0.	0	0.			
3240-008	LEFT	324-070000	570.36	-24746.	-196.71	0.	2	37872.	0.	50.459	570.36
	RIGHT	0-000000	570.35	24796.	174.56	0.	0	0.			
3251-001	LEFT	325-010000	570.37	31.046	3.3435	0.	2	5999.6	0.	31.046	570.37
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
4000-001	LEFT	400-010000	613.67	14368.	2861.7	3.00790E+06	4	7221.7	0.	18974.	614.42
	RIGHT	940-010000	614.66	4605.2	731.70	0.	0	2.5100			
4000-002	LEFT	400-020000	613.63	15936.	3173.9	3.00920E+06	4	7970.9	0.	20543.	614.48
	RIGHT	940-010000	614.77	4605.9	731.97	0.	0	2.5100			
4000-00[illegible]	LEFT	400-030000	613.59	16064.	3199.5	3.01087E+0[illegible]	4	808[illegible].5	0.	20671.	6[illegible].44

	RIGHT	940-010000	614.74	4606.4	731.89	0.	0	2.5100			
4000-004	LEFT	400-040000	613.54	16233.	3233.2	3.01240E+06	4	8303.4	0.	20839.	614.40
	RIGHT	940-010000	614.70	4605.8	731.80	0.	0	2.5100			
4101-001	LEFT	410-010000	613.50	4631.3	3161.2	3.00856E+06	4	7955.9	0.	5856.0	615.08
	RIGHT	940-010000	614.98	1224.7	732.49	0.	0	2.5100			
4101-002	LEFT	410-020000	613.49	9289.1	3169.7	3.00347E+06	4	7966.8	0.	11739.	615.07
	RIGHT	940-010000	614.98	2449.8	732.49	0.	0	2.5100			
4102-001	LEFT	410-030000	613.47	14982.	3201.9	2.99416E+06	4	8003.0	0.	18781.	615.10
	RIGHT	940-010000	615.05	3799.3	732.66	0.	0	2.5100			
4102-002	LEFT	410-040000	613.43	31634.	3232.7	3.00976E+06	4	8040.3	0.	39581.	615.10
	RIGHT	940-010000	615.05	7946.1	732.67	0.	0	2.5100			
4102-003	LEFT	410-050000	613.77	82354.	4106.9	3.01981E+06	4	5198.7	0.	98683.	615.77
	RIGHT	940-010000	615.87	16329.	734.74	0.	0	2.5100			
4102-004	LEFT	410-060000	615.00	5618.8	280.20	0.	8	136.41	0.	21948.	616.03
	RIGHT	940-010000	615.88	16329.	734.75	0.	0	2.5100			
4102-005	LEFT	410-070000	613.92	1.16558E+05	5812.6	16139.	3	5859.8	0.	1.32887E+05	615.83
	RIGHT	940-010000	615.88	16329.	734.74	0.	0	2.5100			
4102-006	LEFT	410-080000	613.70	22620.	4834.5	19749.	3	6073.0	0.	26430.	615.76
	RIGHT	940-010000	615.89	3810.3	734.78	0.	0	2.5100			
4103-001	LEFT	410-090000	613.57	9937.7	5036.9	22218.	3	7302.2	0.	11574.	615.72
	RIGHT	940-010000	615.98	1636.6	735.00	0.	0	2.5100			
4103-002	LEFT	420-010000	613.49	6500.8	4698.1	25429.	3	7387.0	0.	7648.5	615.66
	RIGHT	940-010000	615.96	1147.7	734.96	0.	0	2.5100			
4113-001	LEFT	0-000000	616.70	0.	0.	0.	0	0.	1.38750E+05	1045.8	614.90
	RIGHT	410-040000	613.84	1.39796E+05	13001.	3.00976E+06	4	16041.			
4113-002	LEFT	0-000000	617.29	0.	0.	0.	0	0.	46250.	851.37	615.48
	RIGHT	410-050000	614.41	47101.	13150.	3.40754E+06	4	9171.4			

STR.NO.	MESH POINT TEMPERATURES (K)				
1211-001	570.48	570.48	570.49	570.49	570.49
1220-001	570.43	570.39	570.35		
1220-002	570.42	570.38	570.35		
1220-003	570.41	570.38	570.35		
1220-004	570.40	570.37	570.35		
1220-005	570.39	570.37	570.35		
1220-006	570.38	570.37	570.35		
1220-007	570.38	570.36	570.35		
1220-008	570.37	570.36	570.35		
1220-009	570.37	570.36	570.35		
1220-010	570.36	570.36	570.35		
1220-011	570.36	570.35	570.35		
1231-001	570.46	570.43	570.40	570.38	
1240-001	570.36	570.35	570.35		
1240-002	570.36	570.35	570.35		
1240-003	570.36	570.35	570.35		
1240-004	570.36	570.35	570.35		
1240-005	570.36	570.35	570.35		
1240-006	570.36	570.35	570.35		
1240-007	570.36	570.35	570.35		
1240-008	570.36	570.35	570.35		
1251-001	570.36	570.36	570.36	570.36	570.37
2211-001	570.48	570.48	570.49	570.49	570.49
2220-001	570.43	570.39	570.35		
2220-002	570.42	570.38	570.35		
2220-003	570.41	570.38	570.35		
2220-004	570.40	570.37	570.35		
2220-005	570.39	570.37	570.35		

2220-006	570.38	570.37	570.35		
2220-007	570.38	570.36	570.35		
2220-008	570.37	570.36	570.35		
2220-009	570.37	570.36	570.35		
2220-010	570.36	570.36	570.35		
2220-011	570.36	570.35	570.35		
2231-001	570.46	570.43	570.40	570.38	
2240-001	570.36	570.35	570.35		
2240-002	570.36	570.35	570.35		
2240-003	570.36	570.35	570.35		
2240-004	570.36	570.35	570.35		
2240-005	570.36	570.35	570.35		
2240-006	570.36	570.35	570.35		
2240-007	570.36	570.35	570.35		
2240-008	570.36	570.35	570.35		
2251-001	570.36	570.36	570.36	570.36	570.37
3211-001	570.58	570.56	570.52	570.50	570.50
3220-001	570.46	570.40	570.35		
3220-002	570.44	570.40	570.35		
3220-003	570.43	570.39	570.35		
3220-004	570.42	570.38	570.35		
3220-005	570.41	570.38	570.35		
3220-006	570.40	570.38	570.35		
3220-007	570.39	570.37	570.35		
3220-008	570.39	570.37	570.35		
3220-009	570.38	570.36	570.35		
3220-010	570.38	570.38	570.35		
3220-011	570.37	570.36	570.35		
3231-001	570.54	570.52	570.47	570.41	
3240-001	570.37	570.36	570.35		
3240-002	570.37	570.36	570.35		
3240-003	570.36	570.36	570.35		
3240-004	570.36	570.36	570.35		
3240-005	570.36	570.36	570.35		
3240-006	570.36	570.36	570.35		
3240-007	570.36	570.36	570.35		
3240-008	570.36	570.36	570.35		
3251-001	570.37	570.37	570.37	570.37	570.37
4000-001	613.67	614.34	614.68	614.66	
4000-002	613.63	614.38	614.77	614.77	
4000-003	613.59	614.34	614.74	614.74	
4000-004	613.54	614.30	614.70	614.70	
4101-001	613.50	615.46	615.50	614.98	
4101-002	613.49	615.45	615.50	614.98	
4102-001	613.47	615.46	615.55	615.05	
4102-002	613.43	615.46	615.55	615.05	
4102-003	613.77	616.11	616.34	615.87	
4102-004	615.00	616.28	616.36	615.88	
4102-005	613.92	616.20	616.36	615.88	
4102-006	613.70	616.10	616.35	615.89	
4103-001	613.57	615.97	616.35	615.98	
4103-002	613.49	615.88	616.32	615.96	
4113-001	616.70	615.14	613.84		
4113-002	617.29	615.72	614.41		

CONTROL VARIABLE EDIT

1 2/PRO1SO DIV 26378.0 2 EM7HA180 SUM 1.2688965+05

3	CVENERGY	MULT	7.498426E+06	4	P/RHO231	DIV	19668.4
5	ENTHA231	SUM	1.323485E+06	6	LETDENER	MULT	7.821009E+06
7	PRZRHEAT	SUM	491023.	8	PRZVAPH	SUM	10131.1
9	BALANCE	SUM	5.573428E+06	10	CALC-P	MULT	1.456194E+07
11	MEAS-P	FUNCTION	1.455000E+07	12	MEAS-L	FUNCTION	30.1800
13	TEMPF420	MULT	598.155	14	TEMPG420	MULT	612.895
15	SAT420	MULT	612.914	16	SPRYTEMP	MULT	570.435
20	P/RHO450	DIV	19976.3	21	ENTHA450	SUM	1.323837E+06
22	SPRENER	MULT	5.379275E+06	23	P/RHO400	DIV	24004.7
24	ENTHA410	SUM	1.597549E+06	25	SURGENER	MULT	6.204467E+06
26	SPRBALAN	SUM	-334169.	27	HEATERW	SUM	186839.
28	VAPGEN	SUM	-.313216	31	POW	SUM	0.
32	TURBPOW	SUM	0.	100	TAVG(R)	SUM	570.534
101	LAG1	LAG	570.532	102	S1	SUM	-14.6177
103	LL1	LEAD-LAG	-.580433	104	S2	SUM	-11888.7
105	???	SUM	-436255.	106	DELTA-T	SUM	-.117703
107	LAG2	LAG	-.118678	108	LL2	LEAD-LAG	-.106914
109	LL3	LEAD-LAG	570.526	110	LAG3	LAG	570.525
111	S4	SUM	0.	112	S5	SUM	-3.315303E-02
113	S6	SUM	41.1830	134	LEVREG	PROP-INT	2.231887E-02
135	LIMIT	MULT	9.50000	136	DELTAF	SUM	-2.519697E-02
137	D(AREA)	PROP-INT	2.113495E-05	139	VALVAREA	SUM	9.277462E-02
140	AREA**2	MULT	8.607131E-03	141	K(VALV)	DIV	28139.0
142	K(T+DT)	SUM	28547.6	143	DELTA-K	SUM	.128206
144	K(T)	MULT	28547.6	145	DELTA-P	SUM	-3.28475
146	P(T)	MULT	1.495356E+07	153	KOQO2	MULT	936422.
154	DUM	SUM	982638.	155	A(T)	DIV	1.017669E-06
156	DUM	MULT	129.185	157	DUM	MULT	-44042.4
158	A	SUM	28418.5	159	DUM	MULT	324580.
160	DUM	MULT	1.852054E-02	170	B	SUM	44053.7
171	DUM	MULT	6.525766E-07	172	DUM	MULT	-3.13026
173	DUM	MULT	16.5734	174	C	SUM	13.4432
175	B**2	MULT	1.940733E+09	176	AC4	MULT	1.528135E+06
177	B2-4AC	SUM	1.939204E+09	178	SQRT	STDFNCTN	44036.4
179	DUM	SUM	-8.67370	180	DELTA-Q	DIV	-3.052137E-04
181	Q(T+DT)	SUM	11.3695	182	DUM	STDFNCTN	.699158
183	QO(T+DT)	MULT	7.94906	184	QTOT	SUM	19.3185
185	P(PUMP)	FUNCTION	2.022272E+07	186	DFDQ	FUNCTION	-46213.2
200	TAVG(G)	SUM	570.534	201	LAG1	LAG	570.532
202	S1	SUM	-14.6177	203	LL1	LEAD-LAG	-.580432
204	S2	SUM	-11888.7	205	???	SUM	-436255.
206	DELTA-T	SUM	-.117951	207	LAG2	LAG	-.118931
208	LL2	LEAD-LAG	-.107102	209	LL3	LEAD-LAG	570.526
210	LAG3	LAG	570.525	211	S4	SUM	0.
212	S5	SUM	-3.315289E-02	213	S6	SUM	41.1830
281	LET1	SUM	2.112957E+07	282	LET2	MULT	1.543195E+10
283	LET3	STDFNCTN	5.90940	284	LETDOWN	MULT	21.4021
300	TAVG(B)	SUM	570.538	301	LAG1	LAG	570.537
302	S1	SUM	-14.6133	303	LL1	LEAD-LAG	-.580410
304	S2	SUM	-11888.7	305	???	SUM	-436255.
306	DELTA-T	SUM	-.125139	307	LAG2	LAG	-.127395
308	LL2	LEAD-LAG	-.101355	309	LL3	LEAD-LAG	570.532
310	LAG3	LAG	570.532	311	S4	SUM	0.
312	S5	SUM	-3.314295E-02	313	S6	SUM	41.1826
400	COLLEVEL	SUM	22.7607	402	DPLEVEL	SUM	28.7841
404	PRZMASS	SUM	11773.3	410	T-AUCT-H	STDFNCTN	570.538
411	L-REF	FUNCTION	25.4154	412	DELT-LEV	SUM	3.36863

413	DELTA-P	SUM	-947250.	414	DP-CORR	PROP-INT	-1.255148E+06
415	POW-HE11	TRIPUNIT	0.	416	POW BKR	TRIPUNIT	0.
417	POWVAR	FUNCTION	308000.	418	TOTPOW	FUNCTION	185000.
435	SPRAYVAL	FUNCTION	.200000	445	SPRAYVAL	FUNCTION	.200000
606	POWCOLDL	SUM	37121.8	607	POWPREH	SUM	85325.9
608	POWHOTLG	SUM	1.152190E+06	609	POWUBEND	SUM	954432.
610	SGPOWER	SUM	2.229796E+06	706	POWCOLDL	SUM	37083.9
707	POWPREH	SUM	85243.7	708	POWHOTLG	SUM	1.152141E+06
709	POWUBEND	SUM	954284.	710	SGPOWER	SUM	2.229478E+06
806	POWCOLDL	SUM	68830.4	807	POWPREH	SUM	143080.
808	POWHOTLG	SUM	1.638072E+06	809	POWUBEND	SUM	1.728212E+06
810	SGPOWER	SUM	3.575640E+06	900	MG1	MULT	9.267131E-02
901	MG2	MULT	.405739	902	MG3	MULT	1.62016
903	MG4	MULT	1.26332	904	MG5	MULT	502.545
905	MG6	MULT	979.356	906	MG7	MULT	974.687
907	MG8	MULT	227.111	908	MG9	MULT	74.3255
909	MG10	MULT	52.1013	911	PRZMASW	SUM	2813.51
912	PRZMASL	SUM	8959.78	920	SURGHEAT	SUM	62602.5

---RESTART NO. 1500 WRITTEN, BLOCK NO. 6---

NUMBER OF ELEMENTS IN SPARSE MATRIX 1: ORIGINAL = 410, FACTORED = 665 ROUNDOFF ERROR = 1.600000E-11 NCOUNT = 1501

ATTEMPTED ADV:	TOT.=	1600	EDIT=	100	MIN.DT=	1.000000E-01	SEC	LAST DT=	1.000000E-01	SEC	MS.ERR=	.168164	KG
REPEATED ADV:	TOT.=	0	EDIT=	0	MAX.DT=	.100000	SEC	CRNT.DT=	.119935	SEC	TOT.MS=	196370.	KG
SUCCESSFUL ADV:	TOT.=	1600	EDIT=	100	AVG.DT=	1.000000E-01	SEC	ERR.EST=	6.390886E-07		M.RATO=	8.563594E-07	
REQUESTED ADV:	TOT.=	800	EDIT=	50	REQ.DT=	.200000	SEC	CPU=	3304.04	SEC	TIME=	160.000	SEC

TRIP NUMBER, TRIP TIME (SEC)
597 1.000000E-01 598 20.10000 599 -1.000000
698 -1.000000

VOL.NO.	PRESSURE (PA)	VOIDG	TEMPF (K)	TEMPG (K)	SAT. TEMP. (K)	NONCOND. VAPOR QUAL.	BORON DENS. (KG/M3)	UF (J/KG)	UG (J/KG)	VOL. FLAG
SYSTEM 1	MASS= 1.96370E+05 KG		MASS ERROR= .16816 KG			ERR.EST.= 6.39089E-07				
UPDOWNC	BRANCH	COMPONENT								
11-010000	1.50233E+07	0.	570.49	615.40	615.40	0.	.73130	1.30324E+06	2.45935E+06	00
UPDOWNOZZ	BRANCH	COMPONENT								
13-010000	1.50134E+07	0.	570.61	615.35	615.35	0.	.73106	1.30395E+06	2.45960E+06	00
DOWNCTS	ANNULUS	COMPONENT								
16-010000	1.50219E+07	0.	570.62	615.40	615.40	0.	.73107	1.30395E+06	2.45939E+06	00
15-020000	1.50336E+07	0.	570.62	615.46	615.46	0.	.73108	1.30395E+06	2.45910E+06	00
16-030000	1.50453E+07	0.	570.63	615.52	615.52	0.	.73109	1.30395E+06	2.45882E+06	00
LOWPLEN	BRANCH	COMPONENT								
23-010000	1.50473E+07	0.	570.63	615.53	615.53	0.	.73109	1.30396E+06	2.45877E+06	00
COREIN	BRANCH	COMPONENT								
25-010000	1.49809E+07	0.	570.60	615.18	615.18	0.	.73102	1.30396E+06	2.46036E+06	00
CORE	PIPE	COMPONENT								
31-010000	1.49483E+07	0.	570.59	615.00	615.00	0.	.73098	1.30397E+06	2.46110E+06	00
31-020000	1.49093E+07	0.	570.58	614.80	614.80	0.	.73093	1.30399E+06	2.46192E+06	00
31-030000	1.48709E+07	0.	570.57	614.59	614.59	0.	.73089	1.30400E+06	2.46272E+06	00
31-040000	1.48333E+07	0.	570.56	614.39	614.39	0.	.73084	1.30402E+06	2.46351E+06	00
31-050000	1.47965E+07	0.	570.54	614.19	614.19	0.	.73080	1.30403E+06	2.46429E+06	00
BYPASS	SNGLVOL	COMPONENT								
35-010000	1.48825E+07	0.	570.56	614.65	614.65	0.	.73092	1.30395E+06	2.46248E+06	00
COREEX	BRANCH	COMPONENT								
39-010000	1.47778E+07	0.	570.54	614.09	614.09	0.	.73078	1.30403E+06	2.46469E+06	00
UPPLEN1	BRANCH	COMPONENT								
41-010000	1.47610E+07	0.	570.53	614.00	614.00	0.	.73076	1.30403E+06	2.46504E+06	00
UPPLEN2	BRANCH	COMPONENT								
43-010000	1.47528E+07	0.	570.53	613.95	613.95	0.	.73075	1.30402E+06	2.46522E+06	00
UPHEAD	BRANCH	COMPONENT								
45-010000	1.47380E+07	0.	570.14	613.87	613.87	0.	.73147	1.30191E+06	2.46553E+06	00
HTLEGR1	PIPE	COMPONENT								
111-010000	1.46474E+07	0.	570.49	613.38	613.38	0.	.73064	1.30402E+06	2.46746E+06	00
111-020000	1.46443E+07	0.	570.49	613.36	613.36	0.	.73063	1.30403E+06	2.46752E+06	00
HTLEGR2	BRANCH	COMPONENT								
113-010000	1.46380E+07	0.	570.48	613.33	613.33	0.	.73062	1.30403E+06	2.46766E+06	00
INBOX	BRANCH	COMPONENT								
121-010000	1.46794E+07	0.	570.50	613.55	613.55	0.	.73067	1.30404E+06	2.46677E+06	00
UTUBE	PIPE	COMPONENT								
122-010000	1.46498E+07	0.	570.48	613.39	613.39	0.	.73066	1.30397E+06	2.46740E+06	00
122-020000	1.46335E+07	0.	570.46	613.30	613.30	0.	.73066	1.30391E+06	2.46775E+06	00
122-030000	1.46174E+07	0.	570.45	613.22	613.22	0.	.73066	1.30387E+06	2.46809E+06	00
122-040000	1.45993E+07	0.	570.43	613.12	613.12	0.	.73066	1.30382E+06	2.46848E+06	00
122-050000	1.45806E+07	0.	570.42	613.02	613.02	0.	.73065	1.30379E+06	2.46888E+06	00
122-060000	1.45634E+07	0.	570.41	612.92	612.92	0.	.73064	1.30377E+06	2.46925E+06	00
122-070000	1.45463E+07	0.	570.40	612.83	612.83	0.	.73063	1.30375E+06	2.46962E+06	00
122-080000	1.45291E+07	0.	570.39	612.73	612.73	0.	.73061	1.30374E+06	2.46998E+06	00

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122-090000  1.45120E+07  0.          570.38      612.64      612.64      0.          .73060      1.30374E+06  2.47035E+06  00
122-100000  1.44948E+07  0.          570.37      612.55      612.55      0.          .73058      1.30373E+06  2.47072E+06  00
122-110000  1.44784E+07  0.          570.37      612.46      612.46      0.          .73056      1.30374E+06  2.47107E+06  00
UTUBE       PIPE        COMPONENT
124-010000  1.44675E+07  0.          570.36      612.40      612.40      0.          .73055      1.30374E+06  2.47131E+06  00
124-020000  1.44613E+07  0.          570.36      612.36      612.36      0.          .73053      1.30375E+06  2.47144E+06  00
124-030000  1.44550E+07  0.          570.36      612.33      612.33      0.          .73052      1.30376E+06  2.47158E+06  00
124-040000  1.44487E+07  0.          570.36      612.29      612.29      0.          .73051      1.30377E+06  2.47171E+06  00
124-050000  1.44437E+07  0.          570.36      612.27      612.27      0.          .73050      1.30378E+06  2.47182E+06  00
124-060000  1.44400E+07  0.          570.36      612.24      612.24      0.          .73050      1.30379E+06  2.47190E+06  00
124-070000  1.44356E+07  0.          570.36      612.22      612.22      0.          .73049      1.30380E+06  2.47200E+06  00
OUTBOX      BRANCH      COMPONENT
125-010000  1.44438E+07  0.          570.37      612.27      612.27      0.          .73050      1.30380E+06  2.47182E+06  00
SEALR       PIPE        COMPONENT
131-010000  1.43803E+07  0.          570.34      611.92      611.92      0.          .73043      1.30380E+06  2.47319E+06  00
131-020000  1.43896E+07  0.          570.35      611.97      611.97      0.          .73043      1.30381E+06  2.47299E+06  00
131-030000  1.43944E+07  0.          570.35      611.99      611.99      0           .73044      1.30381E+06  2.47288E+06  00
131-040000  1.43867E+07  0.          570.35      611.95      611.95      0.          .73043      1.30381E+06  2.47305E+06  00
PUMPR       PUMP        COMPONENT
  RPM =   155.00     (RAD/SEC)     HEAD =  6.84528E+05 (PA)        TORQUE =  -32240.     (N-M)
  OCTANT = 1                                                    MTR.TORQUE =   32240.     (N-M)
140-010000  1.47676E+07  0.          570.52      614.03      614.03      0.          .73079      1.30394E+06  2.46490E+06  10
COLDR1      SNGLVOL     COMPONENT
151-010000  1.49721E+07  0.          570.60      615.13      615.13      0.          .73101      1.30395E+06  2.46056E+06  00
COLDR2      BRANCH      COMPONENT
152-010000  1.49685E+07  0.          570.58      615.11      615.11      0.          .73103      1.30388E+06  2.46064E+06  00
COLDR3      PIPE        COMPONENT
153-010000  1.49651E+07  0.          570.58      615.09      615.09      0.          .73103      1.30389E+06  2.46071E+06  00
153-020000  1.49854E+07  0.          570.59      615.20      615.20      0.          .73105      1.30389E+06  2.46025E+06  00
CVTANK      TMDPVOL     COMPONENT
180-010000  2.00000E+07  0.          560.58      638.85      638.85      0.          .75820      1.24254E+06  2.30082E+06  00
HTLEGG1     PIPE        COMPONENT
211-010000  1.46472E+07  0.          570.49      613.38      613.38      0.          .73064      1.30402E+06  2.46746E+06  00
211-020000  1.46441E+07  0.          570.49      613.36      613.36      0.          .73063      1.30403E+06  2.46753E+06  00
HTLEGG2     BRANCH      COMPONENT
213-010000  1.46378E+07  0.          570.48      613.33      613.33      0.          .73062      1.30403E+06  2.46766E+06  00
INBOX       BRANCH      COMPONENT
221-010000  1.46793E+07  0.          570.50      613.55      613.55      0.          .73067      1.30404E+06  2.46678E+06  00
UTUBE       PIPE        COMPONENT
222-010000  1.46496E+07  0.          570.48      613.39      613.39      0.          .73066      1.30397E+06  2.46741E+06  00
222-020000  1.46333E+07  0.          570.46      613.30      613.30      0.          .73066      1.30391E+06  2.46776E+06  00
222-030000  1.46173E+07  0.          570.45      613.22      613.22      0.          .73066      1.30387E+06  2.46810E+06  00
222-040000  1.45991E+07  0.          570.43      613.12      613.12      0.          .73066      1.30382E+06  2.46849E+06  00
222-050000  1.45804E+07  0.          570.42      613.01      613.01      0.          .73065      1.30379E+06  2.46889E+06  00
222-060000  1.45632E+07  0.          570.41      612.92      612.92      0.          .73064      1.30377E+06  2.46925E+06  00
222-070000  1.45460E+07  0.          570.40      612.83      612.83      0.          .73063      1.30375E+06  2.46962E+06  00
222-080000  1.45289E+07  0.          570.39      612.73      612.73      0.          .73061      1.30374E+06  2.46999E+06  00
222-090000  1.45117E+07  0.          570.38      612.64      612.64      0.          .73060      1.30374E+06  2.47036E+06  00
222-100000  1.44945E+07  0.          570.37      612.54      612.54      0.          .73058      1.30373E+06  2.47073E+06  00
222-110000  1.44781E+07  0.          570.37      612.45      612.45      0.          .73056      1.30374E+06  2.47108E+06  00
UTUBE       PIPE        COMPONENT
224-010000  1.44672E+07  0.          570.36      612.39      612.39      0.          .73055      1.30374E+06  2.47131E+06  00
224-020000  1.44610E+07  0.          570.36      612.36      612.36      0.          .73053      1.30375E+06  2.47145E+06  00
224-030000  1.44546E+07  0.          570.36      612.33      612.33      0.          .73052      1.30376E+06  2.47158E+06  00
224-040000  1.44483E+07  0.          570.36      612.29      612.29      0.          .73051      1.30378E+06  2.47172E+06  00
224-050000  1.44433E+07  0.          570.36      612.26      612.26      0.          .73050      1.30378E+06  2.47183E+06  00
224-060000  1.44396E+07  0.          570.36      612.24      612.24      0.          .73050      1.30379E+06  2.47191E+06  00
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224-070000  1.44351E+07  0.        570.36    612.22    612.22    0.        .73049    1.30380E+06  2.47201E+06  00
OUTBOX      BRANCH       COMPONENT
225-010000  1.44433E+07  0.        570.37    612.26    612.26    0.        .73049    1.30380E+06  2.47183E+06  00
SEALG1      PIPE         COMPONENT
231-010000  1.43797E+07  0.        570.34    611.91    611.91    0.        .73042    1.30380E+06  2.47320E+06  00
231-020000  1.43890E+07  0.        570.35    611.96    611.96    0.        .73043    1.30381E+06  2.47300E+06  00
231-030000  1.43938E+07  0.        570.35    611.99    611.99    0.        .73044    1.30381E+06  2.47290E+06  00
SEALG2      BRANCH       COMPONENT
232-010000  1.43863E+07  0.        570.35    611.95    611.95    0.        .73043    1.30381E+06  2.47306E+06  00
PUMPR       PUMP         COMPONENT
 RPM =   155.00    (RAD/SEC)    HEAD =  6.84829E+05 (PA)        TORQUE =  -32243.    (N-M)
 OCTANT = 1                                                   MTR.TORQUE =   32243.    (N-M)
240-010000  1.47673E+07  0.        570.52    614.03    614.03    0.        .73079    1.30394E+06  2.46491E+06  10
COLG1       BRANCH       COMPONENT
251-010000  1.49720E+07  0.        570.60    615.13    615.13    0.        .73101    1.30395E+06  2.46056E+06  00
COLG2       PIPE         COMPONENT
253-010000  1.49687E+07  0.        570.60    615.11    615.11    0.        .73100    1.30396E+06  2.46063E+06  00
253-020000  1.49653E+07  0.        570.60    615.10    615.10    0.        .73100    1.30396E+06  2.46071E+06  00
253-030000  1.49856E+07  0.        570.61    615.20    615.20    0.        .73102    1.30397E+06  2.46025E+06  00
LETDO1      TMDPVOL      COMPONENT
282-010000  3.80000E+06  0.        412.00    520.46    520.46    0.        .92880    5.82440E+05  2.60184E+06  00
HTLEGB1     PIPE         COMPONENT
311-010000  1.46474E+07  0.        570.49    613.38    613.38    0.        .73064    1.30402E+06  2.46746E+06  00
311-020000  1.46443E+07  0.        570.49    613.36    613.36    0.        .73062    1.30406E+06  2.46752E+06  00
HTLEGB2     BRANCH       COMPONENT
313-010000  1.46380E+07  0.        570.49    613.33    613.33    0.        .73061    1.30407E+06  2.46766E+06  00
INBOX       BRANCH       COMPONENT
321-010000  1.46794E+07  0.        570.51    613.55    613.55    0.        .73066    1.30407E+06  2.46677E+06  00
UTUBE       PIPE         COMPONENT
322-010000  1.46498E+07  0.        570.48    613.39    613.39    0.        .73065    1.30400E+06  2.46741E+06  00
322-020000  1.46335E+07  0.        570.47    613.30    613.30    0.        .73065    1.30394E+06  2.46775E+06  00
322-030000  1.46174E+07  0.        570.45    613.22    613.22    0.        .73065    1.30390E+06  2.46809E+06  00
322-040000  1.45993E+07  0.        570.43    613.12    613.12    0.        .73065    1.30385E+06  2.46848E+06  00
322-050000  1.45806E+07  0.        570.42    613.02    613.02    0.        .73065    1.30382E+06  2.46888E+06  00
322-060000  1.45634E+07  0.        570.41    612.92    612.92    0.        .73064    1.30379E+06  2.46925E+06  00
322-070000  1.45463E+07  0.        570.40    612.83    612.83    0.        .73062    1.30377E+06  2.46962E+06  00
322-080000  1.45291E+07  0.        570.39    612.73    612.73    0.        .73061    1.30376E+06  2.46998E+06  00
322-090000  1.45120E+07  0.        570.38    612.64    612.64    0.        .73060    1.30375E+06  2.47035E+06  00
322-100000  1.44948E+07  0.        570.38    612.55    612.55    0.        .73058    1.30375E+06  2.47072E+06  00
322-110000  1.44784E+07  0.        570.37    612.46    612.46    0.        .73056    1.30375E+06  2.47107E+06  00
UTUBE       PIPE         COMPONENT
324-010000  1.44675E+07  0.        570.37    612.40    612.40    0.        .73055    1.30375E+06  2.47131E+06  00
324-020000  1.44613E+07  0.        570.37    612.36    612.36    0.        .73054    1.30376E+06  2.47144E+06  00
324-030000  1.44550E+07  0.        570.36    612.33    612.33    0.        .73053    1.30377E+06  2.47158E+06  00
324-040000  1.44487E+07  0.        570.36    612.29    612.29    0.        .73052    1.30378E+06  2.47171E+06  00
324-050000  1.44437E+07  0.        570.36    612.27    612.27    0.        .73051    1.30379E+06  2.47182E+06  00
324-060000  1.44400E+07  0.        570.36    612.24    612.24    0.        .73050    1.30379E+06  2.47190E+06  00
324-070000  1.44355E+07  0.        570.36    612.22    612.22    0.        .73049    1.30380E+06  2.47200E+06  00
OUTBOX      BRANCH       COMPONENT
325-010000  1.44438E+07  0.        570.37    612.27    612.27    0.        .73050    1.30381E+06  2.47182E+06  00
SEALB       PIPE         COMPONENT
331-010000  1.43803E+07  0.        570.34    611.92    611.92    0.        .73043    1.30381E+06  2.47319E+06  00
331-020000  1.43896E+07  0.        570.35    611.97    611.97    0.        .73044    1.30381E+06  2.47299E+06  00
331-030000  1.43944E+07  0.        570.35    611.99    611.99    0.        .73045    1.30382E+06  2.47288E+06  00
331-040000  1.43866E+07  0.        570.35    611.95    611.95    0.        .73044    1.30382E+06  2.47305E+06  00
PUMPR       PUMP         COMPONENT
 RPM =   155.00    (RAD/SEC)    HEAD =  6.84475E+05 (PA)        TORQUE =  -32240.    (N-M)
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OCTANT = 1 MTR.TORQUE = 32240. (N-M)

340-010000	1.47675E+07	0.	570.52	614.03	614.03	0.	.73080	1.30395E+06	2.46490E+06	10
COLDB1	SNGLVOL	COMPONENT								
351-010000	1.49719E+07	0.	570.60	615.13	615.13	0.	.73102	1.30396E+06	2.46056E+06	00
COLDR2	BRANCH	COMPONENT								
352-010000	1.49686E+07	0.	570.60	615.11	615.11	0.	.73101	1.30397E+06	2.46063E+06	00
COLDR3	PIPE	COMPONENT								
353-010000	1.49653E+07	0.	570.60	615.10	615.10	0.	.73101	1.30397E+06	2.46071E+06	00
353-020000	1.49855E+07	0.	570.61	615.20	615.20	0.	.73103	1.30398E+06	2.46025E+06	00
SURGE	PIPE	COMPONENT								
400-010000	1.46404E+07	.17251	613.39	613.43	613.34	0.	.52366	1.57336E+06	2.46814E+06	00
400-020000	1.46326E+07	.13714	613.38	613.38	613.30	0.	.54539	1.57341E+06	2.46827E+06	00
400-030000	1.46246E+07	.11526	613.36	613.34	613.26	0.	.55849	1.57324E+06	2.46845E+06	00
400-040000	1.46162E+07	7.91399E-02	613.34	613.21	613.21	0.	.58014	1.57318E+06	2.46813E+06	00
PRESSU	PIPE	COMPONENT								
410-010000	1.46111E+07	2.70323E-03	613.27	613.18	613.18	0.	.62683	1.57263E+06	2.46823E+06	00
410-020000	1.46086E+07	2.78153E-03	613.21	613.17	613.17	0.	.62514	1.57220E+06	2.46828E+06	00
410-030000	1.46048E+07	3.33097E-03	613.16	613.15	613.15	0.	.61882	1.57180E+06	2.46836E+06	00
410-040000	1.45983E+07	8.60443E-04	613.05	613.11	613.11	0.	.60046	1.57100E+06	2.46850E+06	00
410-050000	1.45888E+07	.50826	613.14	613.08	613.06	0.	.25874	1.57174E+06	2.46883E+06	00
410-060000	1.45823E+07	.99964	613.02	613.07	613.03	0.	2.32354E-04	1.57087E+06	2.46914E+06	00
410-070000	1.45796E+07	.99888	613.01	613.06	613.01	0.	5.66228E-04	1.57077E+06	2.46920E+06	00
410-080000	1.45779E+07	.99995	613.00	613.05	613.00	0.	2.28503E-05	1.57071E+06	2.46924E+06	00
410-090000	1.45774E+07	.99999	613.00	613.05	613.00	0.	5.75874E-06	1.57069E+06	2.46927E+06	00
TOP	BRANCH	COMPONENT								
420-010000	1.45771E+07	.99998	613.00	613.05	613.00	0.	8.40449E-06	1.57068E+06	2.46927E+06	00
SPRAYR	BRANCH	COMPONENT								
430-010000	1.50403E+07	0.	570.61	615.50	615.50	0.	.73109	1.30388E+06	2.45894E+06	00
SPRAYB	BRANCH	COMPONENT								
440-010000	1.50402E+07	0.	570.62	615.50	615.50	0.	.73110	1.30395E+06	2.45894E+06	00
SPRAYB	BRANCH	COMPONENT								
450-010000	1.46084E+07	1.06264E-06	570.44	613.17	613.17	0.	.73065	1.30388E+06	2.46829E+06	00
TV490	TMDPVOL	COMPONENT								
490-010000	1.55100E+07	1.0000	617.97	617.97	617.97	0.	0.	1.60522E+06	2.44763E+06	00

SYSTEM 2 MASS= 0. KG MASS ERROR= 0. KG ERR.EST.= 0.

TV940	TMDPVOL	COMPONENT								
940-010000	2.00000E+05	0.	323.15	393.38	393.38	0.	0.	2.09218E+05	2.52920E+06	00

VOL.NO.	RHOF (KG/M3)	RHOG (KG/M3)	LIQ.V.VEL. (M/SEC)	VAP.V.VEL. (M/SEC)	SOUNDE (M/SEC)	STATIC QUAL.	TOT.HT.INP. (WATTS)	VAP.HT.INP. (WATTS)	VAPOR GEN. (KG/M3-SEC)
11-010000	731.28	96.949	3.58220E-02	3.58220E-02	976.04	0.	0.	0.	0.
13-010000	731.00	96.847	7.8402	7.8326	974.87	0.	0.	0.	0.
15-010000	731.01	96.935	7.5531	7.5531	974.90	0.	0.	0.	0.
15-020000	731.02	97.055	7.5530	7.5530	974.95	0.	0.	0.	0.
15-030000	731.03	97.174	7.5529	7.5529	974.99	0.	0.	0.	0.
23-010000	731.03	97.195	6.30601E-06	-6.54978E-04	974.99	0.	0.	0.	0.
25-010000	730.96	96.515	5.0289	5.0289	974.70	0.	0.	0.	0.
31-010000	730.92	96.183	4.8812	4.8812	974.51	0.	0.	0.	0.
31-020000	730.88	95.786	4.8815	4.8815	974.28	0.	0.	0.	0.
31-030000	730.83	95.398	4.8818	4.8818	974.06	0.	0.	0.	0.
31-040000	730.78	95.019	4.8821	4.8821	973.84	0.	0.	0.	0.
31-050000	730.74	94.649	4.8824	4.8824	973.63	0.	0.	0.	0.
35-010000	730.86	95.514	.70684	.70684	974.20	0.	0.	0.	0.
39-010000	730.72	94.463	5.0308	5.0309	973.54	0.	0.	0.	0.
41-010000	730.70	94.295	2.1906	2.1906	973.45	0.	0.	0.	0.
43-010000	730.69	94.214	-7.48216E-03	-6.48068E-03	973.42	0.	0.	0.	0.

45-010000	731.46	94.066	-9.34961E-07	2.25854E-04	976.84	0.	0.	0.	0.
111-010000	730.58	93.171	14.864	14.864	972.89	0.	0.	0.	0.
111-020000	730.57	93.140	14.866	14.866	972.87	0.	0.	0.	0.
113-010000	730.56	93.078	14.866	14.866	972.83	0.	0.	0.	0.
121-010000	730.61	93.487	1.9807	1.9807	973.03	0.	-792.05	0.	0.
122-010000	730.60	93.194	5.9736	5.9736	973.00	0.	-3.81098E+05	0.	0.
122-020000	730.60	93.034	5.9736	5.9736	973.01	0.	-3.21077E+05	0.	0.
122-030000	730.60	92.877	5.9736	5.9736	973.00	0.	-2.78629E+05	0.	0.
122-040000	730.60	92.699	5.9736	5.9736	972.99	0.	-2.95405E+05	0.	0.
122-050000	730.59	92.516	5.9736	5.9736	972.95	0.	-2.09984E+05	0.	0.
122-060000	730.58	92.349	5.9737	5.9737	972.90	0.	-1.75948E+05	0.	0.
122-070000	730.57	92.182	5.9738	5.9738	972.85	0.	-1.45532E+05	0.	0.
122-080000	730.66	92.016	5.9739	5.9739	972.79	0.	-1.18351E+05	0.	0.
122-090000	730.54	91.849	5.9740	5.9740	972.71	0.	-94062.	0.	0.
122-100000	730.52	91.683	5.9742	5.9742	972.63	0.	-72357.	0.	0.
122-110000	730.50	91.524	5.9743	5.9743	972.55	0.	-57938.	0.	0.
124-010000	730.49	91.419	5.9744	5.9744	972.49	0.	-46785.	0.	0.
124-020000	730.48	91.359	5.9745	5.9745	972.44	0.	-83926.	0.	0.
124-030000	730.47	91.298	5.9746	5.9746	972.40	0.	-81341.	0.	0.
124-040000	730.46	91.238	5.9747	5.9747	972.35	0.	-79296.	0.	0.
124-050000	730.45	91.190	5.9748	5.9748	972.31	0.	-47660.	0.	0.
124-060000	730.44	91.154	5.9748	5.9748	972.28	0.	-43389.	0.	0.
124-070000	730.43	91.111	5.9749	5.9749	972.24	0.	-62814.	0.	0.
125-010000	730.44	91.191	1.9811	1.9811	972.28	0.	-66.833	0.	0.
131-010000	730.37	90.581	13.034	13.034	971.98	0.	0.	0.	0.
131-020000	730.38	90.670	13.340	13.340	972.01	0.	0.	0.	0.
131-030000	730.38	90.716	13.340	13.340	972.03	0.	0.	0.	0.
131-040000	730.37	90.642	13.340	13.340	971.99	0.	0.	0.	0.
140-010000	730.74	94.361	2.4853	2.4853	973.63	0.	0.	0.	0.
151-010000	730.96	96.425	16.951	16.951	974.66	0.	0.	0.	0.
152-010000	730.98	96.389	16.966	16.918	974.76	0.	0.	0.	0.
153-010000	730.97	96.355	16.969	16.969	974.73	0.	0.	0.	0.
153-020000	730.99	96.560	14.975	14.975	974.83	0.	0.	0.	0.
180-010000	758.20	170.17	7.79953E-03	7.79953E-03	1442.5	0.	0.	0.	0.
211-010000	730.58	93.169	14.876	14.876	972.89	0.	0.	0.	0.
211-020000	730.57	93.139	14.877	14.877	972.87	0.	0.	0.	0.
213-010000	730.56	93.077	14.878	14.878	972.83	0.	0.	0.	0.
221-010000	730.61	93.486	1.9822	1.9822	973.03	0.	-791.83	0.	0.
222-010000	730.60	93.193	5.9784	5.9784	973.00	0.	-3.81073E+05	0.	0.
222-020000	730.60	93.033	5.9784	5.9784	973.01	0.	-3.21066E+05	0.	0.
222-030000	730.60	92.875	5.9784	5.9784	973.00	0.	-2.78628E+05	0.	0.
222-040000	730.60	92.697	5.9784	5.9784	972.99	0.	-2.95416E+05	0.	0.
222-050000	730.59	92.514	5.9784	5.9784	972.95	0.	-2.09995E+05	0.	0.
222-060000	730.58	92.347	5.9785	5.9785	972.90	0.	-1.75961E+05	0.	0.
222-070000	730.57	92.180	5.9786	5.9786	972.85	0.	-1.45544E+05	0.	0.
222-080000	730.55	92.013	5.9787	5.9787	972.78	0.	-1.18360E+05	0.	0.
222-090000	730.54	91.847	5.9788	5.9788	972.71	0.	-94068.	0.	0.
222-100000	730.52	91.680	5.9789	5.9789	972.63	0.	-72358.	0.	0.
222-110000	730.50	91.521	5.9791	5.9791	972.55	0.	-57934.	0.	0.
224-010000	730.49	91.416	5.9792	5.9792	972.49	0.	-46775.	0.	0.
224-020000	730.48	91.356	5.9793	5.9793	972.44	0.	-83915.	0.	0.
224-030000	730.47	91.295	5.9794	5.9794	972.39	0.	-81321.	0.	0.
224-040000	730.45	91.234	5.9795	5.9795	972.34	0.	-79269.	0.	0.
224-050000	730.45	91.186	5.9796	5.9796	972.31	0.	-47631.	0.	0.
224-060000	730.44	91.150	5.9796	5.9796	972.28	0.	-43362.	0.	0.
224-070000	730.43	91.107	5.9797	5.9797	972.24	0.	-62780.	0.	0.
225-010000	730.44	91.186	1.9827	1.9827	972.27	0.	-66.821	0.	0.

231-010000	730.37	90.575	13.044	13.044	971.97	0.	0.	0.	0.
231-020000	730.38	90.665	13.350	13.350	972.01	0.	0.	0.	0.
231-030000	730.38	90.710	13.350	13.350	972.03	0.	0.	0.	0.
232-010000	730.37	90.638	13.334	13.334	971.99	0.	0.	0.	0.
240-010000	730.74	94.358	2.4842	2.4841	973.63	0.	0.	0.	0.
251-010000	730.96	96.424	16.943	16.943	974.66	0.	0.	0.	0.
253-010000	730.95	96.391	16.941	16.941	974.63	0.	0.	0.	0.
253-020000	730.94	96.357	16.941	16.941	974.61	0.	0.	0.	0.
253-030000	730.96	96.562	14.950	14.950	974.71	0.	0.	0.	0.
282-010000	928.80	19.070	8.09662E-04	8.09662E-04	1467.8	0.	0.	0.	0.
311-010000	730.58	93.171	14.864	14.864	972.89	0.	0.	0.	0.
311-020000	730.56	93.140	14.866	14.866	972.82	0.	0.	0.	0.
313-010000	730.55	93.078	14.867	14.867	972.78	0.	0.	0.	0.
321-010000	730.59	93.487	1.9808	1.9808	972.98	0.	1704.4	0.	0.
322-010000	730.59	93.194	5.9741	5.9741	972.94	0.	-3.99493E+05	0.	0.
322-020000	730.59	93.034	5.9741	5.9741	972.96	0.	-3.37481E+05	0.	0.
322-030000	730.59	92.877	5.9741	5.9741	972.96	0.	-2.93769E+05	0.	0.
322-040000	730.59	92.699	5.9741	5.9741	972.95	0.	-3.12666E+05	0.	0.
322-050000	730.58	92.516	5.9741	5.9741	972.91	0.	-2.23312E+05	0.	0.
322-060000	730.57	92.349	5.9742	5.9742	972.87	0.	-1.88061E+05	0.	0.
322-070000	730.56	92.182	5.9743	5.9743	972.82	0.	-1.56502E+05	0.	0.
322-080000	730.55	92.015	5.9744	5.9744	972.76	0.	-1.28265E+05	0.	0.
322-090000	730.53	91.849	5.9745	5.9745	972.69	0.	-1.03011E+05	0.	0.
322-100000	730.52	91.683	5.9746	5.9746	972.61	0.	-80435.	0.	0.
322-110000	730.50	91.524	5.9748	5.9748	972.53	0.	-65727.	0.	0.
324-010000	730.48	91.419	5.9749	5.9749	972.47	0.	-53773.	0.	0.
324-020000	730.47	91.359	5.9750	5.9750	972.43	0.	-94691.	0.	0.
324-030000	730.46	91.298	5.9751	5.9751	972.38	0.	-90314.	0.	0.
324-040000	730.45	91.238	5.9751	5.9751	972.34	0.	-86823.	0.	0.
324-050000	730.45	91.190	5.9752	5.9752	972.30	0.	-51937.	0.	0.
324-060000	730.44	91.154	5.9753	5.9753	972.27	0.	-46932.	0.	0.
324-070000	730.43	91.111	5.9753	5.9753	972.24	0.	-67225.	0.	0.
325-010000	730.44	91.190	1.9812	1.9812	972.27	0.	347.41	0.	0.
331-010000	730.37	90.580	13.035	13.035	971.96	0.	0.	0	0.
331-020000	730.38	90.670	13.341	13.341	972.00	0.	0.	0	0.
331-030000	730.38	90.716	13.341	13.341	972.02	0.	0.	0.	0.
331-040000	730.37	90.641	13.341	13.341	971.98	0.	0.	0.	0.
340-010000	730.74	94.360	2.4854	2.4854	973.61	0.	0.	0.	0.
351-010000	730.95	96.424	16.952	16.952	974.65	0.	0.	0.	0.
352-010000	730.95	96.390	16.950	16.950	974.62	0.	0.	0.	0.
353-010000	730.94	96.356	16.950	16.950	974.59	0.	0.	0.	0.
353-020000	730.96	96.562	14.958	14.958	974.69	0.	0.	0.	0.
400-010000	609.42	92.969	-2.84227E-02	.10746	110.85	3.08232E-02	9425.8	80.607	2.72588E-02
400-020000	609.37	92.902	-3.44672E-02	.10939	107.85	2.36582E-02	10511.	70.226	3.48080E-02
400-030000	609.45	92.821	-2.87741E-02	.11503	106.02	1.94557E-02	10597.	60.766	3.61969E-02
400-040000	609.46	92.862	-2.28873E-02	.12651	103.20	1.29253E-02	10695.	58.928	3.98042E-02
410-010000	609.75	92.815	-6.14955E-04	8.39797E-02	97.383	4.12424E-04	2726.4	0.	2.79378E-02
410-020000	609.98	92.790	-6.49346E-04	.17659	97.198	4.24126E-04	5476.4	0.	1.66988E-02
410-030000	610.19	92.753	-5.19622E-04	.14843	97.076	5.07765E-04	8940.1	0.	7.03720E-03
410-040000	610.61	92.690	-8.85804E-04	.38064	659.46	1.29189E-04	1.55826E+05	0.	2.69120E-02
410-050000	610.18	92.565	-3.55658E-03	5.07989E-03	152.76	.13555	1.06682E+05	1447.2	1.11479E-02
410-060000	610.64	92.461	-1.1640	1.78545E-03	381.54	.99696	5938.6	5505.7	2.95554E-04
410-070000	610.69	92.435	-.73449	6.35840E-04	380.70	.99264	1264.8	1071.9	3.70674E-04
410-080000	610.72	92.416	-.54384	8.27678E-05	441.41	.99970	283.61	283.61	9.29287E-04
410-090000	610.73	92.407	-.10882	3.67606E-05	441.40	.99994	115.13	115.13	8.27710E-04
420-010000	610.73	92.404	-7.82324E-02	2.20407E-05	441.40	.99990	69.932	69.932	9.77524E-04
430-010000	731.06	97.123	2.04999E-05	2.04998E-05	975.09	0.	0.	0.	0.

440-010000	731.03	97.122	2.04965E-05	2.04964E-05	974.98	0.	0.	0.	0.
450-010000	730.59	92.788	-1.4119	-8.62262E-05	972.94	1.34960E-07	0.	0.	-8.87127E-04
490-010000	593.86	102.04	0.	0.	372.13	1.0000	0.	0.	0.
940-010000	988.11	1.1294	0.	0.	1537.3	0.	89400.	0.	0.

VOL.NO.	LRGST.MASS ERR.		REDUCE-QUALITY		REDUCE-EXTRAP.		REDUCE-MASS		REDUCE-PROPTY.		MIN.COURANT		REDUCE-COURANT	
	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL	EDIT	TOTAL
11-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131-040000	0	0	0	0	0	0	0	0	0	0	0	12	50	793
140-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

211-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
213-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
221-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
228-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232-010000	0	0	0	0	0	0	0	0	0	0	0	1	0	0
240-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
251-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
282-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
311-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
311-020000	0	10	0	0	0	0	0	0	0	0	0	0	0	0
313-010000	0	9	0	0	0	0	0	0	0	0	0	0	0	0
321-010000	0	6	0	0	0	0	0	0	0	0	0	0	0	0
322-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-080000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-090000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-100000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
322-110000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-060000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
325-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

331-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-030000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331-040000	0	0	0	0	0	0	0	0	0	0	100	1587	0	7
340-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
351-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
352-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
353-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
353-020000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400-010000	25	508	0	0	0	0	0	0	0	0	0	0	0	0
400-020000	0	38	0	0	0	0	0	0	0	0	0	0	0	0
400-030000	0	70	0	0	0	0	0	0	0	0	0	0	0	0
400-040000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-010000	0	464	0	0	0	0	0	0	0	0	0	0	0	0
410-020000	0	3	0	0	0	0	0	0	0	0	0	0	0	0
410-030000	0	17	0	0	0	0	0	0	0	0	0	0	0	0
410-040000	0	345	0	0	0	0	0	0	0	0	0	0	0	0
410-050000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-060000	48	60	0	0	0	0	0	0	0	0	0	0	0	0
410-070000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410-080000	0	4	0	0	0	0	0	0	0	0	0	0	0	0
410-090000	2	41	0	0	0	0	0	0	0	0	0	0	0	0
420-010000	25	32	0	0	0	0	0	0	0	0	0	0	0	0
430-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
440-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450-010000	0	3	0	0	0	0	0	0	0	0	0	0	0	0
490-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
940-010000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

JUN.NO.	FROM VOL.	TO VOL.	LIQ.J.VEL. (M/SEC)	VAP.J.VEL. (M/SEC)	MASS FLOW (KG/SEC)	JUN.AREA (M2)	THROAT RATIO	JUNCTION FLAGS	CHOKE FLAG	NO.ADVS.CHOKED EDIT	TOTAL
SYSTEM 1											
UPDOWNC	BRANCH	COMPONENT									
11-010000	-13-010000	11-010000	3.58220E-02	3.58220E-02	48.495	1.8520	1.0000	00000	0	0	0
11-020000	11-010000	45-010000	17.928	17.928	48.508	3.70000E-03	1.0000	00000	0	0	0
UPDOWNOZZ	BRANCH	COMPONENT									
13-010000	153-020000	13-010000	14.975	14.975	4750.7	.43400	1.0000	00000	0	0	0
13-020000	253-030000	13-010000	14.950	14.950	4742.7	.43400	1.0000	00000	0	0	0
13-030000	353-020000	13-010000	14.958	14.958	4745.1	.43400	1.0000	00000	0	0	0
13-040000	13-010000	15-010000	7.8401	7.8401	14190.	2.4760	1.0000	00000	0	0	0
DOWNCTS	ANNULUS	COMPONENT									
15-010000	15-010000	15-020000	7.5531	7.5531	14190.	2.5700	1.0000	00000	0	0	0
15-020000	15-020000	15-030000	7.5530	7.5530	14190.	2.5700	1.0000	00000	0	0	0
LOWPLEN	BRANCH	COMPONENT									
23-010000	15-030000	23-010000	7.5528	7.5528	14190.	2.5700	1.0000	00000	0	0	0
23-020000	-23-010000	25-010000	5.0287	5.0287	14190.	3.8600	1.0000	00000	0	0	0
COREIN	BRANCH	COMPONENT									
25-010000	25-010000	31-010000	4.8810	4.8810	13772.	3.8600	1.0000	00000	0	0	0
25-020000	25-010000	35-010000	5.7173	5.7173	417.92	.10000	1.0000	00000	0	0	0
CORE	PIPE	COMPONENT									
31-010000	31-010000	31-020000	4.8813	4.8813	13772.	3.8600	1.0000	00000	0	0	0
31-020000	31-020000	31-030000	4.8816	4.8816	13772.	3.8600	1.0000	00000	0	0	0
31-030000	31-030000	31-040000	4.8819	4.8819	13772.	3.8600	1.0000	00000	0	0	0
31-040000	31-040000	31-050000	4.8822	4.8822	13772.	3.8600	1.0000	00000	0	0	0
COREEX	BRANCH	COMPONENT									
39-010000	31-050000	39-010000	4.8825	4.8825	13772.	3.8600	1.0000	00000	0	0	0
39-020000	35-010000	39-010000	5.7181	5.7181	417.91	.10000	1.0000	00000	0	0	0

UPPLEN1	BRANCH	COMPONENT									
41-010000	39-010000	41-010000	5.0308	5.0308	14190.	3.8600	1.0000	00000	0	0	0
41-020000	41-010000	43-010000	2.1906	2.1906	14190.	8.8650	1.0000	00000	0	0	0
UPPLEN2	BRANCH	COMPONENT									
43-010000	-43-010000	111-010000	14.863	14.863	4744.9	.43690	1.0000	00000	0	0	0
43-020000	-43-010000	211-010000	14.875	14.875	4748.7	.43690	1.0000	00000	0	0	0
43-030000	-43-010000	311-010000	14.862	14.862	4744.7	.43690	1.0000	00000	0	0	0
UPHEAD	BRANCH	COMPONENT									
45-010000	43-010000	45-010000	-7.48159E-03	-7.48159E-03	-48.514	8.8650	1.0000	00000	0	0	0
HTLEGR1	PIPE	COMPONENT									
111-010000	111-010000	111-020000	14.865	14.865	4744.9	.43690	1.0000	00000	0	0	0
HTLEGR2	BRANCH	COMPONENT									
113-010000	111-020000	113-010000	14.866	14.866	4744.9	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
121-010000	121-010000	122-010000	5.9735	5.9735	4744.9	1.0872	1.0000	00000	0	0	0
121-020000	113-010000	121-010000	14.866	14.866	4744.9	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
122-010000	122-010000	122-020000	5.9736	5.9736	4744.9	1.0872	1.0000	00000	0	0	0
122-020000	122-020000	122-030000	5.9736	5.9736	4744.9	1.0872	1.0000	00000	0	0	0
122-030000	122-030000	122-040000	5.9736	5.9736	4744.9	1.0872	1.0000	00000	0	0	0
122-040000	122-040000	122-050000	5.9736	5.9736	4744.9	1.0872	1.0000	00000	0	0	0
122-050000	122-050000	122-060000	5.9737	5.9737	4744.9	1.0872	1.0000	00000	0	0	0
122-060000	122-060000	122-070000	5.9737	5.9737	4744.9	1.0872	1.0000	00000	0	0	0
122-070000	122-070000	122-080000	5.9738	5.9738	4744.9	1.0872	1.0000	00000	0	0	0
122-080000	122-080000	122-090000	5.9740	5.9740	4744.9	1.0872	1.0000	00000	0	0	0
122-090000	122-090000	122-100000	5.9741	5.9741	4744.9	1.0872	1.0000	00000	0	0	0
122-100000	122-100000	122-110000	5.9742	5.9742	4744.9	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
123-000000	122-110000	124-010000	5.9744	5.9744	4744.9	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
124-010000	124-010000	124-020000	5.9745	5.9745	4744.9	1.0872	1.0000	00000	0	0	0
124-020000	124-020000	124-030000	5.9746	5.9746	4744.9	1.0872	1.0000	00000	0	0	0
124-030000	124-030000	124-040000	5.9747	5.9747	4744.9	1.0872	1.0000	00000	0	0	0
124-040000	124-040000	124-050000	5.9747	5.9747	4744.8	1.0872	1.0000	00000	0	0	0
124-050000	124-050000	124-060000	5.9748	5.9748	4744.8	1.0872	1.0000	00000	0	0	0
124-060000	124-060000	124-070000	5.9749	5.9749	4744.8	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
125-010000	124-070000	125-010000	5.9711	5.9711	4744.8	1.0879	1.0000	00000	0	0	0
125-020000	125-010000	131-010000	13.033	13.033	4744.8	.49840	1.0000	00000	0	0	0
SEALR	PIPE	COMPONENT									
131-010000	131-010000	131-020000	13.340	13.340	4744.8	.48700	1.0000	00000	0	0	0
131-020000	131-020000	131-030000	13.340	13.340	4744.8	.48700	1.0000	00000	0	0	0
131-030000	131-030000	131-040000	13.339	13.339	4744.8	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
140-010000	131-040000	140-010000	13.340	13.340	4744.8	.48700	1.0000	00000	0	0	0
140-020000	140-010000	151-010000	16.953	16.953	4744.8	.38300	1.0000	00000	0	0	0
COLDR2	BRANCH	COMPONENT									
152-010000	151-010000	152-010000	16.948	16.948	4744.8	.38300	1.0000	00000	0	0	0
152-020000	152-010000	153-010000	16.969	16.969	4750.7	.38300	1.0000	00000	0	0	0
COLDR3	PIPE	COMPONENT									
153-010000	153-010000	153-020000	16.969	16.969	4750.7	.38300	1.0000	00000	0	0	0
CVJUN	TMDPJUN	COMPONENT									
181-000000	180-010000	152-010000	2.2348	2.2348	5.9136	3.49000E-03	1.0000	00000	0	0	0
HTLEGG1	PIPE	COMPONENT									
211-010000	211-010000	211-020000	14.877	14.877	4748.7	.43690	1.0000	00000	0	0	0
HTLEGG2	BRANCH	COMPONENT									
213-010000	211-020000	213-010000	14.877	14.877	4748.7	.43690	1.0000	00000	0	0	0

INBOX	BRANCH	COMPONENT									
221-010000	221-010000	222-010000	5.9783	5.9783	4748.7	1.0872	1.0000	00000	0	0	0
221-020000	213-010000	221-010000	14.878	14.878	4748.7	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
222-010000	222-010000	222-020000	5.9784	5.9784	4748.7	1.0872	1.0000	00000	0	0	0
222-020000	222-020000	222-030000	5.9784	5.9784	4748.7	1.0872	1.0000	00000	0	0	0
222-030000	222-030000	222-040000	5.9784	5.9784	4748.7	1.0872	1.0000	00000	0	0	0
222-040000	222-040000	222-050000	5.9784	5.9784	4748.7	1.0872	1.0000	00000	0	0	0
222-050000	222-050000	222-060000	5.9784	5.9784	4748.7	1.0872	1.0000	00000	0	0	0
222-060000	222-060000	222-070000	5.9785	5.9785	4748.7	1.0872	1.0000	00000	0	0	0
222-070000	222-070000	222-080000	5.9786	5.9786	4748.7	1.0872	1.0000	00000	0	0	0
222-080000	222-080000	222-090000	5.9787	5.9787	4748.7	1.0872	1.0000	00000	0	0	0
222-090000	222-090000	222-100000	5.9789	5.9789	4748.7	1.0872	1.0000	00000	0	0	0
222-100000	222-100000	222-110000	5.9790	5.9790	4748.7	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
223-000000	222-110000	224-010000	5.9792	5.9792	4748.7	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
224-010000	224-010000	224-020000	5.9793	5.9793	4748.7	1.0872	1.0000	00000	0	0	0
224-020000	224-020000	224-030000	5.9794	5.9794	4748.7	1.0872	1.0000	00000	0	0	0
224-030000	224-030000	224-040000	5.9794	5.9794	4748.7	1.0872	1.0000	00000	0	0	0
224-040000	224-040000	224-050000	5.9795	5.9795	4748.6	1.0872	1.0000	00000	0	0	0
224-050000	224-050000	224-060000	5.9796	5.9796	4748.6	1.0872	1.0000	00000	0	0	0
224-060000	224-060000	224-070000	5.9796	5.9796	4748.6	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
225-010000	224-070000	225-010000	5.9759	5.9759	4748.6	1.0879	1.0000	00000	0	0	0
225-020000	225-010000	231-010000	13.044	13.044	4748.6	.49840	1.0000	00000	0	0	0
SEALG1	PIPE	COMPONENT									
231-010000	231-010000	231-020000	13.350	13.350	4748.6	.48700	1.0000	00000	0	0	0
231-020000	231-020000	231-030000	13.350	13.350	4748.6	.48700	1.0000	00000	0	0	0
SEALG2	BRANCH	COMPONENT									
232-010000	231-030000	232-010000	13.334	13.334	4742.7	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
240-010000	232-010000	240-010000	13.334	13.334	4742.7	.48700	1.0000	00000	0	0	0
240-020000	240-010000	251-010000	16.946	16.946	4742.7	.38300	1.0000	00000	0	0	0
COLG1	BRANCH	COMPONENT									
251-010000	251-010000	253-010000	16.941	16.941	4742.7	.38300	1.0000	00000	0	0	0
COLG2	PIPE	COMPONENT									
253-010000	253-010000	253-020000	16.941	16.941	4742.7	.38300	1.0000	00000	0	0	0
253-020000	253-020000	253-030000	16.941	16.941	4742.7	.38300	1.0000	00000	0	0	0
TJ183	TMDPJUN	COMPONENT									
283-000000	231-030000	282-010000	1.66255E-02	1.66255E-02	5.9136	.48700	1.0000	00000	0	0	0
HTLEGB1	PIPE	COMPONENT									
311-010000	311-010000	311-020000	14.865	14.865	4744.7	.43690	1.0000	00000	0	0	0
SURGEJUN	SNGLJUN	COMPONENT									
312-000000	-400-010000	-311-020000	1.86017E-02	-.25529	.59187	6.31180E-02	1.0000	10001	0	0	0
HTLEGB2	BRANCH	COMPONENT									
313-010000	311-020000	313-010000	14.867	14.867	4745.3	.43690	1.0000	00000	0	0	0
INBOX	BRANCH	COMPONENT									
321-010000	321-010000	322-010000	5.9741	5.9741	4745.2	1.0872	1.0000	00000	0	0	0
321-020000	313-010000	321-010000	14.867	14.867	4745.3	.43690	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
322-010000	322-010000	322-020000	5.9741	5.9741	4745.2	1.0872	1.0000	00000	0	0	0
322-020000	322-020000	322-030000	5.9741	5.9741	4745.2	1.0872	1.0000	00000	0	0	0
322-030000	322-030000	322-040000	5.9741	5.9741	4745.2	1.0872	1.0000	00000	0	0	0
322-040000	322-040000	322-050000	5.9741	5.9741	4745.2	1.0872	1.0000	00000	0	0	0
322-050000	322-050000	322-060000	5.9742	5.9742	4745.2	1.0872	1.0000	00000	0	0	0
322-060000	322-060000	322-070000	5.9742	5.9742	4745.2	1.0872	1.0000	00000	0	0	0

322-070000	322-070000	322-080000	5.9743	5.9743	4745.2	1.0872	1.0000	00000	0	0	0
322-080000	322-080000	322-090000	5.9744	5.9744	4745.2	1.0872	1.0000	00000	0	0	0
322-090000	322-090000	322-100000	5.9746	5.9746	4745.2	1.0872	1.0000	00000	0	0	0
322-100000	322-100000	322-110000	5.9747	5.9747	4745.2	1.0872	1.0000	00000	0	0	0
UJUN	SNGLJUN	COMPONENT									
323-000000	322-110000	324-010000	5.9748	5.9748	4745.2	1.0872	1.0000	00000	0	0	0
UTUBE	PIPE	COMPONENT									
324-010000	324-010000	324-020000	5.9750	5.9750	4745.2	1.0872	1.0000	00000	0	0	0
324-020000	324-020000	324-030000	5.9750	5.9750	4745.2	1.0872	1.0000	00000	0	0	0
324-030000	324-030000	324-040000	5.9751	5.9751	4745.2	1.0872	1.0000	00000	0	0	0
324-040000	324-040000	324-050000	5.9752	5.9752	4745.2	1.0872	1.0000	00000	0	0	0
324-050000	324-050000	324-060000	5.9752	5.9752	4745.2	1.0872	1.0000	00000	0	0	0
324-060000	324-060000	324-070000	5.9753	5.9753	4745.2	1.0872	1.0000	00000	0	0	0
OUTBOX	BRANCH	COMPONENT									
325-010000	324-070000	325-010000	5.9715	5.9715	4745.2	1.0879	1.0000	00000	0	0	0
325-020000	325-010000	331-010000	13.034	13.034	4745.1	.49840	1.0000	00000	0	0	0
SEALB	PIPE	COMPONENT									
331-010000	331-010000	331-020000	13.341	13.341	4745.1	.48700	1.0000	00000	0	0	0
331-020000	331-020000	331-030000	13.341	13.341	4745.1	.48700	1.0000	00000	0	0	0
331-030000	331-030000	331-040000	13.340	13.340	4745.1	.48700	1.0000	00000	0	0	0
PUMPR	PUMP	COMPONENT									
340-010000	331-040000	340-010000	13.341	13.341	4745.1	.48700	1.0000	00000	0	0	0
340-020000	340-010000	351-010000	16.955	16.955	4745.1	.38300	1.0000	00000	0	0	0
COLDR2	BRANCH	COMPONENT									
352-010000	351-010000	352-010000	16.950	16.950	4745.1	.38300	1.0000	00000	0	0	0
352-020000	352-010000	353-010000	16.950	16.950	4745.1	.38300	1.0000	00000	0	0	0
COLDR3	PIPE	COMPONENT									
353-010000	353-010000	353-020000	16.950	16.950	4745.1	.38300	1.0000	00000	0	0	0
SURGE	PIPE	COMPONENT									
400-010000	400-010000	400-020000	-3.78418E-02	.10746	-1.1470	6.31180E-02	1.0000	00000	0	0	0
400-020000	400-020000	400-030000	-3.13703E-02	.11246	-.98210	6.34253E-02	1.0000	00000	0	0	0
400-030000	400-030000	400-040000	-2.62797E-02	.11808	-.85547	6.34253E-02	1.0000	00000	0	0	0
SURGE1	SNGLJUN	COMPONENT									
405-000000	400-040000	410-010000	-1.97564E-02	.13877	-.69737	6.34253E-02	1.0000	00100	0	0	0
PRESSU	PIPE	COMPONENT									
410-010000	410-010000	410-020000	-6.15771E-04	.15353	-.71669	2.1329	1.0000	00000	0	0	0
410-020000	410-020000	410-030000	-6.82927E-04	.19900	-.77602	2.1329	1.0000	00000	0	0	0
410-030000	410-030000	410-040000	-5.84317E-04	.16273	-1.0813	3.5350	1.0000	00000	0	0	0
410-040000	410-040000	410-050000	-1.49882E-03	1.2347	-1.2433	3.5350	1.0000	00000	0	0	0
410-050000	410-050000	410-060000	-2.1948	3.01962E-03	-1.7120	3.5350	1.0000	00000	0	0	0
410-060000	410-060000	410-070000	-.73981	1.15717E-03	-1.4562	3.5350	1.0000	00000	0	0	0
410-070000	410-070000	410-080000	-.60248	1.14020E-04	-2.71271E-02	3.5350	1.0000	00000	0	0	0
410-080000	410-080000	410-090000	-.15686	5.14068E-05	8.09032E-03	2.1329	1.0000	00000	0	0	0
TOP	BRANCH	COMPONENT									
420-010000	410-090000	420-010000	-7.82727E-02	2.21133E-05	2.72707E-03	2.1329	1.0000	00000	0	0	0
SPRAYR	BRANCH	COMPONENT									
430-010000	151-010000	430-010000	2.04999E-05	2.04999E-05	8.97424E-05	5.98900E-03	1.0000	00000	0	0	0
SPRAYR	VALVE	COMPONENT									
435-000000	430-010000	450-010000	0.	0.	0.	5.98900E-03	0.	00100	0	0	1
SPRAYB	BRANCH	COMPONENT									
440-010000	351-010000	440-010000	2.04965E-05	2.04964E-05	8.97269E-05	5.98900E-03	1.0000	00000	0	0	0
SPRAYB	VALVE	COMPONENT									
445-000000	440-010000	450-010000	0.	0.	0.	5.98900E-03	0.	00100	0	0	1
SPRAYB	BRANCH	COMPONENT									
450-010000	450-010000	-420-010000	-1.4119	-8.62262E-05	-4.77232E-05	5.98900E-03	1.0000	00000	0	0	0
PRESVAL	VALVE	COMPONENT									
460-000000	420-010000	490-010000	0.	0.	0.	2.1340	0.	00100	0	0	0

SYSTEM 2

JUN.NO.	VOIDFJ	VOIDGJ	FROM	TO	FIJ (N-S2/M5)	FWALFJ	FWALGJ	FJUNF	FJUNR	FORMFJ	FORMGJ
11-010000	1.0000	0.	BBY	BBY	19.473	2.72	0.	0.	0.	0.	0.
11-020000	1.0000	0.	BBY	BBY	2.60425E-02	1.936E-07	0.	2.30	2.30	0.	0.
13-010000	1.0000	0.	BBY	BBY	14.401	1.747E-02	0.	.429	.429	0.	0.
13-020000	1.0000	0.	BBY	BBY	14.401	1.748E-02	0.	.429	.429	0.	0.
13-030000	1.0000	0.	BBY	BBY	14.401	1.748E-02	0.	.429	.429	0.	0.
13-040000	1.0000	0.	BBY	BBY	21.232	3.487E-02	0.	.160	.160	0.	0.
15-010000	1.0000	0.	BBY	BBY	21.677	4.002E-02	0.	0.	0.	0.	0.
15-020000	1.0000	0.	BBY	BBY	21.685	4.002E-02	0.	0.	0.	0.	0.
23-010000	1.0000	0.	BBY	BBY	15.889	2.076E-02	0.	1.43	.500	0.	0.
23-020000	1.0000	0.	BBY	BBY	16.474	3.426E-03	0.	5.27	5.27	0.	0.
25-010000	1.0000	0.	BBY	BBY	21.629	.651	0.	2.45	2.45	0.	0.
25-020000	1.0000	0.	BBY	BBY	2.3189	4.351E-04	0.	7.45	7.45	0.	0.
31-010000	1.0000	0.	BBY	BBY	21.602	1.30	0.	2.47	2.47	0.	0.
31-020000	1.0000	0.	BBY	BBY	21.573	1.30	0.	2.40	2.40	0.	0.
31-030000	1.0000	0.	BBY	BBY	21.545	1.30	0.	2.31	2.31	0.	0.
31-040000	1.0000	0.	BBY	BBY	21.517	1.30	0.	2.23	2.23	0.	0.
39-010000	1.0000	0.	BBY	BBY	21.497	.651	0.	.720	.720	0.	0.
39-020000	1.0000	0.	BBY	BBY	2.3109	4.350E-04	0.	6.45	6.45	0.	0.
41-010000	1.0000	0.	BBY	BBY	16.146	1.905E-03	0.	2.04	2.04	0.	0.
41-020000	1.0000	0.	BBY	BBY	21.473	3.897E-03	0.	0.	0.	0.	0.
43-010000	1.0000	0.	BBY	BBY	12.518	1.920E-02	0.	.380	.380	0.	0.
43-020000	1.0000	0.	BBY	BBY	12.518	1.920E-02	0.	.380	.380	0.	0.
43-030000	1.0000	0.	BBY	BBY	12.518	1.920E-02	0.	.380	.380	0.	0.
45-010000	1.0000	0.	BBY	BBY	21.270	.887	0.	2.60	2.60	0.	0.
111-010000	1.0000	0.	BBY	BBY	21.394	3.836E-02	0.	0.	0.	0.	0.
113-010000	1.0000	0.	BBY	BBY	21.391	3.836E-02	0.	0.	0.	0.	0
121-010000	1.0000	0.	BBY	BBY	11.857	.377	0.	.226	.580	0.	0
121-020000	1.0000	0.	BBY	BBY	13.716	1.926E-02	0.	.325	.255	0.	0
122-010000	1.0000	0.	BBY	BBY	21.393	.740	0.	0.	0.	0.	0
122-020000	1.0000	0.	BBY	BBY	21.382	.728	0.	0.	0.	0.	0
122-030000	1.0000	0.	BBY	BBY	21.369	.824	0.	0.	0.	0.	0
122-040000	1.0000	0.	BBY	BBY	21.358	.849	0.	0.	0.	0.	0
122-050000	1.0000	0.	BBY	BBY	21.345	.778	0.	0.	0.	0.	0
122-060000	1.0000	0.	BBY	BBY	21.333	.778	0.	0.	0.	0.	0
122-070000	1.0000	0.	BBY	BBY	21.321	.778	0.	0.	0.	0.	0
122-080000	1.0000	0.	BBY	BBY	21.309	.778	0.	0.	0.	0.	0.
122-090000	1.0000	0.	BBY	BBY	21.297	.778	0.	0.	0.	0.	0.
122-100000	1.0000	0.	BBY	BBY	21.285	.808	0.	0.	0.	0.	0.
123-000000	1.0000	0.	BBY	BBY	21.276	.837	0.	0.	0.	0.	0.
124-010000	1.0000	0.	BBY	BBY	21.269	1.20	0.	0.	0.	0.	0.
124-020000	1.0000	0.	BBY	BBY	21.265	1.56	0.	0.	0.	0.	0.
124-030000	1.0000	0.	BBY	BBY	21.261	1.56	0.	0.	0.	0.	0.
124-040000	1.0000	0.	BBY	BBY	21.257	1.24	0.	0.	0.	0.	0.
124-050000	1.0000	0.	BBY	BBY	21.254	.915	0.	0.	0.	0.	0.
124-060000	1.0000	0.	BBY	BBY	21.251	1.10	0.	0.	0.	0.	0.
125-010000	1.0000	0.	BBY	BBY	13.618	.650	0.	.580	.226	0.	0.
125-020000	1.0000	0.	BBY	BBY	12.340	1.316E-02	0.	.255	.325	0.	0.
131-010000	1.0000	0.	BBY	BBY	20.971	2.551E-02	0.	0.	0.	0.	0.
131-020000	1.0000	0.	BBY	BBY	21.219	3.326E-02	0.	0.	0.	0.	0.
131-030000	1.0000	0.	BBY	BBY	21.219	3.096E-02	0.	0.	0.	0.	0.
140-010000	1.0000	0.	BBY	CTB	13.331	1.074E-02	0.	.195	.195	0.	0.
140-020000	1.0000	0.	CTB	BBY	14.128	1.598E-02	0.	.270	.270	0.	0.
152-010000	1.0000	0.	BBY	BBY	21.634	3.198E-02	0.	0.	0.	0.	0.

152-020000	1.0000	0.	BBY	BBY	21.632	3.196E-02	0.	0.	0.	0.	0.
153-010000	1.0000	0.	BBY	BBY	20.367	2.842E-02	0.	0.	0.	0.	0.
181-000000	1.0000	0.	BBY	BBY	.19712	1.105E-03	0.	0.	0.	0.	0.
211-010000	1.0000	0.	BBY	BBY	21.394	3.836E-02	0.	0.	0.	0.	0.
213-010000	1.0000	0.	BBY	BBY	21.391	3.836E-02	0.	0.	0.	0.	0.
221-010000	1.0000	0.	BBY	BBY	11.857	.377	0.	.226	.580	0.	0.
221-020000	1.0000	0.	BBY	BBY	13.716	1.926E-02	0.	.325	.255	0.	0.
222-010000	1.0000	0.	BBY	BBY	21.393	.740	0.	0.	0.	0.	0.
222-020000	1.0000	0.	BBY	BBY	21.382	.727	0.	0.	0.	0.	0.
222-030000	1.0000	0.	BBY	BBY	21.369	.823	0.	0.	0.	0.	0.
222-040000	1.0000	0.	BBY	BBY	21.358	.849	0.	0.	0.	0.	0.
222-050000	1.0000	0.	BBY	BBY	21.345	.778	0.	0.	0.	0.	0.
222-060000	1.0000	0.	BBY	BBY	21.333	.778	0.	0.	0.	0.	0.
222-070000	1.0000	0.	BBY	BBY	21.321	.778	0.	0.	0.	0.	0.
222-080000	1.0000	0.	BBY	BBY	21.309	.778	0.	0.	0.	0.	0.
222-090000	1.0000	0.	BBY	BBY	21.297	.778	0.	0.	0.	0.	0.
222-100000	1.0000	0.	BBY	BBY	21.285	.807	0.	0.	0.	0.	0.
223-000000	1.0000	0.	BBY	BBY	21.276	.837	0.	0.	0.	0.	0.
224-010000	1.0000	0.	BBY	BBY	21.269	1.20	0.	0.	0.	0.	0.
224-020000	1.0000	0.	BBY	BBY	21.265	1.56	0.	0.	0.	0.	0.
224-030000	1.0000	0.	BBY	BBY	21.261	1.56	0.	0.	0.	0.	0.
224-040000	1.0000	0.	BBY	BBY	21.257	1.24	0.	0.	0.	0.	0.
224-050000	1.0000	0.	BBY	BBY	21.254	.914	0.	0.	0.	0.	0.
224-060000	1.0000	0.	BBY	BBY	21.250	1.10	0.	0.	0.	0.	0.
225-010000	1.0000	0.	BBY	BBY	13.618	.660	0.	.580	.226	0.	0.
225-020000	1.0000	0.	BBY	BBY	12.340	1.316E-02	0.	.255	.325	0.	0.
231-010000	1.0000	0.	BBY	BBY	20.971	2.561E-02	0.	0.	0.	0.	0.
231-020000	1.0000	0.	BBY	BBY	21.219	3.326E-02	0.	0.	0.	0.	0.
232-010000	1.0000	0.	BBY	BBY	21.218	3.098E-02	0.	0.	0.	0.	0.
240-010000	1.0000	0.	BBY	CTB	13.331	1.074E-02	0.	.195	.195	0.	0.
240-020000	1.0000	0.	CTB	BBY	14.128	1.598E-02	0.	.270	.270	0.	0.
251-010000	1.0000	0.	BBY	BBY	21.633	3.196E-02	0.	0.	0.	0.	0.
253-010000	1.0000	0.	BBY	BBY	21.631	3.196E-02	0.	0.	0.	0.	0.
253-020000	1.0000	0.	BBY	BBY	20.366	2.842E-02	0.	0.	0.	0.	0.
283-000000	1.0000	0.	BBY	BBY	21.220	16.2	0.	0.	0.	0.	0.
311-010000	1.0000	0.	BBY	BBY	21.394	3.836E-02	0.	0.	0.	0.	0.
312-000000	.82749	0.	BBY	BBY	1971.1	.591	.177	0.	0.	0.	0.
313-010000	1.0000	0.	BBY	BBY	21.391	3.837E-02	0.	0.	0.	0.	0.
321-010000	1.0000	0.	BBY	BBY	11.857	.377	0.	.226	.580	0.	0.
321-020000	1.0000	0.	BBY	BBY	13.716	1.927E-02	0.	.325	.255	0.	0.
322-010000	1.0000	0.	BBY	BBY	21.392	.740	0.	0.	0.	0.	0.
322-020000	1.0000	0.	BBY	BBY	21.381	.728	0.	0.	0.	0.	0.
322-030000	1.0000	0.	BBY	BBY	21.369	.824	0.	0.	0.	0.	0.
322-040000	1.0000	0.	BBY	BBY	21.358	.849	0.	0.	0.	0.	0.
322-050000	1.0000	0.	BBY	BBY	21.345	.778	0.	0.	0.	0.	0.
322-060000	1.0000	0.	BBY	BBY	21.333	.778	0.	0.	0.	0.	0.
322-070000	1.0000	0.	BBY	BBY	21.321	.778	0.	0.	0.	0.	0.
322-080000	1.0000	0.	BBY	BBY	21.309	.778	0.	0.	0.	0.	0.
322-090000	1.0000	0.	BBY	BBY	21.297	.778	0.	0.	0.	0.	0.
322-100000	1.0000	0.	BBY	BBY	21.285	.808	0.	0.	0.	0.	0.
323-000000	1.0000	0.	BBY	BBY	21.276	.837	0.	0.	0.	0.	0.
324-010000	1.0000	0.	BBY	BBY	21.269	1.20	0.	0.	0.	0.	0.
324-020000	1.0000	0.	BBY	BBY	21.265	1.56	0.	0.	0.	0.	0.
324-030000	1.0000	0.	BBY	BBY	21.261	1.56	0.	0.	0.	0.	0.
324-040000	1.0000	0.	BBY	BBY	21.257	1.24	0.	0.	0.	0.	0.
324-050000	1.0000	0.	BBY	BBY	21.254	.915	0.	0.	0.	0.	0.
324-060000	1.0000	0.	BBY	BBY	21.250	1.10	0.	0.	0.	0.	0.

325-010000	1.0000	0.	BBY	BBY	13.618	.650	0.	.580	.225	0.	0.
325-020000	1.0000	0.	BBY	BBY	12.340	1.316E-02	0.	.255	.325	0.	0.
331-010000	1.0000	0.	BBY	BBY	20.971	2.551E-02	0.	0.	0.	0.	0.
331-020000	1.0000	0.	BBY	BBY	21.219	3.326E-02	0.	0.	0.	0.	0.
331-030000	1.0000	0.	BBY	BBY	21.219	3.096E-02	0.	0.	0.	0.	0.
340-010000	1.0000	0.	BBY	CTB	13.331	1.074E-02	0.	.195	.195	0.	0.
340-020000	1.0000	0.	CTB	BBY	14.128	1.598E-02	0.	.270	.270	0.	0.
352-010000	1.0000	0.	BBY	BBY	21.633	3.196E-02	0.	0.	0.	0.	0.
352-020000	1.0000	0.	BBY	BBY	21.630	3.196E-02	0.	0.	0.	0.	0.
353-010000	1.0000	0.	BBY	BBY	20.366	2.842E-02	0.	0.	0.	0.	0.
400-010000	.86286	.17251	BBY	BBY	7935.4	.632	.719	0.	0.	0.	0.
400-020000	.88474	.13714	BBY	BBY	6795.3	.735	.672	0.	0.	0.	0.
400-030000	.92086	.11626	BBY	BBY	5368.7	.719	.661	0.	0.	0.	0.
405-000000	.99730	7.91399E-02	BBY	BBY	1937.6	.419	.300	0.	0.	.425	.847
410-010000	.99722	2.70323E-03	BBY	BBY	551.04	2.265E-03	8.301E-04	0.	0.	0.	0.
410-020000	.99667	2.78153E-03	BBY	BBY	479.72	1.442E-03	5.696E-04	0.	0.	0.	0.
410-030000	.99915	3.33097E-03	BBY	BBY	297.35	3.451E-03	1.638E-03	0.	0.	0.	0.
410-040000	.49174	8.50443E-04	BBY	SLG	741.16	7.619E-02	2.366E-06	0.	0.	0.	0.
410-050000	4.61429E-04	.60826	SLG	ANM	198.08	1.365E-04	3.373E-04	0.	0.	0.	0.
410-060000	1.12107E-03	.99954	ANM	ANM	7.3372	1.978E-04	8.795E-07	0.	0.	0.	0.
410-070000	4.51927E-05	.99888	ANM	ANM	12.740	1.098E-04	3.358E-06	0.	0.	0.	0.
410-080000	9.77627E-06	.99995	ANM	ANM	8.8993	5.717E-05	1.003E-07	0.	0.	0.	0.
420-010000	1.63695E-05	.99999	ANM	ANM	9.1143	2.942E-04	3.409E-07	0.	0.	0.	0.
430-010000	1.0000	0.	BBY	BBY	18.071	470.	0.	0.	0.	0.	0.
435-000000	1.0000	5.19192E-07	BBY	BBY	21.537	1.359E+07	2.029E+05	0.	0.	0.	0.
440-010000	1.0000	0.	BBY	BBY	18.071	470.	0.	0.	0.	0.	0.
445-000000	1.0000	5.19195E-07	BBY	BBY	21.537	1.359E+07	2.029E+05	0.	0.	0.	0.
450-010000	9.38639E-10	1.0000	BBY	ANM	83.002	.991	4.267E-03	1.00	1.00	0.	0.
489-000000	7.79236E-06	.99999	ANM	MST	8.7840	77.5	3.214E-05	0.	0.	0.	0.

STR.NO.	SIDE	BDRY.VOL. NUMBER	SURFACE TEMP. (K)	HEAT TRF. RATE (WATT)	HEAT FLUX (WATT/M2)	CRITICAL HEAT FLUX (WATT/M2)	MODE	HEAT TRF. COEF. (WATT/M2-K)	INT. HEAT SOURCE (WATT)	NET HEAT LOSS (WATT)	VOL.AVE. TEMP. (K)
1211-001	LEFT	121-010000	570.49	-603.48	-64.992	0.	2	5994.8	0.	-603.48	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.			
1220-001	LEFT	122-010000	570.43	-3.81098E+05	-1563.6	0.	2	37843.	0.	-149.89	570.39
	RIGHT	0-000000	570.35	3.80948E+05	1384.1	0.	0	0.			
1220-002	LEFT	122-020000	570.42	-3.21077E+05	-1362.1	0.	2	37845.	0.	-139.21	570.39
	RIGHT	0-000000	570.35	3.20938E+05	1205.7	0.	0	0.			
1220-003	LEFT	122-030000	570.41	-2.78629E+05	-1182.1	0.	2	37846.	0.	-133.63	570.38
	RIGHT	0-000000	570.35	2.78496E+05	1046.3	0.	0	0.			
1220-004	LEFT	122-040000	570.40	-2.95405E+05	-991.55	0.	2	37847.	0.	-159.24	570.38
	RIGHT	0-000000	570.35	2.95245E+05	877.61	0.	0	0.			
1220-005	LEFT	122-050000	570.40	-2.09984E+05	-832.89	0.	2	37849.	0.	-127.00	570.37
	RIGHT	0-000000	570.35	2.09857E+05	737.13	0.	0	0.			
1220-006	LEFT	122-060000	570.39	-1.75948E+05	-697.89	0.	2	37851.	0.	-118.27	570.37
	RIGHT	0-000000	570.35	1.75830E+05	617.61	0.	0	0.			
1220-007	LEFT	122-070000	570.38	-1.45532E+05	-577.25	0.	2	37852.	0.	-108.72	570.37
	RIGHT	0-000000	570.35	1.45423E+05	510.81	0.	0	0.			
1220-008	LEFT	122-080000	570.38	-1.18351E+05	-469.43	0.	2	37854.	0.	-98.726	570.36
	RIGHT	0-000000	570.35	1.18253E+05	415.37	0.	0	0.			
1220-009	LEFT	122-090000	570.37	-94062.	-373.09	0.	2	37856.	0.	-88.688	570.36
	RIGHT	0-000000	570.35	93974.	330.09	0.	0	0.			
1220-010	LEFT	122-100000	570.37	-72357.	-287.00	0.	2	37858.	0.	-78.919	570.36
	RIGHT	0-000000	570.35	72278.	253.88	0.	0	0.			
1220-011	LEFT	122-110000	570.36	-57938.	-213.65	0.	2	37860.	0.	-74.146	570.36

	RIGHT	0-000000	570.35	57864.	188.96	0.	0	0.				
1231-001	LEFT	121-010000	570.47	-188.57	-162.56	0.	2	5994.8	C		-94.189	570.42
	RIGHT	125-010000	570.38	94.378	81.360	0.	2	5998.6				
1240-001	LEFT	124-010000	570.36	-46785.	-172.52	0.	2	37861.	0.		-64.039	570.35
	RIGHT	0-000000	570.35	46721.	152.57	0.	0	0.				
1240-002	LEFT	124-020000	570.36	-83926.	-166.44	0.	2	37862.	0.		-88.392	570.35
	RIGHT	0-000000	570.35	83837.	147.24	0.	0	0.				
1240-003	LEFT	124-030000	570.36	-81341.	-161.32	0.	2	37863.	0.		-61.833	570.35
	RIGHT	0-000000	570.35	81279.	142.75	0.	0	0.				
1240-004	LEFT	124-040000	570.36	-79296.	-157.26	0.	2	37864.	0.		-38.948	570.35
	RIGHT	0-000000	570.35	79257.	139.20	0.	0	0.				
1240-005	LEFT	124-050000	570.36	-47660.	-148.25	0.	2	37864.	0.		-16.979	570.35
	RIGHT	0-000000	570.35	47643.	131.23	0.	0	0.				
1240-006	LEFT	124-060000	570.36	-43389.	-147.23	0.	2	37865.	0.		-9.1986	570.35
	RIGHT	0-000000	570.35	43380.	130.36	0.	0	0.				
1240-007	LEFT	124-070000	570.36	-44022.	-149.38	0.	2	37865.	0.		-1.0120	570.35
	RIGHT	0-000000	570.35	44021.	132.28	0.	0	0.				
1240-008	LEFT	124-070000	570.36	-18792.	-149.38	0.	2	37865.	0.		-.43198	570.35
	RIGHT	0-000000	570.35	18791.	132.28	0.	0	0.				
1251-001	LEFT	125-010000	570.36	-161.21	-17.362	0.	2	5998.6	0.		-161.21	570.36
	RIGHT	0-000000	570.36	0.	0.	0.	0	0.				
2211-001	LEFT	221-010000	570.49	-603.27	-64.970	0.	2	5998.7	0.		-603.27	570.49
	RIGHT	0-000000	570.49	0.	0.	0.	0	0.				
2220-001	LEFT	222-010000	570.43	-3.81073E+05	-1563.5	0.	2	37867.	0.		-149.86	570.39
	RIGHT	0-000000	570.35	3.80923E+05	1384.0	0.	0	0.				
2220-002	LEFT	222-020000	570.42	-3.21066E+05	-1362.1	0.	2	37869.	0.		-139.18	570.39
	RIGHT	0-000000	570.35	3.20927E+05	1205.7	0.	0	0.				
2220-003	LEFT	222-030000	570.41	-2.78628E+05	-1182.0	0.	2	37870.	0.		-133.61	570.38
	RIGHT	0-000000	570.35	2.78495E+05	1046.3	0.	0	0.				
2220-004	LEFT	222-040000	570.40	-2.95416E+05	-991.59	0.	2	37872.	0.		-159.23	570.38
	RIGHT	0-000000	570.35	2.95257E+05	877.64	0.	0	0.				
2220-005	LEFT	222-050000	570.40	-2.09995E+05	-832.94	0.	2	37873.	0.		-127.01	570.37
	RIGHT	0-000000	570.35	2.09868E+05	737.17	0.	0	0.				
2220-006	LEFT	222-060000	570.39	-1.75961E+05	-697.94	0.	2	37875.	0.		-118.28	570.37
	RIGHT	0-000000	570.35	1.75842E+05	617.65	0.	0	0.				
2220-007	LEFT	222-070000	570.38	-1.45544E+05	-577.29	0.	2	37877.	0.		-108.75	570.37
	RIGHT	0-000000	570.35	1.45435E+05	510.85	0.	0	0.				
2220-008	LEFT	222-080000	570.38	-1.18360E+05	-469.47	0.	2	37878.	0.		-98.765	570.36
	RIGHT	0-000000	570.35	1.18282E+05	415.40	0.	0	0.				
2220-009	LEFT	222-090000	570.37	-94068.	-373.11	0.	2	37880.	0.		-88.733	570.36
	RIGHT	0-000000	570.35	93979.	330.11	0.	0	0.				
2220-010	LEFT	222-100000	570.37	-72358.	-287.00	0.	2	37882.	0.		-78.969	570.36
	RIGHT	0-000000	570.35	72279.	253.88	0.	0	0.				
2220-011	LEFT	222-110000	570.36	-57934.	-213.63	0.	2	37884.	0.		-74.204	570.36
	RIGHT	0-000000	570.35	57860.	188.94	0.	0	0.				
2231-001	LEFT	221-010000	570.47	-188.56	-162.55	0.	2	5998.7	0.		-94.183	570.42
	RIGHT	225-010000	570.38	94.378	81.360	0.	2	6002.4				
2240-001	LEFT	224-010000	570.36	-46775.	-172.48	0.	2	37885.	0.		-64.099	570.35
	RIGHT	0-000000	570.35	46711.	152.54	0.	0	0.				
2240-002	LEFT	224-020000	570.36	-83915.	-166.42	0.	2	37886.	0.		-88.508	570.35
	RIGHT	0-000000	570.35	83826.	147.22	0.	0	0.				
2240-003	LEFT	224-030000	570.36	-81321.	-161.28	0.	2	37887.	0.		-61.948	570.35
	RIGHT	0-000000	570.35	81259.	142.71	0.	0	0.				
2240-004	LEFT	224-040000	570.36	-79269.	-157.21	0.	2	37888.	0.		-39.060	570.35
	RIGHT	0-000000	570.35	79230.	139.15	0.	0	0.				
2240-005	LEFT	224-050000	570.36	-47631.	-148.16	0.	2	37889.	0.		-17.048	570.35
	RIGHT	0-000000	570.35	47614.	131.16	0.	0	0.				

2240-006	LEFT	224-060000	570.36	-43362.	-147.14	0.	2	37889.	0.	-9.2609	570.35
	RIGHT	0-000000	570.35	43353.	130.27	0.	0	0.			
2240-007	LEFT	224-070000	570.36	-43999.	-149.30	0.	2	37890.	0.	-1.0723	570.35
	RIGHT	0-000000	570.35	43997.	132.21	0.	0	0.			
2240-008	LEFT	224-070000	570.36	-18782.	-149.30	0.	2	37890.	0.	-.45774	570.35
	RIGHT	0-000000	570.35	18781.	132.21	0.	0	0.			
2251-001	LEFT	225-010000	570.36	-161.20	-17.360	0.	2	6002.4	0.	-161.20	570.36
	RIGHT	0-000000	570.36	0.	0.	0.	0	0.			
3211-001	LEFT	321-010000	570.54	1696.9	182.74	0.	2	5995.3	0.	1696.9	570.53
	RIGHT	0-000000	570.50	0.	0.	0.	0	0.			
3220-001	LEFT	322-010000	570.44	-3.99493E+05	-1639.0	0.	2	37846.	0.	264.70	570.39
	RIGHT	0-000000	570.35	3.99757E+05	1452.4	0.	0	0.			
3220-002	LEFT	322-020000	570.43	-3.37481E+05	-1431.7	0.	2	37847.	0.	239.06	570.39
	RIGHT	0-000000	570.35	3.37720E+05	1268.8	0.	0	0.			
3220-003	LEFT	322-030000	570.42	-2.93769E+05	-1246.3	0.	2	37848.	0.	191.81	570.38
	RIGHT	0-000000	570.35	2.93960E+05	1104.4	0.	0	0.			
3220-004	LEFT	322-040000	570.41	-3.12666E+05	-1049.5	0.	2	37850.	0.	146.08	570.38
	RIGHT	0-000000	570.35	3.12812E+05	929.83	0.	0	0.			
3220-005	LEFT	322-050000	570.40	-2.23312E+05	-885.76	0.	2	37851.	0.	61.366	570.37
	RIGHT	0-000000	570.35	2.23374E+05	784.61	0.	0	0.			
3220-006	LEFT	322-060000	570.39	-1.88061E+05	-745.93	0.	2	37853.	0.	17.528	570.37
	RIGHT	0-000000	570.35	1.88078E+05	660.63	0.	0	0.			
3220-007	LEFT	322-070000	570.38	-1.56502E+05	-620.76	0.	2	37855.	0.	-5.9640	570.37
	RIGHT	0-000000	570.35	1.56496E+05	549.70	0.	0	0.			
3220-008	LEFT	322-080000	570.38	-1.28265E+05	-508.75	0.	2	37856.	0.	-14.001	570.36
	RIGHT	0-000000	570.35	1.28251E+05	450.49	0.	0	0.			
3220-009	LEFT	322-090000	570.37	-1.03011E+05	-408.59	0.	2	37858.	0.	-13.208	570.36
	RIGHT	0-000000	570.35	1.02998E+05	361.79	0.	0	0.			
3220-010	LEFT	322-100000	570.37	-80435.	-319.04	0.	2	37860.	0.	-8.2243	570.36
	RIGHT	0-000000	570.35	80427.	282.50	0.	0	0.			
3220-011	LEFT	322-110000	570.36	-65727.	-242.37	0.	2	37862.	0.	-.41118	570.36
	RIGHT	0-000000	570.35	65727.	214.63	0.	0	0.			
3231-001	LEFT	321-010000	570.51	7.5805	8.5349	0.	2	5995.3	0.	264.98	570.47
	RIGHT	325-010000	570.40	257.40	221.89	0.	2	5998.9			
3240-001	LEFT	324-010000	570.36	-53773.	-198.28	0.	2	37863.	0.	9.8479	570.36
	RIGHT	0-000000	570.35	53782.	175.63	0.	0	0.			
3240-002	LEFT	324-020000	570.36	-94691.	-187.79	0.	2	37864.	0.	55.167	570.35
	RIGHT	0-000000	570.35	94746.	166.40	0.	0	0.			
3240-003	LEFT	324-030000	570.36	-90314.	-179.11	0.	2	37865.	0.	85.305	570.35
	RIGHT	0-000000	570.35	90399.	158.76	0.	0	0.			
3240-004	LEFT	324-040000	570.36	-86823.	-172.19	0.	2	37866.	0.	107.39	570.35
	RIGHT	0-000000	570.35	86930.	152.67	0.	0	0.			
3240-005	LEFT	324-050000	570.36	-51937.	-161.55	0.	2	37866.	0.	74.345	570.35
	RIGHT	0-000000	570.35	52011.	143.27	0.	0	0.			
3240-006	LEFT	324-060000	570.36	-46932.	-159.25	0.	2	37867.	0.	73.485	570.35
	RIGHT	0-000000	570.35	47005.	141.25	0.	0	0.			
3240-007	LEFT	324-070000	570.36	-47114.	-159.87	0.	2	37868.	0.	81.091	570.35
	RIGHT	0-000000	570.35	47195.	141.82	0.	0	0.			
3240-008	LEFT	324-070000	570.36	-20111.	-159.87	0.	2	37868.	0.	34.615	570.35
	RIGHT	0-000000	570.35	20146.	141.82	0.	0	0.			
3251-001	LEFT	325-010000	570.37	90.010	9.6937	0.	2	5998.9	0.	90.010	570.37
	RIGHT	0-000000	570.37	0.	0.	0.	0	0.			
4000-001	LEFT	400-010000	613.67	9425.8	1877.3	3.00326E+06	4	5803.2	0.	14026.	614.21
	RIGHT	940-010000	614.38	4600.7	730.98	0.	0	2.5100			
4000-002	LEFT	400-020000	613.64	10511.	2093.5	3.00485E+06	4	6257.8	0.	15113.	614.25
	RIGHT	940-010000	614.46	4602.0	731.19	0.	0	2.5100			
4000-003	LEFT	400-030000	613.59	10597.	2110.5	3.00649E+06	4	6338.7	0.	15198.	614.21

	RIGHT	940-010000	614.42	4601.4	731.10	0.	0	2.5100				
4000-004	LEFT	400-040000	613.54	10695.	2130.1	3.00990E+06	4	6459.0	0.	15296.	614.17	
	RIGHT	940-010000	614.39	4600.8	731.00	0.	0	2.5100				
4101-001	LEFT	410-010000	613.49	2726.4	1861.0	3.00318E+06	4	6096.4	0.	3951.0	615.01	
	RIGHT	940-010000	614.96	1224.6	732.44	0.	0	2.5100				
4101-002	LEFT	410-020000	613.47	5476.4	1868.7	3.00375E+06	4	6110.4	0.	7926.0	615.01	
	RIGHT	940-010000	614.96	2449.6	732.44	0.	0	2.5100				
4102-001	LEFT	410-030000	613.46	8940.1	1910.7	3.00307E+06	4	6175.7	0.	12739.	615.03	
	RIGHT	940-010000	615.02	3799.0	732.60	0.	0	2.5100				
4102-002	LEFT	410-040000	613.42	18982.	1939.8	3.01245E+06	3	6217.9	0.	26927.	615.03	
	RIGHT	940-010000	615.03	7945.5	732.62	0.	0	2.5100				
4102-003	LEFT	410-050000	613.68	60125.	2998.3	3.01577E+06	4	4819.3	0.	76452.	615.68	
	RIGHT	940-010000	615.85	16327.	734.67	0.	0	2.5100				
4102-004	LEFT	410-060000	615.15	5938.6	296.15	0.	8	142.56	0.	22266.	616.01	
	RIGHT	940-010000	615.86	16328.	734.69	0.	0	2.5100				
4102-005	LEFT	410-070000	613.66	1264.8	63.072	0.	8	102.73	0.	17592.	615.71	
	RIGHT	940-010000	615.85	16328.	734.68	0.	0	2.5100				
4102-006	LEFT	410-080000	613.72	283.61	60.613	0.	9	90.965	0.	4093.5	615.69	
	RIGHT	940-010000	615.86	3809.9	734.71	0.	0	2.5100				
4103-001	LEFT	410-090000	613.70	115.13	58.354	0.	9	90.075	0.	1751.5	615.65	
	RIGHT	940-010000	615.94	1636.4	734.90	0.	0	2.5100				
4103-002	LEFT	420-010000	613.63	69.932	50.541	0.	9	86.878	0.	1217.5	615.60	
	RIGHT	940-010000	615.92	1147.5	734.85	0.	0	2.5100				
4113-001	LEFT	0-000000	616.74	0.	0.	0.	0	0.	1.38750E+05	-1905.4	614.96	
	RIGHT	410-040000	613.91	1.36845E+05	12727.	3.01245E+06	3	15863.				
4113-002	LEFT	0-000000	617.22	0.	0.	0.	0	0.	46250.	307.88	615.43	
	RIGHT	410-050000	614.37	46558.	12998.	3.03867E+06	4	9946.6				

STR.NO.	MESH POINT TEMPERATURES (K)				
1211-001	570.49	570.48	570.49	570.49	570.49
1220-001	570.43	570.39	570.35		
1220-002	570.42	570.39	570.35		
1220-003	570.41	570.38	570.35		
1220-004	570.40	570.38	570.35		
1220-005	570.40	570.37	570.35		
1220-006	570.39	570.37	570.35		
1220-007	570.38	570.37	570.35		
1220-008	570.38	570.36	570.35		
1220-009	570.37	570.36	570.35		
1220-010	570.37	570.36	570.35		
1220-011	570.36	570.36	570.35		
1231-001	570.47	570.43	570.40	570.38	
1240-001	570.36	570.35	570.35		
1240-002	570.36	570.35	570.35		
1240-003	570.36	570.35	570.35		
1240-004	570.36	570.35	570.35		
1240-005	570.36	570.35	570.35		
1240-006	570.36	570.35	570.35		
1240-007	570.36	570.35	570.35		
1240-008	570.36	570.35	570.35		
1251-001	570.36	570.36	570.36	570.36	570.36
2211-001	570.49	570.48	570.49	570.49	570.49
2220-001	570.43	570.39	570.35		
2220-002	570.42	570.39	570.35		
2220-003	570.41	570.38	570.35		
2220-004	570.40	570.38	570.35		
2220-00[illegible]	570.40	570.37	570.35		

2220-006	570.39	570.37	570.35		
2220-007	570.38	570.37	570.35		
2220-008	570.38	570.36	570.35		
2220-009	570.37	570.36	570.35		
2220-010	570.37	570.36	570.35		
2220-011	570.36	570.36	570.35		
2231-001	570.47	570.43	570.40	570.38	
2240-001	570.36	570.35	570.35		
2240-002	570.36	570.35	570.35		
2240-003	570.36	570.35	570.35		
2240-004	570.36	570.35	570.35		
2240-005	570.36	570.35	570.35		
2240-006	570.36	570.35	570.35		
2240-007	570.36	570.35	570.35		
2240-008	570.36	570.35	570.35		
2251-001	570.36	570.36	570.36	570.36	570.36
3211-001	570.54	570.56	570.53	570.51	570.50
3220-001	570.44	570.39	570.35		
3220-002	570.43	570.39	570.35		
3220-003	570.42	570.38	570.35		
3220-004	570.41	570.38	570.35		
3220-005	570.40	570.37	570.35		
3220-006	570.39	570.37	570.35		
3220-007	570.38	570.37	570.35		
3220-008	570.38	570.36	570.35		
3220-009	570.37	570.36	570.35		
3220-010	570.37	570.36	570.35		
3220-011	570.36	570.36	570.35		
3231-001	570.51	570.50	570.46	570.40	
3240-001	570.36	570.36	570.35		
3240-002	570.36	570.35	570.35		
3240-003	570.36	570.35	570.35		
3240-004	570.36	570.35	570.35		
3240-005	570.36	570.35	570.35		
3240-006	570.36	570.35	570.35		
3240-007	570.36	570.35	570.35		
3240-008	570.36	570.35	570.35		
3251-001	570.37	570.37	570.37	570.37	570.37
4000-001	613.67	614.15	614.41	614.38	
4000-002	613.64	614.18	614.48	614.46	
4000-003	613.59	614.13	614.45	614.42	
4000-004	613.54	614.09	614.41	614.39	
4101-001	613.49	615.32	615.45	614.96	
4101-002	613.47	615.31	615.45	614.96	
4102-001	613.46	615.32	615.50	615.02	
4102-002	613.42	615.31	615.50	615.03	
4102-003	613.68	615.95	616.28	615.85	
4102-004	615.15	616.20	616.32	615.86	
4102-005	613.66	616.03	616.30	615.85	
4102-006	613.72	615.93	616.29	615.86	
4103-001	613.70	615.79	616.28	615.94	
4103-002	613.63	615.71	616.24	615.92	
4113-001	616.74	615.19	613.91		
4113-002	617.22	615.66	614.37		

CONTROL VARIABLE EDIT

1 P/RHO180 DIV 263 8.3 2 ENTHA180 SUM 1.268923E+06

3	CVENERGY	MULT	7.503891E+06	4	P/RHO231	DIV	19688.3
5	ENTHA231	SUM	1.323492E+06	6	LETDENER	MULT	7.826642E+06
7	PRZRHEAT	SUM	287324.	8	PRZVAPH	SUM	8493.44
9	BALANCE	SUM	5.416336E+06	10	CALC-P	MULT	1.457709E+07
11	MEAS-P	FUNCTION	1.454000E+07	12	MEAS-L	FUNCTION	30.2000
13	TEMPF420	MULT	612.997	14	TEMPG420	MULT	613.050
15	SAT420	MULT	612.997	16	SPRYTEMP	MULT	570.444
20	P/RHO450	DIV	19995.3	21	ENTHA450	SUM	1.323874E+06
22	SPRENER	MULT	-63.1796	23	P/RHO400	DIV	24023.7
24	ENTHA410	SUM	1.597386E+06	25	SURGENER	MULT	1.832246E+06
26	SPRBALAN	SUM	-1.544985E+06	27	HEATERW	SUM	183346.
28	VAPGEN	SUM	.322421	31	POW	SUM	0.
32	TURBPOW	SUM	0.	100	TAVG(R)	SUM	570.542
101	LAG1	LAG	570.541	102	S1	SUM	-14.6090
103	LL1	LEAD-LAG	-.580026	104	S2	SUM	-11698.6
105	???	SUM	-429279.	106	DELTA-T	SUM	-.112510
107	LAG2	LAG	-.113493	108	LL2	LEAD-LAG	-9.820523E-02
109	LL3	LEAD-LAG	570.534	110	LAG3	LAG	570.533
111	S4	SUM	0.	112	S5	SUM	-3.313312E-02
113	S6	SUM	41.1823	134	LEVREG	PROP-INT	-.232334
135	LIMIT	MULT	9.50000	136	DELTAF	SUM	4.339764E-03
137	D(AREA)	PROP-INT	-1.855601E-04	139	VALVAREA	SUM	9.297739E-02
140	AREA**2	MULT	8.644796E-03	141	K(VALV)	DIV	28016.4
142	K(T+DT)	SUM	28425.0	143	DELTA-K	SUM	-1.11831
144	K(T)	MULT	28425.0	145	DELTA-P	SUM	138.748
146	P(T)	MULT	1.496854E+07	153	KOOO2	MULT	937342.
154	DUM	SUM	983799.	155	A(T)	DIV	1.016468E-06
156	DUM	MULT	130.224	157	DUM	MULT	-44262.7
158	A	SUM	28294.8	159	DUM	MULT	324194.
160	DUM	MULT	-.784524	170	B	SUM	44273.3
171	DUM	MULT	1.161599E-03	172	DUM	MULT	132.197
173	DUM	MULT	-145.469	174	C	SUM	-13.2733
175	B**2	MULT	1.960123E+09	176	AC4	MULT	-1.502257E+06
177	B2-4AC	SUM	1.961625E+09	178	SQRT	STDFNCTN	44290.2
179	DUM	SUM	8.48124	180	DELTA-Q	DIV	2.997454E-04
181	Q(T+DT)	SUM	11.4055	182	DUM	STDFNCTN	.697655
183	QO(T+DT)	MULT	7.95712	184	QTOT	SUM	19.3626
185	P(PUMP)	FUNCTION	2.022125E+07	186	DFDQ	FUNCTION	-46458.3
200	TAVG(G)	SUM	570.542	201	LAG1	LAG	570.541
202	S1	SUM	-14.6089	203	LL1	LEAD-LAG	-.580025
204	S2	SUM	-11698.6	205	???	SUM	-429279.
206	DELTA-T	SUM	-.112752	207	LAG2	LAG	-.113735
208	LL2	LEAD-LAG	-9.840845E-02	209	LL3	LEAD-LAG	570.534
210	LAG3	LAG	570.533	211	S4	SUM	0.
212	S5	SUM	-3.313300E-02	213	S6	SUM	41.1823
281	LET1	SUM	2.115947E+07	282	LET2	MULT	1.545424E+10
283	LET3	STDFNCTN	5.91367	284	LETDOWN	MULT	21.4175
300	TAVG(B)	SUM	570.543	301	LAG1	LAG	570.542
302	S1	SUM	-14.6076	303	LL1	LEAD-LAG	-.580157
304	S2	SUM	-11698.6	305	???	SUM	-429279.
306	DELTA-T	SUM	-.114156	307	LAG2	LAG	-.116219
308	LL2	LEAD-LAG	-8.335487E-02	309	LL3	LEAD-LAG	570.538
310	LAG3	LAG	570.537	311	S4	SUM	0.
312	S5	SUM	-3.313001E-02	313	S6	SUM	41.1822
400	COLLEVEL	SUM	22.6033	402	DPLEVEL	SUM	28.7929
404	PRZMASS	SUM	11768.8	410	T-AUCT-H	STDFNCTN	570.543
411	[illegible]	FUNCTION	25.4253	412	DELT-LEV	SUM	3.36712

413	DELTA-P	SUM	-932124.	414	DP-CORR	PROP-INT	-1.287075E+06
415	POW-HE11	TRIPUNIT	0.	416	POW-BKR	TRIPUNIT	0.
417	POWVAR	FUNCTION	308000.	418	TOTPOW	FUNCTION	185000.
435	SPRAYVAL	FUNCTION	0.	445	SPRAYVAL	FUNCTION	0.
606	POWCOLDL	SUM	47659.6	607	POWPREH	SUM	106203.
608	POWHOTLG	SUM	1.276209E+06	609	POWUBEND	SUM	1.165521E+06
610	SGPOWER	SUM	2.596452E+06	706	POWCOLDL	SUM	47631.5
707	POWPREH	SUM	106142.	708	POWHOTLG	SUM	1.276184E+06
709	POWUBEND	SUM	1.165500E+06	710	SGPOWER	SUM	2.596316E+06
806	POWCOLDL	SUM	51937.0	807	POWPREH	SUM	114157.
808	POWHOTLG	SUM	1.343408E+06	809	POWUBEND	SUM	1.270913E+06
810	SGPOWER	SUM	2.778363E+06	900	MG1	MULT	.151001
901	MG2	MULT	.310709	902	MG3	MULT	.764527
903	MG4	MULT	.407951	904	MG5	MULT	498.958
906	MG6	MULT	980.134	906	MG7	MULT	979.207
907	MG8	MULT	228.674	908	MG9	MULT	74.8949
909	MG10	MULT	52.5495	911	PRZMASW	SUM	2816.05
912	PRZMASL	SUM	8952.76	920	SURGHEAT	SUM	41228.7

---RESTART NO. 1600 WRITTEN, BLOCK NO. 7---

TIME (SEC)	P 420010000 (PA)	P 410090000 (PA)	P 410080000 (PA)	P 151010000 (PA)	P 351010000 (PA)	P 231010000 (PA)	P 430010000 (PA)	P 440010000 (PA)	P 450010000 (PA)
150.000	1.45619E+07	1.45622E+07	1.45627E+07	1.49570E+07	1.49569E+07	1.43648E+07	1.50254E+07	1.50253E+07	1.45943E+07
151.000	1.45620E+07	1.45623E+07	1.45628E+07	1.49572E+07	1.49571E+07	1.43650E+07	1.50257E+07	1.50256E+07	1.45943E+07
152.000	1.45626E+07	1.45629E+07	1.45634E+07	1.49577E+07	1.49576E+07	1.43655E+07	1.50262E+07	1.50261E+07	1.45948E+07
153.000	1.45636E+07	1.45639E+07	1.45644E+07	1.49587E+07	1.49586E+07	1.43664E+07	1.50273E+07	1.50272E+07	1.45957E+07
154.000	1.45651E+07	1.45654E+07	1.45659E+07	1.49603E+07	1.49602E+07	1.43680E+07	1.50288E+07	1.50287E+07	1.45972E+07
155.000	1.45673E+07	1.45676E+07	1.45680E+07	1.49625E+07	1.49624E+07	1.43702E+07	1.50310E+07	1.50309E+07	1.45994E+07
156.000	1.45697E+07	1.45700E+07	1.45705E+07	1.49648E+07	1.49646E+07	1.43724E+07	1.50330E+07	1.50329E+07	1.45994E+07
157.000	1.45719E+07	1.45722E+07	1.45727E+07	1.49670E+07	1.49669E+07	1.43747E+07	1.50352E+07	1.50351E+07	1.46031E+07
158.000	1.45740E+07	1.45743E+07	1.45748E+07	1.49690E+07	1.49689E+07	1.43767E+07	1.50372E+07	1.50371E+07	1.46052E+07
159.000	1.45757E+07	1.45760E+07	1.45765E+07	1.49708E+07	1.49707E+07	1.43785E+07	1.50390E+07	1.50389E+07	1.46070E+07
160.000	1.45771E+07	1.45774E+07	1.45779E+07	1.49721E+07	1.49719E+07	1.43797E+07	1.50403E+07	1.50402E+07	1.46084E+07

TIME (SEC)	MFLOWJ 430010000 (KG/SEC)	MFLOWJ 440010000 (KG/SEC)	MFLOWJ 435000000 (KG/SEC)	MFLOWJ 445000000 (KG/SEC)	MFLOWJ 450010000 (KG/SEC)	MFLOWJ 283000000 (KG/SEC)	MFLOWJ 181000000 (KG/SEC)	MFLOWJ 153010000 (KG/SEC)	MFLOWJ 253010000 (KG/SEC)
150.000	2.0317	2.0314	2.0318	2.0315	4.0634	5.9094	5.9094	4749.0	4742.9
151.000	1.6257	1.6255	1.6258	1.6255	3.2513	5.9094	5.9094	4749.3	4742.9
152.000	1.2212	1.2211	1.2212	1.2211	2.4423	5.9096	5.9096	4749.6	4742.8
153.000	.81886	.81875	.81881	.81869	1.6375	5.9098	5.9098	4749.9	4742.7
154.000	.41871	.41866	.41861	.41855	.83707	5.9103	5.9102	4750.3	4742.6
155.000	2.54278E-02	2.54246E-02	2.52786E-02	2.52748E-02	5.03991E-02	5.9109	5.9108	4750.6	4742.6
156.000	1.59815E-04	1.59752E-04	0.	0.	0.	5.9115	5.9114	4750.6	4742.6
157.000	1.30462E-04	1.30554E-04	0.	0.	-1.02170E-04	5.9122	5.9121	4750.6	4742.6
158.000	1.28636E-04	1.28664E-04	0.	0.	-8.99977E-05	5.9127	5.9127	4750.7	4742.6
159.000	9.17490E-05	9.17991E-05	0.	0.	-5.81738E-05	5.9133	5.9132	4750.7	4742.7
160.000	8.97424E-05	8.97269E-05	0.	0.	-4.77232E-05	5.9136	5.9136	4750.7	4742.7

TIME (SEC)	MFLOWJ 353010000 (KG/SEC)	MFLOWJ 312000000 (KG/SEC)	VOIDG 410010000	VOIDG 410020000	VOIDG 410030000	VOIDG 410040000	VOIDG 410080000	VOIDG 410090000	VOIDG 420010000
150.000	4743.4	3.8504	1.66164E-03	3.63803E-03	7.07008E-03	2.63779E-03	.99355	.99283	.99191
151.000	4743.7	3.2027	1.72449E-03	3.44503E-03	6.60189E-03	2.30738E-03	.99422	.99394	.99328
152.000	4744.0	2.5755	1.85862E-03	3.28970E-03	6.14480E-03	2.00468E-03	.99495	.99512	.99478
153.000	4744.3	1.9824	2.03710E-03	3.17431E-03	5.70376E-03	1.73173E-03	.99582	.99634	.99631
154.000	4744.6	1.4124	2.24407E-03	3.09496E-03	5.28059E-03	1.50181E-03	.99678	.99757	.99779
155.000	4744.9	.87009	2.46024E-03	3.04412E-03	4.87607E-03	1.32966E-03	.99779	.99877	.99918
156.000	4745.0	.82398	2.62028E-03	3.01029E-03	4.49630E-03	1.19416E-03	.99874	.99964	.99984
157.000	4745.0	.71741	2.68178E-03	2.97042E-03	4.15232E-03	1.08361E-03	.99939	.99991	.99994
158.000	4745.0	.71808	2.69765E-03	2.91695E-03	3.84476E-03	9.91612E-04	.99973	.99997	.99997
159.000	4745.1	.59756	2.69497E-03	2.84958E-03	3.57097E-03	9.14493E-04	.99989	.99999	.99998
160.000	4745.1	.59187	2.70323E-03	2.78153E-03	3.33097E-03	8.50443E-04	.99995	.99999	.99998

TIME (SEC)	VAPGEN 410070000 (KG/M3-SEC)	VAPGEN 410080000 (KG/M3-SEC)	VAPGEN 410090000 (KG/M3-SEC)	VAPGEN 420010000 (KG/M3-SEC)	CNTRLVAR 400 COLLEVEL SUM	CNTRLVAR 402 DPLEVEL SUM	Q 940010000 (WATTS)	CNTRLVAR 418 TOTPOW FUNCTION	CNTRLVAR 610 SGPOWER SUM
150.000	-1.01572E-03	-7.94319E-02	-.39025	-1.0479	22.761	28.784	89426.	1.85000E+05	2.22980E+06
151.000	1.98270E-03	-5.98512E-02	-.31712	-.88984	22.722	28.791	89423.	1.85000E+05	2.27535E+06
152.000	4.43762E-03	-4.11392E-02	-.24144	-.71811	22.689	28.798	89421.	1.85000E+05	2.31837E+06
153.000	6.58635E-03	-2.29834E-02	-.16195	-.52785	22.662	28.804	89418.	1.85000E+05	2.36339E+06
154.000	8.40507E-03	-6.53850E-03	-8.27331E-02	-.31135	22.640	28.809	89415.	1.85000E+05	2.41083E+06
155.000	9.70238E-03	5.87976E-03	-1.78279E-02	-5.33147E-02	22.623	28.812	89413.	1.85000E+05	2.46173E+06
156.000	1.01509E-02	1.05542E-04	1.71799E-04	1.52627E-04	22.612	28.812	89410.	1.85000E+05	2.50432E+06
157.000	1.01413E-02	1.88343E-04	3.36706E-04	5.25632E-04	22.606	28.808	89408.	1.85000E+05	2.53991E+06
158.000	9.99358E-03	1.85092E-04	7.26000E-04	8.31037E-04	22.602	28.803	89405.	1.85000E+05	2.56735E+06
159.000	3.39956E-04	4.33085E-04	8.35544E-04	9.61735E-04	22.601	28.798	89403.	1.85000E+05	2.58806E+06
160.000	3.70674E-04	9.29287E-04	8.27710E-04	9.77524E-04	22.603	28.793	89400.	1.85000E+05	2.59645E+06

TIME (SEC)	CNTRLVAR 710 SGPOWER SUM	CNTRLVAR 810 SGPOWER SUM	CNTRLVAR 9 BALANCE SUM	CNTRLVAR 7 PRZRHEAT SUM	CNTRLVAR 26 SPRBALAN SUM	PMPVEL 140 (RAD/SEC)	PMPVEL 240 (RAD/SEC)	PMPVEL 340 (RAD/SEC)	CNTRLVAR 435 SPRAYVAL FUNCTION
150.000	2.22948E+06	3.57564E+06	5.57343E+06	4.91023E+05	-3.34169E+05	155.00	155.00	155.00	.20000
151.000	2.27505E+06	3.45701E+06	5.59163E+06	4.84192E+05	-5.62609E+05	155.00	155.00	155.00	.16000
152.000	2.31808E+06	3.34047E+06	5.61150E+06	4.75778E+05	-8.16078E+05	155.00	155.00	155.00	.12000
153.000	2.36312E+06	3.22666E+06	5.62545E+06	4.67510E+05	-1.10469E+06	155.00	155.00	155.00	8.00000E-02
154.000	2.41056E+06	3.11870E+06	5.62953E+06	4.59935E+05	-1.41278E+06	155.00	155.00	155.00	4.00000E-02
155.000	2.46149E+06	3.01901E+06	5.60507E+06	4.39006E+05	-1.74776E+06	155.00	155.00	155.00	0.
156.000	2.50415E+06	2.91843E+06	5.58591E+06	4.08267E+05	-1.77870E+06	155.00	155.00	155.00	0.
157.000	2.53974E+06	2.84455E+06	5.58053E+06	4.02230E+05	-1.63255E+06	155.00	155.00	155.00	0.
158.000	2.56720E+06	2.80633E+06	5.55927E+06	3.96215E+05	-1.63152E+06	155.00	155.00	155.00	0.
159.000	2.58792E+06	2.79215E+06	5.42127E+06	2.88633E+05	-1.56395E+06	155.00	155.00	155.00	0.
160.000	2.59632E+06	2.77836E+06	5.41634E+06	2.87324E+05	-1.54499E+06	155.00	155.00	155.00	0.

TIME (SEC)	CNTRLVAR 445 SPRAYVAL FUNCTION	TEMPF 125010000 (K)	TEMPF 131040000 (K)	TEMPF 151010000 (K)	TEMPF 111010000 (K)	TEMPF 121010000 (K)	TEMPF 225010000 (K)	TEMPF 232010000 (K)	TEMPF 251010000 (K)
150.000	.20000	570.36	570.34	570.59	570.48	570.49	570.36	570.34	570.59
151.000	.16000	570.36	570.34	570.59	570.48	570.49	570.36	570.34	570.59
152.000	.12000	570.36	570.34	570.59	570.48	570.49	570.36	570.34	570.59
153.000	8.00000E-02	570.36	570.34	570.60	570.48	570.49	570.36	570.34	570.60
154.000	4.00000E-02	570.36	570.34	570.60	570.48	570.49	570.36	570.34	570.60
155.000	0.	570.37	570.34	570.60	570.48	570.49	570.37	570.34	570.60
156.000	0.	570.37	570.35	570.60	570.48	570.50	570.37	570.35	570.60
157.000	0.	570.37	570.35	570.60	570.48	570.50	570.37	570.35	570.60
158.000	0.	570.37	570.35	570.60	570.48	570.50	570.37	570.35	570.60
159.000	0.	570.37	570.35	570.60	570.49	570.50	570.37	570.35	570.60
160.000	0.	570.37	570.35	570.60	570.49	570.50	570.37	570.35	570.60

TIME (SEC)	TEMPF 211010000 (K)	TEMPF 221010000 (K)	TEMPF 325010000 (K)	TEMPF 331040000 (K)	TEMPF 351010000 (K)	TEMPF 311010000 (K)	TEMPF 321010000 (K)	TEMPF 450010000 (K)	TEMPF 420010000 (K)
150.000	570.48	570.49	570.37	570.35	570.60	570.48	570.54	570.43	598.16
151.000	570.48	570.49	570.37	570.35	570.60	570.48	570.53	570.44	599.41
152.000	570.48	570.49	570.37	570.35	570.60	570.48	570.53	570.44	600.92
153.000	570.48	570.49	570.37	570.35	570.60	570.48	570.52	570.44	602.89
154.000	570.48	570.49	570.37	570.35	570.60	570.48	570.52	570.44	605.76
155.000	570.48	570.49	570.37	570.35	570.60	570.48	570.51	570.44	611.38
156.000	570.48	570.50	570.37	570.35	570.60	570.48	570.51	570.44	612.96
157.000	570.48	570.50	570.37	570.35	570.60	570.48	570.51	570.44	612.97
158.000	570.48	570.50	570.37	570.35	570.60	570.48	570.51	570.44	612.98
159.000	570.49	570.50	570.37	570.35	570.60	570.49	570.51	570.44	612.99
160.000	570.49	570.50	570.37	570.35	570.60	570.49	570.51	570.44	613.00

TIME (SEC)	TEMPG 420010000 (K)	SATTEMP 420010000 (K)	CNTRLVAR 8 PRZVAPH SUM	CNTRLVAR 28 VAPGEN SUM	CNTRLVAR 27 HEATERW SUM	CNTRLVAR 912 PRZMASL SUM	CNTRLVAR 911 PRZMASW SUM	CNTRLVAR 920 SURGHEAT SUM	CPUTIME (SEC)
150.000	612.90	612.91	10131.	-.31322	1.86839E+05	8959.8	2813.5	62602.	3100.0
151.000	612.90	612.91	9772.7	-.16309	1.86236E+05	8960.6	2813.3	60231.	3123.5
152.000	612.91	612.92	9431.1	-5.72821E-03	1.85664E+05	8961.0	2813.2	57880.	3143.5
153.000	612.92	612.92	9102.9	.16239	1.85033E+05	8960.9	2813.4	55394.	3163.6
154.000	612.93	612.93	8778.5	.35611	1.84338E+05	8960.3	2813.7	52752.	3183.6
155.000	612.95	612.94	8599.6	.55047	1.83565E+05	8959.1	2814.2	49905.	3203.7
156.000	612.98	612.96	8450.2	.53603	1.82992E+05	8957.7	2814.6	47376.	3223.8
157.000	613.00	612.97	8113.0	.49641	1.82867E+05	8956.4	2815.1	45343.	3243.9
158.000	613.02	612.98	7803.6	.46322	1.82887E+05	8955.0	2815.4	43667.	3263.9
159.000	613.04	612.99	8609.1	.33793	1.83112E+05	8953.8	2815.8	42245.	3284.0
160.000	613.05	613.00	8493.4	.32242	1.83346E+05	8952.8	2816.1	41229.	3304.0

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13 ABSTRACT (200 words or less)

This report presents a code assessment study for the RELAP5/MOD2 code using a pressurizer spray start-up test for the DOEL-4 power plant. The pressurizer plays a vital role in determining the plant behavior during transients and hence correct simulation of the pressurizer is essential to the simulation of plant behavior during off normal conditions. This full scale study addresses pressurizer thermal-hydraulics, surge line thermal-hydraulics, structural heat transfer, assymetric loop behavior, and single phase pump behavior.

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