



Davis-Besse Nuclear Power Station

Terry J. Brown
Site Vice President
5501 N. State Route 2
Oak Harbor, OH 43449
Office: 419.321.7676

L-24-072
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10 CFR 50.36a

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Davis-Besse Nuclear Power Station, Unit 1
Docket Number 50-346, License Number NPF-3
Combined Annual Radiological Environmental Operating Report and Radioactive
Effluent Release Report - 2023

In accordance with 10 CFR 50.36a(a)(2), this letter transmits the combined 2023 Annual Radiological Environmental Operating Report (AREOR) and Annual Radioactive Effluent Release Report (ARERR) for the period January 2023 through December 2023 (Enclosure A). These annual reports are submitted for the Davis-Besse Nuclear Power Station (DBNPS). The AREOR and the RERR must be submitted by May 15 of each year to satisfy the requirements of the DBNPS Technical Specifications 5.6.1 and 5.6.2.

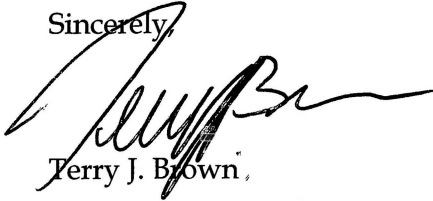
The Attachment provides a listing of the specific requirements detailed in the DBNPS Offsite Dose Calculation Manual (ODCM) and the portion of the AREOR which was prepared to meet each requirement.

The following information is also provided only to the Document Control Desk. This information includes the following Enclosures:

- Enclosure B: 2023 Annual Radioactive Effluent Release Report (ARERR) Meteorological Data
- Enclosure C: Environmental, Inc. Midwest Laboratory, Monthly Progress Report for January through December 2023 which contains the 2023 Radiological Environmental Monitoring Program Sample Analysis Results
- Enclosure D: Davis-Besse Offsite Dose Calculation Manual, Revision 40
- Enclosure E: Davis-Besse Offsite Dose Calculation Manual, Revision 41

There are no regulatory commitments contained in this letter. If there are any questions or if additional information is required, please contact Mr. Vivian S. Donaldson, Senior Manager, Radiation Protection and Chemistry, at (440) 280-5578.

Sincerely,



GMW/BEM

Attachment: Summary Location(s) of Off-Site Dose Calculation Manual Requirements
Contents in the Annual Radiological Environmental Operating Report

Enclosure A: Annual Radiological Environmental Operating Report, including the Annual
Radioactive Effluent Release Report for the Davis-Besse Nuclear Power Station -
2023

Enclosure B: Annual Radioactive Effluent Release Report (ARERR) Meteorological Data for
the Davis-Besse Nuclear Power Station - 2023

Enclosure C: Contract Laboratory Monthly Progress Report for January through December
2023 which contains the 2023 Radiological Environmental Monitoring Program
Sample Analysis Results

Enclosure D: Davis-Besse Offsite Dose Calculation Manual, Revision 40

Enclosure E: Davis-Besse Offsite Dose Calculation Manual, Revision 41

cc: Regional Administrator, NRC Region III (without Enclosures B-D)
DB-1 NRC Senior Resident Inspector (without Enclosures B-D)
DB-1 NRC/NRR Project Manager (without Enclosures B-D)
Branch Chief, Division of Reactor Projects, Branch 2 (without Enclosures B-D)
Utility Radiological Safety Board (without Enclosures B-D)

**Summary Location(s) of Off-Site Dose Calculation Manual Requirements
Contents in the Annual Radiological Environmental Operating Report**

Description of Requirement

- Summaries, interpretations, and analyses of trends of the radiological environmental surveillance activities, and an assessment of the observed impacts of the plant (see Section "RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM" and Appendix C)
- Results of the Land Use Census (see Section "LAND USE CENSUS")
- Results of the analysis of radiological environmental samples and of environmental radiation measurements (also Section "RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM")
- Summary description of the radiological environmental monitoring program (also Section "RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM")
- At least two legible maps, covering sampling locations keyed to a table giving distances and directions from the centerline of one reactor (also Section "RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM")
- The results of licensee participation in the Inter-Laboratory Comparison Program (Appendix A)
- Discussion of cases in which collection of specimens had irregularities due to malfunction of automatic sampling equipment and other legitimate reasons (page 30)

L-24-072
Enclosure A

**Annual Radiological Environmental Operating Report,
including the Annual Radioactive Effluent Release Report**

for the

Davis-Besse Nuclear Power Station – 2023

(1 Report follows)

2023

Annual Radiological Environmental
Operating Report

including the

Annual Radioactive Effluent
Release Report



Davis Besse Nuclear Power Station

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

**Davis-Besse Nuclear Power Station
January 1, 2023 through December 31, 2023**

Davis-Besse Nuclear Power Station

May 2024

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Executive Summary

The Annual Radiological Environmental Operating Report (AREOR) is a detailed report on the Environmental Monitoring Programs conducted at the Davis-Besse Nuclear Power Station (Davis-Besse) from January 1 through December 31, 2023. This report meets the requirements in Section 5.6 of Davis-Besse Technical Specifications and Davis-Besse Offsite Dose Calculation Manual (ODCM) Sections 7.1 and 7.2. Reports included are the Radiological Environmental Monitoring Program, Radiological Effluents Release Report, Land Use Census, Groundwater Monitoring, and the Non-Radiological Environmental Programs, which consist of Meteorological Monitoring, Land and Wetland Management, Water Treatment, Chemical Waste Management, and Waste Minimization and Recycling.

Radiological Environmental Monitoring Program

The Radiological Environmental Monitoring Program (REMP) is established to monitor the radiological condition of the environment around Davis-Besse. The REMP is conducted in accordance with Title 10, Code of Federal Regulations, Part 50; the Davis-Besse Nuclear Power Station Operating License, Sections 5.6.1 and 5.6.2 of Davis-Besse Technical Specifications, the Davis-Besse Offsite Dose Calculation Manual (ODCM) Section 6.0 and Station Operating Procedures. This program includes the sampling and analysis of environmental samples and evaluation of the effects of releases of radioactivity on the environment.

Radiation levels and radioactivity have been monitored within a 25-mile radius around Davis-Besse since 1972. The REMP was established at Davis-Besse approximately five years before the Station became operational. This pre-operational sampling and analysis program provided data on radiation and radioactivity normally present in the area as natural background. Davis-Besse has continued to monitor the environment by sampling air, groundwater, milk, vegetables, drinking water, surface water, fish, shoreline sediment, and by direct measurement of radiation.

Samples are collected from Indicator and Control locations. Indicator locations are within 5 miles of the site and are expected to show naturally occurring radioactivity plus any increases of radioactivity that might occur due to the operation of Davis-Besse. Control locations are farther away from the Station and are expected to indicate the presence of only naturally occurring radioactivity. The results obtained from the samples collected from Indicator locations are compared with the results from those collected from Control locations and with the concentrations present in the environment before Davis-Besse became operational. This allows for the assessment of any impact the operation of Davis-Besse might have had on the surrounding environment.

Approximately 1,320 radiological environmental samples were collected and analyzed in 2023. There were 10 partial air samples due to reasons as varied as loss of power due to weather or other sources of regional power outages. One direct radiation measurements device (TLD) was lost due to weather or vandalism. In all incidents referenced above, other REMP samples were available, collected, and analyzed to ensure ODCM Table 6-1 requirements were met.

The results of the REMP indicate that Davis-Besse continues to be operated safely in accordance with applicable federal regulations. No significant increase above background radiation or radioactivity is attributed to the operation of Davis-Besse.

The sampling results are divided into four sections: atmospheric monitoring, terrestrial monitoring, aquatic monitoring and direct radiation monitoring.

Air samples are continuously collected at nine locations. Four samples are collected onsite. The other five are located between one and 16 miles away. Particulate filters and iodine cartridges are collected weekly. The 2023 Indicator results were in close agreement with the samples collected at Control locations.

Terrestrial monitoring includes analysis of milk (Control only), ground water (Control only), and vegetables. Samples are collected onsite and up to over 20 miles away, depending on the type of sample. Results of terrestrial sample analyses indicate concentrations of radioactivity similar to previous years and indicate no build-up of radioactivity due to the operation of Davis-Besse.

Aquatic monitoring includes the collection and analysis of drinking water (Treated Surface Water), Untreated Surface Water, fish and shoreline sediments collected onsite or at several points along the shore of, or in, Lake Erie. In 2023, Tritium was detected in three Untreated Water samples and one Treated Water sample at slightly above the detection limit of 330 pCi/l. Each of these results was a small fraction of the 20,000 pCi/l Environmental Protection Agency drinking water limit.

The 2023 results of analysis for fish, treated surface water and shoreline sediment indicate normal background concentration of radionuclides and show no increase or build-up of radioactivity due to the operation of Davis-Besse.

Direct radiation averaged 13.9 mrem/91 days at Indicator locations and 14.0 mrem/91 days at Control locations, which is similar to results from previous years. Quarterly and annual gamma TLD dose rates for 2023 were evaluated using the methodologies presented in ANSI/HPS N13.37-2014 (R2019), "Environmental Dosimetry – Criteria for System Design and Implementation," and U.S. NRC Regulatory Guide 4.13, Revision 2, "Environmental Dosimetry – Performance Specifications, Testing, and Data Analysis. The evaluation of Facility Related Dose at each TLD location determined that all quarterly and annual doses were considered "non-detectable". No increase above natural background radiation attributable to Davis-Besse was observed in 2023.

The operation of Davis-Besse in 2023 caused no significant increase in the concentrations of radionuclides or adverse effects on the quality of the environment surrounding the plant. Radioactivity released in the Station's effluents was well below the applicable federal regulatory limits. The estimated radiation dose to the general public due to the operation of Davis-Besse in 2023 was well below all applicable regulatory limits.

In order to estimate radiation dose to the public, the pathways through which public exposure can occur must be known. To identify these exposure pathways, an Annual Land Use Census is performed as part of the REMP. During the census, Station personnel travel every public road within a radius of five miles of Davis-Besse to locate radiological exposure pathways (e.g., residences, vegetable gardens, milk cows/goats, etc.). The most important pathway is the one that, for a specific radionuclide, provides the greatest dose to a sector of the population. This is called the critical pathway. The critical pathway for 2023 was a garden in the South-Southwest sector 0.70 miles from Davis-Besse, which was a change from 2022.

Radiological Effluent Release Report

The Radiological Effluent Release Report (RERR) is a detailed listing of radioactivity released from the Davis-Besse Nuclear Power Station during the period January 1 through December 31,

2023. The doses due to radioactivity released during this period were only a fraction of allowable per our operating license.

The Total Body doses to an individual and population in an unrestricted area due to direct radiation from Davis-Besse is not distinguishable from background. These doses represent an extremely small fraction of the limits set by the NRC or the limits set in the ODCM.

Unplanned Releases

There were no unplanned releases of liquid or gaseous radioactivity from Davis-Besse during 2023.

Changes to the Offsite Dose Calculation Manual (ODCM) and the Process Control Program (PCP)

The Davis-Besse ODCM was changed twice in 2023. ODCM R40 was approved in August of 2023 and incorporated the following changes: A) improved guidance on compensatory actions to take when RE4686 is out of service, B) Update Chi/Q (dispersion) and Chi/D (deposition values, as appropriate, based on the latest 5-year meteorological review, and C) Removed the groundwater monitoring control location as the well was abandoned by the owner after they secured a municipal water supply. ODCM R41 was approved in November of 2023 and incorporated changes to improve consistency in performing liquid and gaseous effluent dose projections.

There were no revisions of the PCP during 2023.

Groundwater Protection Initiative (NEI 07-07)

Davis-Besse began sampling wells near the plant in 2007 as part of an industry-wide Groundwater Protection Initiative (GPI), which was established to ensure that there are no inadvertent releases of radioactivity from the plant which could affect offsite groundwater supplies. In addition to several existing pre-construction era monitor wells, 16 new GPI monitor wells were installed in 2007 to accomplish the monitoring required; these are typically sampled in Spring and Fall of each year.

GPI monitor wells were sampled twice in 2023 and Tritium was less than 2,000 pCi/L in all 45 samples collected (including QC samples), which is the threshold for making courtesy informational notifications to local, county and state officials. Overall site groundwater flows in a west to east direction and discharges to the Intake Canal. Potential leaks or spills of licensed material originating from Davis-Besse would be captured by pumping water from the Intake Canal back into the station as part of normal plant operations.

All assumptions regarding groundwater flow and modeling remain valid that the flow does not impact areas outside the Owner Controlled Area and essentially discharges into the Intake Canal.

Non-Radiological Environmental Programs

Meteorological Monitoring

The Meteorological Monitoring Program at Davis-Besse is part of a program for evaluating the radiological effects of the routine operation of Davis-Besse on the surrounding environment. Meteorological monitoring began in October of 1968.

Meteorological data recorded at Davis-Besse include wind speed, wind direction, sigma theta (standard deviation of wind direction), ambient temperature, differential temperature, and precipitation. Two instrument-equipped meteorological towers are used to collect data.

Data recovery for the five instruments that are operationally required by Davis-Besse Technical Requirements Manual was at least 98.4% in 2023.

Marsh Management

Energy Harbor owns the Navarre Marsh. It is leased to the U.S. Fish and Wildlife Service, who manage it as part of the Ottawa National Wildlife Refuge.

Water and Wastewater Treatment

Davis-Besse withdraws water from Lake Erie and processes it through a vendor-supplied water treatment process to produce the high-purity water used in the station's cooling water systems.

Since December 1, 1998, the Carroll Township Water Treatment Plant has provided for domestic water needs at Davis-Besse.

Sewage is treated at the Davis-Besse Wastewater Treatment Plant (WWTP) and its effluent is pumped to a settling basin. Following a retention period, this water is discharged with other Station liquid effluents back to Lake Erie. During 2023, Davis-Besse Nuclear Power Station had zero exceedances of its National Pollution Discharge Elimination System permit.

Chemical Waste Management

The Chemical Waste Management Program at Davis-Besse was developed to ensure that the offsite disposal of non-radioactive hazardous and nonhazardous chemical wastes is performed in accordance with all applicable state and federal regulations. Chemical waste disposal vendors contracted by Davis-Besse use advanced technology for offsite disposal, including recycling of chemical wastes, in order to protect human health and the environment. In 2023, the Davis-Besse Nuclear Power Station generated approximately 835 pounds of hazardous waste. Non-hazardous waste generated in 2023 included 4,351 gallons of used oil and 2,200 pounds of other nonhazardous wastes such as oil filters, resins and caulks. As required by Superfund Amendment and Reauthorization Act (SARA), Davis-Besse reported hazardous products and chemicals to local fire departments and local and state planning commissions. As part of the program to remove PCB fluid from Davis-Besse, all electrical transformers have been retro-filled and reclassified as non-PCB transformers.

Waste Minimization and Recycling

Scrap metal is collected onsite and sold to scrap companies.

Appendices

Appendix A includes results from the Inter-laboratory Comparison Program required by the Davis-Besse ODCM. Samples with known concentrations of radioisotopes are prepared by the Environmental Resources Associates (ERA), and then sent (with information on sample type and date of collection only) to the laboratory contracted by Davis-Besse to analyze its REMP samples. The Environmental Resources Associates (ERA) compares results to known standards.

Appendix B contains data reporting conversions used in the REMP at Davis-Besse. The appendix provides an explanation of the format and computational methods used in reporting REMP data. Information on counting uncertainties and the calculations of averages and standard deviations are also provided.

Appendix C provides a REMP sampling summary from 2023. The appendix provides a listing of the following for each sample type:

- number and type of analysis performed
- lower limit of detection for each analysis (LLD)
- mean and range of results for Control and Indicator locations
- mean, range, and description of location with highest annual mean
- number of non-routine results

For detailed studies, Appendix C provides more specific information than that listed in this report. The information presented in Appendices A through C was provided by Microbac Laboratories in their Final Progress Report to Davis-Besse (Received February 15, 2023).

Introduction

Nuclear power provides a clean and readily available source of energy. The operation of nuclear power stations has a very small impact on the environment. In fact, the Davis-Besse Nuclear Power Station is surrounded by hundreds of acres of marshland, which make up part of the Ottawa National Wildlife Refuge. In order to provide better understanding of this unique source of energy, background information on basic radiation characteristics, risk assessment, reactor operation and effluent control is provided in this section.

Fundamentals

The Atom

All matter consists of **atoms**. Simply described, atoms are made up of positively and negatively charged particles, and particles which are neutral. These particles are called **protons**, **electrons**, and **neutrons**, respectively (Figure 1). The relatively large protons and neutrons are packed tightly together in a cluster at the center of the atom called the **nucleus**. Orbiting around the nucleus are one or more smaller electrons. In an electrically neutral atom, the negative charges of the electrons are balanced by the positive charges of the protons. Due to their dissimilar charges, the protons and electrons have a strong attraction for each other. This holds the atom together. Other attractive forces between the protons and neutrons keep the densely packed protons from repelling each other and prevent the nucleus from breaking apart.

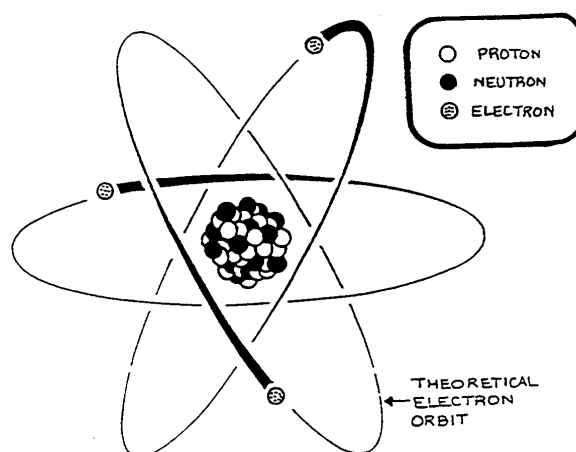


Figure 1: An atom consists of two parts: a nucleus containing positively charged protons and electrically neutral neutrons and one or more negatively charged electrons orbiting the nucleus. Protons and neutrons are nearly identical in size and weight, while each is about 2000 times heavier than an electron.

Radiation and Radioactivity

Isotopes and Radionuclides

A group of identical atoms containing the same number of protons make up an **element**. In fact, the number of protons an atom contains determines its chemical identity. For instance, all atoms with one proton are hydrogen atoms, and all atoms with eight protons are oxygen atoms. However, the number of neutrons in the nucleus of an element may vary. Atoms with the same number of protons but different numbers of neutrons are called **isotopes**. Different isotopes of the same element have the same chemical properties, and many are stable or nonradioactive. An unstable or radioactive isotope of an element is called a **radioisotope, a radioactive atom, or a radionuclide**. Radionuclides usually contain an excess amount of energy in the nucleus. The excess energy is usually due to a surplus or deficit in the number of neutrons in the nucleus. Radionuclides such as Uranium-238, Beryllium-7 and Potassium-40 occur naturally. Others are man-made, such as Iodine-131, Cesium-137, and Cobalt-60.

Radiation

Radiation is simply the conveyance of energy through space. For instance, heat emanating from a stove is a form of radiation, as are light rays, microwaves, and radio waves. **Ionizing radiation** is another type of radiation and has similar properties to those of the examples listed above. Ionizing radiation consists of both **electromagnetic radiation** and **particulate radiation**. Electromagnetic radiation is energy with no measurable mass that travels with a wave-like motion through space. Included in this category are **gamma rays** and **X-rays**. Particulate radiation consists of tiny, fast-moving particles which, if unhindered, travel in a straight line through space. The three types of particulate radiation of concern to us are **alpha particles**, which are made up of 2 protons and 2 neutrons; **beta particles**, which are essentially free electrons; and **neutrons**. The properties of these types of radiation will be described more fully in the Range and Shielding section.

Radioactive Decay

Radioactive atoms, over time, will reach a stable, non-radioactive state through a process known as **radioactive decay**. Radioactive decay is the release of energy from an atom through the emission of ionizing radiation. Radioactive atoms may decay directly to a stable state or may go through a series of decay stages, called a **radioactive decay series**, and produce several **daughter products** that eventually result in a stable atom. The loss of energy and/or matter through radioactive decay may transform the atom into a chemically different element. For example, when Uranium-238 decays, it emits an alpha particle and, as a result, the atom loses 2 protons and 2 neutrons. As discussed previously, the number of protons in the nucleus of an atom determines its chemical identity. Therefore, when the Uranium-238 atom loses the 2 protons and 2 neutrons, it is transformed into an atom of Thorium-234. Thorium-234 is one of the 14 successive daughter products of Uranium-238. Radon is another daughter product, and the series ends with stable Lead-206.

This progression of decays from parent radionuclide to daughters known as a radioactive decay series. For example, the radioactive decay series that begins with Uranium-238 and ends with, stable, Lead-206 (Figure 2), is known as the Uranium-238 series.

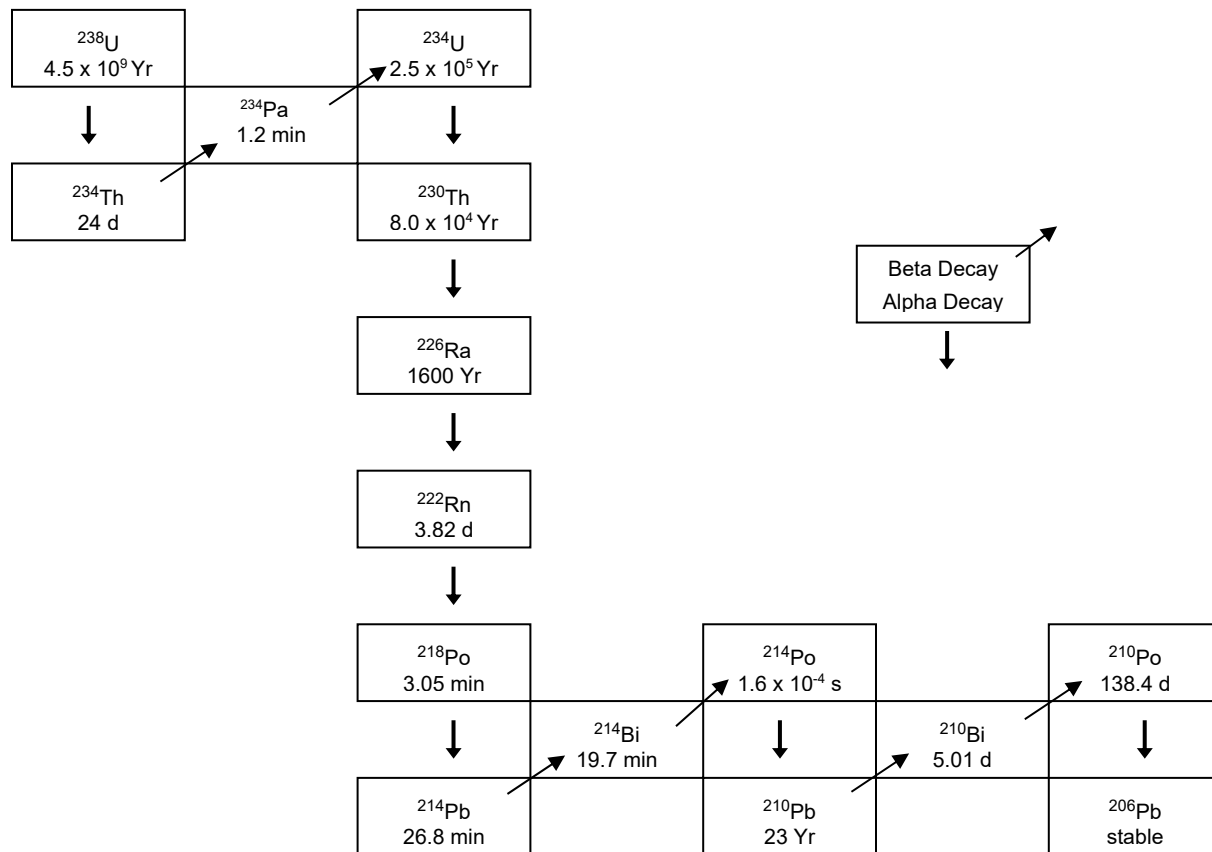


Figure 2: Example Radioactive decay series, the Uranium-238 Series.

Half-life

Most radionuclides vary greatly in the frequency with which their atoms release radiation. Some radioactive materials, in which there are only infrequent emissions, tend to have a very long half-life. Those radioactive materials that are very active, emitting radiation more frequently tend to have comparably shorter half-lives. The length of time an atom remains radioactive is defined in terms of its **half-life**. Half-life is the average amount of time required for a radioactive substance to lose half of its activity through the process of radioactive decay. Half-lives vary from millionths of a second to billions of years.

Interaction with Matter

Ionization

Through interactions with atoms, alpha, beta, and gamma radiation lose their energy. When these forms of radiation interact with any form of material, the energy they impart may cause

atoms in that material to become **ions**, or charged particles, which is why this type of radiation is called “ionizing radiation”. Normally, an atom has the same number of protons as electrons, thus, the positive and negative charges cancel, and the atom is electrically neutral. When one or more electrons are removed an ion is formed. Ionization is one of the processes that may result in damage to biological systems.

Range and Shielding

Particulate and electromagnetic radiation each travel through matter differently because of their different properties. Alpha particles contain 2 protons and 2 neutrons, are relatively large, and carry an electrical charge of +2. Alpha particles are ejected from the nucleus of a radioactive atom at speeds ranging from 2,000 to 20,000 miles per second. However, due to its comparatively large size, an alpha particle usually does not travel very far before it loses most of its energy through collisions and interactions with other atoms. As a result, a sheet of paper, a few centimeters of air, or even skin, can easily stop alpha particles (Figure 3).

Beta particles are very small, and comparatively fast particles, traveling at speeds near the speed of light (186,000 miles per second). Beta particles have an electrical charge of either +1 or -1. Because they are so small and have a low charge, they do not collide and interact as often as alpha particles, so they can travel farther. Beta particles can usually travel through several meters of air, but may be stopped by a thin piece of metal or wood, or even plastic.

Gamma rays are pure energy (high-energy photons) and travel at the speed of light. They have no measurable charge or mass, and generally travel much farther than alpha or beta particles before being absorbed. After repeated interactions, the gamma ray finally loses all its energy and vanishes. The range of a gamma ray in air varies, depending on the ray's energy and interactions. Very high-energy gamma radiation can travel a considerable distance, whereas low energy gamma radiation may travel only a few feet in air. Lead is used as shielding material for gamma radiation because of its density. Several inches of Lead or concrete may be needed to effectively shield gamma rays.

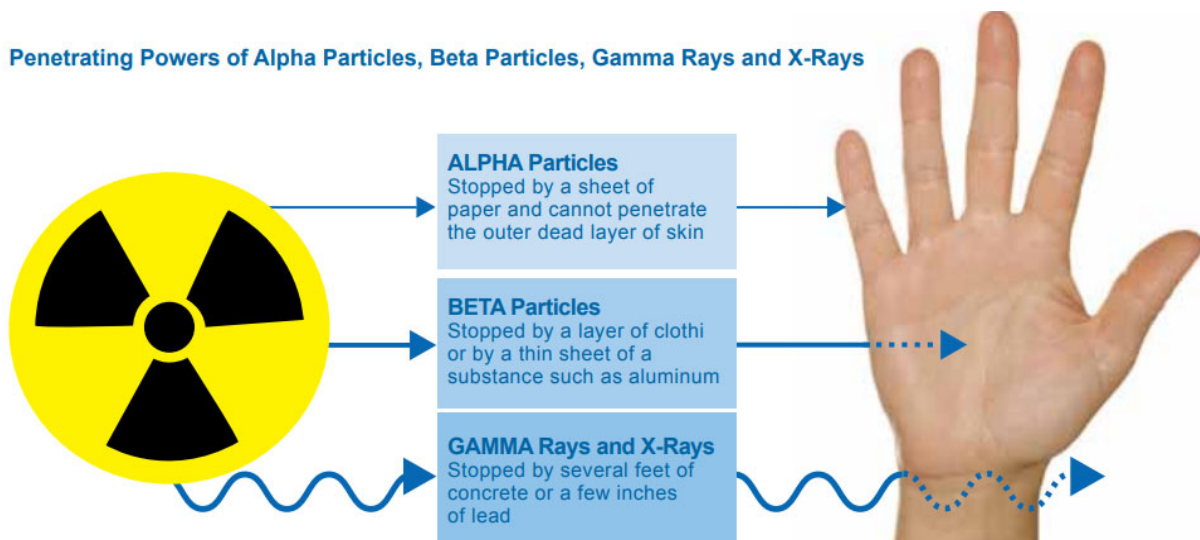


Figure 3: Ionizing Radiation and Shielding.

Neutrons come from several sources, including the interactions of cosmic radiation with the earth's atmosphere and nuclear reactions within operating nuclear power reactors. However, neutrons are not of environmental concern since the neutron source at nuclear power stations is sealed within the containment building.

Because neutrons have no charge, they are able to pass very close to the nuclei of the material through which they are traveling. As a result, neutrons may be captured by one of these nuclei or they may be deflected. When deflected, the neutron loses some of its energy. After a series of these deflections, the neutron has lost most of its energy. At this point, the neutron is called a **thermal neutron**. In comparison, fast neutrons are much more energetic than thermal neutrons and have greater potential for causing damage to the material through which they travel. Fast neutrons can have from 200 thousand to 200 million times the energy of thermal neutrons.

Neutron shielding is designed to slow fast neutrons and absorb thermal neutrons. Neutron shielding materials commonly used to slow neutrons down are water or polyethylene. The shield is then completed with a material such as Cadmium, to absorb the now thermal neutrons. At Davis-Besse, concrete is used to form an effective neutron shield because it contains water molecules and can be easily molded around odd shapes.

Quantities and Units of Measurement

There are several quantities and units of measurement used to describe radioactivity and its effects. Three terms of particular usefulness when discussing radiation are: **activity**, **absorbed dose**, and **dose equivalent**.

Activity: Curie

Activity is the number of atoms in a sample that disintegrate (decay) per unit of time. Each time an atom disintegrates, radiation is emitted. The **curie** (Ci) is the unit used to describe the activity of a material and indicates the rate at which the atoms of a radioactive substance are decaying. One curie indicates the disintegration of 37 billion atoms per second.

A curie is a unit of activity, not a quantity of material. Thus, the amount of material required to produce one curie varies. For example, one gram (1/28th of an ounce) of radium-226 is the equivalent of one curie of activity, but it would take 9,170,000 grams (about 10 tons) of thorium-232 to equal one curie.

Smaller units of the curie are often used, especially when discussing the low concentrations of radioactivity detected in environmental samples. For instance, the microcurie (uCi) is equal to one millionth of a curie, while the picocurie (pCi) represents one trillionth of a curie.

Absorbed Dose: Rad

Absorbed dose is a term used to describe the radiation energy absorbed by any material exposed to ionizing radiation and can be used for both particulate and electromagnetic radiation. The **Rad (radiation absorbed dose)** is the unit used to measure the absorbed dose. It is defined as the energy of ionizing radiation deposited per gram of absorbing material (1 Rad = 100 erg/gm). The rate of absorbed dose is usually given in Rad/hr.

If the biological effect of radiation is directly proportional to the energy deposited by radiation in an organism, the Rad would be a suitable measurement of the biological effect. However, biological effects depend not only on the total energy deposited per gram of tissue, but on how this energy is distributed along its path. Experiments have shown that certain types of radiation are more damaging per unit path of travel than are others. Thus, another unit is needed to quantify the biological damage caused by ionizing radiation.

Dose Equivalent: Rem

Biological damage due to alpha, beta, gamma and neutron radiation may result from the ionization caused by this radiation. Some types of radiation, especially alpha particles which cause dense local ionization, can result in up to 20 times the amount of biological damage for the same energy imparted as do gamma or X-rays. Therefore, a **quality factor** must be applied to account for the different ionizing capabilities of various types of ionizing radiation. When the quality factor is multiplied by the absorbed dose, the result is the **dose equivalent**, which is an estimate of the possible biological damage resulting from exposure to a particular type of ionizing radiation. The dose equivalent is measured in **Rem (Roentgen equivalent man)**.

An example of this conversion from absorbed dose to dose equivalent uses the quality factor for alpha radiation, which is equal to 20. Thus, 1 Rad of alpha radiation is approximately equal to 20 Rem. Beta and gamma radiation each have a quality factor of 1, therefore one Rad of either beta or gamma radiation is approximately equal to one Rem. Neutrons have a quality factor ranging from 2 to 10. One Rem produces the same amount of biological damage, regardless of the source. In terms of radiation, the Rem is a relatively large unit. Therefore, a smaller unit, the **millirem**, is often used. One millirem (mRem) is equal to 1/1,000 of a Rem.

Deep Dose Equivalent (DDE)

Deep dose equivalent is the measurement of dose within the body, from sources of radiation that are external to the body. It is what is measured and recorded on thermoluminescent dosimeters (TLDs), film badges or other dosimeters. For example, at Davis-Besse or at any hospital that has x-ray equipment, you will see people wearing these devices. These dosimeters are worn to measure DDE to the individual radiation worker.

Committed Effective Dose Equivalent (CEDE)

Committed effective dose equivalent is a measure of the dose received from any radioactive material taken into the body. It is calculated from the sum of the products of the committed dose equivalent to the organ or tissue multiplied by the organ or tissue-weighting factor. CEDE accounts for all the dose delivered during the entire time the radioactive material is in the body.

Total Effective Dose Equivalent (TEDE)

Total effective dose equivalent is the sum of the deep dose equivalent (for dose from sources external to the body) and the committed effective dose equivalent (for internal dose). Since they are both doses to the body, they are not tracked separately. The NRC limits occupational dose to a radiation worker to five Rem (5,000 mRem) TEDE per year.

Sources of Radiation

Background Radiation

Radiation did not begin with the nuclear power industry and has always occurred, naturally, on earth and throughout the universe. It is a very "natural" part in nature, and people have always lived with radiation. In fact, during every second of life, over 7,000 atoms undergo radioactive decay "naturally" in the body of the average adult. In addition, radioactive decay occurs naturally in soil, water, air and space so all these common sources of radiation comprise the natural background radiation to which we are all exposed.

The earth is being showered by a steady stream of high-energy gamma rays and particulate radiation that come from space known as cosmic radiation. The atmosphere shields us from most of this radiation, but everyone still receives about 20 to 50 mRem each year from this source. The thinner air (with regard to both the density and the thickness of the layer) at higher altitudes provides less protection against cosmic radiation. Therefore, people living at higher altitudes or flying in an airplane are exposed to even higher levels cosmic radiation. Radionuclides commonly found in the atmosphere as a result of cosmic ray interactions include Beryllium-7, Beryllium-10, Carbon-14, Tritium (Hydrogen-3), and Sodium-22.

Another common naturally occurring radionuclide is Potassium-40, which is geological in origin. About one-third of the external and internal dose from naturally occurring background radiation is attributed to this radioactive isotope of potassium.

The major source of background radiation is Radon, a colorless, odorless, radioactive noble gas that results from the decay of Radium-226, a member of the Uranium-238 decay series. Because Uranium occurs naturally in all soils and rocks, everyone is continuously exposed to Radon and its daughter products. Radon emits alpha radiation when it decays, which can cause damage to internal tissues when inhaled. Radon is not considered to pose a health hazard unless it is concentrated in a confined area, such as buildings, basements or underground mines. Radon-related health concerns stem from the exposure of the lungs to this radioactive gas because the primary health effect associated with exposure to Radon is an increased risk of lung cancer. This effect has been seen when Radon activity in air is present at levels common in uranium mines. According to the US Environmental Protection Agency, more than a third of the radiation dose the average American receives is attributed to Radon.

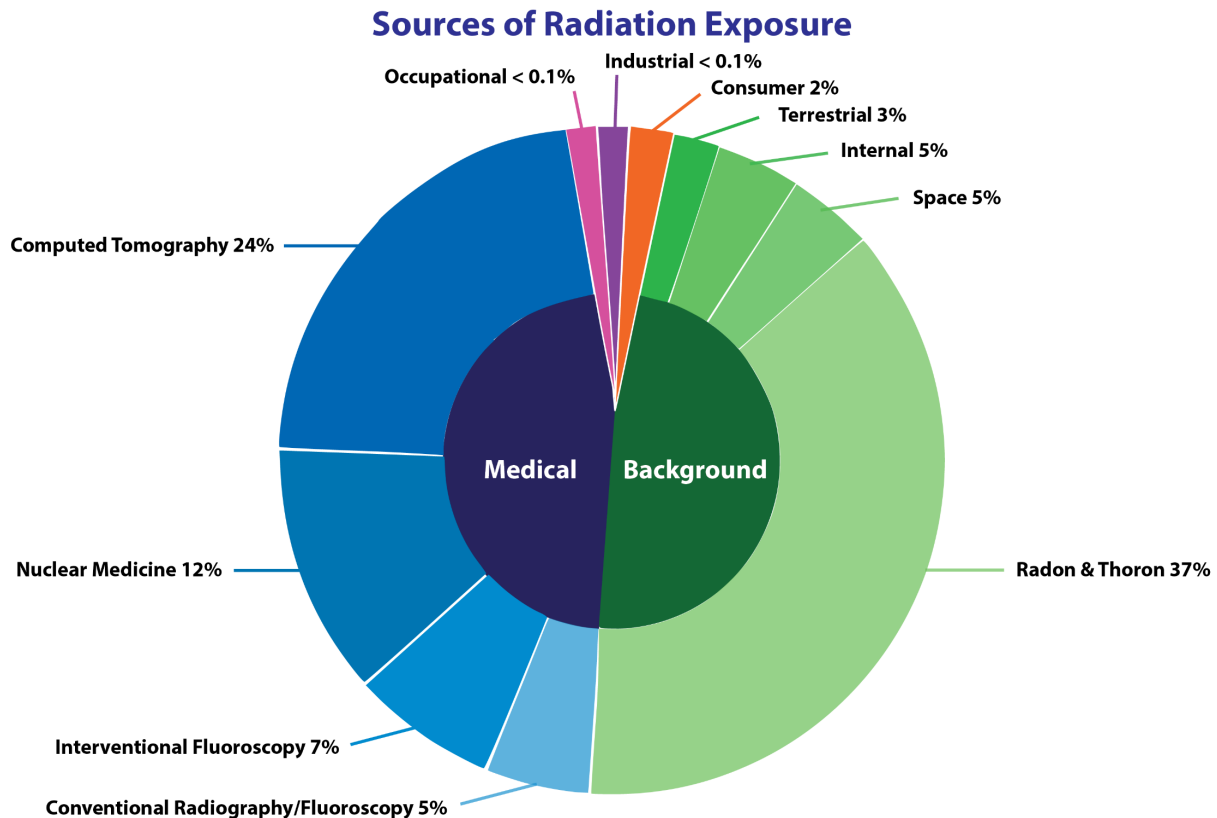


Figure 4: The most significant annual dose received by an individual of the US public is that received from naturally occurring radon. A very small annual dose to the public results from producing electricity by nuclear power (graphic taken from the US EPA [<https://www.epa.gov/radiation/radiation-sources-and-doses>], accessed 04/2024).

Further information on Radon, its measurement, and actions to reduce the Radon concentration in buildings can be obtained by contacting the state Radon program office at the following address:

Ohio Department of Health
 Bureau of Environmental Health and Radiation Protection
 Radon Education & Licensing Program
 35 E. Chestnut Street
 Columbus, Ohio 43215
 Telephone: 614-728-0272
 E-mail: indoor.radon@odh.ohio.gov

The approximate average background radiation (natural and medical sources) to US citizens is 620 mRem/year (NCRP-160, 2009).

Man-made Radiation and Radioactivity in Consumer Products

In addition to naturally occurring cosmic radiation and radiation from naturally occurring radioactivity, people are also exposed to man-made radiation. The largest sources of exposure include medical x-rays and radioactive pharmaceuticals. Small doses are also received from consumer products such as televisions, smoke detectors, dietary supplements (e.g. salt substitutes) and fertilizers.

Fallout from nuclear weapons tests is another source of man-made exposure. Fallout radionuclides include Strontium-90, Cesium-137, and Tritium. Less than one percent of the annual dose a member of the public receives is a result of having electricity generated by nuclear power.

Health Effects of Radiation

The effects of ionizing radiation on human health have been under study for more than one hundred years. Scientists have obtained valuable knowledge through the study of laboratory animals that were exposed to ionizing radiation under extremely controlled conditions. However, it has been difficult to relate the biological effects of irradiated laboratory animals to the potential health effects on humans.

The effects of radiation on humans can be divided into two categories, somatic and genetic. Somatic effects are those which develop in the directly exposed individual, including an unborn child. Genetic effects are those which are observed in the offspring of the exposed individual.

Somatic effects can be divided further into acute and chronic effects. Acute effects develop shortly after exposure to large amount of radiation. Much study has been done with human populations that were exposed to ionizing radiation under various circumstances. These groups include the survivors of the atomic bomb, persons undergoing medical radiation treatment, and early radiologists, who accumulated large doses of radiation, unaware of the potential hazards.

Chronic effects are a result of exposure to radiation over an extended period of time. Examples of such groups are clock dial painters, who ingested large amounts of Radium by "tipping" the paint brushes with their lips, and Uranium miners, who inhaled large amounts of radioactive dust while mining pitchblende (Uranium ore). The studies performed on these groups have increased our knowledge of the health effects from comparatively very large doses of radiation received over long periods of time.

Continuous exposure to low levels of radiation may produce somatic changes over an extended period of time. For example, someone may develop cancer from man-made radiation, background radiation, or some other source not related to radiation. Because all illnesses caused by low level radiation can also be caused by other factors, it is virtually impossible to determine individual health effects of exposures to low-levels of ionizing radiation. Even though no effects have been observed at doses less than 50 Rem, the Linear, No-Threshold (LNT) theory assumes the health effects resulting from exposure to low doses of ionizing radiation occur proportionally to those observed following exposure to high-doses of ionizing radiation. Most radiation scientists agree that LNT over-estimates the risks associated with a low-level radiation exposure. The effects predicted in this manner have never been actually observed in any individuals exposed to low level radiation. Therefore, the most likely somatic effect of low-level radiation is believed to be a small increased risk of cancer. Genetic effects could occur as a result of ionizing radiation interacting with the genes in the human cells. Radiation (as well as common chemicals) can cause physical changes or mutations in the genes. Chromosome fibers can break and rearrange, causing interference with the normal cell division of the chromosome by affecting their number and structure. A cell is able to rejoin the ends of a broken chromosome, but if there are two breaks close enough together in space and time, the broken ends from one break could

join incorrectly with those from another. This could cause translocations, inversions, rings, and other types of structural rearrangements. When this happens, new mutated genes are created. Radiation is not the only mechanism by which such changes can occur. Spontaneous mutations and chemically induced mutations also have been observed. These mutated genes may be passed from parent to offspring. Viable mutations due to low level, low dose radiation have not been observed in humans.

Health Risks

While people may accept the risks inherent in their personal activities, such as smoking and driving to work each day, they are less inclined to accept the risk inherent in producing electricity. As with any industrial environment, it is not possible to guarantee a risk-free environment. Thus, attention should be focused on taking steps to safeguard the public, on developing a realistic assessment of the risks, and on placing these risks in perspective. The perceptions of risk associated with exposure to radiation may have the greatest misunderstanding. Because people do not understand ionizing radiation and its associated risks, many fear it. This fear is compounded by the fact that we cannot hear, smell, taste or feel ionizing radiation.

We do not fear other potentially hazardous things for which we have the same lack of sensory perception, such as radio waves, carbon monoxide, and small concentrations of numerous cancer-causing substances. These risks are larger and measurable compared to those presumed to be associated with exposure to low level, low dose radiation. Most of these risks are with us throughout our lives, and can be added up over a lifetime to obtain a total effect. Table 1 shows a number of different factors that decrease the average life expectancy of individuals in the United States.

Table 1: Risk Factors: Estimated Decrease in Average Life Expectancy

Overweight by 30%:		3.6 years
Cigarette smoking:	1 pack/day	7.0 years
	2 packs/day	10.0 years
Heart Disease:		5.8 years
Cancer:		2.7 years
City living (non-rural):		5.0 years
All operating commercial nuclear power plants totaled:		less than 12 minutes

Benefits of Nuclear Power

Nuclear power plays an important part in meeting today's electricity needs, and will continue to serve as an important source of electric energy well into the future. Today approximately twenty percent of the electricity produced in the United States is from nuclear powered electrical generating stations.

Nuclear power offers several advantages over alternative sources of electric energy:

- Nuclear power has an excellent safety record dating back to 1958, when the first commercial nuclear power station began operating,
- Uranium, the fuel for nuclear power stations, is a relatively inexpensive fuel that is readily available in the United States,
- Nuclear power is the cleanest energy source for power stations that use steam to produce electricity and one of the cleanest energy sources overall. There are no greenhouse gases produced when using nuclear fuel.

The following sections provide information on the fundamentals of how Davis-Besse uses nuclear fuel and the fission process to produce electricity.

Nuclear Power Production

Electricity is produced in a nuclear power station in the same way as in a fossil-fueled station with the exception of the source of heat. Heat changes water to steam that turns a turbine. In a fossil-fueled station, the fuel is burned in a furnace, which is also a boiler. Inside the boiler, water is turned into steam. In a nuclear station, a reactor that contains a core of nuclear fuel, primarily uranium, replaces the furnace. Heat is produced when the atoms of Uranium are split inside the reactor. The process of splitting atoms is called fission.

What is Fission?

A special force called the binding force holds the protons and neutrons together in the nucleus of the atom. The strength of this binding force varies from atom to atom. If the bond is weak enough, the nucleus can be split when bombarded by a free neutron (Figure 5). This causes the entire atom to split, producing smaller atoms, more free neutrons, and heat. In a nuclear reactor, a chain reaction of fission events provides the heat necessary to boil the water to produce steam.

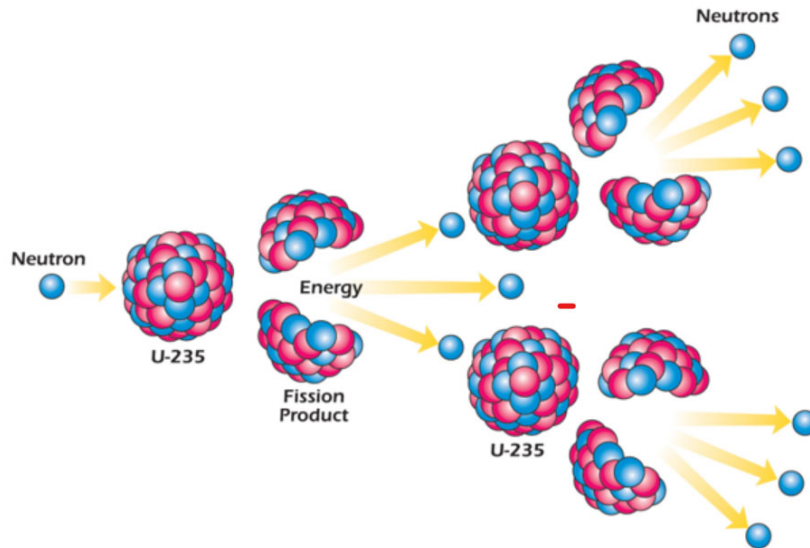


Figure 5: Nuclear fission occurs in the reactor when a neutron strikes a Uranium-35 atom causing it to become unstable and split. This fission-event causes the releases of an enormous amount energy and the release of two – three neutrons from the just-split Uranium-235 atom. This release of additional neutrons creates a self-sustaining chain reaction in the core.

Nuclear Fuel

The fissioning of one Uranium atom releases approximately 50 million times more energy than the combustion of a single Carbon atom common to all fossil fuels because of Einstein's theory that resulted in his famous equation $E = mc^2$. Since a single small reactor fuel pellet contains trillions of atoms, each pellet can release an extremely large amount of energy. The amount of electricity that can be generated from three small fuel pellets would require about 3.5 tons of coal or 12 barrels of oil to generate.

Nuclear fission occurs spontaneously in nature, but these natural occurrences cannot sustain themselves (usually – see Oklo natural reactor for more information) because the freed neutrons either are absorbed by non-fissionable atoms or quickly **decay**. In contrast, a nuclear reactor minimizes neutron losses, thus sustaining the fission process by several means:

- using fuel that is free of impurities that might absorb the free neutrons,
- enriching the concentration of the rarer fissionable isotope of Uranium (U-235) relative to the concentration of U-238, a more common isotope that does not fission easily,
- slowing down neutrons by providing a "moderator" such as water to increase the probability of fission.

Natural Uranium contains less than one percent U-235 compared to the more abundant U-238. Before it can be economically used in a reactor, it is enriched to three to five percent U-235, in contrast to nuclear material used in nuclear weapons which is enriched to over 97 percent. Because of the low levels of U-235 in nuclear fuel, a nuclear power station **cannot** explode like a bomb.

After the Uranium ore is separated from the earth and rock, it is concentrated in a milling process. After milling the ore to a granular form and dissolving out the Uranium with acid, the Uranium is converted to **Uranium hexafluoride (UF₆)**. UF₆ is a chemical form of Uranium that exists as a gas at temperatures slightly above room temperature. The UF₆ is then highly purified and shipped to an enrichment facility where **gaseous diffusion cascades** increase the concentration of U-235. The enriched gaseous UF₆ is then converted into powdered **Uranium dioxide (UO₂)**, a highly stable, ceramic, material. The UO₂ powder is put under high pressure to form **fuel pellets**, each about 5/8 inch long and 3/8 inch in diameter. Approximately five pounds of these pellets are placed into a 12-foot long metal tube made of Zirconium alloy. The tubes constitute the **fuel cladding**. The fuel cladding is highly resistant to heat, radiation, and corrosion. When the tubes are filled with fuel pellets, they are called **fuel rods**.

The Reactor Core

Two hundred eight fuel rods comprise a single **fuel assembly**. The **Reactor core** at Davis-Besse contains 177 of these fuel assemblies, each approximately 14 feet tall and 2,000 pounds in weight. In addition to the fuel rods, the fuel assembly also contains 16 vacant holes for the insertion of **control rods**, and one vacant hole for an **incore-monitoring probe**. This probe monitors temperature and neutron levels in the fuel assembly. The Davis-Besse reactor vessel, which contains all the fuel assemblies, weighs 838,000 pounds, has a diameter of 14 feet, is 39 feet high, and has steel walls that are 8 ½ inches thick.

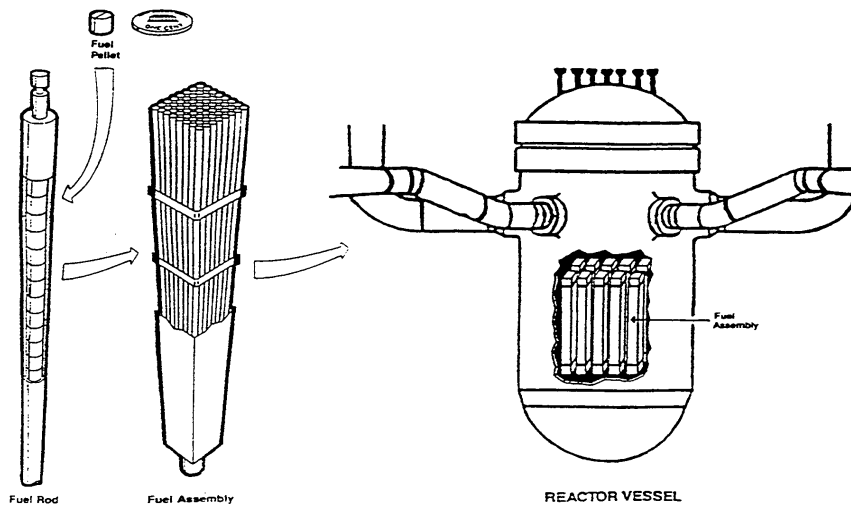


Figure 6: The reactor core at Davis-Besse contains 177 fuel assemblies. Each assembly contains 208 fuel rods. Each fuel rod is filled with approximately five pounds of fuel pellets. Each pellet is approximately 3/8 inch diameter and 5/8 inch long.

Fission Control

Raising or lowering control rod assemblies into the reactor core controls the fission rate. Each assembly consists of "fingers" containing Silver, Indium, and Cadmium metals that absorb free neutrons, thus disrupting the fission chain reaction. When control rod assemblies are slowly withdrawn from the core, the fission process begins, and heat is produced. If the control rod assemblies are inserted rapidly into the reactor core, as occurs during a plant "trip", the chain reaction ceases. A slower acting (but more evenly distributed) method of fission control is achieved by the addition of a **neutron poison** to the reactor coolant water. At Davis-Besse, high-purity boric acid is concentrated or diluted in the coolant to achieve the desired level of fission. Boron-10 readily absorbs free neutrons, forming Boron-11, removing the absorbed neutrons from the chain reaction.

Reactor Types

Virtually all commercial reactors are either **boiling water reactors (BWRs)** or **pressurized water reactors (PWRs)**. Both types are also called **light water reactors (LWRs)** because their coolant, or medium to transfer heat, is ordinary water, which contains the light isotope of Hydrogen. Some reactors use the heavy isotope of Hydrogen (deuterium) in the reactor coolant; such reactors are called **heavy water reactors (HWRs)**. There are also "Fast Reactors" that use Lead or Sodium as a coolant. Fast Reactor types are interesting because they can use spent LWR fuel as fuel to generate more electricity with the added benefit of reducing stocks of spent fuel in storage.

In a BWR reactor vessel, water passes through the core and boils, generating steam that passes through separators, which remove water droplets and then steam dryers before entering the turbine. After passing through the turbine the steam is condensed back into water and returns to the core to repeat the cycle.

In a PWR reactor vessel the reactor water or coolant is pressurized to prevent it from boiling. The reactor water is then pumped to a **steam generator** (heat exchanger) where its heat is transferred to a secondary water supply. The secondary water inside the steam generator boils, generating steam, that is used to turn the turbine. This steam is then condensed back into water and returned to the steam generator. Davis-Besse uses a PWR design.

The following paragraphs describe the various systems illustrated in Figure 7. Major systems in the Davis-Besse Station are assigned a different color in the figure.

DAVIS-BESSE NUCLEAR POWER STATION

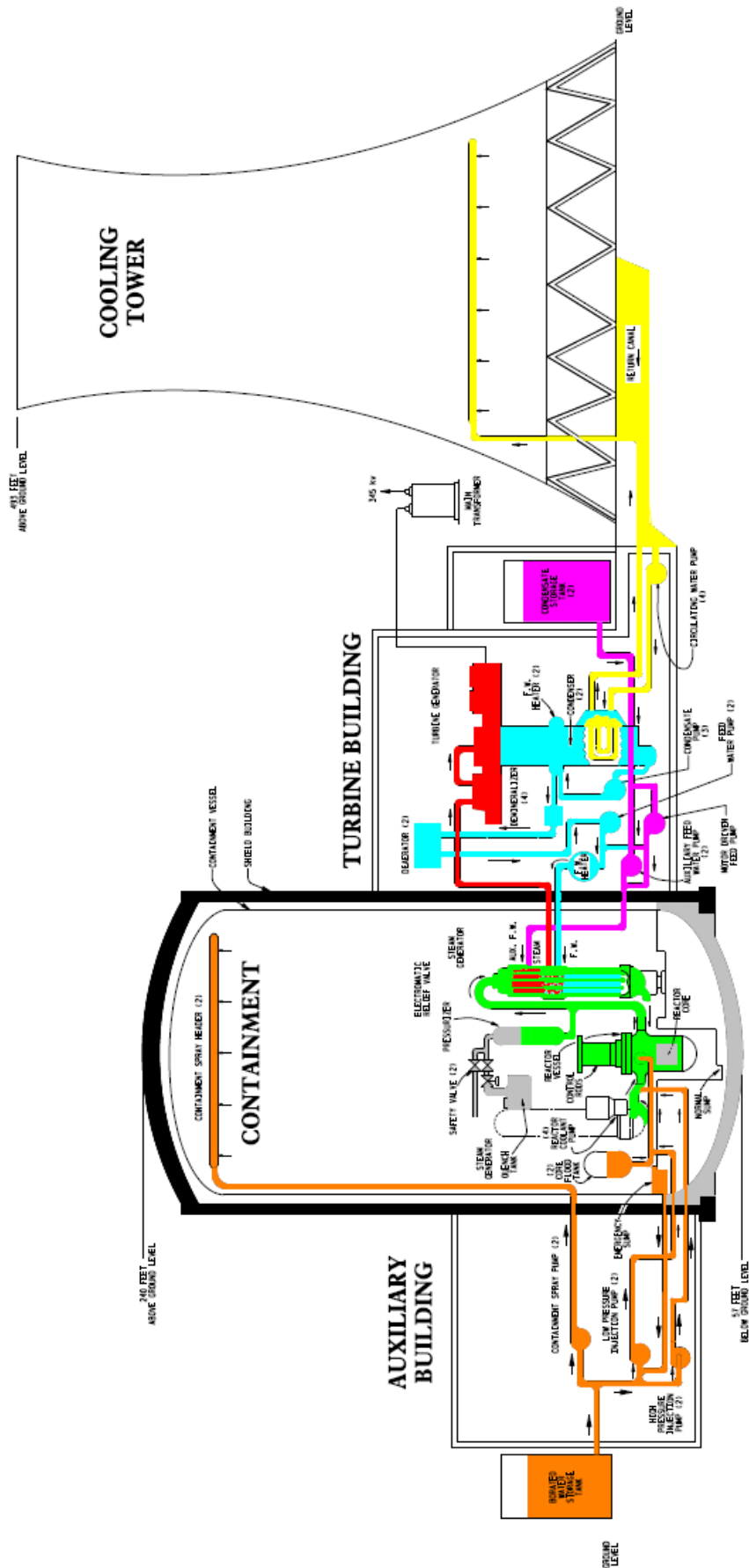


Figure 7: Station Systems

Station Systems

Containment Building and Fission Product Release Barriers

The **Containment building** houses the reactor vessel, the Pressurizer, two steam generators, the Reactor Coolant Pumps and Reactor Coolant System piping. The building is constructed of an inner 1–1/2 inch thick steel liner or **Containment vessel**, and the **Shield Building** with steel-reinforced concrete walls 2 feet thick. The shield building protects the containment vessel from a variety of environmental factors and provides an area for a **negative pressure boundary** around the steel Containment vessel. In the event that the integrity of the Containment vessel is compromised (e.g., a crack develops), this negative pressure boundary ensures that any airborne radioactive contamination present in the containment vessel is prevented from leaking out into the environment. This is accomplished by maintaining the pressure inside the Shield Building lower than that outdoors, thus forcing clean outside air to leak in. This minimizes potentially contaminated air between the Containment vessel and the Shield Building from leaking out. The Containment vessel is the third in a **series of barriers** that prevent the release of fission products in the unlikely event of an accident. The first barrier to the release of fission products is the fuel cladding itself. The second barrier is the walls of the primary system, i.e., the reactor vessel, steam generator and associated piping.

The Steam Generators

The **steam generators** perform the same function as a boiler at a fossil-fueled power station. The steam generator uses the heat of the primary coolant inside the steam generator tubes to boil the secondary side **feedwater** (secondary coolant). Fission heat from the reactor core is transferred to the steam generator in order to provide the steam necessary to drive the turbine. However, heat must also be removed from the core even after reactor shutdown in order to prevent damage to the fuel cladding. Therefore, pumps maintain a continuous flow of coolant through the reactor and steam generator. **Primary loop water** (green in Figure 7) exits the reactor at approximately 606°F, passes through the steam generator, transferring some of its heat energy to the **Secondary loop water** (blue in Figure 7) without actually coming in contact with it. Primary coolant water exits the steam generator at approximately 558°F to be circulated back into the reactor where it is again heated to 606°F as it passes up through the fuel assemblies. Under ordinary conditions, water inside the primary system would boil long before it reached such temperatures. However, it is kept under a pressure of approximately 2,200 pounds-per-square-inch (psi) at all times. This prevents the water from boiling and is the reason the reactor at Davis-Besse is called a Pressurized Water Reactor. Secondary loop water enters the base of the steam generator at approximately 450°F and under 1,100 psi pressure. At this pressure, the water can easily boil into steam as it passes over the tubes containing the primary coolant water.

Both the primary and the secondary coolant water are considered **closed loop systems**. This means that they are designed not to come in physical contact with one another. Rather, the cooling water in each loop transfers heat energy by **convection**. Convection is a method of **heat transfer** that can occur between two fluid media. It is the same process by which radiators are used to heat homes. The water circulating inside the radiator is separated from the air (a "fluid" medium) by the metal piping.

The Turbine Generator

The turbine, main generator, and the condenser are all housed in what is commonly referred to as the **Turbine Building**. The purpose of the **turbine** is to convert the **thermal energy** of the steam produced in the steam generator (referred to as **main steam**, red in Figure 7) to **rotational energy** of the turbine generator shaft. The turbine at Davis-Besse is actually composed of one six-stage high-pressure turbine and two seven-stage low-pressure turbines aligned on a common shaft. A **turbine stage** refers to a set of blades. Steam enters at the center of each turbine and moves outward along the shaft in opposite directions through each successive stage of blading. As the steam passes over the turbine blades, it loses pressure. Thus, the blades must be proportionally larger in successive stages to extract enough energy from the steam to rotate the shaft at the correct speed.

The purpose of the **main generator** is to convert the rotational energy of the shaft to **electrical energy** for commercial usage and support of station systems. The main generator is composed of two parts, a stationary **stator** that contains coils of copper conductors, and a **rotor** that supplies a rotating magnetic field within the coils of the stator. Electrical current is generated in the stator portion of the main generator. From this point, the electric current passes through a series of **transformers** for transmission and use throughout northern Ohio.

The Condenser

After the spent steam in the secondary loop (blue in Figure 7) passes through the High and Low Pressure Turbines, it is collected in the **condenser**, which is several stories tall and contains more than 70,000 small tubes. **Circulating Water** (yellow in Figure 7) goes to the **Cooling Tower** after passing through the tubes inside the Condenser. As the steam from the Low Pressure Turbines passes over these tubes, it is cooled and condensed. The condensed water is then purified and reheated before being circulated back into the steam generator again in a closed loop system. Circulating water forms the third (or **tertiary**) and final loop of cooling water used at the Davis-Besse Station.

Similar to the primary to secondary interface, the secondary-to-tertiary interface is based on a closed-loop design. The Circulating Water, which is pumped through the tubes in the Water Box, is able to cool the water in the Condenser by the processes of conduction and convection. Even in the event of a primary-to-secondary leak, the water vapor exiting the Davis-Besse Cooling Tower would remain non-radioactive. Closed loops are an integral part of the design of any nuclear facility. This feature greatly reduces the chance of environmental impact from Station operation.

The Cooling Tower

The Cooling Tower at Davis-Besse is easily the most noticeable feature of the plant. The tower stands 493 feet high and the diameter of the base is 411 feet. Two nine-foot diameter pipes circulate 480,000 gallons of water per minute to the tower. Its purpose is to recycle water from the Condenser by cooling and returning it.

After passing through the Condenser, the Circulating Water has warmed to approximately 100°F. In order to cool the water back down to 70°F, the Circulating Water enters the Cooling Tower forty feet above the ground. It is then sprayed evenly over a series of baffles called fill sheets, which are suspended vertically in the base of the tower. A natural draft of air is swept upward through these baffles and cools the water by evaporation. The evaporated water exits the top of the Cooling Tower as water vapor.

As much as 10,000 gallons of water per minute are lost to the atmosphere through evaporation via the **Cooling Tower**. Even so, approximately 98 percent of the water drawn from Lake Erie for station operation can be recycled through the Cooling Tower for reuse. A small portion of the Circulating Water is discharged back to Lake Erie at essentially the same temperature it was withdrawn earlier. The slightly warmer water has no measurable adverse environmental impact on the area of lake surrounding the discharge point.

Miscellaneous Station Safety Systems

The orange system in Figure 7 is part of the **Emergency Core Cooling System (ECCS)** housed in the **Auxiliary Building** of the station. The ECCS consists of three overlapping means of keeping the reactor core covered with water, in the unlikely event of a Loss-of-Coolant Accident (LOCA), thereby protecting the fuel cladding barrier against high-temperature failure. Depending on the severity of the loss of pressure inside the Primary System, the ECCS will automatically channel borated water into the Reactor by using **High Pressure Injection Pumps**, a **Core Flood Tank**, or **Low Pressure Injection Pumps**. Borated water can also be sprayed from the ceiling of the Containment Vessel to cool and condense any steam that escapes the Primary System.

The pressurizer illustrated in Figure 7 is responsible for maintaining the Primary Coolant water in a liquid state. It accomplishes this by adjusting the pressure inside the Primary System. Heaters inside the **Pressurizer** turn water into steam. This steam takes up more space inside the Pressurizer, thereby increasing the overall pressure inside the Primary System. The Pressurizer is equipped with spray heads that shower cool water over the steam in the unit. In this case, the steam condenses and the overall pressure inside the Primary System drops. The Quench Tank is where excess steam is directed and condensed for storage.

The scarlet system in Figure 7 is part of the **Auxiliary Feedwater System**, a key safety system in event the main feedwater supply (blue in Figure 7) to the Steam Generator is lost. Following a reactor shutdown, the Auxiliary Feedwater System can supply water to the Steam Generators from the **Condensate Storage Tanks**. The Auxiliary Feedwater System is housed in the Turbine Building along with the Turbine, Main Generator, and the Condenser.

Reactor Safety and Summary

Nuclear power plants are inherently safe, not only by the laws of physics, but by design. Nuclear power plants cannot explode like a bomb, because the concentration of fissionable material is far less than is necessary for such a nuclear explosion. Also, many safety features are equipped with several backup systems to ensure that any possible accident would be prevented from causing a serious health or safety threat to the public, or serious impact on the local environment. Davis-Besse, like all U.S. nuclear units, has many overlapping, or redundant safety features. If one system should fail, there are still back-up systems to assure the safe operation of the Station. During normal operation, the **Reactor Control System** regulates the power output by adjusting the position of the control rods. The Reactor can be automatically shut down by a separate **Reactor Protection System**, which causes all the control rod assemblies to be quickly and completely inserted into the Reactor core, stopping the chain reaction. To guard against the possibility of a Loss of Coolant Accident, the Emergency Core Cooling System is designed to pump reserve water into the reactor automatically if the reactor coolant pressure drops below a predetermined level.

The Davis-Besse Nuclear Power Station was designed, constructed, and is operated to produce a reliable, safe, and environmentally sound source of electricity.

Radioactive Waste

Many of the activities we depend on in our everyday lives produce radioactive waste by-products. Nuclear energy, industrial processes, and medical treatments are some of these activities. These by-products are managed and disposed of under strict requirements set by the federal government. With the exception of used nuclear fuel assemblies, these by-products produced at commercial power plants are referred to as low level radioactive waste.

Low Level Radioactive Waste

Low level radioactive waste consists of ordinary trash and other items that have become contaminated with radioactive materials and can include plastic gloves and other protective clothing, machine parts and tools, medical and laboratory equipment, filters, resins, and general scrap.

The radioactive material in low level radioactive waste emits the same types of radiation as naturally-occurring radioactive materials. Most low-level activity in radioactive waste decay to background levels within months or years. Nearly all activity diminishes to stable materials in less than 300 years.

Davis-Besse currently transports low-level radioactive waste to Tennessee for processing, after which it is shipped to Utah or Texas for disposal. Davis-Besse has the capacity to store low-level waste produced on site for several years in the Low-Level Radioactive Waste Storage Facility, should this facility close.

Davis-Besse added the Old Steam Generator Storage Facility (OSGSF) in 2011 to house the Reactor Vessel Closure Head, Service Support Structure and Control Rod Drive mechanisms removed during the 17M outage. Two Steam Generators and two Reactor Coolant System Hot

Leg piping sections were replaced during 18th Refueling Outage (18RFO) in 2014, and are also stored there. The reinforced concrete building is comprised of three sections, the largest of which contains the old steam generators and hot legs. The old reactor vessel head is kept in another bay. The sections of the building are completely enclosed with concrete for shielding. The dose rates outside the walls of this section are at background levels. The third section is the vestibule, which provides access to the other two sections. Both the steam generator and reactor vessel head sections have floor drains that lead to a sump that can be monitored and sampled from the vestibule. Surveys are routinely performed by Radiation Protection personnel to monitor the dose rates and Tritium.

High Level Nuclear Waste

Like any industrial or scientific process, nuclear energy does produce waste. The most radioactive is defined as "high-level" waste (because it has high levels of radioactivity). Ninety-nine percent of high-level waste from nuclear plants is used nuclear fuel. The fuel undergoes certain changes during fission. Most of the fragments of fission, pieces that are left over after the atom is split, are radioactive. After a period of time, the fission fragments trapped in the fuel assemblies reduce the efficiency of the chain reaction. The oldest fuel assemblies are removed from the reactor and replaced with fresh fuel at 24-month intervals.

High-level nuclear waste volumes are small. Davis-Besse produces about 30 tons of used fuel every 24 months. All the used fuel produced by all America's nuclear energy plants since the first plant started operating over 30 years ago would cover an area the size of a football field about five yards deep. All of America's nuclear plants combined produce less than 3,000 tons of used fuel each year. By contrast, the U.S. produces about 300,000,000 tons of chemical waste annually. Also, nuclear waste slowly loses its radioactivity, but some chemical waste remains hazardous indefinitely.

Davis-Besse presently stores much of its used fuel in steel-lined water-filled concrete vaults inside the plant. The Department of Energy (DOE) is charged with constructing a permanent high-level waste repository for all of the nation's nuclear plants. By law, the Department of Energy was required to accept fuel from utilities by the end of 1998. Until the permanent DOE site is developed, nuclear plants will be responsible for the continued safe storage of high-level waste. At Davis-Besse, the fuel pool reached its capacity in 1996. At the end of 1996, Davis-Besse began the process of moving the older fuel assemblies that no longer require water cooling to air-cooled concrete shielded canisters. These will remain on site and inside the Protected Area until the Department of Energy facilities are ready to receive them. Dry fuel storage is already used in many countries, including Canada, and in the U.S. at multiple nuclear plants. Figure 8 illustrates the initial Dry Fuel Storage module arrangement (AREVA-TN HSM-80) at Davis-Besse. In 2001, work was performed to increase the storage capacity of the Spent Fuel Pool. The pool remains the same size, however, removing old storage racks and replacing them with new ones changed the configuration of storage.

After the Davis-Besse operating license was extended, additional storage capacity for used fuel became necessary. Dry fuel storage operations were resumed in 2017 using a similar, but more advanced module arrangement (AREVA-TN HSM-H) storage system. Four horizontal storage modules were added to the Independent Spent Fuel Storage Installation Pad in July of 2017. An additional twelve modules (AREVA-TN EOS-HSM) were installed on the pad in the fall of 2019 in which eight were loaded with dry shielded canisters.

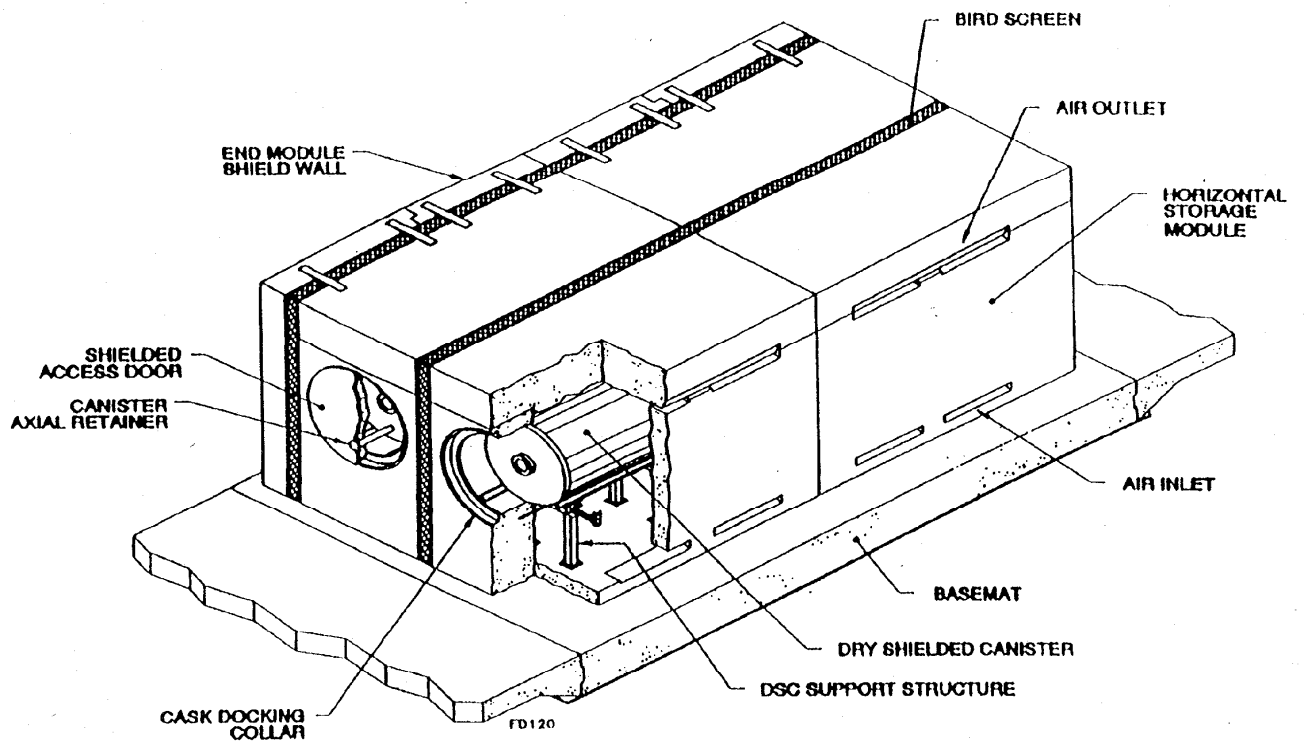


Figure 8: Initial HSM-80 Dry Fuel Storage Module Arrangement

Description of the Davis-Besse Site

The Davis-Besse site is located in Carroll Township of Ottawa County, Ohio. It is on the southwestern shore of Lake Erie, just north of the Toussaint River. The site lies north and east of Ohio State Route 2, approximately 10 miles northwest of Port Clinton, 7 miles north of Oak Harbor, and 25 miles east of Toledo, Ohio (Figure 9).

This section of Ohio is flat and marshy, with maximum elevations of only a few feet above the level of Lake Erie. The area originally consisted of swamp forest and marshland, rich in wildlife but unsuitable for settlement and farming. During the nineteenth century, the land was cleared and drained, and has been farmed successfully since. Today, the terrain consists of farmland with marshes extending in some places for up to two miles inland from the Sandusky Lake Shore Ridge.

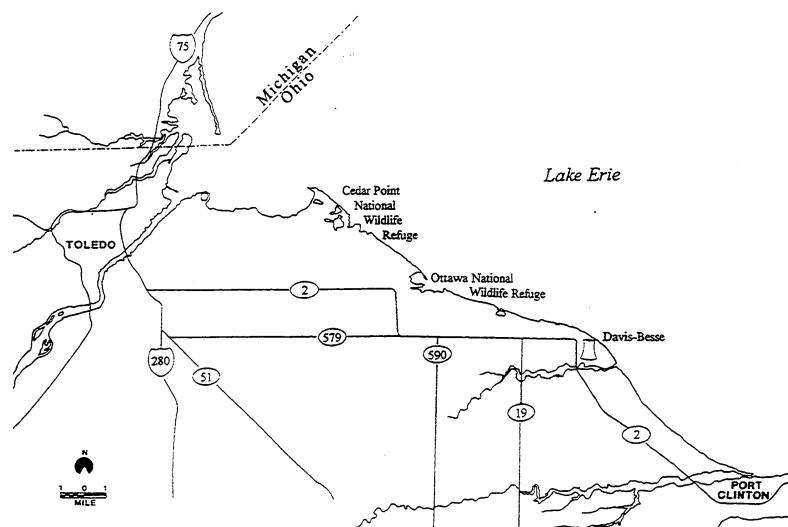


Figure 9: Davis-Besse is near Oak Harbor, Port Clinton, and the Ottawa National Wildlife Refuge.

The Davis-Besse site mainly comprises freshwater marsh land, with a small portion consisting of land previously used for farming. The marshes are part of a valuable ecological resource, providing a breeding ground for a variety of wildlife and a refuge for migratory birds. The site includes a tract known as Navarre Marsh, which was acquired from the U.S. Department of the Interior. In 1971, Toledo Edison purchased the 188-acre Toussaint River Marsh. The Toussaint River Marsh is contiguous with the 610-acre Navarre Marsh section of the Ottawa National Wildlife Refuge. The Navarre Marsh and Toussaint River Marsh are leased to the U.S. Fish and Wildlife Service, who manage it as part of the Ottawa National Wildlife Refuge.

The immediate area near Davis-Besse is sparsely populated. The most recent Census was completed in the year 2020 and listed the population of Ottawa County at 40,364. The incorporated communities nearest to Davis-Besse are:

- Port Clinton - 10 miles southeast, population 6,026
- Oak Harbor - 7 miles south, population 2,741
- Rocky Ridge - 7 miles west southwest, population 389
- Toledo (nearest major city) - 25 miles west, population 270,871

There are some residences along the lakeshore to the North and Northwest of the station. However, the major resort area of the county is farther East, around Port Clinton, Lakeside, and the Bass Islands.

The majority of non-marsh areas around the Davis-Besse site are used for farming. The major crops include soybeans, corn, wheat, oats, hay, fruits and vegetables. Meat and dairy animals are not major sources of income in the area. The main industries within five miles of the site are located in Erie Industrial Park, about four miles southeast of the station.

Most of the remaining marshes in the area have been maintained by private hunting clubs, the U.S. Fish and Wildlife Service, and the Ohio Department of Natural Resources, Division of Wildlife. The State of Ohio Department of Natural Resources operates many wildlife and recreational areas within 10 miles of the Station. These include Magee Marsh, Turtle Creek and Crane Creek Wildlife Research Station. Magee Marsh and Turtle Creek lie between three and six miles WNW of the Station. Magee Marsh is a wildlife preserve that allows public fishing, nature study, and a controlled hunting season. Turtle Creek is a wooded area at the southern end of Magee Marsh, which offers boating and fishing. Crane Creek is adjacent to Magee Marsh, and is a popular bird watching and hunting area. The Ottawa National Wildlife Refuge, which is operated by the U.S. Fish and Wildlife Service, lies four to nine miles WNW of the Site, immediately west of Magee Marsh.

References

1. "Basic Radiation Protection Criteria," Report No. 39, National Council on Radiation Protection and Measurement, Washington, D.C. (January 1971).
2. "Cesium-137 from the Environment to Man: Metabolism and Dose," Report No. 52, National Council on Radiation Protection and Measurements, Washington, D.C. (January 1977).
3. Deutch, R., "Nuclear Power, A Rational Approach," Fourth edition, GP Courseware, Inc., Columbia, MD. (1987).
4. Eisenbud, M., "Environmental Radioactivity," Academic Press, Inc., Orlando, FL. (1987).
5. "Environmental Radiation Measurements," Report No. 50, National Council on Radiation Protection and Measurements, Washington, D.C. (December 1976).
6. "Exposure of the Population in the United States and Canada from Natural Background Radiation," Report No. 94, National Council on Radiation Protection and Measurements, Washington, D.C. (December 1987).
7. "Health Effects of Exposure to Low Levels of Ionizing Radiation: BEIR V," Committee on the Biological Effects of Ionizing Radiations, Board on Radiation Effects Research Commission on Life Sciences, National Research Council, National Academy Press, Washington, D.C. (1990).
8. Hendee, William R., and Doege, Theodore C., "Origin and Health Risks of Indoor Radon," Seminars in Nuclear Medicine, Vol. XVIII, No. 1, American Medical Association, Chicago, IL. (January 1987).
9. Hurley, P., "Living with Nuclear Radiation," University of Michigan Press, Ann Arbor, MI. (1982).
10. "Indoor Air Quality Environmental Information Handbook: Radon," prepared for the United States Department of Energy, Assistant Secretary for Environment, Safety and Health, by Mueller Associated, Inc., Baltimore, MD. (January 1986).
11. Introduction to Davis-Besse Nuclear Power Station Plant Technology, July 1992, Rev. 4, Pg.2-9.
12. "Ionizing Radiation Exposure of the Population of the United States," Report No. 93, National Council on Radiation Protection and Measurements, Washington, D.C. (September 1987).
13. "Natural Background Radiation in the United States," Report No. 45, National Council on Radiation Protection and Measurements, Washington, D.C. (November 1975).

14. “Nuclear Energy Emerges from 1980s Poised for New Growth,” U.S. Council for Energy Awareness, Washington, D.C. (1989).
15. “Nuclear Power: Answers to Your Questions,” Edison Electric Institute, Washington, D.C. (1987).
16. “Public Radiation Exposure from Nuclear Power Generation in the United States,” Report No. 92, National Council on Radiation Protection and Measurement, Washington, D.C. (December 1987).
17. “Radiation Protection Standards,” Department of Environmental Sciences and Physiology and the Office of Continuing Education, Harvard School of Public Health, Boston, MA. (July 1989).
18. Radiological Environmental Monitoring Report for Three Mile Island Station,” GPU Nuclear Corporation, Middletown, PA. (1985).
19. “Sources, Effects and Risk of Ionizing Radiation,” United Nations Scientific Committee on the Effects of Atomic Radiation, 1988 Report to the General Assembly, United Nations, New York (1988).
20. “Standards for Protection Against Radiation,” Title 10, Part 20, Code of Federal Regulation, Washington, D.C. (1988).
21. “Domestic Licensing of Production and Utilization Facilities,” Title 10, Part 50, Code of Federal Regulations, Washington, D.C. (1988).
22. “Environmental Radiation Protection Standard for Nuclear Power Operations,” Title 40, Part 190, Code of Federal Regulations, Washington, D.C. (1988).
23. “Tritium in the Environment,” Report No. 62, National Council on Radiation Protection and Measurement, Washington, D.C. (March 1979).
24. Site Environmental Report, Fernald Environmental Management Project, United States Department of Energy (June 1993).
25. “Exposure from the Uranium Series with Emphasis on Radon and its Daughters” Report No. 77, National Council on Radiation Protection and Measurements, Washington, D.C. (1984).
26. “Evaluation of Occupational and Environmental Exposures to Radon and Radon daughter in the United States,” Report No. 78, National Council on Radiation Protection and Measurements, Washington, D.C. (1984).
27. Nuclear Energy Institute (NEI) website, www.nei.org.
28. “Ionizing Radiation Exposure of the Population of the United States (2009)” Report No. 160, National Council on Radiation Protection and Measurements, Bethesda, MD, p. 403 (2020)

Radiological Environmental Monitoring Program

Introduction

The **Radiological Environmental Monitoring Program (REMP)** was established at Davis-Besse for several reasons: to provide a supplementary check on the adequacy of containment and effluent controls, to assess the radiological impact of the Station's operation on the surrounding area, and to determine compliance with applicable radiation protection guides and standards. The REMP was established in 1972, five years before the Station became operational. This **pre-operational surveillance program** was established to describe and quantify the radioactivity, and its variability, in the area prior to the operation of Davis-Besse. After Davis-Besse became operational in 1977, the **operational surveillance program** continued to measure radiation and radioactivity in the surrounding areas.

A variety of environmental samples are collected as part of the REMP at Davis-Besse. The selection of sample types is based on the established critical pathways for the transfer of radionuclides through the environment to humans. The selection of sampling locations is based on sample availability, local meteorological and hydrological characteristics, local population characteristics, and land usage in the area of interest. The selection of sampling frequencies for the various environmental media is based on the radionuclides of interest, their respective half-lives, and their effect in both biological and physical environments.

A description of the REMP at Davis-Besse is provided in the following section. In addition, a brief history of analytical results for each sample type collected since 1972, and a more detailed summary of the analyses performed during this reporting period is also provided.

Pre-Operational Surveillance Program

The federal government requires nuclear facilities to conduct radiological environmental monitoring prior to constructing the facility. This pre-operational surveillance program is for the collection of data needed to identify critical pathways, including selection of radioisotope and sample media combinations for the surveillance conducted after facility operations begin. Radio-chemical analyses performed on samples should include nuclides that are expected to be released during normal facility operations, as well as typical fallout radionuclides and natural background radioactivity. All environmental media with a potential to be affected by facility operation, as well as those media directly in the critical pathways, should be sampled during the pre-operational phase of the environmental surveillance program.

The pre-operational surveillance design, including nuclide/media combinations, sampling frequencies and locations, collection techniques and radiochemical analyses performed, should be carefully considered and incorporated in the design of the operational surveillance program. In this manner, data can be compared in a variety of ways (for example: from year to year, location to

location, etc.) in order to detect any radiological impact the facility has on the surrounding environment. Data collection during the pre-operational phase should be planned to provide a comprehensive database for evaluating any future changes in the environment surrounding the plant.

Davis-Besse began its pre-operational environmental surveillance program five years before the Station began producing power for commercial use in 1977. Data accumulated during that time provides an extensive database from which Station personnel are able to identify trends in the radiological characteristics of the local environment. The environmental surveillance program at Davis-Besse will continue after the Station has reached the end of its economic viability and de-commissioning has begun.

Operational Surveillance Program Objectives

The operational phase of the environmental surveillance program at Davis-Besse was designed with the following objectives in mind:

- to fulfill the obligations of the radiological surveillance sections of the Station's Technical Specifications and Offsite Dose Calculation Manual
- to determine whether any significant increase in the concentration of radionuclides in critical pathways occurs
- to identify and evaluate the buildup, if any, of radionuclides in the local environment, or any changes in normal background radiation levels
- to verify the adequacy of Station controls for the release of radioactive materials

Quality Assurance

An important part of the environmental monitoring program at Davis-Besse is the **Quality Assurance (QA) Program**, which is conducted in accordance with the guidelines specified in NRC Regulatory Guide 4.15, "Quality Assurance for Radiological Monitoring Programs". The QA Program is designed to identify possible deficiencies in the REMP so that corrective actions can be initiated promptly. Davis-Besse's Quality Assurance program also provides confidence in the results of the REMP through:

- performing regular audits (investigations) of the REMP, including a careful examination of sample collection techniques and record keeping
- performing audits of contractor laboratories which analyze the environmental samples
- requiring analytical contractor laboratories to participate in the United States Environmental Protection Agency Cross Check Program
- requiring analytical contractor laboratories to split samples for separate analysis followed by a comparison of results
- splitting samples prior to analysis by independent laboratories, and then comparing the results for agreement

- requiring analytical contractor laboratories to perform in-house spiked sample analyses

Quality Assessment audits and inspections of the Davis-Besse REMP are performed by the Energy Harbor QA Department and the NRC. In addition, the Ohio Department of Health (ODH) also performs independent environmental monitoring in the vicinity of Davis-Besse. The types of samples collected, and list of sampling locations used by the ODH were incorporated in Davis-Besse's REMP, and the analytical results from their program can be compared to Davis-Besse's. This practice of comparing results from identical samples, which are collected and analyzed by different parties, provides a valuable tool to verify the quality of the laboratories' analytical procedures and data generated.

In 1987, environmental sampling personnel at Davis-Besse incorporated their own QA program into the REMP. Duplicate samples, called quality control samples, were collected at several locations. These duplicate samples were assigned different identification numbers than the numbers assigned to the routine samples. This ensured that the analytical laboratory would not know the samples were identical. The laboratory results from analysis of the quality control samples and the routine samples could then be compared for agreement. Quality control sampling has been integrated into the program and has become an important part of the REMP since 1987. Quality control sampling locations are changed frequently in order to duplicate as many sampling locations as possible, and to ensure the contract laboratory has no way of correctly pairing a quality control sample with its routine sample counterpart.

Program Description

The Radiological Environmental Monitoring Program at Davis-Besse is conducted in accordance with Title 10, Code of Federal Regulations, Part 50; the Davis-Besse Nuclear Power Station Operating License, Sections 5.6.1 and 5.6.2 of Davis-Besse Technical Specifications, the Davis-Besse Offsite Dose Calculation Manual (ODCM) Section 6.0 and Station Operating Procedures. Samples are collected weekly, monthly, quarterly, semiannually, or annually, depending upon the sample type and nature of the radionuclides of interest. Environmental samples collected by Davis-Besse personnel are divided into four general types:

- **atmospheric** -- including samples of airborne particulate and airborne radioiodine
- **terrestrial** -- including samples of milk, ground water, broadleaf vegetation
- **aquatic** -- including samples of untreated and treated surface water, fish, and shoreline sediments
- **direct radiation** -- measured by thermoluminescent dosimeters

All environmental samples are labeled using a sampling code. Table 2 provides the sample codes and collection frequency for each sample type.

REMP samples are collected onsite, and offsite up to 25 miles away from the Station. Sampling locations are divided into two general categories: Indicator and Control. Indicator locations are those which would be most likely to display the effects caused by the operation of Davis-Besse and are usually located within five miles of the station. Control locations are those which should

be unaffected by Station operations and are more than five miles from the Station. Data from Indicator locations are compared with data from the Control locations. This comparison allows REMP personnel to take into account naturally-occurring background radiation or fallout from weapons testing in evaluating any radiological impact Davis-Besse has on the surrounding environment. Data from Indicator and Control locations are also compared with pre-operational data to determine whether significant variations or trends exist.

Since 1987 the REMP has been reviewed and modified to develop a comprehensive sampling program adjusted to the current needs of the utility. Modifications have included additions of sampling locations above the minimum amount required in the ODCM and increasing the number of analyses performed on each sample. In addition to adding new locations, duplicate or Quality Control (QC) sample collection is performed to verify the accuracy of the lab analyzing the environmental samples.

Over 1,260 samples were collected and over 1,460 analyses were performed during 2023. Table 3 shows the number of the sampling location and number collected for each type.

Table 2: Sample Codes and Collection Frequencies

Sample Type	Sample Code	Collection Frequency
Direct Radiation	TLD	Quarterly
Airborne Particulate / Radioiodine	AP / AI	Weekly
Surface Water Untreated	SWU	Weekly (Composited Monthly)
Surface Water Treated	SWT	Weekly (Composited Monthly)
Ground Water	WW	Quarterly (periodically for Control location)
Shoreline Sediment	SED	Semiannually
Milk	MIL	Monthly semi-monthly during grazing season (when applicable)
Fish	FIS	Annually
Broadleaf Vegetation	BLV	Monthly (when available)

Table 3: Sample Collection Summary

Sample Type (Remarks)	Collection Type ^a / Frequency ^b	Number of Locations	Number of Samples Collected	Number of Samples Missed
Atmospheric				
Airborne Particulate (AP)	C/W	9	458	10(c)
Airborne Radioiodine (AI)	C/W	9	458	10(c)
Terrestrial				
Milk (MIL)	G/M(d)	1	2	0
Ground Water (WW)	G/Q(e)	1	1(e)	0
Broadleaf Vegetation (BLV)	G/M	4	21	0
Aquatic				
Surface Water Untreated (SWU)	G/WM	3	36	0
	G/WM(f)	1	12	0
Surface Water Treated (SWT)	G/WM	2	24	0
	G/WM(f)	1	12	0
Fish (2 species) (FIS)	G/A	2	4	0
Shoreline Sediment (SED)	G/SA	2	4	0
Direct Radiation				
Thermoluminescent Dosimeters (TLD)	C/Q(f)	58	231	1(c)

(a) Type of Collection: C = Continuous; G = Grab; Comp = Composite

(b) Frequency of Collection: WM = Weekly with composite Monthly; W = Weekly, M = Monthly; Q = Quarterly when available; SA = Semiannually; A = Annually

(c) **TLD: T-6/T-80 (T-80 is a duplicate sample) and T-68** found with poles bent/knocked over during the quarterly collection, analysis revealed no effect on TLD results. **T-54** TLD found missing during the quarterly collection **AP/AI**: Several air samplers collected less than the number expected of ours per week (approximately 168 hours) in each case there was sufficient sample to send to the contract lab for analysis. **T-1** 77.3/ 168 hours – issue with pump totalizer, calculated run time value used, full sample collected. **T-1** 76/ 168 hours – issue with pump totalizer, calculated run time value used, full sample collected. **T-4** 79.3/168 hours – storm-related. **T-7** 185/189 hours – storm-related. **T-7** 163.5/168 hours storm-related. **T-9** 160.5/166 hours – storm-related. **T-11** 160.5/168 hours – municipal power-outage. **T-11** 85/168 hours – hours – issue with pump totalizer, calculated run time value used, full sample collected. **T-11** 163.5/168 hours – municipal power-outage. **T-27** 161/168 hours – storm-related.

(d) There are no milking animals within the vicinity (≤ 8 km) of the Davis-Besse Nuclear Power Station. Control samples were collected twice during the grazing season and analyzed for baseline purposes in the event that an animal is introduced within 8 km from the station in the future.

(e) There are no ground water wells within the vicinity of the Davis-Besse Nuclear Power Station that produce ground water for drinking or irrigation purposes. The community is served by the Carroll Township Water Plant. One Control location was periodically sampled during 2023 for baseline data to compare with in the event a new well is drilled in a down-gradient location where it might monitor a plume if any contamination of ground water were to occur.

(f) Includes quality control location. SWU and SWT QC included in weekly sample/composited monthly.

Sample Analysis

When environmental samples are analyzed, several types of measurements may be performed to provide information about the radionuclides present. The major analyses that are performed on environmental samples collected for the Davis-Besse REMP include:

- **Gross beta analysis** measures the total amount of beta emitting radioactive material present in a sample. Beta radiation may be released by many different radionuclides. Since beta decay gives a continuous energy spectrum rather than the discrete lines or "peaks" associated with gamma radiation, identification of specific beta emitting nuclides is much more difficult. Therefore, gross beta analysis only indicates whether the sample contains normal or abnormal concentrations of beta emitting radionuclides; it does not identify specific radionuclides. Gross beta analysis merely acts as a tool to identify samples that may require further analysis.
- **Gamma spectroscopy analysis** provides more specific information than gross beta analysis. Gamma spectroscopy analysis identifies each gamma emitting radionuclide present in the sample, and the amount of each nuclide present. Each radionuclide has a very specific "fingerprint" that allows for swift and accurate identification. For example, gamma spectroscopy analysis can be used to identify the presence and amount of Iodine-131 in a sample. Iodine-131 is a man-made radioactive isotope of Iodine that may be present in the environment as a result of fallout from nuclear weapons testing, routine medical uses in diagnostic tests, and routine releases from nuclear power stations.
- **Tritium analysis** indicates whether a sample contains the radionuclide Tritium (H-3) and the amount present. As discussed in the Introduction section, Tritium is an isotope of Hydrogen that emits low energy beta particles.
- **Strontium analysis** identifies the presence and amount of Strontium-89 and Strontium-90 in a sample. These man-made radionuclides are found in the environment as a result of fallout from nuclear weapons testing. Strontium is usually incorporated into the pool of the biosphere. In other words, it accumulates in living organisms, where it is stored in the bone tissue. The principal Strontium exposure pathway is via milk produced by cattle grazed on pastures exposed to deposition from airborne releases.
- **Direct Radiation Dose** measured by thermoluminescent dosimeters (TLD) while in the field are determined by a special laboratory procedure. Table 4 provides a list of the analyses performed on environmental samples collected for the Davis-Besse REMP.
- Because of the extremely low levels of radioactivity in the environment, the amount detected may be below the detection limit for the particular type of analysis used. The *a posteriori* lower limit of detection (LLD), sometimes called the Minimum Detectable Activity (MDA), is the smallest amount of sample activity that can be detected with a reasonable degree of confidence at a predetermined level. When a measurement of radioactivity is reported as less than LLD (<LLD), it means that the radioactivity is so low that it cannot be accurately measured with any degree of confidence by a particular method for an individual analysis.

Table 4: Radiochemical Analyses Performed on REMP Samples

Sample Type	Analyses Performed
Direct Radiation Monitoring	
Thermoluminescent Dosimeters	Gamma Dose
Atmospheric Monitoring	
Airborne Particulate	Gross Beta Gamma Spectroscopy Strontium-89 Strontium-90
Airborne Radioiodine	Iodine-131
Aquatic Monitoring	
Surface Water, Untreated	Gross Beta Gamma Spectroscopy Tritium Strontium-89 Strontium-90
Surface Water, Treated (Drinking Water)	Gross Beta Gamma Spectroscopy Tritium Strontium-89 Strontium-90 Iodine-131
Shoreline Sediment	Gamma Spectroscopy
Fish	Gross Beta Gamma Spectroscopy

**Table 4: Radiochemical Analyses Performed on REMP Samples
(continued)**

Sample Type	Analyses Performed
Terrestrial Monitoring	
Milk	Gamma Spectroscopy Iodine-131 Strontium-89 Strontium-90 Stable Calcium Stable Potassium
Groundwater	Gross Beta Gamma Spectroscopy Tritium Strontium-89 Strontium-90
Broadleaf Vegetation	Gamma Spectroscopy Iodine-131 Strontium-89 Strontium-90

Sample History Comparison

The measurement of radioactive materials present in the environment will depend on factors such as weather or variations in sample collection techniques or sample analysis. This is one reason why the results of sample analyses are compared with results from other locations and from earlier years. Generally, the results of sample analyses are compared with pre-operational and operational data. Additionally, the results of Indicator and Control locations are also compared. This allows REMP personnel to track and trend the radionuclides present in the environment, to assess whether a buildup of radionuclides is occurring and to determine the effects, if any, the operation of Davis-Besse is having on the environment. If any unusual activity is detected, it is investigated to determine whether it is attributable to the operation of Davis-Besse, or to some other source such as nuclear weapons testing.

Direct Radiation Monitoring

- **Thermoluminescent Dosimeters (TLDs):** The quarterly and annual gamma TLD dose rates for the current reporting period were evaluated using the methodologies presented in ANSI/HPS N13.37-2014 (R2019), “Environmental Dosimetry – Criteria for System Design and Implementation,” and U.S. Nuclear Regulatory Commission Regulatory Guide

4.13, Revision 2, “Environmental Dosimetry – Performance Specifications, Testing, and Data Analysis. Evaluation of quarterly TLDs resulted in determination of the Facility Related Dose (FRD – actual amount of dose detected in a monitoring period above background attributed to the facility) for each measuring location. Davis-Besse sampling locations includes two inner ring TLDs in each meteorological sector in the general area of the Unrestricted Area Boundary, as well as two TLDs in each outer ring sector (excluding those sectors that extend into Lake Erie) located 6 to 8 km from the station. Multiple TLDs are also placed in special interest areas (Sand Beach and Long Beach local communities, Oak Harbor, and Port Clinton). The evaluation of FRD at each TLD location determined that all quarterly and annual doses were considered “non-detectable”. No increase above natural background radiation attributable to Davis-Besse was observed in 2023.

Atmospheric Monitoring

- **Airborne Particulates:** No radioactive particulates have been detected as a result of Davis-Besse's operation. Only natural (Gross Beta, Beryllium-7, and Potassium-40) and fallout radioactivity from nuclear weapons testing and the 1986 nuclear accident at Chernobyl have been detected.
- **Airborne Radioiodine:** Radioactive Iodine-131 fallout was detected in 1976, 1977, and 1978 from nuclear weapons testing, and in 1986 (0.12 to 1.2 picocuries per cubic meter) from the nuclear accident at Chernobyl. Iodine-131 was detected at all ten air sample locations over a four-week period between March 22 and April 12, 2011 following the Fukushima Daiichi Nuclear Station disaster in Japan.

Aquatic Monitoring

- **Surface Water (Untreated and Treated):** Historically, Tritium has been detected sporadically at very low levels in treated and untreated surface water at both Control and Indicator locations. In 2023, Tritium was detected above the Lower Limit of Detection (330 pCi/L) in the Untreated surface water samples at locations T-3 (two times), T-11 (zero times), and T-22 (one time). All other untreated surface water samples in 2023 were less than the 330 pCi/L lower limit of detection value for Tritium in water. Tritium was detected at slightly above the LLD (result: 390 pCi/L) in one Treated surface water sample during 2023 at location T-22 .
- **Shoreline Sediments:** Only natural background radiation from Potassium-40 was detected in 2023. Historically, material from atmospheric nuclear testing and the 1986 nuclear accident at Chernobyl have been detected.
- **Fish:** Only natural-occurring radioactive material (Gross beta and Potassium-40) was detected in samples from 2023.

Terrestrial Monitoring:

- **Milk:** Iodine-131 from nuclear weapons testing fallout was detected in 1976 and 1977 at concentrations of 1.36 and 23.9 picocuries/liter respectively. In 1986, concentrations of 8.5 picocuries/liter were detected from the nuclear accident at

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Chernobyl. Iodine was not detected in REMP milk samples following the Fukushima Daiichi Nuclear Station disaster in 2011. Iodine-131 was not detected in any REMP Milk Control samples in 2023. Strontium-90 activity of 0.70 pCi/L (slightly above the detection limit) was identified in one sample from the control location. Naturally occurring Potassium 40 was seen in all milk samples taken from the control location (mean value: 1,335 pCi/L)

- **Groundwater:** Tritium was not detected above the lower limit of detection during 2023 in the REMP groundwater sample.
- **Broadleaf Vegetation:** Only naturally-occurring Potassium-40 (ranging from 0.25 – 5.05 pCi/g wet) was detected in broad-leaf vegetable samples in 2023.

2023 Program Anomalies

There were no REMP sample anomalies noted in 2023.

In 2023, at airborne monitoring stations, there were multiple occasions where power was lost during the week due to factors such as power outages or severe weather (see Table 3 for details).

Ten events occurred at indicator air sampler locations (T-1, T-4, T-7, T-9, T-11, and T-27) , however, in each case, sufficient sample was available for analysis of the weekly samples at the contract laboratory and the results were consistent with the normal weekly sample results. Despite the various events, the minimum number of air samples required by the ODCM was always available and collected for analysis.

Direct radiation monitor (TLD) T-54 was found missing during collection after the first quarter of 2023; however, ODCM requirements were maintained because another direct radiation monitor was present in the same sector.

Abnormal Releases

There were no abnormal liquid or gaseous releases occurring during 2023.

Atmospheric Monitoring

Air Samples

Environmental air sampling is conducted to detect any increase in the concentration of airborne radionuclides that may be inhaled by humans or serve as an external radiation source. Inhaled radionuclides may be absorbed from the lungs, gastrointestinal tract, or from the skin. Air samples collected by the Davis-Besse REMP include airborne particulate and airborne radioiodine.

Samples are collected weekly with low volume vacuum pumps, which draw a continuous sample through a glass fiber filter and charcoal cartridge at a rate of approximately two cubic foot per minute. Airborne particulate samples are collected on 47 mm diameter filters. Charcoal cartridges are installed downstream of the particulate filters to sample for the airborne radioiodine.

The airborne samples are sent to an offsite contract laboratory for analysis. At the laboratory, the airborne particulate filters are stored for 72 hours before they are analyzed to allow for the decay of naturally occurring short-lived radionuclides. Gross beta analysis is performed on each of the weekly filter samples. However, due to the short half-life of Iodine-131 (approximately eight days), the weekly airborne radioiodine cartridges are analyzed upon receipt by the contract laboratory.

Airborne Particulate

Davis-Besse has the following continuous air samplers that monitor for air particulate and radioiodine. There are seven Indicator locations, including four around the site boundary (T-1, T-2, T-3, and T-4), and at Magee Marsh Wildlife Area (T-27). Additionally, there are Indicator locations at the two nearest communities of Sand Beach (T-7) and Oak Harbor (T-9). Control stations are set up in Port Clinton (T-11) and Lindsey (T-32).



Each quarter, the filters from each location are combined (composited) and analyzed for gamma-emitting radionuclides, as well as Strontium-89 and Strontium-90. Beta-emitting radionuclides (gross beta) were detected at an average concentration of 0.026 pCi/m^3 at Unrestricted Area Boundary locations, 0.026 pCi/m^3 at Community locations, and 0.027 pCi/m^3 at Control locations. Beryllium-7 was detected by the gamma spectroscopic analysis of the quarterly composites. Beryllium-7 is a naturally occurring radionuclide produced in the upper atmosphere by cosmic radiation. Historically, naturally-occurring Potassium-40 was the only other gamma-emitting radionuclide that was detected at levels slightly above its LLDs, however, in 2023, Potassium-40 all results were less than the LLD. In 2023, Strontium-89 and Strontium-90 were not detected above their respective LLDs in any airborne samples. These results show that no adverse change

in radioactivity in air samples is attributable to the operation of the Davis-Besse Nuclear Power Station in 2023.

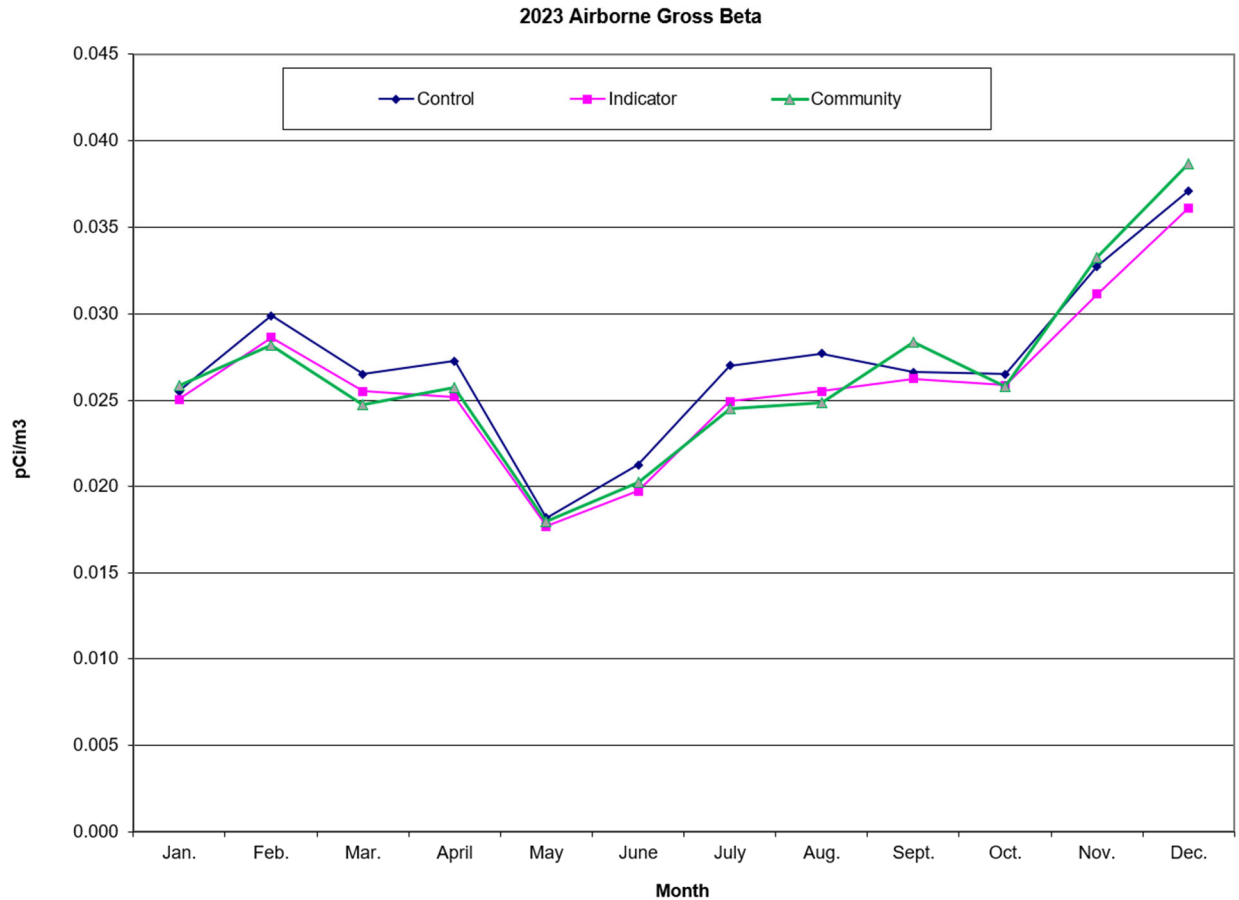


Figure 10: Airborne Gross Beta. Concentrations of beta-emitting radionuclides in airborne particulate samples were nearly identical and trended together at Indicator, Control, and Community locations during 2023.

Airborne Iodine-131

Airborne Iodine-131 samples are collected at the same nine locations as the airborne particulate samples. Charcoal cartridges are placed downstream of the particulate filters. These cartridges are collected weekly, sealed in separate collection bags and sent to the laboratory for gamma analysis. Iodine-131 was not detected above the method LLD in 2023.

Table 5: Air Monitoring Locations

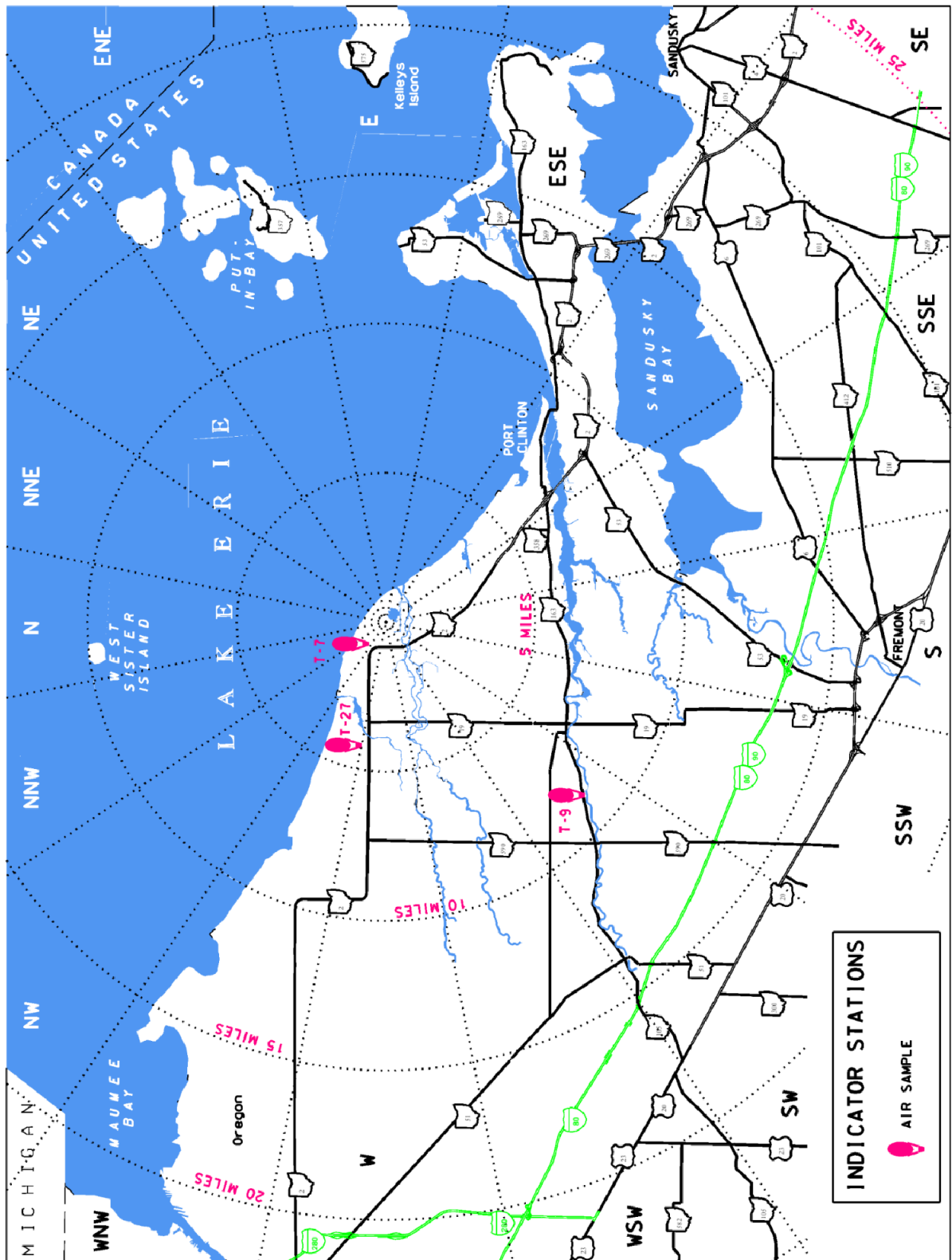
Sample Location Number	Type of Location	Location Description
T-1	I	Site boundary, 0.6 miles ENE of Station
T-2	I	Site boundary, 0.9 miles E of Station
T-3	I	Site boundary, 1.4 miles ESE of Station
T-4	I	Site boundary, 0.8 miles S of Station
T-7	I, CM	Sand Beach, main entrance, 0.9 miles NW of Station
T-9	I, CM	Oak Harbor Substation, 6.8 miles SW of Station
T-11	C	Ottawa County Regional Water Intake Facility, 9.5 miles SE of Station
T-27	I	Magee Marsh Wildlife Area, 5.3 miles WNW of Station
T-32	C	Emergency Operations Facility, 15.5 miles SW of Station

I = Indicator C = Control CM = Community

[illegible]

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DAVIS-BESSE NUCLEAR POWER STATION RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM



DB: 11-29-21 DFN-F / SCHED/SKZ815.DGN (C-4)

Figure 12: Air Sampler Locations Map – Offsite Indicator

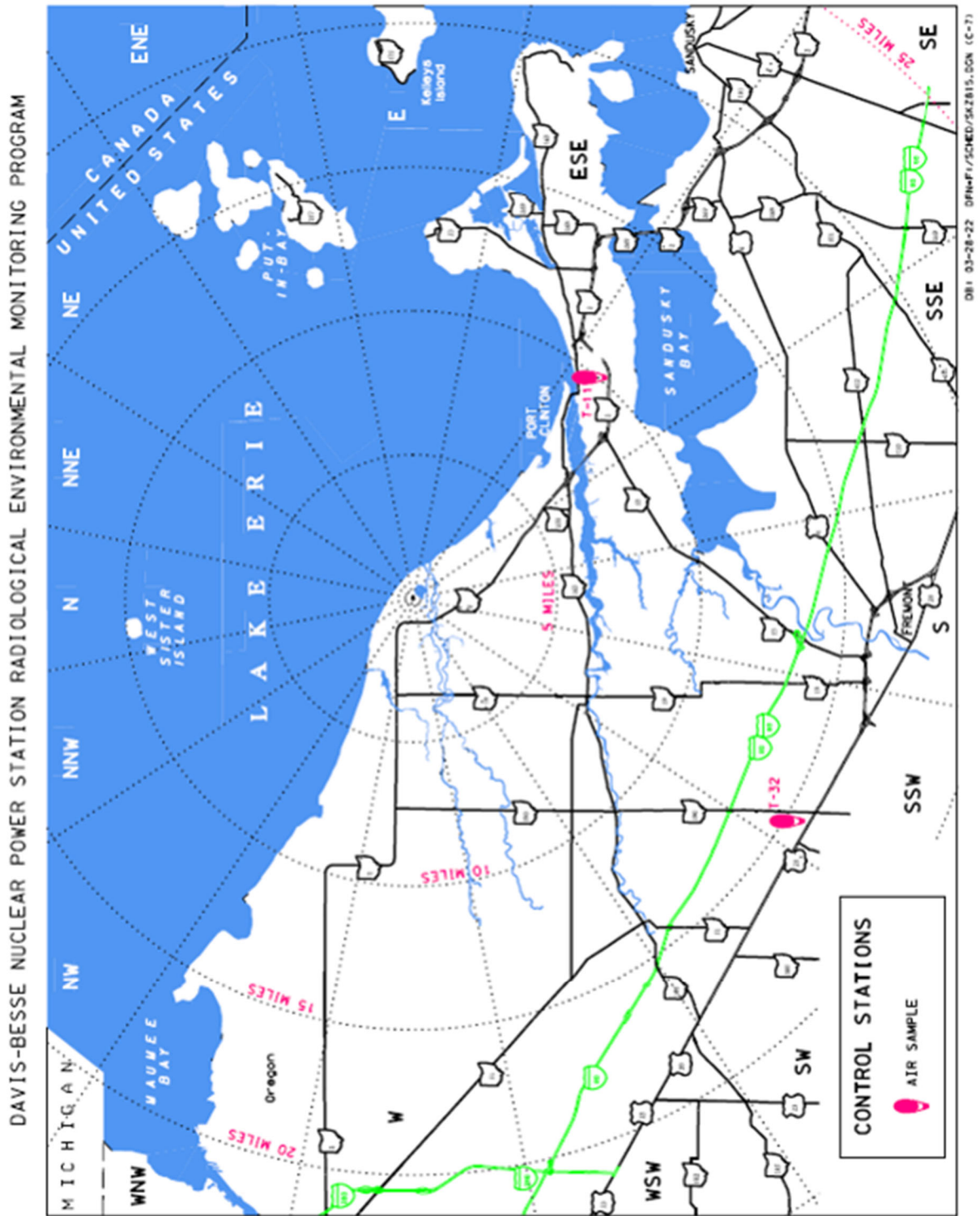


Figure 13: Air Sampler Locations Map – Control

Terrestrial Monitoring

The collection and analysis of groundwater, milk, and broad leaf vegetation provides data to assess the buildup of radionuclides that may be ingested by humans. These data provide information on the deposition of radionuclides from the atmosphere.

Many radionuclides are present in the environment due to sources such as cosmic radiation and fallout from nuclear weapons testing. Some of the radionuclides present are:

- **Tritium** (Hydrogen-3), present as a result of the interaction of cosmic radiation with the upper atmosphere and as a result of routine releases from nuclear facilities
- **Beryllium-7**, present as a result of the interaction of cosmic radiation with the upper atmosphere
- **Cesium-137**, a manmade radionuclide which has been deposited in the environment, (for example, in surface soils) as a result of fallout from nuclear weapons testing and routine releases from nuclear facilities
- **Potassium-40**, a naturally occurring radionuclide, of Geological origin, normally found throughout the environment (including in the human body)
- **Fallout radionuclides** from nuclear weapons testing, including Strontium-89, Strontium-90, Cesium-137, Cerium-141, Cerium-144, and Ruthenium-106. These radionuclides may also be released in minute amounts from nuclear facilities.

The radionuclides listed above are expected to be present in many of the environmental samples collected in the vicinity of Davis-Besse. The contribution of radionuclides from the operation of Davis-Besse is assessed by comparing sample results with pre-operational data, operational data from previous years, Control location data, and the types and amounts of radioactivity normally released from the Station in liquid and gaseous effluents.

Milk Samples

Milk sampling is a valuable tool in environmental surveillance because it provides a direct basis for assessing the buildup of radionuclides in the environment that may be ingested by humans. Milk from animals is collected and analyzed if available because it is one of the few foods commonly consumed soon after production. The milk pathway involves the deposition of radionuclides from atmospheric releases onto forage consumed by cows. The radionuclides present in the forage that cows eat are incorporated into the milk, which is then consumed by humans.

When available, milk samples are collected at Indicator and Control locations once a month from November through April, and twice a month between May and October. When grazing animals are present, sampling is increased in the summer when the herds are normally outside on pasture and not consuming stored feed. In December of 1993, Indicator location T-8 was eliminated from the sampling program, and no other Indicator milk site has existed since that time. The Control location is sampled periodically to document additional baseline data. In the event dairy animals

return to the area within five miles of the station, monthly sampling will resume to include them as an Indicator site.

In 2023, two milk Control samples were analyzed for Strontium-89, Strontium-90, Iodine-131, Potassium-40 (natural), Cesium-134, Cesium-137, Barium-140, and Lanthanum-140, as well as stable Calcium and Potassium.

Except for one milk sample with 0.70 pCi/L Strontium-90 (LLD: 0.50 pCi/L), the manmade radionuclides Strontium-89, Iodine-131, Barium-140, Lanthanum-140, Cesium-134, and Cesium 137 were not detected above their LLDs in all samples collected. The naturally occurring radioisotope Potassium-40 was detected above its LLD in all milk samples collected in 2023.

Since the chemistries of Calcium and Strontium are similar, as are Potassium and Cesium, organisms tend to deposit Cesium radioisotopes in muscle tissue and Strontium radioisotopes in bones. In order to detect the potential environmental accumulation of these radionuclides, the ratios of the Strontium radioactivity (pCi/l) to the concentration of Calcium (g/l), and the Cesium radioactivity (pCi/l) compared to the concentration of Potassium (g/l) were monitored in milk. These ratios are compared to standard values to determine if buildup is occurring. No statistically significant variations in the ratios were noted.

Table 6: Milk Control Location

Sample Location Number	Type of Location	Location Description
T-24	C	Dairy, Sandusky, 21.0 miles SE of Station

C = Control

Groundwater Samples

Soil acts as a filter and an ion exchange medium for most radionuclides; however, Tritium and other radionuclides such as Strontium-90 and Ruthenium-106 have a potential to seep through the soil and could reach groundwater. Davis-Besse does not discharge its liquid effluents directly to the ground.

The Offsite Dose Calculation Manual requires that groundwater samples shall be collected when groundwater wells are used for drinking or irrigation purposes in areas where the hydraulic gradient or recharge properties are suitable for contamination. Currently there are no groundwater wells near the station that are used for drinking or irrigation purposes or that are located in areas where the hydraulic gradient or recharge properties are suitable cause offsite contamination. Groundwater wells located within the Unrestricted Area Boundary are monitored in accordance with the NEI 07-07 program (reference Table 20).

REMP personnel periodically sample a groundwater well that produces drinking water that is closest to the station (5.3 miles) at Control sample location T-27 Magee Marsh Wildlife Area to collect data for comparison to the NEI 07-07 well data. These control groundwater samples are analyzed

for beta-emitting radionuclides, Tritium, Strontium-89, Strontium-90 and gamma-emitting radionuclides.

During the fall of 1998, the Carroll Township Water Plant began operation and offered residents a reliable, inexpensive source of high-quality drinking water. This water plant has replaced drinking water wells near Davis-Besse, as verified by the Ottawa County Health Department, and the Indicator groundwater sampling was discontinued for a year. Two beach wells were subsequently identified within five miles of the Station, however, none of them are operational today. Ottawa County Health Department was contacted and no new groundwater wells for potable water use were installed within 5-miles of Davis-Besse in 2023.

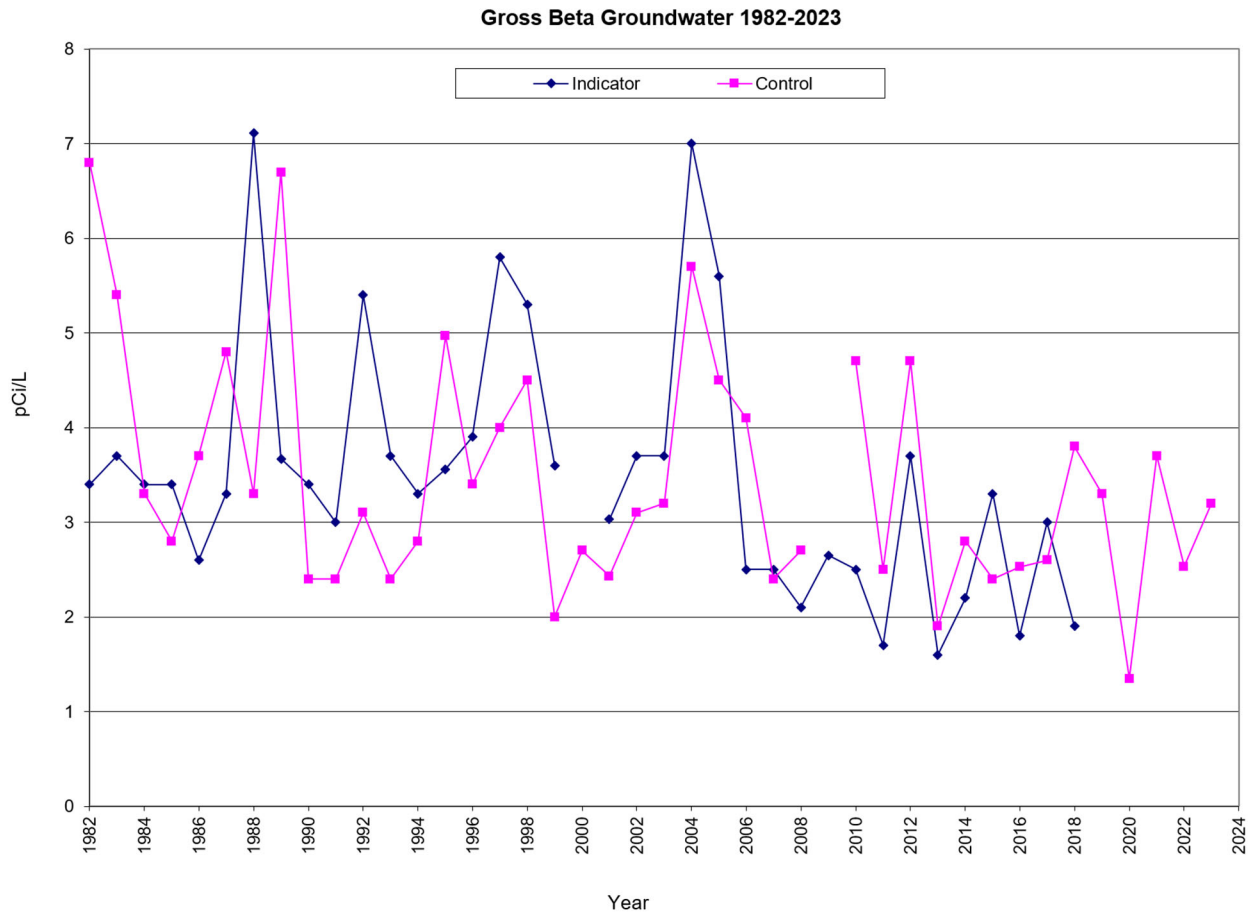


Figure 14: Gross Beta Ground Water 1982-2023. Shown above are the annual averages for gross beta activity in groundwater since 1982. There were no samples available from Indicator Monitor Wells in 2000 and no samples available from Control Monitor Wells in 2009. Indicator Monitor Wells have not been available to the REMP since 2018. The Control Monitor Well was abandoned by the owner after January, 2023.

One groundwater sample was collected in 2023 from the control monitor well. The Gross Beta result was 3.2 pCi/L (Figure 14). The results for all other parameters were less than their respective LLDs. This control monitor well location was abandoned by the owner after January 2023 and is no longer accessible. Figure 14 will be maintained for historical purposes and updated if a new monitor well is identified.

Due to the hydraulic gradient of the Davis-Besse site, groundwater flows back towards the Intake Structure. Furthermore, the onsite NEI 07-07 groundwater wells are monitored semi-annually and all results from these monitor wells in 2023 yielded Tritium results that were a fraction of regulatory limits (see Table 20). Therefore, local community groundwater resources were not affected by the operation of the Davis-Besse Nuclear Power Station.

Table 7: Groundwater Monitoring Locations

Sample Location Number	Type of Location	Location Description
T-27A	C	Magee Marsh Wildlife Area. Not used for irrigation or consumption.

C = Control I = Indicator

Broadleaf Vegetation Samples

Broadleaf vegetation also represents a direct pathway to humans. Broadleaf vegetation may become contaminated by deposition of airborne radioactivity (nuclear weapons fallout or airborne releases from nuclear facilities), or from irrigation water drawn from lake water which receives liquid effluents (hospitals, nuclear facilities, etc.). Radionuclides from the soil may be absorbed by the roots of the plants and become incorporated into the edible portions. During the growing season, edible broadleaf vegetation samples, such as kale and cabbage, are collected from gardens and farms in the vicinity of the Station and also from Control locations.

In 2023, broadleaf vegetation samples (cabbage and kale) were collected at two Indicator locations (T-17, T-19) and two Control locations (T-30, T-37). Broadleaf vegetation was collected once per month during the growing season. All samples were analyzed for gamma-emitting radionuclides, Strontium-89, Strontium-90, and Iodine-131.

Iodine-131 was not detected above the LLD of 0.060 pCi/g (wet) in any broadleaf samples. The only gamma-emitting radionuclide detected in the broadleaf vegetation samples was Potassium-40, which is naturally occurring and Geological in origin. Results of broadleaf vegetation samples were similar to results observed in previous years. Strontium-89 and Strontium-90 were not detected in any sample above their respective LLD in broadleaf vegetation samples at Control and Indicator locations.

Operation of Davis-Besse had no observable adverse radiological effect on the surrounding environment in 2023.

Table 8: Broadleaf Vegetation Locations

Sample Location Number	Type of Location	Location Description
T-17	I	Garden, 1.8 miles SSE of Station
T-19	I	Garden, 1.0 mile W of Station
T-30	C	Farm, 12.8 miles WNW of Station
T-37	C	Farm, 13.0 miles SW of Station

I = Indicator, C = Control

DAVIS-BESSE NUCLEAR POWER STATION RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

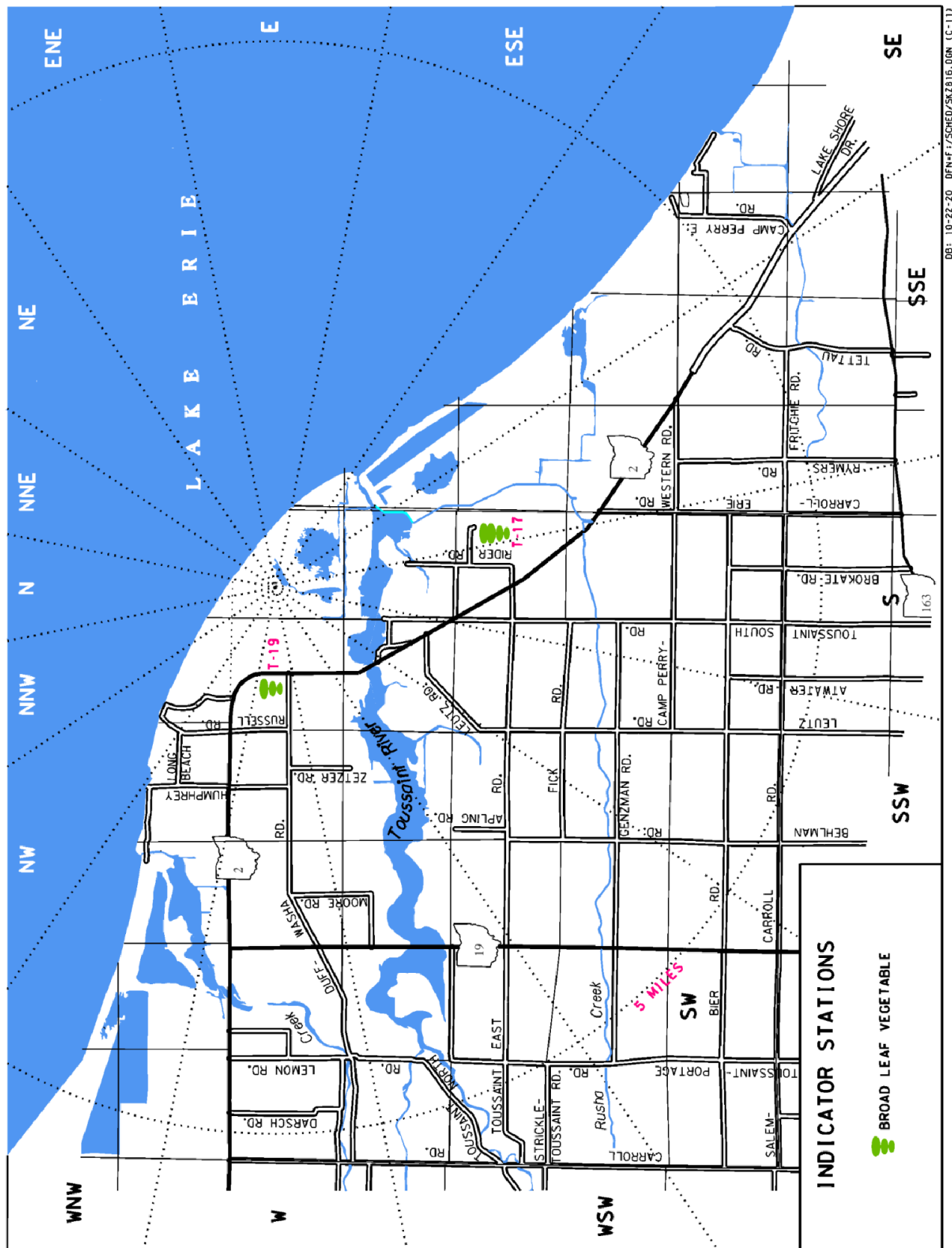
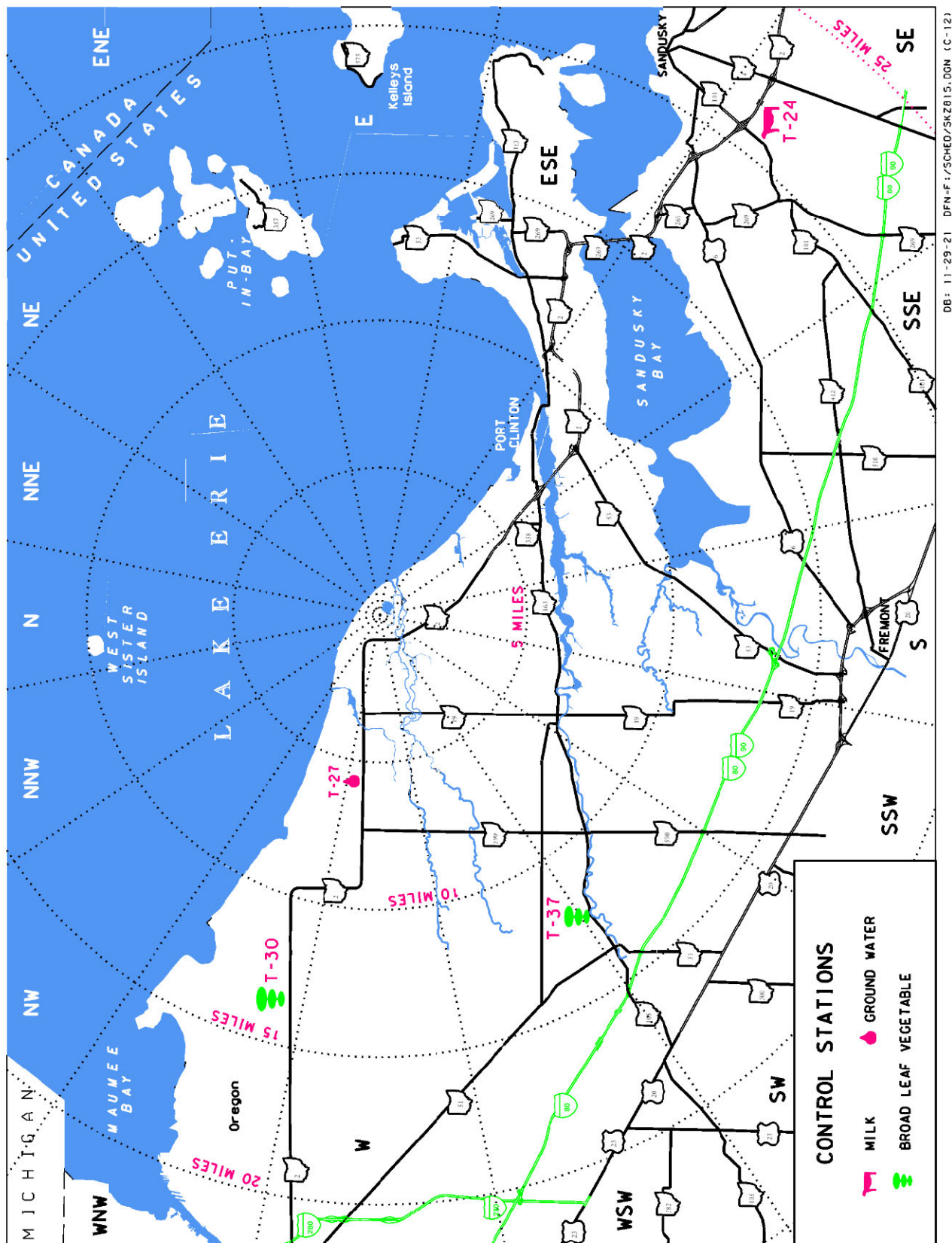


Figure 15: Broadleaf Vegetation – Indicator Map



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Aquatic Monitoring



Radionuclides may be present in Lake Erie from many sources including atmospheric deposition, run-off/soil erosion, and releases of radioactive material in liquid effluents from industry, hospitals or nuclear facilities. These sources provide two forms of potential exposure to radiation, external and internal. External exposure can occur from the surface of the water, shoreline sediments and from immersion (swimming) in the water. Internal exposure can occur from ingestion of radionuclides, either directly from drinking water, or as a result of the transfer of radionuclides through the aquatic food chain with eventual consumption of aquatic organisms, such as fish. To monitor these pathways, Davis-Besse collects samples of treated surface water (drinking water), untreated surface water (lake or river water), fish, and shoreline sediments.

Treated Surface Water (Drinking Water)

Treated surface water is water from Lake Erie, which has been processed for human consumption. Radiochemical analysis of this processed water provides a direct basis for assessing the dose to humans from ingestion of drinking water.

Samples of treated surface water were collected from one Indicator (T-22B) and one Control locations (T-11). These locations include the water treatment facilities for Carroll Township and Ottawa County. Samples were collected weekly and composited monthly. The monthly composites were analyzed for beta-emitting radionuclides (Gross Beta). The samples were also composited in a quarterly sample and analyzed for Strontium-89, Strontium-90, gamma-emitting radionuclides, and Tritium. One Quality Control sample was collected each month from one of the two routine sites on an alternating location basis.

In 2023, the annual average of beta-emitting radionuclides in Treated Surface Water for the Indicator location was less than LLD and the Control location was 1.2 pCi/L. These results are similar to previous years. Tritium was detected slightly above the CRDL* of 330 pCi/L in one sample from Indicator location T-22. The result from this sample was 390 pCi/L, which is small fraction of the EPA drinking water limit of 20,000 pCi/L and is also well below the NRC-required LLD of 2,000 pCi/L. All Tritium results from the Control location were less than the LLD.

Strontium-89 was not detected above its CRDL* of 1.1 pCi/l and Strontium-90 activity was not detected above its CRDL* of 0.9 pCi/l in any treated surface water samples in 2023. These results are similar to those of previous years and indicate that Davis-Besse has had no measurable radiological impact on treated surface water used to make drinking water in 2023.

Each month, weekly quality control samples were collected at different treated surface water sample locations. The results of the analyses from the quality control samples were within statistical agreement with the routine samples.

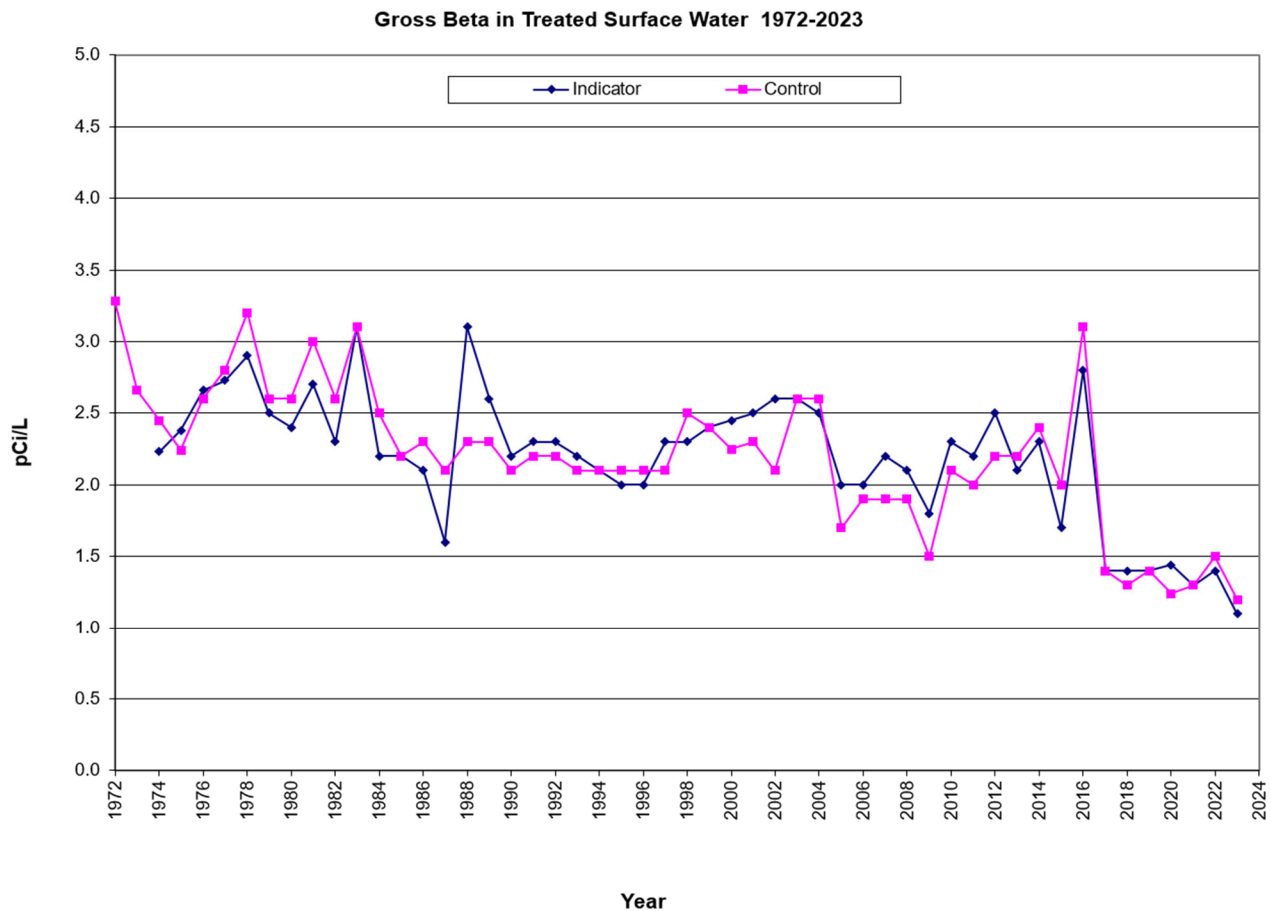


Figure 17: Gross Beta in Treated Surface Water 1972-2023. Since 1974, the annual concentrations of beta emitting radionuclides in treated surface water samples collected from Indicator locations have been consistent with those from Control locations. Davis-Besse has had no measurable radiological impact on treated surface water used to make drinking water.

* Contract Required Detection Limit, an LLD **below** the Offsite Dose Calculation Manual (ODCM) Table 6-3 LLD for this isotope and matrix or when an LLD is not provided for a radioisotope in a given sample matrix.

Table 9: Treated Surface Water Locations

Sample Location Number	Type of Location	Location Description
T-11	C	Ottawa County Regional Water Treatment Plant, 9.1 miles SE of Station
T-22B	I	Carroll Township Water Treatment Plant, sampled at Davis-Besse REMP lab
T-143	QC	Quality Control Sample

I = Indicator
C = Control
QC = Quality Control

Untreated Surface Water

Sampling and analysis of untreated surface water provides a method of assessing the dose to humans from external exposure from the lake surface as well as from immersion in the water. It also provides information on the radionuclides present, which may affect drinking water, fish, and irrigated crops.



Untreated water samples are collected, year-round, from water intakes used by nearby water treatment plants. Routine samples are collected at Port Clinton and Carroll Township. An additional Indicator sample is located at the mouth of the Toussaint River just prior to entering Lake Erie. These samples are collected weekly and composited monthly. The monthly composite is analyzed for beta-emitting radionuclides, Tritium, and gamma-emitting radionuclides. The samples are also composited quarterly and analyzed for Strontium-89 and Strontium-90. One QC sample was collected each month from one of the three routine sites on an alternating location basis.

Sample Results

For the routine untreated surface water samples taken in 2023, that are composited weekly, the gross beta results averaged of 2.1 pCi/L at Indicator locations and 1.7 pCi/L at the Control location.

A trace level of Tritium was detected in three Indicator location (T-3 and T-22A) samples and in no Control location (T-11) sample of Untreated Surface Water in 2023. In each case, the Tritium concentration was slightly above the CRDL of 330 pCi/L and significantly below regulatorily required detection and reporting limits.

Each month, weekly composited quality control samples of untreated water were analyzed from different locations. The results of the analyses from the quality control samples were consistent with the routine samples and averaged 1.7 pCi/L for gross beta activity.

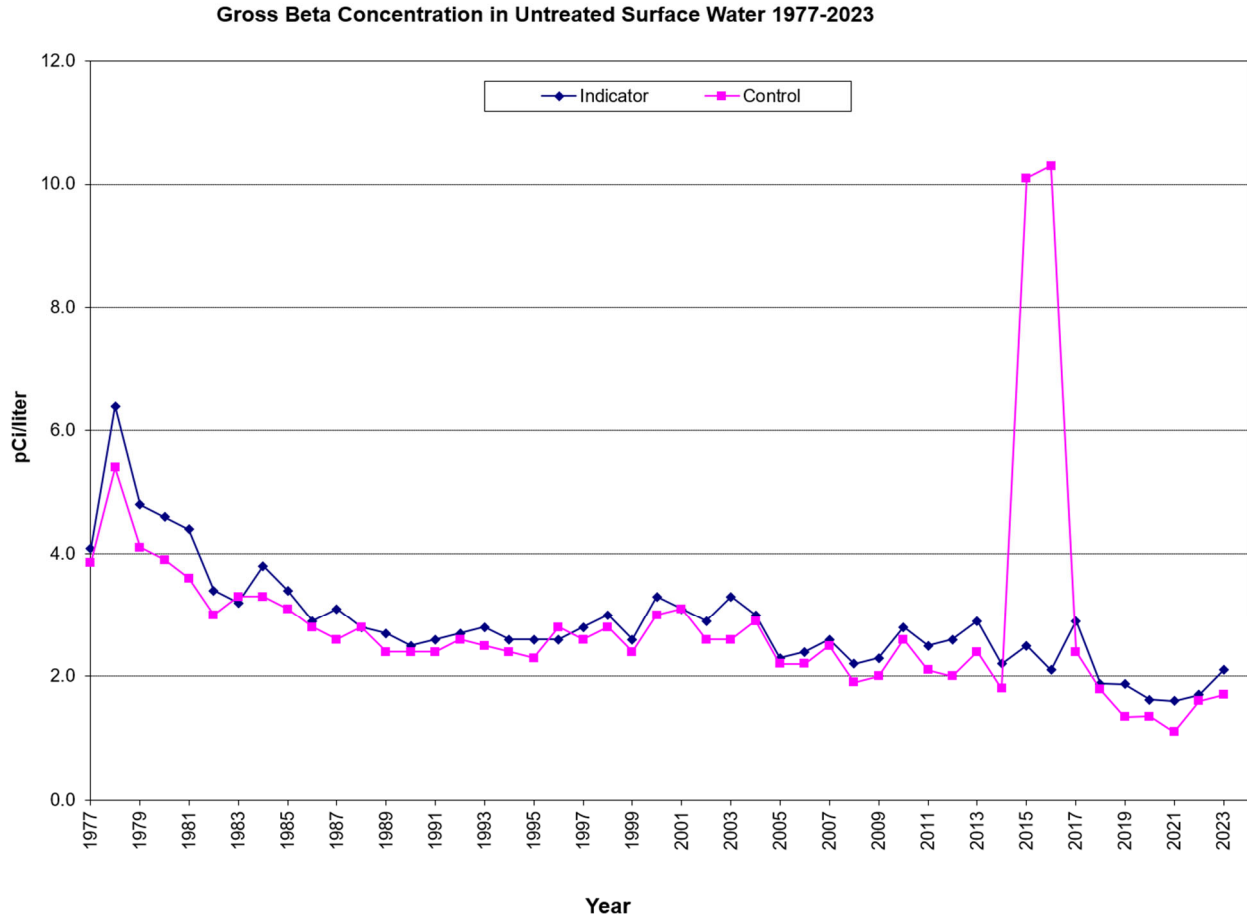


Figure 18: Gross Beta Concentration in Untreated Surface Water 1977-2023. The average concentration of beta-emitting radionuclides in Untreated Surface Water. The peaks seen in 2015 and 2016 were attributed to elevated potassium from fertilizer runoff into the Portage River.

Table 10: Untreated Surface Water Locations

Sample Location Number	Type of Location	Location Description
T-3	I	Site boundary, 1.4 miles ESE of Station
T-11	C	Ottawa County Regional Water Intake Facility, 9.5 miles SE of Station
T-22A	I	Carroll Township Water Plant, State Route 2, 2.1 miles NW of Station
T-145	QC	Quality Control Sample

I = Indicator
C = Control
QC = Quality Control

Shoreline Sediment

The sampling of shoreline sediments can provide an indication of the accumulation of insoluble radionuclides which could lead to internal exposure to humans through the ingestion of fish, through re-suspension into drinking water supplies, or as an external radiation source from shoreline exposure to fishermen and swimmers.

Samples of sediments were collected at the shoreline at Indicator location T-3 and Control location T-11 and were analyzed for gamma-emitting radionuclides. Sediment sample results were similar to previous years: naturally occurring Potassium-40 was detected at both Control and Indicator locations and no other gamma-emitting isotopes were detected above their respective detection limits.

Table 11: Shoreline Sediment Locations

Sample Location Number	Type of Location	Location Description
T-3	I	Site boundary, 1.4 miles ESE of Station, at the mouth of the Toussaint River
T-11	C	Ottawa County Regional Water Intake Facility, 9.5 miles SE of Station

I = Indicator C = Control

Fish

Fish are analyzed primarily to quantify the dietary intake of radionuclides by humans, and secondarily to serve as indicators of radioactivity in the aquatic ecosystem. The principal nuclide that may be detected in fish is naturally occurring Potassium-40.

Davis-Besse collects two species of fish from two sampling locations, one is near the Station's liquid discharge point and the other is more than ten miles away from Davis-Besse where fish populations would not be expected to be affected by station operations. Walleye are collected because of being a popular recreational fish and commercial fish, such as white perch or white bass are also collected.

The average concentrations of gross beta activity in ODCM-required fish were similar for Indicator and Control locations (4.31 pCi/g and 3.70 pCi/g wet weight, respectively). Only naturally-occurring Potassium-40 was detected, no other gamma emitters were detected above their respective LLDs.

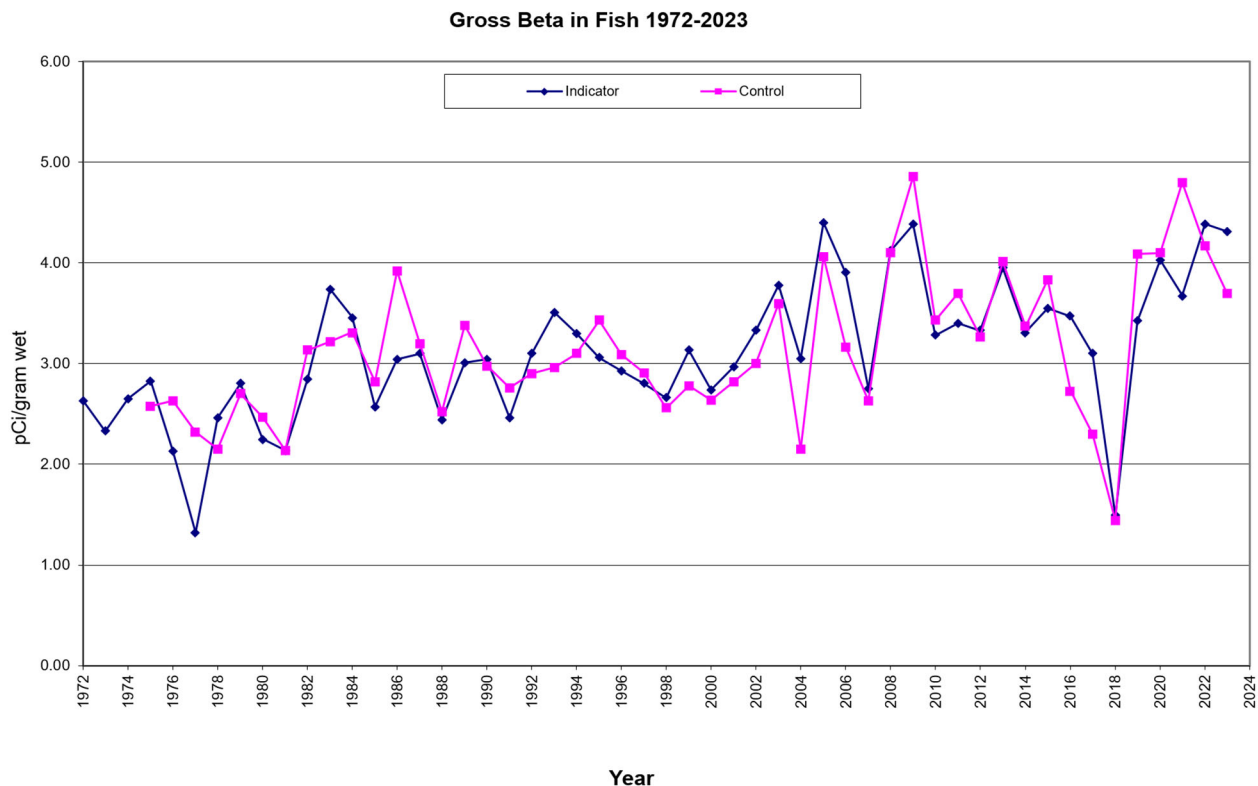


Figure 19: Gross Beta in Fish 1972-2023. Average concentrations of beta-emitting radionuclides (pCi/gram) in fish samples were similar at Indicator and Control locations and were comparable to results from previous years.

Table 12: Fish Locations

Sample Location Number	Type of Location	Location Description
T-33	I	Lake Erie, within 5 miles radius of Station
T-35	C	Lake Erie, greater than 10 mile radius of Station

I = Indicator C= Control

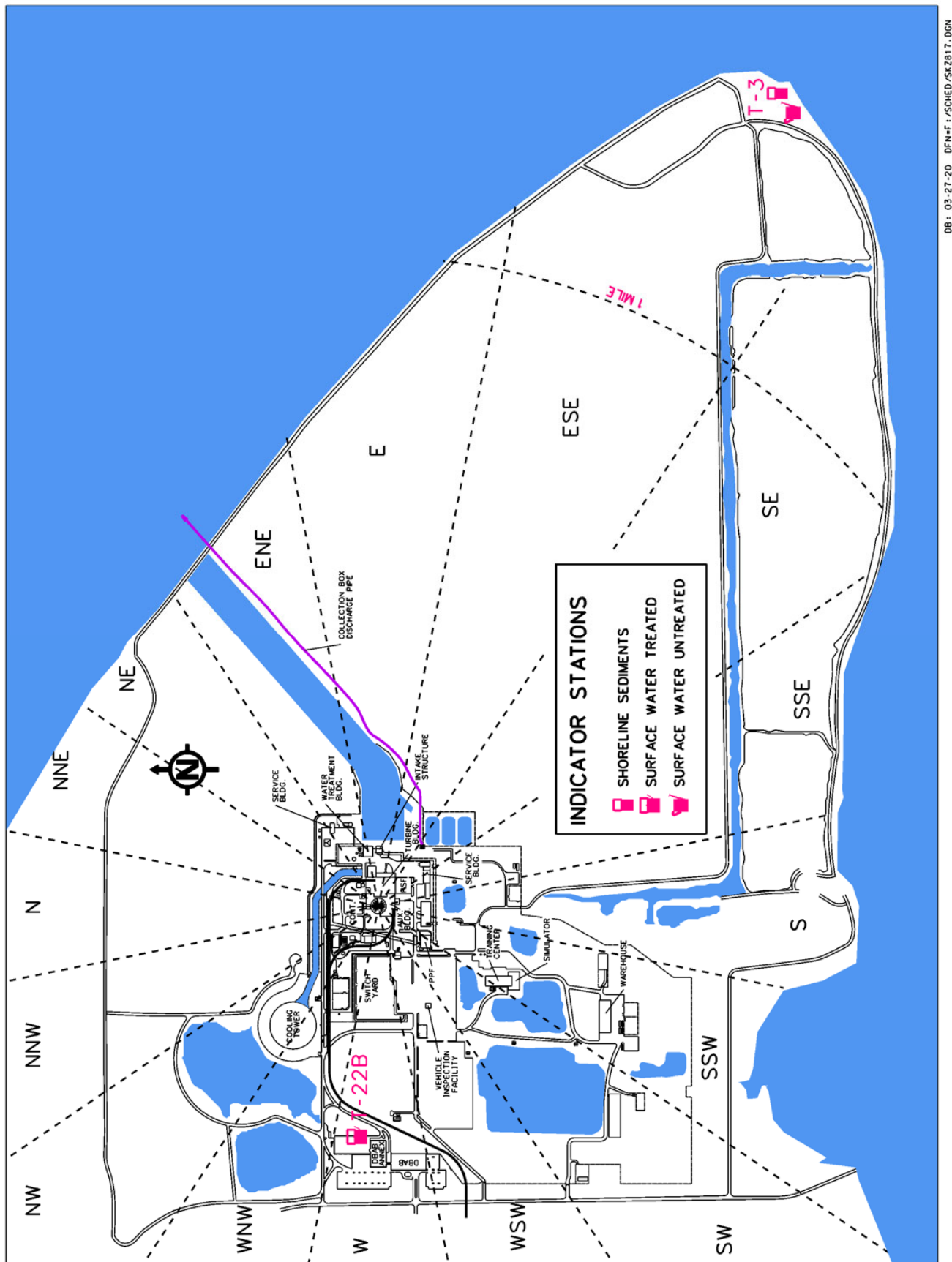
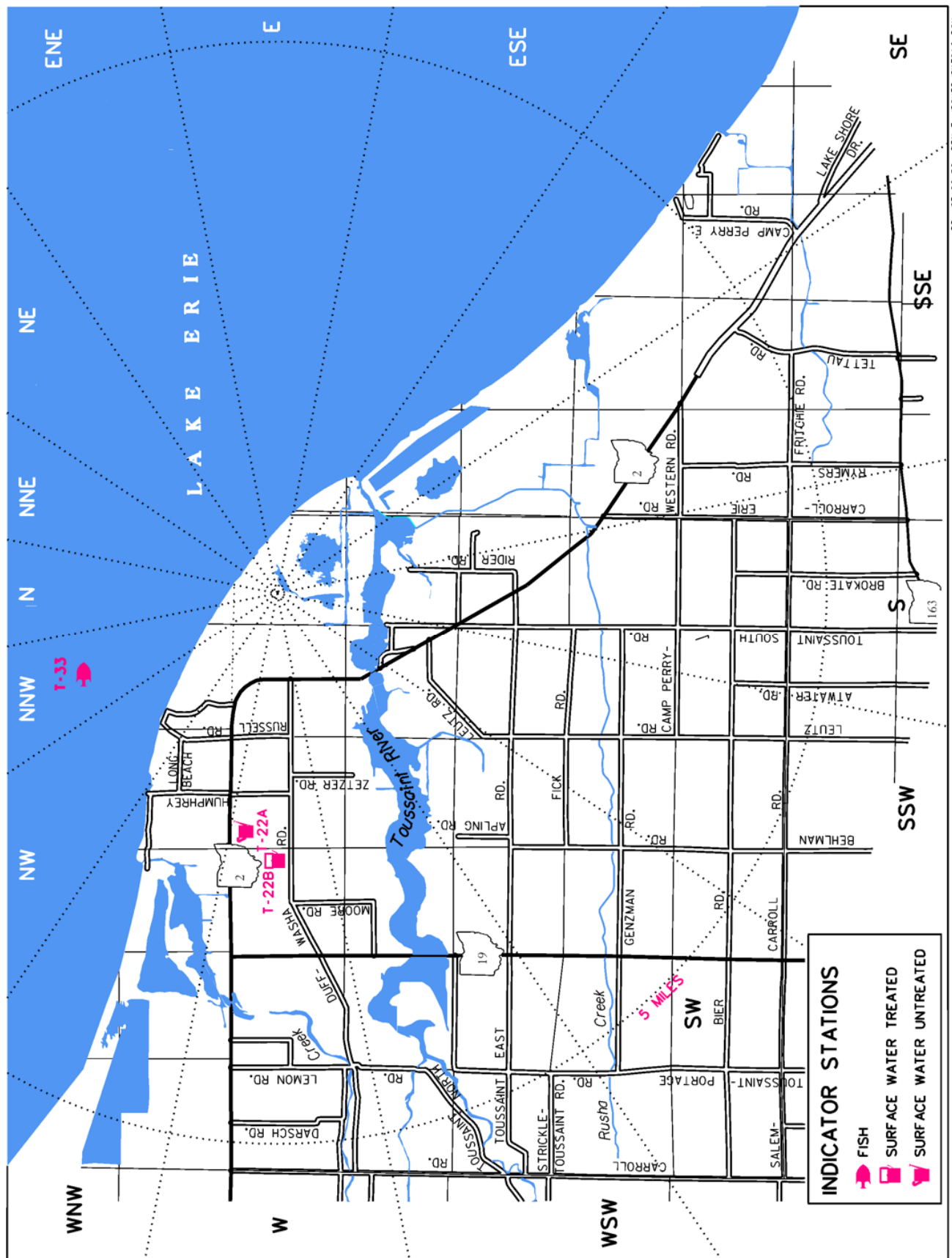


Figure 20: Aquatic Site Map



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Figure 21: Aquatic 5-mile Map

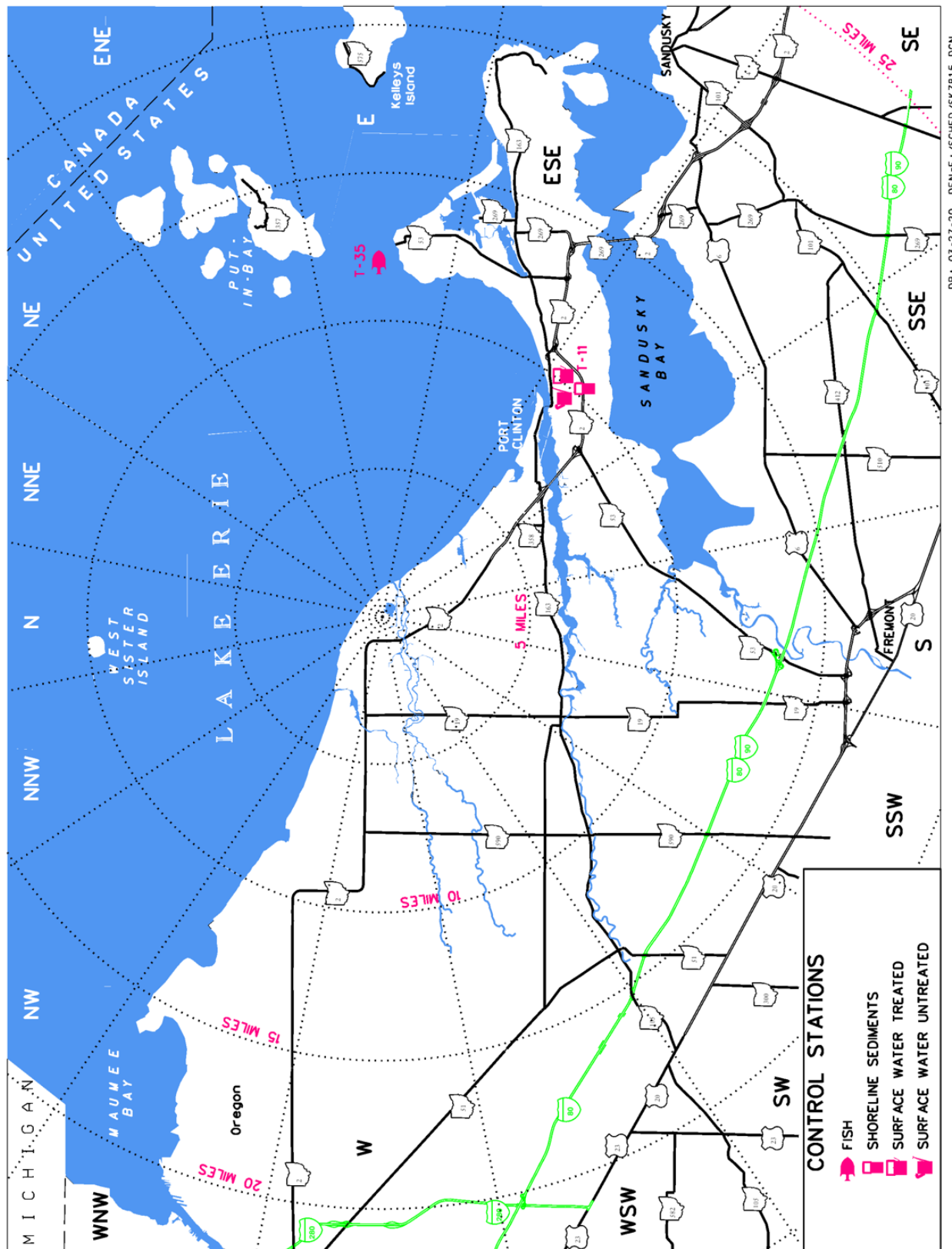


Figure 22: Aquatic 25-mile Map

Direct Radiation Monitoring

Thermoluminescent Dosimeters

Radionuclides present in the air and deposited on the ground may be a source of direct radiation to individuals. Direct radiation levels at and around Davis-Besse are constantly monitored by thermo-luminescent dosimeters (TLDs). TLDs are small, passive, monitoring devices that store radiation dose information. The TLDs used at Davis-Besse contain a Calcium-Sulfate Dysprosium ($\text{CaSO}_4\text{:Dy}$) card with four main readout areas. Multiple readout areas are used to ensure the precision of the measurements.

Thermoluminescence is a process in which ionizing radiation interacts with phosphor, which is the sensitive material in the TLD. Energy is trapped in the TLD material and can be stored for several months or years. This provides an excellent method to measure the dose received over long periods of time. The energy that was stored in the TLD as a result of interaction with radiation is released and measured by a controlled heating process in a calibrated TLD-reader system. As the TLD is heated, the phosphor releases the stored energy in the form of light. The amount of light detected is directly proportional to the amount of radiation to which the TLD was exposed. The reading process re-zeroes the TLD and prepares it for reuse.

TLD Collection

Davis-Besse has 64 TLD locations (48 Indicator, 5 Control, 5 Special Interest, and 5 Quality Control). TLDs are collected and replaced on a quarterly basis. All but one (see Table 3 above) ODCM TLDs placed in the field were retrieved and evaluated during the current reporting period.

The average quarterly dose for TLDs at Indicator locations in 2023 was 13.9 mRem/91-days, and for Control locations was 14.0 mRem/91-days. Evaluation of quarterly TLDs can be used to determine the Facility Related Dose (FRD – actual amount of dose detected in a monitoring period above background attributed to the facility) for each measuring location. Davis-Besse Indicator sampling locations includes two inner ring TLDs in each meteorological sector in the general area of the Unrestricted Area Boundary, as well as two TLDs in each outer ring sector (excluding those sectors that extend into Lake Erie) located 6 to 8 km from the station. Control TLDs are also placed in special interest areas (Sand Beach and Long Beach local communities, Oak Harbor, and Port Clinton). The evaluation of FRD at each TLD location determined that all quarterly and annual doses in 2023 were considered as “non-detectable”. No increase above natural background radiation attributable to the operation of Davis-Besse was observed in 2023.

Quality Control TLDs

Duplicate TLDs have been placed at five sites. These TLDs are placed in the field at the same time and location as some of the routine TLDs, but are assigned quality control site numbers. This allows for multiple measurements at the location without the laboratory being aware that they are the same. A comparison of the quality control and routine results provides a method to check the accuracy of the measurements. The average quarterly dose for quality control TLDs 11.5 mRem/91-days and were, on average, within 1.3 mRem/91-days of the Environmental TLDs with which they were co-located.

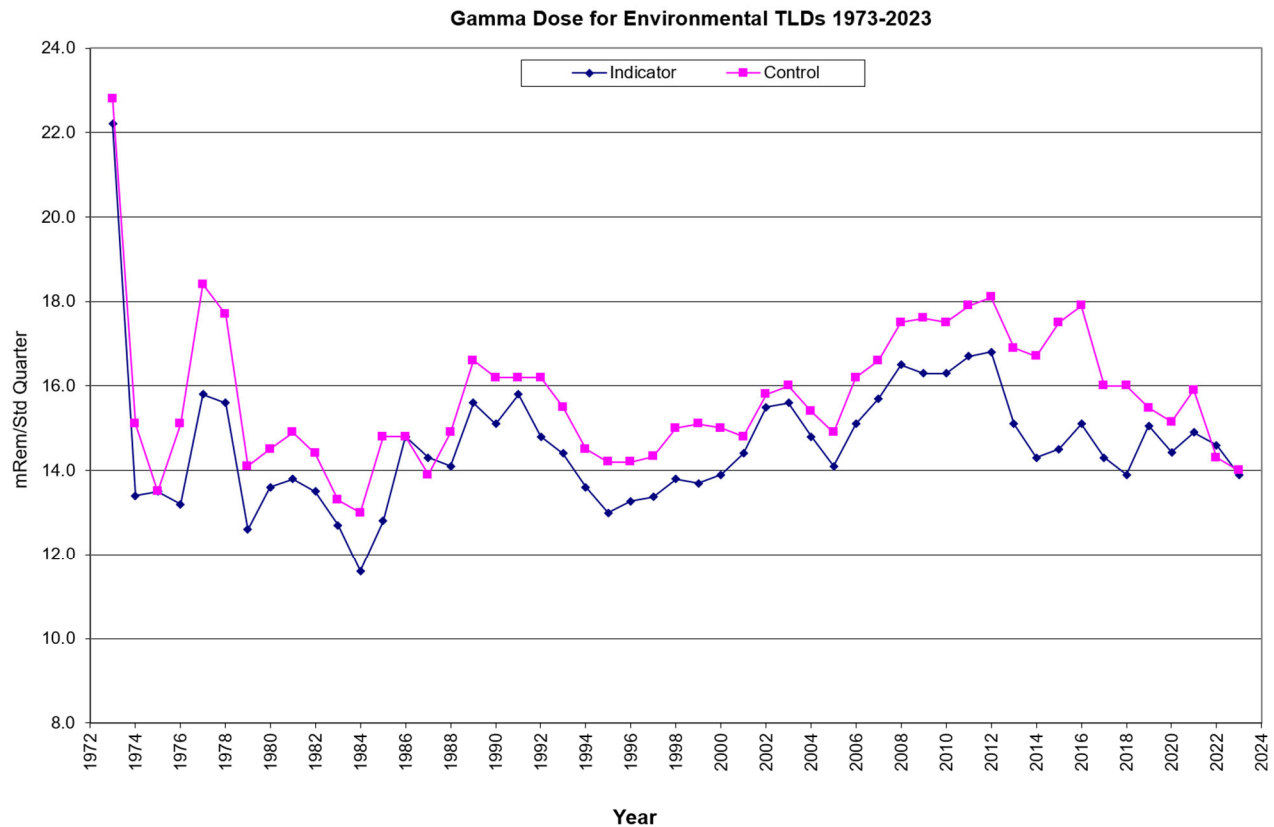


Figure 23: Gamma Dose for Environmental TLDs 1973 – 2023. The similarity between Indicator and Control results demonstrates that the operation of Davis-Besse has not caused any abnormal gamma dose. Calculated Facility-Related Dose at all Indicator and Control TLD locations was non-detectable.

Table 13: Thermoluminescent Dosimeter Locations

Sample Location Number	Type of Location	Location Description
T-1	I	Site boundary, 0.6 miles ENE of Station
T-2	I	Site boundary, 0.9 miles E of Station
T-3	I	Site boundary, 1.4 miles ESE of Station
T-4	I	Site boundary, 0.8 miles S of Station
T-5	I	Site boundary, 0.5 miles W of Station
T-6	I	Site boundary, 0.5 miles NNE of Station
T-7	SI	Sand Beach entrance, 0.9 miles NW of Station
T-9	C	Oak Harbor Substation, 6.8 miles SW of Station
T-10	I	Site boundary, 0.5 miles SSW of Station near Warehouse
T-11	C	Ottawa County Regional Water Treatment Plant, 9.5 miles SE of Station
T-12	C	Toledo Water Treatment Plant, 20.7 miles WNW of Station
T-27	C	Magee Marsh, 5.3 miles WNW of Station
T-38	I	Site boundary, 0.6 miles ENE of Station
T-40	I	Site boundary, 1.1 miles SE of Station
T-41	I	Site boundary, 0.8 miles SSE of Station
T-42	I	Site boundary, 0.6 miles SW of Station
T-43	I	Site boundary, 0.5 miles SW of Station
T-44	I	Site boundary, 0.5 miles WSW of Station
T-45	I	Site boundary, 0.5 miles WNW of Station

Table 13: Thermoluminescent Dosimeter Locations (continued)

Sample Location Number	Type of Location	Location Description
T-46	I	Site boundary, 0.5 miles NW of Station
T-47	I	Site boundary, 0.5 miles N of Station
T-48	I	Site boundary, 0.5 miles NE of Station
T-49	I	Site boundary, 0.5 miles NE of Station
T-51	I	Utility Pole, 4.2 miles SSE of Station
T-52	I	Utility Pole, 4.2 miles S of Station
T-54	I	Utility Pole, 4.2 miles SW of Station
T-55	I	Utility Pole, 4.0 miles W of Station
T-60	I	Site boundary, 0.7 miles S of Station
T-62	I	Site boundary, 1.0 mile SE of Station
T-67	I	Site boundary, 0.4 miles NNW of Station
T-68	I	Site boundary, 0.5 miles WNW of Station
T-69	I	Site boundary, 0.4 miles W of Station
T-71	I	Site boundary, 0.5 mile NNW of Station
T-73	I	Site boundary, 0.5 mile WSW of Station
T-74	I	Site boundary, 0.5 mile SSW of Station
T-80	QC	Quality Control Site
T-83	QC	Quality Control Site
T-84	QC	Quality Control Site
T-87	QC	Quality Control in lead pig DBAB Annex

Table 13: Thermoluminescent Dosimeter Locations (continued)

Sample Location Number	Type of Location	Location Description
T-100	C	Ottawa County Highway Garage, Oak Harbor, 6.0 miles S of Station
T-113	QC	Quality Control Site
T-124	SI	Lake Street, Ottawa Co. Agricultural Complex 6.0 miles SSW of Station
T-125	I	Behlman and Bier Roads, 4.4 miles SSW of Station
T-126	I	Utility pole, 4.4 miles S of Station
T-127	I	Camp Perry Western and Rymers Road, 4.0 miles SSE of Station
T-128	I	Erie Industrial Park, Port Clinton Road, 4.0 miles SE of Station
T-142	I	Site Boundary, 0.8 miles SSE of Station
T-150	SI	Humphrey and Hollywood Roads, 2.1 miles NW of Station
T-154	I	Utility Pole, 4.0 miles SW of Station
T-155	SI	Fourth and Madison Streets, Port Clinton, 9.5 miles SE of Station
T-200	QC	Quality Control Site
T-201	SI	Sand Beach, 1.1 miles NNW of Station
T-203	I	Sand Beach/Site Boundary, 0.7 miles N of Station
T-206	I	Site Boundary, 0.6 miles NW of Station

Table 13: Thermoluminescent Dosimeter Locations (continued)

Sample Location Number	Type of Location	Location Description
T-208	I	Site Boundary, 0.5 miles NNE of Station
T-211	I	Site boundary, 0.8 miles E of Station
T-212	I	Site boundary, 1.2 miles ESE of Station
T-217	I	Utility Pole, 4.2 miles SSW of Station
T-218	I	Toussaint East Rd., 4.0 miles WSW of Station
T-219	I	Toussaint Portage Rd., 4.8 miles WSW of Station
T-220	I	Duff-Washa Rd., 4.6 miles W of Station
T-221	I	Magee Marsh, 5.0 miles WNW of Station
T-222	I	Turtle Creek Access, 3.8 miles WNW of Station
T-224	I	Erie Industrial Park, 4.4 miles SE of Station

I = Indicator

C = Control

QC = Quality Control

SI = Special Interest

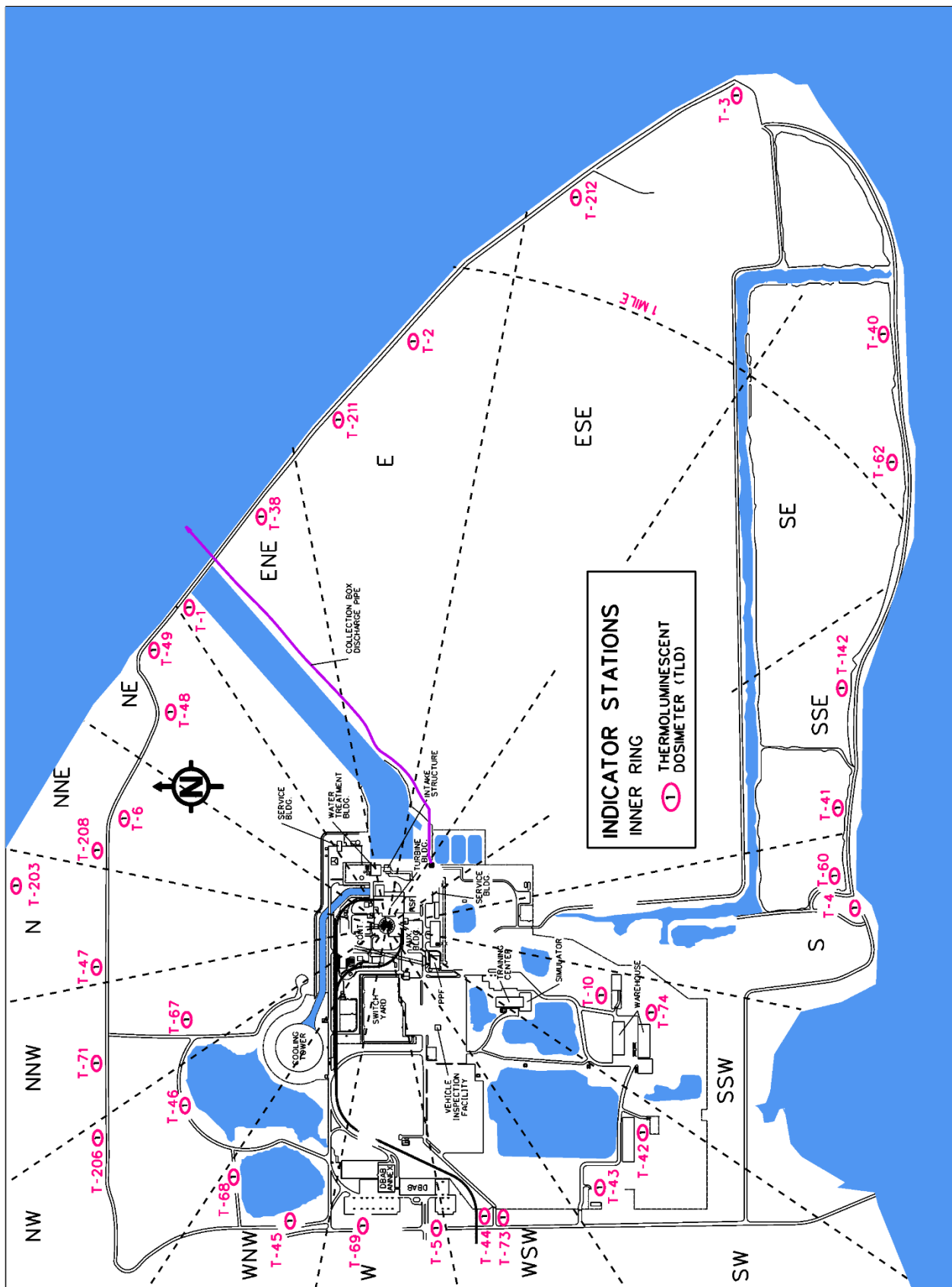


Figure 24: TLD Site Map

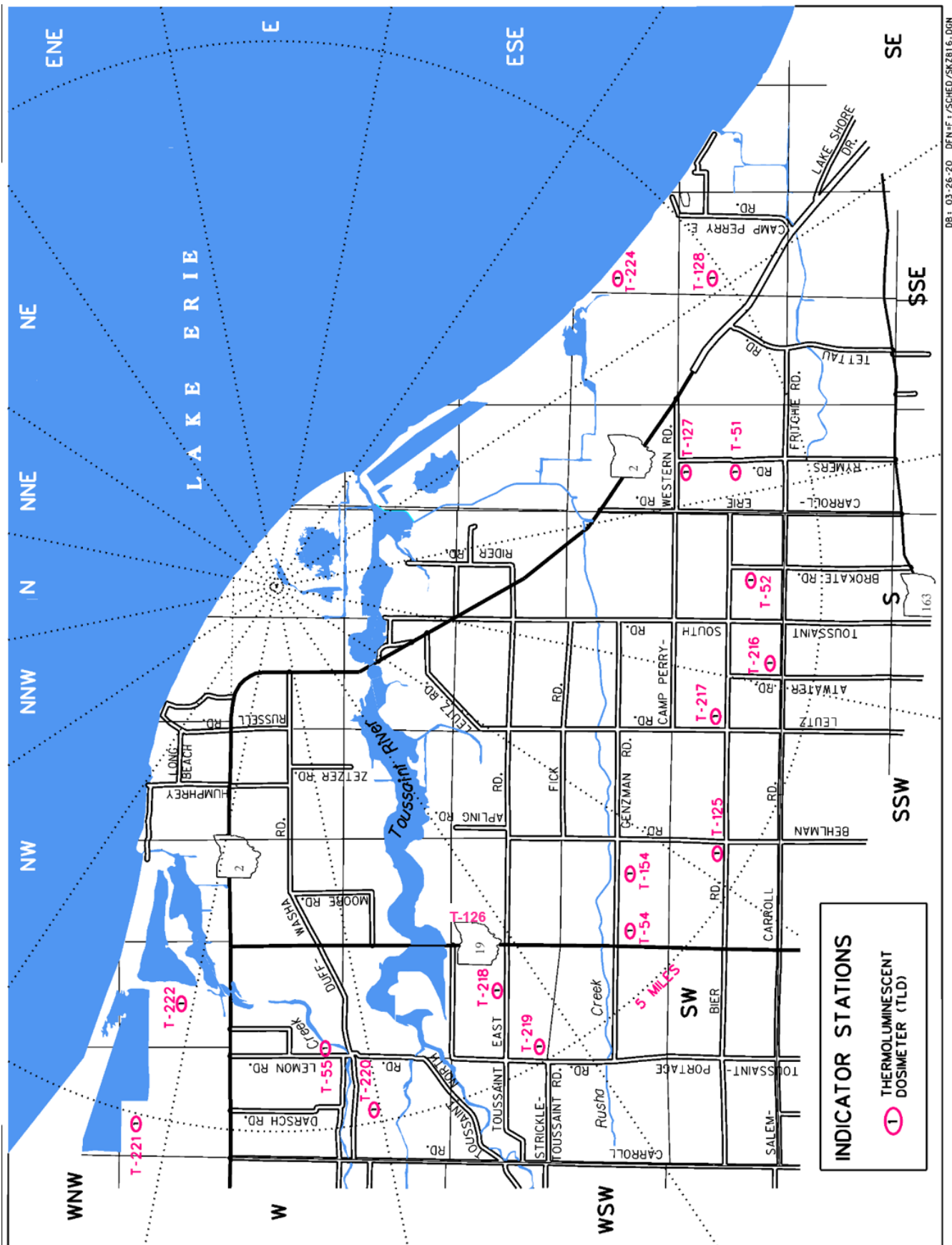
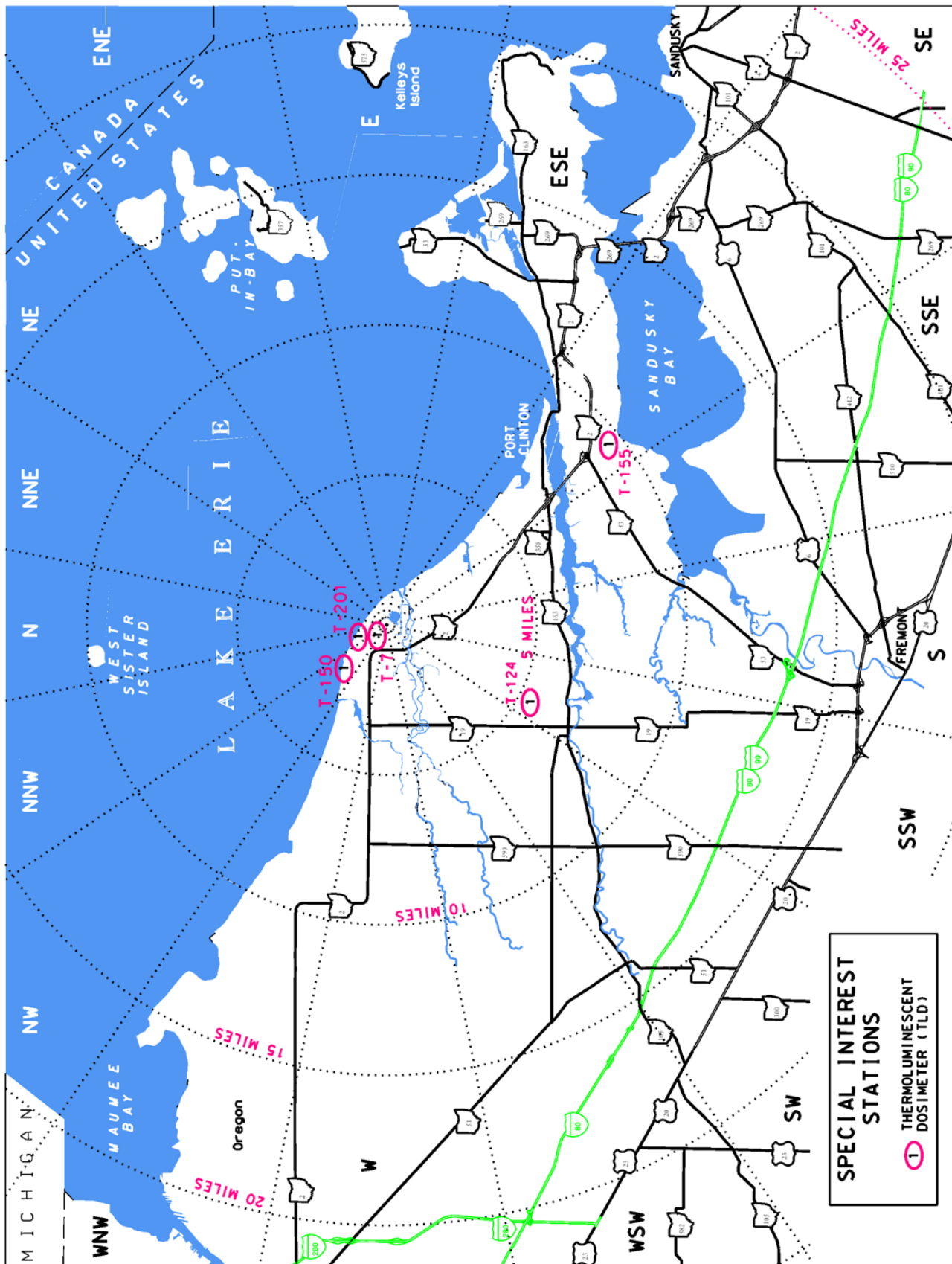


Figure 25: TLD 5-mile Map

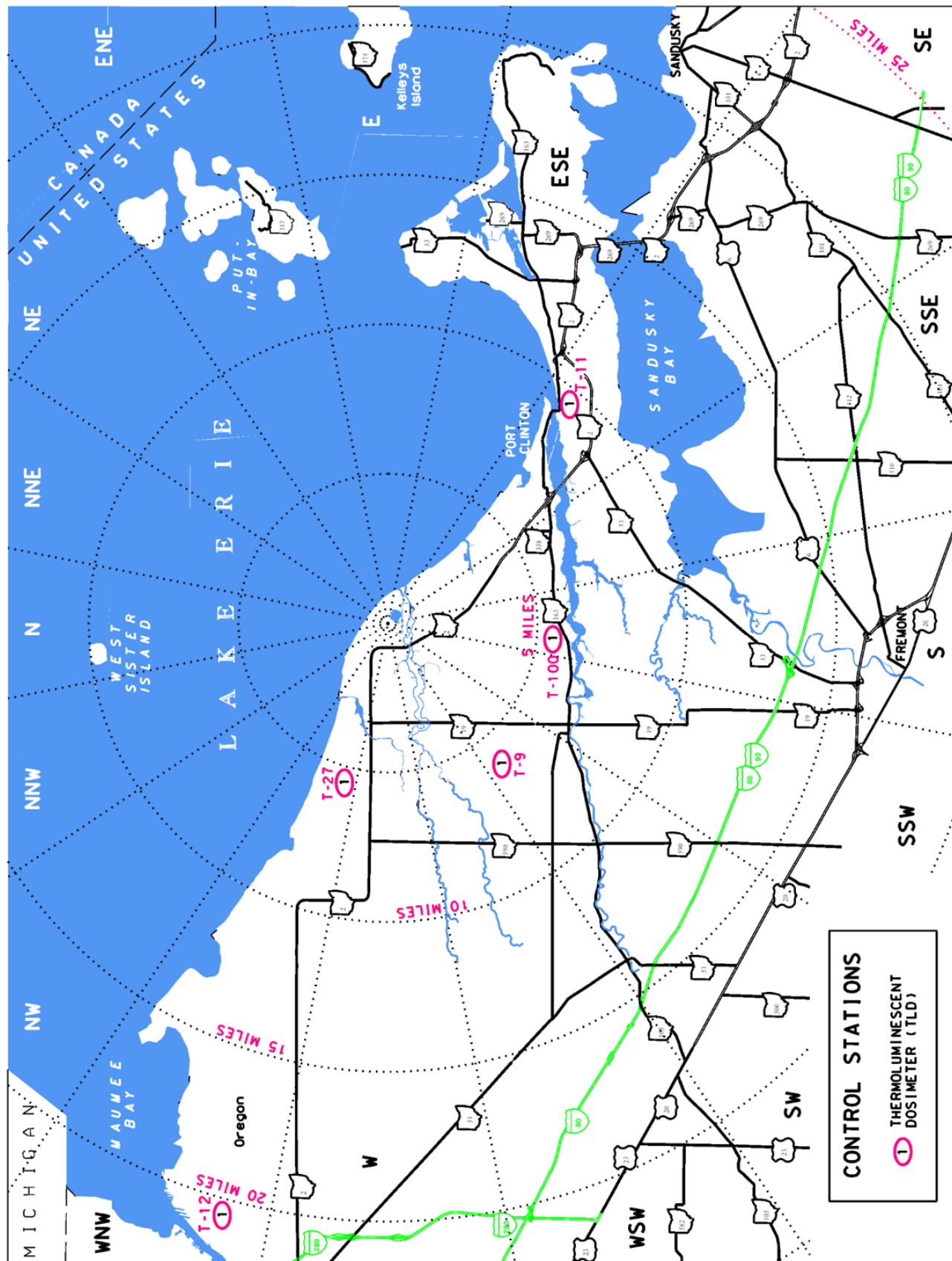
DAVIS-BESSE NUCLEAR POWER STATION RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM



DB: 11-29-21 DFN-F1/SCHED/SK2815.DGN (C-4)

Figure 26: TLD 25-mile Special Interest Locations Map

DAVIS-BESSE NUCLEAR POWER STATION RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM



DB: 11-29-21 DFN:F:/SCHED/SKZ815.DGN (C-4)

Figure 27: TLD 25-mile Control Locations Map

Conclusion

The Radiological Environmental Monitoring Program at Davis-Besse is conducted to determine the radiological impact, if any, of the Station's operation on the environment. Radionuclide concentrations measured at Indicator locations were compared with concentrations measured at Control locations in previous operational studies and in the pre-operational surveillance program. These comparisons indicate normal concentrations of radioactivity in all environmental samples collected in 2023. Davis-Besse's operation in 2023 indicated no adverse radiological impact on the residents and environment surrounding the station. The results of the sample analyses performed during the period of January through December 2023 are summarized in Appendix C of this report.

References

1. "Cesium-137 from the Environment to Man: Metabolism and Dose," Report No. 52, National Council on Radiation Protection and Measurement, Washington, D.C. (January 1977).
2. "Environmental Radiation Measurements," Report No. 50, National Council on Radiation Protection and Measurement, Washington, D.C. (December 1976).
3. "Exposure of the Population in the United States and Canada from Natural Background Radiation," Report No. 94, National Council on Radiation Protection and Measurement, Washington, D.C. (December 1987).
4. "A Guide for Environmental Radiological Surveillance at U.S. Department of Energy Installations," DOE/EP-0023, Department of Energy, Washington, D.C. (July 1981).
5. "Ionizing Radiation Exposure of the Population of the United States," Report No. 93, National Council on Radiation Protection and Measurement, Washington, D.C. (September 1987).
6. "Natural Background Radiation in the United States," Report No. 45, National Council on Radiation Protection and Measurement, Washington, D.C. (November 1975).
7. "Numerical Guides for Design Objectives and Limiting Conditions for Operation to meet the Criterion 'As Low As Reasonably Achievable' for Radioactive Material in Light Water Cooled Nuclear Power Reactor Effluents," Code of Federal Regulations, Title 10 Energy, Part 50 "Domestic Licensing of Production and Utilization Facilities," Appendix I (1988).
8. "Performance, Testing and Procedural Specifications for Thermoluminescent Dosimetry," American National Standards Institute, Inc., ANSI-N45-1975, New York, New York (1975).
9. "Public Radiation Exposure from Nuclear Power Generation in the United States," Report No. 92, National Council on Radiation Protection and Measurement, Washington, D.C. (December 1987).

10. “Radiological Assessment: Predicting the Transport, Bioaccumulation and Uptake by Man of Radionuclides Released to the Environment,” Report No. 76, National Council on Radiation Protection and Measurement, Washington, D.C. (March 1984).
11. Regulatory Guide 4.1, “Programs for Monitoring Radioactivity in the Environs of Nuclear Power Plants,” US NRC (April 1975).
12. Regulatory Guide 4.13, Revision 2, “Environmental Dosimetry – Performance Specifications, Testing, and Data Analysis,” US NRC (June 2019).
13. Regulatory Guide 4.15, “Quality Assurance for Radiological Monitoring Programs (Normal Operations) - Effluent Streams and the Environment,” US NRC (February 1979).
14. NUREG-0475, “Radiological Environmental Monitoring by NRC Licensees for Routine Operations of Nuclear Facilities,” US NRC (September 1978).
15. “Standards for Protection Against Radiation,” Code of Federal Regulations, Title 10, Energy, Part 20 (1993).
16. Teledyne Isotopes Midwest Laboratory, “Operational Radiological Monitoring for the Davis-Besse Nuclear Power Station Unit No.1, Oak Harbor, OH,” Annual Report, Parts I and II (1977 through 1990).
17. Teledyne Isotopes Midwest Laboratory, “Final Monthly Progress Report to Toledo Edison Company,” (1991-1999).
18. Environmental, Inc. Midwest Laboratory, “Davis-Besse Nuclear Power Station,” (2000-2020)
19. Teledyne Isotopes Midwest Laboratory, “Pre-operational Environmental Radiological Monitoring for the Davis-Besse Power Station Unit No. 1,” Oak Harbor, OH (1972-1977).
20. Toledo Edison Company, “Davis-Besse: Nuclear Energy for Northern Ohio.”
21. Toledo Edison Company, Davis-Besse Nuclear Power Station, Unit No. 1, Radiological Effluent Technical Specifications”, Volume 1, Appendix A to License No. NPF-3. (Note - relocated to Offsite Dose Calculation Manual (ODCM) and Process Control Program (PCP), Amendment 170, dated 3/9/92).
22. Toledo Edison Company, “Final Environmental Statement -Related to the Construction of Davis-Besse Nuclear Power Station,” Docket #50-346 (1987).
23. Toledo Edison Company, “Performance Specifications for Radiological Environmental Monitoring Program,” S-72N.
24. Davis-Besse Nuclear Power Station, “Radiological Environmental Monitoring Program,” DB-CN-00015.

25. Davis-Besse Nuclear Power Station, “Radiological Environmental Monitoring Quarterly, Semiannual, and Annual Sampling”, DB-CN-03004.
26. Davis-Besse Nuclear Power Station, “Radiological Monitoring Weekly, Semimonthly, and Monthly Sampling,” DB-CN-03005.
27. ANSI/HPS N13.37-2014 (R2019), “Environmental Dosimetry – Criteria for System Design and Implementation,” American National Standard (May 2019).
28. Toledo Edison Company, “Updated Safety Analysis for the Offsite Radiological Monitoring Program,” USAR 11.6, Revision 14, (1992).
29. Davis-Besse Nuclear Power Station, “Annual Radiological Environmental Operating Report Preparation and Submittal,” DB-CN-00014.
30. Davis-Besse Nuclear Power Station, “Preparation of Radioactive Effluent Release Report,” DB-CN-00012.
31. Davis-Besse Nuclear Power Station, “Offsite Dose Calculation Manual.”
32. “Tritium in the Environment,” Report No. 62, National Council on Radiation Protection and Measurements, Washington, D.C. (March 1979).
33. NEI 07-07, “Industry Ground Water Protection Initiative – Final Guidance Document,” Revision 1 (March 2019).
34. “Groundwater Monitoring Well Installation & Monitoring Report Davis-Besse Nuclear Power Station Oak Harbor, Ohio,” Environmental Resources Management, March 18, 2008.

Radioactive Effluent Release Report

January 1 through December 31, 2023

Protection Standards

Soon after the discovery of x-rays in 1895 by Wilhelm Roentgen, the potential hazards of ionizing radiation were recognized, and efforts were made to establish radiation protection standards. The primary source of recommendations for radiation protection standards within the United States is the National Council on Radiation Protection and Measurement (NCRP). Many of these recommendations have been given legislative authority by being published in the Code of Federal Regulations by the Nuclear Regulatory Commission (Title 10).

The main objective in the control of radiation is to ensure that any dose is kept not only within regulatory limits, but also As Low As Reasonably Achievable (ALARA). The ALARA principle applies to reducing radiation dose both to the individual working at Davis-Besse and to the general public. "Reasonably achievable" means that exposure reduction is based on sound economic decisions and operating practices. By practicing ALARA, Davis-Besse minimizes health risk and environmental detriment and ensures that doses are maintained well below regulatory limits.

Sources of Radioactivity Released

During the normal operation of a nuclear power station, most of the fission products are retained within the fuel and fuel cladding. However, small amounts of radioactive fission products and trace amounts of the component and structure surfaces, which have been activated, are present in the primary coolant water. The types of radioactive material released by the facility are noble gases, radioiodines, particulates, and Tritium.

The noble gas fission products in the primary coolant are given off as a gas when the coolant is depressurized. These gases are then collected by a system designed for gas collection and stored for radioactive decay prior to release.

Small releases of radioactivity in liquids may occur from valves, piping or equipment associated with the primary coolant system. These liquids are collected through a series of floor and equipment drains and sumps. All liquids of this nature are monitored and processed, if necessary, prior to release.

Noble Gases

Some of the fission products released in airborne effluents are radioactive isotopes of noble gases, such as Xenon (Xe) and Krypton (Kr). Noble gases are biologically and chemically inert, so they do not concentrate in humans or other organisms, however, radioisotopes of these noble gases contribute to human radiation dose by being an external source of radiation exposure to the body. The radioisotopes Xe-133 and Xe-135, with half-lives of approximately five days and nine hours respectively, are the major radioactive noble gases released and are readily dispersed in the atmosphere.

Iodine and Particulates

Annual releases of radioisotopes of Iodine (radioiodines), and those radioactive particulates with half-lives greater than eight days, in gaseous and liquid effluents are small. Factors such as their high chemical reactivity and solubility in water, combined with the high efficiency of gaseous and liquid processing systems, minimize their discharge. The predominant radioiodine released is Iodine-131 with a half-life of approximately eight days. The main contribution of radioiodines to human dose is to the thyroid gland, where the body concentrates Iodine.

The principal radioactive particulates released are fission products (e.g., Cesium-134 and Cesium-137) and activation products (e.g., Cobalt-58 and Cobalt-60). Radioactive Cesium and Cobalt contribute to internal radiation exposure of tissues such as muscle, liver, and the intestines. These radioactive particulates are also a potential source of external radiation exposure.

Tritium

Tritium (H-3), a low-energy pure beta emitting radioisotope of Hydrogen, is the predominant radionuclide in liquid and gaseous effluents. Tritium is produced in the reactor coolant as a result of neutron interaction with deuterium (also a Hydrogen isotope) present in the water and with Boron in the primary coolant. When Tritium, in the form of water or water vapor, is ingested or inhaled it is dispersed throughout the body until eliminated.

Carbon-14

Carbon-14 (C-14) is a naturally occurring isotope of carbon produced in the atmosphere by cosmic rays. Its concentration in the environment was significantly increased by nuclear weapons testing in the 1950s and 1960s. It is also produced in nuclear power production in much smaller quantities.

C-14 is a low-energy pure beta emitter and generates no dose from direct radiation. Its predominant exposure pathway is through ingestion of produce which has incorporated C-14 into plant matter via the chemical form of CO₂ during photosynthesis.

Processing and Monitoring

Effluents are strictly controlled to ensure radioactivity released to the environment is minimal and does not exceed regulatory limits. Effluent control includes the operation of monitoring systems, in-plant and environmental sampling and analysis programs, quality assurance programs for effluent and environmental programs, and procedures covering all aspects of effluent and environmental monitoring.

The radioactive waste treatment systems at Davis-Besse are designed to collect and process the liquid and gaseous wastes that contain radioactivity. For example, the Waste Gas Decay Tanks allow radioactivity in gases to decay, i.e., greatly lower their level of radioactivity, prior to release via the Station Vent.

Radioactivity monitoring systems are used to ensure that all releases are below regulatory limits. These instruments provide a continuous indication of the radioactivity present. Each instrument is equipped with alarms and indicators in the control room. The alarm setpoints are low enough to ensure the limits will not be exceeded. If a monitor alarms, a release from a tank is automatically stopped.

All wastes are sampled prior to release and analyzed to identify the specific concentration of the radionuclides. Sampling and analysis provide a more sensitive and precise method of determining effluent composition than can be accomplished with monitoring instruments.

The Davis-Besse meteorological tower is located at the southwest sector of the owner-controlled area. Instruments on the meteorological tower, e.g., those that measure wind speed and wind direction, are linked to computers that record the data. Site meteorological data are used with effluent release data to calculate the dose to the public. Beyond the plant, devices maintained in conformance with the Radiological Environmental Monitoring Program continuously sample the air in the surrounding environment. Frequent samples of other environmental media, such as water and vegetation, are taken to determine if buildup of deposited radioactive material has occurred in the areas adjacent to the facility.

Exposure Pathways

Radiological exposure pathways define the methods by which people may become exposed to radioactive material. The exposure pathways of concern are those which could cause the highest calculated radiation dose. These projected pathways are determined from the type and amount of radioactive material released, the environmental transport mechanism, and the use of the environment. The environmental transport mechanism includes consideration of physical factors, such as the hydrological (water) and meteorological (weather) characteristics of the area. An annual average of the water flow, wind speed, and wind direction are used to evaluate how the radionuclides will be distributed in an area for liquid or gaseous releases. A major consideration in evaluating the exposure pathways is the use of the environment. Many factors are considered, such as dietary intake of the residents, recreational use of the area, and the locations of homes and farms in the area relative to the facility.

The external and internal exposure pathways considered are shown in Figure 28. The release of radioactive gaseous effluents involves pathways such as external whole-body exposure, deposition of radioactive material on plants, deposition on soil, inhalation by animals destined for human consumption, and inhalation by humans. The release of radioactive material in liquid effluents involves pathways such as drinking water, fish, and direct exposure from the lake at the shoreline while swimming.

Although radionuclides can reach humans by many different pathways, some result in more dose than others. The critical pathway is the exposure route that will provide, for a specific radionuclide, the greatest dose to a population, or to a specific group of the population called the critical group. The critical group may vary depending on the radionuclides involved, the age and diet of the group, or other cultural factors. The dose may be delivered to the whole body or to a specific organ. The organ receiving the greatest fraction of the dose is called the critical organ.

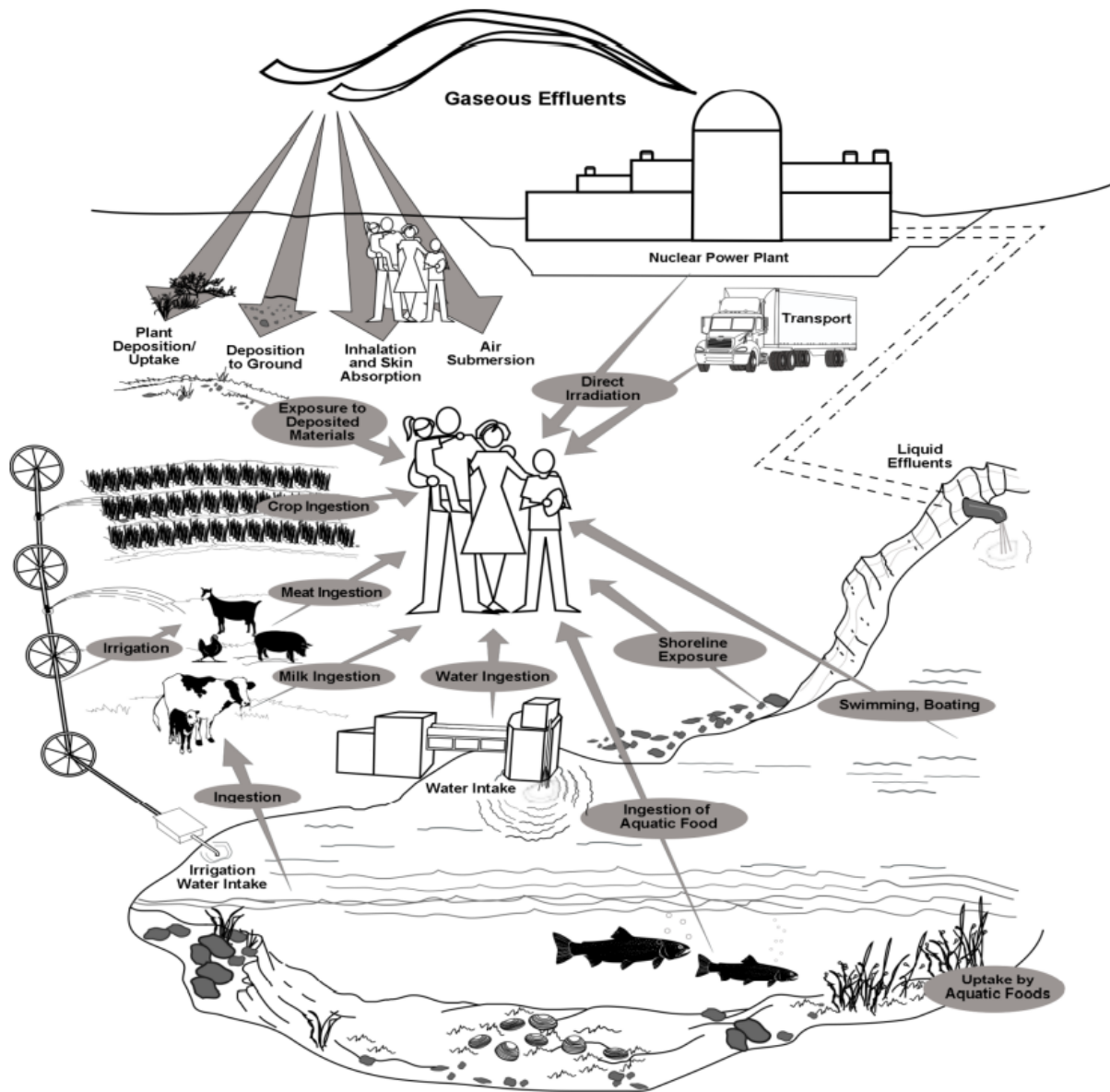


Figure 28: Exposure Pathways. The exposure pathways shown here are monitored through the Radiological Environmental Monitoring Program (REMP) and are considered when calculating doses to the public.

Dose Assessment

Dose is the energy deposited by ionizing radiation in an exposed individual. Whole body exposure to radiation involves the exposure of all organs. Exposure to background radiation from natural sources is the primary source of dose to the public. Radioactive and non-radioactive elements can enter the body through inhalation or ingestion; when this happens, the elements are usually not evenly distributed. For example, Iodine concentrates in the thyroid gland, Cesium collects in muscle and liver tissue, and Strontium collects in the bone.

The total dose to organs from a given radioisotope depends on the amount energy released when the radioisotope decays in the organ and the length of time that those radioisotopes remain there. Some radioisotopes remain for short times due to their rapid radioactive decay and/or elimination rate from the body. Radionuclides with long half-lives and slow removal rates may remain in the body for longer periods of time.

The dose to the general public in the area surrounding Davis-Besse is calculated for each liquid or gaseous release. The dose due to radioactive material released in gaseous effluents is calculated using factors such as the amount of radioactive material released, the concentration beyond the site boundary, the average weather conditions at the time of the release, the locations of exposure pathways (e.g., cow milk, goat milk, vegetable gardens and residences), and usage factors (e.g., inhalation, food consumption). The dose due to radioactive material released in liquid effluents is calculated by using factors such as the total volume of the liquid released, the total volume of dilution water (near field dilution), and usage factors, such as water and fish consumption, and shoreline and swimming factors. These calculations produce a conservative estimation of the dose to the public from the release.

Results

The Radioactive Effluent Release Report is a detailed listing of radioactivity released from the Davis-Besse Nuclear Power Station during the period from January 1 through December 31, 2023.

- Summary of the quantities of radioactive material released in gaseous and liquid effluents (Tables 14-18)
- Summary of the quantities of radioactive material contained in solid waste packaged and shipped for offsite disposal at federally approved sites is listed in Table 19.
- Site Integrated Groundwater Monitoring Program results are listed in Table 20.
- Summary of doses due gaseous releases are listed in Table 21.
- Summary of doses due liquid releases are listed in Table 22.
- Summary of annual dose to maximally exposed member of the public is listed in Table 23.

During this reporting period, the maximum individual offsite dose due to radioactivity released in effluents was:

Liquid Effluents:

- 3.20E-03 mRem, maximum individual whole-body dose
- 3.25E-03 mRem, maximum individual significant organ dose (Liver)

Gaseous Effluents:

Noble Gas:

- 2.18E-06 mRem, whole body
- 3.18E-06 mrad, skin

Iodine - 131, Tritium, Carbon-14, and Particulates with Half-Lives greater than 8 Days:

- 1.40E-01 mRem, whole body
- 6.82E-01 mRem, significant organ dose (Bone)

These doses are a small fraction of the limits set by the NRC in the Davis-Besse Offsite Dose Calculation Manual (ODCM). Additional normal release pathways from the secondary system exist. For gaseous effluents, these pathways include the Auxiliary Feed Pump Turbines exhaust, the main steam safety valve system and the atmospheric vent valve system, steam packing exhaust and main feed water. For liquid effluents, the additional pathways include the Turbine Building drains via the settling basins. Releases via these pathways are included in the normal release tables in this report.

Regulatory Limits

Gaseous Effluents

In accordance with the ODCM, dose rates due to radioactivity released in gaseous effluents from the site to areas at and beyond the site boundary shall be limited to the following:

Noble gases:

- Released at a rate equal to or less than 500 mRem TEDE per year.
- Released at a rate such that the total dose to the skin will be less than or equal to 3000 mRem per year.

Iodine-131, Tritium, and all radionuclides in particulate form with half-lives greater than eight (8) days:

- Released at a rate such that the total dose to any organ will be less than or equal to 1500 mRem per year.

In accordance with 10CFR50, Appendix I, Sec. IIB. 1, air dose due to radioactivity released in gaseous effluents to areas at and beyond the site boundary shall be limited to the following:

- Less than or equal to 10 mrad total for gamma radiation and less than or equal to 20 mrad total for beta radiation in any calendar year.

In accordance with 10CFR50, Appendix I, Sec. IIC, dose to a member of the public from Iodine-131, Tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released to areas at and beyond the site boundary shall be limited to the following:

- Less than or equal to 15 total mRem to any organ in any calendar year.

Carbon-14

Carbon-14 (C-14) is calculated based on station power production. The C-14 doses are based on a calculated value of 4.32 Ci of C-14 as CO₂ released from Davis-Besse through the Station Vent during 2023.

Liquid Effluents

In accordance with 10CFR50, Appendix I, Sec IIA, the dose or dose commitment to a member of the public from radioactivity in liquid effluents released to unrestricted areas shall be limited to accumulated doses of:

- Less than or equal to 3 mRem to the total body and
- less than or equal to 10 mRem to any organ in any calendar year.

Effluent Concentration Limits

The Effluent Concentration Limits (ECs) for gaseous and liquid effluents at and beyond the site boundary are listed in 10CFR20, Appendix B, Table 2, Columns 1 and 2, with the most restrictive EC being used in all cases. For dissolved and entrained gases in liquids, the EC of 2.0 E-04 uCi/ml is applied. This EC is based on the Xe-135 DAC of 1.0 E-05 uCi/ml of air (submersion dose) converted to an equivalent concentration in water as discussed in the International Commission on Radiological Protection (ICRP), Publication 2.

Average Energy

The Davis-Besse ODCM limits the dose equivalent rates due to the release of fission and activation products to less than or equal to 500 mRem per year to the total body and less than or equal to 3000 mRem per year to the skin. Therefore, the average beta and gamma energies (E) for gaseous effluents as described in Regulatory Guide 1.21, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants" are not applicable.

Measurements of Total Activity

Gaseous Effluents

Fission and Activation Gases:

These gases, excluding Tritium, are collected in Marinelli beakers specially modified for gas sampling, in steel flasks, or in glass vials, and are counted on a High Purity Germanium (HPGe) detector for principal gamma-emitting radionuclides. The radionuclides detected by the HPGe detector are quantified via gamma spectroscopy.

Tritium gas is collected using a bubbler apparatus and because it is a pure beta emitter is counted using a liquid scintillation detector system.

Radioiodines

Radioisotopes of Iodine, Radioiodines, are collected on a charcoal cartridge filter and counted on an HPGe detector. Specific quantification of each iodine radioisotope is performed via gamma spectroscopy.

Radioactive Particulates

Radioactive particulates are collected on filter paper and counted on an HPGe detector. Specific quantification of each radionuclide present on the filter paper is performed via gamma spectroscopy.

Liquid Effluents

Liquid effluents are collected in a Marinelli beaker and counted on an HPGe detector. Quantification of each gamma-emitting radionuclide present in liquid samples is via gamma spectroscopy. Tritium in the liquid effluent is quantified by counting an aliquot of a composite sample using a liquid scintillation detector system.

Batch Releases

Liquid Batch Releases (1/1/23 through 12/31/23)

1. Number of batch releases:	91
2. Total time period for the batch releases:	173.4 hours
3. Maximum time period for a batch release:	195 minutes
4. Minimum time period for a batch release:	87 minutes
5. Average time period for a batch release:	114 minutes

Gaseous Batch Releases (1/1/23 through 12/31/23)

1. Number of batch releases:	7
2. Total time period for the batch releases:	65.1 hours
3. Maximum time period for a batch release:	2565 minutes
4. Minimum time period for a batch release:	190 minutes
5. Average time period for a batch release:	558 minutes

Abnormal Releases

There were no abnormal gaseous releases of radioactivity from the station during 2023.

There were no abnormal liquid releases of radioactivity from the station during 2023.

Releases from the ISFSI

There were no identified effluents from this facility in 2023 and no increase in the dose to the public was observed or calculated from the ISFSI. No additional spent fuel cannisters were added to the ISFSI in 2023.

Percent of Offsite Dose Calculation Manual (ODCM) Release Limits

The following table presents the ODCM annual dose limits and the associated offsite dose to the public, in percent of limits, for January 1, 2023 through December 31, 2023.

	SPECIFICATION	ANNUAL DOSE	LIMIT	PERCENT OF LIMIT
Report Period: January 1, 2023 - December 31, 2023 (gaseous)				
	Noble gases (gamma)	1.98E-06 mrad	10 mrad	1.98E-05
	Noble gases (beta)	3.18E-06 mrad	20 mrad	1.59E-05
	I-131, H-3, C-14 and Particulates	1.40E-01 mRem	15 mRem	9.33E-01
Report Period: January 1, 2023 - December 31, 2023 (liquid)				
	Total Body	3.20E-03 mRem	3 mRem	1.07E-01
	Organ (Liver)	3.25E-03 mRem	10 mRem	3.25E-02

Sources of Input Data

- Water Usage: Survey of Water Treatment Plants (DSR-95-00347)
- 0-50 mile, milk, vegetable production, and population data was taken from 1982 Annual Environmental Operating Report entitled, "Evaluation of Compliance with Appendix I to 10CFR50: Updated Population, Agricultural, Meat - Animal, and Milk Production Data Tables for 1982". This evaluation was based on:
 - 1980 Census,
 - the Agricultural Ministry of Ontario 1980 report entitled "Agricultural Statistics and Livestock Marketing Account", the Agricultural Ministry of Ontario report entitled "Agricultural Statistics for Ontario, Publication 21, 1980,"
 - the Michigan Department of Agriculture report entitled "Michigan Agricultural Statistics, 1981", and
 - the Ohio Crop Reporting Service report entitled "Ohio Agricultural Statistics, 1981".
- Gaseous and liquid source terms: Tables 14 through 18 of this report.
- Location of the nearest individuals and pathways by sector within 5 miles, see Land Use Census Section of the report.
- Population of the 50-mile Radius of Davis-Besse (DSR-95-00398 and DBNPS Population Update Analysis – 2020, KLD Engineering, P.C.).
- Recent government census results.

Dose to Public Due to Activities Inside the Site Boundary

In accordance with ODCM Section 7.2, the Radioactive Effluent Release Report includes an assessment of radiation doses from radioactivity released in liquid and gaseous effluents to members of the public from activities inside the site boundary.

The Pavilion and Training Center pond have, on occasion, been made accessible to employees and their families. The Pavilion may be accessible to the public for certain social activities. The Training Center pond allows employees and their families to periodically fish on site under a “catch-and-release” program; therefore, the fish pathway is not considered applicable. Considering the frequency and duration of the visits, the resultant dose would be a small fraction of the calculated maximum site boundary dose. For purposes of assessing the dose to members of the public in accordance with ODCM Section 7.2, the following exposure assumptions are used:

- Exposure time for maximally-exposed visitor is 250 hours (1 hr/day, 5 day/ week, 50 wk/yr)
- Annual average meteorological dispersion (conservative, default use of maximum site boundary dispersion).
- For direct “shine” from the Independent Spent Fuel Storage Installation (ISFSI), default use of the maximum dose rate for a completed (full) ISFSI, at a distance of 950 feet. ODCM equations may be used for calculating the dose to a member of the public for activities inside the site boundary. This dose would be at least a factor of 35 times less

than the maximum site boundary air dose, as calculated in the ODCM. Nowhere onsite are areas accessible to the public where exposure to liquid effluents could occur. Therefore, the modeling of the ODCM conservatively estimates the maximum potential dose to members of the public.

- The Old Steam Generator Storage Facility (OSGSF) provides long-term storage for two (2) “Once-Through Steam Generators”, two (2) Reactor Coolant System Hot Leg Piping sections, one (1) Reactor Vessel Closure Head (with Control Rod Drive Mechanisms and Service Support Structure). The OSGSF is designed so that dose rates at the exterior of the facility are within station designated dose rate limits which are more restrictive than the dose rate limits of 10CFR20.

Non-Functional Radioactive Effluent Monitoring Equipment

ODCM Table 2-1 Radioactive Liquid Effluent Monitoring Instrumentation

Instrument	Required Channels	Available Channels	Duration Non-Functional	Comments
RE4686, Storm sewer radiation monitor	1	0	6.1 Days (not consecutive)	With less than the number of required channels FUNCTIONAL, or if high alarm is locked in on RE, effluent releases via this pathway may continue provided that during effluent releases, grab samples are collected, at least once per 12 hours, and analyzed, at least once per 12 hours, for gross radioactivity (beta or gamma) at a lower limit of detection no greater than 1.0E-07 $\mu\text{Ci/ml}$ or a gamma isotopic analysis meeting the LLD Requirement of Table 2-3. Compensatory sampling was performed per the ODCM requirements no abnormal results identified.

ODCM Table 3-1 Radioactive Gaseous Effluent Monitoring Instrumentation

Instrument	Required Channels	Available Channels	Duration Non-Functional	Comments
None				There were no instances in 2023 in which less than the required number of radioactive gaseous effluent monitoring instrumentation channels were Functional.

Changes to the ODCM and the Process Control Program (PCP)

In 2023 the ODCM was revised twice. ODCM R40 Clarified guidance on actions to be taken when RE4686 is out of service. XOQ and DOQ values were updated based on the latest 5-year meteorological study results. A new critical receptor location, as well as the unrestricted area Noble gas and inhalation locations were updated based on the latest 5-year meteorological review and/or the 2023 Land-use census. A groundwater monitoring well was removed from the REMP as the owner had abandoned it. ODCM R41 improved definitions of variables used to calculate dose projections.

Based on the results of the 2023 Land Use Census, the Critical Pathway changed from the 2022 census. The current Critical Pathway is a garden in the SSW Sector, 0.7 miles from Davis-Besse.

There were no changes to the Process Control Program during 2023.

Borated Water Storage Tank Radionuclide Concentrations

During 2023, the Borated Water Storage Tank's sum of limiting fractions of radionuclides concentration, a unitless number, did not exceed the ODCM Section 2.2.4 limit of 1.

Table 14
Gaseous Effluents - Summation of All Releases

Nuclide	Unit	1st Qtr 2023	2nd Qtr 2023	3rd Qtr 2023	4th Qtr 2023
<u>Fission and Activation Gases</u>					
Total Release	Ci	2.59E-03	0.00E+00	0.00E+00	0.00E+00
Average Release Rate for Period	uCi/sec	3.31E-04	N/A	N/A	N/A
Percent of applicable limits:	See Supplemental Information in ODCM Release Limits Section 3.3, Gaseous Effluent Setpoint Determination				
<u>Iodines</u>					
Total Iodines (I-131)	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Average Release Rate for Period	uCi/sec	N/A	N/A	N/A	N/A
Percent of applicable limits:	See Supplemental Information in ODCM Release Limits Section 3.3, Gaseous Effluent Setpoint Determination				
<u>Particulates</u>					
Particulates with half-lives greater than 8 days (except C-14, see below)	Ci	7.79E-04	0.00E+00	0.00E+00	0.00E+00
Average Release Rate for Period	uCi/sec	9.97E-05	N/A	N/A	N/A
Percent of applicable limits:	See Supplemental Information in ODCM Release Limits Section 3.3, Gaseous Effluent Setpoint Determination				
<u>Gross Alpha Activity</u>					
	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
<u>Tritium</u>					
Total Release	Ci	1.57E+00	3.96E+00	2.79E+00	2.73E+00
Average Release Rate for Period	uCi/sec	2.00E-01	5.29E-01	3.49E-01	3.35E-01
Percent of applicable limits	See Supplemental Information in ODCM Release Limits Section 3.3, Gaseous Effluent Setpoint Determination				
<u>Carbon-14</u>					
Total Release	Ci	2.62E+00	2.68E+00	2.71E+00	2.74E+00

Note: The average release rate is taken over the entire quarter, not over the time the time period of the releases.

Table 15
Gaseous Effluents - Ground Level Releases
Batch Mode

Nuclide	Unit	1st Qtr 2023 ⁽¹⁾	2nd Qtr 2023 ⁽¹⁾	3rd Qtr 2023 ⁽¹⁾	4th Qtr 2023 ⁽¹⁾
<u>Fission Gases</u>					
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD
Kr-85m	Ci	<LLD	<LLD	<LLD	<LLD
Kr-87	Ci	<LLD	<LLD	<LLD	<LLD
Kr-88	Ci	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	<LLD	<LLD	<LLD	<LLD
Xe-135	Ci	<LLD	<LLD	<LLD	<LLD
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD
Total for Period:		N/A	N/A	N/A	N/A
<u>Iodines</u>					
I-131	Ci	<LLD	<LLD	<LLD	<LLD
I-133	Ci	<LLD	<LLD	<LLD	<LLD
I-135	Ci	<LLD	<LLD	<LLD	<LLD
Total for Period:		N/A	N/A	N/A	N/A
<u>Particulates and Tritium</u>					
H-3	Ci	1.32E-04	1.45E-04	1.64E-04	1.76E-04
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD
Ba-La-140	Ci	<LLD	<LLD	<LLD	<LLD
Total for Period:		1.32E-04	1.45E-04	1.64E-04	1.76E-04

(1) LLDs for Ground Level Gaseous Releases – Batch Mode are listed on page 88.

Table 15 (Continued)
Gaseous Effluents - Ground Level Releases
Continuous Mode

Nuclide	Unit	1st Qtr 2023 ⁽²⁾	2nd Qtr 2023 ⁽²⁾	3rd Qtr 2023 ⁽²⁾	4th Qtr 2023 ⁽²⁾
<u>Fission Gases</u>					
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD
Kr-85m	Ci	<LLD	<LLD	<LLD	<LLD
Kr-87	Ci	<LLD	<LLD	<LLD	<LLD
Kr-88	Ci	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	<LLD	<LLD	<LLD	<LLD
Xe-135	Ci	<LLD	<LLD	<LLD	<LLD
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD
Total for Period:		N/A	N/A	N/A	N/A
<u>Iodines</u>					
I-131	Ci	<LLD	<LLD	<LLD	<LLD
I-133	Ci	<LLD	<LLD	<LLD	<LLD
I-135	Ci	<LLD	<LLD	<LLD	<LLD
Total for Period:		N/A	N/A	N/A	N/A
<u>Particulates and Tritium</u>					
H-3	Ci	1.04E-03	1.01E-03	1.94E-03	1.18E-03
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD
Ba-La-140	Ci	<LLD	<LLD	<LLD	<LLD
Total for Period:		1.04E-03	1.01E-03	1.94E-03	1.18E-03

(2) LLDs for Ground Level Gaseous Releases – Continuous Mode are listed on page 88.

Table 15 (Continued)
Gaseous Effluents - Ground Level Releases
Lower Limits of Detection (LLD)

Continuous ^b and Batch^a Mode		
Ar-41	1.02E-08	μCi/ml
Kr-85	6.68E-07	μCi/ml
Kr-85m	9.77E-09	μCi/ml
Kr-87	2.03E-08	μCi/ml
Kr-88	2.00E-08	μCi/ml
Xe-133	2.02E-08	μCi/ml
Xe-133m	5.55E-08	μCi/ml
Xe-135	7.08E-09	μCi/ml
Xe-135m	1.70E-07	μCi/ml
Xe-138	4.03E-07	μCi/ml
Mn-54	1.06E-14	μCi/ml
Co-58	1.22E-14	μCi/ml
Fe-59	2.22E-14	μCi/ml
Co-60	1.75E-14	μCi/ml
Zn-65	2.75E-14	μCi/ml
Mo-99	4.69E-14	μCi/ml
I-131	1.50E-14	μCi/ml
I-133	1.77E-14	μCi/ml
Cs-134	1.41E-14	μCi/ml
I-135	4.46E-14	μCi/ml
Cs-137	1.48E-14	μCi/ml
Ba-140	3.92E-14	μCi/ml
La-140	1.24E-14	μCi/ml
Ce-141	2.17E-14	μCi/ml
Sr-89	1.60E-15	μCi/ml
Sr-90	7.00E-16	μCi/ml

a: Auxiliary Feed Pump Turbine Exhaust, Main Steam Safety Valves, and Auxiliary Boiler Outage Release are listed as batch release.

b: Atmospheric Vent Valve weepage and Steam Packing Exhauster are continuous releases.

Table 16
Gaseous Effluents - Mixed Mode Releases
Batch Mode

Nuclide	Unit	1st Qtr 2023 ⁽¹⁾	2nd Qtr 2023 ⁽¹⁾	3rd Qtr 2023 ⁽¹⁾	4th Qtr 2023 ⁽¹⁾
Fission Gases					
Ar-41	Ci	2.50E-03	<LLD	<LLD	<LLD
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD
Kr-85m	Ci	<LLD	<LLD	<LLD	<LLD
Kr-87	Ci	<LLD	<LLD	<LLD	<LLD
Kr-88	Ci	<LLD	<LLD	<LLD	<LLD
Xe-131m	Ci	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	8.79E-05	<LLD	<LLD	<LLD
Xe-133m	Ci	<LLD	<LLD	<LLD	<LLD
Xe-135	Ci	<LLD	<LLD	<LLD	<LLD
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD
Total for Period:		2.59E-03	0.00E+00	0.00E+00	0.00E+00
*Iodines					
I-131	Ci	<LLD	<LLD	<LLD	<LLD
I-133	Ci	<LLD	<LLD	<LLD	<LLD
I-135	Ci	<LLD	<LLD	<LLD	<LLD
Total for Period:	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
*Particulates & Tritium					
H-3	Ci	1.11E-03	1.14E-04	2.00E-04	9.47E-04
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD
Ba-La-140	Ci	<LLD	<LLD	<LLD	<LLD
Total for Period:	Ci	1.11E-03	1.14E-04	2.00E-04	9.47E-04

(1) LLDs for Mixed Mode Gaseous Releases –
Batch Mode are listed on page 91.

* Release of iodines and particulates are quantified in Mixed Mode
Releases, Continuous Mode (Unit Station Vent)

Table 16 (Continued)
Gaseous Effluents - Mixed Mode Releases
Continuous Mode

Nuclide	Unit	1st Qtr 2023 ⁽²⁾	2nd Qtr 2023 ⁽²⁾	3rd Qtr 2023 ⁽²⁾	4th Qtr 2023 ⁽²⁾
Fission Gases					
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD
Kr-85m	Ci	<LLD	<LLD	<LLD	<LLD
Kr-87	Ci	<LLD	<LLD	<LLD	<LLD
Kr-88	Ci	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	<LLD	<LLD	<LLD	<LLD
Xe-133m	Ci	<LLD	<LLD	<LLD	<LLD
Xe-135	Ci	<LLD	<LLD	<LLD	<LLD
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD
Total for Period:		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Iodines					
I-131	Ci	<LLD	<LLD	<LLD	<LLD
I-132	Ci	<LLD	<LLD	<LLD	<LLD
I-133	Ci	<LLD	<LLD	<LLD	<LLD
I-135	Ci	<LLD	<LLD	<LLD	<LLD
Total for Period:		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Particulates, Tritium					
Co-58	Ci	7.79E-04	<LLD	<LLD	<LLD
Co-60	Ci	<LLD	<LLD	<LLD	<LLD
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD
Sb-124	Ci	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD
Be-7	Ci	<LLD	9.07E-04	<LLD	<LLD
C-14	Ci	2.62E+00	2.68E+00	2.71E+00	2.74E+00
H-3	Ci	1.57E+00	3.96E+00	2.79E+00	2.73E+00
Total for Period	Ci	4.19E+00	6.64E+00	5.50E+00	5.47E+00

(2) LLDs for Mixed Mode Gaseous Releases –
Continuous Mode are listed on page 91.

Table 16 (Continued)
Gaseous Effluents - Mixed Mode Releases
Lower Limits of Detection (LLD)

Continuous Mode ^a			Batch Mode ^a		
Ar-41	1.02E-08	μCi/ml	Ar-41	1.61E-06	μCi/ml
Kr-85	6.68E-07	μCi/ml	Kr-85	2.95E-04	μCi/ml
Kr-85m	9.77E-09	μCi/ml	Kr-85m	1.60E-06	μCi/ml
Kr-87	2.03E-08	μCi/ml	Kr-87	3.75E-06	μCi/ml
Kr-88	2.00E-08	μCi/ml	Kr-88	4.58E-06	uCi/ml
Xe-133	2.02E-08	μCi/ml	Xe-133	3.01E-06	μCi/ml
Xe-133m	5.55E-08	μCi/ml	Xe-133m	1.01E-05	μCi/ml
Xe-135	7.08E-09	μCi/ml	Xe-135	1.29E-06	μCi/ml
Xe-135m	1.70E-07	μCi/ml	Xe-135m	1.97E-05	μCi/ml
Xe-138	4.03E-07	μCi/ml	Xe-138	4.48E-05	μCi/ml
Mn-54	1.06E-14	μCi/ml	Mn-54	1.24E-06	μCi/ml
Co-58	1.22E-14	μCi/ml	Co-58	1.13E-06	μCi/ml
Fe-59	2.22E-14	μCi/ml	Fe-59	2.04E-06	μCi/ml
Co-60	1.75E-14	μCi/ml	Co-60	1.13E-06	μCi/ml
Zn-65	2.75E-14	μCi/ml	Zn-65	1.81E-06	μCi/ml
Mo-99	4.69E-14	μCi/ml	Mo-99	6.88E-06	μCi/ml
I-131	1.50E-14	μCi/ml	I-131	1.48E-06	μCi/ml
I-133	1.77E-14	μCi/ml	I-133	1.29E-06	uCi/ml
Cs-134	1.41E-14	μCi/ml	Cs-134	9.63E-07	uCi/ml
I-135	4.46E-14	μCi/ml	I-135	3.70E-06	uCi/ml
Cs-137	1.48E-14	μCi/ml	Cs-137	1.54E-06	μCi/ml
Ba-140	3.92E-14	μCi/ml	Ba-140	3.75E-06	μCi/ml
La-140	1.24E-14	μCi/ml	La-140	1.06E-06	μCi/ml
Ce-141	2.17E-14	μCi/ml	Ce-141	1.95E-06	μCi/ml
Sr-89	1.60E-15	μCi/ml	Sr-89	1.60E-15	uCi/ml
Sr-90	7.00E-16	μCi/ml	Sr-90	7.00E-16	uCi/ml

^a These radionuclides were not identified in every quarter in concentrations above the lower limit of detection (LLD).

Table 17
Liquid Effluents - Summation of All Releases

Type	Unit	1st Qtr 2023	2nd Qtr 2023	3rd Qtr 2023	4th Qtr 2023	Est. Total % Error
<u>Fission and Activation Products</u>						
Total Release (without Tritium, Gases, Alpha)	Ci	4.04E-04	5.05E-05	2.20E-04	1.31E-03	2.0E+01
Average Diluted Concentration During Period ^a	μCi/ml	3.70E-11	4.25E-12	1.96E-11	1.23E-10	
Percent of 10CFR20 Limit	%	3.90E-05	4.28E-06	1.12E-05	1.22E-04	
<u>Tritium</u>						
Total Release	Ci	1.35E+02	1.85E+02	1.62E+02	1.11E+02	2.0E+01
Average Diluted Concentration During Period ^a	μCi/ml	1.24E-05	1.56E-05	1.44E-05	1.05E-05	
Percent of 10CFR20 Limit	%	8.63E-02	1.09E-01	1.01E-01	7.30E-02	
<u>Dissolved and Entrained Gases</u>						
Total Release	Ci	1.98E-06	0.00E+00	3.43E-07	3.25E-07	2.0E+01
Average Diluted Concentration During Period ^a	μCi/ml	1.82E-13	0.00E+00	3.06E-14	3.06E-14	
Percent of 10CFR20 Limit	%	6.34E-09	0.00E+00	1.07E-09	1.07E-09	
<u>Gross Alpha</u>						
Total Release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.0E+01
<u>Volume of Waste Released (prior to dilution)</u>						
Batch	liter	5.88E+05	6.18E+05	6.47E+05	7.05E+05	2.0E+01
Continuous	liter	6.21E+07	6.45E+07	6.36E+07	4.74E+07	2.0E+01
<u>Volume of Dilution Water</u>						
Batch	liter	2.17E+08	2.61E+08	2.24E+08	1.93E+08	2.0E+01
Continuous	liter	1.07E+10	1.15E+10	1.09E+10	1.04E+10	2.0E+01
<u>Total Volume of Water Released</u>	liter	1.09E+10	1.19E+10	1.12E+10	1.06E+10	

^a Tritium and alpha may be found in both continuous and batch releases. Average diluted concentrations are based on total volume of water released during the quarter. Fission and Activation products and Dissolved and Entrained Gases are normally only detected in batch releases.

Table 18
Liquid Effluents
Batch Releases ⁽¹⁾

Nuclide	Unit	1st Qtr 2023	2nd Qtr 2023	3rd Qtr 2023	4th Qtr 2023
Fission and Activation Products					
Mn-54	Ci	<LLD	<LLD	<LLD	1.17E-06
Fe-55	Ci	<LLD	<LLD	<LLD	<LLD
Co-58	Ci	7.16E-06	<LLD	6.03E-07	1.73E-05
Co-60	Ci	4.76E-05	4.23E-06	3.12E-05	4.45E-04
Ni-63	Ci	7.64E-05	<LLD	1.29E-04	6.42E-04
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD
Sr-92	Ci	<LLD	<LLD	<LLD	6.34E-07
Nb-97	Ci	2.64E-06	9.40E-06	1.63E-05	1.42E-05
Zr-97	Ci	3.38E-07	<LLD	<LLD	<LLD
Ag-110m	Ci	2.44E-04	2.43E-05	8.66E-06	1.45E-04
Sb-122	Ci	<LLD	2.29E-07	3.45E-06	8.82E-06
Sb-124	Ci	2.29E-05	1.23E-05	3.06E-05	3.48E-05
Total for Period	Ci	4.04E-04	5.05E-05	2.20E-04	1.31E-03
Tritium					
H-3 (Total for Period)	Ci	1.35E+02	1.85E+02	1.62E+02	1.11E+02
Dissolved and Entrained Gases					
Ar-41	Ci	<LLD	<LLD	<LLD	<LLD
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD
Kr-85m	Ci	<LLD	<LLD	<LLD	<LLD
Kr-87	Ci	<LLD	<LLD	<LLD	3.25E-07
Kr-88	Ci	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	1.98E-06	<LLD	<LLD	<LLD
Xe-133m	Ci	<LLD	<LLD	<LLD	<LLD
Xe-135	Ci	<LLD	<LLD	3.43E-07	<LLD
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD
Total for Period:	Ci	1.98E-06	0.00E+00	3.43E-07	3.25E-07

(1) LLDs for Liquid Releases – Batch Mode are listed on page 95.

Table 18 (continued)
Liquid Effluents ^a
Continuous Releases

Nuclide	Unit	1st Qtr 2023 ⁽²⁾	2nd Qtr 2023 ⁽²⁾	3rd Qtr 2023 ⁽²⁾	4th Qtr 2023 ⁽²⁾
Fission and Activation Products					
Mn-54	Ci	<LLD	<LLD	<LLD	<LLD
Fe-55	Ci	<LLD	<LLD	<LLD	<LLD
Fe-59	Ci	<LLD	<LLD	<LLD	<LLD
Co-58	Ci	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	<LLD	<LLD	<LLD	<LLD
Ni-63	Ci	<LLD	<LLD	<LLD	<LLD
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD
Sr-89 ^b	Ci	<LLD	<LLD	<LLD	<LLD
Sr-90 ^b	Ci	<LLD	<LLD	<LLD	<LLD
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD
I-131	Ci	<LLD	<LLD	<LLD	<LLD
I-133	Ci	<LLD	<LLD	<LLD	<LLD
I-135	Ci	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD
La-140	Ci	<LLD	<LLD	<LLD	<LLD
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD
Total for Period:	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Tritium					
H-3 (Total for Period)	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dissolved and Entrained Gases					
Ar-41	Ci	<LLD	<LLD	<LLD	<LLD
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD
Kr-85m	Ci	<LLD	<LLD	<LLD	<LLD
Kr-87	Ci	<LLD	<LLD	<LLD	<LLD
Kr-88	Ci	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	<LLD	<LLD	<LLD	<LLD
Xe-133m	Ci	<LLD	<LLD	<LLD	<LLD
Xe-135	Ci	<LLD	<LLD	<LLD	<LLD
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD
Total for Period:	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00

(2) LLDs for Liquid Releases – Continuous Mode are listed on page 95.

Table 18 (continued)
Liquid Effluents
Lower Limits of Detection (LLD)^a

Continuous and Batch Mode

Ar-41	9.46E-09	μCi/ml
Mn-54	8.21E-09	μCi/ml
Co-58	6.30E-09	μCi/ml
Fe-59	1.35E-08	μCi/ml
Co-60	8.08E-09	μCi/ml
Zn-65	1.95E-08	μCi/ml
Kr-85m	1.48E-08	μCi/ml
Kr-85	2.44E-06	μCi/ml
Kr-87	2.90E-08	μCi/ml
Kr-88	4.73E-08	μCi/ml
Mo-99	6.84E-08	μCi/ml
I-131	1.10E-08	μCi/ml
I-133	1.09E-08	μCi/ml
Xe-133m	9.18E-08	μCi/ml
Xe-133	3.81E-08	μCi/ml
Cs-134	9.62E-09	μCi/ml
I-135	2.40E-08	μCi/ml
Xe-135m	3.32E-08	μCi/ml
Xe-135	1.13E-08	μCi/ml
Cs-137	1.13E-08	μCi/ml
Xe-138	1.36E-07	μCi/ml
Ba-140	3.38E-08	μCi/ml
La-140	5.95E-09	μCi/ml
Ce-141	2.05E-08	μCi/ml
Gross Alpha ^b	2.70E-08	μCi/ml
Fe-55 ^b	5.60E-07	μCi/ml
Ni-63 ^b	7.40E-08	μCi/ml
Sr-89 ^b	1.90E-08	μCi/ml
Sr-90 ^b	7.80E-09	μCi/ml

^a These radionuclides were not identified every quarter in concentrations above the lower limit of detection (LLD). LLDs are applicable to both batch and continuous modes due to identical sample and analysis methods.

^b Quarterly composite sample, contract laboratory MDA.

Table 19
Radioactive Waste and Irradiated Fuel Shipments

A. RADIOACTIVE WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (Not irradiated fuel)

1. Type of Waste		Unit	12-month Period	Est. Total Error, %
a.	Spent resins, filter sludges, evaporator bottoms, etc.	m ³	1.65E+01	2.5E+01
		Ci	4.26E-03	2.5E+01
b.	Dry compressible waste, contaminated equip., etc.	m ³	2.83E+01	2.5E+01
		Ci	2.76E-03	2.5E+01
c.	Irradiated components, control rods, etc.	m ³	N/A	N/A
		Ci		
d.	Filters	m ³	3.51E+00	N/A
		Ci	9.63E-01	

2. Estimate of major nuclide composition (by type of waste)

	<u>Type</u>	<u>Percent (%)</u>	<u>Est. Error, %</u>
a.	Spent resins.		
	Cs ¹³⁷	1.00E+02	2.50E+01
b.	Dry compressible waste, contaminated equipment, etc.		
	Co ⁶⁰	4.93E+01	2.50E+01
	H ³	1.44E+01	2.50E+01
	Ni ⁶³	1.42E+01	2.50E+01
	Co ⁵⁸	8.27E+00	2.50E+01
	Nb ⁹⁵	3.00E+00	2.50E+01
	Zr ⁹⁵	2.05E+00	2.50E+01
	Ag ^{110m}	2.00E+00	2.50E+01
	Tc ⁹⁹	1.86E+00	2.50E+01
	Cs ¹³⁷	1.61E+00	2.50E+01
	Mn ⁵⁴	1.37E+00	2.50E+01
	C ¹⁴	8.70E-01	2.50E+01
	Ce ¹⁴⁴	7.62E-01	2.50E+01
	Co ⁵⁷	3.25E-01	2.50E+01
c.	None		

d. Others: dewatered primary system cartridge filters

Co ⁶⁰	4.46E+01	2.50E+01
Fe ⁵⁵	1.76E+01	2.50E+01
Ni ⁶³	1.57E+01	2.50E+01
C ¹⁴	1.48E+01	2.50E+01
H ³	2.77E+00	2.50E+01
Ag ^{110m}	2.73E+00	2.50E+01
Mn ⁵⁴	7.27E-01	2.50E+01
Co ⁵⁸	2.54E-01	2.50E+01
Zn ⁶⁵	2.53E-01	2.50E+01
Cs ¹³⁷	2.21E-01	2.50E+01
Tc ⁹⁹	1.30E-01	2.50E+01
Ce ¹⁴⁴	1.22E-01	2.50E+01

Number of Shipments:

1

Mode of Transportation:

Truck

Destination:

EnergySolutions, Oak Ridge, TN
for processing then disposal at
EnergySolutions in Utah.

Type of Container (Container Volume):

Metal boxes (assorted sizes, 3.5-35.4 m³)

Volume shipped for processing

31.8 m³

Number of Shipments:

1

Mode of Transportation:

Truck

Destination:

Toxco, Oak Ridge, TN
for processing then disposal at EnergySolutions in
Utah

Type of Container (Container Volume):

Metal Liners (5.4 m³)

Volume shipped for processing

16.5 m³

B. IRRADIATED FUEL SHIPMENTS

There were no shipments of irradiated fuel.

Onsite Groundwater Monitoring

Davis-Besse began sampling wells near the plant in 2007 as part of an industry-wide Groundwater Protection Initiative (GPI), which was established to ensure there are no inadvertent releases of radioactivity from the plant which could affect offsite groundwater supplies. In addition to several existing pre-construction era wells, 16 new GPI monitor wells were installed in 2007 to determine the presence of plant-related radionuclides, primarily Tritium, in aquifers on the site. There are 23 monitor wells on site that can be used to determine groundwater flow direction and radionuclide concentration.

Davis-Besse's Groundwater Monitoring Program (GMP) includes baseline annual Spring and Fall sampling of the 16 monitor wells installed in 2007. Additional monitor wells can be sampled as needed if increased monitoring is warranted. An increasing trend of Tritium in site monitor well samples was identified in February 2015 and the subsequent investigation determined that the most probable cause was due to construction activities surrounding removal of the Primary Water Storage Tank. Additional monitor wells were added to the semi-annual sampling campaigns and the sampling frequency was increased to quarterly for selected wells to closely monitor and trend Tritium values in vulnerable areas of the site. A decreasing trend in Tritium concentration in groundwater at the site has been observed since 2016. In the third quarter of 2017, Davis-Besse returned to semi-annual sampling after all monitor wells yielded Tritium activity less than 2,000 pCi/L for three consecutive quarters. All groundwater sample results were less than 1000 pCi/L in 2023. 2023 groundwater Tritium results are presented in Table 20 and a historical trend for Tritium in groundwater at the site is shown in Figure 28. No plant-related gamma-emitting radionuclides were detected in any groundwater samples taken in 2023.

In April 2017, Environmental Resources Management completed a model update of the site hydrology. The scope of the study was to determine the impact that construction of the Emergency Feedwater Facility (EFWF) had on groundwater flow at Davis-Besse and to evaluate if the Intake Canal is still the discharge location for site groundwater. The study concluded that the presence of the new EFWF does not appear to significantly impact groundwater flow for the site. Overall site-wide groundwater flow remains in a west to east direction, with groundwater flowing around the EFWF foundation. While wells MW-22S/D were removed during the EFWF project, potential leaks or spills west of the Power Block would still be detected by other existing wells. Groundwater flow is discharging to the Intake Canal. Therefore, potential leaks or spills of licensed material originating from Davis-Besse would be captured by pumping water from the Intake Canal as part of normal plant operations.

Table 20
GMP Groundwater Tritium Results

Year	Sample Event (b)	MW	(a)	Result	Units
2023	S1	MW-100A	<	163	pCi/L
2023	S1	MW-100B		211	pCi/L
2023	S1	MW-100C		192	pCi/L
2023	S1	MW-101A	<	163	pCi/L
2023	S1	MW-101B		163	pCi/L
2023	S1	MW-102A		269	pCi/L
2023	S1	MW-102B		350	pCi/L
2023	S1	MW-102C	<	163	pCi/L
2023	S1	MW-103A		221	pCi/L
2023	S1	MW-103B		473	pCi/L
2023	S1	MW-104A		230	pCi/L
2023	S1	MW-104B	<	163	pCi/L
2023	S1	MW-104C		187	pCi/L
2023	S1	MW-105A		197	pCi/L
2023	S1	MW-14S		307	pCi/L
2023	S1	MW-18S		590	pCi/L
2023	S1	MW-20S	<	163	pCi/L
2023	S1	MW-20S (c)		194	pCi/L
2023	S1	MW-21S	<	163	pCi/L
2023	S1	MW-30S		329	pCi/L
2023	S1	MW-34S		194	pCi/L
2023	S1	MW-37S		192	pCi/L
2023	S2	MW-100A	<	174	pCi/L
2023	S2	MW-100B	<	174	pCi/L
2023	S2	MW-100C	<	174	pCi/L
2023	S2	MW-101A	<	174	pCi/L
2023	S2	MW-101B	<	174	pCi/L
2023	S2	MW-102A	<	174	pCi/L

Year	Sample Event (b)	MW	(a)	Result	Units
2023	S2	MW-102B	<	174	pCi/L
2023	S2	MW-103A	<	174	pCi/L
2023	S2	MW-103B		218	pCi/L
2023	S2	MW-104A	<	174	pCi/L
2023	S2	MW-104B	<	174	pCi/L
2023	S2	MW-104C	<	174	pCi/L
2023	S2	MW-105A	<	174	pCi/L
2023	S2	MW-14S	<	174	pCi/L
2023	S2	MW-18S		420	pCi/L
2023	S2	MW-20S	<	174	pCi/L
2023	S2	MW-21S	<	174	pCi/L
2023	S2	MW-21S (c)	<	174	pCi/L
2023	S2	MW-30S		297	pCi/L
2023	S2	MW-34S	<	174	pCi/L

- (a) A “<” symbol in this field indicated that the reported result was less than the detectable level, which is reported in the “Result” column immediately to the right.
- (b) DBNPS program is required to sample ground water from the monitor wells twice per year. In 2023 the S1 was performed in May and S3 was performed in October.
- (c) Indicates a quality control sample, in this case a duplicate sample was drawn from the monitor well.

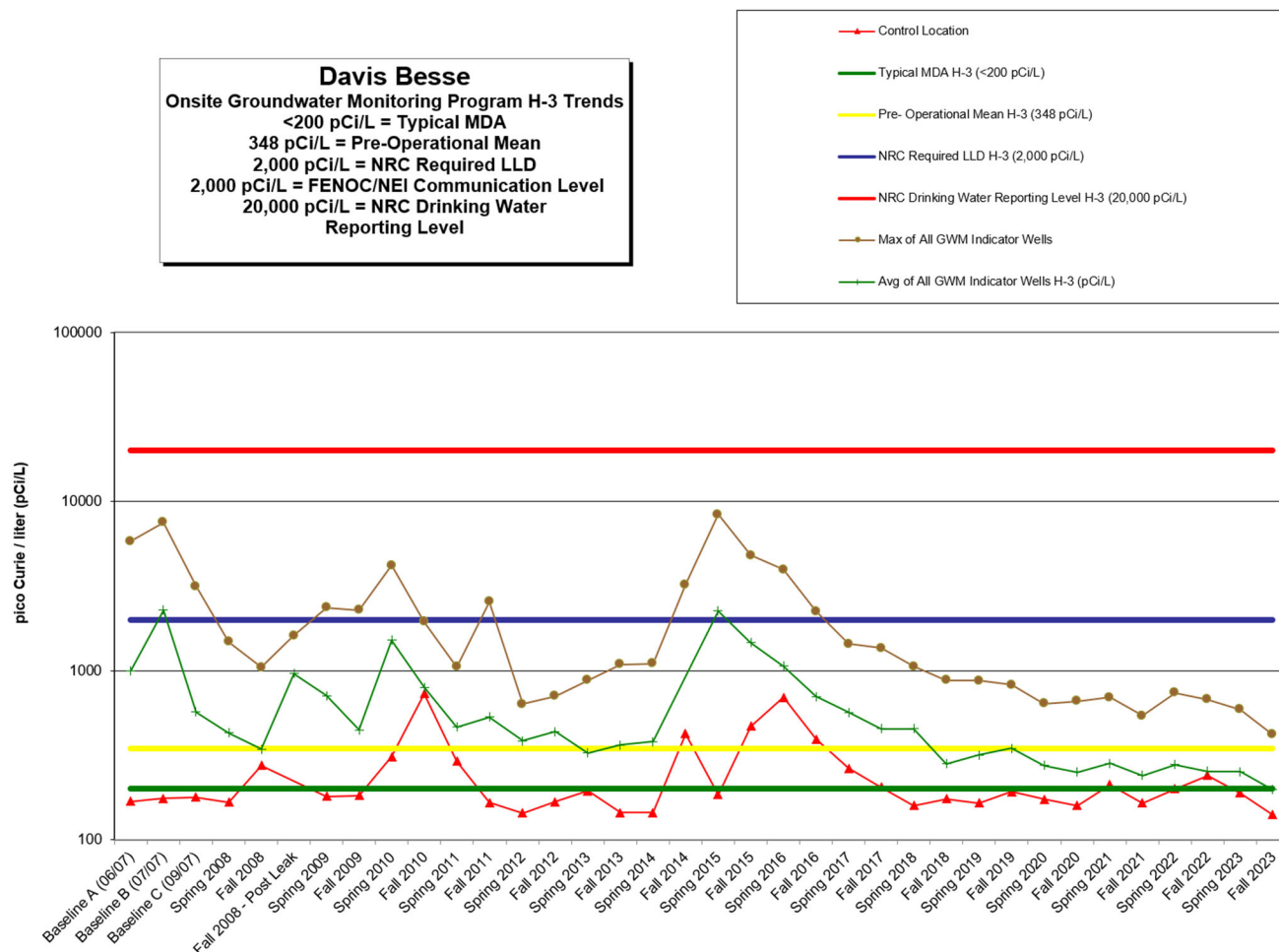


Figure 29 - Onsite Groundwater Monitoring Tritium Trends

Summary of Onsite Spills or Leaks of Radioactive Material and Notifications

There were no identified onsite spills or leaks of radioactive material during 2023.

There were no groundwater well sample results during 2023 that required notifications to the State, County and local officials.

Summary of Items Added to Decommissioning Files per 10 CFR 50.75(g)

There were no elevated groundwater Tritium values during 2023 and no updates to the Decommissioning Files per 10 CFR 50.75(g).

Table 21
Doses Due to Gaseous Releases
January through December 2023

Maximum Individual Dose Due to I-131, H-3, C-14 and Particulates with Half-Lives Greater than 8 days.

Whole Body Dose	1.40E-01 mRem
Significant Organ Dose (Bone)	6.82E-01 mRem

Maximum Individual Dose Due to Noble Gas

Whole Body Dose	2.18E-06 mRem
Skin Dose	3.18E-06 mrad

Population Dose Due to I-131, H-3, C-14 and Particulates with Half-Lives Greater than 8 days.

Total Integrated Population Dose	5.37E-01 person-Rem
Average Dose to Individual in Population	2.46E-04 mRem

Population Dose Due to Noble Gas

Total Integrated Population Dose	2.52E-07 person-Rem
Average Dose to Individual in Population	1.15E-10 mRem

Table 22
Doses Due to Liquid Releases
January through December 2023

Individual Dose

Maximum Individual Whole-Body Dose	3.20E-03 mrem
Maximum Individual Significant Organ Dose (Liver)	3.25E-03 mrem

Population Dose

Total Integrated Population Dose	5.43E-01 person-Rem
Average Dose to Individual	2.49E-04 mRem

Table 23
Annual Dose to The Most Exposed Member of the Public 2023
(from all pathways)

	ANNUAL DOSE (mRem)	40CFR190 LIMIT (mRem)	PERCENT OF LIMIT
Whole Body Dose*			
Noble Gas	2.18E-06		
Iodine-131, H-3, C-14, and Particulates	1.40E-01		
Liquid	3.20E-03		
Total Whole-Body Dose	1.43E-01	25	5.73E-01
Thyroid Dose			
Iodine-131, H-3, C-14, and Particulates	1.43E-01	75	1.91E-01
Skin Dose			
Noble Gas	3.18E-06	25	1.27E-05
Significant Organ Dose			
Bone	6.82E-01	25	2.37E+00

* Direct radiation from the facility is not distinguishable from natural background and is, therefore, not included in this compilation.

Land Use Census

Program Design

Each year a Land Use Census is conducted by Davis-Besse in order to update information necessary to estimate radiation dose to the general public and to determine if any modifications are necessary to the Radiological Environmental Monitoring Program (REMP). The Land Use Census is required by Title 10 of the Code of Federal Regulations, Part 50, Appendix I and Davis-Besse Nuclear Power Station Offsite Dose Calculation Manual, Section 5, Assessment of Land Use Census Data. The Land Use Census identifies gaseous pathways by which radioactive material may reach the general population around Davis-Besse. The information gathered during the Land Use Census for dose assessment and input into the REMP ensure these programs are as current as possible. The pathways of concern are listed below:

- **Inhalation Pathway** - Internal exposure as a result of breathing radionuclides carried in the air.
- **Ground Exposure Pathway** - External exposure from radionuclides deposited on the ground.
- **Plume Exposure Pathway** - External exposure directly from a plume or cloud of radioactive material.
- **Vegetation Pathway** - Internal exposure as a result of eating vegetables, fruit, etc. which have a build-up of deposited radioactive material, or which have absorbed radionuclides through the soil.
- **Milk Pathway** - Internal exposure as a result of drinking milk, which may contain radioactive material as a result of a cow or goat grazing on a pasture contaminated by radionuclides.

Methodology

The Land Use Census consists of recording and mapping the locations of the closest residences, dairy cattle and goats, and broad leaf vegetable gardens (greater than 500 square feet) in each meteorological sector within a five-mile radius of Davis-Besse.

The surveillance portion of the 2023 Land Use Census was performed during the month of September. In order to gather as much information as possible, the locations of residences, dairy cows, dairy goats, and vegetable gardens were recorded. The residences, vegetable gardens, and milk animals are used in the dose assessment program. The gardens should be at least 500 square feet in size, with at least 20% of the vegetables being broadleaf plants (such as cabbage and kale).

Each residence is tabulated as being an inhalation pathway, as well as ground and plume exposure pathways. Each garden is tabulated as a vegetation pathway.

All of the locations identified are plotted on a map (based on the U.S. Geological Survey 7.5 minute series of the relevant quadrangles) which has been divided into 16 equal sectors corresponding to the 16 cardinal compass points (Figure 30). If available, the closest residence, milk animal, and vegetable garden in each sector are determined by measuring the distance from each to the Station Vent at Davis-Besse.

Results

SW Sector: A garden 3.79 miles from the station was planted in 2023.

The critical receptor pathway is a garden in the SSW sector at 0.70 miles from Davis-Besse, which is a change from 2022.

The detailed list in Table 24 was used to update the database of the effluent dispersion model used in dose calculations. Table 24 is divided by sectors and lists the distance (in miles) of the closest pathway in each.

Table 25 provides information on pathways, critical age group, atmospheric dispersion (χ/Q) and deposition (D/Q) parameters for each sector. This information is used to update the Offsite Dose Calculation Manual (ODCM). The ODCM describes the methodology and parameters used in calculating offsite doses from radioactivity released in liquid and gaseous effluents and in calculating liquid and gaseous effluent monitoring instrumentation alarm/trip setpoints. The χ/Q and D/Q values are revised each year, as required, based on the Annual Land Use Census results. In 2023 the χ/Q and D/Q values were updated based on the latest 5-year meteorological data review,



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Table 24
Closest Exposure Pathways Present in 2023

<u>Sector</u>	<u>Distance from Station (miles)</u>	<u>Closest Pathways</u>
N	0.55	Inhalation Ground Exposure Plume Exposure
NNE	0.55	Inhalation Ground Exposure Plume Exposure
NE	0.56	Inhalation Ground Exposure Plume Exposure
ENE, E, ESE	N/A	Located over Lake Erie
SE	4.94	Inhalation Ground Exposure Plume Exposure
SSE	1.82	Vegetation
SSE	0.93	Inhalation Ground Exposure Plume Exposure
S	0.68	Inhalation Ground Exposure Plume Exposure
SSW	0.70	Vegetation
SSW	0.61	Inhalation Ground Exposure Plume Exposure
SW	0.67	Inhalation Ground Exposure Plume Exposure
SW	3.79	Vegetation

Table 24 (Continued)
Closest Exposure Pathways Present in 2023

<u>Sector</u>	<u>Distance from Station (miles)</u>	<u>Closest Pathways</u>
WSW	0.96	Inhalation Ground Exposure Plume Exposure
W	0.61	Inhalation Ground Exposure Plume Exposure
W	0.97	Vegetation
WNW	0.94	Inhalation Ground Exposure Plume Exposure
NW	0.93	Inhalation Ground Exposure Plume Exposure
NNW	0.80	Inhalation Ground Exposure Plume Exposure

Table 25
Pathway Locations and Corresponding
Atmospheric Dispersion (X/Q) and Deposition (D/Q)
Parameters

SECTOR	MILES	CRITICAL PATHWAY	AGE GROUP	X/Q (SEC/M³)	D/Q (M⁻²)
N	0.55	Inhalation	Child	5.71E-07	6.68E-09
NNE	0.55	Inhalation	Child	9.22E-07	1.31E-08
NE	0.56	Inhalation	Child	1.20E-06	2.80E-08
ENE	---	*	---	---	---
E	---	*	---	---	---
ESE	---	*	---	---	---
SE	4.94	Inhalation	Child	3.80E-08	2.20E-10
SSE	1.82	Vegetation	Child	8.22E-08	1.01E-09
S	0.68	Inhalation	Child	1.82E-08	3.73E-09
SSW	0.70	Vegetation	Child	2.76E-07	5.63E-09
SW	3.79	Vegetation	Child	3.86E-08	2.96E-10
WSW	0.96	Inhalation	Child	3.24E-07	5.89E-09
W	0.97	Vegetation	Child	2.47E-07	3.59E-09
WNW	0.94	Inhalation	Child	1.25E-07	1.53E-09
NW	0.93	Inhalation	Child	8.53E-08	9.60E-10
NNW	0.80	Inhalation	Child	1.19E-07	1.35E-09

*No ingestion pathways are present: these sectors are located over marsh areas and Lake Erie.

Non-Radiological Environmental Programs

Meteorological Monitoring¹

The Meteorological Monitoring Program at Davis-Besse is required by the Nuclear Regulatory Commission (NRC) as part of the program for evaluating the effects of routine operation of nuclear power stations on the surrounding environment. Both NRC regulations and the Davis-Besse Technical Requirements Manual provide guidelines for the Meteorological Monitoring Program. These guidelines ensure that Davis-Besse has the proper equipment, in good working order, to support the many programs utilizing meteorological data.

Meteorological observations at Davis-Besse began in October 1968. The Meteorological Monitoring Program at Davis-Besse has an extensive record of data with which to perform studies which are used to determine whether Davis-Besse has had any impact upon the local climate. After extensive statistical comparative research, the meteorological personnel have found no impact upon local climate or short-term weather patterns.

The Meteorological Monitoring Program also provides data that can be used by many other groups and programs such as the Radiological Environmental Monitoring Program, the Emergency Preparedness Program, Site Chemistry, Plant Operations, Nuclear Security, Materials Management and Industrial Safety, as well as other plant personnel and members of the surrounding community.

The Radiological Environmental Monitoring Program uses meteorological data to aid in evaluating the radiological impact, if any, of radioisotopes released in Station effluents. The meteorological data are used to evaluate radiological environmental monitoring sites to assure the program is as current as possible. The Emergency Preparedness Program uses meteorological data to calculate emergency dose scenarios for emergency drills and exercises and uses weather data to plan evacuations or station isolation during adverse weather. The Chemistry Unit uses meteorological data for chemical spill response activities, marsh management studies, and wastewater discharge flow calculations. Plant Operations uses meteorological data for cooling tower efficiency calculations, Forebay water level availability and plant work which needs certain environmental conditions to be met before work begins. Plant Security utilizes weather data in their routine planning and activities. Materials Management plans certain Plant shipments around adverse weather conditions to avoid high winds and precipitation, which would cause delays in material deliveries and safety concerns. Industrial Safety uses weather and climate data to advise personnel of unsafe working conditions due to environmental conditions, providing a safer place to work. Regulatory Affairs uses climate data for their investigation into adverse weather accidents in relation to the Plant and personnel.

1. Detailed meteorological information is available upon request.

On-Site Meteorological Monitoring

System Description

At Davis-Besse there are two independent meteorological systems, a primary and a backup. Both are housed in separate environmentally controlled buildings with independent power supplies. Both primary and backup systems have been analyzed to be statistically identical, so that if a redundant system in one unit fails, the other system can take its place. The instrumentation of each system follows:

<u>PRIMARY</u>	<u>BACKUP</u>
100 Meter Wind Speed	100 Meter Wind Speed
75 Meter Wind Speed	75 Meter Wind Speed
10 Meter Wind Speed	10 Meter Wind Speed
100 Meter Wind Direction	100 Meter Wind Direction
75 Meter Wind Direction	75 Meter Wind Direction
10 Meter Wind Direction	10 Meter Wind Direction
100 Meter Delta Temperature	100 Meter Delta Temperature
75 Meter Delta Temperature	75 Meter Delta Temperature
10 Meter Ambient Temperature	10 Meter Ambient Temperature
Precipitation	10 Meter Solar Incidence

Meteorological Instrumentation

The meteorological system consists of one monitoring site located at an elevation of 577 feet above mean sea level (IGLD 1955)*. It contains a 100 meter (m) free-standing tower located approximately 3,000 feet SSW of the Cooling Tower and a 10m auxiliary tower located 100 feet west of the 100m tower. Both are used to gather the meteorological data. The 100m tower has primary and backup instruments for wind speed and wind direction at 100m and 75m. The 100m tower also measures differential temperature (delta Ts): 100-10m and 75-10m. The 10m tower has instruments for wind speed and wind direction. Precipitation is measured by a tipping bucket rain gauge located near the base of the 10m tower.

According to the Davis-Besse Nuclear Power Station Technical Requirements Manual, the following five instruments are required to be operable: 75m Wind Speed and Wind Direction, 10m Wind Speed and Wind Direction, and 75m-10m Delta Temperature (which requires 75m Temperature and 10m Temperature). During 2023, average annual data recoveries for all required instruments were greater than 98.4 percent. Minor losses of data occurred during routine instrument maintenance, calibration, and data validation.

Personnel at Davis-Besse inspect the meteorological site and instrumentation regularly. Data are reviewed daily to ensure that all communication pathways, data availability and data reliability are working as required. Tower instrumentation maintenance and semi-annual calibrations are performed by in-house facilities and by an outside consulting firm. These instruments are wind tunnel tested to assure compliance with applicable regulations and plant specifications.

* International Great Lakes Datum - 1955

Meteorological Data Handling and Reduction

Each meteorological system, primary and backup, has two Campbell Scientific Data-loggers assigned. The primary meteorological system's data-logger sends 900-second averages of meteorological sensor data (e.g., wind speed or wind direction) to the control room via the plant INFO Servers. If a failure occurs at any point between the primary meteorological system and the control room, the control room can utilize the second data-logger in the primary shelter. The backup meteorological system is designed to function in the same as fashion the primary meteorological system. For the site to lose all meteorological data, the primary and backup meteorological systems would have to lose all four data-loggers. Such a situation is highly improbable as each meteorological system is powered by a different power supply and equipped with lightning and surge protection, plus four independent communication lines and data-logger battery backup.

Data from the primary and backup meteorological systems are stored in a 30-day circular storage module with permanent storage, since 2019, in PI databases. If questionable data on the primary system cannot be corroborated by the backup system, the data in question are eliminated and not incorporated into the final database. All validated data are then documented and stored on hard copy and in digital format for a permanent record of meteorological conditions.

Meteorological Data Summaries

This section contains Tables 26-28, which summarize meteorological data collected from the on-site monitoring program in 2023.

Wind Speed and Wind Direction

Wind sector graphics represent the frequency of wind direction by sector and the wind speed in mph by sector. This data is used by the NRC to better understand local wind patterns as they relate to defined past climatological wind patterns reported in Davis-Besse's Updated Safety Analysis Report. The maximum sustained wind speeds at each meteorological tower instrument elevation recorded during 2023 are as follows:

- 100-meter – 54.85 mph on March 3rd
- 75-meter – 50.78 mph on March 3rd
- 10-meter – 34.44 mph on February 15th

Figures 31-33 provide an annual sector graphic of average wind speed and percent frequency by direction measured at the three monitoring levels. Each wind sector graphic has two radial bars. The darker bar represents the percent of time the wind blew from that direction. The hatched bar represents the average wind speed from that direction. Wind direction sectors are classified using Pasquill Stabilities. Percent calms (less than or equal to 1.0 mph) are shown in the middle of the wind sector graphic.

Ambient and Differential Temperatures

Monthly average, minimum and maximum ambient temperatures for 2023 are provided in Table 27. The parameters were measured at the 10m level; with differential temperatures taken from 100m and 75m levels. The yearly average ambient temperature was 52.61°F. The maximum

temperature was 87.55°F on September 5th with a minimum temperature of 10.67°F on February 1st. Yearly average differential temperatures were -0.27°F (100-10m), and -0.05°F (75-10m). Maximum differential temperatures for 100-10 meter and 75-10m levels were 7.99°F on December 25th and 7.97°F on December 25th respectively. Minimum differential temperatures were -4.00°F (100-10m) and -3.97°F (75-10m) on April 30th. Differential temperatures are a measurement of atmospheric stability and used to calculate radioactive plume dispersions based on Gaussian Plume Models of continuous effluent releases.

Precipitation

Monthly totals and extremes of precipitation at Davis-Besse for 2023 are provided in Table 27. Total precipitation for the year was 32.00 inches. The maximum daily precipitation total was 2.07 inches on August 23rd. There were many days in which no precipitation was recorded. It is likely that precipitation totals recorded in colder months are somewhat less than actual due to snow/sleet blowing across the collection unit rather than accumulating in the gauge.

Lake Breeze and Lake Level Monitoring

The "Lake Breeze" condition is monitored at Davis-Besse because of its potential to cause major atmospheric/ dispersion problems during the unlikely event of an unplanned radioactive release.

A lake breeze event can occur during the daytime, usually during the summer, under the conditions in which the land surface heats up faster than the water and reaches warmer temperatures than the temperature of the water. The warmer air above the land rises faster because it is less dense than the cooler air over the lake. This leads to rising air currents over the land with denser cold air descending over the lake. This starts a wind circulation which draws air from the water to the land during the daytime, creating a "Lake Breeze" effect. This event could be problematic if a release were to occur, because diffusion would be slow, thus creating an adverse atmosphere to the area surrounding the site. Approximately 25 hours, during which meteorological conditions met Lake Breeze criteria, occurred near Davis-Besse during 2023.

Lake and Forebay levels are monitored at Davis-Besse to observe, evaluate, predict and disseminate high or low lake level information. These data are critical to the operation of the plant due to the large amounts of water needed to cool plant components. If water levels get too low, the plant operators can take measures to ensure safe shutdown of the plant. Since Lake Erie is the shallowest of the Great Lakes, it is not uncommon for five feet of lake level fluctuation to occur within an eight to ten hour period (plus or minus). High water levels also affect the plant due to emergency transportation and evacuation routes.

Meteorological Data

Meteorological data, for January 1 through December 31, 2023, has been submitted with this document to the U. S. Nuclear Regulatory Commission, Document Control Desk, Washington, D.C. 20555.

Table 26
Summary of Meteorological Data Recovery for 2023
Davis-Besse Nuclear Power Station
January 1, 2023 through December 31, 2023*

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2023
100M Wind Speed	100.00	100.00	99.87	94.17	99.73	97.64	100.00	100.00	100.00	100.00	100.00	99.87	99.28
100M Wind Direction	100.00	100.00	99.87	98.47	99.60	97.50	100.00	100.00	100.00	100.00	99.86	99.73	99.59
75M Wind Speed	99.73	100.00	99.87	94.86	99.73	97.64	100.00	100.00	100.00	100.00	100.00	99.87	99.32
75M Wind Direction	95.56	100.00	99.87	98.47	99.73	97.64	100.00	100.00	100.00	100.00	100.00	99.87	99.26
10M Wind Speed	100.00	100.00	99.87	98.61	99.73	97.64	100.00	99.87	100.00	100.00	100.00	99.87	99.63
10M Wind Direction	99.73	99.85	99.87	98.89	99.46	97.64	100.00	100.00	100.00	100.00	100.00	99.73	99.60
10M Ambient Air Temp	100.00	100.00	99.87	92.08	99.87	96.25	100.00	100.00	100.00	100.00	100.00	99.87	99.01
Delta T (100M-10M)	97.04	98.96	99.87	90.00	98.25	97.64	99.73	99.73	99.31	99.60	98.89	98.39	98.13
Delta T (75M-10M)	99.19	98.96	99.87	92.50	96.37	97.64	100.00	100.00	100.00	100.00	96.67	99.87	98.44
Joint 100M Winds and Delta T (100M-10M)	97.04	98.96	99.87	90.00	98.25	97.64	99.73	99.73	99.31	99.60	98.89	98.39	98.13
Joint 75M Winds and Delta T (100M-10M)	97.04	98.96	99.87	90.00	98.25	97.64	99.73	99.73	99.31	99.60	98.89	98.39	98.13
Joint 10M Winds and Delta T (75M-10M)	99.19	98.96	99.87	92.50	96.37	97.64	100.00	99.87	100.00	100.00	96.67	99.87	98.44

*All data for individual months expressed as percent of time instrument was operable during the month, divided by the maximum number of hours in that month that the instrument could be operable. Values for annual data recoveries equals the percent of time instrument was operable during the year, divided by the number of hours in the year that the instrument was operable.

Table 27
Summary of Meteorological Data Measured for 2023
Davis-Besse Nuclear Power Station
January 1, 2023 through December 31, 2023

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2023
100M WIND													
Max Speed (mph)	35.18	49.30	54.85	45.15	30.63	38.54	31.69	36.54	24.76	32.70	32.80	36.93	54.85
Date of Max Speed	01/19	02/15	03/03	04/01	05/06	06/25	07/26	08/23	09/24	10/14	11/06	12/18	03/03
Min Speed (mph)	1.71	0.63	1.87	0.69	0.92	1.03	1.28	1.29	1.04	1.97	2.28	2.18	0.63
Date of Min Speed	01/30	02/23	03/13	04/25	05/10	06/23	07/04	08/11	09/29	09/28	11/25	12/31	02/23
Ave Wind Speed	15.57	18.67	18.36	16.54	14.37	13.47	11.20	13.12	11.87	16.80	16.94	15.41	15.17
75M WIND													
Max Speed (mph)	32.64	46.81	50.78	41.70	28.17	35.78	28.90	34.53	23.86	29.45	30.06	35.00	50.78
Date of Max Speed	01/17	02/15	03/03	04/01	05/03	06/25	07/26	08/23	09/23	10/14	11/08	12/18	03/03
Min Speed (mph)	1.29	1.61	1.49	1.93	1.07	0.88	1.32	1.66	0.68	2.12	2.45	1.15	0.68
Date of Min Speed	01/12	02/23	03/02	04/15	05/11	06/23	07/04	08/26	09/29	09/28	11/25	12/21	09/29
Ave Wind Speed	14.40	17.34	16.88	15.30	12.94	12.27	10.24	12.05	10.89	15.19	15.34	14.01	13.88
10M WIND													
Max Speed (mph)	22.62	34.44	33.69	29.35	21.47	23.90	18.14	18.48	15.44	25.49	19.16	23.95	34.44
Date of Max Speed	01/20	02/15	03/25	04/01	05/24	06/12	07/14	08/24	09/23	10/14	11/27	12/18	02/15
Min Speed (mph)	1.12	1.34	1.53	0.55	1.25	0.86	0.79	0.40	0.18	0.72	0.11	0.98	0.11
Date of Min Speed	01/13	02/12	03/27	04/15	05/10	06/18	07/21	08/28	09/29	10/02	11/25	12/02	11/25
Ave Wind Speed	8.73	10.48	10.91	9.25	8.04	7.48	5.85	7.16	6.14	8.56	8.35	7.57	8.20

Table 27 (continued)
Summary of Meteorological Data Measured for 2023
Davis-Besse Nuclear Power Station
January 1, 2023 through December 31, 2023

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2023
10M AMBIENT TEMP													
Max (F)	58.85	61.61	57.57	80.03	79.57	83.7	86.55	85.78	87.55	82.97	66.98	60.78	87.55
Date of Max	01/04	02/15	03/21	04/13	05/19	06/29	07/26	08/24	09/05	10/04	11/16	12/09	09/05
Min (F)	12.01	10.67	20.2	33.56	36.97	50.68	61.81	54.82	53.01	29.39	18.51	25.84	10.67
Date of Min	01/31	02/01	03/19	04/17	05/02	06/13	07/24	08/19	09/19	10/31	11/29	12/13	02/01
Ave Temp	33.88	35.20	38.00	50.02	58.22	67.16	72.91	70.08	66.65	55.30	42.72	40.27	52.61
PRECIPITATION													
Total (inches)	2.12	3.60	2.40	2.08	0.27	2.67	5.24	7.80	1.44	2.39	0.62	1.39	32.00
Max in One Day	0.23	0.58	0.24	0.19	0.03	0.99	0.66	2.07	0.29	0.24	0.08	0.12	2.07
Date	01/03	02/09	03/03	04/29	05/02	06/15	07/14	08/23	09/28	10/05	11/17	12/23	08/23

Figure 31
Wind Rose Annual Average 100M

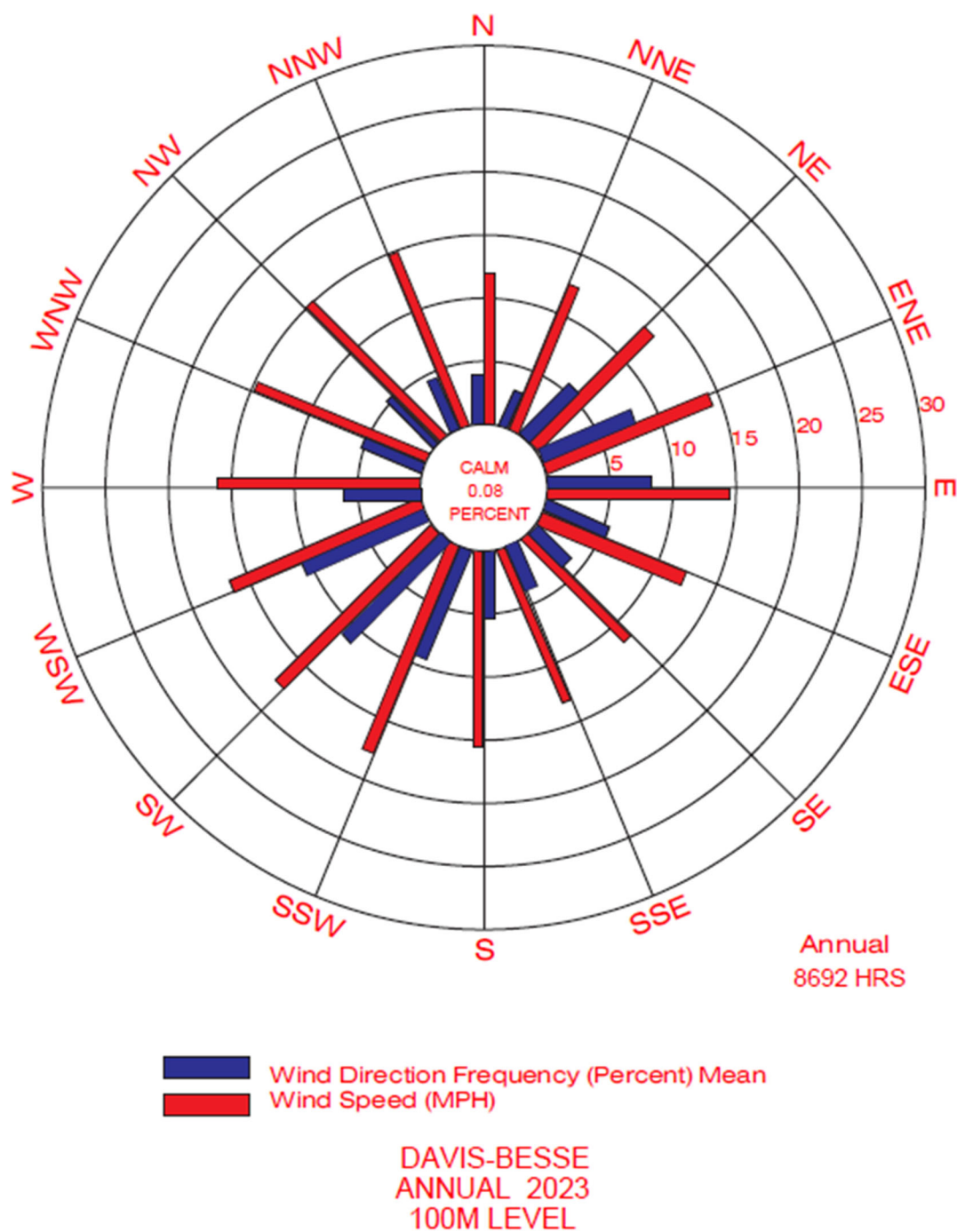
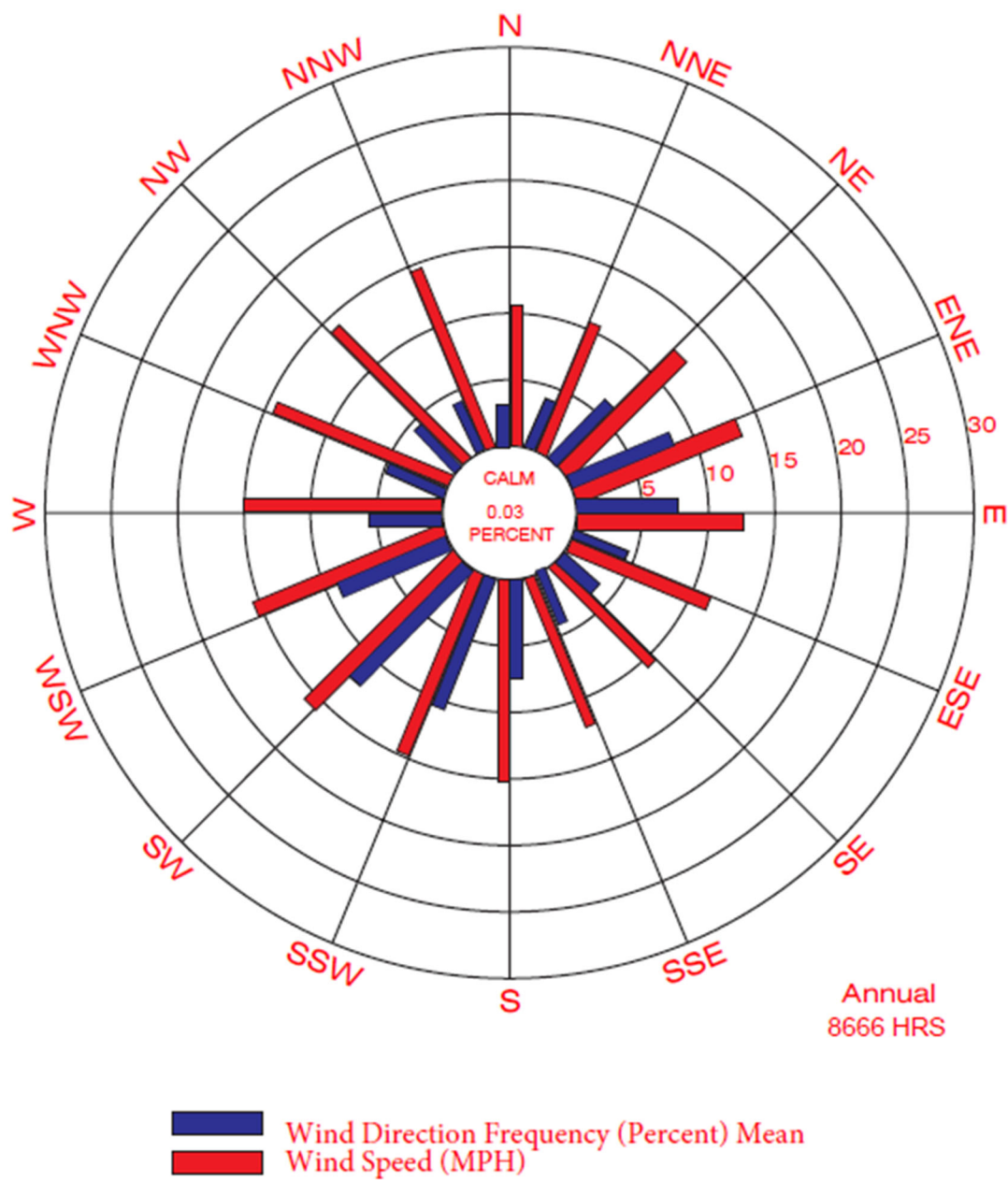


Figure 32
Wind Rose Annual Average 75M



DAVIS-BESSE
ANNUAL 2023
75M LEVEL

Figure 33
Wind Rose Annual Average 10M

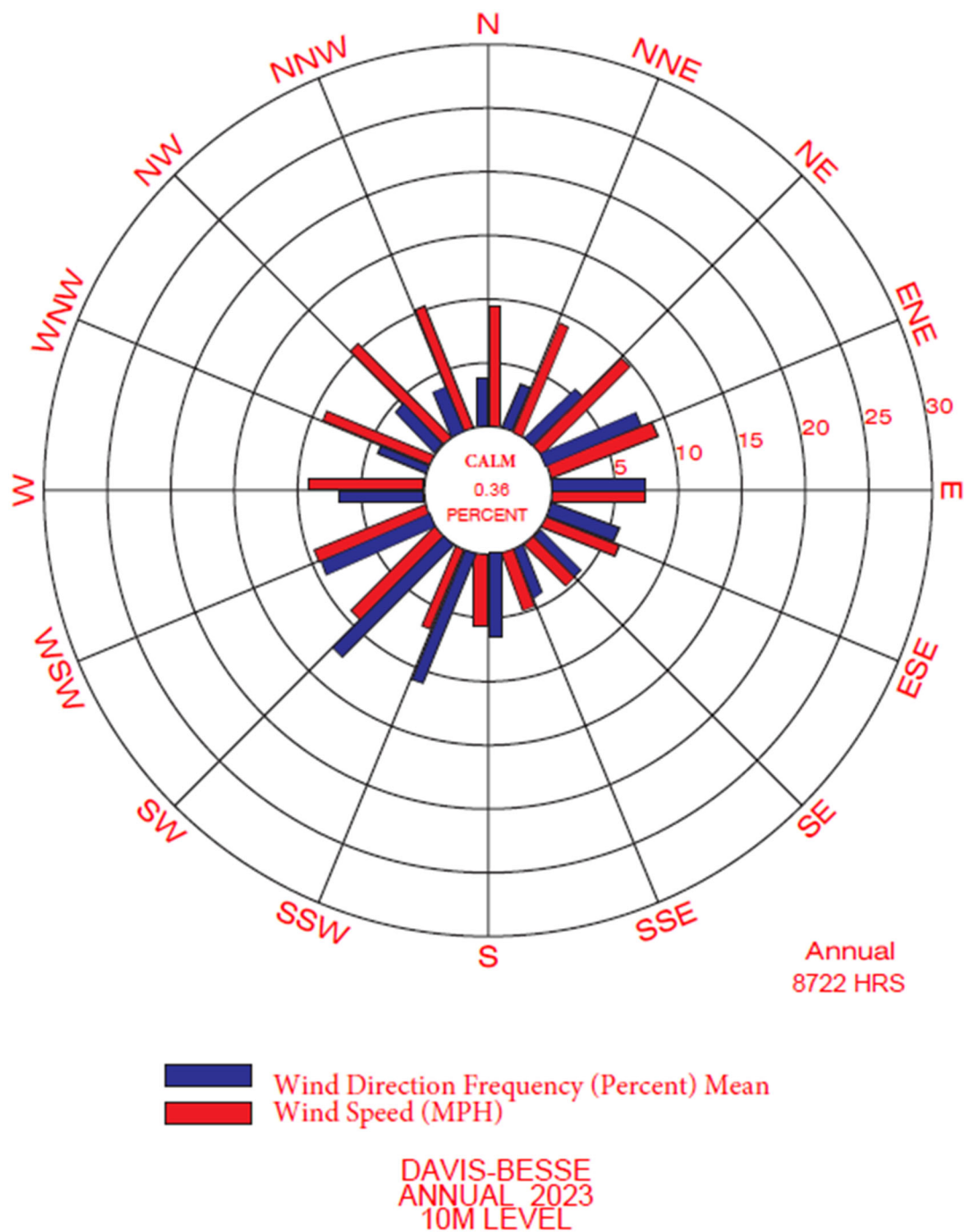


Table 28
Joint Frequency Distribution by Stability Class

DAVIS-BESSE NUCLEAR POWER STATION

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE 75-10 DT, NO BACKUP SITE IDENTIFIER: 21

DATA PERIOD EXAMINED: 01/01/23 - 12/31/23

*** ANNUAL ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
3.51- 7.50	0	0	0	0	4	2	1	0	0	0	3	2	1	8	18	11	50
7.51-12.50	0	2	0	9	16	8	1	0	1	4	13	10	6	14	35	19	138
12.51-18.50	0	1	3	9	3	0	0	0	0	1	7	12	4	14	12	2	68
18.51-24.00	0	0	0	0	0	0	0	0	0	0	6	1	4	0	0	0	11
>24.00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL	0	3	3	18	23	10	2	0	1	5	29	26	15	36	66	32	269

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	1	0	1	4	10	6	2	0	1	1	5	6	2	1	4	6	50
7.51-12.50	0	1	1	17	22	2	0	0	0	1	14	18	7	8	8	3	102
12.51-18.50	0	0	1	7	1	0	0	0	0	6	5	13	6	3	5	0	47
18.51-24.00	0	0	0	0	0	0	0	0	0	0	6	4	1	0	0	0	11
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	1	3	28	33	8	2	0	1	8	30	41	16	12	17	9	210

Table 28 (Continued)
Joint Frequency Distribution by Stability Class

DAVIS-BESSE NUCLEAR POWER STATION

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE 75-10 DT, NO BACKUP SITE IDENTIFIER: 21

DATA PERIOD EXAMINED: 01/01/23 - 12/31/23

*** ANNUAL ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	0	0	0	1	0	0	1	0	0	0	0	0	1	1	0	5
3.51- 7.50	1	0	0	11	22	8	4	2	1	1	13	10	10	6	7	9	105
7.51-12.50	0	0	3	36	19	5	0	0	2	2	16	29	13	11	11	10	157
12.51-18.50	0	0	2	8	3	0	0	0	2	3	5	25	11	5	6	2	72
18.51-24.00	0	0	0	0	0	0	0	0	0	0	3	3	1	0	0	0	7
>24.00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL	2	0	5	55	45	13	4	3	5	6	37	68	35	23	25	21	347

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	8	6	13	5	16	17	16	19	18	6	7	4	8	3	7	5	158
3.51- 7.50	58	73	80	123	133	91	41	32	53	75	94	75	35	25	10	29	1027
7.51-12.50	106	59	157	192	112	59	17	4	40	96	165	176	133	83	81	70	1550
12.51-18.50	40	52	57	60	26	13	0	0	5	27	111	108	75	27	80	53	734
18.51-24.00	11	12	6	8	0	0	0	0	0	1	30	16	11	3	10	13	121
>24.00	0	0	1	1	0	0	0	0	0	0	13	6	1	0	0	1	23
TOTAL	223	202	314	389	287	180	74	55	116	205	420	385	263	141	188	171	3615

Table 28 (Continued)
Joint Frequency Distribution by Stability Class

DAVIS-BESSE NUCLEAR POWER STATION

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE 75-10 DT, NO BACKUP SITE IDENTIFIER: 21

DATA PERIOD EXAMINED: 01/01/23 - 12/31/23

*** ANNUAL ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	8
1.01- 3.50	7	7	5	13	27	32	67	44	48	44	22	16	14	9	3	6	364
3.51- 7.50	20	51	32	78	114	150	102	57	116	251	177	113	99	37	24	19	1440
7.51-12.50	19	19	48	73	50	34	15	18	51	141	127	89	80	55	42	37	898
12.51-18.50	19	12	24	17	11	2	2	1	15	33	20	18	18	13	8	23	236
18.51-24.00	1	0	5	2	0	0	0	0	2	1	8	4	0	1	2	2	28
>24.00	0	1	2	3	0	0	0	0	0	0	1	0	0	0	0	0	7
TOTAL	66	90	116	186	202	218	186	120	232	470	355	240	211	115	79	87	2981

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	10
1.01- 3.50	2	3	0	2	4	9	34	49	71	56	38	13	17	12	2	5	317
3.51- 7.50	1	4	3	16	18	41	35	18	53	125	75	52	42	11	1	0	495
7.51-12.50	0	1	3	1	5	3	0	1	3	4	10	10	3	9	0	0	53
12.51-18.50	0	1	0	1	1	0	0	0	0	0	2	0	1	0	0	0	6
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3	9	6	20	28	53	69	68	127	185	125	75	63	32	3	5	881

Table 28 (Continued)
Joint Frequency Distribution by Stability Class

DAVIS-BESSE NUCLEAR POWER STATION

PROGRAM: JFD VERSION PC-1.2

DAVIS-BESSE 75-10 DT, NO BACKUP SITE IDENTIFIER: 21

DATA PERIOD EXAMINED: 01/01/23 - 12/31/23

*** ANNUAL ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	4
1.01- 3.50	0	0	0	0	1	5	15	18	40	40	17	8	5	3	1	1	154
3.51- 7.50	0	0	0	4	4	26	25	6	15	37	19	5	6	0	1	0	148
7.51-12.50	0	0	0	0	1	4	0	1	0	0	0	0	0	1	0	0	7
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	4	6	35	40	25	55	77	36	13	11	4	2	1	313

STABILITY ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	24
1.01- 3.50	18	16	18	20	49	63	132	131	177	146	84	41	44	28	15	17	999
3.51- 7.50	81	128	116	236	305	324	210	115	239	490	386	263	195	88	65	74	3315
7.51-12.50	125	82	212	328	225	115	33	24	97	248	345	332	242	181	177	139	2905
12.51-18.50	59	66	87	102	45	15	2	1	22	70	150	176	115	62	111	80	1163
18.51-24.00	12	12	11	10	0	0	0	0	2	2	53	28	17	4	12	15	178
>24.00	0	1	3	4	0	0	0	0	0	0	14	8	1	0	0	1	32
TOTAL	295	305	447	700	624	517	377	271	537	956	103	848	614	363	380	326	8616

2

Land and Wetlands Management

The Navarre Marsh, which is part of the Ottawa National Wildlife Refuge, makes up 733 acres of wetlands on the southwestern shore of Lake Erie and surrounds the Davis-Besse Nuclear Power Station. The marsh is owned by Energy Harbor and jointly managed by the U.S. Fish and Wildlife Service and Energy Harbor. Navarre Marsh is divided into three pools. The pools are separated from Lake Erie and each other by a series of dikes and revetments. Davis-Besse is responsible for the maintenance and repair of the dikes and controlling the water levels in each of the pools.

A revetment is a retaining structure designed to hold water back for the purposes of erosion control and beach formation. Revetments are built with a gradual slope, which causes waves to dissipate their energy when they strike their large surface area. Beach formation is encouraged through the passive deposition of sediment. A dike is a retaining structure designed to hold water for the purpose of flood control and to aid in the management of wetland habitat. When used as a marsh management tool, dikes help in controlling water levels in order to maintain desired vegetation and animal species. Manipulating water levels is one of the most important marsh management techniques used in the Navarre Marsh. Three major types of wetland communities exist in Navarre Marsh, the freshwater marsh, the swamp forest, and the wet meadow. Also, there exists a narrow dry beach ridge along the lakefront, with a sandbar extending out into Lake Erie. All these areas provide essential food, shelter and nesting habitat, as well as a resting area for migratory birds.

Davis-Besse personnel combine their efforts with a number of conservation agencies and organizations. The Ottawa National Wildlife Refuge, the Ohio Department of Natural Resources (ODNR), and the Black Swamp Bird Observatory work to preserve and enhance existing habitat. Knowledge is gained through research and is used to help educate the public about the importance of preserving wetlands.

With its location along two major migratory flyways, the Navarre Marsh serves as a refuge for a variety of birds in the spring and fall, giving them an area to rest and restore energy reserves before continuing their migration. The Black Swamp Bird Observatory, a volunteer research group, captures, bands, catalogues, and releases songbirds in the marsh during these periods.

Navarre Marsh is also home to wildlife that is typical of much of the marshland in this area, including deer, fox, coyote, beavers, muskrats, mink, rabbits, groundhogs, hawks, owls, ducks, geese, herons, snakes and turtles. American Bald Eagles chose the Navarre Marsh as a nesting site in late 1994, and fledged a healthy eaglet in July 1995. A second pair built a nest in 1999-2000. Numerous eagles have fledged from these two nests since 1994.

Water Treatment Plant Operation

Description

The Davis-Besse Nuclear Power Station draws water from Lake Erie for its water treatment plant. The lake water is treated with sodium hypochlorite and/or sodium bromide, coagulant aid, filtration, electrolysis and demineralization to produce high-purity water used in many of the Station's cooling systems.

Water from the Carroll Township Water Treatment Plant is used in Davis-Besse's Fire Protection System and as a backup supply to the demineralized water production system.

Water Treatment System

Raw water from Lake Erie enters an intake structure, then passes through traveling screens which remove debris greater than one-half inch in size. The water is then pumped to chlorine detention tanks. Next, the water is sent to the pre-treatment system, which comprises coagulation and filtration to remove sediment, organic debris, and certain dissolved compounds from the raw water. The next step of the process is reverse osmosis, where pressure is used to remove certain impurities by passing the water through a selectively-permeable membrane. The water is then stripped of dissolved gases, softened, electrolytically deionized and finally, is routed through a polishing demineralization process before being sent to storage.

Domestic Water

When Davis-Besse began operation all site domestic water was produced in the Water Treatment Facility. Operation of the domestic water treatment and distribution system, including the collection and analysis of daily samples, was reportable to the Ohio Environmental Protection Agency.

Since December of 1998, the Carroll Township Water Treatment Plant has supplied domestic water to Davis-Besse. Carroll Township Water and Wastewater District follow all applicable regulatory requirements for the sampling and analysis of Station drinking water.

Zebra Mussel Control

With the exception of its domestic water, the Plant withdraws all of its water through an intake system from Lake Erie. Zebra mussels have, in the past, had the potential to severely impact the availability of water for Plant processes. *Dreissena polymorpha*, commonly known as the zebra mussel, is a native European bivalve that was introduced into the Great Lakes in 1986 and was discovered in Lake Erie in 1989. Zebra mussels are prolific breeders that rapidly colonize an area by forming byssal threads, which enable them to attach to solid surfaces and to each other. Because of their ability to attach in this manner, they may form layers several inches deep. This has posed problems to facilities in the past for water intakes on Lake Erie because mussels attach to the intake structures and restrict water flow. Zebra mussels have not caused any significant problems at Davis-Besse due to effective biocide control. At present, the mussel populations are declining.

Algae Control

Lake Erie continues to exhibit changes, and strand-forming blue-green algae has become more prolific during the last few years. Blue-green algae has the potential to cause problems with Circulating Water screen plugging and system fouling. Increased addition of oxidants has kept the algae in check thus far, but changes in lake conditions requires constant vigilance to prevent operational challenges.

Wastewater Treatment Plant (WWTP) Operation

The WWTP operation is supervised by an Ohio licensed Wastewater Operator. Wastewater generated by site personnel is treated in an onsite extended aeration package treatment facility designed to accommodate up to 38,000 gallons per day. In the treatment process, wastewater from the various collection points around the site enters the facility through a grinder, from where it is distributed to the surge tanks of one or both of the treatment plants.

The wastewater is then pumped into aeration tanks, where it is digested by microorganisms. Oxygen is necessary for good sewage treatment, and is provided to the microbes by blowers and diffusers. The mixture of organics, microorganisms, and decomposed wastes is called activated sludge. The treated wastewater settles in a clarifier, and the clear liquid leaves the clarifier under a weir and exits the plant through an effluent trough. The activated sludge contains the organisms necessary for continued treatment, and is pumped back to the aeration tank to digest incoming wastewater. The effluent leaving the plant is drained to the wastewater basin (NPDES Outfall 601) where further treatment takes place.

National Pollutant Discharge Elimination System (NPDES) Reporting

The Ohio Environmental Protection Agency (OEPA) has established limits on the amount of pollutants that Davis-Besse may discharge to the environment. These limits are regulated through the Station's National Pollutant Discharge Elimination System (NPDES) permit. Permit number 2IB00011*KD has an effective date of May 1, 2018 and is valid for 5 years from the effective date. Parameters such as chlorine, suspended solids and pH are monitored under the NPDES permit. Davis-Besse personnel prepare the NPDES Reports and submit them to the OEPA each month.

Davis-Besse has eight sampling points described in the NPDES permit. Seven of these locations are discharge points/outfalls or Internal Monitoring Stations, and one is a temperature monitoring location. Descriptions of these sampling points follow:

Outfall 001

Collection Box: a point representative of discharge to Lake Erie

Source of Wastes: Low volume wastes (Outfalls 601 and 602), Circulating Water system blow-down and Service Water

Outfall 002

Area Runoff: Discharge to Toussaint River

Source of Wastes: Storm water runoff, Circulating Water pump house sumps

Outfall 003

Screenwash Catch Basin: Outfall to Navarre Marsh

Source of Wastes: Backwash water and debris from water intake screens

Outfall 004

Cooling Tower Basin Ponds: Outfall to State Route 2 Ditch

Source of Wastes: Circulating Water System drain (only during system outages)

Sludge Monitoring 588

Sludge Monitoring

Source of Wastes: Wastewater Plant sludge shipped for offsite processing

Internal Monitoring Station 601

Wastewater Plant Tertiary Treatment Basin: Discharge from Wastewater Treatment Plant

Sources of Wastes: Wastewater Treatment Plant

Internal Monitoring Station 602

Low volume wastes: Discharge from settling basins

Sources of wastes: Water treatment residues, Condensate Polishing Holdup Tank decants and Condensate Pit sumps

Intake Monitoring 801

Intake temperature: Intake water prior to cooling operation

2023 NPDES Summary

During 2023, Davis-Besse Nuclear Power Station had zero exceedances of the NPDES permit.

Chemical Waste Management

The Chemical Waste Management Program for hazardous and nonhazardous chemical wastes generated at the Davis-Besse Nuclear Power Station was developed to ensure wastes are managed and disposed of in accordance with all applicable state and federal regulations.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) is the statute which regulates solid hazardous waste. Solid waste is defined as a solid, liquid, semi-solid, or contained gaseous material. The major goals of RCRA are to establish a hazardous waste regulatory program to protect human

health and the environment and to encourage the establishment of solid waste management, resource recovery, and resource conservation systems. The intent of the hazardous waste management program is to control hazardous wastes from the time they are generated until they are properly disposed of, commonly referred to as "cradle to grave" management. Anyone who generates, transports, stores, treats, or disposes of hazardous waste are subject to regulation under RCRA.

Under RCRA, there are essentially three categories of waste generators:

- Large quantity Generators - A facility which generates 1,000 kilograms/month (2,200 lbs./month) or more.
- Small quantity Generators - A facility which generates less than 1,000 kilograms/month (2,200 lbs./month).
- Very Small Quantity Generators - A facility which generates 100 kilograms/month (220 lbs./month).

In 2023, the Davis-Besse Nuclear Power Station generated approximately 835 pounds of hazardous waste.

Non-hazardous waste generated in 2023 included 4,351 gallons of used oil and 2,200 pounds of other nonhazardous wastes such as oil filters, resins and caulks.

RCRA mandates other requirements such as the use of proper storage and shipping containers, labels, manifests, reports, personnel training, a spill control plan and an accident contingency plan. These are part of the Chemical Management Program at Davis-Besse. The following are completed as part of the hazardous waste management program and RCRA regulations:

- Weekly Inspections of the Chemical Waste Accumulation Areas are designated throughout the site to ensure proper handling and disposal of chemical waste. These, along with the Chemical Waste Storage Area, are routinely patrolled by security personnel and inspected weekly by Environmental and Chemistry personnel. All areas used for storage or accumulation of hazardous waste are posted with warning signs and drums are color-coded for easy identification of waste categories.
- Waste Inventory Forms are placed on waste accumulation drums or provided in the accumulation area for employees to record the waste type and amount when chemicals are added to the drum. This ensures that incompatible wastes are not mixed and also identifies the drum contents for proper disposal.

Other Environmental Regulating Acts

Comprehensive Environmental Response, Compensation and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund) established a federal authority and source of funding for responding to spills and other releases of hazardous materials, pollutants and contaminants into the environment. Superfund establishes "reportable quantities" for several hundred hazardous materials and regulates the cleanup of abandoned hazardous waste disposal sites.

Superfund Amendment and Reauthorization Act (SARA)

Superfund was amended in October 1986 to establish new reporting programs dealing with emergency preparedness and community right-to-know laws. As part of this program, CERCLA is enhanced by ensuring that the potential for release of hazardous substances is minimized, and that adequate and timely responses are made to protect surrounding populations.

Davis-Besse conducts site-wide inspections to identify and record all hazardous products and chemicals onsite as required by SARA. Determinations are made as to which products and chemicals are present in reportable quantities.

Annual SARA reports are submitted to local fire departments and state and local planning commissions by March 1 for the preceding calendar year.

Toxic Substances Control Act (TSCA)

The Toxic Substance Control Act (TSCA) was enacted to provide the USEPA with the authority to require testing of new chemical substances for potential health effects before they are introduced into the environment, and to regulate them where necessary. This law would have little impact on utilities except for the fact that one family of chemicals, polychlorinated biphenyls (PCBs), has been singled out by TSCA. This has resulted in an extensive PCB management system, very similar to the hazardous waste management system established under RCRA.

In 1992, Davis-Besse completed an aggressive program that eliminated PCB transformers onsite. PCB transformers were either changed out with non-PCB fluid transformers or retro-filled with non-PCB liquid.

Retro-filling PCB transformers involves flushing the PCB fluid out of a transformer, refilling it with PCB-leaching solvents and allowing the solvent to circulate in the transformer during operation. The entire retro-fill process takes several years and will extract almost all of the PCB. In all, Davis-Besse performed retro-fill activities on eleven PCB transformers between 1987 and 1992. The only remaining PCB containing equipment onsite are a limited number of capacitors. These capacitors are being replaced and disposed of during scheduled maintenance activities.

Clean Air Act

The Clean Air Act identifies substances that are considered air pollutants. Davis-Besse holds an OEPA permit to operate an Air Contaminant Source for the station Auxiliary Boiler. This boiler is used to heat the station and provide steam to plant systems when the reactor is not operating. The Ohio EPA has granted an exemption from permitting the seven Davis-Besse diesel engines, including the Station Blackout Diesel Generator, the 2 Emergency Diesel Generators, the Emergency Response Facility Diesel Generator, the Miscellaneous Diesel, the Fire Pump Diesel, and the Diesel Driven Emergency Feedwater Pump. These sources are operated infrequently to verify their reliability, and would only be used in the event of an emergency. A report detailing the operation of these air emission sources is submitted biennially.

In response to "Clean Air Act Title V" legislation, an independent study identifying and quantifying all of the air pollution sources onsite was performed. Of particular significance is asbestos removal from renovation and demolition projects for which USEPA has outlined specific regulations concerning handling, removal, environmental protection, and disposal. Also, the Occupational Safety and Health Protection Administration (OSHA) strictly regulates asbestos with a concern for worker protection. Removal teams must meet medical surveillance, respirator fit tests, and training requirements prior to removing asbestos-containing material. Asbestos is not considered a hazardous waste by RCRA, but the EPA does require special handling and disposal of this waste under the Clean Air Act.

Transportation Safety Act

The transportation of hazardous chemicals, including chemical waste, is regulated by the Transportation Safety Act of 1976. These regulations are enforced by the United States Department of Transportation (DOT) and cover all aspects of transporting hazardous materials, including packing, handling, labeling, marking, and placarding. Before any wastes are transported off site, Davis-Besse must ensure that the wastes are identified, labeled and marked according to DOT regulations, including verification that the vehicle has appropriate placards and it is in good operating condition.

Other Environmental Programs

Underground Storage Tanks

According to RCRA, facilities with Underground Storage Tanks (USTs) are required to notify the State. This regulation was implemented in order to provide protection from tank contents leaking and causing damage to the environment. Additional standards require leak detection systems and performance standards for new tanks. At Davis-Besse, two 40,000 gallon and one 8,000 gallon diesel fuel storage tanks are registered USTs.

Spill Kits

Spill control equipment is maintained throughout the Station at chemical storage areas and hazardous chemical and oil use areas. Equipment in the kits may include chemical-resistant coveralls, gloves, boots, decontamination agents, absorbent cloth, goggles and warning signs.

Waste Minimization and Recycling

Municipal Solid Waste (MSW) is normal trash produced by individuals at home and by industries. In some communities, MSW is burned in specially designed incinerators to produce power or is separated into waste types (such as aluminum, glass, and paper) and recycled. The vast majority of MSW is sent to landfills for disposal. As the population increases and older landfills reach their capacity, MSW disposal becomes an important economic, health, and resource issue.

The State of Ohio has addressed the issue with the State Solid Waste Management Plan, otherwise known as Ohio House Bill 592. The intent of the bill is to extend the life of existing landfills by reducing the amount of MSW produced, by reusing certain waste material, and by recycling other wastes. This is frequently referred to as "**Reduce, Reuse, and Recycle**". Davis-Besse recycles lead-acid batteries and used tires are returned to the seller for proper disposal. Although scrap metal is not usually considered part of the MSW stream, Davis-Besse collects and recycles scrap metals, which are sold at market price to a scrap dealer for resource recovery.



700 Landwehr Road • Northbrook, IL 60062-2310
phone (847) 564-0700 • fax (847) 564-4517

APPENDIX A

INTERLABORATORY AND INTRALABORATORY COMPARISON PROGRAM RESULTS

NOTE: Appendix A is updated four times a year. The complete appendix is included in March, June, September and December monthly progress reports only.

January, 2023 through December, 2023

Appendix A

Interlaboratory/ Intralaboratory Comparison Program Results

Microbac Laboratories Inc. has participated in interlaboratory comparison (crosscheck) programs since the formulation of its quality control program in December 1971. These programs are operated by agencies which supply environmental type samples containing concentrations of radionuclides known to the issuing agency but not to participant laboratories. The purpose of such a program is to provide an independent check on a laboratory's analytical procedures and to alert it of any possible problems.

Participant laboratories measure the concentration of specified radionuclides and report them to the issuing agency. Several months later, the agency reports the known values to the participant laboratories and specifies control limits. Results consistently higher or lower than the known values or outside the control limits indicate a need to check the instruments or procedures used.

Results in Table A-1 were obtained through participation in the RAD PT Study Proficiency Testing Program administered by Environmental Resource Associates, serving as a replacement for studies conducted previously by the U.S. EPA Environmental Monitoring Systems Laboratory, Las Vegas, Nevada.

Table A-2 lists results for thermoluminescent dosimeters (TLDs), via irradiation and evaluation by the University of Wisconsin-Madison Radiation Calibration Laboratory at the University of Wisconsin Medical Radiation Research Center.

Table A-3 lists results of the analyses on intralaboratory "spiked" samples for the past twelve months. All samples are prepared using NIST traceable sources. Data for previous years available upon request.

Table A-4 lists results of the analyses on intralaboratory "blank" samples for the past twelve months. Data for previous years available upon request.

Table A-5 lists analytical results from the intralaboratory "duplicate" program for the past twelve months. Acceptance is based on each result being within 25% of the mean of the two results or the two sigma uncertainties of each result overlap.

The results in Table A-6 were obtained through participation in the Mixed Analyte Performance Evaluation Program.

Results in Table A-7 were obtained through participation in the MRAD PT Study Proficiency Testing Program administered by Environmental Resource Associates, serving as a replacement for studies conducted previously by the Environmental Measurement Laboratory Quality Assessment Program (EML).

Attachment A lists the laboratory acceptance criteria for various analyses.

Out-of-limit results are explained directly below the result.

Attachment A

ACCEPTANCE CRITERIA FOR INTRALABORATORY "SPIKED" SAMPLES

Analysis	Ratio of lab result to known value.
Gamma Emitters	0.8 to 1.2
Strontium-89, Strontium-90	0.8 to 1.2
Potassium-40	0.8 to 1.2
Gross alpha	0.5 to 1.5
Gross beta	0.8 to 1.2
Tritium	0.8 to 1.2
Radium-226, Radium-228	0.7 to 1.3
Plutonium	0.8 to 1.2
Iodine-129, Iodine-131	0.8 to 1.2
Nickel-63, Technetium-99, Uranium-238	0.7 to 1.3
Iron-55	0.8 to 1.2
Other Analyses	0.8 to 1.2

TABLE A-1. Interlaboratory Comparison Crosscheck program, Environmental Resource Associates (ERA)^a.

RAD study						
Lab Code	Date	Analysis	Concentration (pCi/L)			
			Laboratory Result	ERA Value	Acceptance Limits	Acceptance
RAD-132 Study						
ERDW-162	2/23/2023	Ba-133	33.0 ± 3.5	30.5	24.2 - 34.6	Pass
ERDW-162	2/23/2023	Cs-134	30.7 ± 3.0	28.2	21.9 - 31.1	Pass
ERDW-162	2/23/2023	Cs-137	191 ± 7	190	171 - 211	Pass
ERDW-162	2/23/2023	Co-60	110 ± 4	110	99.0 - 123	Pass
ERDW-162	2/23/2023	Zn-65	109 ± 8	105	94.5 - 125	Pass
ERDW-162	2/23/2023	Gr. Alpha	25.3 ± 0.2	30.0	15.3 - 39.2	Pass
ERDW-162	2/23/2023	G. Beta	15.0 ± 0.1	16.5	9.25 - 24.8	Pass
ERDW-162	2/23/2023	Ra-226	7.58 ± 0.52	8.26	6.21 - 9.71	Pass
ERDW-162	2/23/2023	Ra-228	7.44 ± 1.53	7.17	4.51 - 9.20	Pass
ERDW-162	2/23/2023	H-3	22,600 ± 467	21,600	18,900 - 23,800	Pass
RAD-134 Study						
ERDW-1956	7/10/2023	Ba-133	64.1 ± 4.7	66.5	55.4 - 73.2	Pass
ERDW-1956	7/10/2023	Cs-134	97.0 ± 4.8	90.8	74.5 - 99.9	Pass
ERDW-1956	7/10/2023	Cs-137	179 ± 8	163	147 - 181	Pass
ERDW-1956	7/10/2023	Co-60	26.6 ± 2.9	20.7	17.5 - 25.6	Fail ^b
ERDW-1956	7/10/2023	Zn-65	318 ± 12	290	261 - 339	Pass
ERDW-50167	7/10/2023	Gr. Alpha	34.3 ± 1.9	47.9	24.9 - 60.3	Pass
ERDW-50167	7/10/2023	G. Beta	27.4 ± 1.2	28.6	18.2 - 36.4	Pass
ERDW-50171	7/10/2023	Ra-226	19.3 ± 0.9	17.4	12.9 - 19.9	Pass
ERDW-50171	7/10/2023	Ra-228	7.11 ± 1.59	7.16	4.50 - 9.18	Pass
ERDW-50173	7/10/2023	H-3	10,500 ± 326	9,860	8,570 - 10,800	Pass
ERDW-50169	7/10/2023	I-131	23.9 ± 1.2	24.4	20.2 - 28.9	Pass

^a Results obtained by Microbac Laboratories Inc. - Northbrook as a participant in the crosscheck program for proficiency testing in drinking water conducted by Environmental Resource Associates (ERA).

^b The Cobalt-60 result did not meet ERA acceptance criteria. The sample was reanalyzed and passed for all analytes. (Co-60 reanalysis result was 21.2 ± 3.0 pCi/L). No cause for the earlier failure could be determined.

TABLE A-2. Thermoluminescent Dosimetry, (TLD, CaSO₄: Dy Cards).^a

				mrem		
Lab Code	Irradiation		Delivered	Reported ^b	Performance ^c	
	Date	Description	Dose	Dose	Quotient (P)	
<u>Microbac Laboratories, Inc.</u>		Group 1				
2022-23-3	11/29/2023	Spike 1	93.0	90.0	-0.03	
2022-23-3	11/29/2023	Spike 2	93.0	88.5	-0.05	
2022-23-3	11/29/2023	Spike 3	93.0	89.0	-0.04	
2022-23-3	11/29/2023	Spike 4	93.0	89.5	-0.04	
2022-23-3	11/29/2023	Spike 5	93.0	88.1	-0.05	
2022-23-3	11/29/2023	Spike 6	93.0	95.1	0.02	
2022-23-3	11/29/2023	Spike 7	93.0	90.8	-0.02	
2022-23-3	11/29/2023	Spike 8	93.0	90.8	-0.02	
2022-23-3	11/29/2023	Spike 9	93.0	92.3	-0.01	
2022-23-3	11/29/2023	Spike 10	93.0	89.0	-0.04	
2022-23-3	11/29/2023	Spike 11	93.0	84.9	-0.09	
2022-23-3	11/29/2023	Spike 12	93.0	90.8	-0.02	
2022-23-3	11/29/2023	Spike 13	93.0	92.0	-0.01	
2022-23-3	11/29/2023	Spike 14	93.0	87.7	-0.06	
2022-23-3	11/29/2023	Spike 15	93.0	88.8	-0.05	
2022-23-3	11/29/2023	Spike 16	93.0	88.6	-0.05	
2022-23-3	11/29/2023	Spike 17	93.0	84.2	-0.09	
2022-23-3	11/29/2023	Spike 18	93.0	88.6	-0.05	
2022-23-3	11/29/2023	Spike 19	93.0	86.4	-0.07	
2022-23-3	11/29/2023	Spike 20	93.0	88.3	-0.05	
Mean (Spike 1-20)				89.2	-0.04	Pass ^d
Standard Deviation (Spike 1-20)				2.5	0.03	Pass ^d

a TLD's were irradiated by the University of Wisconsin-Madison Radiation Calibration Laboratory following ANSI N13.37 protocol from a known air kerma rate. TLD's were read and the results were submitted by Microbac Laboratories, Inc. to the University of Wisconsin-Madison Radiation Calibration Laboratory for comparison to the delivered dose.

b Reported dose was converted from exposure (R) to Air Kerma (cGy) using a conversion of 0.876. Conversion from air kerma to ambient dose equivalent for Cs-137 at the reference dose point $H^*(10)K_a = 1.20$. mrem/cGy = 1000.

c Performance Quotient (P) is calculated as ((reported dose - conventionally true value) ÷ conventionally true value) where the conventionally true value is the delivered dose.

d Acceptance is achieved when neither the absolute value of the mean of the P values, nor the standard deviation of the P values exceed 0.15.

TABLE A-2. Thermoluminescent Dosimetry, (TLD, CaSO₄: Dy Cards).^a

				mrem		
Lab Code	Irradiation		Delivered	Reported ^b	Performance ^c	
	Date	Description	Dose	Dose	Quotient (P)	
<u>Microbac Laboratories, Inc.</u>		Group 2				
2022-23-4	11/29/2023	Spike 21	176.0	170.1	-0.03	
2022-23-4	11/29/2023	Spike 22	176.0	166.8	-0.05	
2022-23-4	11/29/2023	Spike 23	176.0	156.3	-0.11	
2022-23-4	11/29/2023	Spike 24	176.0	163.1	-0.07	
2022-23-4	11/29/2023	Spike 25	176.0	166.8	-0.05	
2022-23-4	11/29/2023	Spike 26	176.0	168.0	-0.05	
2022-23-4	11/29/2023	Spike 27	176.0	159.8	-0.09	
2022-23-4	11/29/2023	Spike 28	176.0	160.4	-0.09	
2022-23-4	11/29/2023	Spike 29	176.0	165.4	-0.06	
2022-23-4	11/29/2023	Spike 30	176.0	166.2	-0.06	
2022-23-4	11/29/2023	Spike 31	176.0	159.9	-0.09	
2022-23-4	11/29/2023	Spike 32	176.0	161.4	-0.08	
2022-23-4	11/29/2023	Spike 33	176.0	165.8	-0.06	
2022-23-4	11/29/2023	Spike 34	176.0	163.9	-0.07	
2022-23-4	11/29/2023	Spike 35	176.0	167.9	-0.05	
2022-23-4	11/29/2023	Spike 36	176.0	157.4	-0.11	
2022-23-4	11/29/2023	Spike 37	176.0	165.6	-0.06	
2022-23-4	11/29/2023	Spike 38	176.0	161.3	-0.08	
2022-23-4	11/29/2023	Spike 39	176.0	165.9	-0.06	
2022-23-4	11/29/2023	Spike 40	176.0	159.4	-0.09	
Mean (Spike 21-40)				163.6	-0.07	Pass ^d
Standard Deviation (Spike 21-40)				3.9	0.02	Pass ^d

a TLD's were irradiated by the University of Wisconsin-Madison Radiation Calibration Laboratory following ANSI N13.37 protocol from a known air kerma rate. TLD's were read and the results were submitted by Microbac Laboratories, Inc. to the University of Wisconsin-Madison Radiation Calibration Laboratory for comparison to the delivered dose.

b Reported dose was converted from exposure (R) to Air Kerma (cGy) using a conversion of 0.876. Conversion from air kerma to ambient dose equivalent for Cs-137 at the reference dose point $H^*(10)K_a = 1.20$. mrem/cGy = 1000.

c Performance Quotient (P) is calculated as ((reported dose - conventionally true value) ÷ conventionally true value) where the conventionally true value is the delivered dose.

d Acceptance is achieved when neither the absolute value of the mean of the P values, nor the standard deviation of the P values exceed 0.15.

TABLE A-3. Intralaboratory "Spiked" Samples

Lab Code ^b	Date	Concentration ^a					Ratio Lab/Known
		Analysis	Laboratory results 2s, n=1 ^c	Known Activity	Control Limits ^d	Acceptance	
SPDW-26	1/5/2023	Ra-228	11.8 ± 1.9	13.4	9.4 - 17.4	Pass	0.88
SPDW-50002	1/11/2023	H-3	21,747 ± 452	22,100	17,680 - 26,520	Pass	0.98
SPDW-50004	1/20/2023	H-3	21,861 ± 458	22,100	17,680 - 26,520	Pass	0.99
SPDW-50006	1/5/2023	Ra-226	11.3 ± 0.3	12.3	8.6 - 16.0	Pass	0.92
SPDW-50034	1/27/2023	Ra-226	12.6 ± 0.4	12.3	8.6 - 16.0	Pass	1.02
LCS-SO-012723	8/1/2020	Cs-134	17.1 ± 0.2	19.2	15.4 - 23.0	Pass	0.89
LCS-SO-012723	8/1/2020	Zn-65	13.8 ± 1.7	14.1	11.3 - 16.9	Pass	0.98
LCS-SO-012723	8/1/2020	Co-60	26.4 ± 0.2	27.0	21.6 - 32.4	Pass	0.98
LCS-SO-012723	8/1/2020	Co-57	30.7 ± 0.1	30.9	24.7 - 37.1	Pass	0.99
LCS-SO-012723	8/1/2020	Mn-54	17.7 ± 0.8	16.5	13.2 - 19.8	Pass	1.07
LCS-SO-012723	8/1/2020	K-40	18.4 ± 0.7	16.8	13.4 - 20.2	Pass	1.10
SPDW-50010	1/31/2023	Ra-228	9.7 ± 1.3	13.4	9.4 - 17.4	Pass	0.72
SPDW-50008	2/3/2023	H-3	21,961 ± 459	22,100	17,680 - 26,520	Pass	0.99
SPDW-50016	2/10/2023	H-3	22,137 ± 462	22,100	17,680 - 26,520	Pass	1.00
SPDW-50012	2/24/2023	Sr-90	18.6 ± 1.2	17.1	13.7 - 20.5	Pass	1.09
SPDW-50032	2/16/2023	Ra-228	13.1 ± 1.9	13.4	9.4 - 17.4	Pass	0.98
SPDW-50018	2/16/2023	Gr. Alpha	19.1 ± 1.3	23.5	11.8 - 28.2	Pass	0.81
SPDW-50018	2/16/2023	Gr. Beta	133 ± 2	141	112 - 169	Pass	0.94
SPDW-50021	2/17/2023	H-3	21,843 ± 459	22,100	17,680 - 26,520	Pass	0.99
SPDW-50047	2/24/2023	Ra-226	12.8 ± 0.4	12.3	8.6 - 16.0	Pass	1.04
SPDW-50049	3/17/2023	H-3	22,120 ± 465	22,100	17,680 - 26,520	Pass	1.00
SPDW-50056	3/24/2023	H-3	21,911 ± 463	22,100	17,680 - 26,520	Pass	0.99
SPDW-50060	3/16/2023	Ra-226	12.9 ± 0.4	12.3	8.6 - 16.0	Pass	1.05
SPDW-50097	4/13/2023	Ra-226	11.7 ± 0.5	12.3	8.6 - 16.0	Pass	0.95
SPDW-50068	4/14/2023	H-3	22,656 ± 482	22,100	17,680 - 26,520	Pass	1.03
SPDW-50081	4/25/2023	H-3	21,594 ± 461	22,100	17,680 - 26,520	Pass	0.98
SPDW-50131	5/3/2023	Ra-226	11.4 ± 0.3	12.3	8.6 - 16.0	Pass	0.93
SPDW-50104	5/12/2023	H-3	21,513 462	22,100	17,680 - 26,520	Pass	0.97
SPDW-50117	5/26/2023	H-3	22,069 468	22,100	17,680 - 26,520	Pass	1.00
SPDW-50182	6/8/2023	Ra-226	10.4 ± 0.3	12.3	8.6 - 16.0	Pass	0.85
SPDW-50137	6/12/2023	H-3	21,898 ± 456	22,100	17,680 - 26,520	Pass	0.99
SPDW-50138	6/12/2023	H-3	21,898 ± 456	22,100	17,680 - 26,520	Pass	0.99
SPDW-50153	6/26/2023	H-3	21,672 ± 456	22,100	17,680 - 26,520	Pass	0.98
SPDW-50259	7/19/2023	Ra-226	10.5 ± 0.3	12.3	8.6 - 16.0	Pass	0.85
SPDW-50219	8/15/2023	Sr-90	17.5 ± 1.1	17.1	13.7 - 20.5	Pass	1.02
SPDW-50291	8/28/2023	Ra-226	11.0 ± 0.3	12.3	8.6 - 16.0	Pass	0.89
SPDW-50249	8/22/2023	Gr. Alpha	16.7 ± 1.4	23.5	11.8 - 28.2	Pass	0.71
SPDW-50249	8/22/2023	Gr. Beta	128 ± 2	141	112 - 169	Pass	0.91
SPDW-50252	8/18/2023	H-3	21,628 ± 459	22,100	17,680 - 26,520	Pass	0.98
SPDW-50257	8/25/2023	H-3	22,152 ± 469	22,100	17,680 - 26,520	Pass	1.00

^a Liquid sample results are reported in pCi/Liter, air filters (pCi/m3), charcoal (pCi/charcoal canister), and solid samples (pCi/kg).

^b Laboratory codes : W & SPW (Water), MI (milk), AP (air filter), SO (soil), VE (vegetation), CH (charcoal canister), F (fish), U (urine).

^c Results are based on single determinations.

^d Acceptance criteria are listed in Attachment A of this report.

TABLE A-3. Intralaboratory "Spiked" Samples

Lab Code ^b	Date	Analysis	Concentration ^a		Control Limits ^d	Acceptance	Ratio Lab/Known
			Laboratory results 2s, n=1 ^c	Known Activity			
LCS-09/12/23	8/1/2020	Cs-134	17,533 ± 346	19,170	15,336 - 23,004	Pass	0.91
LCS-09/12/23	8/1/2020	Co-60	27,480 ± 347	26,055	20,844 - 31,266	Pass	1.05
LCS-09/12/23	8/1/2020	K-40	20,183 1268	18,468	14,774 - 22,162	Pass	1.09
SPDW-50270	9/6/2023	H-3	22,287 ± 469	22,100	17,680 - 26,520	Pass	1.01
SPDW-50283	9/25/2023	H-3	21,062 ± 444	22,100	17,680 - 26,520	Pass	0.95
SPDW-50291	8/28/2023	Ra-226	11.0 ± 0	12.3	8.6 - 16.0	Pass	0.89
SPDW-50316	10/3/2023	H-3	21,406 ± 454	22,100	17,680 - 26,520	Pass	0.97
SPW-50330	11/17/2023	H-3	21,143 ± 543	22,100	17,680 - 26,520	Pass	0.96
LCS-SO-112823	8/1/2020	Cs-134	17.2 ± 0.2	19.2	15.4 - 23.0	Pass	0.90
LCS-SO-112823	8/1/2020	Zn-65	14.9 ± 3.1	14.1	11.3 - 16.9	Pass	1.06
LCS-SO-112823	8/1/2020	Co-60	26.0 ± 0.3	27.0	21.6 - 32.4	Pass	0.96
LCS-SO-112823	8/1/2020	Co-57	29.3 ± 0.9	30.9	24.7 - 37.1	Pass	0.95
LCS-SO-112823	8/1/2020	Mn-54	17.5 ± 1.3	16.5	13.2 - 19.8	Pass	1.06
LCS-SO-112823	8/1/2020	K-40	18.0 ± 0.7	16.8	13.4 - 20.2	Pass	1.07
SPW-3908	12/18/2023	NI-63	2,032 ± 27	1,788	1,430 - 2,146	Pass	1.14
SPW-3910	12/18/2023	Fe-55	269 ± 24	232	186 - 0,278	Pass	1.16
SPDW-50378	12/19/2023	H-3	21,102 ± 452	22,100	17,680 - 26,520	Pass	0.95
SPDW-50388	12/28/2023	H-3	20,540 ± 445	22,100	17,680 - 26,520	Pass	0.93
SPDW-50393	12/19/2023	Ra-226	11.6 ± 0.3	12.3	8.6 - 16.0	Pass	0.94

^a Liquid sample results are reported in pCi/Liter, air filters (pCi/m3), charcoal (pCi/charcoal canister), and solid samples (pCi/kg).

^b Laboratory codes : W & SPW (Water), MI (milk), AP (air filter), SO (soil), VE (vegetation), CH (charcoal canister), F (fish), U (urine).

^c Results are based on single determinations.

^d Acceptance criteria are listed in Attachment A of this report.

TABLE A-4. Intralaboratory "Blank" Samples

Lab Code ^b	Sample Type	Date	Analysis ^c	Concentration ^a		Acceptance Criteria (4.66 σ)
				Laboratory results (4.66σ)		
				LLD	Activity ^d	
SPW-25	Water	1/5/2023	Ra-228	0.98	0.74 ± 0.54	2
SPDW-50000	Water	1/6/2023	I-131	0.36	-0.10 ± 0.16	1
SPDW-50001	Water	1/11/2023	H-3	157	13 ± 74	200
SPDW-50003	Water	1/20/2023	H-3	161	98 ± 85	200
SPDW-50005	Water	1/5/2023	Ra-226	0.02	0.00 ± 0.03	2
SPDW-50033	Water	1/27/2023	Ra-226	0.03	-0.01 ± 0.03	2
SPDW-50009	Water	1/31/2023	Ra-228	1.40	0.69 ± 0.75	2
SPDW-50007	Water	2/3/2023	H-3	160	17 ± 80	200
SPDW-50015	Water	2/10/2023	H-3	159	91 ± 84	200
SPDW-50011	Water	2/9/2023	Sr-89	0.62	0.24 ± 0.49	5
SPDW-50011	Water	2/9/2023	Sr-90	0.66	-0.02 ± 0.30	1
SPDW-50018	Water	2/16/2023	Gr. Alpha	0.62	0.01 ± 0.44	2
SPDW-50018	Water	2/16/2023	Gr. Beta	0.78	-0.10 ± 0.54	4
SPDW-50020	Water	2/17/2023	H-3	154	122 ± 80	200
SPDW-50031	Water	2/16/2023	Ra-228	0.82	0.42 ± 0.43	2
SPDW-50046	Water	2/24/2023	Ra-226	0.03	0.05 ± 0.04	2
SPDW-50044	Water	3/13/2023	I-131	0.15	-0.06 ± 0.08	1
SPDW-50048	Water	3/17/2023	H-3	163	80 ± 80	200
SPDW-50055	Water	3/24/2023	H-3	169	63 ± 82	200
SPDW-50059	Water	3/16/2023	Ra-226	0.04	-0.02 ± 0.03	2
SPDW-50063	Water	3/28/2023	Ra-226	0.06	-0.01 ± 0.05	2
SPDW-50067	Water	4/14/2023	H-3	173	92 ± 87	200
SPDW-50069	Water	4/17/2023	I-131	0.11	-0.05 ± 0.08	1
SPDW-50102	Water	5/15/2023	I-131	0.15	-0.01 ± 0.08	1
SPDW-50103	Water	5/12/2023	H-3	161	67 ± 80	200
SPDW-50116	Water	5/26/2023	H-3	161	122 ± 87	200
SPDW-50137	Water	6/12/2023	H-3	157	125 ± 80	200
SPDW-50154	Water	6/26/2023	H-3	157	105 ± 80	200
SPDW-50181	Water	6/8/2023	Ra-226	0.04	-0.07 ± 0.03	2
SPDW-50218	Water	8/15/2023	Sr-89	0.66	-0.07 ± 0.48	5
SPDW-50218	Water	8/15/2023	Sr-90	0.55	0.02 ± 0.26	1
SPDW-50248	Water	8/22/2024	Gr. Alpha	0.57	-0.03 ± 0.40	2
SPDW-50248	Water	8/22/2024	Gr. Beta	0.70	0.28 ± 0.50	4
SPDW-50256	Water	8/25/2023	H-3	161	75 ± 84	200
SPDW-50258	Water	7/19/2023	Ra-226	0.06	-0.25 ± 0.04	2
SPDW-50270	Water	9/6/2023	H-3	160	90 ± 81	200
SPDW-50282	Water	9/25/2023	H-3	163	53 ± 79	200
SPDW-50290	Water	8/28/2023	Ra-226	0.05	0.00 ± 0.04	2

^a Liquid sample results are reported in pCi/Liter, air filters (pCi/m³), charcoal (pCi/charcoal canister), and solid samples (pCi/g).

^b Laboratory codes : W & SPW (Water), MI (milk), AP (air filter), SO (soil), VE (vegetation), CH (charcoal canister), F (fish), U (urine).

^c I-131(G); iodine-131 as analyzed by gamma spectroscopy.

^d Activity reported is a net activity result.

TABLE A-4. Intralaboratory "Blank" Samples

Lab Code ^b	Sample Type	Date	Analysis ^c	Concentration ^a		Acceptance Criteria (4.66 σ)
				Laboratory results (4.66σ)		
				LLD	Activity ^d	
SPDW-50311	Water	10/16/2023	I-131	0.25	0.06 ± 0.14	1
SPDW-50312	Water	10/3/2023	Ra-226	0.04	0.06 ± 0.09	2
SPDW-50315	Water	10/27/2023	H-3	169	5 ± 79	200
SPDW-50329	Water	11/17/2023	H-3	170	51 ± 82	200
SPDW-50379	Water	11/17/2023	Ra-226	0.05	0.09 ± 0.04	2
SPDW-50346	Water	12/5/2023	H-3	0.10	-0.12 ± 0.07	1
SPDW-50347	Water	12/5/2023	Ra-228	1.27	-0.07 ± 0.62	2
SPW-3907	Water	12/18/2023	Ni-63	149	0 ± 91	200
SPW-3909	Water	12/18/2023	Fe-55	435	7 ± 265	2000
SPDW-50377	Water	12/19/2023	H-3	173	-42 ± 78	200
SPDW-50387	Water	12/28/2023	H-3	171	-21 ± 79	200

^a Liquid sample results are reported in pCi/Liter, air filters (pCi/m³), charcoal (pCi/charcoal canister), and solid samples (pCi/g).

^b Laboratory codes : W & SPW (Water), MI (milk), AP (air filter), SO (soil), VE (vegetation), CH (charcoal canister), F (fish), U (urine).

^c I-131(G); iodine-131 as analyzed by gamma spectroscopy.

^d Activity reported is a net activity result.

TABLE A-5. Intralaboratory "Duplicate" Samples

Lab Code ^b	Date	Analysis	Concentration ^a		Averaged Result	Acceptance
			First Result	Second Result		
WW-65,66	1/10/2023	Gr. Beta	15.4 ± 2.0	17.2 ± 2.1	16.3 ± 1.5	Pass
WW-107,108	1/18/2023	H-3	153 ± 88	132 ± 87	143 ± 62	Pass
SG-187,188	1/30/2023	Gr. Alpha	28.1 ± 3.9	22.0 ± 3.5	25.1 ± 2.6	Pass
SG-187,188	1/30/2023	Gr. Beta	22.3 ± 1.8	22.2 ± 1.8	22.3 ± 1.3	Pass
SG-187,188	1/30/2023	Pb-214	4.08 ± 0.16	3.38 ± 0.09	3.73 ± 0.09	Pass
SG-187,188	1/30/2023	Ac-228	3.88 ± 0.28	3.98 ± 0.14	3.93 ± 0.16	Pass
SWU-201,202	1/31/2023	H-3	171 ± 89	234 ± 92	203 ± 64	Pass
SW-243,244	2/7/2023	H-3	358 ± 98	262 ± 93	310 ± 68	Pass
PW-266,267	2/6/2023	Ra-226	0.61 ± 0.18	0.37 ± 0.20	0.49 ± 0.13	Pass
DW-50028,50029	2/27/2023	Ra-226	0.68 ± 0.13	0.76 ± 0.13	0.72 ± 0.09	Pass
DW-50028,50029	2/27/2023	Ra-228	2.26 ± 0.65	1.20 ± 0.65	1.73 ± 0.46	Pass
DW-50052,50053	2/27/2023	Ra-228	0.48 ± 0.57	1.19 ± 0.65	0.84 ± 0.43	Pass
DW-50035,50036	2/28/2023	Gr. Alpha	3.68 ± 1.42	4.00 ± 1.29	3.84 ± 0.96	Pass
DW-50035,50036	2/28/2023	Gr. Beta	2.50 ± 0.64	1.99 ± 0.64	2.25 ± 0.45	Pass
LW-518,519	3/8/2023	Gr. Beta	1.71 ± 0.64	1.38 ± 0.64	1.55 ± 0.45	Pass
SG-571,572	3/8/2023	Pb-214	7.80 ± 0.46	8.20 ± 0.35	8.00 ± 0.29	Pass
SG-571,572	3/8/2023	Ac-228	11.9 ± 0.8	11.4 ± 0.6	11.7 ± 0.5	Pass
SG-571,572	3/8/2023	Gr. Alpha	86.5 ± 10.6	89.6 ± 11.0	88.1 ± 7.6	Pass
DW-50052,50053	3/17/2023	Gr. Alpha	9.16 ± 1.02	14.7 ± 1.2	11.9 ± 0.8	Pass
DW-50052,50053	3/17/2023	Gr. Beta	6.03 ± 0.71	7.58 ± 0.75	6.81 ± 0.52	Pass
CF-700,701	3/22/2023	K-40	2.91 ± 0.32	3.30 ± 0.36	3.11 ± 0.24	Pass
SW-679,680	3/27/2023	H-3	14,480 ± 389	14,487 ± 389	14,484 ± 275	Pass
SG-974,975	4/4/2023	Gr. Alpha	12.0 ± 2.1	12.1 ± 2.1	12.1 ± 1.5	Pass
DW-50074,50075	4/21/2023	Ra-226	1.63 ± 0.22	1.56 ± 0.28	1.60 ± 0.18	Pass
DW-50074,50075	4/21/2023	Ra-228	3.41 ± 0.98	2.14 ± 0.80	2.78 ± 0.63	Pass
U-1038,1039	4/20/2023	Gr. Beta	6.14 ± 1.71	6.46 ± 2.19	6.30 ± 1.39	Pass
WW-1101,1102	4/25/2023	H-3	358 ± 96	334 ± 95	346 ± 68	Pass
DW-50092,50093	5/1/2023	Ra-226	1.00 ± 0.22	1.46 ± 0.19	1.23 ± 0.15	Pass
DW-50092,50093	5/1/2023	Ra-228	1.11 ± 0.73	1.57 ± 0.82	1.34 ± 0.55	Pass
WW-1122,1123	5/2/2023	H-3	307 ± 93	229 ± 89	268 ± 64	Pass
WW-1269,1270	5/17/2023	H-3	366 ± 100	214 ± 92	290 ± 68	Pass
DW-50110,50111	5/29/2023	Ra-226	6.27 ± 0.40	4.77 ± 0.26	5.52 ± 0.24	Pass
DW-50110,50111	5/29/2023	Ra-228	2.81 ± 0.97	3.53 ± 0.98	3.17 ± 0.69	Pass
SW-1356,1357	5/30/2023	H-3	380 ± 94	257 ± 88	319 ± 64	Pass
WW-1398,1399	5/24/2023	H-3	571 ± 103	613 ± 105	592 ± 74	Pass
SG-1377,1378	5/30/2023	Pb-214	1.07 ± 0.14	1.19 ± 0.15	1.13 ± 0.10	Pass
SG-1377,1378	5/30/2023	Ac-228	1.23 ± 0.28	1.11 ± 0.23	1.17 ± 0.18	Pass

TABLE A-5. Intralaboratory "Duplicate" Samples

Lab Code b	Date	Analysis	Concentration ^a		Averaged Result	Acceptance
			First Result	Second Result		
DW-50124,50125	6/5/2023	Ra-226	0.25 ± 0.08	0.24 ± 0.09	0.25 ± 0.06	Pass
AP-060523A/B	6/5/2023	Gr. Beta	0.023 ± 0.003	0.0236 ± 0.003	0.023 ± 0.002	Pass
DW-50126,50127	6/5/2023	Gr. Alpha	2.50 ± 1.17	3.87 ± 1.39	3.19 ± 0.91	Pass
WW-1441,1442	6/6/2023	Gr. Beta	2.55 ± 0.64	1.91 ± 0.67	2.23 ± 0.46	Pass
SW-1483,1484	6/8/2023	H-3	281 ± 90	281 ± 90	281 ± 64	Pass
CF-1546,1547	6/12/2023	K-40	7.77 ± 0.34	7.48 ± 0.48	7.63 ± 0.29	Pass
AP-061223A/B	6/12/2023	Gr. Beta	0.031 ± 0.005	0.030 ± 0.005	0.031 ± 0.004	Pass
S-1567,1568	6/14/2023	K-40	9.75 ± 0.71	9.80 ± 0.77	9.78 ± 0.52	Pass
WW-1630,1631	6/6/2023	H-3	319 ± 93	236 ± 89	278 ± 64	Pass
F-1945,1946	6/26/2023	K-40	3.81 ± 0.34	3.22 ± 0.54	3.52 ± 0.32	Pass
DW-50157,50158	6/26/2023	Gr. Beta	0.93 ± 0.59	1.09 ± 0.06	1.01 ± 0.30	Pass
AP-062823A/B	6/28/2023	Gr. Beta	0.026 ± 0.004	0.021 ± 0.003	0.024 ± 0.003	Pass
AP-070323A/B	7/3/2023	Gr. Beta	0.028 ± 0.003	0.026 ± 0.003	0.027 ± 0.002	Pass
DW-50160,50161	7/5/2023	Ra-226	2.63 ± 0.32	2.77 ± 0.27	2.70 ± 0.21	Pass
DW-50160,50161	7/5/2023	Ra-228	2.46 ± 0.78	2.51 ± 0.81	2.49 ± 0.56	Pass
AP-071123A/B	7/11/2023	Gr. Beta	0.025 ± 0.003	0.027 ± 0.003	0.026 ± 0.002	Pass
DW-50188,50189	7/21/2023	Ra-226	3.07 ± 0.30	2.63 ± 0.20	2.85 ± 0.18	Pass
DW-50188,50189	7/21/2023	Ra-228	5.28 ± 0.92	5.08 ± 0.90	5.18 ± 0.64	Pass
DW-50197,50198	7/24/2023	Gr. Alpha	5.82 ± 1.50	5.78 ± 1.30	5.80 ± 0.99	Pass
DW-50200,50201	7/24/2023	Ra-226	2.51 ± 0.24	4.07 ± 0.29	3.29 ± 0.19	Pass
DW-50200,50201	7/24/2023	Ra-228	7.04 ± 1.13	6.55 ± 1.09	6.80 ± 0.79	Pass
SG-2199,2200	7/25/2023	Pb-214	1.18 ± 0.22	1.03 ± 0.19	1.11 ± 0.15	Pass
SG-2199,2200	7/25/2023	Ac-228	1.74 ± 0.32	1.86 ± 0.42	1.80 ± 0.26	Pass
AP-072623A/B	7/26/2023	Gr. Beta	0.021 ± 0.003	0.021 ± 0.003	0.021 ± 0.002	Pass
AP-080223A/B	8/2/2023	Gr. Beta	0.015 ± 0.003	0.016 ± 0.003	0.016 ± 0.002	Pass
SG-2315,2316	8/3/2023	Gr. Alpha	59.5 ± 6.7	48.2 ± 6.1	53.9 ± 4.5	Pass
SG-2315,2316	8/3/2023	Gr. Beta	39.8 ± 2.9	34.4 ± 2.6	37.1 ± 1.9	Pass
AP-080723A/B	8/7/2024	Gr. Beta	0.025 ± 0.005	0.025 ± 0.005	0.025 ± 0.004	Pass
DW-50200,50201	8/9/2023	Ra-228	1.88 ± 0.71	1.29 ± 0.70	1.59 ± 0.50	Pass
AP-081423A/B	8/14/2023	Gr. Beta	0.030 ± 0.003	0.028 ± 0.003	0.029 ± 0.002	Pass
AP-082123A/B	8/21/2023	Gr. Beta	0.020 ± 0.003	0.022 ± 0.003	0.021 ± 0.002	Pass
DW-50262,50263	8/24/2023	Ra-228	2.62 ± 0.87	1.46 ± 0.52	2.04 ± 0.51	Pass
DW-50262,50263	8/24/2023	Ra-228	2.62 ± 0.87	2.80 ± 0.67	2.71 ± 0.55	Pass
AP-082823A/B	8/28/2023	Gr. Beta	0.023 ± 0.003	0.028 ± 0.003	0.026 ± 0.002	Pass
DW-50268,50269	8/29/2023	Gr. Alpha	0.87 ± 0.69	0.97 ± 0.81	0.92 ± 0.53	Pass
SG-2660,2661	9/4/2023	Gr. Alpha	68.5 ± 7.1	51.0 ± 6.3	59.8 ± 4.7	Pass
SG-2660,2661	9/4/2023	Pb-214	13.7 ± 0.5	14.2 ± 0.5	14.0 ± 0.4	Pass
SG-2660,2661	9/4/2023	Ac-228	14.4 ± 0.8	14.3 ± 0.9	14.4 ± 0.6	Pass
AP-090523A/B	9/5/2023	Gr. Beta	0.023 ± 0.003	0.023 ± 0.003	0.023 ± 0.002	Pass
AP-091223A/B	9/12/2023	Gr. Beta	0.024 ± 0.002	0.025 ± 0.002	0.025 ± 0.001	Pass

TABLE A-5. Intralaboratory "Duplicate" Samples

Lab Code ^b	Date	Analysis	Concentration ^a		Averaged Result	Acceptance
			First Result	Second Result		
W-2776,2777	9/18/2023	Gr. Alpha	1.86 ± 1.73	0.99 ± 1.64	1.43 ± 1.19	Pass
W-2776,2777	9/18/2023	Ra-226	0.43 ± 0.10	0.55 ± 0.27	0.49 ± 0.14	Pass
W-2776,2777	9/18/2023	Ra-228	1.71 ± 1.07	3.33 ± 1.12	2.52 ± 0.77	Pass
AP-092023A/B	9/20/2023	Gr. Beta	0.039 ± 0.004	0.042 ± 0.004	0.041 ± 0.003	Pass
DW-50296,50297	9/27/2023	Ra-226	0.51 ± 0.09	0.54 ± 0.20	0.53 ± 0.11	Pass
AP-092823A/B	9/28/2023	Gr. Beta	0.030 ± 0.004	0.034 ± 0.004	0.032 ± 0.003	Pass
S-3136,3137	10/11/2023	Pb-214	1.93 ± 0.06	1.84 ± 0.08	1.89 ± 0.05	Pass
S-3135,3136	10/11/2023	Ac-228	4.06 ± 0.17	3.84 ± 0.19	3.95 ± 0.13	Pass
SG-3511,3512	10/10/2023	Gr. Alpha	59.0 ± 6.2	68.5 ± 6.6	63.8 ± 4.5	Pass
SG-3511,3512	10/10/2023	Gr. Beta	52.1 ± 2.9	54.6 ± 3.0	53.4 ± 2.1	Pass
SG-3511,3512	10/10/2023	Pb-214	9.67 ± 0.25	9.57 ± 0.29	9.62 ± 0.19	Pass
SG-3511,3512	10/10/2023	Ac-228	8.99 ± 0.43	8.79 ± 0.53	8.89 ± 0.34	Pass
SG-3521,3522	11/8/2023	Gr. Alpha	57.3 ± 7.3	70.9 ± 7.6	64.1 ± 5.3	Pass
SG-3521,3522	11/8/2023	Pb-214	11.2 ± 0.2	11.7 ± 0.2	11.5 ± 0.1	Pass
SG-3521,3522	11/8/2023	Ac-228	13.0 ± 0.4	13.4 ± 0.5	13.2 ± 0.3	Pass
DW-50335,50336	11/17/2023	Gr. Alpha	3.70 ± 1.00	3.46 ± 0.90	3.58 ± 0.67	Pass
DW-50335,50336	11/17/2023	Gr. Beta	1.73 ± 0.63	2.07 ± 0.06	1.90 ± 0.32	Pass
W-3647,3648	11/20/2023	H-3	2,815 ± 181	2,829 ± 182	2,822 ± 128	Pass
DW-50358,50359	12/4/2023	Gr. Beta	2.53 ± 0.61	1.66 ± 0.62	2.10 ± 0.43	Pass
DW-50349,50350	12/4/2023	Ra-226	0.04 ± 0.11	0.32 ± 0.10	0.18 ± 0.07	Pass
DW-50349,50350	12/4/2023	Ra-228	1.37 ± 0.48	1.57 ± 0.47	1.47 ± 0.34	Pass
DW-50365,50366	12/11/2023	Gr. Alpha	1.4 ± 0.79	1.95 ± 0.91	1.675 ± 0.60	Pass
DW-50365,50366	12/11/2023	Gr. Beta	3.18 ± 0.62	3.18 ± 0.66	3.18 ± 0.45	Pass
DW-50374,50375	12/13/2023	Gr. Alpha	0.89 ± 0.60	0.54 ± 0.67	0.715 ± 0.45	Pass
W-4035.4036	12/31/2023	H-3	157,638 ± 1,218	159,848 ± 1,227	158,743 ± 864	Pass
W-4035.4036	12/31/2023	Ni-63	2,410 ± 78	2,337 ± 78	2,373 ± 55	Pass
W-4035.4036	12/31/2023	Sr-90	49.8 ± 5.2	42.7 ± 4.8	46.3 ± 3.5	Pass

TABLE A-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP).

Lab Code ^b	Reference Date	Analysis	Laboratory result	Concentration ^a		
				Known Activity	Acceptance Range ^c	Acceptance
MAAP-544	2/1/2023	Gross Alpha	1.23 ± 0.10	0.97	0.29 - 1.65	Pass
MAAP-544	2/1/2023	Gross Beta	1.67 ± 0.06	1.49	0.75 - 2.24	Pass
MADW-543	2/1/2023	Gross Alpha	0.843 ± 0.074	1.19	0.36 - 2.02	Pass
MADW-543	2/1/2023	Gross Beta	0.578 ± 0.093	5.94	2.97 - 8.91	Fail ^d
MASO-540	2/1/2023	Cs-134	2.33 ± 2.77	0	NA ^c	Pass
MASO-540	2/1/2023	Cs-137	1.22 ± 2.41	0	NA ^c	Pass
MASO-540	2/1/2023	Co-57	585 ± 4	698	489 - 907	Pass
MASO-540	2/1/2023	Co-60	727 ± 8	795	557 - 1034	Pass
MASO-540	2/1/2023	Mn-54	1180 ± 10	1230	861 - 1599	Pass
MASO-540	2/1/2023	Zn-65	846 ± 11	990	693 - 1287	Pass
MASO-540	2/1/2023	K-40	526 ± 23	574	402 - 746	Pass
MADW-545	2/1/2023	Cs-134	9.17 ± 0.17	9.6	6.7 - 12.5	Pass
MADW-545	2/1/2023	Cs-137	9.38 ± 0.29	8.7	6.1 - 11.3	Pass
MADW-545	2/1/2023	Co-57	-0.01 ± 0.08	0.0	NA ^c	Pass
MADW-545	2/1/2023	Co-60	7.47 ± 0.18	7.24	5.07 - 9.41	Pass
MADW-545	2/1/2023	Mn-54	12.3 ± 0.3	11.3	7.9 - 14.7	Pass
MADW-545	2/1/2023	Zn-65	15.7 ± 0.5	15.3	10.7 - 19.9	Pass
MADW-545	2/1/2023	K-40	1.23 ± 1.52	0	NA ^c	Pass
MADW-545	2/1/2023	Sr-90	-0.0035 ± 0.0172	0	NA ^c	Pass
MAAP-538	2/1/2023	Cs-134	1.12 ± 0.04	1.52	1.06 - 1.98	Pass
MAAP-538	2/1/2023	Cs-137	0.56 ± 0.07	0.630	0.441 - 0.819	Pass
MAAP-538	2/1/2023	Co-57	0.62 ± 0.30	0.661	0.463 - 0.859	Pass
MAAP-538	2/1/2023	Co-60	0.89 ± 0.07	1.05	0.74 - 1.37	Pass
MAAP-538	2/1/2023	Mn-54	2.02 ± 0.09	2.14	1.50 - 2.78	Pass
MAAP-538	2/1/2023	Zn-65	2.13 ± 0.14	2.25	1.58 - 2.93	Pass
MAAP-538	2/1/2023	Sr-90	0.004 ± 0.061	0	NA ^c	Pass
MASO-540	2/1/2023	Cs-134	2.33 ± 2.77	0	NA ^c	Pass
MASO-540	2/1/2023	Cs-137	1.22 ± 2.41	0	NA ^c	Pass
MASO-540	2/1/2023	Co-57	585 ± 4	698	489 - 907	Pass
MASO-540	2/1/2023	Co-60	727 ± 8	795	557 - 1034	Pass
MASO-540	2/1/2023	Mn-54	1180 ± 10	1230	861 - 1599	Pass
MASO-540	2/1/2023	Zn-65	846 ± 11	990	693 - 1287	Pass
MASO-540	2/1/2023	K-40	526 ± 23	574	402 - 746	Pass

TABLE A-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP).

Lab Code ^b	Reference Date	Analysis	Laboratory result	Concentration ^a		
				Known Activity	Acceptance Range ^c	Acceptance
MADW-545	2/1/2023	Cs-134	9.17 ± 0.17	9.6	6.7 - 12.5	Pass
MADW-545	2/1/2023	Cs-137	9.38 ± 0.29	8.7	6.1 - 11.3	Pass
MADW-545	2/1/2023	Co-57	-0.01 ± 0.08	0.0	NA ^c	Pass
MADW-545	2/1/2023	Co-60	7.47 ± 0.18	7.24	5.07 - 9.41	Pass
MADW-545	2/1/2023	Mn-54	12.3 ± 0.3	11.3	7.9 - 14.7	Pass
MADW-545	2/1/2023	Zn-65	15.7 ± 0.5	15.3	10.7 - 19.9	Pass
MADW-545	2/1/2023	K-40	1.23 ± 1.52	0	NA ^c	Pass
MADW-545	2/1/2023	Sr-90	-0.0035 ± 0.0172	0	NA ^c	Pass
MAAP-538	2/1/2023	Cs-134	1.12 ± 0.04	1.52	1.06 - 1.98	Pass
MAAP-538	2/1/2023	Cs-137	0.56 ± 0.07	0.630	0.441 - 0.819	Pass
MAAP-538	2/1/2023	Co-57	0.62 ± 0.30	0.661	0.463 - 0.859	Pass
MAAP-538	2/1/2023	Co-60	0.89 ± 0.07	1.05	0.74 - 1.37	Pass
MAAP-538	2/1/2023	Mn-54	2.02 ± 0.09	2.14	1.50 - 2.78	Pass
MAAP-538	2/1/2023	Zn-65	2.13 ± 0.14	2.25	1.58 - 2.93	Pass
MAAP-538	2/1/2023	Sr-90	0.004 ± 0.061	0	NA ^c	Pass
MAVE-545	2/1/2023	Cs-134	7.45 ± 0.39	7.60	5.32 - 9.88	Pass
MAVE-545	2/1/2023	Cs-137	0.010 ± 0.084	0	NA ^c	Pass
MAVE-545	2/1/2023	Co-57	6.83 ± 0.17	6.93	4.85 - 9.01	Pass
MAVE-545	2/1/2023	Co-60	6.89 ± 0.17	6.51	4.56 - 8.46	Pass
MAVE-545	2/1/2023	Mn-54	9.08 ± 0.28	8.03	5.62 - 10.44	Pass
MAVE-545	2/1/2023	Zn-65	7.83 ± 0.39	7.43	5.20 - 9.66	Pass
MAAP-2761	8/1/2023	Gross Alpha	0.16 ± 0.04	0.255	0.077 - 0.434	Pass
MAAP-2761	8/1/2023	Gross Beta	1.16 ± 0.07	0.927	0.464 - 1.391	Pass
MADW-2753	8/1/2023	Gross Alpha	1.20 ± 0.06	1.59	0.48 - 2.70	Pass
MADW-2753	8/1/2023	Gross Beta	14.7 ± 0.1	16.27	8.14 - 24.41	Pass
MASO-2757	8/1/2023	Cs-134	612 ± 8	693	485 - 901	Pass
MASO-2757	8/1/2023	Cs-137	1900 ± 20	1810	1267 - 2353	Pass
MASO-2757	8/1/2023	Co-57	1020 ± 20	1060	742 - 1378	Pass
MASO-2757	8/1/2023	Co-60	901 ± 10	898	629 - 1167	Pass
MASO-2757	8/1/2023	Mn-54	6.53 ± 3.22	0	NA ^c	Pass
MASO-2757	8/1/2023	Zn-65	1270 ± 30	1160	812 - 1508	Pass
MASO-2757	8/1/2023	K-40	702 ± 54	574	402 - 746	Pass

TABLE A-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP).

Lab Code ^b	Reference Date	Analysis	Laboratory result	Concentration ^a		
				Known Activity	Acceptance Range ^c	Acceptance
MADW-2751	8/1/2023	Cs-134	8.88 ± 0.18	11.3	7.9 - 14.7	Pass
MADW-2751	8/1/2023	Cs-137	7.95 ± 0.30	8.7	6.1 - 11.3	Pass
MADW-2751	8/1/2023	Co-57	16.5 ± 0.3	19.3	13.5 - 25.1	Pass
MADW-2751	8/1/2023	Co-60	0.09 ± 0.06	0	NA ^c	Pass
MADW-2751	8/1/2023	Mn-54	11.6 ± 0.3	12.7	8.9 - 16.5	Pass
MADW-2751	8/1/2023	Zn-65	17.9 ± 0.6	19.1	13.4 - 24.8	Pass
MADW-2751	8/1/2023	K-40	1.56 ± 1.60	0	NA ^c	Pass
MAAP-2755	8/1/2023	Cs-134	1.30 ± 0.10	1.60	1.12 - 2.08	Pass
MAAP-2755	8/1/2023	Cs-137	0.04 ± 0.03	0	NA ^c	Pass
MAAP-2755	8/1/2023	Co-57	1.47 ± 0.05	1.63	1.14 - 2.12	Pass
MAAP-2755	8/1/2023	Co-60	0.04 ± 0.09	0	NA ^c	Pass
MAAP-2755	8/1/2023	Mn-54	1.59 ± 0.09	1.57	1.10 - 2.04	Pass
MAAP-2755	8/1/2023	Zn-65	1.71 ± 0.14	1.89	1.32 - 2.46	Pass
MAAP-2755	8/1/2023	Sr-90	0.533 ± 0.040	0.614	0.430 - 0.796	Pass
MAVE-2759	8/1/2023	Cs-134	4.25 ± 0.14	4.96	3.49 - 6.47	Pass
MAVE-2759	8/1/2023	Cs-137	0.025 ± 0.050	0	NA ^c	Pass
MAVE-2759	8/1/2023	Co-57	4.28 ± 0.13	4.24	2.97 - 5.51	Pass
MAVE-2759	8/1/2023	Co-60	2.49 ± 0.11	2.79	1.95 - 3.63	Pass
MAVE-2759	8/1/2023	Mn-54	2.45 ± 0.16	2.6	1.8 - 3.3	Pass
MAVE-2759	8/1/2023	Zn-65	0.058 - 0.107	0	NA ^c	Pass

^a Results are reported in units of Bq/kg (soil), Bq/L (water) or Bq/total sample (filters, vegetation).

^b Laboratory codes as follows: MAW (water), MADW (water), MAAP (air filter), MASO (soil) and MAVE (vegetation).

^c MAPEP results are presented as the known values and expected laboratory precision (1 sigma, 1 determination) and control limits as defined by the MAPEP. A known value of "zero" indicates an analysis was included in the testing series as a "false positive". MAPEP does not provide an acceptance range.

^d A decimal point was misplaced in a unit conversion. If the conversion was done properly the result: 5.78 ± 0.93 Bq/L would have been within MAPEP's acceptance range.

TABLE A-7. Interlaboratory Comparison Crosscheck Program, Environmental Resource Associates (ERA)^a.

MRAD-38 Study						
Lab Code ^b	Date	Analysis	Concentration ^a		Acceptance Limits ^d	Acceptance
			Laboratory Result	ERA Value ^c		
ERAP-599	3/20/2023	Cs-134	139	153	99 - 188	Pass
ERAP-599	3/20/2023	Cs-137	970	892	733 - 1170	Pass
ERAP-599	3/20/2023	Co-60	474	467	397 - 593	Pass
ERAP-599	3/20/2023	Mn-54	< 3.3	< 35.0	0.00 - 35.0	Pass
ERAP-599	3/20/2023	Zn-65	1280	1110	910 - 1700	Pass
ERAP-599	3/20/2023	Sr-90	143	137	87 - 187	Pass
ERAP-598	3/20/2023	Gross Alpha	72.7	76.8	40.1 - 127	Pass
ERAP-598	3/20/2023	Gross Beta	35.0	32.8	19.9 - 49.6	Pass

^a Results obtained by Microbac Laboratories, Inc. as a participant in the crosscheck program for proficiency testing administered by Environmental Resource Associates, serving as a replacement for studies conducted previously by the Environmental Measurements Laboratory Quality Assessment Program (EML).

^b Laboratory code ERAP (air filter). Results are reported in units of (pCi/Filter).

^c The ERA Assigned values for the air filter standards are equal to 100% of the parameter present in the standard as determined by the gravimetric and/or volumetric measurements made during standard preparation as applicable.

^d The acceptance limits are established per the guidelines contained in the Department of Energy (DOE) report EML-564, Analysis of Environmental Measurements Laboratory (EML) Quality Assessment Program (QAP) Data Determination of Operational Criteria and Control Limits for Performance Evaluation Purposes or ERA's SOP for the generation of Performance Acceptance Limits.



Appendix B

Data Reporting Conventions

APPENDIX B. DATA REPORTING CONVENTIONS

Data Reporting Conventions

- 1.0. All activities, except gross alpha and gross beta, are decay corrected to collection time or the end of the collection period.

2.0. Single Measurements

Each single measurement is reported as follows: $x \pm s$
where: x = value of the measurement;
 $s = 2\sigma$ counting uncertainty (corresponding to the 95% confidence level).

In cases where the activity is less than the lower limit of detection L , it is reported as: $< L$, where L = the lower limit of detection based on 4.66σ uncertainty for a background sample.

3.0. Duplicate analyses

If duplicate analyses are reported, the convention is as follows. :

- 3.1 Individual results: For two analysis results; $x_1 \pm s_1$ and $x_2 \pm s_2$
Reported result: $x \pm s$; where $x = (1/2)(x_1 + x_2)$ and $s = (1/2)\sqrt{s_1^2 + s_2^2}$
- 3.2. Individual results: $< L_1, < L_2$ Reported result: $< L$, where L = lower of L_1 and L_2
- 3.3. Individual results: $x \pm s, < L$ Reported result: $x \pm s$ if $x \geq L$; $< L$ otherwise.

4.0. Computation of Averages and Standard Deviations

- 4.1 Averages and standard deviations listed in the tables are computed from all of the individual measurements over the period averaged; for example, an annual standard deviation would not be the average of quarterly standard deviations. The average \bar{x} and standard deviation "s" of a set of n numbers x_1, x_2, \dots, x_n are defined as follows:

$$\bar{x} = \frac{1}{n} \sum x \quad s = \sqrt{\frac{\sum (x - \bar{x})^2}{n-1}}$$

- 4.2 Values below the highest lower limit of detection are not included in the average.
- 4.3 If all values in the averaging group are less than the highest LLD, the highest LLD is reported.
- 4.4 If all but one of the values are less than the highest LLD, the single value x and associated two sigma error is reported.
- 4.5 In rounding off, the following rules are followed:
- 4.5.1. If the number following those to be retained is less than 5, the number is dropped, and the retained numbers are kept unchanged. As an example, 11.443 is rounded off to 11.44.
- 4.5.2. If the number following those to be retained is equal to or greater than 5, the number is dropped and the last retained number is raised by 1. As an example, 11.445 is rounded off to 11.45.

APPENDIX C
REMP SAMPLING SUMMARY

TABLE C: Davis-Besse Nuclear Power Station REMP Sampling Summary January - December 2023

Sample Type (Units)	Type and Number of Analyses ^a	LLD ^b	Indicator Locations Mean (F) ^c Range ^c	Location with Highest Annual Mean		Control Locations Mean (F) ^c Range ^c	Number Non- Routine Results ^c
				Location ^d	Mean (F) ^c Range ^c		
Airborne Particulates (pCi/m ³)	GB 468	0.005	0.026 (364/364) (0.011-0.050)	T-7 (Indicator) 0.9 mile NW	0.027 (52/52) (0.011-0.048)	0.027 (104/104) (0.012-0.047)	0
	Sr-89 36	0.0014	< LLD	-	-	< LLD	0
	Sr-90 36	0.0013	< LLD	-	-	< LLD	0
	GS 36						
	Be-7	N/A	0.070 (28/28) (0.053-0.084)	T-7 (Indicator) 0.9 mi. NW	0.074 (4/4) (0.068-0.084)	0.073 (8/8) (0.064-0.084)	0
	K-40	0.0360	< LLD	-	-	< LLD	0
	Nb-95	0.0017	< LLD	-	-	< LLD	0
	Zr-95	0.0018	< LLD	-	-	< LLD	0
	Ru-103	0.0010	< LLD	-	-	< LLD	0
	Ru-106	0.0087	< LLD	-	-	< LLD	0
	Cs-134	0.0019	< LLD	-	-	< LLD	0
	Cs-137	0.0009	< LLD	-	-	< LLD	0
	Ce-141	0.0021	< LLD	-	-	< LLD	0
	Ce-144	0.0052	< LLD	-	-	< LLD	0
Airborne Iodine (pCi/m ³)	I-131 468	0.07	< LLD	-	-	< LLD	0
TLD (Quarterly) (mR/91days)	Gamma 231	1.0	13.9 (211/211) (8.2-21.5)	T-154 (Indicator) 4.0 mi. SW	20.5 (4/4) (18.5-21.5)	14.0 (20/20) (9.3-19.5)	0
TLD (Quarterly) (mR/91days) (Shield)	Gamma 4	1.0	None	-	-	5.7 (4/4) (5.3-6.2)	0

TABLE C: Davis-Besse Nuclear Power Station REMP Sampling Summary January - December 2023

Sample Type (Units)	Type and Number of Analyses ^a		LLD ^b	Indicator Locations Mean (F) ^c Range ^c	Location with Highest Annual Mean		Control Locations Mean (F) ^c Range ^c	Number Non-Routine Results ^c
					Location ^d	Mean (F) ^c Range ^c		
Milk (pCi/L)	I-131	2	0.5	None	-	-	< LLD	0
	Sr-89	2	0.9	None	-	-	< LLD	0
	Sr-90	2	0.5	None	T-24 21.0 mi. SE	0.55 (1/2) (0.40-0.70)	0.55 (1/2) (0.40-0.70)	0
	GS	2						
	K-40		N/A	None	T-24, 21.0 mi. SE	1335 (2/2) (1272-1398)	1335 (2/2) (1272-1398)	0
	Cs-134		10	None	-	-	< LLD	0
	Cs-137		10	None	-	-	< LLD	0
	Ba/La-140		10	None	-	-	< LLD	0
	(g/L)	Ca	2	N/A	T-24 21.0 mi. SE	1.13 (2/2) (1.05-1.21)	1.13 (2/2) (1.05-1.21)	0
	(g/L)	K (stable)	2	N/A	T-24, 21.0 mi. SE	1.63 (2/2) (1.55-1.70)	1.63 (2/2) (1.55-1.70)	0
(pCi/g)	Sr-90/Ca	2	N/A	none	T-24, 21.0 mi. SE	0.48 (2/2) (0.38-0.58)	0.48 (2/2) (0.38-0.58)	0
(pCi/g)	Cs-137/K	2	N/A	none	T-24, 21.0 mi. SE	0.48 (2/2) (0.38-0.58)	0.48 (2/2) (0.38-0.58)	0
Ground Water (pCi/L)	GB (TR)	1	2.2	none	T-27A 5.4 mi. WNW	3.2 (1/1) (3.2-3.2)	3.2 (1/1) (3.2-3.2)	0
	H-3	1	330	none	-	-	< LLD	0
	Sr-89	1	1.1	none	-	-	< LLD	0
	Sr-90	1	0.9	none	-	-	< LLD	0
	GS	1						
	Mn-54		15	none	-	-	< LLD	0
	Fe-59		30	none	-	-	< LLD	0
	Co-58		15	none	-	-	< LLD	0
	Co-60		15	none	-	-	< LLD	0
	Zn-65		30	none	-	-	< LLD	0
	Zr-Nb-95		15	none	-	-	< LLD	0
	Cs-134		10	none	-	-	< LLD	0
	Cs-137		10	none	-	-	< LLD	0
	Ba/La-140		15	none	-	-	< LLD	0

TABLE C: Davis-Besse Nuclear Power Station REMP Sampling Summary January - December 2023

Sample Type (Units)	Type and Number of Analyses ^a	LLD ^b	Indicator Locations Mean (F) ^c Range ^c	Location with Highest Annual Mean		Control Locations Mean (F) ^c Range ^c	Number Non- Routine Results ^c
				Location ^d	Mean (F) ^c Range ^c		
Broad Leaf Vegetation (pCi/g wet)	Sr-89 21	0.010	< LLD	-	-	< LLD	0
	Sr-90 21	0.006	< LLD	-	-	< LLD	0
	GS 21						
	K-40	0.50	2.68 (10/12) (0.25-3.94)	T-30, Control 12.8 mi. WNW	4.62 (3/3) (4.26-5.05)	3.18 (9/9) (0.38-5.05)	0
	Nb-95	0.022	< LLD	-	-	< LLD	0
	Zr-95	0.032	< LLD	-	-	< LLD	0
	I-131	0.021	< LLD	-	-	< LLD	0
	Cs-134	0.020	< LLD	-	-	< LLD	0
	Cs-137	0.017	< LLD	-	-	< LLD	0
	Ce-141	0.038	< LLD	-	-	< LLD	0
	Ce-144	0.150	< LLD	-	-	< LLD	0
Treated Surface Water (pCi/L)	GB (TR) 24	2.2	< LLD)	T-11, Control 9.1 mi. SE	1.2 (1/12) (0.6-2.4)	1.2 (1/12) (0.6-2.4)	0
	H-3 8	330	215 (1/4) (145-390)	T-22, Indicator 2.1 mi. W	215 (1/4) (145-390)	< LLD	0
	Sr-89 8	1.1	< LLD	-	-	< LLD	0
	Sr-90 8	0.9	< LLD	-	-	< LLD	0
	GS 8						
	Mn-54	15	< LLD	-	-	< LLD	0
	Fe-59	30	< LLD	-	-	< LLD	0
	Co-58	15	< LLD	-	-	< LLD	0
	Co-60	15	< LLD	-	-	< LLD	0
	Zn-65	30	< LLD	-	-	< LLD	0
	Zr-Nb-95	15	< LLD	-	-	< LLD	0
	Cs-134	10	< LLD	-	-	< LLD	0
	Cs-137	10	< LLD	-	-	< LLD	0
	Ba/La-140	15	< LLD	-	-	< LLD	0

TABLE C: Davis-Besse Nuclear Power Station REMP Sampling Summary January - December 2023

Sample Type (Units)	Type and Number of Analyses ^a	LLD ^b	Indicator Locations Mean (F) ^c Range ^c	Location with Highest Annual Mean		Control Locations Mean (F) ^c Range ^c	Number Non-Routine Results ^e
				Location ^d	Mean (F) ^c Range ^c		
Untreated Surface Water (pCi/L)	GB (TR) 36	2.2	2.1 (6/24) (0.7-6.2)	T-3, Indicator 1.4 mi. ESE	2.3 (3/12) (1.0-6.2)	1.7 (2/12) (0.3-7.8)	0
	H-3 36	330	224 (3/24) (17-413)	T-3, Indicator 1.4 mi. ESE	230 (2/12) (104-413)	< LLD	0
	Sr-89 12	1.1	< LLD	-	-	< LLD	0
	Sr-90 12	0.9	< LLD	-	-	< LLD	0
	GS 36						
	Mn-54 15		< LLD	-	-	< LLD	0
	Fe-59 30		< LLD	-	-	< LLD	0
	Co-58 15		< LLD	-	-	< LLD	0
	Co-60 15		< LLD	-	-	< LLD	0
	Zn-65 30		< LLD	-	-	< LLD	0
	Zr-Nb-95 15		< LLD	-	-	< LLD	0
	Cs-134 10		< LLD	-	-	< LLD	0
	Cs-137 10		< LLD	-	-	< LLD	0
	Ba-La-140 15		< LLD	-	-	< LLD	0
Fish (pCi/g wet)	GB 4	0.10	4.31 (2/2) (4.05-4.56)	T-33, Indicator Within 5-miles of Station	4.31 (2/2) (4.05-4.56)	3.70 (2/2) (2.90-4.49)	0
	GS 4						
	K-40 0.10		3.76 (2/2) (3.62-3.89)	T-33, Indicator Within 5-miles of Station	3.76 (2/2) (3.62-3.89)	2.98 (2/2) (2.63-3.32)	0
	Mn-54 0.020		< LLD	-	-	< LLD	0
	Fe-59 0.058		< LLD	-	-	< LLD	0
	Co-58 0.031		< LLD	-	-	< LLD	0
	Co-60 0.026		< LLD	-	-	< LLD	0
	Zn-65 0.046		< LLD	-	-	< LLD	0
	Cs-134 0.023		< LLD	-	-	< LLD	0
	Cs-137 0.023		< LLD	-	-	< LLD	0

TABLE C: Davis-Besse Nuclear Power Station REMP Sampling Summary January - December 2023

Sample Type (Units)	Type and Number of Analyses ^a	LLD ^b	Indicator Locations Mean (F) ^c Range ^c	Location with Highest Annual Mean		Control Locations Mean (F) ^c Range ^c	Number Non- Routine Results ^e
				Location ^d	Mean (F) ^c Range ^c		
Shoreline Sediments (pCi/g dry)	GS 4						
	K-40	0.10	8.24 (2/2) (5.92-10.55)	T-11, Control 9.5 mi. SE	11.03 (2/2) (9.68-12.38)	11.03 (2/2) (9.68-12.38)	0
	Mn-54	0.047	< LLD	-	-	< LLD	0
	Co-58	0.077	< LLD	-	-	< LLD	0
	Co-60	0.029	< LLD	-	-	< LLD	0
	Cs-134	0.150	< LLD	-	-	< LLD	0
	Cs-137	0.150	< LLD	-	-	< LLD	0

^a GB = Gross Beta, GS = Gamma Scan

^b LLD = Lower Limit of Detection. Per the Davis-Besse Nuclear Power Station Onsite Dose Calculation Manual, Table 6-3, this is an a-priori value for a radioisotope in a given matrix. The Contract-Required Detection Limit (CRDL) is provided for radioisotopes if it is lower than the LLD or when an LLD is not provided for a radioisotope in a given sample matrix. In the absence of an LLD or CRDL for a given sample matrix, the maximum Minimum Detectable Activity (MDA) for the reporting year is provided.

^c Mean and range are based on detectable only (i.e., > LLD) Fraction of detectable measurements at specified locations is indicated in parentheses (F).

^d Locations are specified by station code and distance (miles) and direction relative to reactor site.

^e Non-routine results are those which exceed ten times the control station value.

L-24-072
Enclosure B

Annual Radioactive Effluent Release Report (ARERR) Meteorological Data

for the

Davis-Besse Nuclear Power Station - 2023

FILES USED THIS RUN ARE:

OPTIONS FILE NAME:JFD35ANN.CNT

INPUT FILE NAME :DBHR23R1.PRN

PRINT FILE NAME :DB23JFDL.PRT

*****DAVIS-BESSE ENVIRONMENTAL COMPLIANCE UNIT ***

2/14/2024

PAGE

1

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

PRINTOUT OF INPUT CONTROL DATA

TITLE: *****DAVIS-BESSE 75-10 DT, NO BACKUP *****

BEGIN DATE: 23 1 1 1

END DATE: 23 12 31 24

OPTION TO PRINT MONTHLY JFDS: YES

OPTION TO PRINT SEASONAL JFDS: YES

OPTION TO PRINT STABILITY BY HOUR OF DAY: YES

OPTION TO PLACE JFD IN FILE FORMATTED FOR PAVAN/XOQDOQ: YES

OPTION TO USE 7 WIND SPEED CLASSES

INPUTTED WIND SPEED CLASSES IN MPH : .00 3.50 7.50 12.50 18.50 24.00 .00

PRIMARY MEASUREMENTS BASED ON:

WIND SPEED MEASURED AT 35.0 FEET IN MPH

BAD WIND SPEED DATA CODED: -99.00

WIND SPEED THRESHOLD: 1.00 MPH

WIND DIRECTION MEASURED AT 35.0 FEET

BAD WIND DIRECTION DATA CODED: -99.0

DELTA T MEASURED BETWEEN 250.0 FEET AND 35.0 FEET IN DEG F

BAD DELTA T CODED: -99.00

BACK-UP MEASUREMENTS BASED ON:

NO BACKUP WIND SPEED MEASUREMENTS

NO BACKUP WIND DIRECTION MEASUREMENTS

NO BACKUP STABILITY MEASUREMENTS

WIND SPEED HEIGHT TO BE USED FOR JFD: 35.00 FEET

FORMAT TO READ INPUT DATA: (4(1X,I2),T84,F6.2,T77,F6.2,T126,F6.2,T2,A2,T86,A3,T79,A3,T128,A3)

FIRST DATA RECORD READ: 23 23 1 1 1 6.6 184.4 -.7

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

[illegible]

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

HOURLY STABILITIES

HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
23	2	15	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
23	2	16	E	E	D	E	E	E	D	D	D	D	D	D	C	D	D	D	D	D	D	D	D	D	D	D
23	2	17	D	D	D	D	D	D	E	D	D	D	C	B	A	D	D	D	D	D	E	E	E	E	D	D
23	2	18	D	E	E	D	D	D	D	D	D	D	B	C	B	D	D	D	D	E	E	E	E	E	E	E
23	2	19	E	E	E	E	E	E	E	E	D	D	B	D	D	B	C	D	D	E	E	E	F	F	F	E
23	2	20	E	E	E	E	E	F	E	E	D	D	D	D	E	D	D	D	D	D	E	E	E	E	F	F
23	2	21	F	F	F	E	E	E	E	D	D	D	A	A	A	A	A	D	D	E	E	E	E	E	E	E
23	2	22	D	D	D	D	D	D	D	E	E	E	D	D	D	D	D	D	D	D	D	D	D	-	D	D
23	2	23	D	D	D	D	D	D	D	D	D	D	D	D	E	D	E	D	D	D	E	E	D	D	D	D
23	2	24	D	D	D	D	D	D	D	D	D	C	D	D	D	C	D	D	D	D	D	D	D	D	D	D
23	2	25	D	D	D	D	D	D	D	D	D	D	D	C	B	A	C	A	D	D	D	D	D	E	D	E
23	2	26	E	E	D	D	D	D	D	D	D	C	B	A	A	A	A	B	D	D	E	F	F	F	F	E
23	2	27	F	F	E	E	E	D	D	D	D	E	D	D	D	D	D	D	D	D	D	E	D	D	D	D
23	2	28	D	D	E	D	E	E	E	E	E	D	D	D	C	B	A	C	E	E	F	F	F	E	E	E
23	3	1	E	E	E	D	D	D	D	D	D	C	D	A	A	A	E	E	F	G	F	F	F	E	E	D
23	3	2	E	E	F	G	G	E	E	E	D	D	D	D	C	C	D	D	D	D	D	D	E	D	D	D
23	3	3	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	D	D	D	D	D
23	3	4	D	E	E	D	E	E	E	D	D	A	A	A	A	B	A	B	D	D	E	E	E	E	E	E
23	3	5	E	E	D	E	E	E	E	D	D	A	A	C	D	D	D	E	E	E	E	E	E	E	E	D
23	3	6	D	D	E	D	D	D	D	D	D	C	B	C	C	D	D	D	D	D	D	D	D	D	D	D
23	3	7	D	D	D	D	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
23	3	8	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
23	3	9	D	D	D	D	D	D	D	D	D	D	D	D	D	C	C	C	D	D	D	D	D	D	D	D
23	3	10	D	D	D	D	D	D	E	E	E	E	D	D	D	D	D	D	E	E	D	D	D	D	D	D
23	3	11	D	D	D	D	D	D	D	D	D	D	D	D	D	D	B	D	D	D	D	D	D	D	D	D
23	3	12	D	-	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
23	3	13	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	C	D	D	D	D	D	D	D	D
23	3	14	D	D	D	D	D	D	D	D	D	C	C	A	A	A	B	B	C	D	D	E	E	E	E	F
23	3	15	F	E	E	E	D	E	E	F	D	B	C	C	D	A	B	A	B	C	D	E	F	F	F	F
23	3	16	E	F	F	F	E	E	E	E	E	D	D	D	D	C	D	D	D	D	E	E	E	E	E	E
23	3	17	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
23	3	18	D	D	D	D	D	D	D	D	D	B	C	C	B	B	C	C	B	B	D	D	D	D	D	D
23	3	19	D	D	D	D	D	D	D	D	D	C	B	B	A	A	A	A	B	C	D	E	E	E	D	D
23	3	20	D	E	E	E	E	E	E	E	D	D	B	B	A	A	A	B	C	D	D	E	E	E	E	E
23	3	21	E	E	F	F	F	E	F	E	D	C	A	A	A	A	B	B	B	D	E	E	E	E	F	E
23	3	22	D	D	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
23	3	23	E	E	E	E	E	E	E	E	E	E	D	E	E	D	E	D	E	E	D	D	D	D	D	D
23	3	24	D	D	D	D	D	D	D	D	D	D	D	D	D	C	C	B	D	D	D	D	D	D	D	D
23	3	25	D	E	D	D	D	D	D	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D
23	3	26	E	E	E	E	E	E	E	E	D	D	B	B	A	A	B	C	D	D	E	F	E	F	F	G
23	3	27	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
23	3	28	D	D	D	D	D	D	D	E	E	E	E	E	E	C	D	D	D	D	E	E	F	F	F	F
23	3	29	F	F	F	F	E	E	E	E	D	D	C	C	D	D	D	D	C	D	E	E	E	E	E	E
23	3	30	D	D	D	D	D	D	D	D	D	C	C	C	D	B	D	C	D	D	D	D	D	D	D	E
23	3	31	F	E	E	E	E	E	E	E	E	D	D	E	E	E	E	D	D	D	D	D	D	E	E	E

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

HOURLY STABILITIES

HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
23	4	1	E	C	F	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
23	4	2	D	D	D	D	D	D	D	D	D	D	D	B	A	A	B	A	B	C	D	D	D	E	E	E
23	4	3	E	E	E	E	E	E	E	D	-	D	B	C	B	D	D	D	E	E	F	E	E	E	E	E
23	4	4	D	E	E	E	E	E	E	E	D	D	D	B	D	D	E	C	D	D	D	D	D	D	D	D
23	4	5	E	G	G	G	E	E	E	E	E	D	D	D	D	D	E	E	E	F	F	E	E	E	E	E
23	4	6	E	E	D	D	E	D	E	D	D	D	D	C	A	B	A	C	C	D	D	D	E	E	E	F
23	4	7	F	F	E	E	F	E	D	D	D	D	D	D	D	D	C	C	C	C	D	D	D	D	D	D
23	4	8	D	D	D	D	E	E	D	D	D	A	A	A	C	B	B	B	B	D	D	D	D	D	D	D
23	4	9	D	E	E	E	E	E	E	E	D	D	D	D	D	C	D	D	D	D	D	E	E	E	E	E
23	4	10	E	E	E	F	F	F	F	F	E	D	D	E	E	E	E	D	E	E	E	F	G	G	G	G
23	4	11	G	G	G	G	G	G	G	F	E	D	B	B	A	A	B	B	C	D	E	E	F	F	F	F
23	4	12	F	F	E	E	E	E	E	E	D	C	C	B	B	B	A	C	D	D	D	E	F	F	F	E
23	4	13	E	E	E	E	E	F	F	F	D	D	B	A	A	A	A	C	B	D	D	E	F	F	F	G
23	4	14	G	G	G	G	G	G	G	G	D	F	E	F	E	E	F	E	F	F	F	E	F	F	G	G
23	4	15	G	G	G	F	F	E	E	D	D	A	B	E	E	D	C	E	E	E	E	E	F	F	F	G
23	4	16	G	E	E	E	F	E	F	E	D	D	D	D	D	C	D	D	A	D	D	D	D	D	D	D
23	4	17	D	D	D	D	D	D	D	D	D	D	D	D	D	A	D	D	D	D	D	D	D	D	D	D
23	4	18	D	D	D	D	D	D	D	D	D	D	C	B	B	C	A	B	B	D	D	D	E	E	E	E
23	4	19	E	E	F	F	G	D	D	D	D	D	C	A	B	A	B	B	D	D	D	D	E	E	-	-
23	4	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	4	21	-	-	-	-	-	-	-	-	-	-	-	-	-	B	D	D	D	D	D	E	E	E	E	E
23	4	22	E	E	E	E	E	E	E	E	D	A	D	D	D	D	C	C	D	D	D	D	D	D	D	D
23	4	23	D	D	E	D	D	D	D	D	D	D	D	D	D	D	D	C	C	D	D	D	D	E	D	D
23	4	24	D	D	D	D	D	D	E	D	D	C	A	C	C	D	D	C	D	D	D	D	E	E	E	-
23	4	25	-	-	-	-	-	-	-	-	-	-	-	-	-	D	D	D	D	D	D	D	D	D	D	D
23	4	26	D	D	D	D	D	D	D	E	E	E	D	D	D	D	C	C	C	C	D	D	E	E	E	E
23	4	27	E	E	E	E	E	E	E	D	A	B	D	D	D	C	D	C	D	D	D	D	D	D	D	D
23	4	28	D	D	D	D	D	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E
23	4	29	E	E	E	D	D	E	D	D	D	D	D	D	D	D	B	D	D	D	D	E	D	E	E	E
23	4	30	E	E	E	E	E	E	D	E	D	A	D	B	C	D	A	C	D	D	D	D	D	D	D	D
23	5	1	D	D	D	D	D	D	D	D	D	C	D	D	C	D	A	C	E	E	D	D	D	E	E	E
23	5	2	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E
23	5	3	E	E	D	D	D	D	E	E	E	D	D	D	D	D	C	C	D	D	D	E	E	E	E	E
23	5	4	E	E	E	F	F	F	F	F	E	A	A	A	E	E	E	D	D	D	D	E	E	F	E	F
23	5	5	F	E	F	E	F	F	F	F	E	D	C	D	B	D	D	C	C	D	D	D	D	E	E	E
23	5	6	E	E	E	E	E	E	E	E	D	D	D	D	E	D	D	D	D	D	D	D	D	E	E	F
23	5	7	F	G	F	F	G	G	F	E	E	D	D	D	D	A	D	D	D	D	D	E	F	F	E	E
23	5	8	E	E	D	D	D	D	D	D	D	-	-	C	D	E	D	D	D	D	D	D	E	F	E	E
23	5	9	D	D	D	D	D	D	D	D	D	D	D	D	D	B	D	B	D	D	D	E	E	E	F	F
23	5	10	F	F	E	-	-	G	G	G	F	D	D	D	D	D	-	-	-	-	-	-	-	-	-	-
23	5	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	D	D	D	E	E	F	F	G	G
23	5	12	F	G	F	G	F	G	F	E	F	D	E	D	E	E	F	E	E	F	F	F	F	F	F	G
23	5	13	G	G	F	G	F	E	F	E	D	D	D	D	D	D	D	D	D	D	E	E	E	F	E	D
23	5	14	D	D	D	D	D	D	D	D	D	C	D	C	A	A	A	A	C	D	D	D	D	D	D	D
23	5	15	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	G	G

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

HOURLY STABILITIES

HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
23	5	16	G	G	G	G	F	G	G	E	D	D	C	D	D	A	B	B	D	D	E	E	D	D	D	
23	5	17	D	D	D	D	D	D	D	D	D	D	B	B	C	D	C	C	D	D	D	D	E	E	E	
23	5	18	E	E	E	E	E	E	E	D	D	C	B	B	D	B	A	A	A	B	C	D	E	E	E	
23	5	19	E	E	E	F	G	G	G	F	E	D	D	C	D	D	B	D	D	D	E	E	E	E	E	
23	5	20	E	E	E	E	E	E	E	E	D	A	A	B	A	A	C	A	B	A	D	D	D	D	E	
23	5	21	E	E	E	E	E	E	E	E	D	D	D	B	B	C	D	E	D	E	E	E	E	F	E	
23	5	22	G	G	G	G	G	F	F	E	D	D	D	D	D	D	B	C	D	D	D	D	D	E	E	
23	5	23	E	E	E	E	E	E	E	D	D	D	D	D	D	D	E	D	D	D	D	E	F	F	F	
23	5	24	G	G	G	G	G	G	G	F	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
23	5	25	D	D	D	D	D	D	D	D	D	C	B	B	A	A	A	A	A	A	D	D	D	E	D	
23	5	26	E	E	D	D	E	D	E	D	D	A	B	B	A	A	A	C	B	D	D	D	E	E	E	
23	5	27	E	E	E	E	E	E	E	D	D	C	D	D	A	D	D	C	D	D	D	E	E	E	E	
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23	5	31	G	F	F	F	E	E	E	D	D	E	D	D	D	A	B	A	B	D	D	E	E	E	F	
23	6	1	G	F	G	G	G	G	G	E	E	D	C	E	E	D	C	D	D	E	F	F	F	G	G	
23	6	2	F	G	G	F	G	G	G	E	E	E	E	D	D	C	D	E	E	E	E	F	E	E	E	
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23	6	4	E	E	D	E	D	E	D	D	D	C	B	A	A	A	A	A	C	D	D	E	E	E	E	
23	6	5	E	E	E	E	E	E	E	E	D	D	D	D	D	D	C	D	E	D	E	E	F	F	G	
23	6	6	F	F	F	F	E	E	E	E	D	D	E	D	D	D	C	D	D	D	E	D	D	D	D	
23	6	7	D	D	D	D	D	D	D	D	D	D	D	D	D	D	C	C	D	D	D	D	D	D	D	
23	6	8	D	D	D	D	D	F	G	E	D	A	A	A	D	D	D	A	D	D	D	D	D	E	E	
23	6	9	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	D	D	E	F	G	
23	6	10	G	G	F	G	G	F	G	F	E	D	D	C	D	D	E	D	E	E	E	E	F	G	G	
23	6	11	G	G	G	G	F	E	E	E	D	D	D	D	D	D	D	D	D	E	E	E	D	D	D	
23	6	12	D	D	D	D	D	E	D	D	D	D	C	A	A	B	C	D	D	D	D	D	E	E	E	
23	6	13	E	E	E	E	E	E	E	E	D	D	C	D	A	C	C	D	A	D	D	D	D	E	E	
23	6	14	E	E	E	E	E	E	E	D	D	D	A	A	D	D	D	E	D	D	D	D	E	F	F	
23	6	15	F	F	F	F	G	G	F	E	D	D	C	D	D	D	D	D	D	D	E	D	F	D	F	
23	6	16	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	
23	6	17	F	F	F	F	F	G	G	F	D	D	D	E	E	E	E	E	D	D	E	E	E	F	F	
23	6	18	F	E	G	G	G	G	G	F	F	E	D	D	C	B	B	C	B	C	D	D	E	E	E	
23	6	19	E	E	E	E	E	E	E	E	D	D	C	C	D	B	D	D	D	D	D	D	E	E	E	
23	6	20	D	E	D	D	D	E	D	D	D	D	D	C	A	C	C	B	D	C	B	D	D	E	E	
23	6	21	E	F	E	E	E	E	E	D	D	C	C	C	D	D	B	B	D	D	D	D	E	E	E	
23	6	22	E	E	E	E	E	E	E	D	D	D	D	A	A	A	A	C	C	D	D	D	D	D	D	
23	6	23	D	D	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
23	6	24	D	D	D	E	E	E	D	D	D	D	D	D	B	D	D	D	E	D	D	E	E	F	F	
23	6	25	F	F	F	F	F	F	G	E	E	D	D	E	D	D	D	D	D	E	D	F	G	F	E	
23	6	26	F	F	E	E	E	E	E	D	D	D	D	D	D	E	E	E	E	E	F	E	E	D	D	
23	6	27	D	D	D	D	E	E	E	D	D	D	D	D	B	B	B	-	A	A	D	D	D	D	D	
23	6	28	D	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	D	D	E	E	E	E	
23	6	29	E	E	E	F	F	F	E	F	F	E	F	F	E	E	E	D	-	E	E	E	E	E	E	

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

HOURLY STABILITIES

HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
23	6	30	E	E	E	E	D	E	E	E	D	D	C	C	D	D	E	E	E	E	E	E	F	E	E	
23	7	1	E	F	G	E	E	F	E	E	E	D	D	D	D	D	A	D	D	D	E	E	E	E	E	
23	7	2	E	E	E	E	E	E	E	E	D	D	D	D	D	D	B	D	D	E	E	E	E	E	E	
23	7	3	E	E	E	E	E	E	E	E	D	C	A	C	C	E	C	A	A	D	D	E	E	E	D	
23	7	4	E	E	E	E	E	F	E	D	E	E	E	E	D	D	B	C	C	D	D	E	E	E	F	
23	7	5	F	F	F	F	G	G	F	F	E	D	D	D	D	D	D	D	D	D	D	E	E	E	F	
23	7	6	E	F	E	E	E	D	E	D	D	D	C	C	C	C	D	D	D	D	D	E	E	E	D	
23	7	7	D	D	D	D	D	D	D	D	D	D	D	D	D	D	C	B	C	C	D	D	E	E	E	
23	7	8	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	D	E	E	E	
23	7	9	D	E	E	E	E	D	D	D	D	D	D	B	D	B	B	A	A	B	D	E	E	F	F	
23	7	10	F	F	F	F	F	F	E	D	C	B	A	A	C	D	D	D	D	D	D	E	E	F	F	
23	7	11	E	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	
23	7	12	E	E	E	E	E	F	E	E	E	D	C	A	B	D	D	D	D	E	D	D	D	E	E	
23	7	13	E	E	E	E	D	E	D	D	D	D	C	A	A	D	D	A	D	D	D	D	E	F	F	
23	7	14	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	D	
23	7	15	E	E	E	F	F	E	D	E	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	
23	7	16	E	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	E	E	E	E	F	
23	7	17	F	F	F	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	
23	7	18	E	E	F	F	F	F	F	F	D	B	D	E	D	D	D	D	D	D	D	E	E	E	F	
23	7	19	F	F	G	F	F	F	F	F	E	E	D	C	D	B	B	C	C	C	D	E	E	E	E	
23	7	20	E	E	E	E	E	E	D	D	D	D	B	C	D	C	D	D	G	F	D	D	E	E	E	
23	7	21	F	E	E	E	D	D	D	D	D	C	A	C	A	A	C	D	A	D	E	E	E	E	F	
23	7	22	F	F	G	G	F	F	F	G	E	C	A	A	A	A	D	E	D	D	D	E	E	F	F	
23	7	23	F	F	G	F	F	G	F	F	D	E	D	D	G	F	E	D	E	E	F	E	F	E	E	
23	7	24	F	F	F	F	F	F	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	F	F	
23	7	25	E	E	E	E	E	E	D	D	D	C	D	E	E	E	E	E	E	D	D	E	E	F	F	
23	7	26	F	F	F	G	E	F	F	E	E	D	D	D	D	D	D	F	E	E	E	E	F	E	D	
23	7	27	E	E	E	E	E	E	E	E	D	C	A	A	D	E	D	D	D	C	D	E	E	E	E	
23	7	28	F	F	F	F	E	E	E	E	D	D	D	F	E	E	D	D	D	D	D	F	E	F	F	
23	7	29	F	E	E	F	F	E	E	E	D	E	D	C	D	E	D	D	D	D	D	D	E	E	E	
23	7	30	E	E	F	F	F	F	F	E	D	E	E	D	D	D	D	D	D	D	D	D	D	D	E	
23	7	31	D	E	E	F	G	G	G	F	D	E	D	D	D	B	A	A	A	A	D	E	E	F	F	
23	8	1	F	F	F	F	F	G	F	F	E	D	D	C	A	A	A	D	D	D	E	E	E	E	E	
23	8	2	F	E	F	E	F	E	F	E	E	D	D	D	D	B	D	D	D	D	D	E	E	F	F	
23	8	3	F	F	F	F	F	F	F	F	E	D	D	D	E	D	D	D	D	D	D	D	E	F	F	
23	8	4	E	F	F	F	F	E	E	E	C	C	D	D	E	E	D	D	E	E	D	D	E	E	E	
23	8	5	E	D	D	E	E	E	E	D	D	D	D	D	D	D	C	D	D	D	D	E	E	E	E	
23	8	6	E	E	E	E	E	E	F	E	E	E	D	D	D	D	C	C	D	D	D	D	D	E	E	
23	8	7	E	E	E	E	E	E	E	D	E	E	E	E	E	B	C	A	D	D	D	D	E	E	F	
23	8	8	E	E	F	F	E	E	E	E	D	D	D	C	D	D	A	A	A	D	E	E	E	F	F	
23	8	9	F	F	E	E	E	E	E	E	D	D	D	C	C	B	C	C	D	D	D	E	E	E	E	
23	8	10	E	E	E	E	E	E	E	D	A	A	D	C	B	C	B	C	D	D	D	E	E	E	F	
23	8	11	F	F	F	E	E	F	G	F	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	
23	8	12	E	E	E	E	E	E	E	D	D	E	D	D	D	D	D	D	D	D	D	D	F	E	E	
23	8	13	E	F	F	F	E	F	F	F	E	E	D	C	B	D	D	D	D	E	E	E	E	E	D	

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

HOURLY STABILITIES

HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
23	8	14	D	E	E	E	E	E	E	D	D	D	D	D	C	C	D	D	E	E	E	E	E	E	E	E
23	8	15	E	E	D	E	E	E	E	D	E	D	D	D	D	D	A	A	C	E	E	E	D	D	D	D
23	8	16	D	E	E	E	F	F	G	F	E	E	B	E	E	B	D	D	C	D	D	E	E	F	F	F
23	8	17	F	E	E	E	E	E	E	E	D	D	D	C	D	D	D	E	D	D	E	E	E	F	F	F
23	8	18	E	E	E	E	E	E	F	E	D	B	A	A	A	A	A	A	A	C	E	F	F	G	G	G
23	8	19	G	F	G	G	G	G	G	G	E	D	D	C	D	C	D	D	D	D	E	E	F	F	F	G
23	8	20	G	F	F	E	E	E	F	E	D	D	C	C	C	D	D	C	D	D	D	E	E	F	F	G
23	8	21	G	G	G	F	E	D	D	D	D	D	E	E	E	D	D	D	D	D	D	D	E	D	D	D
23	8	22	D	D	D	D	D	D	D	D	D	D	D	D	D	D	C	C	D	D	E	E	E	E	E	E
23	8	23	E	E	F	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
23	8	24	E	D	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	E	D	E	E	E	E	E
23	8	25	F	E	F	E	E	E	E	E	D	E	E	D	E	D	E	D	D	D	D	E	E	E	E	F
23	8	26	F	F	F	F	F	F	F	F	E	E	D	D	D	C	D	D	D	D	D	D	D	D	D	D
23	8	27	D	D	D	D	D	D	D	D	D	D	D	D	D	D	C	C	C	C	D	E	E	E	E	E
23	8	28	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	-	C	D	E	E	F	F	F
23	8	29	F	F	G	G	G	G	G	G	D	C	C	B	A	C	B	D	C	D	D	E	E	E	E	E
23	8	30	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
23	8	31	D	D	D	E	D	D	E	D	D	D	D	D	D	D	C	C	C	D	D	E	E	E	E	E
23	9	1	E	E	F	F	G	G	F	E	D	D	D	D	D	D	C	B	B	C	D	E	E	F	E	F
23	9	2	F	F	G	G	G	G	G	G	E	D	D	D	B	A	C	C	D	D	E	E	F	F	F	F
23	9	3	F	G	F	F	F	F	E	E	E	D	D	C	C	D	C	D	D	D	E	E	E	E	E	E
23	9	4	E	E	E	E	E	E	E	E	D	D	D	C	B	D	C	D	C	D	D	E	F	F	F	F
23	9	5	F	F	F	E	F	F	F	F	E	D	D	D	D	D	D	D	D	D	E	E	F	E	F	F
23	9	6	E	E	E	E	E	E	E	E	D	D	D	D	D	E	D	B	D	D	D	E	E	E	E	E
23	9	7	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	E	D	D	E	E	E	E	E
23	9	8	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
23	9	9	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	D	D	D	D
23	9	10	D	D	D	D	E	E	D	D	C	D	D	D	D	C	D	D	D	D	D	E	E	F	F	F
23	9	11	F	F	F	G	G	G	G	F	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
23	9	12	E	E	E	E	E	E	E	E	E	E	E	A	A	A	A	A	B	B	D	E	F	E	E	D
23	9	13	D	D	D	D	D	D	D	D	D	C	E	A	B	A	B	B	D	D	D	D	D	E	E	D
23	9	14	E	F	F	F	F	G	G	F	E	E	D	D	C	D	D	D	C	D	D	E	E	F	F	F
23	9	15	F	F	F	F	F	F	F	F	E	D	D	C	B	B	B	B	A	D	D	E	E	F	F	G
23	9	16	G	G	G	G	G	G	G	G	E	D	E	D	C	D	D	D	D	D	D	E	E	E	F	E
23	9	17	F	F	F	F	F	F	F	E	A	A	A	D	D	D	D	D	D	D	E	D	E	E	E	D
23	9	18	E	E	E	E	E	E	E	D	D	D	D	A	A	A	A	A	C	B	D	E	F	F	F	F
23	9	19	G	G	G	G	G	F	F	F	E	D	C	C	B	C	A	D	D	D	E	E	E	E	E	E
23	9	20	F	F	F	E	F	E	E	E	E	D	D	D	C	C	C	C	C	D	E	E	E	E	F	F
23	9	21	F	F	F	F	G	G	F	E	D	D	D	D	C	D	B	D	E	E	E	E	E	E	E	E
23	9	22	E	E	E	E	E	E	E	E	E	D	D	C	B	B	B	C	C	D	D	E	E	E	E	E
23	9	23	E	E	E	E	F	F	E	E	D	D	D	B	B	A	B	B	C	D	D	E	E	E	E	E
23	9	24	E	E	E	E	E	E	E	E	D	D	D	D	D	C	C	A	D	D	D	D	E	E	E	E
23	9	25	D	E	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
23	9	26	E	E	E	E	E	E	E	D	D	D	D	B	B	A	A	B	C	C	D	D	E	E	E	E
23	9	27	E	D	D	D	E	D	E	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

HOURLY STABILITIES

HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
23	9	28	E	E	E	E	E	E	E	E	D	D	A	D	D	D	D	D	D	D	D	D	E	E	E	
23	9	29	E	E	E	D	E	E	E	E	E	D	D	D	D	D	C	D	D	D	D	E	E	E	E	
23	9	30	E	F	F	F	F	F	E	E	E	D	D	B	B	B	D	B	C	D	D	E	E	E	E	
23	10	1	F	F	F	F	G	G	G	G	G	F	D	C	B	D	D	B	D	D	D	E	E	E	F	
23	10	2	F	F	F	F	G	G	G	F	F	E	D	D	D	D	D	C	D	E	E	E	F	F	F	
23	10	3	F	G	G	G	G	G	F	G	F	E	D	D	D	D	C	D	D	E	F	F	E	E	F	
23	10	4	F	F	F	F	F	F	F	F	E	E	D	D	D	D	D	E	E	F	F	G	F	F	F	
23	10	5	F	F	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
23	10	6	E	E	E	E	E	E	E	E	D	D	C	D	C	D	C	C	D	D	E	E	D	E	D	
23	10	7	D	D	D	E	D	D	E	D	C	B	A	D	B	C	C	D	D	E	E	E	E	E	E	
23	10	8	E	E	E	E	E	E	E	D	C	B	A	A	A	A	A	B	D	E	E	E	E	E	E	
23	10	9	E	E	E	E	D	E	E	D	D	D	D	B	D	A	C	C	D	D	E	E	E	E	F	
23	10	10	F	E	F	F	E	E	E	E	D	D	C	C	C	D	D	D	D	E	E	E	E	E	E	
23	10	11	E	E	E	E	F	F	E	E	E	D	D	C	B	B	B	C	D	D	E	F	F	F	F	
23	10	12	F	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	E	E	E	D	D	
23	10	13	D	D	D	D	D	D	D	E	E	D	D	D	D	C	B	C	C	D	D	E	E	E	E	
23	10	14	F	F	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	D	D	D	D	D	
23	10	15	D	D	D	D	D	E	E	E	E	E	C	C	A	A	B	D	D	D	E	E	E	D	D	
23	10	16	D	D	D	D	E	E	E	E	E	E	D	D	E	E	E	E	E	E	E	D	D	D	D	
23	10	17	D	D	D	E	E	E	E	E	E	D	D	C	D	D	D	D	D	D	E	E	E	E	G	
23	10	18	G	G	F	F	E	E	F	E	E	E	D	D	D	D	D	D	D	D	E	E	E	E	E	
23	10	19	E	E	E	E	E	E	E	E	E	D	D	D	D	D	E	E	E	E	E	E	E	E	E	
23	10	20	E	E	E	E	E	E	E	E	E	D	D	D	E	B	D	D	D	E	E	E	E	E	D	
23	10	21	D	D	D	D	D	D	E	E	D	C	D	D	D	D	D	D	D	D	D	E	E	E	E	
23	10	22	E	E	E	D	E	D	D	E	D	C	C	A	A	A	A	A	C	D	E	E	E	F	F	
23	10	23	G	G	G	G	G	G	G	G	F	E	D	D	D	D	D	D	D	D	E	E	E	F	F	
23	10	24	E	E	E	E	E	E	E	E	E	D	D	D	C	D	D	D	D	E	F	F	F	F	E	
23	10	25	E	E	E	E	E	E	E	E	E	E	E	D	E	D	D	E	E	E	E	E	E	E	E	
23	10	26	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	E	E	E	E	E	E	E	
23	10	27	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	E	E	E	E	E	E	
23	10	28	E	E	E	D	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	
23	10	29	E	E	E	E	E	E	E	E	E	D	D	D	E	E	E	E	D	E	E	E	E	E	D	
23	10	30	E	E	E	E	E	E	E	E	E	E	E	D	D	B	B	D	D	D	E	E	E	E	E	
23	10	31	E	E	F	F	F	F	F	F	E	D	D	C	D	C	B	D	D	D	D	D	E	D	D	
23	11	1	D	D	E	D	E	E	E	E	D	D	A	A	A	A	D	D	D	D	E	E	E	F	E	
23	11	2	E	E	E	E	E	E	E	D	D	D	D	D	D	B	B	D	D	E	E	E	E	E	E	
23	11	3	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	E	E	E	E	E	E	E	
23	11	4	E	E	E	E	E	E	F	F	F	F	E	E	D	D	D	D	D	E	F	F	E	F	E	
23	11	5	F	F	G	F	E	E	E	C	C	D	D	D	D	C	D	G	G	G	G	G	G	G	G	
23	11	6	G	F	F	F	E	E	E	E	D	D	D	E	D	D	E	E	E	E	E	E	F	F	E	
23	11	7	E	E	E	E	E	E	E	E	D	D	C	D	D	D	D	D	D	E	E	D	E	D	D	
23	11	8	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	E	E	E	F	
23	11	9	E	D	D	D	D	D	D	D	D	D	A	A	A	A	D	E	E	E	E	E	E	E	E	
23	11	10	E	E	E	F	F	E	F	F	D	C	B	A	A	A	C	D	E	E	F	F	E	E	E	
23	11	11	D	D	D	D	D	D	D	D	D	D	D	D	D	A	D	D	D	D	E	E	E	F	E	

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

HOURLY STABILITIES

HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
23	11	12	F	E	E	F	G	G	G	G	D	B	B	A	A	A	A	D	D	E	E	E	F	F	F	F
23	11	13	F	F	F	F	E	E	E	D	C	A	A	A	A	C	D	E	E	F	F	F	F	F	F	F
23	11	14	F	G	G	E	E	E	E	D	C	A	B	D	C	C	D	F	F	G	G	G	G	G	G	F
23	11	15	F	G	F	F	F	F	F	F	E	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	11	16	-	-	-	-	-	-	-	-	-	D	D	D	D	D	D	D	E	F	F	F	F	E	E	E
23	11	17	E	E	E	E	E	E	E	E	A	E	E	E	D	D	D	D	E	E	E	D	D	D	D	D
23	11	18	D	D	E	E	F	F	F	F	F	D	C	A	A	A	C	D	D	E	E	F	E	E	E	E
23	11	19	F	F	E	E	F	E	E	E	E	C	A	C	D	D	D	D	E	F	E	E	E	E	E	E
23	11	20	E	E	E	E	E	E	D	E	D	D	D	D	D	D	D	D	D	D	D	E	D	D	E	E
23	11	21	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
23	11	22	E	E	E	D	D	D	D	D	D	D	D	D	D	C	D	D	E	E	E	E	E	E	E	E
23	11	23	E	E	E	D	D	E	E	E	D	D	C	B	A	B	C	D	D	E	E	E	E	E	D	D
23	11	24	D	D	D	D	D	D	D	D	D	D	D	D	D	C	D	D	D	D	D	D	D	D	D	D
23	11	25	E	D	D	D	E	F	F	F	F	D	D	D	C	D	D	D	D	E	E	E	E	F	F	F
23	11	26	F	F	G	F	G	F	F	F	F	E	D	D	E	D	E	E	E	E	E	E	E	E	E	E
23	11	27	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
23	11	28	D	D	D	D	D	D	D	D	D	C	A	A	A	A	C	D	D	D	D	D	D	D	D	D
23	11	29	E	E	D	D	D	D	D	D	D	D	D	B	C	D	D	D	E	E	F	F	F	F	F	F
23	11	30	F	E	F	F	F	E	E	E	E	D	D	D	B	D	D	D	E	E	E	F	E	F	E	E
23	12	1	E	E	E	E	E	F	E	E	E	E	E	E	E	E	E	E	E	F	E	E	E	E	E	E
23	12	2	E	E	E	E	E	E	E	E	E	E	E	D	D	D	D	E	E	D	E	E	E	E	E	E
23	12	3	E	E	E	E	E	E	E	E	E	E	D	D	D	D	D	E	E	E	E	E	E	E	E	E
23	12	4	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
23	12	5	E	E	E	E	D	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
23	12	6	E	E	E	E	E	E	E	E	E	D	D	D	C	D	D	D	D	E	E	E	E	D	D	D
23	12	7	D	D	D	D	D	E	D	D	D	D	C	B	B	D	D	D	E	E	F	F	G	F	F	F
23	12	8	F	F	F	F	E	E	E	E	E	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E
23	12	9	E	E	E	E	D	E	E	E	E	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E
23	12	10	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	D	D
23	12	11	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E
23	12	12	E	E	E	E	E	E	E	E	E	D	D	C	D	C	C	D	E	E	E	F	E	E	E	E
23	12	13	E	E	E	E	E	E	E	F	E	D	C	A	A	A	C	D	E	E	F	F	F	F	F	F
23	12	14	F	F	F	F	F	F	F	F	F	E	D	C	C	D	D	D	E	F	F	F	F	F	E	F
23	12	15	F	F	F	F	F	F	F	F	F	E	D	D	D	D	D	E	E	F	F	F	G	G	G	G
23	12	16	G	G	G	G	G	G	G	F	F	E	D	E	E	E	E	F	F	G	G	G	E	-	E	E
23	12	17	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	D
23	12	18	E	D	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	D	D	D	D	D	D	D
23	12	19	D	D	D	D	D	D	D	D	D	D	D	A	A	D	D	D	E	E	E	E	E	E	E	E
23	12	20	E	E	E	E	E	E	E	E	E	D	C	B	B	B	D	D	E	E	E	E	E	F	E	E
23	12	21	F	F	E	E	E	E	E	E	E	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E
23	12	22	E	E	E	E	E	E	E	E	E	D	D	D	D	E	E	E	E	E	F	F	E	E	E	E
23	12	23	E	E	E	E	E	E	E	E	E	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E
23	12	24	E	E	E	E	E	E	E	E	E	D	D	D	D	D	F	G	G	G	G	G	F	G	G	G
23	12	25	F	G	G	G	G	G	G	G	G	F	F	F	G	G	F	G	G	G	G	G	G	E	F	F
23	12	26	F	E	E	E	E	E	E	E	E	E	D	D	D	D	E	F	G	F	F	F	E	F	F	F

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

HOURLY STABILITIES
HOURS

YR MN DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
23 12 27	F	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	D	E	E	E
23 12 28	E	E	E	E	E	E	E	E	E	E	D	D	C	D	D	E	E	E	E	E	E	E	E	E
23 12 29	E	E	E	E	D	D	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
23 12 30	D	D	D	D	E	D	E	D	D	A	A	D	D	E	D	D	E	E	E	E	D	D	D	D
23 12 31	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	D	D	E	E	-	-

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** JANUARY ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7.51-12.50	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0	0	4
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	1	1	1	0	0	2	0	0	5

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
12.51-18.50	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	0	5

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** JANUARY ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	0	7
7.51-12.50	0	0	0	0	0	0	0	0	1	0	2	1	0	3	1	0	8
12.51-18.50	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	2	0	3	1	1	5	5	0	17

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	2	3	4	2	6	6	6	0	1	0	2	0	5	1	38
3.51- 7.50	1	7	14	9	10	7	8	12	8	17	8	12	6	2	2	2	125
7.51-12.50	3	1	1	7	5	0	2	1	7	28	34	25	8	9	13	5	149
12.51-18.50	0	0	0	2	2	1	0	0	4	6	38	25	1	3	10	12	104
18.51-24.00	0	0	0	0	0	0	0	0	0	0	12	1	0	0	1	6	20
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	4	8	17	21	21	10	16	19	25	51	93	63	17	14	31	26	436

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** JANUARY ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	0	0	0	1	0	7	8	1	1	1	0	0	1	0	0	21
3.51- 7.50	0	0	0	2	10	16	16	17	15	7	3	4	1	0	0	2	93
7.51-12.50	1	0	1	0	3	3	1	1	11	16	5	9	1	0	0	0	52
12.51-18.50	2	2	0	0	3	0	0	0	1	2	5	3	0	0	0	7	25
18.51-24.00	1	0	0	0	0	0	0	0	0	0	4	0	0	0	0	1	6
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	5	2	1	2	17	19	24	26	28	26	18	16	2	1	0	10	197

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	1	1	4	3	1	2	0	0	0	0	0	0	12
3.51- 7.50	0	0	0	1	5	11	7	2	6	6	1	1	0	0	0	0	40
7.51-12.50	0	0	0	0	1	1	0	1	0	0	0	0	0	1	0	0	4
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	1	7	13	11	6	7	8	1	1	0	1	0	0	56

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** JANUARY ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	4
3.51- 7.50	0	0	0	1	3	6	1	1	1	0	0	0	0	0	0	0	13
7.51-12.50	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	1	4	8	2	4	1	0	0	0	0	0	0	0	20

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	0	2	3	6	3	18	20	8	3	2	0	2	1	5	1	75
3.51- 7.50	1	7	14	13	28	40	32	32	30	30	12	18	8	5	7	4	281
7.51-12.50	4	1	2	7	10	6	3	3	20	45	42	35	9	16	14	5	222
12.51-18.50	2	2	0	2	5	1	0	0	6	8	45	28	1	3	10	19	132
18.51-24.00	1	0	0	0	0	0	0	0	0	0	16	1	0	0	1	7	26
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	9	10	18	25	49	50	53	55	64	86	117	82	20	25	37	36	736

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** JANUARY ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 744

TOTAL NUMBER OF VALID OBSERVATIONS: 736

TOTAL NUMBER OF MISSING OBSERVATIONS: 8

PERCENT DATA RECOVERY FOR THIS PERIOD: 98.9 %

MEAN WIND SPEED FOR THIS PERIOD: 8.7 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
.68	.68	2.31	59.24	26.77	7.61	2.72

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	0	0	0	0	1	1	1	0	0	2	0	0	0
B	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	0	0
C	0	0	0	0	0	0	0	0	2	0	3	1	1	5	5	0	0
D	4	8	17	21	21	10	16	19	25	51	93	63	17	14	31	26	0
E	5	2	1	2	17	19	24	26	28	26	18	16	2	1	0	10	0
F	0	0	0	1	7	13	11	6	7	8	1	1	0	1	0	0	0
G	0	0	0	1	4	8	2	4	1	0	0	0	0	0	0	0	0
TOTAL	9	10	18	25	49	50	53	55	64	86	117	82	20	25	37	36	0

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** FEBRUARY ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	4
7.51-12.50	0	2	0	0	0	0	0	0	0	2	0	3	0	0	1	0	8
12.51-18.50	0	1	0	0	0	0	0	0	0	1	2	1	2	4	1	0	12
18.51-24.00	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	5
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	3	0	0	0	0	0	0	0	3	3	5	6	5	4	0	29

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3
7.51-12.50	0	1	0	0	0	0	0	0	0	0	3	2	0	0	0	0	6
12.51-18.50	0	0	0	0	0	0	0	0	0	4	0	2	0	0	1	0	7
18.51-24.00	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	1	0	0	0	0	0	0	0	5	7	5	0	0	1	0	19

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** FEBRUARY ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	1	4
7.51-12.50	0	0	0	0	0	0	0	0	1	1	2	0	1	0	1	1	7
12.51-18.50	0	0	1	0	0	0	0	0	1	1	0	1	3	0	1	0	8
18.51-24.00	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	1	0	0	0	0	0	2	3	6	1	4	0	2	2	21

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	1	0	1	2	0	0	1	0	1	0	1	0	0	0	7
3.51- 7.50	2	3	1	5	11	5	3	2	3	3	3	3	0	2	0	4	50
7.51-12.50	5	5	2	7	7	15	1	1	5	5	9	9	12	3	6	8	100
12.51-18.50	0	3	5	11	5	1	0	0	1	5	13	12	10	7	18	5	96
18.51-24.00	0	0	0	5	0	0	0	0	0	0	11	4	1	2	4	1	28
>24.00	0	0	0	0	0	0	0	0	0	0	10	2	0	0	0	0	12
TOTAL	7	11	9	28	24	23	4	3	10	13	47	30	24	14	28	18	293

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** FEBRUARY ***

STABILITY CLASS E
STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	1	0	0	0	1	0	1	1	2	2	2	0	1	0	1	12
3.51- 7.50	0	7	0	3	6	5	7	3	6	22	3	17	8	3	2	0	92
7.51-12.50	0	3	2	1	5	2	5	5	5	26	11	4	10	5	1	0	85
12.51-18.50	0	0	0	1	0	0	1	0	6	10	3	0	3	3	1	1	29
18.51-24.00	0	0	0	1	0	0	0	0	2	1	2	3	0	0	0	0	9
>24.00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
TOTAL	0	11	2	6	11	8	13	9	20	61	22	26	21	12	4	2	228

STABILITY CLASS F
STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	1	0	0	0	2	0	2	2	2	0	0	0	0	0	0	9
3.51- 7.50	0	0	1	2	4	3	0	1	3	21	5	4	5	1	0	0	50
7.51-12.50	0	0	0	0	1	1	0	0	1	0	1	0	0	0	0	0	4
12.51-18.50	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	1	1	2	5	6	0	3	6	23	7	4	5	1	0	0	64

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** FEBRUARY ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	3
3.51- 7.50	0	0	0	0	0	1	0	1	2	1	1	0	1	0	0	0	7
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	1	0	1	4	1	2	0	1	0	0	0	10

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	2	1	0	1	5	0	3	6	4	4	2	1	1	0	1	31
3.51- 7.50	2	10	2	10	21	14	10	7	14	49	15	26	14	7	4	5	210
7.51-12.50	5	11	4	8	13	18	6	6	12	34	26	18	23	8	9	9	210
12.51-18.50	0	4	6	12	5	1	1	0	8	21	19	16	18	14	22	6	153
18.51-24.00	0	0	0	6	0	0	0	0	2	1	19	7	5	2	4	1	47
>24.00	0	0	0	0	0	0	0	0	0	0	11	2	0	0	0	0	13
TOTAL	7	27	13	36	40	38	17	16	42	109	94	71	61	32	39	22	664

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** FEBRUARY ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 672

TOTAL NUMBER OF VALID OBSERVATIONS: 664

TOTAL NUMBER OF MISSING OBSERVATIONS: 8

PERCENT DATA RECOVERY FOR THIS PERIOD: 98.8 %

MEAN WIND SPEED FOR THIS PERIOD: 10.5 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
4.37	2.86	3.16	44.13	34.34	9.64	1.51

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	3	0	0	0	0	0	0	0	3	3	5	6	5	4	0	0
B	0	1	0	0	0	0	0	0	0	5	7	5	0	0	1	0	0
C	0	0	1	0	0	0	0	0	2	3	6	1	4	0	2	2	0
D	7	11	9	28	24	23	4	3	10	13	47	30	24	14	28	18	0
E	0	11	2	6	11	8	13	9	20	61	22	26	21	12	4	2	0
F	0	1	1	2	5	6	0	3	6	23	7	4	5	1	0	0	0
G	0	0	0	0	0	1	0	1	4	1	2	0	1	0	0	0	0
TOTAL	7	27	13	36	40	38	17	16	42	109	94	71	61	32	39	22	0

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** MARCH ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3
7.51-12.50	0	0	0	0	0	0	0	0	0	1	5	2	0	3	1	0	12
12.51-18.50	0	0	0	0	0	0	0	0	0	0	3	3	1	1	2	0	10
18.51-24.00	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	1	13	5	1	4	4	0	28

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	3
7.51-12.50	0	0	0	1	1	0	0	0	0	1	4	3	0	0	0	0	10
12.51-18.50	0	0	0	0	0	0	0	0	0	2	0	2	1	1	1	0	7
18.51-24.00	0	0	0	0	0	0	0	0	0	0	3	4	1	0	0	0	8
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	1	1	1	0	0	0	1	3	7	9	3	1	1	0	28

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** MARCH ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	1	2	1	0	0	2	0	0	0	1	1	8
7.51-12.50	0	0	1	3	3	0	0	0	0	1	2	0	0	2	1	0	13
12.51-18.50	0	0	1	1	0	0	0	0	0	1	1	4	1	1	3	0	13
18.51-24.00	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	3
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	2	4	3	1	2	1	0	2	6	5	2	3	5	1	37

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	2	1	3	0	0	0	1	0	0	1	0	0	0	0	0	0	8
3.51- 7.50	4	10	13	8	10	9	6	2	2	1	3	6	1	1	0	1	77
7.51-12.50	5	13	18	26	24	10	0	0	8	15	8	7	10	5	5	8	162
12.51-18.50	9	24	10	20	7	0	0	0	0	4	14	18	5	3	17	19	150
18.51-24.00	5	1	1	2	0	0	0	0	0	0	0	6	3	1	1	2	22
>24.00	0	0	0	1	0	0	0	0	0	0	3	3	0	0	0	1	8
TOTAL	25	49	45	57	41	19	7	2	10	21	28	40	19	10	23	31	427

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** MARCH ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	1	1	2	1	0	1	1	1	1	0	0	9
3.51- 7.50	2	6	0	4	3	7	2	2	9	14	10	5	5	1	1	1	72
7.51-12.50	1	0	2	2	0	2	1	3	13	15	16	2	4	3	8	2	74
12.51-18.50	1	1	3	2	0	0	0	0	2	10	2	0	0	1	1	2	25
18.51-24.00	0	0	0	1	0	0	0	0	0	0	2	0	0	1	1	0	5
>24.00	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
TOTAL	4	7	5	12	3	10	4	7	25	39	31	8	10	7	11	5	188

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
3.51- 7.50	0	0	0	3	2	2	1	1	8	9	1	0	3	0	0	0	30
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	3	2	2	1	1	9	9	1	0	3	0	0	0	31

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** MARCH ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	4
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	4

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	2	1	3	0	0	1	2	2	2	1	1	1	1	1	0	0	18
3.51- 7.50	6	16	14	15	16	20	11	6	21	25	18	11	10	2	3	3	197
7.51-12.50	6	13	21	32	28	12	1	3	21	33	35	14	14	13	15	10	271
12.51-18.50	10	25	14	23	7	0	0	0	2	17	20	27	8	7	24	21	205
18.51-24.00	5	1	1	3	0	0	0	0	0	0	9	11	5	2	2	2	41
>24.00	0	0	0	4	0	0	0	0	0	0	3	3	0	0	0	1	11
TOTAL	29	56	53	77	51	33	14	11	46	76	86	67	38	25	44	37	743

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** MARCH ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 744

TOTAL NUMBER OF VALID OBSERVATIONS: 743

TOTAL NUMBER OF MISSING OBSERVATIONS: 1

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.9 %

MEAN WIND SPEED FOR THIS PERIOD: 10.9 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
3.77	3.77	4.98	57.47	25.30	4.17	.54

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	0	0	0	0	0	1	13	5	1	4	4	0	0
B	0	0	1	1	1	0	0	0	1	3	7	9	3	1	1	0	0
C	0	0	2	4	3	1	2	1	0	2	6	5	2	3	5	1	0
D	25	49	45	57	41	19	7	2	10	21	28	40	19	10	23	31	0
E	4	7	5	12	3	10	4	7	25	39	31	8	10	7	11	5	0
F	0	0	0	3	2	2	1	1	9	9	1	0	3	0	0	0	0
G	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0
TOTAL	29	56	53	77	51	33	14	11	46	76	86	67	38	25	44	37	0

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** APRIL ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	3
7.51-12.50	0	0	0	1	4	2	1	0	0	0	5	2	0	0	1	0	16
12.51-18.50	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	5
18.51-24.00	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2
>24.00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL	0	0	0	1	4	2	2	0	0	0	8	8	1	0	1	0	27

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	1	2	0	0	0	0	1	1	0	0	0	0	5
7.51-12.50	0	0	1	3	4	0	0	0	0	0	4	0	1	0	1	0	14
12.51-18.50	0	0	1	0	0	0	0	0	0	0	1	8	3	0	0	0	13
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	2	3	5	2	0	0	0	0	6	9	4	0	1	0	32

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** APRIL ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	2	2	1	0	0	0	0	1	0	0	0	0	0	6
7.51-12.50	0	0	1	8	1	1	0	0	0	0	1	3	3	2	1	0	21
12.51-18.50	0	0	0	0	0	0	0	0	0	1	0	9	0	0	0	0	10
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
>24.00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL	0	0	1	10	3	2	0	0	0	1	2	14	3	2	1	0	39

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	2	1	3	0	0	0	2	1	2	1	0	2	0	0	0	0	14
3.51- 7.50	6	5	2	5	5	7	2	2	5	2	2	4	1	3	2	5	58
7.51-12.50	4	2	8	14	19	10	2	1	4	9	17	34	4	6	1	7	142
12.51-18.50	1	0	4	9	7	0	0	0	0	5	14	18	17	0	0	2	77
18.51-24.00	0	0	0	0	0	0	0	0	0	1	7	5	1	0	0	0	14
>24.00	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2
TOTAL	13	8	17	28	31	17	6	4	11	18	40	64	24	9	3	14	307

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** APRIL ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	0	0	0	1	1	2	5	3	2	1	0	1	2	0	0	0	18
3.51- 7.50	1	2	7	0	5	12	14	8	8	5	9	8	4	2	0	0	85
7.51-12.50	0	4	7	7	2	1	0	0	3	7	14	5	4	1	2	0	57
12.51-18.50	0	0	2	1	1	0	0	0	6	2	6	1	2	0	0	0	21
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	6	16	9	9	15	19	11	19	15	29	15	12	3	2	0	183

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	1	0	0	0	0	0	2	2	1	0	0	1	1	0	0	8
3.51- 7.50	0	2	0	1	0	3	0	2	2	3	4	2	4	1	0	0	24
7.51-12.50	0	1	2	0	0	0	0	0	1	2	7	0	0	0	0	0	13
12.51-18.50	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	4	2	1	0	3	0	4	5	6	12	2	5	2	0	0	46

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** APRIL ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	1	2	8	2	0	1	0	0	0	0	14
3.51- 7.50	0	0	0	0	0	4	0	0	4	5	4	0	0	0	0	0	17
7.51-12.50	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	4	1	3	12	7	4	1	0	0	0	0	32

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	2	2	3	1	1	2	8	8	14	5	0	4	3	1	0	0	54
3.51- 7.50	7	9	9	8	13	29	17	12	19	15	22	15	10	6	2	5	198
7.51-12.50	4	7	19	33	30	14	3	2	8	18	48	44	12	9	6	7	264
12.51-18.50	1	0	7	10	8	0	0	0	6	8	23	40	22	0	0	2	127
18.51-24.00	0	0	0	0	0	0	0	0	0	1	8	7	1	0	0	0	17
>24.00	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4
TOTAL	14	18	38	52	52	45	28	22	47	47	101	113	49	16	8	14	666

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** APRIL ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 720

TOTAL NUMBER OF VALID OBSERVATIONS: 666

TOTAL NUMBER OF MISSING OBSERVATIONS: 54

PERCENT DATA RECOVERY FOR THIS PERIOD: 92.5 %

MEAN WIND SPEED FOR THIS PERIOD: 9.3 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
4.05	4.80	5.86	46.10	27.48	6.91	4.80

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	1	4	2	2	0	0	0	8	8	1	0	1	0	0
B	0	0	2	3	5	2	0	0	0	0	6	9	4	0	1	0	0
C	0	0	1	10	3	2	0	0	0	1	2	14	3	2	1	0	0
D	13	8	17	28	31	17	6	4	11	18	40	64	24	9	3	14	0
E	1	6	16	9	9	15	19	11	19	15	29	15	12	3	2	0	2
F	0	4	2	1	0	3	0	4	5	6	12	2	5	2	0	0	0
G	0	0	0	0	0	4	1	3	12	7	4	1	0	0	0	0	0
TOTAL	14	18	38	52	52	45	28	22	47	47	101	113	49	16	8	14	2

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** MAY ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3
7.51-12.50	0	0	0	7	3	6	0	0	0	0	1	1	0	0	5	0	23
12.51-18.50	0	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	5
18.51-24.00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	11	3	6	0	0	0	0	2	1	0	1	7	1	32

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2
7.51-12.50	0	0	0	6	7	2	0	0	0	0	1	2	1	0	2	0	21
12.51-18.50	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	8	7	3	0	0	0	0	1	2	1	0	3	0	25

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** MAY ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	4
7.51-12.50	0	0	0	4	5	3	0	0	0	0	1	1	0	0	2	0	16
12.51-18.50	0	0	0	1	2	0	0	0	0	0	0	2	0	0	1	0	6
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	6	7	3	1	0	1	0	1	5	0	0	3	0	27

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	1	0	0	1	0	0	2	0	0	0	1	1	0	0	0	6
3.51- 7.50	1	4	5	14	25	14	1	2	4	0	2	1	3	2	0	3	81
7.51-12.50	5	5	24	45	32	7	0	0	0	0	8	11	3	2	5	2	149
12.51-18.50	0	9	9	11	4	0	0	0	0	0	2	5	9	2	6	1	58
18.51-24.00	0	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0	9
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	6	23	43	70	62	21	1	4	4	0	12	18	16	6	11	6	303

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** MAY ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	1	2	2	6	2	5	1	2	1	0	0	2	0	0	0	25
3.51- 7.50	1	3	5	24	27	22	3	2	4	0	4	4	4	4	3	3	113
7.51-12.50	1	4	7	10	9	7	0	0	1	1	2	2	3	3	3	5	58
12.51-18.50	0	1	1	0	0	0	0	0	0	0	0	11	6	3	0	0	22
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3	9	15	36	42	31	8	3	7	2	6	17	15	10	6	8	218

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	2	0	0	2	0	0	3	8	6	0	1	2	1	1	0	2	28
3.51- 7.50	1	1	1	5	4	12	5	1	0	0	1	0	4	0	1	0	36
7.51-12.50	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	3
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3	1	2	8	4	13	8	9	6	0	2	2	5	1	1	2	67

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** MAY ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	1	1	5	4	5	3	2	0	1	0	0	0	22
3.51- 7.50	0	0	0	0	0	2	3	4	2	4	3	2	0	0	1	0	21
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	1	3	8	8	7	7	5	2	1	0	1	0	43

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	3	2	2	4	8	3	13	15	13	4	3	3	5	1	0	2	81
3.51- 7.50	3	8	11	44	56	51	13	9	11	4	10	8	11	7	7	7	260
7.51-12.50	6	9	32	73	56	26	0	0	1	1	13	17	7	5	17	7	270
12.51-18.50	0	10	10	18	6	0	0	0	0	0	2	18	15	5	8	1	93
18.51-24.00	0	4	5	0	0	0	0	0	0	0	1	1	0	0	0	0	11
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	12	33	60	139	126	80	26	24	25	9	29	47	38	18	32	17	715

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** MAY ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 744

TOTAL NUMBER OF VALID OBSERVATIONS: 715

TOTAL NUMBER OF MISSING OBSERVATIONS: 29

PERCENT DATA RECOVERY FOR THIS PERIOD: 96.1 %

MEAN WIND SPEED FOR THIS PERIOD: 8.2 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
4.48	3.50	3.78	42.38	30.49	9.37	6.01

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	11	3	6	0	0	0	0	2	1	0	1	7	1	0
B	0	0	0	8	7	3	0	0	0	0	1	2	1	0	3	0	0
C	0	0	0	6	7	3	1	0	1	0	1	5	0	0	3	0	0
D	6	23	43	70	62	21	1	4	4	0	12	18	16	6	11	6	0
E	3	9	15	36	42	31	8	3	7	2	6	17	15	10	6	8	0
F	3	1	2	8	4	13	8	9	6	0	2	2	5	1	1	2	0
G	0	0	0	0	1	3	8	8	7	7	5	2	1	0	1	0	0
TOTAL	12	33	60	139	126	80	26	24	25	9	29	47	38	18	32	17	0

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** JUNE ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
7.51-12.50	0	0	0	1	6	0	0	0	0	0	0	0	0	0	4	4	15
12.51-18.50	0	0	3	4	3	0	0	0	0	1	1	0	0	1	1	0	14
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	3	5	9	0	0	0	0	0	1	1	0	1	6	4	30

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
7.51-12.50	0	0	0	3	4	0	0	0	0	0	0	0	0	3	1	0	11
12.51-18.50	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	5	4	0	0	0	0	0	0	0	0	3	2	0	14

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** JUNE ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	1	4	0	0	0	0	0	1	3	0	0	0	0	9
7.51-12.50	0	0	0	9	5	0	0	0	0	0	1	0	0	1	0	0	16
12.51-18.50	0	0	0	3	1	0	0	0	0	0	2	0	0	1	0	0	7
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	13	10	0	0	0	0	0	4	3	0	2	0	0	32

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	0	1	0	1	4	3	2	0	2	0	1	0	1	0	0	0	15
3.51- 7.50	5	7	8	19	14	8	8	2	2	8	8	5	3	3	0	1	101
7.51-12.50	18	12	20	30	15	1	0	0	1	6	7	1	13	6	8	4	142
12.51-18.50	9	4	6	3	0	1	0	0	0	0	4	1	0	0	3	1	32
18.51-24.00	2	6	0	1	0	0	0	0	0	0	0	0	1	0	0	1	11
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	34	30	34	54	33	13	10	2	5	14	20	7	18	9	11	7	303

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** JUNE ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	1	1	1	1	5	4	7	4	3	2	0	0	0	1	1	32
3.51- 7.50	4	8	7	15	19	11	11	3	6	12	13	5	1	0	1	1	117
7.51-12.50	1	5	4	10	5	1	0	0	0	4	4	1	5	6	4	2	52
12.51-18.50	0	4	2	4	2	0	0	0	0	0	0	0	1	0	0	1	14
18.51-24.00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	6	18	15	30	27	17	15	10	10	19	19	6	7	6	6	5	216

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	2	2	7	7	6	6	1	1	1	0	1	0	34
3.51- 7.50	0	1	1	3	0	0	3	1	0	12	8	3	2	0	0	0	34
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	1	1	3	2	2	10	8	6	18	9	4	4	0	1	0	69

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** JUNE ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	0	0	0	0	0	2	3	3	6	4	1	0	0	1	0	1	21
3.51- 7.50	0	0	0	3	0	2	2	0	1	4	2	2	1	0	0	0	17
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	3	0	4	5	3	7	8	3	2	1	1	0	1	39

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	3
1.01- 3.50	1	2	1	2	7	12	16	17	18	13	5	1	2	1	2	2	102
3.51- 7.50	9	16	16	41	37	21	24	6	9	36	32	18	7	3	3	2	280
7.51-12.50	19	17	24	53	35	2	0	0	1	10	12	2	19	16	17	10	237
12.51-18.50	9	8	11	16	6	1	0	0	0	0	7	2	1	2	4	2	69
18.51-24.00	2	6	1	1	0	0	0	0	0	0	0	0	1	0	0	1	12
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	40	49	53	113	85	36	40	23	28	59	56	23	30	22	26	17	703

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** JUNE ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 720

TOTAL NUMBER OF VALID OBSERVATIONS: 703

TOTAL NUMBER OF MISSING OBSERVATIONS: 17

PERCENT DATA RECOVERY FOR THIS PERIOD: 97.6 %

MEAN WIND SPEED FOR THIS PERIOD: 7.5 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
4.27	1.99	4.55	43.10	30.73	9.82	5.55

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	3	5	9	0	0	0	0	0	1	1	0	1	6	4	0
B	0	0	0	5	4	0	0	0	0	0	0	0	0	3	2	0	0
C	0	0	0	13	10	0	0	0	0	0	4	3	0	2	0	0	0
D	34	30	34	54	33	13	10	2	5	14	20	7	18	9	11	7	2
E	6	18	15	30	27	17	15	10	10	19	19	6	7	6	6	5	0
F	0	1	1	3	2	2	10	8	6	18	9	4	4	0	1	0	0
G	0	0	0	3	0	4	5	3	7	8	3	2	1	1	0	1	1
TOTAL	40	49	53	113	85	36	40	23	28	59	56	23	30	22	26	17	3

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** JULY ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
3.51- 7.50	0	0	0	0	1	0	0	0	0	0	0	0	0	3	7	9	20
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	5
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	1	0	0	0	0	0	0	0	0	3	11	11	26

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	1	3	1	0	0	0	0	0	0	0	1	1	4	11
7.51-12.50	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	3
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	1	3	1	0	0	0	0	1	0	0	1	1	6	14

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** JULY ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
3.51- 7.50	0	0	0	1	4	5	0	0	0	0	0	0	3	2	2	2	19
7.51-12.50	0	0	0	1	0	0	0	0	0	0	2	4	0	0	0	3	10
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	0	0	2	4	5	0	0	0	0	2	4	3	2	3	5	31

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	0	0	1	0	5	0	0	2	1	2	1	0	2	0	1	16
3.51- 7.50	16	3	10	10	16	8	1	2	4	4	24	16	4	1	1	4	124
7.51-12.50	13	3	12	7	0	0	0	0	3	2	12	22	5	4	3	8	94
12.51-18.50	2	2	0	0	0	0	0	0	0	1	4	8	1	0	2	1	21
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	32	8	22	18	16	13	1	2	9	8	42	47	10	7	6	14	255

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** JULY ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	2	1	0	2	6	5	10	5	10	12	2	2	5	1	1	2	66
3.51- 7.50	2	10	4	8	3	15	13	9	13	30	33	18	9	2	5	1	175
7.51-12.50	4	0	0	0	0	0	1	0	0	6	1	9	3	3	5	2	34
12.51-18.50	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	3
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	8	11	4	10	9	20	24	14	23	49	37	29	17	7	11	5	279

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	0	0	0	0	0	1	3	6	13	15	7	2	4	2	0	0	53
3.51- 7.50	0	0	0	0	0	0	1	1	6	28	19	4	6	0	0	0	65
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
12.51-18.50	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	1	0	0	0	1	4	7	19	43	26	6	11	4	0	0	123

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** JULY ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	1	0	2	2	0	0	0	1	0	6
3.51- 7.50	0	0	0	0	0	0	0	0	1	4	2	0	2	0	0	0	9
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	1	1	6	4	0	2	1	1	0	16

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	4	1	0	3	6	11	13	12	25	30	13	5	9	5	4	3	144
3.51- 7.50	18	13	14	20	27	29	15	12	24	66	78	38	24	9	16	20	423
7.51-12.50	17	3	12	8	0	0	1	0	3	8	16	35	8	10	11	17	149
12.51-18.50	2	3	0	0	0	0	0	0	0	2	5	8	2	1	2	1	26
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	41	20	26	31	33	40	29	24	52	106	112	86	43	25	33	41	744

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** JULY ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 744

TOTAL NUMBER OF VALID OBSERVATIONS: 744

TOTAL NUMBER OF MISSING OBSERVATIONS: 0

PERCENT DATA RECOVERY FOR THIS PERIOD: 100.0 %

MEAN WIND SPEED FOR THIS PERIOD: 5.8 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
3.49	1.88	4.17	34.27	37.50	16.53	2.15

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	1	0	0	0	0	0	0	0	0	3	11	11	0
B	0	0	0	1	3	1	0	0	0	0	1	0	0	1	1	6	0
C	1	0	0	2	4	5	0	0	0	0	2	4	3	2	3	5	0
D	32	8	22	18	16	13	1	2	9	8	42	47	10	7	6	14	0
E	8	11	4	10	9	20	24	14	23	49	37	29	17	7	11	5	1
F	0	1	0	0	0	1	4	7	19	43	26	6	11	4	0	0	1
G	0	0	0	0	0	0	0	1	1	6	4	0	2	1	1	0	0
TOTAL	41	20	26	31	33	40	29	24	52	106	112	86	43	25	33	41	2

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** AUGUST ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	4
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	1	0	0	7	3	11
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	2	0	1	12	4	19

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	1	0	0	0	0	0	0	2	1	0	0	1	5
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	2	1	1	1	0	5
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	1	0	0	0	0	0	0	4	3	1	1	1	11

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** AUGUST ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	4	0	0	0	0	0	4	3	3	0	0	1	15
7.51-12.50	0	0	0	7	1	1	0	0	0	0	2	9	1	0	3	0	24
12.51-18.50	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	7	5	1	0	0	0	0	7	13	4	0	3	1	41

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	0	1	0	2	1	0	2	1	0	0	0	1	0	0	1	10
3.51- 7.50	2	7	6	14	16	2	2	2	4	15	18	10	5	0	0	0	103
7.51-12.50	19	6	44	16	4	4	2	1	1	5	16	10	4	1	1	9	143
12.51-18.50	2	0	13	0	0	1	0	0	0	2	5	3	0	0	0	8	34
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	24	13	64	30	22	8	4	5	6	22	39	23	10	1	1	18	290

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** AUGUST ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	0	1	1	1	1	5	3	2	7	6	3	4	3	1	0	0	38
3.51- 7.50	3	6	5	11	13	5	3	2	9	21	23	19	15	5	0	3	143
7.51-12.50	3	2	2	15	9	3	1	1	0	6	15	4	2	3	2	3	71
12.51-18.50	3	0	2	0	1	0	1	0	0	0	2	1	0	0	0	3	13
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	9	9	10	27	24	13	8	5	16	33	43	28	20	9	2	9	266

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	0	0	0	0	0	0	0	0	11	9	14	0	2	2	0	1	39
3.51- 7.50	0	0	0	0	0	0	0	0	2	11	8	11	11	5	0	0	48
7.51-12.50	0	0	0	0	2	0	0	0	0	0	0	0	1	1	0	0	4
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	2	0	0	0	13	20	22	11	14	8	0	1	92

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** AUGUST ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	0	0	0	0	0	0	0	0	3	4	6	2	0	1	0	0	16
3.51- 7.50	0	0	0	0	0	0	0	0	0	3	3	0	1	0	0	0	7
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	3	7	9	2	1	1	0	0	24

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	3
1.01- 3.50	1	1	2	1	3	6	3	4	22	19	23	6	6	4	0	2	103
3.51- 7.50	5	13	11	25	34	7	5	4	15	50	56	46	36	11	2	5	325
7.51-12.50	22	8	46	38	16	8	3	2	1	11	33	26	9	6	14	15	258
12.51-18.50	5	0	15	0	1	1	1	0	0	2	8	5	1	0	3	12	54
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	33	22	74	64	54	22	12	10	38	82	120	83	52	21	19	34	743

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** AUGUST ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 744

TOTAL NUMBER OF VALID OBSERVATIONS: 743

TOTAL NUMBER OF MISSING OBSERVATIONS: 1

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.9 %

MEAN WIND SPEED FOR THIS PERIOD: 7.2 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
2.56	1.48	5.52	39.03	35.80	12.38	3.23

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	0	0	0	0	0	0	0	2	0	1	12	4	0
B	0	0	0	0	1	0	0	0	0	0	0	4	3	1	1	1	0
C	0	0	0	7	5	1	0	0	0	0	7	13	4	0	3	1	0
D	24	13	64	30	22	8	4	5	6	22	39	23	10	1	1	18	0
E	9	9	10	27	24	13	8	5	16	33	43	28	20	9	2	9	1
F	0	0	0	0	2	0	0	0	13	20	22	11	14	8	0	1	1
G	0	0	0	0	0	0	0	0	3	7	9	2	1	1	0	0	1
TOTAL	33	22	74	64	54	22	12	10	38	82	120	83	52	21	19	34	3

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** SEPTEMBER ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	1	1	0	0	0	0	0	0	0	1	4	0	7
7.51-12.50	0	0	0	0	3	0	0	0	0	0	0	0	1	2	3	6	15
12.51-18.50	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	1	4	1	0	0	0	0	0	0	1	3	7	6	23

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	1	0	0	2	4	2	0	0	0	0	1	0	0	0	0	1	11
7.51-12.50	0	0	0	4	6	0	0	0	0	0	0	3	0	0	3	1	17
12.51-18.50	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	0	0	9	10	2	0	0	0	0	1	3	0	0	3	2	31

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** SEPTEMBER ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	4	4	1	1	1	0	0	2	3	0	0	0	2	18
7.51-12.50	0	0	1	4	3	0	0	0	0	0	0	5	0	0	0	2	15
12.51-18.50	0	0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	4
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	1	9	7	1	1	1	0	0	2	11	0	0	0	4	37

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	2	2	0	1	1	2	1	1	1	1	0	0	0	0	0	12
3.51- 7.50	17	20	13	19	15	17	6	2	3	9	12	5	1	2	0	5	146
7.51-12.50	10	5	19	14	4	2	0	0	0	2	10	10	0	0	2	3	81
12.51-18.50	1	3	1	2	0	0	0	0	0	0	0	4	0	0	0	0	11
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	28	30	35	35	20	20	8	3	4	12	23	19	1	2	2	8	250

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** SEPTEMBER ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	0	1	1	5	7	5	14	5	10	3	3	2	1	2	0	0	59
3.51- 7.50	3	0	1	7	14	30	15	2	5	20	22	6	7	0	0	3	135
7.51-12.50	1	0	16	17	7	4	0	0	0	0	2	4	0	3	0	2	56
12.51-18.50	0	0	0	5	1	0	0	0	0	0	0	0	0	0	0	0	6
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	4	1	18	34	29	39	29	7	15	23	27	12	8	5	0	5	257

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	8	8	12	12	6	3	7	2	1	0	59
3.51- 7.50	0	0	0	0	0	1	2	0	2	13	3	5	5	0	0	0	31
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	1	10	8	14	25	9	8	12	2	1	0	90

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** SEPTEMBER ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	4	11	2	2	1	0	0	0	20
3.51- 7.50	0	0	0	0	0	0	0	0	0	7	3	1	1	0	0	0	12
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	4	18	5	3	2	0	0	0	32

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	0	3	3	5	8	6	24	14	27	27	12	7	9	4	1	0	150
3.51- 7.50	21	20	14	32	38	52	24	5	10	49	43	20	14	3	4	11	360
7.51-12.50	11	5	36	39	23	6	0	0	0	2	12	22	1	5	8	14	184
12.51-18.50	1	3	1	12	1	0	0	0	0	0	0	7	0	0	0	0	25
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	33	31	54	88	70	64	48	19	37	78	67	56	24	12	13	25	720

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** SEPTEMBER ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 720

TOTAL NUMBER OF VALID OBSERVATIONS: 720

TOTAL NUMBER OF MISSING OBSERVATIONS: 0

PERCENT DATA RECOVERY FOR THIS PERIOD: 100.0 %

MEAN WIND SPEED FOR THIS PERIOD: 6.1 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
3.19	4.31	5.14	34.72	35.69	12.50	4.44

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	1	4	1	0	0	0	0	0	0	1	3	7	6	0
B	1	0	0	9	10	2	0	0	0	0	1	3	0	0	3	2	0
C	0	0	1	9	7	1	1	1	0	0	2	11	0	0	0	4	0
D	28	30	35	35	20	20	8	3	4	12	23	19	1	2	2	8	0
E	4	1	18	34	29	39	29	7	15	23	27	12	8	5	0	5	1
F	0	0	0	0	0	1	10	8	14	25	9	8	12	2	1	0	0
G	0	0	0	0	0	0	0	0	4	18	5	3	2	0	0	0	0
TOTAL	33	31	54	88	70	64	48	19	37	78	67	56	24	12	13	25	1

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** OCTOBER ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	6
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	1	0	5	1	1	8
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	1	0	5	5	3	14

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
7.51-12.50	0	0	0	0	0	0	0	0	0	0	1	5	0	2	0	0	8
12.51-18.50	0	0	0	0	1	0	0	0	0	0	0	0	0	2	3	0	6
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	1	2	0	0	0	0	0	1	5	0	4	3	0	16

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** OCTOBER ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	1	2	0	0	0	0	0	1	0	0	1	0	0	5
7.51-12.50	0	0	0	0	1	0	0	0	0	0	2	6	3	2	1	2	17
12.51-18.50	0	0	0	2	0	0	0	0	0	0	0	2	1	2	0	2	9
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	3	3	0	0	0	0	0	3	8	4	5	1	4	31

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	3
3.51- 7.50	0	0	1	9	3	6	1	0	5	3	8	10	3	1	0	0	50
7.51-12.50	8	1	7	17	0	3	1	0	1	17	18	20	15	7	8	4	127
12.51-18.50	13	1	6	2	1	0	0	0	0	0	6	5	2	4	5	3	48
18.51-24.00	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
>24.00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL	25	3	15	28	5	9	2	1	6	20	33	35	20	12	13	7	234

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** OCTOBER ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	4	0	1	3	3	4	1	2	0	0	0	1	19
3.51- 7.50	0	0	0	2	6	7	1	4	14	69	20	6	16	6	3	1	155
7.51-12.50	4	1	2	2	5	3	0	0	1	24	16	12	14	9	5	13	111
12.51-18.50	13	4	13	4	3	0	0	0	0	0	0	0	1	4	4	7	53
18.51-24.00	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
>24.00	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3
TOTAL	17	6	21	8	18	10	2	7	18	97	37	20	31	19	12	22	345

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	0	1	0	0	0	2	4	11	7	3	5	3	0	0	0	0	36
3.51- 7.50	0	0	0	0	0	2	2	3	13	8	8	0	0	0	0	0	36
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	1	0	1	1	4	6	14	20	11	13	3	0	0	0	0	76

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** OCTOBER ***

STABILITY CLASS G
STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	0	0	0	0	0	0	0	1	6	10	2	2	0	1	0	0	22
3.51- 7.50	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	1	6	14	3	2	0	1	0	0	28

STABILITY CLASS ALL
STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	3
1.01- 3.50	0	1	0	0	5	2	5	16	16	17	9	7	0	1	0	1	80
3.51- 7.50	0	0	1	13	12	15	4	7	32	84	38	16	19	8	3	1	253
7.51-12.50	12	2	9	19	6	6	1	0	2	41	37	43	32	20	18	21	269
12.51-18.50	26	5	19	9	6	0	0	0	0	0	6	8	4	17	13	13	126
18.51-24.00	4	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	9
>24.00	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4
TOTAL	42	10	36	41	29	23	10	23	50	142	90	74	55	46	34	36	744

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** OCTOBER ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 744

TOTAL NUMBER OF VALID OBSERVATIONS: 744

TOTAL NUMBER OF MISSING OBSERVATIONS: 0

PERCENT DATA RECOVERY FOR THIS PERIOD: 100.0 %

MEAN WIND SPEED FOR THIS PERIOD: 8.6 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
1.88	2.15	4.17	31.45	46.37	10.22	3.76

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	0	0	0	0	0	0	0	1	0	5	5	3	0
B	0	0	0	1	2	0	0	0	0	0	1	5	0	4	3	0	0
C	0	0	0	3	3	0	0	0	0	0	3	8	4	5	1	4	0
D	25	3	15	28	5	9	2	1	6	20	33	35	20	12	13	7	0
E	17	6	21	8	18	10	2	7	18	97	37	20	31	19	12	22	0
F	0	1	0	1	1	4	6	14	20	11	13	3	0	0	0	0	2
G	0	0	0	0	0	0	0	1	6	14	3	2	0	1	0	0	1
TOTAL	42	10	36	41	29	23	10	23	50	142	90	74	55	46	34	36	3

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** NOVEMBER ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	1	4
7.51-12.50	0	0	0	0	0	0	0	0	0	0	1	1	3	5	5	1	16
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	2	1	3	3	0	9
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	2	1	0	0	0	0	1	3	4	8	8	2	29

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	3
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
12.51-18.50	0	0	0	0	0	0	0	0	0	0	3	1	1	0	0	0	5
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	2	0	0	0	3	2	3	0	0	0	10

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** NOVEMBER ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
3.51- 7.50	1	0	0	1	2	0	0	0	0	0	0	0	1	1	0	2	8
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	2	7
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	2	2	1	1	0	6
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	0	0	1	3	0	0	1	0	0	0	2	6	3	2	4	23

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	0	1	0	0	2	1	3	1	0	0	0	1	0	1	0	11
3.51- 7.50	4	5	5	9	8	3	2	0	2	6	2	1	2	1	1	2	53
7.51-12.50	14	4	2	7	2	7	9	0	7	5	18	6	13	21	10	7	132
12.51-18.50	3	6	3	0	0	9	0	0	0	2	8	1	17	5	4	0	58
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	22	15	11	16	10	21	12	3	10	13	28	8	38	27	16	9	259

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** NOVEMBER ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	0	0	0	0	0	1	3	1	0	4	1	0	0	0	1	0	11
3.51- 7.50	1	5	1	2	4	3	2	1	9	31	12	8	5	6	6	2	98
7.51-12.50	2	0	1	3	4	8	6	2	12	20	17	25	16	8	4	2	130
12.51-18.50	0	0	1	0	0	2	0	1	0	1	1	2	1	1	2	1	13
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3	5	3	5	8	14	11	5	21	56	31	36	22	15	13	5	255

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	6
1.01- 3.50	0	0	0	0	0	0	1	2	8	3	4	2	1	3	0	0	24
3.51- 7.50	0	0	0	1	3	2	1	6	5	11	10	5	2	2	0	0	48
7.51-12.50	0	0	0	0	1	0	0	0	1	2	2	4	1	5	0	0	16
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	1	4	2	2	8	14	16	16	11	4	10	0	0	94

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** NOVEMBER ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	0	0	0	0	0	2	4	3	4	2	0	1	3	0	0	0	19
3.51- 7.50	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	0	6
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	3	6	3	7	2	0	1	3	0	0	0	26

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	9
1.01- 3.50	1	0	1	0	1	5	9	10	13	9	5	3	5	3	2	0	67
3.51- 7.50	6	10	6	13	19	10	9	7	19	48	24	15	10	10	7	7	220
7.51-12.50	16	4	3	10	7	15	15	2	20	27	38	36	38	40	20	12	303
12.51-18.50	3	6	4	0	0	11	0	1	0	3	12	8	22	10	10	1	91
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	6
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	26	20	14	23	27	41	33	20	52	87	79	63	80	63	39	20	696

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** NOVEMBER ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 720

TOTAL NUMBER OF VALID OBSERVATIONS: 696

TOTAL NUMBER OF MISSING OBSERVATIONS: 24

PERCENT DATA RECOVERY FOR THIS PERIOD: 96.7 %

MEAN WIND SPEED FOR THIS PERIOD: 8.4 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
4.17	1.44	3.30	37.21	36.64	13.51	3.74

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	2	1	0	0	0	0	1	3	4	8	8	2	0
B	0	0	0	0	0	0	2	0	0	0	3	2	3	0	0	0	0
C	1	0	0	1	3	0	0	1	0	0	0	2	6	3	2	4	0
D	22	15	11	16	10	21	12	3	10	13	28	8	38	27	16	9	0
E	3	5	3	5	8	14	11	5	21	56	31	36	22	15	13	5	2
F	0	0	0	1	4	2	2	8	14	16	16	11	4	10	0	0	6
G	0	0	0	0	0	3	6	3	7	2	0	1	3	0	0	0	1
TOTAL	26	20	14	23	27	41	33	20	52	87	79	63	80	63	39	20	9

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** DECEMBER ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	2	3	1	1	7
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	2	3	1	1	7

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	2	1	2	0	0	0	5

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** DECEMBER ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
7.51-12.50	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	3
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	5
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	1	1	8	1	0	0	11

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	0	0	0	2	1	2	3	2	2	0	0	1	1	1	2	18
3.51- 7.50	0	2	2	2	0	5	1	4	11	7	4	2	6	7	4	2	59
7.51-12.50	2	2	0	2	0	0	0	0	3	2	8	21	46	19	19	5	129
12.51-18.50	0	0	0	0	0	0	0	0	0	2	3	8	13	3	15	1	45
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	7
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3	4	2	4	2	6	3	7	16	13	15	31	66	30	43	13	258

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** DECEMBER ***

STABILITY CLASS E
STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	2	1	0	1	0	5	14	6	7	7	6	2	0	2	0	1	54
3.51- 7.50	3	4	2	0	4	17	15	4	18	20	25	13	24	8	3	2	162
7.51-12.50	1	0	4	6	1	0	0	6	5	16	24	12	18	11	8	6	118
12.51-18.50	0	0	0	0	0	0	0	0	0	7	0	0	4	0	0	1	12
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	6	5	6	7	5	22	29	16	30	50	55	27	46	21	12	11	349

STABILITY CLASS F
STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	1	1	4	0	2	3	0	0	0	1	0	2	14
3.51- 7.50	0	0	0	0	0	5	13	0	6	3	7	17	0	2	0	0	53
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	1	6	17	0	8	6	7	23	0	3	0	2	73

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** DECEMBER ***

STABILITY CLASS G
STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	1	1	2	2	1	0	0	0	0	0	7
3.51- 7.50	0	0	0	0	0	9	17	0	0	4	0	0	0	0	0	0	30
7.51-12.50	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	11	18	1	2	6	1	0	0	0	0	0	39

STABILITY CLASS ALL
STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	3	1	0	1	3	7	21	10	13	14	7	2	1	5	1	5	94
3.51- 7.50	3	6	4	2	4	36	46	8	35	34	38	32	32	17	7	4	308
7.51-12.50	3	2	4	8	1	2	0	6	8	18	33	40	70	33	28	12	268
12.51-18.50	0	0	0	0	0	0	0	0	0	9	3	9	21	3	15	2	62
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	4	9
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	9	9	8	11	8	45	67	24	56	75	81	83	124	58	56	27	742

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** DECEMBER ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 744

TOTAL NUMBER OF VALID OBSERVATIONS: 742

TOTAL NUMBER OF MISSING OBSERVATIONS: 2

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.7 %

MEAN WIND SPEED FOR THIS PERIOD: 7.6 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
.94	.67	1.48	34.77	47.04	9.84	5.26

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	0	0	0	0	0	0	0	0	2	3	1	1	0
B	0	0	0	0	0	0	0	0	0	0	2	1	2	0	0	0	0
C	0	0	0	0	0	0	0	0	0	0	1	1	8	1	0	0	0
D	3	4	2	4	2	6	3	7	16	13	15	31	66	30	43	13	0
E	6	5	6	7	5	22	29	16	30	50	55	27	46	21	12	11	1
F	0	0	0	0	1	6	17	0	8	6	7	23	0	3	0	2	0
G	0	0	0	0	0	11	18	1	2	6	1	0	0	0	0	0	0
TOTAL	9	9	8	11	8	45	67	24	56	75	81	83	124	58	56	27	1

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** WINTER ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	1	0	2	2	0	5
7.51-12.50	0	2	0	0	0	0	0	0	1	3	1	3	2	4	2	1	19
12.51-18.50	0	1	0	0	0	0	0	0	0	1	2	1	2	4	1	0	12
18.51-24.00	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	5
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	3	0	0	0	0	0	0	1	4	4	5	8	10	5	1	41

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	1	3	2	0	0	1	0	7
7.51-12.50	0	1	0	0	0	0	0	0	0	0	3	3	2	2	0	0	11
12.51-18.50	0	0	0	0	0	0	0	0	0	4	1	2	0	0	1	0	8
18.51-24.00	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	1	0	0	0	0	0	0	0	5	10	7	2	2	2	0	29

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** WINTER ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
3.51- 7.50	0	0	0	0	0	0	0	0	0	1	2	0	3	2	4	1	13
7.51-12.50	0	0	0	0	0	0	0	0	2	1	5	1	3	3	2	1	18
12.51-18.50	0	0	1	0	0	0	0	0	2	1	1	2	7	0	1	0	15
18.51-24.00	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	1	0	0	0	0	0	4	3	10	3	13	6	7	2	49

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	0	3	3	7	5	8	9	9	2	2	0	4	1	6	3	63
3.51- 7.50	3	12	17	16	21	17	12	18	22	27	15	17	12	11	6	8	234
7.51-12.50	10	8	3	16	12	15	3	2	15	35	51	55	66	31	38	18	378
12.51-18.50	0	3	5	13	7	2	0	0	5	13	54	45	24	13	43	18	245
18.51-24.00	0	0	0	5	0	0	0	0	0	0	23	5	1	2	9	10	55
>24.00	0	0	0	0	0	0	0	0	0	0	10	2	0	0	0	0	12
TOTAL	14	23	28	53	47	39	23	29	51	77	155	124	107	58	102	57	987

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** WINTER ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	3	2	0	1	1	6	21	15	9	10	9	4	0	4	0	2	87
3.51- 7.50	3	11	2	5	20	38	38	24	39	49	31	34	33	11	5	4	347
7.51-12.50	2	3	7	7	9	5	6	12	21	58	40	25	29	16	9	6	255
12.51-18.50	2	2	0	1	3	0	1	0	7	19	8	3	7	3	1	9	66
18.51-24.00	1	0	0	1	0	0	0	0	2	1	6	3	0	0	1	2	17
>24.00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
TOTAL	11	18	9	15	33	49	66	51	78	137	95	69	69	34	16	23	774

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	1	0	0	2	4	8	5	5	7	0	0	0	1	0	2	35
3.51- 7.50	0	0	1	3	9	19	20	3	15	30	13	22	5	3	0	0	143
7.51-12.50	0	0	0	0	2	2	0	1	1	0	1	6	0	1	0	0	14
12.51-18.50	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	1	1	3	13	25	28	9	21	37	15	28	5	5	0	2	193

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** WINTER ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	2	4	4	2	2	0	0	0	0	0	14
3.51- 7.50	0	0	0	1	3	16	18	2	3	5	1	0	1	0	0	0	50
7.51-12.50	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	0	5
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	1	4	20	20	6	7	7	3	0	1	0	0	0	69

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	4	3	3	4	10	15	39	33	27	21	13	4	4	7	6	7	200
3.51- 7.50	6	23	20	25	53	90	88	47	79	113	65	76	54	29	18	13	799
7.51-12.50	12	14	10	23	24	26	9	15	40	97	101	93	102	57	51	26	700
12.51-18.50	2	6	6	14	10	2	1	0	14	38	67	53	40	20	47	27	347
18.51-24.00	1	0	0	6	0	0	0	0	2	1	35	8	5	2	10	12	82
>24.00	0	0	0	0	0	0	0	0	0	0	11	2	0	0	0	0	13
TOTAL	25	46	39	72	97	133	137	95	162	270	292	236	205	115	132	85	2142

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** WINTER ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2160

TOTAL NUMBER OF VALID OBSERVATIONS: 2142

TOTAL NUMBER OF MISSING OBSERVATIONS: 18

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.2 %

MEAN WIND SPEED FOR THIS PERIOD: 8.9 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
1.91	1.35	2.29	46.08	36.13	9.01	3.22

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	3	0	0	0	0	0	0	1	4	4	5	8	10	5	1	0
B	0	1	0	0	0	0	0	0	0	5	10	7	2	2	2	0	0
C	0	0	1	0	0	0	0	0	4	3	10	3	13	6	7	2	0
D	14	23	28	53	47	39	23	29	51	77	155	124	107	58	102	57	0
E	11	18	9	15	33	49	66	51	78	137	95	69	69	34	16	23	1
F	0	1	1	3	13	25	28	9	21	37	15	28	5	5	0	2	0
G	0	0	0	1	4	20	20	6	7	7	3	0	1	0	0	0	0
TOTAL	25	46	39	72	97	133	137	95	162	270	292	236	205	115	132	85	1

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** SPRING ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	1	0	0	0	3	0	1	1	2	1	9
7.51-12.50	0	0	0	8	7	8	1	0	0	1	11	5	0	3	7	0	51
12.51-18.50	0	0	0	4	0	0	0	0	0	0	4	7	1	1	3	0	20
18.51-24.00	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	6
>24.00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL	0	0	0	12	7	8	2	0	0	1	23	14	2	5	12	1	87

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	1	0	1	3	0	0	1	0	1	1	1	0	1	0	10
7.51-12.50	0	0	1	10	12	2	0	0	0	1	9	5	2	0	3	0	45
12.51-18.50	0	0	1	2	0	0	0	0	0	2	1	10	4	1	1	0	22
18.51-24.00	0	0	0	0	0	0	0	0	0	0	3	4	1	0	0	0	8
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	3	12	13	5	0	0	1	3	14	20	8	1	5	0	85

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** SPRING ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	3	2	2	3	1	1	0	3	1	0	0	1	1	18
7.51-12.50	0	0	2	15	9	4	0	0	0	1	4	4	3	4	4	0	50
12.51-18.50	0	0	1	2	2	0	0	0	0	2	1	15	1	1	4	0	29
18.51-24.00	0	0	0	0	0	0	0	0	0	0	1	3	1	0	0	0	5
>24.00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL	0	0	3	20	13	6	3	1	1	3	9	24	5	5	9	1	103

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	4	3	6	0	1	0	3	3	2	2	0	3	1	0	0	0	28
3.51- 7.50	11	19	20	27	40	30	9	6	11	3	7	11	5	6	2	9	216
7.51-12.50	14	20	50	85	75	27	2	1	12	24	33	52	17	13	11	17	453
12.51-18.50	10	33	23	40	18	0	0	0	0	9	30	41	31	5	23	22	285
18.51-24.00	5	5	6	2	0	0	0	0	0	1	7	11	4	1	1	2	45
>24.00	0	0	0	1	0	0	0	0	0	0	3	4	1	0	0	1	10
TOTAL	44	80	105	155	134	57	14	10	25	39	80	122	59	25	37	51	1037

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** SPRING ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	1	1	2	3	7	5	11	6	5	2	1	2	5	1	0	0	52
3.51- 7.50	4	11	12	28	35	41	19	12	21	19	23	17	13	7	4	4	270
7.51-12.50	2	8	16	19	11	10	1	3	17	23	32	9	11	7	13	7	189
12.51-18.50	1	2	6	3	1	0	0	0	8	12	8	12	8	4	1	2	68
18.51-24.00	0	0	0	1	0	0	0	0	0	0	2	0	0	1	1	0	5
>24.00	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
TOTAL	8	22	36	57	54	56	31	21	51	56	66	40	37	20	19	13	589

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	2	1	0	2	0	0	3	10	9	1	1	2	2	2	0	2	37
3.51- 7.50	1	3	1	9	6	17	6	4	10	12	6	2	11	1	1	0	90
7.51-12.50	0	1	3	1	0	1	0	0	1	2	7	0	0	0	0	0	16
12.51-18.50	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3	5	4	12	6	18	9	14	20	15	15	4	13	3	1	2	144

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** SPRING ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	1	1	6	6	13	5	2	1	1	0	0	0	36
3.51- 7.50	0	0	0	0	1	7	3	4	7	10	7	2	0	0	1	0	42
7.51-12.50	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	2	8	9	11	20	15	9	3	1	0	1	0	79

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	7	5	8	5	9	6	23	25	29	10	4	8	9	3	0	2	153
3.51- 7.50	16	33	34	67	85	100	41	27	51	44	50	34	31	15	12	15	655
7.51-12.50	16	29	72	138	114	52	4	5	30	52	96	75	33	27	38	24	805
12.51-18.50	11	35	31	51	21	0	0	0	8	25	45	85	45	12	32	24	425
18.51-24.00	5	5	6	3	0	0	0	0	0	1	18	19	6	2	2	2	69
>24.00	0	0	0	4	0	0	0	0	0	0	3	6	1	0	0	1	15
TOTAL	55	107	151	268	229	158	68	57	118	132	216	227	125	59	84	68	2124

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** SPRING ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2208

TOTAL NUMBER OF VALID OBSERVATIONS: 2124

TOTAL NUMBER OF MISSING OBSERVATIONS: 84

PERCENT DATA RECOVERY FOR THIS PERIOD: 96.2 %

MEAN WIND SPEED FOR THIS PERIOD: 9.5 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
4.10	4.00	4.85	48.82	27.73	6.78	3.72

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	12	7	8	2	0	0	1	23	14	2	5	12	1	0
B	0	0	3	12	13	5	0	0	1	3	14	20	8	1	5	0	0
C	0	0	3	20	13	6	3	1	1	3	9	24	5	5	9	1	0
D	44	80	105	155	134	57	14	10	25	39	80	122	59	25	37	51	0
E	8	22	36	57	54	56	31	21	51	56	66	40	37	20	19	13	2
F	3	5	4	12	6	18	9	14	20	15	15	4	13	3	1	2	0
G	0	0	0	0	2	8	9	11	20	15	9	3	1	0	1	0	0
TOTAL	55	107	151	268	229	158	68	57	118	132	216	227	125	59	84	68	2

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** SUMMER ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
3.51- 7.50	0	0	0	0	1	0	0	0	0	0	0	1	0	4	10	9	25
7.51-12.50	0	0	0	1	6	0	0	0	0	0	0	1	0	0	14	9	31
12.51-18.50	0	0	3	4	3	0	0	0	0	0	1	1	0	1	4	1	18
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	3	5	10	0	0	0	0	0	1	3	0	5	29	19	75

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	1	4	1	0	0	0	0	0	2	1	1	2	5	17
7.51-12.50	0	0	0	3	4	0	0	0	0	0	1	2	1	4	2	2	19
12.51-18.50	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	3
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	6	8	1	0	0	0	0	1	4	3	5	4	7	39

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** SUMMER ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
3.51- 7.50	0	0	0	2	12	5	0	0	0	0	5	6	6	2	2	3	43
7.51-12.50	0	0	0	17	6	1	0	0	0	0	5	13	1	1	3	3	50
12.51-18.50	0	0	0	3	1	0	0	0	0	0	3	1	0	1	0	0	9
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	0	0	22	19	6	0	0	0	0	13	20	7	4	6	6	104

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	2	1	1	2	6	9	2	2	5	1	3	1	2	2	0	2	41
3.51- 7.50	23	17	24	43	46	18	11	6	10	27	50	31	12	4	1	5	328
7.51-12.50	50	21	76	53	19	5	2	1	5	13	35	33	22	11	12	21	379
12.51-18.50	13	6	19	3	0	2	0	0	0	3	13	12	1	0	5	10	87
18.51-24.00	2	6	0	1	0	0	0	0	0	0	0	0	1	0	0	1	11
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	90	51	120	102	71	34	15	9	20	44	101	77	38	17	18	39	848

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** SUMMER ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	3	3	2	4	8	15	17	14	21	21	7	6	8	2	2	3	136
3.51- 7.50	9	24	16	34	35	31	27	14	28	63	69	42	25	7	6	5	435
7.51-12.50	8	7	6	25	14	4	2	1	0	16	20	14	10	12	11	7	157
12.51-18.50	3	4	4	4	3	0	1	0	0	1	3	1	1	1	0	4	30
18.51-24.00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	23	38	29	67	60	50	47	29	49	101	99	63	44	22	19	19	761

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	0	0	0	0	2	3	10	13	30	30	22	3	7	4	1	1	126
3.51- 7.50	0	1	1	3	0	0	4	2	8	51	35	18	19	5	0	0	147
7.51-12.50	0	0	0	0	2	0	0	0	0	0	0	0	2	3	0	0	7
12.51-18.50	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	2	1	3	4	3	14	15	38	81	57	21	29	12	1	1	284

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** SUMMER ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	0	0	0	0	0	2	3	4	9	10	9	2	0	2	1	1	43
3.51- 7.50	0	0	0	3	0	2	2	0	2	11	7	2	4	0	0	0	33
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	3	0	4	5	4	11	21	16	4	4	3	1	1	79

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	8
1.01- 3.50	6	4	3	6	16	29	32	33	65	62	41	12	17	10	6	7	349
3.51- 7.50	32	42	41	86	98	57	44	22	48	152	166	102	67	23	21	27	1028
7.51-12.50	58	28	82	99	51	10	4	2	5	29	61	63	36	32	42	42	644
12.51-18.50	16	11	26	16	7	2	1	0	0	4	20	15	4	3	9	15	149
18.51-24.00	2	6	1	1	0	0	0	0	0	0	0	0	1	0	0	1	12
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	114	91	153	208	172	98	81	57	118	247	288	192	125	68	78	92	2190

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** SUMMER ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2208

TOTAL NUMBER OF VALID OBSERVATIONS: 2190

TOTAL NUMBER OF MISSING OBSERVATIONS: 18

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.2 %

MEAN WIND SPEED FOR THIS PERIOD: 6.8 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
3.42	1.78	4.75	38.72	34.75	12.97	3.61

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	3	5	10	0	0	0	0	0	1	3	0	5	29	19	0
B	0	0	0	6	8	1	0	0	0	0	1	4	3	5	4	7	0
C	1	0	0	22	19	6	0	0	0	0	13	20	7	4	6	6	0
D	90	51	120	102	71	34	15	9	20	44	101	77	38	17	18	39	2
E	23	38	29	67	60	50	47	29	49	101	99	63	44	22	19	19	2
F	0	2	1	3	4	3	14	15	38	81	57	21	29	12	1	1	2
G	0	0	0	3	0	4	5	4	11	21	16	4	4	3	1	1	2
TOTAL	114	91	153	208	172	98	81	57	118	247	288	192	125	68	78	92	8

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** FALL ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	3	2	0	0	0	0	0	0	0	1	4	1	11
7.51-12.50	0	0	0	0	3	0	0	0	0	0	1	1	4	7	12	9	37
12.51-18.50	0	0	0	1	0	0	0	0	0	0	0	3	1	8	4	1	18
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	1	6	2	0	0	0	0	1	4	5	16	20	11	66

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	1	0	0	3	5	2	2	0	0	0	1	1	0	0	0	1	16
7.51-12.50	0	0	0	4	6	0	0	0	0	0	1	8	2	2	3	1	27
12.51-18.50	0	0	0	3	1	0	0	0	0	0	3	1	1	2	3	0	14
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	0	0	10	12	2	2	0	0	0	5	10	3	4	6	2	57

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** FALL ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
3.51- 7.50	1	0	0	6	8	1	1	1	0	0	3	3	1	2	0	4	31
7.51-12.50	0	0	1	4	4	0	0	0	0	0	2	11	6	3	2	6	39
12.51-18.50	0	0	0	3	0	0	0	0	0	0	0	7	3	3	1	2	19
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	0	1	13	13	1	1	2	0	0	5	21	10	8	3	12	91

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	2	3	0	2	3	3	5	2	1	2	0	1	0	1	0	26
3.51- 7.50	21	25	19	37	26	26	9	2	10	18	22	16	6	4	1	7	249
7.51-12.50	32	10	28	38	6	12	10	0	8	24	46	36	28	28	20	14	340
12.51-18.50	17	10	10	4	1	9	0	0	0	2	14	10	19	9	9	3	117
18.51-24.00	4	1	0	0	0	0	0	0	0	0	0	0	5	0	0	0	10
>24.00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL	75	48	61	79	35	50	22	7	20	45	84	62	59	41	31	24	743

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** FALL ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	3
1.01- 3.50	0	1	1	5	11	6	18	9	13	11	5	4	1	2	1	1	89
3.51- 7.50	4	5	2	11	24	40	18	7	28	120	54	20	28	12	9	6	388
7.51-12.50	7	1	19	22	16	15	6	2	13	44	35	41	30	20	9	17	297
12.51-18.50	13	4	14	9	4	2	0	1	0	1	1	2	2	5	6	8	72
18.51-24.00	0	0	4	0	0	0	0	0	0	0	0	1	0	0	0	0	5
>24.00	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3
TOTAL	24	12	42	47	55	63	42	19	54	176	95	68	61	39	25	32	857

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET
WIND MEASURED AT: 35.0 FEET
WIND THRESHOLD AT: 1.00 MPH
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	8
1.01- 3.50	0	1	0	0	0	2	13	21	27	18	15	8	8	5	1	0	119
3.51- 7.50	0	0	0	1	3	5	5	9	20	32	21	10	7	2	0	0	115
7.51-12.50	0	0	0	0	1	0	0	0	1	2	2	4	1	5	0	0	16
12.51-18.50	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	1	0	2	5	7	18	30	48	52	38	22	16	12	1	0	260

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** FALL ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	0	0	0	0	0	2	4	4	14	23	4	5	4	1	0	0	61
3.51- 7.50	0	0	0	0	0	1	2	0	3	11	4	1	1	0	0	0	23
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	3	6	4	17	34	8	6	5	1	0	0	86

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	13
1.01- 3.50	1	4	4	5	14	13	38	40	56	53	26	17	14	8	3	1	297
3.51- 7.50	27	30	21	58	69	77	37	19	61	181	105	51	43	21	14	19	833
7.51-12.50	39	11	48	68	36	27	16	2	22	70	87	101	71	65	46	47	756
12.51-18.50	30	14	24	21	7	11	0	1	0	3	18	23	26	27	23	14	242
18.51-24.00	4	1	4	0	0	0	0	0	0	0	0	1	5	0	0	0	15
>24.00	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4
TOTAL	101	61	104	152	126	128	91	62	139	307	236	193	159	121	86	81	2160

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** FALL ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2184

TOTAL NUMBER OF VALID OBSERVATIONS: 2160

TOTAL NUMBER OF MISSING OBSERVATIONS: 24

PERCENT DATA RECOVERY FOR THIS PERIOD: 98.9 %

MEAN WIND SPEED FOR THIS PERIOD: 7.7 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
3.06	2.64	4.21	34.40	39.68	12.04	3.98

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	1	6	2	0	0	0	0	1	4	5	16	20	11	0
B	1	0	0	10	12	2	2	0	0	0	5	10	3	4	6	2	0
C	1	0	1	13	13	1	1	2	0	0	5	21	10	8	3	12	0
D	75	48	61	79	35	50	22	7	20	45	84	62	59	41	31	24	0
E	24	12	42	47	55	63	42	19	54	176	95	68	61	39	25	32	3
F	0	1	0	2	5	7	18	30	48	52	38	22	16	12	1	0	8
G	0	0	0	0	0	3	6	4	17	34	8	6	5	1	0	0	2
TOTAL	101	61	104	152	126	128	91	62	139	307	236	193	159	121	86	81	13

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** ANNUAL ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
3.51- 7.50	0	0	0	0	4	2	1	0	0	0	3	2	1	8	18	11	50
7.51-12.50	0	2	0	9	16	8	1	0	1	4	13	10	6	14	35	19	138
12.51-18.50	0	1	3	9	3	0	0	0	0	1	7	12	4	14	12	2	68
18.51-24.00	0	0	0	0	0	0	0	0	0	0	6	1	4	0	0	0	11
>24.00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL	0	3	3	18	23	10	2	0	1	5	29	26	15	36	66	32	269

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	1	0	1	4	10	6	2	0	1	1	5	6	2	1	4	6	50
7.51-12.50	0	1	1	17	22	2	0	0	0	1	14	18	7	8	8	3	102
12.51-18.50	0	0	1	7	1	0	0	0	0	6	5	13	6	3	5	0	47
18.51-24.00	0	0	0	0	0	0	0	0	0	0	6	4	1	0	0	0	11
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	1	3	28	33	8	2	0	1	8	30	41	16	12	17	9	210

TIME OF DAY: 14:11:33

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** ANNUAL ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	0	0	0	1	0	0	1	0	0	0	0	0	1	1	0	5
3.51- 7.50	1	0	0	11	22	8	4	2	1	1	13	10	10	6	7	9	105
7.51-12.50	0	0	3	36	19	5	0	0	2	2	16	29	13	11	11	10	157
12.51-18.50	0	0	2	8	3	0	0	0	2	3	5	25	11	5	6	2	72
18.51-24.00	0	0	0	0	0	0	0	0	0	0	3	3	1	0	0	0	7
>24.00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL	2	0	5	55	45	13	4	3	5	6	37	68	35	23	25	21	347

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	8	6	13	5	16	17	16	19	18	6	7	4	8	3	7	5	158
3.51- 7.50	58	73	80	123	133	91	41	32	53	75	94	75	35	25	10	29	1027
7.51-12.50	106	59	157	192	112	59	17	4	40	96	165	176	133	83	81	70	1550
12.51-18.50	40	52	57	60	26	13	0	0	5	27	111	108	75	27	80	53	734
18.51-24.00	11	12	6	8	0	0	0	0	0	1	30	16	11	3	10	13	121
>24.00	0	0	1	1	0	0	0	0	0	0	13	6	1	0	0	1	23
TOTAL	223	202	314	389	287	180	74	55	116	205	420	385	263	141	188	171	3615

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** ANNUAL ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	8
1.01- 3.50	7	7	5	13	27	32	67	44	48	44	22	16	14	9	3	6	364
3.51- 7.50	20	51	32	78	114	150	102	57	116	251	177	113	99	37	24	19	1440
7.51-12.50	19	19	48	73	50	34	15	18	51	141	127	89	80	55	42	37	898
12.51-18.50	19	12	24	17	11	2	2	1	15	33	20	18	18	13	8	23	236
18.51-24.00	1	0	5	2	0	0	0	0	2	1	8	4	0	1	2	2	28
>24.00	0	1	2	3	0	0	0	0	0	0	1	0	0	0	0	0	7
TOTAL	66	90	116	186	202	218	186	120	232	470	355	240	211	115	79	87	2981

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	10
1.01- 3.50	2	3	0	2	4	9	34	49	71	56	38	13	17	12	2	5	317
3.51- 7.50	1	4	3	16	18	41	35	18	53	125	75	52	42	11	1	0	495
7.51-12.50	0	1	3	1	5	3	0	1	3	4	10	10	3	9	0	0	53
12.51-18.50	0	1	0	1	1	0	0	0	0	0	2	0	1	0	0	0	6
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3	9	6	20	28	53	69	68	127	185	125	75	63	32	3	5	881

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** ANNUAL ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	4
1.01- 3.50	0	0	0	0	1	5	15	18	40	40	17	8	5	3	1	1	154
3.51- 7.50	0	0	0	4	4	26	25	6	15	37	19	5	6	0	1	0	148
7.51-12.50	0	0	0	0	1	4	0	1	0	0	0	0	0	1	0	0	7
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	4	6	35	40	25	55	77	36	13	11	4	2	1	313

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	24
1.01- 3.50	18	16	18	20	49	63	132	131	177	146	84	41	44	28	15	17	999
3.51- 7.50	81	128	116	236	305	324	210	115	239	490	386	263	195	88	65	74	3315
7.51-12.50	125	82	212	328	225	115	33	24	97	248	345	332	242	181	177	139	2905
12.51-18.50	59	66	87	102	45	15	2	1	22	70	150	176	115	62	111	80	1163
18.51-24.00	12	12	11	10	0	0	0	0	2	2	53	28	17	4	12	15	178
>24.00	0	1	3	4	0	0	0	0	0	0	14	8	1	0	0	1	32
TOTAL	295	305	447	700	624	517	377	271	537	956	1032	848	614	363	380	326	8616

PROGRAM: JFD VERSION: PC-1.2

*****DAVIS-BESSE 75-10 DT, NO BACKUP *****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 12/31/23

*** ANNUAL ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 8760

TOTAL NUMBER OF VALID OBSERVATIONS: 8616

TOTAL NUMBER OF MISSING OBSERVATIONS: 144

PERCENT DATA RECOVERY FOR THIS PERIOD: 98.4 %

MEAN WIND SPEED FOR THIS PERIOD: 8.2 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
3.12	2.44	4.03	41.96	34.60	10.23	3.63

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	3	3	18	23	10	2	0	1	5	29	26	15	36	66	32	0
B	1	1	3	28	33	8	2	0	1	8	30	41	16	12	17	9	0
C	2	0	5	55	45	13	4	3	5	6	37	68	35	23	25	21	0
D	223	202	314	389	287	180	74	55	116	205	420	385	263	141	188	171	2
E	66	90	116	186	202	218	186	120	232	470	355	240	211	115	79	87	8
F	3	9	6	20	28	53	69	68	127	185	125	75	63	32	3	5	10
G	0	0	0	4	6	35	40	25	55	77	36	13	11	4	2	1	4
TOTAL	295	305	447	700	624	517	377	271	537	956	1032	848	614	363	380	326	24

*****DAVIS-BESSE ENVIRONMENTAL COMPLIANCE UNIT ***

2/14/2024
TIME OF DAY: 14:11:33

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PROGRAM: JFD VERSION: PC-1.2

LAST DATA RECORD READ: 23 23 12 31 24 -99.0 -99.0 -99.0

OUTPUT FILE NAME :DB23JFDL.OUT

FILES USED THIS RUN ARE:

OPTIONS FILE NAME:JFDB001G.CNT

INPUT FILE NAME :DBHR23R1.PRN

PRINT FILE NAME :JFD2301G.PRT

*****DAVIS-BESSE ENVIRONMENTAL COMPLIANCE UNIT ***

2/14/2024

PAGE

1

TIME OF DAY: 17:38: 7

PROGRAM: JFD VERSION: PC-1.2

PRINTOUT OF INPUT CONTROL DATA

TITLE: DAVIS-BESSE RELEASE B0001G (75-10 DT, NO BACKUP)*****

BEGIN DATE: 23 1 1 14

END DATE: 23 1 1 20

OPTION TO PRINT MONTHLY JFDS: NO

OPTION TO PRINT SEASONAL JFDS: NO

OPTION TO PRINT STABILITY BY HOUR OF DAY: YES

OPTION TO PLACE JFD IN FILE FORMATTED FOR PAVAN/XOQDOQ: NO

OPTION TO USE 7 WIND SPEED CLASSES

INPUTTED WIND SPEED CLASSES IN MPH : .00 3.50 7.50 12.50 18.50 24.00 .00

PRIMARY MEASUREMENTS BASED ON:

WIND SPEED MEASURED AT 35.0 FEET IN MPH

BAD WIND SPEED DATA CODED: -99.00

WIND SPEED THRESHOLD: 1.00 MPH

WIND DIRECTION MEASURED AT 35.0 FEET

BAD WIND DIRECTION DATA CODED: -99.0

DELTA T MEASURED BETWEEN 250.0 FEET AND 35.0 FEET IN DEG F

BAD DELTA T CODED: -99.00

BACK-UP MEASUREMENTS BASED ON:

NO BACKUP WIND SPEED MEASUREMENTS

NO BACKUP WIND DIRECTION MEASUREMENTS

NO BACKUP STABILITY MEASUREMENTS

WIND SPEED HEIGHT TO BE USED FOR JFD: 35.00 FEET

FORMAT TO READ INPUT DATA: (4(1X,I2),T84,F6.2,T77,F6.2,T126,F6.2,T2,A2,T86,A3,T79,A3,T128,A3)

FIRST DATA RECORD READ: 23 23 1 1 1 6.6 184.4 -.7

*****DAVIS-BESSE ENVIRONMENTAL COMPLIANCE UNIT ***

2/14/2024
TIME OF DAY: 17:38: 7

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PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0001G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 1/ 1/23

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

HOURLY STABILITIES
HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
23	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	E	E	E	E	E	E	E	-	-	-	-

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0001G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 1/ 1/23

*** ANNUAL ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0001G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 1/ 1/23

*** ANNUAL ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0001G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 1/ 1/23

*** ANNUAL ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3
7.51-12.50	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	1	2	4	0	0	0	0	0	0	7

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]

TIME OF DAY: 17:38: 7

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0001G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 1/ 1/23

*** ANNUAL ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3
7.51-12.50	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	1	2	4	0	0	0	0	0	0	7

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0001G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 1/ 1/23 - 1/ 1/23

*** ANNUAL ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 7

TOTAL NUMBER OF VALID OBSERVATIONS: 7

TOTAL NUMBER OF MISSING OBSERVATIONS: 0

PERCENT DATA RECOVERY FOR THIS PERIOD: 100.0 %

MEAN WIND SPEED FOR THIS PERIOD: 7.2 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
.00	.00	.00	.00	100.00	.00	.00

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0	1	2	4	0	0	0	0	0	0	0
F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	1	2	4	0	0	0	0	0	0	0

*****DAVIS-BESSE ENVIRONMENTAL COMPLIANCE UNIT ***

2/14/2024
TIME OF DAY: 17:38: 7

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PROGRAM: JFD VERSION: PC-1.2

LAST DATA RECORD READ: 23 23 12 31 24 -99.0 -99.0 -99.0

FILES USED THIS RUN ARE:

OPTIONS FILE NAME:JFDB004G.CNT

INPUT FILE NAME :DBHR23R1.PRN

PRINT FILE NAME :JFD2304G.PRT

TIME OF DAY: 17:41:51

PROGRAM: JFD VERSION: PC-1.2

PRINTOUT OF INPUT CONTROL DATA

TITLE: DAVIS-BESSE RELEASE B0004G (75-10 DT, NO BACKUP)*****

BEGIN DATE: 23 4 26 23

END DATE: 23 4 27 4

OPTION TO PRINT MONTHLY JFDS: NO

OPTION TO PRINT SEASONAL JFDS: NO

OPTION TO PRINT STABILITY BY HOUR OF DAY: YES

OPTION TO PLACE JFD IN FILE FORMATTED FOR PAVAN/XOQDOQ: NO

OPTION TO USE 7 WIND SPEED CLASSES

INPUTTED WIND SPEED CLASSES IN MPH : .00 3.50 7.50 12.50 18.50 24.00 .00

PRIMARY MEASUREMENTS BASED ON:

WIND SPEED MEASURED AT 35.0 FEET IN MPH

BAD WIND SPEED DATA CODED: -99.00

WIND SPEED THRESHOLD: 1.00 MPH

WIND DIRECTION MEASURED AT 35.0 FEET

BAD WIND DIRECTION DATA CODED: -99.0

DELTA T MEASURED BETWEEN 250.0 FEET AND 35.0 FEET IN DEG F

BAD DELTA T CODED: -99.00

BACK-UP MEASUREMENTS BASED ON:

NO BACKUP WIND SPEED MEASUREMENTS

NO BACKUP WIND DIRECTION MEASUREMENTS

NO BACKUP STABILITY MEASUREMENTS

WIND SPEED HEIGHT TO BE USED FOR JFD: 35.00 FEET

FORMAT TO READ INPUT DATA: (4(1X,I2),T84,F6.2,T77,F6.2,T126,F6.2,T2,A2,T86,A3,T79,A3,T128,A3)

FIRST DATA RECORD READ: 23 23 1 1 1 6.6 184.4 -.7

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0004G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 4/26/23 - 4/27/23

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

HOURLY STABILITIES
HOURS

[illegible]

TIME OF DAY: 17:41:51

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0004G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 4/26/23 - 4/27/23

*** ANNUAL ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0004G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 4/26/23 - 4/27/23

*** ANNUAL ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

*** ANNUAL ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	2	3	1	0	0	0	0	0	0	0	0	6
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	2	3	1	0	0	0	0	0	0	0	0	

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]

*****DAVIS-BESSE ENVIRONMENTAL COMPLIANCE UNIT ***

2/14/2024
TIME OF DAY: 17:41:51

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PROGRAM: JFD VERSION: PC-1.2

LAST DATA RECORD READ: 23 23 12 31 24 -99.0 -99.0 -99.0

FILES USED THIS RUN ARE:

OPTIONS FILE NAME:JFDB005G.CNT

INPUT FILE NAME :DBHR23R1.PRN

PRINT FILE NAME :JFD2305G.PRT

TIME OF DAY: 17:48:58

PROGRAM: JFD VERSION: PC-1.2

PRINTOUT OF INPUT CONTROL DATA

TITLE: DAVIS-BESSE RELEASE B0005G (75-10 DT, NO BACKUP)*****

BEGIN DATE: 23 8 13 24

END DATE: 23 8 14 5

OPTION TO PRINT MONTHLY JFDS: NO

OPTION TO PRINT SEASONAL JFDS: NO

OPTION TO PRINT STABILITY BY HOUR OF DAY: YES

OPTION TO PLACE JFD IN FILE FORMATTED FOR PAVAN/XOQDOQ: NO

OPTION TO USE 7 WIND SPEED CLASSES

INPUTTED WIND SPEED CLASSES IN MPH : .00 3.50 7.50 12.50 18.50 24.00 .00

PRIMARY MEASUREMENTS BASED ON:

WIND SPEED MEASURED AT 35.0 FEET IN MPH

BAD WIND SPEED DATA CODED: -99.00

WIND SPEED THRESHOLD: 1.00 MPH

WIND DIRECTION MEASURED AT 35.0 FEET

BAD WIND DIRECTION DATA CODED: -99.0

DELTA T MEASURED BETWEEN 250.0 FEET AND 35.0 FEET IN DEG F

BAD DELTA T CODED: -99.00

BACK-UP MEASUREMENTS BASED ON:

NO BACKUP WIND SPEED MEASUREMENTS

NO BACKUP WIND DIRECTION MEASUREMENTS

NO BACKUP STABILITY MEASUREMENTS

WIND SPEED HEIGHT TO BE USED FOR JFD: 35.00 FEET

FORMAT TO READ INPUT DATA: (4(1X,I2),T84,F6.2,T77,F6.2,T126,F6.2,T2,A2,T86,A3,T79,A3,T128,A3)

FIRST DATA RECORD READ: 23 23 1 1 1 6.6 184.4 -.7

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0005G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 8/13/23 - 8/14/23

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

HOURLY STABILITIES
HOURS

[illegible]

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0005G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 8/13/23 - 8/14/23

*** ANNUAL ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0005G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 8/13/23 - 8/14/23

*** ANNUAL ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0005G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 8/13/23 - 8/14/23

*** ANNUAL ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0005G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 8/13/23 - 8/14/23

*** ANNUAL ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]

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PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0005G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 8/13/23 - 8/14/23

*** ANNUAL ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 6

TOTAL NUMBER OF VALID OBSERVATIONS: 6

TOTAL NUMBER OF MISSING OBSERVATIONS: 0

PERCENT DATA RECOVERY FOR THIS PERIOD: 100.0 %

MEAN WIND SPEED FOR THIS PERIOD: 7.0 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
.00	.00	.00	33.33	66.67	.00	.00

DISTRIBUTION OF WIND DIRECTION VS STABILITY

[illegible]

*****DAVIS-BESSE ENVIRONMENTAL COMPLIANCE UNIT ***

2/14/2024
TIME OF DAY: 17:48:58

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PROGRAM: JFD VERSION: PC-1.2

LAST DATA RECORD READ: 23 23 12 31 24 -99.0 -99.0 -99.0

FILES USED THIS RUN ARE:

OPTIONS FILE NAME:JFDB006G.CNT

INPUT FILE NAME :DBHR23R1.PRN

PRINT FILE NAME :JFD2306G.PRT

TIME OF DAY: 17:49:54

PROGRAM: JFD VERSION: PC-1.2

PRINTOUT OF INPUT CONTROL DATA

TITLE: DAVIS-BESSE RELEASE B0006G (75-10 DT, NO BACKUP)*****

BEGIN DATE: 23 9 27 14

END DATE: 23 9 27 18

OPTION TO PRINT MONTHLY JFDS: NO

OPTION TO PRINT SEASONAL JFDS: NO

OPTION TO PRINT STABILITY BY HOUR OF DAY: YES

OPTION TO PLACE JFD IN FILE FORMATTED FOR PAVAN/XOQDOQ: NO

OPTION TO USE 7 WIND SPEED CLASSES

INPUTTED WIND SPEED CLASSES IN MPH : .00 3.50 7.50 12.50 18.50 24.00 .00

PRIMARY MEASUREMENTS BASED ON:

WIND SPEED MEASURED AT 35.0 FEET IN MPH

BAD WIND SPEED DATA CODED: -99.00

WIND SPEED THRESHOLD: 1.00 MPH

WIND DIRECTION MEASURED AT 35.0 FEET

BAD WIND DIRECTION DATA CODED: -99.0

DELTA T MEASURED BETWEEN 250.0 FEET AND 35.0 FEET IN DEG F

BAD DELTA T CODED: -99.00

BACK-UP MEASUREMENTS BASED ON:

NO BACKUP WIND SPEED MEASUREMENTS

NO BACKUP WIND DIRECTION MEASUREMENTS

NO BACKUP STABILITY MEASUREMENTS

WIND SPEED HEIGHT TO BE USED FOR JFD: 35.00 FEET

FORMAT TO READ INPUT DATA: (4(1X,I2),T84,F6.2,T77,F6.2,T126,F6.2,T2,A2,T86,A3,T79,A3,T128,A3)

FIRST DATA RECORD READ: 23 23 1 1 1 6.6 184.4 -.7

*****DAVIS-BESSE ENVIRONMENTAL COMPLIANCE UNIT ***

2/14/2024
TIME OF DAY: 17:49:54

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PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0006G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 9/27/23 - 9/27/23

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

HOURLY STABILITIES
HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
23	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
23	9	27	-	-	-	-	-	-	-	-	-	-	-	-	-	D	D	D	D	E	-	-	-	-	-	

TIME OF DAY: 17:49:54

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0006G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 9/27/23 - 9/27/23

*** ANNUAL ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0006G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 9/27/23 - 9/27/23

*** ANNUAL ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0006G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 9/27/23 - 9/27/23

*** ANNUAL ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0006G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 9/27/23 - 9/27/23

*** ANNUAL ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0006G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 9/27/23 - 9/27/23

*** ANNUAL ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 5

TOTAL NUMBER OF VALID OBSERVATIONS: 5

TOTAL NUMBER OF MISSING OBSERVATIONS: 0

PERCENT DATA RECOVERY FOR THIS PERIOD: 100.0 %

MEAN WIND SPEED FOR THIS PERIOD: 5.9 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
.00	.00	.00	80.00	20.00	.00	.00

DISTRIBUTION OF WIND DIRECTION VS STABILITY

[illegible]

*****DAVIS-BESSE ENVIRONMENTAL COMPLIANCE UNIT ***

2/14/2024
TIME OF DAY: 17:49:54

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PROGRAM: JFD VERSION: PC-1.2

LAST DATA RECORD READ: 23 23 12 31 24 -99.0 -99.0 -99.0

FILES USED THIS RUN ARE:

OPTIONS FILE NAME:JFDB007G.CNT

INPUT FILE NAME :DBHR23R1.PRN

PRINT FILE NAME :JFD2307G.PRT

*****DAVIS-BESSE ENVIRONMENTAL COMPLIANCE UNIT ***

2/14/2024

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TIME OF DAY: 17:51:12

PROGRAM: JFD VERSION: PC-1.2

PRINTOUT OF INPUT CONTROL DATA

TITLE: DAVIS-BESSE RELEASE B0007G (75-10 DT, NO BACKUP)*****

BEGIN DATE: 23 10 1 12

END DATE: 23 10 3 8

OPTION TO PRINT MONTHLY JFDS: NO

OPTION TO PRINT SEASONAL JFDS: NO

OPTION TO PRINT STABILITY BY HOUR OF DAY: YES

OPTION TO PLACE JFD IN FILE FORMATTED FOR PAVAN/XOQDOQ: NO

OPTION TO USE 7 WIND SPEED CLASSES

INPUTTED WIND SPEED CLASSES IN MPH : .00 3.50 7.50 12.50 18.50 24.00 .00

PRIMARY MEASUREMENTS BASED ON:

WIND SPEED MEASURED AT 35.0 FEET IN MPH

BAD WIND SPEED DATA CODED: -99.00

WIND SPEED THRESHOLD: 1.00 MPH

WIND DIRECTION MEASURED AT 35.0 FEET

BAD WIND DIRECTION DATA CODED: -99.0

DELTA T MEASURED BETWEEN 250.0 FEET AND 35.0 FEET IN DEG F

BAD DELTA T CODED: -99.00

BACK-UP MEASUREMENTS BASED ON:

NO BACKUP WIND SPEED MEASUREMENTS

NO BACKUP WIND DIRECTION MEASUREMENTS

NO BACKUP STABILITY MEASUREMENTS

WIND SPEED HEIGHT TO BE USED FOR JFD: 35.00 FEET

FORMAT TO READ INPUT DATA: (4(1X,I2),T84,F6.2,T77,F6.2,T126,F6.2,T2,A2,T86,A3,T79,A3,T128,A3)

FIRST DATA RECORD READ: 23 23 1 1 1 6.6 184.4 -.7

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0007G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 10/ 1/23 - 10/ 3/23

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

HOURLY STABILITIES
HOURS

[illegible]

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0007G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 10/ 1/23 - 10/ 3/23

*** ANNUAL ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0007G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 10/ 1/23 - 10/ 3/23

*** ANNUAL ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]

TIME OF DAY: 17:51:12

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0007G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 10/ 1/23 - 10/ 3/23

*** ANNUAL ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	4
3.51- 7.50	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	4
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	1	5	1	1	0	0	0	0	0	0	0	0	0	8

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	0	0	0	0	0	1	1	5	1	0	2	0	0	0	0	0	10
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	1	1	5	1	0	2	0	0	0	0	0	12

TIME OF DAY: 17:51:12

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0007G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 10/ 1/23 - 10/ 3/23

*** ANNUAL ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	0	0	0	0	0	0	0	1	4	1	2	0	0	0	0	0	8
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	1	4	1	2	0	0	0	0	0	9

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	3
1.01- 3.50	0	0	0	0	4	1	2	6	5	1	4	0	0	0	0	0	23
3.51- 7.50	0	0	1	11	6	1	0	0	0	0	0	0	0	0	0	0	19
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	1	11	10	2	2	6	5	1	4	0	0	0	0	0	45

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0007G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 10/ 1/23 - 10/ 3/23

*** ANNUAL ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 45

TOTAL NUMBER OF VALID OBSERVATIONS: 45

TOTAL NUMBER OF MISSING OBSERVATIONS: 0

PERCENT DATA RECOVERY FOR THIS PERIOD: 100.0 %

MEAN WIND SPEED FOR THIS PERIOD: 3.6 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
.00	4.44	4.44	26.67	17.78	26.67	20.00

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
C	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
D	0	0	1	8	3	0	0	0	0	0	0	0	0	0	0	0	0
E	0	0	0	1	5	1	1	0	0	0	0	0	0	0	0	0	0
F	0	0	0	0	0	1	1	5	1	0	2	0	0	0	0	0	2
G	0	0	0	0	0	0	0	1	4	1	2	0	0	0	0	0	1
TOTAL	0	0	1	11	10	2	2	6	5	1	4	0	0	0	0	0	3

*****DAVIS-BESSE ENVIRONMENTAL COMPLIANCE UNIT ***

2/14/2024
TIME OF DAY: 17:51:12

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PROGRAM: JFD VERSION: PC-1.2

LAST DATA RECORD READ: 23 23 12 31 24 -99.0 -99.0 -99.0

FILES USED THIS RUN ARE:

OPTIONS FILE NAME:JFDB009G.CNT

INPUT FILE NAME :DBHR23R1.PRN

PRINT FILE NAME :JFD2309G.PRT

PROGRAM: JFD VERSION: PC-1.2

PRINTOUT OF INPUT CONTROL DATA

TITLE: DAVIS-BESSE RELEASE B0009G (75-10 DT, NO BACKUP)*****

BEGIN DATE: 23 11 2 4

END DATE: 23 11 2 9

OPTION TO PRINT MONTHLY JFDS: NO

OPTION TO PRINT SEASONAL JFDS: NO

OPTION TO PRINT STABILITY BY HOUR OF DAY: YES

OPTION TO PLACE JFD IN FILE FORMATTED FOR PAVAN/XOQDOQ: NO

OPTION TO USE 7 WIND SPEED CLASSES

INPUTTED WIND SPEED CLASSES IN MPH : .00 3.50 7.50 12.50 18.50 24.00 .00

PRIMARY MEASUREMENTS BASED ON:

WIND SPEED MEASURED AT 35.0 FEET IN MPH

BAD WIND SPEED DATA CODED: -99.00

WIND SPEED THRESHOLD: 1.00 MPH

WIND DIRECTION MEASURED AT 35.0 FEET

BAD WIND DIRECTION DATA CODED: -99.0

DELTA T MEASURED BETWEEN 250.0 FEET AND 35.0 FEET IN DEG F

BAD DELTA T CODED: -99.00

BACK-UP MEASUREMENTS BASED ON:

NO BACKUP WIND SPEED MEASUREMENTS

NO BACKUP WIND DIRECTION MEASUREMENTS

NO BACKUP STABILITY MEASUREMENTS

WIND SPEED HEIGHT TO BE USED FOR JFD: 35.00 FEET

FORMAT TO READ INPUT DATA: (4(1X,I2),T84,F6.2,T77,F6.2,T126,F6.2,T2,A2,T86,A3,T79,A3,T128,A3)

FIRST DATA RECORD READ: 23 23 1 1 1 6.6 184.4 -.7

PAGE 2

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0009G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 11/ 2/23 - 11/ 2/23

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

HOURLY STABILITIES
HOURS

[illegible]

TIME OF DAY: 17:52:31

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0009G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 11/ 2/23 - 11/ 2/23

*** ANNUAL ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

TIME OF DAY: 17:52:31

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0009G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 11/ 2/23 - 11/ 2/23

*** ANNUAL ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0009G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 11/ 2/23 - 11/ 2/23

*** ANNUAL ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

TIME OF DAY: 17:52:31

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0009G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 11/ 2/23 - 11/ 2/23

*** ANNUAL ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0009G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 11/ 2/23 - 11/ 2/23

*** ANNUAL ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 6

TOTAL NUMBER OF VALID OBSERVATIONS: 6

TOTAL NUMBER OF MISSING OBSERVATIONS: 0

PERCENT DATA RECOVERY FOR THIS PERIOD: 100.0 %

MEAN WIND SPEED FOR THIS PERIOD: 6.5 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
.00	.00	.00	33.33	66.67	.00	.00

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0
F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0

*****DAVIS-BESSE ENVIRONMENTAL COMPLIANCE UNIT ***

2/14/2024
TIME OF DAY: 17:52:31

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PROGRAM: JFD VERSION: PC-1.2

LAST DATA RECORD READ: 23 23 12 31 24 -99.0 -99.0 -99.0

FILES USED THIS RUN ARE:

OPTIONS FILE NAME:JFDB010G.CNT

INPUT FILE NAME :DBHR23R1.PRN

PRINT FILE NAME :JFD23B10G.PRT

TIME OF DAY: 17:53:29

PROGRAM: JFD VERSION: PC-1.2

PRINTOUT OF INPUT CONTROL DATA

TITLE: DAVIS-BESSE RELEASE B0010G (75-10 DT, NO BACKUP)*****

BEGIN DATE: 23 11 28 23

END DATE: 23 11 29 3

OPTION TO PRINT MONTHLY JFDS: NO

OPTION TO PRINT SEASONAL JFDS: NO

OPTION TO PRINT STABILITY BY HOUR OF DAY: YES

OPTION TO PLACE JFD IN FILE FORMATTED FOR PAVAN/XOQDOQ: NO

OPTION TO USE 7 WIND SPEED CLASSES

INPUTTED WIND SPEED CLASSES IN MPH : .00 3.50 7.50 12.50 18.50 24.00 .00

PRIMARY MEASUREMENTS BASED ON:

WIND SPEED MEASURED AT 35.0 FEET IN MPH

BAD WIND SPEED DATA CODED: -99.00

WIND SPEED THRESHOLD: 1.00 MPH

WIND DIRECTION MEASURED AT 35.0 FEET

BAD WIND DIRECTION DATA CODED: -99.0

DELTA T MEASURED BETWEEN 250.0 FEET AND 35.0 FEET IN DEG F

BAD DELTA T CODED: -99.00

BACK-UP MEASUREMENTS BASED ON:

NO BACKUP WIND SPEED MEASUREMENTS

NO BACKUP WIND DIRECTION MEASUREMENTS

NO BACKUP STABILITY MEASUREMENTS

WIND SPEED HEIGHT TO BE USED FOR JFD: 35.00 FEET

FORMAT TO READ INPUT DATA: (4(1X,I2),T84,F6.2,T77,F6.2,T126,F6.2,T2,A2,T86,A3,T79,A3,T128,A3)

FIRST DATA RECORD READ: 23 23 1 1 1 6.6 184.4 -.7

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0010G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 11/28/23 - 11/29/23

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

HOURLY STABILITIES
HOURS

[illegible]

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0010G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 11/28/23 - 11/29/23

*** ANNUAL ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED

[illegible]

TIME OF DAY: 17:53:29

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0010G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 11/28/23 - 11/29/23

*** ANNUAL ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	3
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	3

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0010G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 11/28/23 - 11/29/23

*** ANNUAL ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]

TIME OF DAY: 17:53:29

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0010G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 11/28/23 - 11/29/23

*** ANNUAL ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
7.51-12.50	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	4
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	2	2	1	0	0	0	5

PROGRAM: JFD VERSION: PC-1.2

DAVIS-BESSE RELEASE B0010G (75-10 DT, NO BACKUP)*****

SITE IDENTIFIER: 23

DATA PERIOD EXAMINED: 11/28/23 - 11/29/23

*** ANNUAL ***

STABILITY BASED ON: DELTA T BETWEEN 250.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 5

TOTAL NUMBER OF VALID OBSERVATIONS: 5

TOTAL NUMBER OF MISSING OBSERVATIONS: 0

PERCENT DATA RECOVERY FOR THIS PERIOD: 100.0 %

MEAN WIND SPEED FOR THIS PERIOD: 9.0 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
.00	.00	.00	60.00	40.00	.00	.00

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
E	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	2	2	1	0	0	0	0

*****DAVIS-BESSE ENVIRONMENTAL COMPLIANCE UNIT ***

2/14/2024
TIME OF DAY: 17:53:29

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PROGRAM: JFD VERSION: PC-1.2

LAST DATA RECORD READ: 23 23 12 31 24 -99.0 -99.0 -99.0

FILES USED THIS RUN ARE:

OPTIONS FILE NAME:SUMAN.CNT

INPUT FILE NAME :DBHR23R2.PRN

PRINT FILE NAME :DBSUM23.PRT

OUTPUT FILE NAME :DBSUM23.OUT

PAGE

TIME OF DAY: 15:32: 7

NUMBER OF VARIABLES = 18

```
START DATE: 23010101
END DATE: 23123124
```

[illegible]

23	1	1	3	204.5	12.9	6.5	34.7	999.0	203.7	11.9	7.5	35.3	173.0	6.5	12.4	36.1	999.0	-1.3	999.0
-.	8			.0															
23	1	1	4	210.3	8.2	5.0	35.2	999.0	208.2	7.8	4.6	35.7	161.9	3.4	6.6	36.4	999.0	-1.1	999.0
-.	6			.0															
23	1	1	5	213.4	9.3	4.1	35.6	999.0	210.4	6.7	4.4	36.1	164.1	4.4	8.6	36.5	999.0	-1.0	999.0
-.	5			.0															
23	1	1	6	145.2	3.6	41.3	36.0	999.0	134.3	4.7	44.0	36.4	129.6	3.5	12.6	36.9	999.0	-.9	999.0
-.	4			.0															

LAST RECORD READ 23 12 31 24

TIME OF DAY: 15:32: 7

PROGRAM: SUMMARY
VERSION: PC-1.0
SUMMARY OF METEOROLOGICAL DATA 2023

SUMMARY STATISTICS FOR JAN DATA SET: DBHR23R2.PRN

VARIABLE	COUNT	MEAN	MIN	DATE	MAX	DATE
-----	-----	-----	-----	-----	-----	-----
WIND DIR 100M	744	207.641	.810	23011216	358.600	23012224
WIND SPEED 100M	744	15.567	1.710	23013009	35.180	23011907
SIGMA THETA 100M	744	5.748	.790	23011105	55.060	23011918
TEMPERATURE 100M	721	33.317	10.810	23013104	57.270	23010414
DEW POINT 100M	0	.000	99999.900	0-99999.900		0
WIND DIR 75M	711	204.339	1.500	23011215	358.800	23011216
WIND SPEED 75M	742	14.404	1.290	23011208	32.640	23011713
SIGMA THETA 75M	709	6.074	.250	23011008	54.750	23011918
TEMPERATURE 75M	734	33.751	11.340	23013104	57.810	23010414
WIND DIR 10M	742	194.239	4.780	23010814	356.000	23011216
WIND SPEED 10M	744	8.734	1.120	23013009	22.620	23012001
SIGMA THETA 10M	742	12.759	1.710	23010322	72.400	23010717
TEMPERATURE 10M	744	33.884	12.010	23013106	58.850	23010414
DEW POINT 10M	0	.000	99999.900	0-99999.900		0
DELTA T 100-10	722	-.613	-3.260	23011414	7.970	23010316
DELTA T 100-75	0	.000	99999.900	0-99999.900		0
DELTA T 75-10	738	-.215	-2.650	23011414	7.970	23010323
PRECIPITATION	744	.003	.000	23013124	.230	23010305

TIME OF DAY: 15:32: 7

PROGRAM: SUMMARY
VERSION: PC-1.0
SUMMARY OF METEOROLOGICAL DATA 2023

SUMMARY STATISTICS FOR FEB DATA SET: DBHR23R2.PRN

VARIABLE	COUNT	MEAN	MIN	DATE	MAX	DATE
-----	-----	-----	-----	-----	-----	-----
WIND DIR 100M	672	211.409	.850	23022012	355.900	23020608
WIND SPEED 100M	672	18.673	.630	23022311	49.300	23021511
SIGMA THETA 100M	672	5.701	.080	23022101	54.530	23020616
TEMPERATURE 100M	667	34.753	9.020	23020310	60.970	23020913
DEW POINT 100M	0	.000	99999.900	0-99999.900		0
WIND DIR 75M	672	208.753	4.970	23021603	359.600	23021213
WIND SPEED 75M	672	17.340	1.610	23022311	46.810	23021511
SIGMA THETA 75M	672	6.419	.640	23021406	64.470	23022311
TEMPERATURE 75M	670	34.889	9.600	23020310	61.380	23020913
WIND DIR 10M	671	198.273	3.790	23020609	357.500	23022012
WIND SPEED 10M	672	10.478	1.340	23021208	34.440	23021511
SIGMA THETA 10M	671	12.611	2.980	23021222	89.200	23020616
TEMPERATURE 10M	672	35.199	10.670	23020108	61.610	23021516
DEW POINT 10M	0	.000	99999.900	0-99999.900		0
DELTA T 100-10	665	-.505	-3.990	23020212	7.960	23021208
DELTA T 100-75	0	.000	99999.900	0-99999.900		0
DELTA T 75-10	665	-.292	-3.580	23020212	6.810	23021205
PRECIPITATION	672	.005	.000	23022824	.580	23020906

TIME OF DAY: 15:32: 7

PROGRAM: SUMMARY
VERSION: PC-1.0
SUMMARY OF METEOROLOGICAL DATA 2023

SUMMARY STATISTICS FOR MAR DATA SET: DBHR23R2.PRN

VARIABLE	COUNT	MEAN	MIN	DATE	MAX	DATE
-----	-----	-----	-----	-----	-----	-----
WIND DIR 100M	743	175.919	.900	23030710	358.400	23030709
WIND SPEED 100M	743	18.358	1.870	23031301	54.850	23030319
SIGMA THETA 100M	743	6.115	.500	23032622	55.720	23030115
TEMPERATURE 100M	743	36.948	18.470	23031902	56.000	23031618
DEW POINT 100M	0	.000	99999.900	0-99999.900		0
WIND DIR 75M	743	173.277	.100	23030719	357.900	23030710
WIND SPEED 75M	743	16.878	1.490	23030202	50.780	23030319
SIGMA THETA 75M	743	6.778	1.280	23032122	66.240	23030115
TEMPERATURE 75M	743	37.284	19.050	23031902	56.500	23031618
WIND DIR 10M	743	175.255	1.320	23030710	360.000	23030219
WIND SPEED 10M	743	10.910	1.530	23032721	33.690	23032515
SIGMA THETA 10M	743	12.221	5.560	23032805	61.190	23030115
TEMPERATURE 10M	743	38.003	20.200	23031902	57.570	23032118
DEW POINT 10M	0	.000	99999.900	0-99999.900		0
DELTA T 100-10	743	-1.060	-3.540	23031914	7.970	23032624
DELTA T 100-75	0	.000	99999.900	0-99999.900		0
DELTA T 75-10	743	-.721	-2.910	23031914	6.550	23030118
PRECIPITATION	744	.003	.000	23033124	.240	23030318

TIME OF DAY: 15:32: 7

PROGRAM: SUMMARY
VERSION: PC-1.0
SUMMARY OF METEOROLOGICAL DATA 2023

SUMMARY STATISTICS FOR APR DATA SET: DBHR23R2.PRN

VARIABLE	COUNT	MEAN	MIN	DATE	MAX	DATE
WIND DIR 100M	709	182.016	3.490	23042524	355.500	23042607
WIND SPEED 100M	678	16.539	.690	23042511	45.150	23040112
SIGMA THETA 100M	708	6.498	.490	23041422	103.900	23041921
TEMPERATURE 100M	645	49.322	31.910	23041713	77.950	23041319
DEW POINT 100M	0	.000	99999.900	0-99999.900		0
WIND DIR 75M	709	178.657	4.470	23042524	354.100	23042607
WIND SPEED 75M	683	15.298	1.930	23041521	41.700	23040112
SIGMA THETA 75M	708	7.196	.840	23041322	103.900	23041921
TEMPERATURE 75M	654	49.641	32.390	23041713	78.420	23041319
WIND DIR 10M	712	177.028	3.040	23042516	358.800	23042607
WIND SPEED 10M	710	9.253	.550	23041520	29.350	23040113
SIGMA THETA 10M	712	13.223	3.540	23041404	78.300	23042608
TEMPERATURE 10M	663	50.023	33.560	23041713	80.030	23041318
DEW POINT 10M	0	.000	99999.900	0-99999.900		0
DELTA T 100-10	648	-.664	-4.000	23043011	7.970	23041107
DELTA T 100-75	0	.000	99999.900	0-99999.900		0
DELTA T 75-10	666	-.228	-3.970	23043011	7.970	23041408
PRECIPITATION	720	.003	.000	23043023	.190	23042921

TIME OF DAY: 15:32: 7

PROGRAM: SUMMARY
VERSION: PC-1.0
SUMMARY OF METEOROLOGICAL DATA 2023

SUMMARY STATISTICS FOR MAY DATA SET: DBHR23R2.PRN

VARIABLE	COUNT	MEAN	MIN	DATE	MAX	DATE
-----	-----	-----	-----	-----	-----	-----
WIND DIR 100M	741	139.925	1.090	23050908	359.400	23050904
WIND SPEED 100M	742	14.367	.920	23051006	30.630	23050622
SIGMA THETA 100M	742	6.448	.000	23052203	62.170	23052115
TEMPERATURE 100M	734	58.230	36.160	23050201	78.050	23051919
DEW POINT 100M	0	.000	99999.900	0-99999.900		0
WIND DIR 75M	742	131.167	.840	23050803	358.600	23050908
WIND SPEED 75M	742	12.944	1.070	23051108	28.170	23050311
SIGMA THETA 75M	742	7.340	.470	23051905	91.700	23051108
TEMPERATURE 75M	740	58.241	36.740	23050201	78.450	23051918
WIND DIR 10M	740	137.118	.140	23052411	358.700	23050415
WIND SPEED 10M	742	8.040	1.250	23051007	21.470	23052420
SIGMA THETA 10M	742	14.294	.100	23051008	81.300	23050707
TEMPERATURE 10M	743	58.221	36.970	23050201	79.570	23051917
DEW POINT 10M	0	.000	99999.900	0-99999.900		0
DELTA T 100-10	731	-.102	-3.990	23052011	7.990	23051524
DELTA T 100-75	0	.000	99999.900	0-99999.900		0
DELTA T 75-10	717	.008	-3.590	23052011	7.970	23053024
PRECIPITATION	744	.000	.000	23053124	.030	23050201

TIME OF DAY: 15:32: 7

PROGRAM: SUMMARY
VERSION: PC-1.0
SUMMARY OF METEOROLOGICAL DATA 2023

SUMMARY STATISTICS FOR JUNE DATA SET: DBHR23R2.PRN

VARIABLE	COUNT	MEAN	MIN	DATE	MAX	DATE
-----	-----	-----	-----	-----	-----	-----
WIND DIR 100M	702	150.574	.640	23061609	359.800	23061015
WIND SPEED 100M	703	13.466	1.030	23062324	38.540	23062519
SIGMA THETA 100M	703	7.599	.550	23062906	88.300	23061712
TEMPERATURE 100M	689	67.004	51.940	23061304	82.150	23062918
DEW POINT 100M	0	.000	99999.900	0-99999.900		0
WIND DIR 75M	703	147.132	.260	23061615	359.800	23060805
WIND SPEED 75M	703	12.271	.880	23062324	35.780	23062519
SIGMA THETA 75M	703	8.296	.930	23062424	77.100	23061809
TEMPERATURE 75M	689	67.121	51.090	23061304	83.110	23062918
WIND DIR 10M	703	143.849	.690	23061610	359.500	23061721
WIND SPEED 10M	703	7.475	.860	23061807	23.900	23061201
SIGMA THETA 10M	703	15.689	5.670	23061704	83.800	23061111
TEMPERATURE 10M	693	67.160	50.680	23061304	83.700	23062918
DEW POINT 10M	0	.000	99999.900	0-99999.900		0
DELTA T 100-10	703	-.130	-3.410	23062213	7.970	23061807
DELTA T 100-75	0	.000	99999.900	0-99999.900		0
DELTA T 75-10	703	-.022	-2.900	23060314	7.850	23060107
PRECIPITATION	720	.004	.000	23063024	.990	23061519

TIME OF DAY: 15:32: 7

PROGRAM: SUMMARY
VERSION: PC-1.0
SUMMARY OF METEOROLOGICAL DATA 2023

SUMMARY STATISTICS FOR JULY DATA SET: DBHR23R2.PRN

VARIABLE	COUNT	MEAN	MIN	DATE	MAX	DATE
-----	-----	-----	-----	-----	-----	-----
WIND DIR 100M	744	209.629	.990	23072513	359.200	23072917
WIND SPEED 100M	744	11.201	1.280	23070405	31.690	23072623
SIGMA THETA 100M	744	8.665	.800	23072801	74.000	23071422
TEMPERATURE 100M	714	72.823	63.510	23070812	84.770	23072615
DEW POINT 100M	0	.000	99999.900		0-99999.900	0
WIND DIR 75M	744	202.640	.560	23073017	359.000	23072819
WIND SPEED 75M	744	10.236	1.320	23070405	28.900	23072623
SIGMA THETA 75M	744	9.315	.790	23070106	73.000	23072819
TEMPERATURE 75M	715	72.950	63.320	23072408	85.610	23072615
WIND DIR 10M	744	201.501	.130	23072917	358.400	23071812
WIND SPEED 10M	744	5.849	.790	23072123	18.140	23071422
SIGMA THETA 10M	744	17.122	5.160	23073122	81.700	23070622
TEMPERATURE 10M	744	72.910	61.810	23072407	86.550	23072615
DEW POINT 10M	0	.000	99999.900		0-99999.900	0
DELTA T 100-10	742	-.043	-3.620	23070311	7.920	23070504
DELTA T 100-75	0	.000	99999.900		0-99999.900	0
DELTA T 75-10	744	.115	-2.910	23070317	7.390	23070506
PRECIPITATION	744	.007	.000	23073124	.660	23071423

TIME OF DAY: 15:32: 7

PROGRAM: SUMMARY
VERSION: PC-1.0
SUMMARY OF METEOROLOGICAL DATA 2023

SUMMARY STATISTICS FOR AUG DATA SET: DBHR23R2.PRN

VARIABLE	COUNT	MEAN	MIN	DATE	MAX	DATE
WIND DIR 100M	744	189.536	.300	23081320	358.200	23082515
WIND SPEED 100M	744	13.118	1.290	23081107	36.540	23082323
SIGMA THETA 100M	744	7.603	.740	23080822	91.300	23081215
TEMPERATURE 100M	723	69.850	58.250	23081809	84.280	23082419
DEW POINT 100M	0	.000	99999.900	0-99999.900		0
WIND DIR 75M	744	185.120	.940	23082509	359.600	23083015
WIND SPEED 75M	744	12.051	1.660	23082601	34.530	23082323
SIGMA THETA 75M	744	8.154	.690	23080306	87.200	23081215
TEMPERATURE 75M	723	70.016	57.870	23081808	84.680	23082419
WIND DIR 10M	744	181.478	2.540	23082509	359.600	23082515
WIND SPEED 10M	743	7.156	.400	23082822	18.480	23082424
SIGMA THETA 10M	744	15.572	5.370	23080104	81.100	23082522
TEMPERATURE 10M	744	70.075	54.820	23081908	85.780	23082416
DEW POINT 10M	0	.000	99999.900	0-99999.900		0
DELTA T 100-10	742	-.185	-3.420	23081611	7.970	23081907
DELTA T 100-75	0	.000	99999.900	0-99999.900		0
DELTA T 75-10	744	.018	-2.720	23080114	7.570	23081906
PRECIPITATION	744	.010	.000	23083124	2.070	23082324

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TIME OF DAY: 15:32: 7

PROGRAM: SUMMARY
VERSION: PC-1.0
SUMMARY OF METEOROLOGICAL DATA 2023

SUMMARY STATISTICS FOR SEPT DATA SET: DBHR23R2.PRN

VARIABLE	COUNT	MEAN	MIN	DATE	MAX	DATE
-----	-----	-----	-----	-----	-----	-----
WIND DIR 100M	720	154.240	.140	23091316	359.300	23091005
WIND SPEED 100M	720	11.867	1.040	23092910	24.760	23092401
SIGMA THETA 100M	720	7.537	.480	23090124	71.900	23091410
TEMPERATURE 100M	708	66.517	56.860	23091610	85.600	23090518
DEW POINT 100M	0	.000	99999.900	0-99999.900		0
WIND DIR 75M	720	154.529	1.060	23091618	358.900	23091302
WIND SPEED 75M	720	10.887	.680	23092910	23.860	23092323
SIGMA THETA 75M	720	8.140	.530	23092105	78.200	23092113
TEMPERATURE 75M	709	66.710	56.260	23091909	86.470	23090518
WIND DIR 10M	720	154.848	1.780	23090916	359.500	23091008
WIND SPEED 10M	720	6.137	.180	23092907	15.440	23092316
SIGMA THETA 10M	720	16.515	4.450	23091905	70.900	23092910
TEMPERATURE 10M	720	66.648	53.010	23091908	87.550	23090518
DEW POINT 10M	0	.000	99999.900	0-99999.900		0
DELTA T 100-10	715	-.125	-3.590	23091915	7.970	23092108
DELTA T 100-75	0	.000	99999.900	0-99999.900		0
DELTA T 75-10	720	.111	-3.040	23091915	7.970	23090207
PRECIPITATION	720	.002	.000	23093024	.290	23092803

TIME OF DAY: 15:32: 7

PROGRAM: SUMMARY
VERSION: PC-1.0
SUMMARY OF METEOROLOGICAL DATA 2023

SUMMARY STATISTICS FOR OCT DATA SET: DBHR23R2.PRN

VARIABLE	COUNT	MEAN	MIN	DATE	MAX	DATE
-----	-----	-----	-----	-----	-----	-----
WIND DIR 100M	744	209.750	.800	23101604	359.500	23102124
WIND SPEED 100M	744	16.797	1.970	23100209	32.700	23101418
SIGMA THETA 100M	744	5.551	.450	23101124	49.420	23101204
TEMPERATURE 100M	741	55.298	29.760	23103122	81.410	23100416
DEW POINT 100M	0	.000	99999.900	0-99999.900		0
WIND DIR 75M	744	204.588	.020	23102201	359.900	23101424
WIND SPEED 75M	744	15.187	2.120	23100210	29.450	23101412
SIGMA THETA 75M	744	6.210	.610	23100303	47.110	23101204
TEMPERATURE 75M	742	55.500	30.130	23103122	81.920	23100416
WIND DIR 10M	744	207.472	1.650	23101702	359.400	23101604
WIND SPEED 10M	744	8.562	.720	23100207	25.490	23101415
SIGMA THETA 10M	744	14.150	3.290	23100201	96.100	23101208
TEMPERATURE 10M	744	55.300	29.390	23103109	82.970	23100415
DEW POINT 10M	0	.000	99999.900	0-99999.900		0
DELTA T 100-10	741	-.068	-3.580	23102215	7.970	23102308
DELTA T 100-75	0	.000	99999.900	0-99999.900		0
DELTA T 75-10	744	.155	-2.990	23102214	7.970	23102305
PRECIPITATION	744	.003	.000	23103124	.240	23100516

TIME OF DAY: 15:32: 7

PROGRAM: SUMMARY
VERSION: PC-1.0
SUMMARY OF METEOROLOGICAL DATA 2023

SUMMARY STATISTICS FOR NOV DATA SET: DBHR23R2.PRN

VARIABLE	COUNT	MEAN	MIN	DATE	MAX	DATE
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WIND DIR 100M	719	204.640	2.360	23111110	357.700	23112406
WIND SPEED 100M	720	16.939	2.280	23112507	32.800	23110614
SIGMA THETA 100M	720	5.390	.620	23111224	42.700	23110513
TEMPERATURE 100M	717	42.856	17.840	23112903	66.200	23110824
DEW POINT 100M	0	.000	99999.900	0-99999.900		0
WIND DIR 75M	720	197.948	.370	23111718	359.500	23111109
WIND SPEED 75M	720	15.335	2.450	23112508	30.060	23110824
SIGMA THETA 75M	720	5.900	.810	23111422	41.670	23110513
TEMPERATURE 75M	719	42.924	18.020	23112903	66.050	23110824
WIND DIR 10M	720	205.412	.170	23111110	358.600	23110716
WIND SPEED 10M	720	8.346	.110	23112521	19.160	23112713
SIGMA THETA 10M	720	12.969	3.860	23111919	88.500	23111806
TEMPERATURE 10M	720	42.720	18.510	23112902	66.980	23111616
DEW POINT 10M	0	.000	99999.900	0-99999.900		0
DELTA T 100-10	712	.051	-3.540	23110114	7.990	23111605
DELTA T 100-75	0	.000	99999.900	0-99999.900		0
DELTA T 75-10	696	.179	-2.970	23110114	7.970	23111208
PRECIPITATION	720	.001	.000	23113024	.080	23111706

TIME OF DAY: 15:32: 7

PROGRAM: SUMMARY
VERSION: PC-1.0
SUMMARY OF METEOROLOGICAL DATA 2023

SUMMARY STATISTICS FOR DEC DATA SET: DBHR23R2.PRN

VARIABLE	COUNT	MEAN	MIN	DATE	MAX	DATE
-----	-----	-----	-----	-----	-----	-----
WIND DIR 100M	742	215.345	.750	23122806	350.900	23120524
WIND SPEED 100M	743	15.413	2.180	23123119	36.930	23121817
SIGMA THETA 100M	743	4.706	.490	23122121	28.520	23120506
TEMPERATURE 100M	731	40.444	27.490	23121909	59.830	23120916
DEW POINT 100M	0	.000	99999.900	0-99999.900		0
WIND DIR 75M	743	188.659	.350	23122802	360.000	23120208
WIND SPEED 75M	743	14.010	1.150	23122106	35.000	23121817
SIGMA THETA 75M	743	5.332	.720	23121521	82.700	23122106
TEMPERATURE 75M	738	40.456	26.620	23121310	59.920	23120916
WIND DIR 10M	742	219.640	.800	23122815	356.000	23122807
WIND SPEED 10M	743	7.565	.980	23120204	23.950	23121816
SIGMA THETA 10M	743	11.621	2.340	23120201	51.490	23122222
TEMPERATURE 10M	743	40.273	25.840	23121308	60.780	23120916
DEW POINT 10M	0	.000	99999.900	0-99999.900		0
DELTA T 100-10	732	.124	-2.420	23120216	7.990	23122516
DELTA T 100-75	0	.000	99999.900	0-99999.900		0
DELTA T 75-10	743	.305	-3.010	23123011	7.970	23122519
PRECIPITATION	744	.002	.000	23123124	.120	23122304

TIME OF DAY: 15:32: 7

PROGRAM: SUMMARY
VERSION: PC-1.0
SUMMARY OF METEOROLOGICAL DATA 2023

SUMMARY STATISTICS FOR YEAR DATA SET: DBHR23R2.PRN

VARIABLE	COUNT	MEAN	MIN	DATE	MAX	DATE
WIND DIR 100M	8724	187.609	.140	23091316	359.800	23061015
WIND SPEED 100M	8697	15.165	.630	23022311	54.850	23030319
SIGMA THETA 100M	8727	6.464	.000	23052203	103.900	23041921
TEMPERATURE 100M	8533	52.295	9.020	23020310	85.600	23090518
DEW POINT 100M	0	.000	99999.900	0-99999.900		0
WIND DIR 75M	8695	181.300	.020	23102201	360.000	23120208
WIND SPEED 75M	8700	13.877	.680	23092910	50.780	23030319
SIGMA THETA 75M	8692	7.101	.250	23011008	103.900	23041921
TEMPERATURE 75M	8576	52.430	9.600	23020310	86.470	23090518
WIND DIR 10M	8725	183.115	.130	23072917	360.000	23030219
WIND SPEED 10M	8728	8.195	.110	23112521	34.440	23021511
SIGMA THETA 10M	8728	14.067	.100	23051008	96.100	23101208
TEMPERATURE 10M	8673	52.606	10.670	23020108	87.550	23090518
DEW POINT 10M	0	.000	99999.900	0-99999.900		0
DELTA T 100-10	8596	-.273	-4.000	23043011	7.990	23122516
DELTA T 100-75	0	.000	99999.900	0-99999.900		0
DELTA T 75-10	8623	-.047	-3.970	23043011	7.970	23122519
PRECIPITATION	8760	.004	.000	23123124	2.070	23082324

23	1	1	1	222.90	9.99	6.72	35.08	999.00	222.90	11.40	6.56	35.59	184.40	6.59	11.93	36.17	999.00	-1.26	999.00	-0.74	0.00
23	1	1	2	206.50	11.68	5.69	34.80	999.00	205.30	9.98	5.63	35.32	175.40	6.75	12.29	36.14	999.00	-1.46	999.00	-0.95	0.00
23	1	1	3	204.50	12.95	6.46	34.73	999.00	203.70	11.91	7.54	35.26	173.00	6.46	12.41	36.13	999.00	-1.34	999.00	-0.81	0.00
23	1	1	4	210.30	8.19	5.04	35.19	999.00	208.20	7.77	4.63	35.68	161.90	3.36	6.55	36.42	999.00	-1.11	999.00	-0.62	0.00
23	1	1	5	213.40	9.25	4.08	35.63	999.00	210.40	6.68	4.37	36.09	164.10	4.36	8.60	36.54	999.00	-0.99	999.00	-0.51	0.00
23	1	1	6	145.20	3.59	41.32	35.97	999.00	134.30	4.68	44.05	36.43	129.60	3.45	12.65	36.92	999.00	-0.89	999.00	-0.44	0.00
23	1	1	7	141.90	11.54	3.64	35.97	999.00	131.70	9.85	4.26	36.43	137.90	4.74	6.84	36.92	999.00	-0.64	999.00	-0.34	0.00
23	1	1	8	131.00	9.76	2.52	36.21	999.00	121.50	9.09	2.96	36.43	138.20	3.13	3.99	35.97	999.00	0.11	999.00	0.35	0.00
23	1	1	9	157.30	12.59	4.16	36.12	999.00	150.20	11.39	5.23	36.36	147.00	4.93	6.11	36.12	999.00	-0.76	999.00	-0.43	0.00
23	1	1	10	180.70	15.59	4.41	36.49	999.00	174.00	12.30	6.22	36.62	154.80	5.51	8.80	37.17	999.00	-0.37	999.00	-0.37	0.00
23	1	1	11	212.70	15.93	3.64	38.61	999.00	207.90	13.99	4.01	38.62	173.00	6.36	12.51	39.01	999.00	-0.32	999.00	-0.28	0.00
23	1	1	12	214.10	17.72	5.03	41.30	999.00	211.00	14.89	5.67	41.49	183.40	8.94	14.94	42.02	999.00	-1.21	999.00	-0.88	0.00
23	1	1	13	227.50	19.65	4.36	43.32	999.00	225.70	16.62	4.18	43.84	200.70	11.70	14.59	44.67	999.00	-1.04	999.00	-0.46	0.00
23	1	1	14	239.90	17.20	5.44	44.85	999.00	238.80	18.25	5.51	45.46	207.50	9.92	15.53	45.54	999.00	-0.82	999.00	-0.23	0.00
23	1	1	15	242.10	14.83	4.29	45.67	999.00	240.80	14.86	4.39	46.25	199.90	7.70	15.55	46.41	999.00	-0.86	999.00	-0.32	0.00
23	1	1	16	241.40	16.26	5.22	46.14	999.00	239.60	15.26	5.64	46.65	203.50	8.76	14.74	46.67	999.00	-0.54	999.00	-0.06	0.00
23	1	1	17	249.70	17.07	4.30	46.51	999.00	248.20	17.18	4.78	46.94	205.80	8.71	13.40	47.18	999.00	-0.76	999.00	-0.34	0.00
23	1	1	18	242.80	13.18	4.23	46.33	999.00	241.70	12.73	4.10	46.74	190.00	5.88	11.65	46.75	999.00	-0.38	999.00	0.02	0.00
23	1	1	19	237.20	12.46	3.25	46.43	999.00	233.10	10.86	3.15	46.78	176.30	5.50	6.05	45.93	999.00	0.50	999.00	0.83	0.00
23	1	1	20	227.80	12.87	2.46	46.45	999.00	221.90	11.29	2.58	46.73	163.50	3.90	6.87	45.94	999.00	0.48	999.00	0.75	0.00
23	1	1	21	234.90	12.78	1.75	46.42	999.00	229.10	10.59	2.00	46.58	170.40	4.44	2.94	45.61	999.00	0.87	999.00	0.99	0.00
23	1	1	22	220.20	12.57	1.41	46.24	999.00	210.80	10.90	1.81	46.35	154.50	3.33	3.79	45.18	999.00	1.20	999.00	1.27	0.00
23	1	1	23	213.20	13.98	2.59	45.92	999.00	204.20	11.07	2.98	45.90	155.70	3.18	5.28	44.56	999.00	1.59	999.00	1.52	0.00
23	1	1	24	226.60	16.66	3.25	45.78	999.00	220.60	13.91	3.21	45.59	165.70	4.15	6.78	44.07	999.00	1.61	999.00	1.43	0.00
23	1	2	1	243.00	17.59	2.67	45.69	999.00	238.00	13.06	2.66	45.52	173.30	4.93	6.06	44.34	999.00	1.75	999.00	1.52	0.00
23	1	2	2	248.00	13.95	3.11	45.92	999.00	240.00	10.39	3.79	45.63	159.70	3.52	6.85	44.58	999.00	1.01	999.00	0.85	0.00
23	1	2	3	248.10	13.73	2.98	45.92	999.00	240.90	11.41	4.30	45.63	156.00	3.27	5.96	44.58	999.00	1.13	999.00	1.16	0.00
23	1	2	4	249.60	13.37	3.95	45.96	999.00	243.60	12.51	4.10	46.20	191.60	6.93	8.57	45.30	999.00	0.29	999.00	0.64	0.00
23	1	2	5	271.90	6.41	8.18	45.24	999.00	266.60	6.28	10.10	45.65	163.30	3.21	5.11	45.69	999.00	-0.49	999.00	-0.05	0.00
23	1	2	6	253.80	2.52	9.57	44.85	999.00	249.00	3.21	13.14	45.32	138.70	2.05	1.98	45.35	999.00	-0.30	999.00	0.19	0.00
23	1	2	7	85.80	1.76	16.87	44.64	999.00	87.70	1.44	20.03	45.12	141.10	1.90	2.58	44.63	999.00	0.83	999.00	1.33	0.00
23	1	2	8	82.40	3.11	37.34	44.42	999.00	81.00	3.35	39.51	44.87	140.50	2.18	4.30	43.60	999.00	1.10	999.00	1.54	0.00
23	1	2	9	128.70	2.90	13.16	44.53	999.00	123.40	3.70	16.83	44.97	138.80	1.13	6.10	42.76	999.00	1.67	999.00	2.13	0.00
23	1	2	10	22.53	4.39	9.02	44.56	999.00	19.77	4.79	7.95	44.64	89.90	4.75	11.54	40.81	999.00	3.99	999.00	3.57	0.00
23	1	2	11	93.20	3.94	7.01	43.21	999.00	58.70	4.48	7.07	42.47	127.90	3.42	8.36	38.92	999.00	4.52	999.00	3.56	0.00
23	1	2	12	91.20	7.00	2.96	42.75	999.00	80.00	7.38	3.14	41.39	126.90	3.98	8.08	39.43	999.00	3.51	999.00	1.98	0.00
23	1	2	13	50.02	5.92	8.38	40.02	999.00	30.11	5.52	6.81	38.73	95.20	5.18	19.61	37.77	999.00	1.13	999.00	0.26	0.00
23	1	2	14	41.97	5.65	8.50	38.02	999.00	21.28	6.98	5.42	37.06	91.70	5.09	16.08	35.75	999.00	2.39	999.00	1.37	0.00
23	1	2	15	35.42	5.92	18.31	38.41	999.00	15.80	6.37	5.70	37.49	102.70	4.51	13.22	36.09	999.00	2.45	999.00	1.34	0.00
23	1	2	16	77.60	7.46	3.18	40.20	999.00	74.80	6.45	2.58	38.85	134.60	2.55	5.02	36.37	999.00	3.94	999.00	2.92	0.00
23	1	2	17	66.92	11.26	3.74	41.48	999.00	68.91	9.18	3.40	40.25	112.40	4.72	10.80	36.99	999.00	3.74	999.00	2.70	0.00
23	1	2	18	74.00	16.03	1.06	40.84	999.00	73.90	14.18	1.86	39.67	136.40	3.06	5.83	36.03	999.00	5.14	999.00	3.73	0.00
23	1	2	19	76.70	19.95	1.84	40.77	999.00	76.30	17.74	2.24	39.64	105.40	7.85	16.46	36.35	999.00	3.62	999.00	1.98	0.00
23	1	2	20	80.20	20.49	1.56	40.17	999.00	83.60	17.33	2.38	38.71	109.40	6.84	13.14	36.26	999.00	4.48	999.00	3.27	0.00
23	1	2	21	95.60	23.82	3.99	40.08	999.00	94.30	18.71	4.91	38.59	120.10	6.75	13.47	36.13	999.00	3.29	999.00	1.59	0.00
23	1	2	22	96.60	16.50	2.04	39.88	999.00	98.00	14.29	3.57	39.04	125.10	4.36	11.70	37.31	999.00	2.98	999.00	2.09	0.00
23	1	2	23	85.00	22.63	1.30	41.85	999.00	78.50	17.61	2.81	40.12	95.00	8.03	14.30	37.39	999.00	5.86	999.00	3.11	0.00
23	1	2	24	105.60	16.66	1.79	41.83	999.00	91.30	14.09	1.83	39.45	108.30	4.84	11.98	35.88	999.00	6.97	999.00	3.91	0.00
23	1	3	1	108.80	13.95	1.53	43.53	999.00	102.90	11.66	3.17	40.96	116.10	4.26	12.19	36.00	999.00	7.53	999.00	5.05	0.00
23	1	3	2	118.00	15.45	3.05	43.53	999.00	106.70	12.47	2.42	40.96	118.10	5.47	12.50	36.00	999.00	999.00	999.00	5.55	0.00
23	1	3	3	112.70	16.88	1.60	999.00	999.00	94.30	16.52	3.42	43.04	109.10	7.75	12.67	36.19	999.00	999.00	999.00	6.54	0.00
23	1	3	4	117.80	16.03	2.37	999.00	999.00	100.10	14.09	2.08	43.07	103.90	8.18	13.29	36.29	999.00	999.00	999.00	7.03	0.02
23	1	3	5	95.80	11.38	5.79	44.60	999.00	77.70	16.23	2.72	42.56	92.70	8.93	15.57	36.58	999.00	7.97	999.00	6.83	0.23

23	1	3	6	89.50	18.81	3.51	44.60	999.00	70.70	21.01	3.37	42.56	107.50	7.23	17.66	36.58	999.00	7.50	999.00	2.33	0.06
23	1	3	7	104.60	15.98	2.37	45.59	999.00	83.50	20.42	2.51	42.23	113.70	7.05	12.53	37.59	999.00	999.00	999.00	4.71	0.04
23	1	3	8	136.10	15.29	2.48	999.00	999.00	106.80	17.06	1.93	44.18	117.60	7.37	14.05	36.95	999.00	999.00	999.00	7.80	0.03
23	1	3	9	141.90	15.04	5.89	999.00	999.00	112.90	12.13	7.05	44.02	125.60	3.95	7.99	36.64	999.00	999.00	999.00	6.53	0.09
23	1	3	10	151.00	11.44	4.54	999.00	999.00	107.70	9.11	3.68	44.85	104.80	6.14	10.24	37.19	999.00	999.00	999.00	7.97	0.05
23	1	3	11	147.40	12.08	1.89	999.00	999.00	116.60	9.97	5.49	45.65	120.50	4.12	10.52	37.57	999.00	999.00	999.00	7.97	0.04
23	1	3	12	136.30	7.28	15.09	999.00	999.00	82.90	8.49	12.72	44.34	120.10	3.31	18.76	38.50	999.00	999.00	999.00	2.59	0.08
23	1	3	13	202.70	13.09	6.08	999.00	999.00	198.10	8.76	8.78	44.95	152.20	1.89	8.87	39.60	999.00	999.00	999.00	5.94	0.01
23	1	3	14	273.00	9.49	5.03	43.73	999.00	322.60	6.36	7.85	38.09	37.99	6.24	29.61	38.63	999.00	5.93	999.00	-0.93	0.00
23	1	3	15	315.40	6.62	5.97	43.06	999.00	3.60	4.55	9.92	37.75	111.50	3.79	27.09	36.76	999.00	5.64	999.00	1.12	0.00
23	1	3	16	328.10	5.60	6.78	43.95	999.00	21.77	4.37	8.57	39.38	113.60	4.28	10.93	36.44	999.00	7.97	999.00	3.53	0.00
23	1	3	17	355.20	5.61	9.39	999.00	999.00	29.08	5.20	7.47	40.58	82.60	5.32	12.88	36.09	999.00	999.00	999.00	4.97	0.00
23	1	3	18	44.53	4.57	9.28	999.00	999.00	86.10	6.62	4.33	40.32	116.40	3.76	10.55	35.43	999.00	999.00	999.00	4.34	0.00
23	1	3	19	124.30	5.04	5.31	44.54	999.00	117.20	7.66	6.25	41.00	149.60	1.63	4.88	36.22	999.00	7.87	999.00	3.25	0.01
23	1	3	20	162.20	10.16	11.03	45.40	999.00	158.70	6.25	33.12	42.22	154.10	2.52	25.07	37.64	999.00	999.00	999.00	4.82	0.01
23	1	3	21	190.00	15.19	3.78	999.00	999.00	195.60	5.82	13.57	41.61	147.80	1.84	11.50	38.81	999.00	999.00	999.00	3.45	0.00
23	1	3	22	208.50	19.85	2.91	999.00	999.00	196.00	16.80	2.34	45.95	145.90	1.34	1.71	38.53	999.00	999.00	999.00	7.97	0.00
23	1	3	23	192.90	23.77	1.97	999.00	999.00	187.10	21.00	1.54	45.95	148.00	2.39	2.71	38.53	999.00	999.00	999.00	7.97	0.00
23	1	3	24	189.70	22.98	0.82	55.96	999.00	186.90	20.90	1.18	55.79	156.60	5.41	6.62	44.71	999.00	7.25	999.00	7.08	0.00
23	1	4	1	194.60	22.19	2.89	55.07	999.00	191.00	18.25	3.64	55.19	167.40	7.22	13.12	51.93	999.00	1.26	999.00	1.47	0.00
23	1	4	2	191.10	21.02	2.67	54.51	999.00	188.00	17.85	3.42	54.64	162.80	6.71	9.80	52.99	999.00	2.19	999.00	2.12	0.00
23	1	4	3	195.20	22.25	2.37	54.53	999.00	191.90	18.73	3.08	54.53	168.30	7.30	13.41	52.49	999.00	2.05	999.00	1.99	0.00
23	1	4	4	189.60	21.89	2.98	54.67	999.00	186.80	19.33	3.92	54.60	165.20	7.82	12.73	52.60	999.00	1.88	999.00	1.85	0.00
23	1	4	5	175.40	18.14	3.81	54.91	999.00	171.70	15.81	4.60	54.89	153.00	5.38	9.16	52.96	999.00	1.63	999.00	1.75	0.00
23	1	4	6	173.30	20.62	2.00	54.70	999.00	168.70	16.67	2.87	54.61	151.20	5.84	9.71	52.97	999.00	1.67	999.00	1.52	0.00
23	1	4	7	173.30	21.01	2.88	54.70	999.00	168.80	17.91	3.47	54.66	153.10	7.01	12.49	53.28	999.00	1.25	999.00	1.27	0.00
23	1	4	8	175.00	18.46	4.60	54.77	999.00	172.70	17.14	5.75	54.99	157.80	7.43	12.00	54.19	999.00	0.10	999.00	0.43	0.00
23	1	4	9	177.40	16.71	3.08	55.08	999.00	173.30	14.60	4.04	55.30	154.60	5.79	8.97	54.76	999.00	0.49	999.00	0.68	0.00
23	1	4	10	165.10	14.16	2.17	55.00	999.00	158.80	12.79	2.83	55.14	144.40	4.71	2.10	54.40	999.00	0.38	999.00	0.49	0.00
23	1	4	11	167.60	14.42	2.13	54.86	999.00	162.50	13.33	2.59	54.94	146.70	4.12	4.76	54.42	999.00	0.28	999.00	0.48	0.00
23	1	4	12	165.20	13.87	3.75	55.45	999.00	158.50	11.97	4.74	55.73	145.90	5.65	6.86	55.76	999.00	-0.70	999.00	-0.32	0.00
23	1	4	13	187.30	9.55	8.05	56.09	999.00	183.30	8.62	8.78	56.72	159.10	5.29	11.08	57.45	999.00	-1.57	999.00	-0.88	0.00
23	1	4	14	202.70	10.30	7.04	57.27	999.00	199.50	10.12	7.93	57.81	167.80	5.67	13.41	58.85	999.00	-1.71	999.00	-1.16	0.00
23	1	4	15	256.10	24.55	7.29	56.59	999.00	255.60	20.09	8.66	57.12	234.30	15.16	23.67	58.30	999.00	-2.21	999.00	-1.66	0.08
23	1	4	16	259.10	28.29	4.50	53.93	999.00	258.90	25.16	5.26	54.48	240.40	17.70	18.00	56.16	999.00	-1.02	999.00	-0.52	0.00
23	1	4	17	247.90	23.34	3.29	52.21	999.00	246.70	22.43	4.53	52.66	218.00	12.36	17.32	53.29	999.00	-0.76	999.00	-0.41	0.00
23	1	4	18	232.90	30.28	3.21	49.51	999.00	231.70	27.73	3.51	49.92	216.60	19.44	14.78	49.99	999.00	-0.46	999.00	0.00	0.00
23	1	4	19	243.20	23.71	4.42	45.69	999.00	241.40	21.28	5.16	46.11	216.90	13.35	17.86	46.23	999.00	-0.70	999.00	-0.28	0.00
23	1	4	20	236.70	25.11	5.07	43.21	999.00	235.30	23.45	5.32	43.65	217.10	15.73	17.51	44.01	999.00	-0.87	999.00	-0.38	0.00
23	1	4	21	245.90	22.49	5.18	39.27	999.00	244.20	21.03	5.65	39.75	219.30	13.26	18.63	40.32	999.00	-1.15	999.00	-0.66	0.00
23	1	4	22	258.70	22.51	6.40	37.31	999.00	258.30	21.93	6.75	37.77	227.80	13.02	19.09	38.36	999.00	-1.07	999.00	-0.62	0.00
23	1	4	23	243.80	21.48	4.84	36.70	999.00	242.80	18.60	6.04	37.17	216.90	12.33	18.06	37.84	999.00	-1.30	999.00	-0.79	0.00
23	1	4	24	244.90	21.37	4.95	36.33	999.00	243.40	19.41	5.44	36.84	218.20	13.19	15.42	37.70	999.00	-1.42	999.00	-0.92	0.00
23	1	5	1	232.40	16.82	5.41	36.64	999.00	228.60	17.43	5.28	37.09	197.30	10.41	14.20	37.92	999.00	-1.29	999.00	-0.84	0.00
23	1	5	2	222.00	17.21	6.41	36.64	999.00	220.50	17.23	6.71	37.09	193.90	10.74	15.42	37.92	999.00	-1.51	999.00	-0.98	0.00
23	1	5	3	228.30	18.23	4.74	35.26	999.00	226.20	17.70	5.22	35.79	200.80	12.22	14.01	36.78	999.00	-1.54	999.00	-1.01	0.00
23	1	5	4	219.90	16.80	4.33	35.06	999.00	217.00	15.20	4.78	35.57	187.40	9.27	14.45	36.49	999.00	-1.44	999.00	-0.95	0.00
23	1	5	5	212.40	15.60	4.67	34.83	999.00	210.10	14.00	5.23	35.31	178.80	7.85	12.84	36.23	999.00	-1.38	999.00	-0.91	0.00
23	1	5	6	213.60	14.71	5.30	35.43	999.00	211.30	12.99	6.07	35.87	178.30	7.57	13.28	36.71	999.00	-1.26	999.00	-0.81	0.00
23	1	5	7	203.70	13.19	3.87	35.84	999.00	200.00	11.94	4.26	36.26	163.10	5.65	10.88	36.96	999.00	-1.04	999.00	-0.62	0.00
23	1	5	8	182.60	15.78	3.55	35.80	999.00	179.50	13.82	4.47	36.17	159.50	7.17	9.90	36.77	999.00	-1.08	999.00	-0.69	0.00
23	1	5	9	185.40	16.18	4.25	35.80	999.00	182.60	14.83	4.92	36.17	164.30	8.40	12.21	36.77	999.00	-1.43	999.00	-0.97	0.00
23	1	5	10	191.10	17.23	4.58	35.64	999.00	189.40	15.38	5.57	36.14	169.70	8.35	16.17	37.19	999.00	-1.61	999.00	-1.08	0.00

23	1	5	11	198.90	15.32	5.96	36.54	999.00	197.60	16.18	5.92	37.09	176.70	8.89	16.18	38.39	999.00	-2.01	999.00	-1.46	0.00
23	1	5	12	194.20	14.98	8.49	38.84	999.00	193.90	13.39	8.98	39.50	178.40	10.03	18.63	41.47	999.00	-3.11	999.00	-2.37	0.00
23	1	5	13	194.10	19.17	5.44	38.84	999.00	193.70	15.83	6.55	39.50	177.10	11.47	16.19	41.47	999.00	-2.40	999.00	-1.83	0.00
23	1	5	14	218.20	22.13	7.05	42.13	999.00	216.60	23.55	7.68	42.67	201.00	14.98	16.03	44.29	999.00	-1.88	999.00	-1.34	0.00
23	1	5	15	226.20	21.00	3.99	41.52	999.00	225.90	23.59	4.72	42.05	208.60	14.50	15.19	43.24	999.00	-1.51	999.00	-1.01	0.00
23	1	5	16	213.70	20.23	5.49	41.11	999.00	212.90	15.38	6.23	41.63	192.70	11.76	15.74	42.70	999.00	-1.51	999.00	-1.02	0.00
23	1	5	17	236.00	19.31	4.50	40.93	999.00	235.70	18.66	4.56	41.44	211.80	11.85	16.16	42.33	999.00	-1.36	999.00	-0.85	0.00
23	1	5	18	228.20	21.92	6.99	39.10	999.00	226.50	19.52	5.83	39.64	208.10	14.90	15.29	40.47	999.00	-1.35	999.00	-0.81	0.00
23	1	5	19	234.40	21.75	4.76	36.38	999.00	234.30	19.71	5.26	36.94	216.70	14.42	16.34	37.88	999.00	-1.49	999.00	-0.93	0.00
23	1	5	20	251.20	18.85	5.40	36.38	999.00	249.70	15.72	6.76	36.94	222.20	10.91	18.88	37.88	999.00	-1.46	999.00	-0.94	0.00
23	1	5	21	238.80	17.16	5.28	32.67	999.00	238.40	16.76	5.74	33.19	211.70	11.14	15.84	34.04	999.00	-1.35	999.00	-0.85	0.01
23	1	5	22	227.50	16.46	5.83	32.16	999.00	223.70	13.33	6.05	32.62	198.70	10.61	14.41	33.13	999.00	-1.02	999.00	-0.52	0.00
23	1	5	23	243.80	14.39	5.41	32.16	999.00	999.00	14.16	999.00	32.65	206.40	8.55	14.56	33.00	999.00	-0.87	999.00	-0.41	0.00
23	1	5	24	244.80	13.70	6.91	32.06	999.00	999.00	12.22	999.00	32.52	204.10	8.20	14.08	32.97	999.00	-0.88	999.00	-0.44	0.00
23	1	6	1	239.70	11.76	5.03	32.15	999.00	999.00	10.99	999.00	32.64	199.90	7.92	14.77	32.95	999.00	-0.80	999.00	-0.29	0.00
23	1	6	2	243.90	17.11	5.08	32.12	999.00	241.60	15.72	5.86	32.63	213.60	10.86	15.81	32.83	999.00	-0.77	999.00	-0.24	0.00
23	1	6	3	245.80	16.24	6.20	32.12	999.00	243.90	13.84	7.65	32.63	212.30	9.70	17.56	32.83	999.00	-0.78	999.00	-0.24	0.00
23	1	6	4	249.90	15.52	4.94	31.61	999.00	247.10	14.71	5.28	32.14	215.70	9.73	19.73	32.60	999.00	-1.11	999.00	-0.58	0.00
23	1	6	5	245.40	13.21	5.45	31.66	999.00	243.20	12.70	6.44	32.20	207.30	8.31	15.62	32.86	999.00	-1.27	999.00	-0.73	0.00
23	1	6	6	241.50	14.57	6.26	31.56	999.00	239.40	12.68	6.54	32.12	210.30	9.62	16.70	32.97	999.00	-1.41	999.00	-0.86	0.00
23	1	6	7	239.40	14.42	4.86	31.21	999.00	237.50	13.48	4.75	31.74	208.50	10.09	14.02	32.52	999.00	-1.24	999.00	-0.74	0.00
23	1	6	8	239.00	14.41	5.30	31.06	999.00	237.10	13.55	5.51	31.58	203.60	9.35	16.31	32.29	999.00	-1.23	999.00	-0.70	0.00
23	1	6	9	236.20	14.38	5.01	31.37	999.00	233.40	13.50	4.63	31.90	202.30	9.94	15.18	32.67	999.00	-1.36	999.00	-0.83	0.00
23	1	6	10	242.20	16.20	5.38	31.37	999.00	240.80	15.10	5.72	31.90	211.70	10.51	18.77	32.67	999.00	-1.23	999.00	-0.67	0.00
23	1	6	11	243.90	16.71	5.70	32.24	999.00	241.90	14.93	6.45	32.82	216.30	12.17	16.72	33.46	999.00	-1.28	999.00	-0.63	0.00
23	1	6	12	240.20	15.84	5.22	32.79	999.00	238.60	15.55	5.49	33.46	211.70	11.86	15.66	34.09	999.00	-1.41	999.00	-0.73	0.00
23	1	6	13	240.20	16.50	4.84	33.71	999.00	239.40	15.12	5.27	34.40	214.80	12.41	16.81	35.34	999.00	-1.63	999.00	-0.91	0.00
23	1	6	14	242.80	16.67	5.94	34.35	999.00	240.00	16.54	6.32	35.08	213.80	11.31	17.15	36.27	999.00	-2.05	999.00	-1.33	0.00
23	1	6	15	244.90	16.83	4.53	34.65	999.00	243.00	15.52	6.24	35.36	214.70	11.01	16.70	36.67	999.00	-1.95	999.00	-1.27	0.00
23	1	6	16	241.30	18.56	4.88	34.39	999.00	240.70	17.23	5.88	34.99	214.00	11.98	16.17	36.06	999.00	-1.61	999.00	-1.03	0.00
23	1	6	17	240.10	15.82	7.13	33.63	999.00	237.30	14.22	7.55	34.20	208.30	10.70	18.68	35.20	999.00	-1.59	999.00	-1.03	0.00
23	1	6	18	235.80	12.92	3.90	32.92	999.00	233.10	12.93	4.18	33.47	199.00	9.13	14.58	34.38	999.00	-1.37	999.00	-0.83	0.00
23	1	6	19	231.80	13.31	3.57	31.78	999.00	229.50	12.18	4.22	32.28	193.00	8.58	12.22	32.99	999.00	-1.12	999.00	-0.60	0.00
23	1	6	20	235.40	15.43	4.18	32.17	999.00	234.00	15.83	4.94	32.71	206.60	10.55	16.08	33.10	999.00	-0.92	999.00	-0.35	0.00
23	1	6	21	235.50	18.23	5.14	31.91	999.00	233.80	15.98	6.23	32.47	213.30	12.62	15.98	32.82	999.00	-0.83	999.00	-0.28	0.00
23	1	6	22	232.00	14.48	3.98	30.79	999.00	230.30	13.91	4.16	31.32	201.30	10.15	15.06	31.99	999.00	-1.39	999.00	-0.88	0.00
23	1	6	23	232.60	15.02	4.82	30.43	999.00	230.30	13.60	4.97	30.98	200.90	10.06	15.65	31.72	999.00	-1.08	999.00	-0.52	0.00
23	1	6	24	241.00	15.35	4.38	999.00	999.00	238.90	13.54	4.49	999.00	207.10	9.94	15.56	31.69	999.00	-1.17	999.00	-0.59	0.00
23	1	7	1	240.00	15.15	4.34	30.48	999.00	238.10	13.49	5.05	31.05	208.40	10.43	14.14	31.78	999.00	-1.39	999.00	-0.83	0.00
23	1	7	2	244.00	13.07	5.18	30.27	999.00	241.70	12.74	6.89	30.83	203.20	7.78	15.40	31.76	999.00	-1.55	999.00	-0.98	0.00
23	1	7	3	241.90	12.41	6.28	29.73	999.00	239.60	10.97	6.97	30.29	204.00	8.53	14.34	31.28	999.00	-1.53	999.00	-0.96	0.00
23	1	7	4	254.10	12.40	4.47	29.60	999.00	252.30	10.97	4.53	30.15	208.00	7.60	15.93	31.10	999.00	-1.47	999.00	-0.94	0.00
23	1	7	5	246.10	9.01	5.68	29.50	999.00	239.00	8.88	8.03	30.03	191.70	6.17	12.77	30.98	999.00	-1.54	999.00	-0.99	0.00
23	1	7	6	247.70	9.56	4.64	29.45	999.00	999.00	8.26	999.00	29.98	193.90	6.51	11.96	30.97	999.00	-1.51	999.00	-1.00	0.00
23	1	7	7	249.90	9.67	5.33	29.57	999.00	999.00	8.69	999.00	30.07	190.80	5.75	12.39	30.99	999.00	-1.43	999.00	-0.91	0.00
23	1	7	8	252.30	10.32	6.41	29.71	999.00	999.00	9.02	999.00	30.20	196.30	6.10	13.01	31.12	999.00	-1.41	999.00	-0.92	0.00
23	1	7	9	272.20	12.88	3.78	29.93	999.00	265.60	11.60	4.70	30.33	204.50	6.41	16.99	31.19	999.00	-1.26	999.00	-0.90	0.00
23	1	7	10	266.00	10.90	5.39	30.42	999.00	261.60	9.74	7.19	30.85	201.60	6.28	14.64	31.87	999.00	-1.58	999.00	-1.11	0.00
23	1	7	11	289.90	11.79	5.91	31.32	999.00	288.80	10.58	6.47	31.88	251.90	9.07	22.79	33.17	999.00	-1.89	999.00	-1.30	0.00
23	1	7	12	302.60	13.99	4.78	31.89	999.00	302.70	12.95	4.93	32.45	280.50	9.83	33.26	33.44	999.00	-1.50	999.00	-0.94	0.00
23	1	7	13	299.20	9.36	6.07	31.92	999.00	296.30	8.50	5.78	32.48	242.20	6.71	46.52	33.45	999.00	-1.53	999.00	-0.97	0.00
23	1	7	14	302.90	9.55	11.08	32.20	999.00	298.10	8.77	4.07	32.78	271.70	7.30	63.95	33.97	999.00	-1.91	999.00	-1.34	0.00
23	1	7	15	311.50	8.59	7.53	31.94	999.00	999.00	8.66	999.00	32.51	271.90	6.71	60.61	33.76	999.00	-1.82	999.00	-1.25	0.00

23	1	7	16	333.30	9.40	4.79	31.30	999.00	999.00	9.76	999.00	31.85	14.40	7.23	35.82	32.99	999.00	-1.65	999.00	-1.12	0.00
23	1	7	17	330.60	8.60	4.36	30.96	999.00	999.00	7.94	999.00	31.40	32.42	5.42	72.40	32.45	999.00	-1.37	999.00	-1.02	0.00
23	1	7	18	324.50	5.21	13.47	31.35	999.00	999.00	5.37	999.00	31.83	134.30	3.75	31.40	32.80	999.00	-1.47	999.00	-0.98	0.00
23	1	7	19	303.80	5.05	11.98	31.56	999.00	999.00	4.57	999.00	32.05	161.90	3.45	31.66	32.95	999.00	-1.33	999.00	-0.83	0.00
23	1	7	20	335.40	5.39	7.39	31.56	999.00	999.00	5.78	999.00	32.05	312.00	3.10	13.13	32.95	999.00	-1.48	999.00	-0.97	0.00
23	1	7	21	333.90	7.39	13.71	31.50	999.00	999.00	6.22	999.00	32.02	339.80	5.15	11.83	33.00	999.00	-1.53	999.00	-1.00	0.00
23	1	7	22	27.49	5.64	13.87	31.17	999.00	999.00	4.23	999.00	31.70	45.64	5.15	20.93	32.76	999.00	-1.56	999.00	-1.05	0.00
23	1	7	23	49.97	7.32	4.55	30.38	999.00	999.00	6.24	999.00	30.88	49.21	5.39	11.07	31.95	999.00	-1.61	999.00	-1.08	0.00
23	1	7	24	49.75	5.71	4.23	30.20	999.00	999.00	5.64	999.00	30.72	67.10	4.34	9.10	31.72	999.00	-1.55	999.00	-1.00	0.00
23	1	8	1	56.35	5.86	5.77	30.21	999.00	999.00	5.36	999.00	30.74	66.61	4.12	9.65	31.79	999.00	-1.57	999.00	-1.05	0.00
23	1	8	2	48.85	4.73	6.75	30.07	999.00	999.00	4.22	999.00	30.62	52.64	3.77	8.77	31.67	999.00	-1.61	999.00	-1.07	0.00
23	1	8	3	31.92	3.62	18.94	30.08	999.00	999.00	3.77	999.00	30.59	17.68	3.90	16.32	31.68	999.00	-1.58	999.00	-1.08	0.00
23	1	8	4	100.10	5.34	6.49	30.30	999.00	999.00	4.67	999.00	30.81	73.60	2.93	18.04	31.84	999.00	-1.45	999.00	-0.94	0.00
23	1	8	5	102.00	5.91	8.48	30.45	999.00	110.20	5.88	999.00	30.96	94.90	3.22	16.09	31.90	999.00	-1.46	999.00	-0.94	0.00
23	1	8	6	120.50	3.81	12.39	30.51	999.00	999.00	4.90	999.00	31.02	118.60	2.50	15.30	31.99	999.00	-1.50	999.00	-0.96	0.00
23	1	8	7	137.00	5.74	7.91	30.56	999.00	999.00	5.67	999.00	31.04	138.80	3.07	12.47	31.96	999.00	-1.25	999.00	-0.76	0.00
23	1	8	8	147.90	5.68	14.80	30.63	999.00	999.00	7.00	999.00	31.07	142.90	2.25	14.22	31.65	999.00	-0.83	999.00	-0.35	0.00
23	1	8	9	131.00	5.64	5.52	30.63	999.00	999.00	4.64	999.00	31.07	131.70	1.95	10.97	31.65	999.00	-1.17	999.00	-0.76	0.00
23	1	8	10	156.80	3.97	19.15	30.66	999.00	999.00	3.42	999.00	31.24	130.30	3.18	11.80	32.31	999.00	-1.87	999.00	-1.13	0.00
23	1	8	11	143.00	2.96	34.93	30.84	999.00	999.00	3.88	999.00	31.61	153.80	2.58	18.89	32.81	999.00	-1.81	999.00	-1.08	0.00
23	1	8	12	219.00	4.23	14.68	31.08	999.00	999.00	3.66	999.00	31.77	184.80	3.98	33.28	33.05	999.00	-2.06	999.00	-1.43	0.00
23	1	8	13	52.36	3.82	17.64	31.32	999.00	999.00	3.33	999.00	31.88	56.14	3.65	18.14	32.90	999.00	-1.62	999.00	-1.00	0.00
23	1	8	14	346.20	9.49	4.68	31.04	999.00	344.60	7.48	999.00	31.60	4.78	8.95	19.14	32.72	999.00	-1.70	999.00	-1.13	0.00
23	1	8	15	4.92	6.03	14.08	30.88	999.00	4.01	7.39	14.66	31.37	10.06	5.87	12.50	32.46	999.00	-1.49	999.00	-0.99	0.00
23	1	8	16	23.95	4.48	10.62	30.69	999.00	21.71	5.26	14.29	31.20	24.97	4.21	15.90	32.26	999.00	-1.64	999.00	-1.11	0.00
23	1	8	17	56.75	5.05	9.10	30.31	999.00	55.05	4.20	10.71	30.85	50.52	3.94	22.43	32.00	999.00	-1.77	999.00	-1.20	0.00
23	1	8	18	68.85	4.58	7.38	30.07	999.00	65.60	4.43	8.46	30.62	64.26	3.34	13.18	31.79	999.00	-1.70	999.00	-1.16	0.00
23	1	8	19	57.26	4.91	5.12	29.97	999.00	57.44	5.12	5.05	30.50	63.12	4.05	8.63	31.61	999.00	-1.58	999.00	-1.07	0.00
23	1	8	20	34.73	4.95	23.52	30.08	999.00	46.59	4.61	18.07	30.52	66.79	4.10	11.40	31.56	999.00	-1.41	999.00	-0.96	0.00
23	1	8	21	334.80	4.58	11.50	30.40	999.00	341.80	4.02	14.88	30.86	324.50	2.26	45.82	31.65	999.00	-1.29	999.00	-0.79	0.00
23	1	8	22	283.00	5.93	13.56	30.48	999.00	279.10	6.31	14.37	30.97	274.40	3.41	13.63	31.78	999.00	-1.30	999.00	-0.81	0.00
23	1	8	23	264.90	9.39	5.99	30.53	999.00	257.50	8.01	6.60	30.99	255.80	4.56	10.84	31.77	999.00	-1.08	999.00	-0.69	0.00
23	1	8	24	251.60	9.96	3.91	30.34	999.00	247.60	7.95	4.09	30.70	246.40	5.50	7.86	31.51	999.00	-1.32	999.00	-0.90	0.00
23	1	9	1	238.60	10.29	6.33	29.91	999.00	231.10	8.83	5.30	30.25	225.90	6.14	8.67	31.24	999.00	-1.31	999.00	-1.00	0.00
23	1	9	2	270.20	11.12	7.25	29.94	999.00	269.30	9.85	7.09	30.29	253.10	6.30	11.56	31.15	999.00	-1.28	999.00	-0.87	0.00
23	1	9	3	287.70	14.77	4.38	29.77	999.00	288.00	13.92	4.70	30.27	286.50	9.06	11.18	31.19	999.00	-1.48	999.00	-0.96	0.00
23	1	9	4	286.90	13.74	5.77	29.13	999.00	286.40	14.18	6.27	29.66	280.10	8.67	9.55	30.66	999.00	-1.54	999.00	-1.01	0.00
23	1	9	5	271.10	12.05	9.76	28.81	999.00	270.20	11.83	9.88	29.34	266.80	7.41	15.84	30.35	999.00	-1.50	999.00	-0.98	0.00
23	1	9	6	270.20	12.76	3.91	28.11	999.00	269.90	10.85	4.41	28.59	268.00	5.80	8.54	29.04	999.00	-0.41	999.00	-0.01	0.00
23	1	9	7	263.50	12.13	5.18	27.52	999.00	262.20	11.24	6.24	27.89	258.70	5.63	10.90	28.13	999.00	-0.96	999.00	-0.53	0.00
23	1	9	8	242.20	12.50	4.73	27.35	999.00	238.50	10.05	5.25	27.82	244.90	6.97	8.60	28.40	999.00	-1.18	999.00	-0.68	0.00
23	1	9	9	240.30	13.79	5.90	26.90	999.00	238.00	16.25	6.25	27.43	243.30	8.82	11.89	28.38	999.00	-1.71	999.00	-1.14	0.00
23	1	9	10	240.50	21.26	5.23	26.89	999.00	239.40	20.71	5.65	27.47	237.40	14.67	10.25	28.77	999.00	-1.95	999.00	-1.38	0.00
23	1	9	11	232.40	19.33	4.45	27.19	999.00	229.80	20.27	4.56	27.75	234.20	13.94	9.41	29.24	999.00	-2.10	999.00	-1.53	0.00
23	1	9	12	232.30	19.95	5.77	27.66	999.00	230.60	18.14	6.25	28.22	238.60	14.71	10.80	29.81	999.00	-2.18	999.00	-1.64	0.00
23	1	9	13	225.80	23.89	3.55	28.08	999.00	225.40	22.64	3.56	28.58	229.90	17.50	10.12	30.64	999.00	-2.59	999.00	-2.14	0.00
23	1	9	14	218.70	21.27	4.28	29.49	999.00	217.40	999.00	4.90	29.92	999.00	14.97	999.00	32.31	999.00	-2.82	999.00	-2.42	0.00
23	1	9	15	219.80	22.00	4.83	31.33	999.00	218.20	21.81	5.82	31.74	218.30	16.17	11.36	33.93	999.00	-2.49	999.00	-2.00	0.00
23	1	9	16	218.40	20.11	5.06	33.34	999.00	217.00	21.10	6.25	33.80	219.60	14.13	9.97	35.57	999.00	-2.12	999.00	-1.70	0.00
23	1	9	17	221.90	18.57	4.67	34.38	999.00	221.10	19.76	4.17	34.90	222.10	12.16	10.01	36.19	999.00	-1.55	999.00	-1.05	0.00
23	1	9	18	225.50	19.83	3.27	34.26	999.00	223.00	17.89	3.70	34.65	220.40	10.21	8.52	35.10	999.00	-0.44	999.00	-0.14	0.00
23	1	9	19	225.30	19.01	1.61	33.92	999.00	221.50	15.94	2.30	34.09	217.30	8.09	8.43	33.86	999.00	0.30	999.00	0.42	0.00
23	1	9	20	216.60	19.57	1.89	33.40	999.00	211.80	15.78	2.89	33.37	202.70	5.21	11.34	32.66	999.00	0.88	999.00	0.77	0.00

23	1	9	21	217.10	18.38	1.80	33.73	999.00	209.20	15.04	2.63	33.39	203.00	5.03	10.37	32.11	999.00	2.08	999.00	1.60	0.00
23	1	9	22	211.30	19.61	1.26	33.91	999.00	200.30	15.24	1.52	33.08	189.20	5.72	8.78	31.31	999.00	2.98	999.00	1.98	0.00
23	1	9	23	217.60	19.93	1.25	33.48	999.00	209.40	16.67	2.07	32.50	206.50	5.59	10.70	30.94	999.00	2.47	999.00	1.44	0.00
23	1	9	24	217.80	19.05	1.59	33.49	999.00	207.70	16.63	2.17	32.18	201.70	4.86	11.22	30.65	999.00	2.55	999.00	1.41	0.00
23	1	10	1	219.10	17.95	1.64	33.36	999.00	204.90	14.24	2.33	32.06	189.40	4.94	9.27	30.25	999.00	3.53	999.00	2.21	0.00
23	1	10	2	225.60	18.28	1.07	33.45	999.00	211.70	15.70	1.50	32.24	198.80	4.47	9.29	29.90	999.00	3.68	999.00	2.67	0.00
23	1	10	3	222.30	18.17	1.23	33.93	999.00	207.20	16.29	2.71	32.76	192.70	5.75	9.62	29.66	999.00	4.50	999.00	3.03	0.00
23	1	10	4	220.40	18.75	1.59	33.63	999.00	203.90	15.26	2.08	31.77	192.70	5.10	10.25	29.39	999.00	4.74	999.00	2.65	0.00
23	1	10	5	219.00	16.95	1.35	34.77	999.00	201.20	14.79	1.39	32.50	180.30	5.42	7.24	29.51	999.00	5.30	999.00	3.01	0.00
23	1	10	6	205.50	16.10	4.18	34.77	999.00	191.90	14.18	2.07	32.50	182.10	3.90	6.77	29.51	999.00	3.67	999.00	1.75	0.00
23	1	10	7	192.20	15.41	2.95	34.44	999.00	999.00	13.50	999.00	32.83	165.90	3.68	9.93	31.29	999.00	2.60	999.00	1.23	0.00
23	1	10	8	193.50	15.25	1.88	33.45	999.00	187.60	12.12	0.25	32.70	180.10	3.38	9.61	32.00	999.00	1.44	999.00	0.71	0.00
23	1	10	9	192.20	14.31	2.65	35.07	999.00	999.00	11.81	999.00	33.86	168.60	3.03	7.98	32.57	999.00	3.05	999.00	1.72	0.00
23	1	10	10	175.50	15.18	1.63	34.77	999.00	165.30	13.29	3.07	34.01	163.10	4.79	14.95	33.56	999.00	0.10	999.00	-0.23	0.00
23	1	10	11	179.80	9.36	3.49	34.06	999.00	174.70	8.49	6.27	34.17	168.30	3.52	18.78	34.92	999.00	-1.37	999.00	-0.98	0.00
23	1	10	12	144.60	2.97	29.48	35.48	999.00	135.70	4.78	31.99	36.56	179.40	2.49	17.59	37.53	999.00	-1.93	999.00	-0.69	0.00
23	1	10	13	132.90	3.49	13.98	36.87	999.00	105.20	4.70	9.80	37.02	82.30	4.35	12.02	37.36	999.00	0.31	999.00	-0.60	0.00
23	1	10	14	146.20	2.24	21.61	37.07	999.00	93.70	4.72	6.96	36.23	76.20	4.97	12.76	36.53	999.00	0.68	999.00	-0.50	0.00
23	1	10	15	103.50	6.39	3.67	36.45	999.00	85.10	7.27	3.17	36.12	85.70	6.00	9.43	36.56	999.00	0.43	999.00	0.32	0.00
23	1	10	16	87.40	9.62	3.56	37.23	999.00	81.20	10.25	2.85	36.89	80.10	6.27	10.94	35.80	999.00	1.31	999.00	0.88	0.00
23	1	10	17	88.20	9.61	1.87	37.07	999.00	83.40	12.03	2.09	36.65	82.00	4.16	10.01	35.40	999.00	1.82	999.00	1.54	0.00
23	1	10	18	96.70	10.62	2.69	37.45	999.00	999.00	11.61	999.00	37.17	87.50	3.77	13.05	35.43	999.00	3.02	999.00	2.53	0.00
23	1	10	19	103.30	8.37	1.68	38.41	999.00	98.80	9.54	3.26	38.06	85.80	3.49	9.17	35.39	999.00	2.67	999.00	2.02	0.00
23	1	10	20	75.60	9.10	4.72	36.43	999.00	67.11	9.17	7.22	35.92	66.25	4.78	11.38	34.80	999.00	0.56	999.00	0.28	0.00
23	1	10	21	96.90	13.14	1.83	36.69	999.00	93.30	14.02	1.37	35.16	83.30	5.55	9.16	34.48	999.00	4.15	999.00	2.01	0.00
23	1	10	22	119.50	9.48	3.82	39.88	999.00	119.40	10.39	1.92	39.75	113.60	4.57	6.52	35.02	999.00	4.54	999.00	4.46	0.00
23	1	10	23	148.00	12.85	1.29	39.88	999.00	140.00	15.32	0.82	39.75	145.70	4.53	8.71	35.02	999.00	2.98	999.00	3.08	0.00
23	1	10	24	150.50	12.04	0.79	39.61	999.00	142.00	13.96	0.93	39.76	142.50	3.66	6.24	36.26	999.00	3.51	999.00	3.64	0.00
23	1	11	1	147.00	14.11	1.72	39.48	999.00	141.30	15.42	1.37	39.64	124.20	4.22	7.30	35.68	999.00	3.39	999.00	3.75	0.00
23	1	11	2	149.50	13.81	1.27	38.87	999.00	138.00	14.27	1.59	38.74	119.70	3.57	6.77	35.99	999.00	3.00	999.00	2.69	0.00
23	1	11	3	144.80	13.85	1.62	38.87	999.00	135.50	15.42	1.44	38.74	118.80	5.42	5.84	35.99	999.00	2.95	999.00	2.48	0.00
23	1	11	4	153.30	15.57	3.13	37.93	999.00	142.20	13.74	2.45	36.86	128.10	3.73	10.08	35.11	999.00	2.62	999.00	1.23	0.00
23	1	11	5	165.20	14.06	0.79	37.82	999.00	152.50	13.87	1.23	36.64	142.40	4.09	9.31	35.04	999.00	2.64	999.00	1.89	0.00
23	1	11	6	157.20	13.53	1.79	36.72	999.00	138.90	11.43	2.20	35.75	117.20	4.28	7.33	34.41	999.00	2.00	999.00	1.27	0.00
23	1	11	7	151.90	15.02	4.39	36.47	999.00	135.30	13.52	4.23	35.75	107.70	5.17	11.01	34.07	999.00	2.33	999.00	1.92	0.00
23	1	11	8	158.80	14.83	2.56	36.01	999.00	144.50	12.09	3.40	35.36	129.10	4.53	9.09	34.20	999.00	1.38	999.00	0.69	0.00
23	1	11	9	157.10	15.22	1.63	36.17	999.00	141.40	12.46	2.17	35.23	120.50	5.13	6.21	34.12	999.00	1.92	999.00	1.00	0.00
23	1	11	10	163.10	15.65	2.66	36.33	999.00	153.70	13.21	4.18	35.68	141.00	4.44	14.03	35.23	999.00	0.19	999.00	-0.23	0.00
23	1	11	11	167.00	11.39	6.02	37.06	999.00	159.50	9.27	7.86	37.05	153.30	4.91	14.30	37.73	999.00	-1.22	999.00	-0.90	0.00
23	1	11	12	167.70	7.96	5.17	37.06	999.00	157.00	7.00	6.26	37.05	143.00	3.31	12.33	37.73	999.00	-0.90	999.00	-0.80	0.00
23	1	11	13	141.60	8.44	8.06	40.79	999.00	129.70	6.90	7.91	41.06	113.80	4.86	11.75	41.49	999.00	-0.76	999.00	-0.41	0.00
23	1	11	14	144.90	7.84	11.87	42.52	999.00	999.00	7.07	999.00	42.12	96.30	5.78	13.84	41.81	999.00	2.16	999.00	1.30	0.00
23	1	11	15	151.30	8.86	8.22	43.79	999.00	137.00	10.78	6.78	43.90	127.70	5.53	17.67	43.27	999.00	-0.55	999.00	-0.27	0.00
23	1	11	16	116.20	10.57	6.79	45.67	999.00	99.40	9.74	1.28	45.97	81.30	6.19	9.74	43.02	999.00	3.89	999.00	4.05	0.00
23	1	11	17	105.50	15.15	1.48	46.09	999.00	97.00	14.42	2.52	46.12	78.20	6.85	9.24	40.33	999.00	6.80	999.00	6.75	0.00
23	1	11	18	108.60	15.23	2.02	46.17	999.00	99.50	15.04	1.70	45.77	79.40	6.03	10.25	39.37	999.00	6.69	999.00	6.37	0.00
23	1	11	19	121.00	16.46	2.74	46.17	999.00	111.70	16.84	1.88	45.77	89.50	4.19	13.44	39.37	999.00	6.24	999.00	5.40	0.00
23	1	11	20	134.10	17.08	2.41	45.28	999.00	125.70	11.83	3.23	44.92	66.86	5.48	9.68	40.03	999.00	4.42	999.00	4.17	0.00
23	1	11	21	150.50	17.82	2.52	44.51	999.00	142.90	15.21	3.49	44.26	135.70	7.15	11.57	41.68	999.00	0.85	999.00	0.96	0.01
23	1	11	22	168.80	15.42	3.52	43.34	999.00	163.90	14.11	4.16	43.50	155.70	5.29	14.79	43.06	999.00	0.22	999.00	0.41	0.01
23	1	11	23	183.80	15.16	3.14	43.33	999.00	178.10	12.93	3.25	43.66	179.50	6.19	11.22	43.53	999.00	-0.38	999.00	-0.11	0.00
23	1	11	24	192.80	14.00	3.13	43.54	999.00	999.00	12.52	999.00	43.82	188.80	5.65	12.14	44.06	999.00	-0.50	999.00	-0.23	0.00
23	1	12	1	202.20	12.64	3.07	43.94	999.00	197.40	11.79	3.31	44.15	191.20	4.51	12.62	44.39	999.00	-0.42	999.00	-0.22	0.00

23	1	12	2	211.50	15.34	4.09	44.38	999.00	207.30	12.70	3.85	44.59	203.30	5.80	12.85	44.78	999.00	-0.47	999.00	-0.25	0.00
23	1	12	3	222.30	13.46	3.38	44.76	999.00	218.90	12.18	4.23	45.09	213.50	5.28	9.27	45.24	999.00	-0.50	999.00	-0.08	0.00
23	1	12	4	250.90	12.17	3.08	44.99	999.00	244.30	9.67	3.28	45.41	220.70	3.83	10.22	45.15	999.00	0.05	999.00	0.41	0.00
23	1	12	5	243.40	8.16	5.59	44.98	999.00	233.30	9.69	5.34	45.35	204.70	2.52	13.74	44.96	999.00	-0.01	999.00	0.34	0.00
23	1	12	6	271.80	6.35	11.88	44.63	999.00	263.60	5.18	12.33	45.00	221.90	2.81	54.69	44.86	999.00	-0.19	999.00	0.28	0.00
23	1	12	7	291.60	6.63	3.09	44.24	999.00	289.10	7.79	3.30	44.72	281.30	2.15	13.64	44.42	999.00	0.47	999.00	1.02	0.00
23	1	12	8	358.00	3.09	21.98	43.91	999.00	20.04	1.29	24.45	44.26	350.30	2.37	56.78	43.94	999.00	-0.40	999.00	-0.01	0.00
23	1	12	9	340.50	4.87	22.78	43.91	999.00	337.50	5.46	14.21	44.26	341.60	4.34	6.81	43.94	999.00	-0.28	999.00	-0.03	0.00
23	1	12	10	16.73	17.05	5.41	41.92	999.00	13.00	11.67	7.14	42.12	5.13	9.44	11.36	41.84	999.00	-0.22	999.00	0.13	0.00
23	1	12	11	39.90	18.34	2.48	40.66	999.00	37.30	14.59	3.21	40.94	43.82	9.67	10.36	40.28	999.00	0.76	999.00	1.01	0.01
23	1	12	12	45.65	20.27	2.29	40.66	999.00	43.89	999.00	2.53	40.94	999.00	9.29	999.00	40.28	999.00	0.99	999.00	1.02	0.01
23	1	12	13	34.50	20.58	4.59	37.99	999.00	31.91	19.02	6.41	38.19	28.20	14.36	8.76	37.79	999.00	-0.15	999.00	0.16	0.06
23	1	12	14	13.28	26.94	5.47	37.67	999.00	11.35	25.76	6.94	37.91	15.29	18.23	11.21	37.14	999.00	0.29	999.00	0.46	0.02
23	1	12	15	3.56	29.57	6.95	36.43	999.00	1.50	27.62	7.94	36.62	7.66	20.45	8.97	36.99	999.00	-0.59	999.00	-0.33	0.05
23	1	12	16	0.81	26.74	7.32	36.42	999.00	358.80	24.34	8.39	36.47	356.00	14.95	8.66	36.87	999.00	-0.51	999.00	-0.38	0.04
23	1	12	17	0.92	24.46	7.64	35.56	999.00	358.50	24.15	8.01	35.74	7.01	15.04	7.92	36.26	999.00	-0.81	999.00	-0.54	0.01
23	1	12	18	345.70	28.93	1.93	35.51	999.00	342.40	27.65	3.62	35.67	341.20	15.10	7.53	36.18	999.00	-0.68	999.00	-0.45	0.00
23	1	12	19	343.00	30.97	2.48	35.51	999.00	340.10	28.67	3.79	35.67	340.60	16.21	8.22	36.18	999.00	-0.54	999.00	0.00	0.03
23	1	12	20	342.80	23.90	2.11	34.83	999.00	341.10	23.47	3.09	35.42	341.10	13.04	8.05	35.59	999.00	-0.70	999.00	-0.20	0.02
23	1	12	21	339.40	28.80	2.29	34.49	999.00	336.40	24.56	4.68	35.06	334.00	14.76	8.23	35.36	999.00	-0.86	999.00	-0.22	0.00
23	1	12	22	339.30	28.87	4.41	34.41	999.00	336.50	28.05	5.97	35.08	339.80	16.17	7.95	35.29	999.00	-0.91	999.00	-0.24	0.00
23	1	12	23	339.30	29.16	3.11	33.82	999.00	337.20	27.02	4.39	34.52	339.00	15.88	8.77	34.75	999.00	-0.94	999.00	-0.26	0.00
23	1	12	24	340.80	32.19	3.02	33.05	999.00	339.10	31.11	4.18	33.86	340.00	18.82	8.46	34.01	999.00	-0.96	999.00	-0.04	0.01
23	1	13	1	332.40	29.12	3.62	32.56	999.00	330.80	25.54	4.80	33.41	329.60	17.56	9.85	33.63	999.00	-1.25	999.00	-0.46	0.00
23	1	13	2	326.90	24.77	4.17	32.56	999.00	324.90	22.72	4.90	33.41	321.90	15.41	9.77	33.63	999.00	-1.43	999.00	-0.71	0.00
23	1	13	3	330.40	28.47	4.78	32.05	999.00	329.00	24.56	5.38	32.75	326.70	17.48	9.37	33.44	999.00	-1.35	999.00	-0.68	0.00
23	1	13	4	334.20	29.55	2.48	31.82	999.00	332.70	28.75	3.68	32.44	335.00	19.34	8.89	33.17	999.00	-1.40	999.00	-0.78	0.00
23	1	13	5	330.60	29.57	2.98	30.79	999.00	328.80	28.58	3.87	31.39	326.10	18.83	8.47	32.34	999.00	-1.65	999.00	-1.05	0.00
23	1	13	6	331.00	26.04	4.56	30.01	999.00	329.80	24.72	4.93	30.59	328.30	16.00	8.98	31.63	999.00	-1.71	999.00	-1.12	0.00
23	1	13	7	331.80	26.88	4.47	29.34	999.00	330.40	25.71	5.88	29.92	325.60	18.08	8.92	31.01	999.00	-1.73	999.00	-1.14	0.00
23	1	13	8	334.20	28.87	3.30	28.48	999.00	332.20	28.17	4.11	29.06	329.20	19.71	8.66	30.21	999.00	-1.68	999.00	-1.12	0.00
23	1	13	9	330.10	22.46	4.39	28.60	999.00	329.10	21.44	4.86	29.17	327.80	14.68	9.75	30.25	999.00	-1.67	999.00	-1.10	0.00
23	1	13	10	332.70	22.85	4.91	28.68	999.00	330.80	21.79	5.55	29.25	327.30	14.26	9.86	30.38	999.00	-1.70	999.00	-1.12	0.00
23	1	13	11	338.40	25.55	4.45	28.58	999.00	337.50	24.20	5.35	29.17	336.40	17.52	8.32	30.22	999.00	-1.54	999.00	-0.96	0.00
23	1	13	12	332.00	22.62	6.48	28.52	999.00	329.60	21.61	6.99	29.11	325.90	15.14	12.63	30.22	999.00	-1.78	999.00	-1.19	0.00
23	1	13	13	335.10	22.23	5.28	28.33	999.00	334.70	20.79	6.24	28.91	332.90	15.91	9.16	30.13	999.00	-1.87	999.00	-1.26	0.00
23	1	13	14	332.20	21.66	5.72	27.94	999.00	331.30	20.91	6.16	28.54	331.60	14.64	9.46	29.86	999.00	-1.93	999.00	-1.33	0.00
23	1	13	15	337.40	23.17	8.25	27.55	999.00	334.60	22.14	8.64	28.15	330.10	16.03	12.71	29.47	999.00	-1.89	999.00	-1.28	0.00
23	1	13	16	330.30	20.40	5.40	27.23	999.00	328.80	19.68	6.41	27.82	324.30	14.56	11.80	29.11	999.00	-1.86	999.00	-1.29	0.00
23	1	13	17	334.70	23.69	3.39	27.35	999.00	332.50	22.66	4.37	27.92	328.40	15.70	10.31	29.17	999.00	-1.80	999.00	-1.24	0.00
23	1	13	18	335.50	25.58	4.28	27.62	999.00	333.80	24.45	5.18	28.18	330.20	17.20	9.09	29.39	999.00	-1.80	999.00	-1.23	0.00
23	1	13	19	338.50	27.77	4.68	27.54	999.00	336.40	26.44	5.62	28.11	332.10	18.46	9.15	29.32	999.00	-1.81	999.00	-1.22	0.00
23	1	13	20	345.50	28.06	6.63	27.46	999.00	343.70	26.58	7.02	28.04	338.40	20.84	9.91	29.25	999.00	-1.80	999.00	-1.23	0.00
23	1	13	21	342.10	28.37	3.56	27.17	999.00	341.00	27.53	3.94	27.76	336.60	20.08	7.78	29.01	999.00	-1.82	999.00	-1.24	0.00
23	1	13	22	343.50	27.39	3.57	26.81	999.00	341.70	26.55	4.39	27.39	339.00	20.55	8.44	28.64	999.00	-1.81	999.00	-1.24	0.00
23	1	13	23	343.40	26.49	5.55	26.59	999.00	341.90	25.10	6.25	27.16	337.70	19.06	9.29	28.36	999.00	-1.80	999.00	-1.23	0.00
23	1	13	24	346.80	23.72	4.02	26.01	999.00	345.60	22.70	4.54	26.59	341.90	17.79	8.53	27.87	999.00	-1.84	999.00	-1.27	0.00
23	1	14	1	326.00	22.18	5.66	25.15	999.00	323.60	21.62	5.81	25.71	316.90	15.44	12.21	26.94	999.00	-1.78	999.00	-1.21	0.00
23	1	14	2	323.70	19.43	4.51	24.38	999.00	321.60	18.77	5.06	24.94	313.60	13.24	10.55	26.15	999.00	-1.72	999.00	-1.18	0.00
23	1	14	3	326.30	16.77	5.56	24.00	999.00	324.00	16.21	5.87	24.54	318.30	12.01	11.42	25.72	999.00	-1.74	999.00	-1.19	0.00
23	1	14	4	341.10	15.30	9.35	23.41	999.00	339.60	15.11	9.67	23.98	337.80	11.52	11.80	25.27	999.00	-1.88	999.00	-1.30	0.00
23	1	14	5	332.40	14.50	9.81	22.72	999.00	330.70	14.15	11.52	23.26	324.10	10.21	17.05	24.51	999.00	-1.78	999.00	-1.24	0.00
23	1	14	6	334.20	14.52	9.44	22.29	999.00	331.80	14.52	10.42	22.83	323.50	10.61	16.94	24.06	999.00	-1.75	999.00	-1.21	0.00

23	1	14	7	327.00	13.57	9.51	21.68	999.00	324.80	13.16	9.88	22.23	316.90	9.36	12.85	23.53	999.00	-1.82	999.00	-1.28	0.00
23	1	14	8	335.90	13.66	5.22	21.06	999.00	335.30	13.42	5.79	21.61	333.40	10.13	10.03	22.88	999.00	-1.83	999.00	-1.28	0.00
23	1	14	9	339.80	11.21	7.60	21.06	999.00	338.80	11.32	7.41	21.61	332.10	8.73	10.42	22.88	999.00	-1.81	999.00	-1.27	0.00
23	1	14	10	335.30	6.97	11.89	20.91	999.00	333.70	6.82	12.90	21.47	330.90	5.35	18.20	22.79	999.00	-1.92	999.00	-1.32	0.00
23	1	14	11	311.20	9.91	6.61	20.90	999.00	308.20	9.84	7.12	21.49	297.90	7.33	13.21	23.15	999.00	-2.46	999.00	-1.87	0.00
23	1	14	12	311.50	8.45	10.15	21.18	999.00	308.50	8.55	12.61	21.78	303.90	6.67	19.69	23.44	999.00	-2.31	999.00	-1.70	0.00
23	1	14	13	299.30	10.71	7.78	21.18	999.00	296.50	11.00	7.89	21.78	290.30	8.35	14.39	23.44	999.00	-2.57	999.00	-2.00	0.00
23	1	14	14	305.40	8.11	13.34	21.15	999.00	304.60	8.19	14.74	21.78	299.80	6.51	26.14	23.92	999.00	-3.26	999.00	-2.65	0.00
23	1	14	15	320.00	8.35	8.66	22.32	999.00	320.30	8.41	8.00	22.96	319.80	7.21	13.64	25.26	999.00	-2.70	999.00	-1.89	0.00
23	1	14	16	319.00	6.18	11.01	23.61	999.00	319.80	6.18	10.48	24.40	323.00	4.97	16.14	26.12	999.00	-2.52	999.00	-1.80	0.00
23	1	14	17	309.70	3.86	8.11	24.67	999.00	310.00	3.64	9.60	25.51	314.40	2.99	23.89	27.19	999.00	-2.40	999.00	-1.65	0.00
23	1	14	18	172.70	1.83	19.10	25.04	999.00	166.40	1.80	13.20	25.79	144.90	1.49	22.20	26.47	999.00	-1.35	999.00	-0.99	0.00
23	1	14	19	132.20	2.12	15.53	24.64	999.00	133.90	3.29	5.61	24.91	144.20	2.57	12.24	25.69	999.00	-0.61	999.00	-0.49	0.00
23	1	14	20	140.80	3.17	12.79	24.98	999.00	144.40	3.99	6.36	24.99	148.30	3.06	12.53	24.58	999.00	1.04	999.00	1.07	0.00
23	1	14	21	164.00	6.10	2.09	24.72	999.00	157.80	6.25	1.93	24.60	157.20	2.42	8.21	23.93	999.00	0.72	999.00	0.72	0.00
23	1	14	22	145.00	5.66	5.92	24.77	999.00	145.80	7.69	4.49	24.57	163.80	3.10	7.59	23.41	999.00	1.47	999.00	1.31	0.00
23	1	14	23	153.60	5.58	2.89	25.36	999.00	156.50	8.20	1.21	25.15	156.10	2.77	10.96	22.69	999.00	3.12	999.00	2.50	0.00
23	1	14	24	180.60	7.18	3.38	25.28	999.00	182.60	8.80	2.88	24.67	183.10	3.60	9.13	22.19	999.00	3.00	999.00	2.84	0.00
23	1	15	1	191.70	8.73	2.68	24.94	999.00	189.80	10.82	3.13	24.50	205.40	3.62	7.10	21.46	999.00	3.64	999.00	3.28	0.00
23	1	15	2	205.40	8.36	2.40	24.67	999.00	203.00	10.06	2.80	24.38	198.50	3.25	9.00	21.38	999.00	3.30	999.00	3.21	0.00
23	1	15	3	233.40	11.69	1.09	24.99	999.00	228.20	12.85	3.24	24.39	227.70	5.36	7.04	21.25	999.00	3.59	999.00	1.94	0.00
23	1	15	4	235.10	9.88	2.49	25.37	999.00	228.50	12.05	1.53	24.70	192.30	3.66	9.21	21.23	999.00	4.48	999.00	4.05	0.00
23	1	15	5	198.30	6.74	7.38	25.76	999.00	207.70	7.89	6.06	25.81	188.00	3.95	18.18	20.86	999.00	4.94	999.00	5.15	0.00
23	1	15	6	218.30	7.51	1.65	25.56	999.00	209.80	10.63	3.74	24.76	187.50	3.66	8.46	20.42	999.00	4.74	999.00	3.37	0.00
23	1	15	7	218.40	7.68	1.52	24.71	999.00	208.50	10.97	1.53	23.27	178.00	3.83	6.48	20.37	999.00	4.40	999.00	3.18	0.00
23	1	15	8	197.70	8.79	2.93	25.07	999.00	200.30	12.08	3.32	24.35	179.00	3.36	10.08	20.26	999.00	4.82	999.00	3.66	0.00
23	1	15	9	199.20	12.15	1.73	25.07	999.00	190.80	13.82	1.57	24.35	177.60	5.12	8.43	20.26	999.00	4.43	999.00	1.56	0.00
23	1	15	10	179.40	12.05	5.02	23.78	999.00	172.90	10.40	5.74	22.73	172.80	7.05	10.14	22.83	999.00	-1.34	999.00	-0.71	0.00
23	1	15	11	186.10	8.55	6.15	24.77	999.00	187.80	8.51	6.37	25.71	194.50	6.58	14.12	26.83	999.00	-2.27	999.00	-1.38	0.00
23	1	15	12	147.80	9.06	7.69	27.41	999.00	145.80	8.96	9.05	28.47	152.50	6.30	15.50	29.68	999.00	-2.38	999.00	-1.55	0.00
23	1	15	13	152.00	8.92	8.45	28.87	999.00	149.20	8.85	8.33	29.61	152.20	6.28	17.68	31.18	999.00	-2.48	999.00	-1.68	0.00
23	1	15	14	150.20	10.02	7.27	30.41	999.00	145.60	9.77	7.29	31.07	144.80	6.47	16.92	32.69	999.00	-2.18	999.00	-1.58	0.00
23	1	15	15	142.50	9.84	5.82	31.97	999.00	137.20	9.76	5.50	32.61	141.40	7.15	12.80	34.24	999.00	-2.08	999.00	-1.49	0.00
23	1	15	16	144.10	8.03	9.82	32.71	999.00	140.20	7.94	11.99	33.34	144.80	5.06	18.91	34.75	999.00	-1.98	999.00	-1.40	0.00
23	1	15	17	143.30	7.18	3.76	33.22	999.00	140.10	6.89	3.63	33.85	139.00	4.12	10.95	34.96	999.00	-1.37	999.00	-0.87	0.00
23	1	15	18	125.10	13.72	1.44	32.84	999.00	117.20	13.21	1.52	33.24	116.50	5.22	8.89	33.18	999.00	0.13	999.00	0.42	0.00
23	1	15	19	121.80	14.88	2.37	31.52	999.00	111.50	13.50	2.63	31.62	115.20	5.78	11.30	31.70	999.00	-0.24	999.00	-0.27	0.00
23	1	15	20	125.80	16.28	0.80	31.21	999.00	118.80	14.22	1.45	31.10	122.60	5.60	8.72	30.85	999.00	0.61	999.00	0.60	0.00
23	1	15	21	131.60	16.32	1.84	31.38	999.00	122.50	14.12	1.54	31.36	126.00	5.36	10.54	30.90	999.00	0.35	999.00	0.33	0.00
23	1	15	22	138.10	17.95	1.04	31.12	999.00	125.80	15.55	1.84	30.86	119.60	6.17	9.54	30.22	999.00	1.06	999.00	0.70	0.00
23	1	15	23	136.50	18.44	1.93	31.27	999.00	123.30	15.84	2.71	30.63	122.10	6.95	10.16	30.15	999.00	0.79	999.00	0.25	0.00
23	1	15	24	144.60	18.32	1.86	30.83	999.00	131.60	15.78	2.19	30.30	122.00	6.13	10.20	29.85	999.00	1.54	999.00	0.78	0.00
23	1	16	1	147.90	16.83	1.91	30.48	999.00	134.40	13.81	2.51	29.86	121.10	4.99	9.69	28.98	999.00	1.63	999.00	0.93	0.00
23	1	16	2	144.50	16.46	2.22	30.00	999.00	133.90	13.80	3.25	29.51	133.60	5.51	11.31	28.99	999.00	0.42	999.00	0.06	0.00
23	1	16	3	152.10	15.86	3.18	29.14	999.00	142.70	13.19	3.80	29.01	142.20	5.22	10.73	29.12	999.00	0.13	999.00	-0.13	0.00
23	1	16	4	169.20	12.88	3.31	29.41	999.00	153.10	10.88	2.72	28.92	137.60	4.24	8.94	28.70	999.00	0.94	999.00	0.36	0.00
23	1	16	5	133.30	15.92	3.44	29.57	999.00	119.90	15.02	3.23	29.12	120.70	7.10	9.90	28.85	999.00	-0.17	999.00	-0.23	0.00
23	1	16	6	135.30	17.18	5.79	28.77	999.00	127.10	14.72	7.69	28.79	138.40	6.80	17.70	29.21	999.00	-0.44	999.00	-0.48	0.00
23	1	16	7	154.00	14.62	1.94	28.28	999.00	142.70	11.81	3.12	28.13	132.90	4.61	10.03	28.05	999.00	0.64	999.00	0.31	0.00
23	1	16	8	165.90	14.77	2.98	28.98	999.00	152.40	11.61	3.87	28.34	134.40	4.13	10.58	27.45	999.00	1.53	999.00	1.00	0.00
23	1	16	9	159.10	16.50	1.77	29.50	999.00	146.80	13.75	3.70	28.84	141.00	5.12	13.59	27.61	999.00	1.21	999.00	0.52	0.00
23	1	16	10	138.30	15.23	6.10	29.24	999.00	130.90	13.18	7.14	29.33	131.90	7.67	13.38	30.00	999.00	-1.20	999.00	-1.01	0.00
23	1	16	11	145.90	11.66	7.01	31.41	999.00	140.20	10.99	8.18	32.00	141.30	7.11	12.85	33.15	999.00	-1.88	999.00	-1.23	0.00

23	1	16	12	152.80	12.00	6.48	34.58	999.00	148.80	11.45	6.88	35.21	150.90	6.34	15.31	36.51	999.00	-1.84	999.00	-1.20	0.00
23	1	16	13	162.80	10.50	6.12	37.22	999.00	159.40	9.67	7.26	37.84	156.40	5.48	15.28	38.98	999.00	-1.70	999.00	-1.06	0.00
23	1	16	14	154.50	12.86	5.25	39.58	999.00	151.10	12.37	5.28	40.23	151.60	7.08	14.60	41.29	999.00	-1.52	999.00	-0.93	0.00
23	1	16	15	143.00	14.17	6.82	40.34	999.00	138.40	12.94	7.68	40.88	136.10	7.58	12.90	41.84	999.00	-1.48	999.00	-0.95	0.00
23	1	16	16	148.20	16.44	4.10	41.07	999.00	145.20	14.67	4.88	41.53	145.90	7.33	13.67	42.26	999.00	-1.04	999.00	-0.60	0.00
23	1	16	17	162.80	14.62	4.02	41.48	999.00	158.10	12.69	4.72	41.84	155.40	5.19	11.93	42.23	999.00	-0.28	999.00	-0.08	0.00
23	1	16	18	147.00	20.13	3.60	38.91	999.00	140.60	17.11	4.69	39.17	137.90	7.21	11.95	38.35	999.00	1.89	999.00	2.30	0.04
23	1	16	19	128.80	23.47	3.47	35.57	999.00	121.50	20.23	3.92	35.90	118.10	8.83	11.82	34.88	999.00	0.55	999.00	0.80	0.05
23	1	16	20	146.00	20.27	6.18	35.83	999.00	141.90	17.51	7.09	35.89	145.00	8.11	14.92	35.24	999.00	0.30	999.00	0.60	0.02
23	1	16	21	172.40	17.25	6.26	35.40	999.00	170.90	14.56	7.33	35.88	174.30	6.56	14.16	35.50	999.00	-0.33	999.00	0.28	0.04
23	1	16	22	165.50	20.60	3.85	35.63	999.00	161.80	17.70	4.46	36.05	163.70	8.05	11.91	36.21	999.00	-0.57	999.00	-0.22	0.15
23	1	16	23	176.50	21.34	4.33	37.15	999.00	174.40	18.94	5.32	37.54	178.10	10.73	10.81	37.65	999.00	-0.61	999.00	-0.12	0.01
23	1	16	24	183.50	21.70	5.16	38.06	999.00	181.70	18.79	6.19	38.51	183.10	9.87	13.31	38.57	999.00	-0.45	999.00	-0.01	0.00
23	1	17	1	185.10	19.65	4.09	38.89	999.00	182.70	17.37	4.45	39.32	182.00	9.27	11.12	39.42	999.00	-0.55	999.00	-0.16	0.00
23	1	17	2	182.70	20.03	4.06	39.53	999.00	179.70	17.54	4.54	39.92	179.40	9.25	10.89	40.08	999.00	-0.43	999.00	-0.09	0.00
23	1	17	3	186.30	21.55	4.64	40.85	999.00	182.80	18.70	5.18	41.17	180.70	9.40	11.49	41.06	999.00	-0.14	999.00	0.22	0.00
23	1	17	4	188.90	24.19	3.65	41.67	999.00	186.90	21.59	4.65	42.08	187.70	10.78	12.97	42.25	999.00	-0.66	999.00	-0.24	0.00
23	1	17	5	186.90	22.11	3.82	42.24	999.00	184.40	18.66	4.66	42.59	181.80	10.46	11.12	42.69	999.00	-0.29	999.00	0.02	0.00
23	1	17	6	190.70	24.10	3.57	43.34	999.00	188.40	21.24	4.34	43.68	187.30	10.26	12.38	43.49	999.00	-0.30	999.00	0.12	0.00
23	1	17	7	196.60	26.67	3.42	44.10	999.00	193.10	23.15	3.65	44.36	188.80	10.36	12.75	44.08	999.00	0.54	999.00	0.68	0.00
23	1	17	8	194.80	25.16	2.75	45.21	999.00	190.40	22.14	3.38	45.11	188.80	10.04	11.93	44.26	999.00	0.55	999.00	0.45	0.00
23	1	17	9	193.00	22.84	4.04	44.45	999.00	190.10	20.48	4.67	44.59	191.10	9.96	12.14	44.59	999.00	-0.40	999.00	-0.18	0.00
23	1	17	10	203.30	19.42	5.22	45.68	999.00	199.80	16.43	6.07	45.85	198.00	8.64	10.76	46.34	999.00	-0.94	999.00	-0.63	0.00
23	1	17	11	229.00	24.75	5.95	47.51	999.00	227.20	23.51	6.13	47.94	222.80	16.01	8.74	49.20	999.00	-1.17	999.00	-0.69	0.00
23	1	17	12	229.30	28.36	5.87	48.25	999.00	227.40	27.18	6.08	48.72	223.80	18.42	9.39	48.95	999.00	-0.37	999.00	0.13	0.00
23	1	17	13	235.60	33.95	3.66	48.63	999.00	235.40	32.64	3.88	49.11	232.30	21.66	9.45	49.75	999.00	-1.24	999.00	-0.74	0.00
23	1	17	14	235.50	31.49	5.43	47.81	999.00	235.20	29.79	6.02	48.30	231.30	20.17	10.01	49.34	999.00	-1.28	999.00	-0.79	0.00
23	1	17	15	242.50	27.56	6.21	46.28	999.00	241.30	25.46	6.61	46.78	236.60	16.76	10.18	47.77	999.00	-1.47	999.00	-0.96	0.00
23	1	17	16	239.50	26.15	5.10	46.28	999.00	238.30	24.96	5.65	46.78	232.80	15.97	9.98	47.77	999.00	-1.47	999.00	-0.96	0.00
23	1	17	17	235.10	25.88	4.42	41.60	999.00	234.00	24.61	4.31	42.10	229.90	17.09	8.15	42.91	999.00	-1.29	999.00	-0.77	0.00
23	1	17	18	244.60	24.83	5.59	40.99	999.00	243.90	22.92	6.28	41.49	239.20	15.11	10.51	42.34	999.00	-1.41	999.00	-0.90	0.00
23	1	17	19	244.00	26.11	5.66	40.77	999.00	242.90	24.12	6.62	41.26	233.60	16.29	10.62	42.14	999.00	-1.39	999.00	-0.89	0.00
23	1	17	20	246.60	24.33	4.85	39.89	999.00	246.00	22.58	5.81	40.40	239.80	15.34	11.25	41.37	999.00	-1.49	999.00	-0.98	0.00
23	1	17	21	248.10	23.90	4.90	39.24	999.00	246.90	21.78	6.04	39.75	239.60	14.52	10.30	40.70	999.00	-1.44	999.00	-0.94	0.00
23	1	17	22	251.80	24.13	5.56	39.03	999.00	250.80	22.17	6.59	39.54	244.50	14.64	10.17	40.48	999.00	-1.50	999.00	-0.98	0.00
23	1	17	23	250.20	26.28	5.03	38.55	999.00	249.10	24.04	6.01	39.06	241.60	15.91	10.17	40.02	999.00	-1.49	999.00	-0.97	0.00
23	1	17	24	255.70	22.92	5.02	38.18	999.00	254.50	20.67	5.92	38.69	248.90	13.42	10.19	39.64	999.00	-1.46	999.00	-0.94	0.00
23	1	18	1	252.20	20.16	6.52	38.01	999.00	251.10	18.21	7.02	38.52	244.60	12.78	10.17	39.48	999.00	-1.47	999.00	-0.96	0.00
23	1	18	2	264.50	18.82	6.16	37.83	999.00	262.00	17.29	7.10	38.33	252.40	11.08	11.62	39.28	999.00	-1.45	999.00	-0.96	0.00
23	1	18	3	255.90	20.28	6.24	37.68	999.00	254.50	18.53	7.17	38.19	249.30	12.64	11.06	39.15	999.00	-1.50	999.00	-0.97	0.00
23	1	18	4	246.50	18.94	4.78	37.12	999.00	242.90	16.80	5.80	37.62	235.20	10.11	9.93	38.57	999.00	-1.32	999.00	-0.88	0.00
23	1	18	5	244.40	17.85	3.97	37.19	999.00	241.80	16.00	5.00	37.66	233.60	10.05	8.69	38.56	999.00	-1.39	999.00	-0.92	0.00
23	1	18	6	246.70	15.91	4.51	36.93	999.00	243.30	14.24	5.05	37.41	235.00	8.83	9.55	38.29	999.00	-1.36	999.00	-0.91	0.00
23	1	18	7	260.70	17.46	6.03	36.92	999.00	257.10	15.54	6.52	37.37	248.00	9.15	10.89	38.20	999.00	-1.23	999.00	-0.78	0.00
23	1	18	8	251.20	18.16	4.71	37.34	999.00	249.10	16.24	6.41	37.81	241.00	9.67	10.64	38.63	999.00	-1.26	999.00	-0.80	0.00
23	1	18	9	240.50	15.95	4.18	37.37	999.00	237.10	14.66	4.28	37.81	229.00	9.45	8.23	38.55	999.00	-1.22	999.00	-0.75	0.00
23	1	18	10	252.50	13.00	5.16	37.29	999.00	250.60	11.75	5.85	37.79	241.10	8.04	11.54	38.91	999.00	-1.93	999.00	-1.41	0.00
23	1	18	11	256.90	12.08	8.23	38.00	999.00	255.20	11.42	8.11	38.56	245.60	8.69	11.08	40.06	999.00	-2.03	999.00	-1.46	0.00
23	1	18	12	245.70	10.85	8.86	38.28	999.00	243.30	10.67	9.35	38.85	235.30	7.72	14.31	40.40	999.00	-2.00	999.00	-1.45	0.00
23	1	18	13	254.90	8.59	10.66	38.22	999.00	253.60	8.15	11.05	38.76	247.50	6.01	14.40	40.03	999.00	-1.85	999.00	-1.30	0.00
23	1	18	14	248.20	8.05	7.63	38.51	999.00	244.90	7.84	7.67	39.06	236.60	6.43	11.38	40.35	999.00	-1.90	999.00	-1.35	0.00
23	1	18	15	286.50	5.95	26.75	38.68	999.00	287.60	5.71	27.43	39.22	283.80	4.48	31.12	40.42	999.00	-1.69	999.00	-1.16	0.00
23	1	18	16	294.40	7.18	6.59	37.84	999.00	290.60	6.49	9.29	38.15	280.60	3.44	17.55	39.19	999.00	-1.30	999.00	-0.99	0.00

23	1	18	17	307.30	3.94	2.79	37.98	999.00	307.70	4.05	4.50	38.31	326.50	1.59	29.17	39.19	999.00	-1.11	999.00	-0.73	0.00
23	1	18	18	7.51	3.13	11.60	37.95	999.00	11.45	2.80	9.46	38.36	39.86	3.08	16.71	39.15	999.00	-1.18	999.00	-0.74	0.00
23	1	18	19	59.98	5.40	5.64	37.95	999.00	64.21	5.79	5.61	38.32	92.10	3.76	9.84	38.23	999.00	0.60	999.00	0.99	0.00
23	1	18	20	79.70	7.95	3.22	37.86	999.00	80.20	8.35	2.60	38.17	100.40	3.19	17.50	37.44	999.00	0.34	999.00	0.58	0.00
23	1	18	21	97.20	15.50	1.15	37.70	999.00	96.30	14.85	2.01	37.83	101.40	5.52	13.93	37.55	999.00	-0.16	999.00	-0.09	0.00
23	1	18	22	109.80	12.23	2.96	37.58	999.00	103.90	12.37	2.86	37.69	97.40	4.43	15.48	37.41	999.00	0.14	999.00	0.49	0.00
23	1	18	23	111.20	20.92	2.98	37.24	999.00	105.90	19.00	3.85	37.39	113.60	7.74	12.84	37.04	999.00	0.16	999.00	-0.06	0.00
23	1	18	24	98.70	17.60	2.04	36.15	999.00	91.60	15.94	3.11	36.22	86.90	5.91	13.07	36.32	999.00	0.31	999.00	0.48	0.03
23	1	19	1	86.90	28.03	2.80	35.59	999.00	80.80	23.98	3.86	35.45	85.80	10.91	12.94	35.29	999.00	-0.11	999.00	-0.22	0.09
23	1	19	2	87.90	25.71	2.61	34.89	999.00	82.30	22.34	4.28	34.95	89.40	8.95	15.93	35.30	999.00	-0.60	999.00	-0.40	0.04
23	1	19	3	99.10	30.70	2.47	34.68	999.00	95.50	27.56	3.99	34.95	102.10	13.03	14.32	35.51	999.00	-1.03	999.00	-0.69	0.07
23	1	19	4	97.40	25.37	4.83	34.50	999.00	91.40	22.09	6.04	34.73	90.10	10.31	16.32	35.39	999.00	-1.00	999.00	-0.72	0.11
23	1	19	5	85.00	28.29	2.31	34.59	999.00	77.10	26.57	3.48	34.60	79.30	13.02	13.36	35.24	999.00	-0.59	999.00	-0.58	0.17
23	1	19	6	88.50	30.46	3.69	34.83	999.00	83.30	26.83	4.77	34.98	86.60	13.89	14.79	35.62	999.00	-0.69	999.00	-0.53	0.04
23	1	19	7	94.80	35.18	3.09	36.07	999.00	90.80	30.63	4.86	36.13	100.50	14.97	13.55	36.69	999.00	-0.94	999.00	-0.78	0.00
23	1	19	8	97.20	29.51	3.01	35.36	999.00	94.10	25.38	4.97	35.55	100.10	11.51	15.11	36.34	999.00	-1.00	999.00	-0.81	0.01
23	1	19	9	113.30	20.09	2.28	35.72	999.00	105.60	17.42	3.14	35.52	103.40	7.84	12.70	36.02	999.00	0.16	999.00	-0.17	0.00
23	1	19	10	152.60	18.27	4.87	38.63	999.00	141.30	14.76	5.88	37.62	121.80	5.65	11.07	37.11	999.00	2.37	999.00	1.33	0.00
23	1	19	11	202.40	20.56	5.37	43.33	999.00	195.90	15.47	6.91	42.35	189.90	5.29	15.05	41.78	999.00	2.04	999.00	1.05	0.00
23	1	19	12	239.60	25.95	5.31	46.02	999.00	238.50	24.60	5.53	46.21	234.90	15.91	9.78	46.37	999.00	-1.10	999.00	-0.86	0.00
23	1	19	13	239.30	26.94	4.08	46.34	999.00	238.50	25.70	4.55	46.73	235.00	17.65	9.63	47.58	999.00	-1.49	999.00	-0.82	0.00
23	1	19	14	224.00	22.44	4.24	47.90	999.00	223.00	21.66	4.67	48.34	220.60	15.60	9.05	49.24	999.00	-2.00	999.00	-1.59	0.00
23	1	19	15	235.30	17.25	5.55	49.49	999.00	234.90	16.87	6.73	49.89	230.00	11.13	9.81	51.29	999.00	-1.67	999.00	-1.21	0.00
23	1	19	16	227.80	8.55	10.33	50.98	999.00	233.00	7.93	10.83	51.35	234.80	5.56	13.56	52.72	999.00	-1.81	999.00	-1.51	0.00
23	1	19	17	282.30	3.39	31.22	52.11	999.00	300.70	3.85	17.94	52.59	319.70	3.08	31.12	53.93	999.00	-1.22	999.00	-0.75	0.00
23	1	19	18	309.10	19.90	55.06	49.68	999.00	308.10	18.83	54.75	49.66	295.70	12.27	64.81	45.07	999.00	4.07	999.00	3.88	0.02
23	1	19	19	250.90	21.61	8.27	41.63	999.00	249.30	19.58	9.53	41.51	245.50	12.47	12.33	42.22	999.00	-0.38	999.00	-0.57	0.12
23	1	19	20	240.00	23.13	6.51	40.97	999.00	237.80	21.10	6.53	40.98	237.40	13.13	9.84	41.41	999.00	-0.51	999.00	-0.49	0.01
23	1	19	21	238.00	30.91	5.87	39.68	999.00	237.10	29.51	6.28	39.49	235.00	19.98	10.07	39.65	999.00	-0.46	999.00	0.14	0.00
23	1	19	22	231.70	31.15	5.49	38.52	999.00	230.00	29.71	5.19	39.06	227.50	21.67	9.61	39.83	999.00	-1.51	999.00	-0.97	0.00
23	1	19	23	235.50	28.23	5.38	37.71	999.00	233.80	26.49	5.82	38.25	231.70	18.10	9.96	39.24	999.00	-1.53	999.00	-1.00	0.00
23	1	19	24	234.50	32.12	5.41	37.36	999.00	234.10	30.27	5.69	37.90	230.50	21.83	9.81	38.93	999.00	-1.58	999.00	-1.02	0.00
23	1	20	1	238.70	33.43	4.50	36.21	999.00	237.50	31.57	4.63	36.77	235.80	22.62	9.53	37.83	999.00	-1.62	999.00	-1.05	0.00
23	1	20	2	243.40	29.65	5.31	36.21	999.00	242.30	27.27	6.14	36.77	238.00	17.97	10.44	37.83	999.00	-1.61	999.00	-1.04	0.00
23	1	20	3	241.00	29.60	4.93	35.13	999.00	239.00	27.95	5.63	35.68	237.60	19.02	10.37	36.74	999.00	-1.61	999.00	-1.05	0.00
23	1	20	4	241.40	27.62	4.76	34.32	999.00	239.50	25.84	5.70	34.90	236.70	17.90	9.86	35.92	999.00	-1.61	999.00	-1.03	0.00
23	1	20	5	243.40	24.68	5.62	33.28	999.00	241.60	22.34	6.51	33.85	236.80	14.99	10.19	34.88	999.00	-1.59	999.00	-1.03	0.00
23	1	20	6	243.60	24.01	4.73	33.75	999.00	241.90	21.98	6.08	34.31	236.50	14.79	9.95	35.35	999.00	-1.62	999.00	-1.05	0.00
23	1	20	7	247.90	23.66	5.07	33.81	999.00	246.00	21.08	6.29	34.36	242.20	13.87	11.31	35.38	999.00	-1.56	999.00	-1.00	0.00
23	1	20	8	247.90	20.48	4.47	33.71	999.00	246.30	18.77	5.55	34.25	240.30	12.26	9.83	35.22	999.00	-1.53	999.00	-1.00	0.00
23	1	20	9	245.10	20.09	4.76	33.77	999.00	243.20	18.42	5.62	34.31	238.20	11.47	10.34	35.33	999.00	-1.56	999.00	-1.02	0.00
23	1	20	10	255.10	18.06	6.53	33.62	999.00	254.90	16.35	7.53	34.15	253.90	10.40	12.45	34.99	999.00	-1.26	999.00	-0.73	0.00
23	1	20	11	257.40	21.36	5.20	34.32	999.00	256.20	19.78	6.49	34.99	249.20	13.06	10.85	35.82	999.00	-1.50	999.00	-0.78	0.00
23	1	20	12	256.20	21.51	6.24	34.70	999.00	255.70	19.64	7.26	35.45	247.50	13.15	11.66	36.28	999.00	-1.67	999.00	-0.92	0.00
23	1	20	13	247.80	20.67	5.54	34.51	999.00	246.80	19.07	6.66	35.17	242.00	12.67	11.87	36.35	999.00	-1.95	999.00	-1.35	0.00
23	1	20	14	255.50	21.20	5.04	34.86	999.00	254.90	19.78	6.25	35.43	247.70	13.63	11.28	36.79	999.00	-2.02	999.00	-1.44	0.00
23	1	20	15	260.30	19.82	6.71	35.67	999.00	259.30	18.63	7.13	36.26	253.60	13.30	11.42	37.83	999.00	-2.16	999.00	-1.56	0.00
23	1	20	16	265.20	18.14	6.29	35.73	999.00	264.20	17.38	7.36	36.32	256.70	12.75	11.04	37.80	999.00	-1.98	999.00	-1.39	0.00
23	1	20	17	266.40	15.87	4.50	35.91	999.00	265.20	14.58	5.73	36.46	254.50	9.61	10.27	37.56	999.00	-1.58	999.00	-1.04	0.00
23	1	20	18	271.70	15.76	3.44	35.61	999.00	269.60	14.35	4.23	36.12	256.70	8.33	10.62	37.04	999.00	-1.28	999.00	-0.81	0.00
23	1	20	19	276.90	15.99	3.22	35.18	999.00	275.10	14.79	4.03	35.63	264.00	8.42	9.86	36.37	999.00	-1.12	999.00	-0.66	0.00
23	1	20	20	275.90	14.39	4.21	34.59	999.00	272.30	12.99	4.56	35.04	258.50	7.41	9.17	35.77	999.00	-1.19	999.00	-0.75	0.00
23	1	20	21	258.80	15.92	4.78	34.07	999.00	256.50	14.56	5.71	34.54	250.20	8.65	9.42	35.33	999.00	-1.41	999.00	-0.89	0.00

23	1	20	22	259.20	15.53	5.04	33.08	999.00	257.80	14.28	5.66	33.62	247.40	9.43	10.10	34.63	999.00	-1.58	999.00	-1.03	0.00
23	1	20	23	276.60	12.70	4.25	32.36	999.00	273.90	11.22	4.71	32.86	261.10	6.60	8.74	33.82	999.00	-1.36	999.00	-0.89	0.00
23	1	20	24	266.40	13.57	3.65	32.04	999.00	263.50	12.56	5.01	32.55	252.50	7.73	10.93	33.48	999.00	-1.51	999.00	-0.98	0.00
23	1	21	1	271.60	11.41	4.12	31.73	999.00	267.90	10.15	5.25	32.20	254.50	5.88	8.95	33.08	999.00	-1.30	999.00	-0.86	0.00
23	1	21	2	252.30	12.79	4.40	31.46	999.00	249.60	11.75	4.33	31.93	239.40	8.11	7.67	32.80	999.00	-1.42	999.00	-0.93	0.00
23	1	21	3	238.00	12.16	4.21	31.10	999.00	233.30	11.50	4.23	31.62	225.70	8.44	7.99	32.60	999.00	-1.56	999.00	-1.05	0.00
23	1	21	4	240.90	13.52	4.29	30.07	999.00	238.40	12.56	5.04	30.61	231.80	9.08	9.23	31.73	999.00	-1.65	999.00	-1.10	0.00
23	1	21	5	242.10	12.40	5.53	29.83	999.00	239.20	11.72	5.65	30.38	229.70	8.53	9.14	31.46	999.00	-1.64	999.00	-1.09	0.00
23	1	21	6	242.00	11.17	4.76	30.03	999.00	238.60	10.70	5.19	30.58	231.80	7.97	9.15	31.67	999.00	-1.65	999.00	-1.09	0.00
23	1	21	7	243.30	12.09	5.04	30.14	999.00	240.10	11.37	5.14	30.70	233.40	7.87	9.72	31.80	999.00	-1.65	999.00	-1.09	0.00
23	1	21	8	250.40	11.64	4.60	30.25	999.00	248.10	10.65	5.48	30.81	242.00	7.08	10.46	31.84	999.00	-1.56	999.00	-1.01	0.00
23	1	21	9	236.50	8.45	5.57	30.18	999.00	232.80	7.82	5.01	30.72	222.40	6.20	9.28	31.78	999.00	-1.64	999.00	-1.11	0.00
23	1	21	10	222.10	8.87	6.37	30.27	999.00	215.40	7.87	5.71	30.76	208.30	5.23	11.82	31.93	999.00	-1.56	999.00	-1.18	0.00
23	1	21	11	224.70	9.78	6.58	30.73	999.00	221.10	9.22	6.62	31.25	215.20	6.98	10.87	32.58	999.00	-1.97	999.00	-1.40	0.00
23	1	21	12	212.20	8.82	5.22	31.10	999.00	212.40	8.56	6.96	31.67	212.50	7.10	10.18	33.17	999.00	-2.28	999.00	-1.69	0.00
23	1	21	13	221.70	12.41	5.15	31.15	999.00	220.70	12.07	4.81	31.73	216.10	9.29	9.50	33.26	999.00	-2.04	999.00	-1.48	0.00
23	1	21	14	212.00	11.79	9.05	31.43	999.00	210.30	11.11	8.70	32.00	205.40	7.71	13.03	33.46	999.00	-2.14	999.00	-1.56	0.00
23	1	21	15	214.30	11.73	5.15	31.29	999.00	212.80	11.24	6.57	31.87	209.50	8.12	10.10	33.30	999.00	-1.94	999.00	-1.34	0.00
23	1	21	16	207.30	12.12	5.13	30.99	999.00	205.70	11.45	6.42	31.57	205.40	8.08	11.43	32.88	999.00	-1.85	999.00	-1.26	0.00
23	1	21	17	210.00	13.94	5.71	31.07	999.00	209.90	13.20	7.19	31.63	208.40	8.98	11.23	32.82	999.00	-1.70	999.00	-1.13	0.00
23	1	21	18	221.80	14.40	4.02	31.04	999.00	221.60	13.51	4.67	31.59	218.70	9.91	9.06	32.71	999.00	-1.67	999.00	-1.11	0.00
23	1	21	19	212.30	11.32	8.20	30.85	999.00	210.10	10.56	8.10	31.41	204.50	6.96	12.19	32.50	999.00	-1.59	999.00	-1.04	0.00
23	1	21	20	208.00	11.63	9.60	30.81	999.00	206.90	10.68	10.05	31.34	205.30	6.76	14.50	32.40	999.00	-1.60	999.00	-1.06	0.00
23	1	21	21	198.30	11.55	7.21	30.78	999.00	196.30	10.58	7.31	31.31	194.40	5.94	13.60	32.35	999.00	-1.55	999.00	-1.04	0.00
23	1	21	22	204.00	11.39	4.83	30.70	999.00	202.10	10.36	5.49	31.24	195.70	5.41	12.89	32.29	999.00	-1.52	999.00	-1.00	0.00
23	1	21	23	206.60	11.66	6.79	30.68	999.00	205.10	11.00	6.80	31.22	203.00	6.43	12.10	32.26	999.00	-1.61	999.00	-1.05	0.00
23	1	21	24	190.00	9.40	6.67	30.60	999.00	189.70	8.85	6.35	31.12	189.70	4.81	12.93	32.18	999.00	-1.58	999.00	-1.07	0.00
23	1	22	1	186.80	7.59	5.27	30.42	999.00	186.40	7.05	6.28	30.95	189.10	3.92	13.20	32.03	999.00	-1.60	999.00	-1.09	0.00
23	1	22	2	188.70	6.67	4.32	30.38	999.00	187.00	5.96	4.99	30.90	186.30	3.19	13.62	31.91	999.00	-1.55	999.00	-1.04	0.00
23	1	22	3	159.20	6.89	5.54	30.38	999.00	153.00	6.56	5.54	30.90	147.00	3.34	17.05	31.91	999.00	-1.58	999.00	-1.07	0.00
23	1	22	4	159.70	8.02	4.24	30.05	999.00	156.30	7.46	5.12	30.56	154.60	4.12	12.47	31.65	999.00	-1.63	999.00	-1.10	0.00
23	1	22	5	185.90	5.85	12.18	999.00	999.00	184.10	5.28	13.51	999.00	165.70	2.67	35.95	31.60	999.00	-1.51	999.00	-1.01	0.00
23	1	22	6	103.90	3.91	13.96	29.99	999.00	91.80	3.87	17.17	30.47	68.62	2.58	26.56	31.47	999.00	-1.47	999.00	-0.97	0.00
23	1	22	7	102.40	7.15	11.16	30.11	999.00	98.30	6.84	12.60	30.63	97.80	3.84	32.20	31.57	999.00	-1.45	999.00	-0.91	0.00
23	1	22	8	130.40	6.01	3.25	30.47	999.00	131.80	5.41	3.39	30.97	146.80	2.34	16.83	31.88	999.00	-1.31	999.00	-0.83	0.00
23	1	22	9	87.60	10.74	3.35	30.06	999.00	83.70	10.31	3.66	30.55	87.70	4.84	14.56	31.42	999.00	-1.39	999.00	-0.90	0.00
23	1	22	10	113.00	13.28	4.55	28.92	999.00	110.60	12.16	5.34	29.38	115.10	6.23	13.71	30.40	999.00	-1.52	999.00	-1.05	0.00
23	1	22	11	117.60	8.36	8.49	29.22	999.00	117.60	8.02	9.38	29.79	126.40	5.64	14.39	31.00	999.00	-1.90	999.00	-1.29	0.00
23	1	22	12	120.30	8.55	7.18	29.35	999.00	116.50	8.14	6.45	29.95	116.70	5.83	15.02	31.33	999.00	-1.88	999.00	-1.30	0.00
23	1	22	13	83.70	7.56	5.53	29.38	999.00	77.70	7.37	6.42	29.96	75.10	5.03	13.70	31.29	999.00	-1.93	999.00	-1.34	0.00
23	1	22	14	51.72	3.48	22.92	29.43	999.00	49.22	3.22	21.24	30.00	39.09	3.13	17.04	31.16	999.00	-1.62	999.00	-1.05	0.00
23	1	22	15	43.90	4.98	6.20	29.63	999.00	43.35	4.67	7.68	30.13	41.99	4.16	13.78	31.06	999.00	-1.38	999.00	-0.88	0.00
23	1	22	16	33.93	6.83	9.10	29.61	999.00	33.10	6.27	8.89	30.12	31.71	5.96	12.16	31.13	999.00	-1.60	999.00	-1.06	0.00
23	1	22	17	49.88	8.56	5.14	29.74	999.00	48.27	8.14	5.93	30.29	50.85	5.75	12.05	31.41	999.00	-1.65	999.00	-1.10	0.00
23	1	22	18	48.02	10.17	4.65	29.88	999.00	46.72	9.26	5.46	30.41	51.62	6.05	11.94	31.52	999.00	-1.63	999.00	-1.10	0.00
23	1	22	19	37.26	8.63	7.44	29.88	999.00	36.93	8.82	7.11	30.41	39.88	6.71	12.21	31.52	999.00	-1.62	999.00	-1.11	0.00
23	1	22	20	37.30	7.92	10.52	30.00	999.00	38.13	8.14	8.66	30.53	39.40	6.30	12.07	31.65	999.00	-1.62	999.00	-1.10	0.00
23	1	22	21	31.36	6.79	10.71	30.11	999.00	31.64	6.48	10.69	30.60	28.59	6.01	15.54	31.71	999.00	-1.63	999.00	-1.15	0.00
23	1	22	22	25.38	9.92	5.97	30.01	999.00	23.64	8.19	6.34	30.51	24.61	7.77	10.53	31.70	999.00	-1.69	999.00	-1.18	0.00
23	1	22	23	21.27	8.88	5.86	29.95	999.00	20.04	7.15	5.98	30.45	17.14	7.19	9.61	31.64	999.00	-1.70	999.00	-1.21	0.00
23	1	22	24	358.60	10.37	10.06	29.96	999.00	355.60	9.53	8.75	30.46	351.90	8.06	10.59	31.67	999.00	-1.71	999.00	-1.20	0.00
23	1	23	1	354.90	10.85	5.90	30.13	999.00	353.20	10.06	6.05	30.65	349.70	8.56	8.69	31.85	999.00	-1.72	999.00	-1.19	0.00
23	1	23	2	345.40	11.64	3.74	30.33	999.00	345.20	11.09	4.47	30.85	340.20	8.19	8.41	31.99	999.00	-1.64	999.00	-1.11	0.00

23	1	23	3	327.50	13.60	6.89	30.75	999.00	325.70	12.91	6.95	31.26	321.90	8.03	11.08	32.32	999.00	-1.55	999.00	-1.03	0.00
23	1	23	4	329.70	14.34	4.14	30.26	999.00	327.20	14.03	4.28	30.79	320.10	9.81	9.00	31.82	999.00	-1.54	999.00	-1.03	0.00
23	1	23	5	327.90	16.32	4.26	30.05	999.00	327.00	15.75	5.06	30.58	322.80	10.63	9.51	31.62	999.00	-1.61	999.00	-1.08	0.00
23	1	23	6	313.50	16.31	4.51	29.65	999.00	312.10	15.75	4.72	30.17	299.70	11.25	8.93	31.18	999.00	-1.57	999.00	-1.02	0.00
23	1	23	7	321.70	16.60	3.14	29.32	999.00	320.00	16.01	4.06	29.87	311.30	11.02	8.99	30.91	999.00	-1.55	999.00	-1.01	0.00
23	1	23	8	310.80	15.80	4.63	29.39	999.00	308.10	14.95	4.86	29.92	301.30	9.27	9.95	30.91	999.00	-1.51	999.00	-0.97	0.00
23	1	23	9	309.50	17.39	3.86	29.36	999.00	307.60	16.40	4.72	29.89	302.40	11.37	9.16	30.90	999.00	-1.59	999.00	-1.04	0.00
23	1	23	10	294.30	14.83	5.76	29.64	999.00	292.10	14.22	6.79	30.17	283.90	9.22	10.32	31.26	999.00	-1.62	999.00	-1.10	0.00
23	1	23	11	273.20	12.90	5.28	29.62	999.00	268.80	12.17	5.93	30.14	260.50	8.15	11.01	31.38	999.00	-1.87	999.00	-1.34	0.00
23	1	23	12	271.30	10.72	6.97	29.98	999.00	269.20	9.81	8.07	30.49	260.90	6.68	11.63	31.76	999.00	-1.89	999.00	-1.33	0.00
23	1	23	13	254.90	12.59	6.77	30.06	999.00	253.60	11.53	7.63	30.63	249.10	7.70	10.63	31.90	999.00	-1.74	999.00	-1.18	0.00
23	1	23	14	246.90	15.88	5.64	30.76	999.00	244.20	14.39	6.61	31.31	240.10	9.39	10.78	32.45	999.00	-1.71	999.00	-1.14	0.00
23	1	23	15	256.70	15.36	7.98	31.50	999.00	255.10	14.12	9.14	32.06	248.20	10.07	11.98	33.28	999.00	-1.81	999.00	-1.22	0.00
23	1	23	16	242.40	22.72	3.98	31.36	999.00	240.90	21.52	4.87	31.93	236.10	13.75	10.65	33.15	999.00	-1.80	999.00	-1.22	0.00
23	1	23	17	239.00	21.76	5.14	30.51	999.00	236.50	21.17	5.53	31.08	231.60	15.60	9.07	32.26	999.00	-1.77	999.00	-1.18	0.00
23	1	23	18	241.80	26.35	5.40	29.02	999.00	240.90	25.11	6.22	29.61	236.10	17.81	11.66	30.81	999.00	-1.75	999.00	-1.17	0.00
23	1	23	19	234.90	27.39	4.34	28.71	999.00	233.60	26.14	4.42	29.29	227.20	18.77	9.11	30.39	999.00	-1.76	999.00	-1.18	0.00
23	1	23	20	243.70	25.58	5.28	27.15	999.00	243.00	23.50	5.94	27.74	236.80	15.94	9.34	28.94	999.00	-1.71	999.00	-1.13	0.00
23	1	23	21	242.60	26.21	5.66	27.10	999.00	241.00	24.47	6.75	27.68	236.30	16.77	10.88	28.85	999.00	-1.74	999.00	-1.15	0.00
23	1	23	22	228.20	24.13	5.63	27.50	999.00	227.40	22.57	5.71	28.09	220.90	16.87	8.64	29.25	999.00	-1.70	999.00	-1.12	0.00
23	1	23	23	231.00	26.62	4.57	28.32	999.00	229.50	25.25	4.49	28.90	226.60	18.84	9.57	29.94	999.00	-1.54	999.00	-0.97	0.00
23	1	23	24	222.60	26.26	5.17	28.46	999.00	221.10	24.60	5.38	29.03	214.60	17.41	9.19	29.99	999.00	-1.50	999.00	-0.93	0.00
23	1	24	1	221.90	27.19	4.98	27.83	999.00	220.80	25.03	5.69	28.39	216.20	17.86	9.36	29.32	999.00	-1.54	999.00	-0.99	0.00
23	1	24	2	218.80	25.42	4.28	27.58	999.00	215.70	22.87	5.22	28.09	207.60	14.02	10.21	28.95	999.00	-1.17	999.00	-0.73	0.00
23	1	24	3	228.10	24.82	4.13	27.37	999.00	225.60	23.29	4.62	27.85	218.50	16.16	8.39	28.75	999.00	-1.58	999.00	-1.05	0.00
23	1	24	4	236.10	24.77	5.40	27.88	999.00	234.00	22.92	5.92	28.41	228.30	15.05	10.13	29.45	999.00	-1.63	999.00	-1.07	0.00
23	1	24	5	236.90	22.51	4.49	28.39	999.00	234.40	21.08	4.81	28.94	228.40	15.29	8.87	30.01	999.00	-1.57	999.00	-1.03	0.00
23	1	24	6	242.80	20.65	5.05	29.41	999.00	240.20	18.85	5.51	29.95	232.80	12.91	9.05	30.97	999.00	-1.57	999.00	-1.02	0.00
23	1	24	7	243.10	18.89	4.62	29.74	999.00	240.50	17.51	4.99	30.29	230.60	12.08	8.92	31.30	999.00	-1.56	999.00	-1.01	0.00
23	1	24	8	241.20	15.60	3.81	29.61	999.00	238.70	13.85	4.11	30.12	233.60	7.29	9.52	30.80	999.00	-1.06	999.00	-0.60	0.00
23	1	24	9	244.50	16.73	2.56	29.39	999.00	241.20	14.26	4.01	29.76	236.10	7.68	9.79	30.26	999.00	-1.02	999.00	-0.69	0.00
23	1	24	10	245.40	14.28	6.12	29.85	999.00	242.30	12.49	7.02	30.25	231.70	8.13	10.33	31.40	999.00	-1.99	999.00	-1.46	0.00
23	1	24	11	247.60	14.88	5.60	30.88	999.00	244.70	14.53	6.34	31.46	237.90	10.92	10.89	33.10	999.00	-2.41	999.00	-1.83	0.00
23	1	24	12	243.80	12.59	6.72	31.55	999.00	241.30	12.21	7.18	32.17	231.00	9.75	12.80	34.26	999.00	-2.59	999.00	-1.98	0.00
23	1	24	13	227.50	9.92	13.27	32.49	999.00	227.00	9.42	12.26	33.09	219.20	7.89	15.41	35.19	999.00	-2.92	999.00	-2.31	0.00
23	1	24	14	200.10	7.41	14.52	33.42	999.00	198.90	7.18	17.93	34.05	200.80	5.54	25.90	36.01	999.00	-2.30	999.00	-1.66	0.00
23	1	24	15	223.70	12.29	8.34	33.93	999.00	222.90	11.86	10.18	34.48	218.60	8.98	13.74	36.35	999.00	-2.21	999.00	-1.66	0.00
23	1	24	16	215.20	11.16	14.13	33.69	999.00	212.30	10.74	15.45	34.24	209.10	7.41	18.22	35.82	999.00	-2.00	999.00	-1.45	0.00
23	1	24	17	207.50	10.88	5.82	31.84	999.00	208.20	10.17	5.70	32.38	210.50	7.54	9.47	33.76	999.00	-1.82	999.00	-1.29	0.00
23	1	24	18	204.90	7.66	5.84	31.15	999.00	204.60	7.02	6.09	31.70	200.80	4.72	10.21	32.92	999.00	-1.74	999.00	-1.19	0.00
23	1	24	19	190.30	7.10	3.78	31.15	999.00	187.70	6.09	4.37	31.70	185.60	3.20	10.51	32.92	999.00	-1.49	999.00	-1.05	0.00
23	1	24	20	201.10	9.96	2.92	31.98	999.00	198.50	8.71	4.29	32.46	196.70	4.76	11.33	33.45	999.00	-1.51	999.00	-1.03	0.00
23	1	24	21	194.40	6.98	6.85	32.03	999.00	191.40	6.24	7.89	32.50	185.50	2.70	16.46	33.45	999.00	-1.30	999.00	-0.84	0.00
23	1	24	22	185.40	7.39	6.82	32.02	999.00	179.70	6.22	7.15	32.46	170.90	2.90	12.25	33.35	999.00	-1.27	999.00	-0.83	0.00
23	1	24	23	183.90	4.50	5.97	999.00	999.00	180.70	4.04	6.36	999.00	171.50	2.11	10.05	33.31	999.00	-1.38	999.00	-0.93	0.00
23	1	24	24	159.60	4.23	12.71	32.10	999.00	151.70	4.16	13.94	32.56	144.40	2.00	53.04	33.37	999.00	-1.25	999.00	-0.80	0.00
23	1	25	1	132.60	7.10	3.12	32.18	999.00	124.00	7.02	3.24	32.64	115.00	3.46	10.80	33.36	999.00	-1.12	999.00	-0.67	0.00
23	1	25	2	109.70	5.85	6.08	32.18	999.00	100.70	5.78	6.58	32.64	89.20	2.45	19.68	33.36	999.00	-1.30	999.00	-0.85	0.00
23	1	25	3	112.30	10.27	8.78	32.34	999.00	108.80	10.45	7.75	32.69	105.40	5.15	14.53	33.45	999.00	-0.90	999.00	-0.62	0.00
23	1	25	4	90.00	14.23	4.41	31.23	999.00	84.90	13.01	5.03	31.55	94.20	6.13	14.55	32.44	999.00	-1.21	999.00	-0.88	0.00
23	1	25	5	107.60	14.04	4.18	31.92	999.00	102.80	12.86	4.96	32.30	105.00	6.60	13.24	33.14	999.00	-1.31	999.00	-0.85	0.00
23	1	25	6	97.70	15.00	2.32	32.21	999.00	93.50	13.59	3.52	32.66	97.70	5.84	14.04	33.44	999.00	-1.27	999.00	-0.82	0.00
23	1	25	7	109.30	14.84	2.76	31.81	999.00	104.70	13.86	3.53	32.29	108.20	7.31	12.65	33.24	999.00	-1.51	999.00	-1.02	0.00

23	1	25	8	80.40	15.71	3.71	30.90	999.00	73.60	14.74	3.92	31.28	75.50	7.80	12.64	32.21	999.00	-1.36	999.00	-0.97	0.00
23	1	25	9	86.60	17.62	3.85	31.15	999.00	80.40	15.79	4.08	31.49	81.60	8.98	11.56	32.40	999.00	-1.13	999.00	-0.83	0.00
23	1	25	10	81.10	21.74	3.13	31.56	999.00	76.20	19.73	3.71	31.86	80.50	10.04	12.24	32.38	999.00	-0.71	999.00	-0.39	0.00
23	1	25	11	82.40	24.86	3.04	31.65	999.00	77.50	19.43	4.07	31.96	81.00	12.54	11.98	32.45	999.00	-0.77	999.00	-0.46	0.00
23	1	25	12	73.00	29.19	3.46	31.59	999.00	68.28	23.00	4.20	31.86	71.40	14.59	11.87	32.35	999.00	-0.94	999.00	-0.64	0.00
23	1	25	13	81.30	27.34	3.11	31.44	999.00	76.60	21.27	4.34	31.78	83.50	12.92	12.50	32.41	999.00	-1.08	999.00	-0.72	0.00
23	1	25	14	75.30	26.85	3.49	999.00	999.00	70.70	20.44	4.25	999.00	74.90	11.57	12.93	32.38	999.00	-0.93	999.00	-0.66	0.03
23	1	25	15	70.00	25.49	3.62	999.00	999.00	65.86	21.20	4.11	999.00	69.08	13.63	12.36	32.38	999.00	-1.12	999.00	-0.78	0.01
23	1	25	16	73.50	18.81	3.22	31.75	999.00	68.19	15.99	4.58	32.02	69.46	9.33	11.92	32.78	999.00	-0.99	999.00	-0.73	0.00
23	1	25	17	57.65	11.61	4.75	32.17	999.00	48.93	10.89	6.91	32.44	43.26	6.86	9.11	33.18	999.00	-0.95	999.00	-0.72	0.00
23	1	25	18	352.10	7.21	5.66	32.81	999.00	347.90	7.59	5.98	32.87	331.20	5.21	8.49	33.24	999.00	-0.60	999.00	-0.43	0.00
23	1	25	19	322.70	20.62	3.40	31.91	999.00	319.10	19.20	4.38	32.19	307.90	11.98	9.83	32.82	999.00	-0.99	999.00	-0.66	0.00
23	1	25	20	309.60	20.78	3.85	31.24	999.00	307.80	19.42	4.91	31.69	297.00	13.50	10.29	32.44	999.00	-1.23	999.00	-0.73	0.00
23	1	25	21	286.00	16.03	6.26	30.97	999.00	283.30	14.72	6.79	31.47	265.50	9.29	9.92	31.99	999.00	-0.79	999.00	-0.30	0.00
23	1	25	22	269.20	19.55	3.96	999.00	999.00	266.40	18.31	5.09	999.00	251.90	11.19	8.54	32.08	999.00	-0.71	999.00	-0.19	0.00
23	1	25	23	265.80	19.16	4.23	31.26	999.00	263.40	17.67	5.14	31.78	249.50	10.86	9.93	32.06	999.00	-0.90	999.00	-0.37	0.00
23	1	25	24	260.00	19.05	4.89	999.00	999.00	258.30	16.99	5.45	999.00	246.40	10.63	9.90	31.92	999.00	-1.12	999.00	-0.63	0.00
23	1	26	1	269.90	19.41	4.61	30.94	999.00	267.10	17.90	5.78	31.44	253.30	10.48	9.45	31.87	999.00	-0.82	999.00	-0.32	0.00
23	1	26	2	263.70	19.68	4.67	30.88	999.00	261.40	18.06	5.71	31.39	249.00	10.94	10.27	31.79	999.00	-0.98	999.00	-0.49	0.00
23	1	26	3	257.70	18.32	5.03	30.57	999.00	255.10	15.97	6.40	31.08	244.50	10.10	10.53	31.60	999.00	-1.12	999.00	-0.61	0.00
23	1	26	4	260.50	18.25	4.57	30.58	999.00	258.80	16.43	5.01	31.09	248.30	10.00	10.22	31.62	999.00	-0.98	999.00	-0.47	0.00
23	1	26	5	266.50	16.73	4.59	30.78	999.00	263.80	15.19	5.19	31.28	251.30	8.88	9.58	31.75	999.00	-0.96	999.00	-0.45	0.00
23	1	26	6	272.70	16.31	4.43	30.90	999.00	270.20	14.85	5.54	31.41	257.00	8.89	10.25	31.83	999.00	-0.89	999.00	-0.38	0.00
23	1	26	7	257.40	13.95	4.31	30.90	999.00	255.00	12.47	5.79	31.41	243.70	7.67	9.59	31.83	999.00	-1.18	999.00	-0.67	0.00
23	1	26	8	257.70	14.07	4.73	30.75	999.00	255.70	12.47	5.23	31.25	244.80	7.26	10.15	31.99	999.00	-1.29	999.00	-0.77	0.00
23	1	26	9	259.80	12.68	4.83	30.37	999.00	257.60	11.33	5.52	30.86	245.70	7.13	8.91	31.79	999.00	-1.54	999.00	-1.04	0.00
23	1	26	10	252.00	12.92	3.75	29.95	999.00	247.20	12.12	4.40	30.47	232.80	8.33	9.13	31.73	999.00	-1.82	999.00	-1.32	0.00
23	1	26	11	280.30	9.54	7.40	29.80	999.00	279.00	8.79	7.33	30.31	266.20	6.13	11.27	31.56	999.00	-1.74	999.00	-1.19	0.00
23	1	26	12	272.40	10.76	4.98	29.89	999.00	271.90	10.20	6.41	30.46	260.20	7.31	11.37	32.04	999.00	-2.60	999.00	-2.00	0.00
23	1	26	13	264.70	11.93	4.62	30.53	999.00	264.30	11.59	5.71	31.12	257.80	9.02	9.70	32.94	999.00	-2.12	999.00	-1.54	0.00
23	1	26	14	252.30	9.06	7.22	30.59	999.00	249.70	9.03	6.87	31.14	238.60	6.75	11.88	33.01	999.00	-2.60	999.00	-2.06	0.00
23	1	26	15	232.50	9.48	2.94	30.23	999.00	227.30	9.17	3.40	30.70	215.90	6.96	6.53	32.22	999.00	-1.86	999.00	-1.44	0.00
23	1	26	16	228.20	24.53	4.02	29.23	999.00	227.10	23.52	4.32	29.75	221.50	15.97	8.74	31.08	999.00	-1.39	999.00	-0.85	0.00
23	1	26	17	231.80	25.35	4.14	27.53	999.00	230.50	23.99	4.34	28.10	224.70	17.57	7.83	29.01	999.00	-1.58	999.00	-1.01	0.00
23	1	26	18	232.20	22.93	4.71	26.28	999.00	231.00	21.88	4.72	26.85	224.10	15.37	8.61	27.73	999.00	-1.46	999.00	-0.89	0.00
23	1	26	19	233.80	26.96	4.14	25.27	999.00	232.60	26.07	4.31	25.86	225.60	19.01	7.97	26.73	999.00	-1.42	999.00	-0.84	0.00
23	1	26	20	235.40	24.57	5.34	24.51	999.00	234.80	23.16	5.96	25.09	229.30	16.91	8.50	26.00	999.00	-1.48	999.00	-0.89	0.00
23	1	26	21	233.70	28.47	4.25	23.68	999.00	232.40	27.12	4.62	24.26	225.80	19.46	7.85	25.24	999.00	-1.61	999.00	-1.01	0.00
23	1	26	22	232.10	26.89	4.59	22.95	999.00	231.00	25.85	4.99	23.54	223.40	19.20	7.83	24.56	999.00	-1.63	999.00	-1.03	0.00
23	1	26	23	232.80	26.20	4.03	22.43	999.00	231.40	25.11	4.23	23.02	223.80	19.07	7.24	24.03	999.00	-1.63	999.00	-1.04	0.00
23	1	26	24	238.30	26.11	4.71	22.27	999.00	237.30	24.75	5.10	22.85	231.70	18.60	8.05	23.80	999.00	-1.46	999.00	-0.89	0.00
23	1	27	1	232.70	21.73	4.68	22.06	999.00	231.00	20.77	4.66	22.63	225.00	15.12	7.01	23.62	999.00	-1.58	999.00	-1.02	0.00
23	1	27	2	230.20	22.87	5.34	22.08	999.00	229.00	21.66	5.57	22.64	222.00	16.17	7.93	23.68	999.00	-1.62	999.00	-1.06	0.00
23	1	27	3	232.60	25.12	4.46	21.63	999.00	230.90	23.91	4.53	22.20	223.30	17.46	8.11	23.23	999.00	-1.61	999.00	-1.04	0.00
23	1	27	4	240.80	22.15	6.27	21.28	999.00	240.30	20.64	7.41	21.84	234.40	14.95	10.49	22.83	999.00	-1.53	999.00	-0.97	0.00
23	1	27	5	243.70	19.52	6.06	20.60	999.00	241.90	17.82	6.74	21.17	237.10	12.27	10.34	22.13	999.00	-1.40	999.00	-0.84	0.00
23	1	27	6	238.20	21.18	4.97	20.79	999.00	237.00	19.87	5.50	21.36	232.70	15.06	8.63	22.33	999.00	-1.60	999.00	-1.02	0.00
23	1	27	7	230.50	18.31	5.52	21.20	999.00	229.70	17.84	5.85	21.78	224.60	13.75	8.36	22.82	999.00	-1.63	999.00	-1.05	0.00
23	1	27	8	228.40	22.09	3.80	20.88	999.00	227.50	21.00	4.47	21.45	220.20	15.86	7.58	22.50	999.00	-1.61	999.00	-1.03	0.00
23	1	27	9	221.90	24.39	4.70	20.70	999.00	221.10	22.93	5.28	21.27	215.80	16.60	8.52	22.36	999.00	-1.72	999.00	-1.16	0.00
23	1	27	10	217.70	20.62	4.63	20.08	999.00	216.80	19.35	4.88	20.63	213.80	14.35	9.23	21.94	999.00	-2.14	999.00	-1.62	0.00
23	1	27	11	198.40	18.85	6.78	21.05	999.00	197.30	18.16	7.43	21.54	198.10	11.70	12.33	23.56	999.00	-2.82	999.00	-2.30	0.00
23	1	27	12	190.50	23.96	4.41	23.07	999.00	189.90	22.94	4.79	23.64	190.50	14.04	12.50	25.61	999.00	-2.38	999.00	-1.80	0.00

23	1	27	13	184.50	23.28	4.93	25.25	999.00	182.80	22.08	5.58	25.90	186.00	13.58	11.80	27.49	999.00	-2.16	999.00	-1.46	0.00
23	1	27	14	176.30	22.40	5.68	26.74	999.00	175.00	21.13	6.35	27.46	177.90	12.43	12.45	28.84	999.00	-1.89	999.00	-1.21	0.00
23	1	27	15	173.00	24.67	4.86	27.70	999.00	170.70	22.94	5.80	28.33	172.10	14.48	11.24	29.44	999.00	-1.63	999.00	-1.03	0.00
23	1	27	16	173.90	27.07	5.06	28.98	999.00	172.00	25.26	5.60	29.55	173.70	14.41	13.28	30.53	999.00	-1.43	999.00	-0.89	0.00
23	1	27	17	182.20	29.28	5.32	30.91	999.00	180.00	26.76	5.83	31.39	181.00	15.83	11.61	32.15	999.00	-1.07	999.00	-0.63	0.00
23	1	27	18	188.80	30.03	5.29	32.40	999.00	186.30	27.73	5.53	32.92	188.00	14.58	12.03	33.50	999.00	-1.13	999.00	-0.58	0.00
23	1	27	19	195.10	32.97	4.91	32.69	999.00	193.10	30.60	5.57	33.22	195.50	17.78	12.93	33.87	999.00	-1.24	999.00	-0.68	0.00
23	1	27	20	194.70	30.17	4.60	31.62	999.00	192.20	27.33	5.26	32.11	193.20	14.14	11.76	32.77	999.00	-1.11	999.00	-0.61	0.00
23	1	27	21	204.40	29.66	5.71	31.62	999.00	202.30	26.98	5.95	32.11	201.40	15.67	13.15	32.77	999.00	-0.22	999.00	0.26	0.00
23	1	27	22	223.90	33.36	5.17	35.27	999.00	221.90	30.88	5.46	35.80	219.70	21.54	8.71	34.97	999.00	0.49	999.00	1.05	0.00
23	1	27	23	225.90	27.13	4.48	36.86	999.00	223.50	24.78	4.75	37.40	219.40	16.48	9.15	36.94	999.00	-0.49	999.00	-0.06	0.00
23	1	27	24	232.70	32.22	4.98	37.20	999.00	231.90	29.62	4.68	37.64	227.70	20.61	8.38	37.88	999.00	-0.67	999.00	-0.22	0.00
23	1	28	1	242.40	28.39	5.08	36.56	999.00	240.90	25.69	5.88	37.02	235.30	16.65	10.19	37.33	999.00	-1.01	999.00	-0.55	0.00
23	1	28	2	248.80	29.01	4.83	35.42	999.00	247.50	26.07	5.89	35.87	241.60	16.52	10.90	36.39	999.00	-0.96	999.00	-0.52	0.00
23	1	28	3	255.30	24.84	5.41	33.29	999.00	254.20	22.49	5.90	33.77	246.30	14.21	10.48	34.35	999.00	-1.15	999.00	-0.64	0.00
23	1	28	4	251.80	19.98	5.20	30.68	999.00	250.50	17.77	6.41	31.15	243.80	11.25	9.67	31.75	999.00	-1.05	999.00	-0.59	0.00
23	1	28	5	237.60	20.23	4.08	29.08	999.00	234.70	18.66	3.97	29.53	225.80	12.37	8.00	30.07	999.00	-1.06	999.00	-0.59	0.00
23	1	28	6	240.20	17.25	5.92	27.79	999.00	238.70	16.05	6.59	28.30	235.30	10.14	10.17	28.99	999.00	-1.21	999.00	-0.68	0.00
23	1	28	7	235.30	18.02	3.91	26.71	999.00	233.50	16.18	4.24	27.19	224.90	10.39	8.54	27.94	999.00	-1.21	999.00	-0.74	0.00
23	1	28	8	237.50	16.83	4.20	25.92	999.00	235.50	15.33	4.51	26.42	228.70	10.72	8.62	27.30	999.00	-1.46	999.00	-0.93	0.00
23	1	28	9	226.70	17.02	5.33	25.58	999.00	224.80	15.46	6.12	26.09	216.30	11.29	9.94	27.07	999.00	-1.57	999.00	-1.05	0.00
23	1	28	10	238.40	17.01	5.04	25.49	999.00	237.40	16.11	5.45	26.04	231.10	11.64	9.45	27.24	999.00	-1.84	999.00	-1.29	0.00
23	1	28	11	232.90	15.27	4.20	25.75	999.00	232.20	14.71	4.48	26.29	226.90	11.74	7.87	27.73	999.00	-2.06	999.00	-1.53	0.00
23	1	28	12	241.20	11.91	7.46	26.51	999.00	240.80	11.60	8.17	27.06	236.00	9.28	11.55	28.82	999.00	-2.39	999.00	-1.82	0.00
23	1	28	13	225.50	12.73	5.29	27.46	999.00	225.80	12.36	5.15	28.02	221.10	9.75	9.11	29.52	999.00	-1.94	999.00	-1.39	0.00
23	1	28	14	229.70	9.02	4.79	28.00	999.00	228.80	8.89	5.26	28.55	221.70	6.80	12.63	30.01	999.00	-2.00	999.00	-1.44	0.00
23	1	28	15	215.40	6.35	9.42	28.48	999.00	216.00	6.06	10.92	29.04	221.10	5.49	12.94	30.49	999.00	-2.11	999.00	-1.53	0.00
23	1	28	16	185.50	3.34	14.95	29.26	999.00	190.20	3.09	16.46	29.85	222.10	2.75	22.27	31.25	999.00	-2.08	999.00	-1.36	0.00
23	1	28	17	103.90	4.16	20.02	30.12	999.00	95.70	4.05	21.79	30.78	97.00	3.00	20.96	31.96	999.00	-1.80	999.00	-1.21	0.00
23	1	28	18	57.49	8.15	3.12	30.12	999.00	52.44	8.08	3.50	30.78	52.09	5.30	9.35	31.96	999.00	-1.48	999.00	-1.00	0.00
23	1	28	19	53.94	11.22	3.00	29.62	999.00	49.54	11.21	2.79	30.10	48.68	6.72	9.99	31.05	999.00	-1.39	999.00	-0.93	0.00
23	1	28	20	69.17	14.76	2.60	29.70	999.00	65.16	14.39	3.13	30.20	66.11	9.35	9.61	31.18	999.00	-1.48	999.00	-0.99	0.00
23	1	28	21	86.90	17.70	2.71	29.82	999.00	81.50	16.86	2.99	30.32	82.50	9.45	11.68	31.24	999.00	-1.43	999.00	-0.93	0.00
23	1	28	22	85.20	20.76	2.43	30.17	999.00	80.80	19.54	3.07	30.67	82.30	11.46	10.33	31.55	999.00	-1.34	999.00	-0.85	0.00
23	1	28	23	88.10	15.95	3.03	30.85	999.00	83.40	14.59	4.02	31.34	87.60	6.91	14.80	32.24	999.00	-1.27	999.00	-0.79	0.00
23	1	28	24	111.00	9.98	3.96	32.40	999.00	92.10	10.93	2.20	31.97	90.50	4.98	14.69	32.28	999.00	0.98	999.00	-0.06	0.00
23	1	29	1	167.00	8.23	3.70	35.48	999.00	133.10	7.16	5.52	34.15	90.70	3.70	12.81	32.80	999.00	3.66	999.00	2.78	0.00
23	1	29	2	184.10	15.47	8.65	38.23	999.00	170.60	11.08	11.40	36.69	108.90	5.16	41.20	33.18	999.00	6.77	999.00	4.85	0.00
23	1	29	3	197.50	22.75	2.51	38.23	999.00	192.50	17.08	3.11	36.69	199.80	4.61	17.43	33.18	999.00	5.62	999.00	3.68	0.00
23	1	29	4	227.90	14.75	2.97	39.89	999.00	230.50	12.36	2.63	38.82	244.70	4.13	15.61	36.07	999.00	2.95	999.00	2.17	0.00
23	1	29	5	209.70	15.35	2.48	39.51	999.00	209.30	12.70	3.30	39.42	193.90	2.42	12.73	35.82	999.00	3.16	999.00	3.11	0.00
23	1	29	6	200.50	18.36	2.05	38.71	999.00	194.40	14.98	2.77	38.77	178.10	5.22	7.70	36.65	999.00	1.22	999.00	1.26	0.00
23	1	29	7	194.90	21.17	2.82	38.56	999.00	190.70	17.50	3.45	38.49	186.40	6.49	10.81	37.50	999.00	0.69	999.00	0.76	0.00
23	1	29	8	203.90	22.12	4.07	38.14	999.00	199.40	18.64	4.65	38.25	194.70	8.00	11.88	37.85	999.00	0.46	999.00	0.57	0.00
23	1	29	9	210.10	22.01	3.43	38.14	999.00	206.50	19.02	4.03	38.25	203.70	9.31	10.70	37.85	999.00	0.38	999.00	0.54	0.00
23	1	29	10	220.10	20.67	4.26	38.96	999.00	217.40	17.79	4.95	39.11	209.60	8.70	9.64	38.67	999.00	0.30	999.00	0.48	0.00
23	1	29	11	229.10	21.85	3.29	39.31	999.00	227.50	19.40	3.94	39.53	223.10	10.85	8.66	38.94	999.00	0.38	999.00	0.66	0.01
23	1	29	12	244.60	19.90	4.67	39.31	999.00	244.20	17.63	5.20	39.53	239.90	9.06	10.02	38.94	999.00	-0.68	999.00	-0.34	0.00
23	1	29	13	316.70	22.20	4.44	34.19	999.00	316.30	20.52	5.13	34.61	310.20	14.07	10.08	35.71	999.00	-1.63	999.00	-1.23	0.00
23	1	29	14	313.60	15.86	5.65	30.35	999.00	312.50	15.28	6.19	30.83	306.50	11.42	12.05	32.60	999.00	-2.28	999.00	-1.92	0.00
23	1	29	15	306.60	14.43	4.93	30.15	999.00	306.40	14.39	5.77	30.48	301.30	9.96	11.04	32.29	999.00	-1.94	999.00	-1.53	0.00
23	1	29	16	319.40	12.30	5.89	29.84	999.00	317.50	11.67	6.28	30.28	309.70	8.50	11.06	31.77	999.00	-1.98	999.00	-1.52	0.00
23	1	29	17	328.80	8.24	6.72	30.22	999.00	325.20	8.08	5.94	30.74	313.20	5.54	13.51	31.88	999.00	-1.55	999.00	-1.03	0.00

23	1	29	18	323.50	6.83	7.62	30.47	999.00	318.90	6.27	6.89	31.01	316.60	3.17	16.38	31.83	999.00	-1.30	999.00	-0.78	0.00
23	1	29	19	43.40	12.58	6.51	30.23	999.00	42.45	12.24	7.22	30.83	46.31	8.27	12.19	31.69	999.00	-1.90	999.00	-1.28	0.00
23	1	29	20	59.41	9.22	6.35	29.43	999.00	56.71	8.81	7.76	30.02	63.22	5.06	18.52	31.17	999.00	-1.44	999.00	-0.88	0.00
23	1	29	21	62.93	8.00	6.09	29.14	999.00	62.17	7.27	8.12	29.71	72.40	4.48	15.81	30.59	999.00	-1.42	999.00	-0.86	0.00
23	1	29	22	61.64	11.65	7.69	28.75	999.00	60.82	11.26	7.96	29.30	70.60	7.47	13.51	30.17	999.00	-1.37	999.00	-0.81	0.00
23	1	29	23	66.12	13.42	4.14	28.22	999.00	63.40	13.17	4.54	28.81	70.20	8.36	12.25	29.70	999.00	-1.59	999.00	-0.98	0.00
23	1	29	24	72.50	12.49	4.94	27.94	999.00	69.38	12.31	5.62	28.55	73.80	7.97	14.03	29.52	999.00	-1.63	999.00	-1.02	0.00
23	1	30	1	71.90	11.87	4.66	27.78	999.00	69.47	11.50	5.37	28.39	71.90	7.72	11.22	29.39	999.00	-1.57	999.00	-0.97	0.00
23	1	30	2	68.87	12.45	4.40	28.01	999.00	66.79	11.96	5.16	28.63	68.16	7.45	13.48	29.61	999.00	-1.56	999.00	-0.95	0.00
23	1	30	3	84.60	10.60	5.29	28.21	999.00	81.20	10.17	6.15	28.81	88.20	5.62	14.49	29.71	999.00	-1.49	999.00	-0.88	0.00
23	1	30	4	105.90	11.91	5.28	27.67	999.00	103.30	11.05	6.41	28.23	110.50	6.09	14.61	29.20	999.00	-1.57	999.00	-1.02	0.00
23	1	30	5	94.20	11.71	5.26	27.67	999.00	91.40	11.40	6.32	28.23	100.30	5.93	16.71	29.20	999.00	-1.30	999.00	-0.79	0.00
23	1	30	6	93.60	9.71	4.35	26.87	999.00	91.20	9.35	5.40	27.39	95.70	4.81	16.95	28.15	999.00	-1.23	999.00	-0.73	0.00
23	1	30	7	95.50	8.30	3.65	26.88	999.00	92.70	7.78	4.51	27.39	98.40	4.24	14.27	28.20	999.00	-1.34	999.00	-0.81	0.01
23	1	30	8	102.80	7.48	4.00	26.78	999.00	100.20	7.40	4.13	27.29	105.60	4.20	14.80	28.07	999.00	-1.30	999.00	-0.78	0.00
23	1	30	9	103.90	1.71	26.31	26.97	999.00	91.10	1.92	27.68	27.49	82.50	1.12	56.75	28.29	999.00	-1.40	999.00	-0.89	0.00
23	1	30	10	310.50	3.60	10.03	27.46	999.00	304.70	4.05	9.07	27.97	290.30	3.61	15.17	29.51	999.00	-2.51	999.00	-1.99	0.00
23	1	30	11	299.60	11.16	5.87	27.36	999.00	297.20	11.47	6.20	27.88	283.70	8.30	10.73	30.52	999.00	-3.02	999.00	-2.52	0.00
23	1	30	12	304.70	11.90	3.96	26.66	999.00	302.30	11.89	4.83	27.21	291.80	8.64	12.22	29.02	999.00	-2.34	999.00	-1.77	0.00
23	1	30	13	300.30	15.10	3.98	25.90	999.00	298.40	15.12	4.20	26.48	291.70	10.72	12.58	28.45	999.00	-2.64	999.00	-2.05	0.00
23	1	30	14	300.20	14.85	3.80	25.06	999.00	299.20	15.09	4.55	25.65	294.90	10.36	13.07	27.75	999.00	-2.69	999.00	-2.09	0.00
23	1	30	15	300.30	17.19	4.74	25.11	999.00	300.10	17.32	5.60	25.73	294.70	12.28	11.46	27.81	999.00	-2.48	999.00	-1.86	0.00
23	1	30	16	290.40	14.40	3.42	25.13	999.00	289.30	14.09	3.55	25.73	281.10	10.02	9.87	27.37	999.00	-2.14	999.00	-1.56	0.00
23	1	30	17	283.20	13.63	5.05	25.06	999.00	281.70	12.87	5.84	25.66	271.10	9.09	10.69	26.99	999.00	-1.80	999.00	-1.22	0.00
23	1	30	18	291.80	13.90	4.79	24.78	999.00	291.20	13.63	5.47	25.36	281.50	9.05	11.69	26.43	999.00	-1.68	999.00	-1.08	0.00
23	1	30	19	288.00	14.24	3.71	23.86	999.00	287.60	13.88	3.94	24.44	278.60	9.61	11.17	25.44	999.00	-1.57	999.00	-0.99	0.00
23	1	30	20	287.60	15.97	4.89	22.95	999.00	286.30	15.48	5.59	23.53	275.30	10.64	10.73	24.51	999.00	-1.51	999.00	-0.93	0.00
23	1	30	21	294.00	15.61	4.22	22.39	999.00	293.10	15.57	4.77	22.95	284.40	10.11	13.17	23.91	999.00	-1.54	999.00	-0.98	0.00
23	1	30	22	295.80	18.27	4.65	21.38	999.00	294.40	18.08	5.10	21.93	284.10	11.62	13.04	23.03	999.00	-1.77	999.00	-1.21	0.00
23	1	30	23	311.00	19.87	7.68	21.38	999.00	310.70	19.60	7.54	21.93	304.40	14.43	11.21	23.03	999.00	-1.95	999.00	-1.37	0.00
23	1	30	24	291.50	20.46	4.86	16.96	999.00	289.40	19.74	5.63	17.52	274.30	14.02	10.94	18.85	999.00	-1.81	999.00	-1.26	0.00
23	1	31	1	308.50	21.72	6.01	15.17	999.00	308.40	21.30	6.10	15.72	303.00	15.38	11.13	16.72	999.00	-1.34	999.00	-0.79	0.00
23	1	31	2	306.90	20.10	7.20	13.35	999.00	306.40	19.88	7.10	13.90	300.00	13.97	11.76	14.57	999.00	-1.39	999.00	-0.84	0.00
23	1	31	3	312.50	20.40	6.01	11.36	999.00	311.70	19.49	5.84	11.91	303.90	13.37	11.28	12.67	999.00	-1.17	999.00	-0.62	0.00
23	1	31	4	328.70	17.41	6.92	10.81	999.00	328.40	16.85	7.05	11.34	325.00	12.69	11.17	12.01	999.00	-1.28	999.00	-0.75	0.00
23	1	31	5	329.00	15.99	5.95	10.83	999.00	326.80	15.89	5.91	11.36	319.50	11.22	12.81	12.01	999.00	-1.14	999.00	-0.61	0.00
23	1	31	6	328.50	14.48	6.75	10.83	999.00	326.10	14.27	6.36	11.36	319.70	10.31	12.00	12.01	999.00	-1.24	999.00	-0.72	0.00
23	1	31	7	341.70	14.55	6.22	11.32	999.00	339.90	13.95	6.93	11.85	336.90	10.12	12.02	12.55	999.00	-1.34	999.00	-0.80	0.00
23	1	31	8	331.80	12.66	5.03	11.55	999.00	330.20	12.58	4.97	12.07	321.00	9.48	9.75	12.80	999.00	-1.19	999.00	-0.69	0.00
23	1	31	9	326.80	9.74	8.40	11.64	999.00	324.40	9.80	8.69	12.19	317.50	7.45	16.55	13.35	999.00	-2.40	999.00	-1.81	0.00
23	1	31	10	323.90	7.75	10.53	11.75	999.00	322.00	7.73	12.66	12.35	310.70	6.75	14.86	14.28	999.00	-2.45	999.00	-1.84	0.00
23	1	31	11	321.90	7.94	11.89	11.68	999.00	321.00	8.00	11.97	12.27	313.70	6.43	15.43	14.33	999.00	-2.85	999.00	-2.23	0.00
23	1	31	12	303.70	8.60	11.66	14.22	999.00	300.50	8.62	12.31	14.90	290.80	6.77	19.21	18.82	999.00	999.00	999.00	999.00	0.00
23	1	31	13	301.20	9.04	12.87	14.22	999.00	298.10	8.98	13.15	14.90	292.10	8.07	17.31	18.82	999.00	999.00	999.00	999.00	0.00
23	1	31	14	306.10	10.94	9.06	999.00	999.00	303.80	11.15	9.63	999.00	304.00	9.08	17.29	20.44	999.00	999.00	999.00	999.00	0.00
23	1	31	15	315.90	8.01	10.12	999.00	999.00	314.00	8.44	11.65	999.00	310.60	6.90	14.98	19.96	999.00	999.00	999.00	999.00	0.00
23	1	31	16	302.90	9.14	14.68	999.00	999.00	303.00	8.96	16.08	999.00	296.30	7.22	23.75	21.55	999.00	999.00	999.00	999.00	0.00
23	1	31	17	297.60	9.03	12.28	15.97	999.00	296.40	8.77	13.01	16.35	294.80	6.76	21.81	20.60	999.00	999.00	999.00	999.00	0.00
23	1	31	18	295.80	7.83	5.90	15.45	999.00	294.80	7.53	6.89	15.99	289.00	4.88	15.81	17.33	999.00	-1.61	999.00	-1.07	0.00
23	1	31	19	263.90	9.23	3.85	15.27	999.00	262.60	8.94	4.72	15.79	247.90	5.63	10.36	16.08	999.00	-0.71	999.00	-0.22	0.00
23	1	31	20	259.50	11.58	4.60	15.02	999.00	257.40	10.85	4.76	15.51	250.90	6.09	9.09	15.53	999.00	-0.43	999.00	0.05	0.00
23	1	31	21	243.30	9.87	5.74	14.93	999.00	242.10	9.37	6.66	15.44	240.50	6.29	9.43	15.57	999.00	-0.66	999.00	-0.14	0.00
23	1	31	22	238.90	12.01	4.62	14.54	999.00	237.10	10.27	5.72	14.97	233.40	7.19	9.19	15.08	999.00	-0.48	999.00	-0.03	0.00

23	1	31	23	241.90	11.94	3.45	14.50	999.00	236.50	10.03	5.75	14.68	232.60	6.04	8.52	14.55	999.00	0.33	999.00	0.37	0.00
23	1	31	24	220.10	12.48	4.37	14.55	999.00	206.50	11.39	3.98	14.62	188.40	4.65	10.14	13.77	999.00	1.14	999.00	1.06	0.00
23	2	1	1	241.50	13.94	5.49	14.18	999.00	236.00	11.37	6.20	14.19	225.00	7.05	8.04	13.49	999.00	-0.02	999.00	0.13	0.00
23	2	1	2	268.50	15.59	4.41	13.45	999.00	259.60	13.59	4.40	13.66	247.70	6.72	9.08	13.45	999.00	0.25	999.00	0.34	0.00
23	2	1	3	280.70	16.17	1.10	13.51	999.00	271.10	13.69	2.89	13.26	246.50	5.93	8.72	12.34	999.00	1.32	999.00	1.07	0.00
23	2	1	4	264.80	14.32	2.86	13.08	999.00	254.80	12.20	4.17	12.99	239.10	6.46	8.39	12.19	999.00	0.73	999.00	0.64	0.00
23	2	1	5	260.20	14.43	3.22	13.08	999.00	248.40	11.43	4.73	12.99	221.90	6.39	7.73	12.19	999.00	1.16	999.00	0.79	0.00
23	2	1	6	262.90	16.81	3.29	11.67	999.00	251.90	14.04	4.29	11.39	239.10	7.43	9.54	10.96	999.00	0.86	999.00	0.46	0.00
23	2	1	7	250.30	15.89	4.78	11.05	999.00	243.30	13.02	5.87	10.91	234.90	8.77	9.16	10.91	999.00	-0.20	999.00	-0.16	0.00
23	2	1	8	249.30	16.53	4.40	10.57	999.00	241.20	13.63	5.60	10.58	218.90	9.17	8.24	10.67	999.00	0.16	999.00	0.07	0.00
23	2	1	9	244.20	13.87	5.12	10.04	999.00	238.30	12.08	5.81	10.09	224.70	9.37	8.22	11.15	999.00	-2.06	999.00	-1.81	0.00
23	2	1	10	228.90	10.80	4.68	11.84	999.00	222.40	9.58	4.75	11.88	211.50	7.42	10.10	14.50	999.00	999.00	999.00	999.00	0.00
23	2	1	11	231.50	10.82	5.34	15.11	999.00	229.00	10.82	5.30	15.24	224.10	8.91	10.49	19.03	999.00	999.00	999.00	999.00	0.00
23	2	1	12	235.80	12.79	5.34	15.11	999.00	234.60	12.68	6.24	15.24	229.10	10.15	11.19	19.03	999.00	999.00	999.00	999.00	0.00
23	2	1	13	231.60	14.85	4.25	999.00	999.00	230.90	14.73	4.28	18.14	227.70	12.12	10.42	22.21	999.00	999.00	999.00	999.00	0.00
23	2	1	14	229.50	15.64	4.93	999.00	999.00	227.50	15.41	4.76	19.10	220.50	12.95	8.55	23.09	999.00	999.00	999.00	999.00	0.00
23	2	1	15	233.60	15.58	3.76	999.00	999.00	231.20	15.43	3.86	20.24	222.80	11.68	10.09	24.16	999.00	999.00	999.00	999.00	0.00
23	2	1	16	230.20	17.15	4.48	20.80	999.00	229.30	16.87	4.69	21.14	224.10	12.55	10.16	24.71	999.00	999.00	999.00	999.00	0.00
23	2	1	17	219.20	16.61	5.51	21.52	999.00	217.80	15.74	5.57	22.00	212.30	11.53	9.99	24.83	999.00	-3.00	999.00	-2.50	0.00
23	2	1	18	217.00	16.10	2.51	21.90	999.00	215.90	14.83	3.43	22.39	211.90	9.42	8.88	23.87	999.00	-1.17	999.00	-0.66	0.00
23	2	1	19	216.10	15.03	1.48	21.75	999.00	213.40	13.03	1.97	22.11	204.40	6.22	7.41	21.65	999.00	0.68	999.00	0.94	0.00
23	2	1	20	217.10	15.03	3.99	21.72	999.00	211.40	12.78	4.22	21.79	207.70	4.64	10.01	20.43	999.00	1.55	999.00	1.51	0.00
23	2	1	21	225.80	13.93	1.31	21.44	999.00	218.80	11.66	1.78	21.58	201.60	3.46	9.38	19.80	999.00	1.79	999.00	1.83	0.00
23	2	1	22	217.90	18.24	1.67	21.51	999.00	211.70	14.81	2.03	21.29	198.40	5.40	10.23	19.52	999.00	2.49	999.00	1.95	0.00
23	2	1	23	213.70	18.89	2.08	22.15	999.00	207.20	15.51	3.36	21.61	198.90	5.28	11.23	19.49	999.00	2.13	999.00	1.76	0.00
23	2	1	24	218.10	19.58	1.42	21.92	999.00	210.10	15.96	2.30	21.44	198.40	5.46	10.46	19.45	999.00	2.66	999.00	2.13	0.00
23	2	2	1	220.70	19.67	1.82	22.23	999.00	214.00	15.48	3.62	21.72	203.10	5.32	11.91	19.97	999.00	1.73	999.00	1.17	0.00
23	2	2	2	223.70	18.62	1.57	22.23	999.00	218.40	15.02	1.93	21.72	211.40	6.69	7.66	19.97	999.00	1.61	999.00	1.36	0.00
23	2	2	3	223.20	18.50	1.80	21.55	999.00	217.30	14.85	2.63	21.25	201.60	4.81	10.32	19.41	999.00	2.30	999.00	1.96	0.00
23	2	2	4	217.30	19.84	1.99	21.21	999.00	210.10	16.16	2.59	20.88	197.90	5.89	10.13	18.93	999.00	2.17	999.00	1.85	0.00
23	2	2	5	220.90	20.89	2.18	20.98	999.00	215.20	17.16	3.06	20.73	201.70	6.69	10.53	19.30	999.00	1.52	999.00	1.29	0.00
23	2	2	6	228.00	21.06	2.68	21.24	999.00	222.40	18.07	2.95	21.09	204.80	8.06	8.65	19.65	999.00	1.55	999.00	1.50	0.00
23	2	2	7	225.10	17.84	2.56	20.98	999.00	219.70	15.36	3.05	21.07	205.40	7.37	8.31	20.09	999.00	0.77	999.00	0.88	0.00
23	2	2	8	217.40	19.24	2.82	20.81	999.00	211.60	16.67	3.90	20.88	202.40	7.78	10.19	19.91	999.00	0.82	999.00	0.92	0.00
23	2	2	9	209.80	18.99	3.81	21.03	999.00	205.80	16.62	4.42	21.23	198.00	8.41	12.17	21.70	999.00	-1.73	999.00	-1.49	0.00
23	2	2	10	214.50	18.90	5.88	22.33	999.00	212.30	16.98	6.55	22.70	208.10	10.66	12.69	25.16	999.00	-3.35	999.00	-2.86	0.00
23	2	2	11	214.80	21.41	5.15	24.89	999.00	213.30	19.64	6.25	25.35	213.80	15.47	8.96	28.65	999.00	-3.94	999.00	-3.46	0.00
23	2	2	12	216.80	26.54	4.26	27.60	999.00	215.10	25.36	4.76	28.02	211.20	17.27	9.73	31.59	999.00	-3.99	999.00	-3.58	0.00
23	2	2	13	217.70	28.40	4.17	29.58	999.00	216.20	26.85	4.96	30.11	214.30	19.94	9.44	33.24	999.00	-3.35	999.00	-2.82	0.00
23	2	2	14	216.70	33.08	3.19	31.34	999.00	216.10	31.13	4.49	31.85	213.20	21.08	10.93	33.17	999.00	-1.06	999.00	-0.57	0.00
23	2	2	15	226.00	29.73	4.15	33.66	999.00	224.90	28.41	4.66	34.11	221.50	20.84	8.42	35.13	999.00	-1.64	999.00	-1.17	0.00
23	2	2	16	234.20	29.79	4.59	34.51	999.00	233.50	28.78	4.76	34.98	228.90	20.04	8.96	36.08	999.00	-1.70	999.00	-1.17	0.00
23	2	2	17	241.80	29.39	5.44	34.41	999.00	241.30	27.13	6.74	34.89	236.70	18.92	10.43	36.00	999.00	-1.58	999.00	-1.11	0.00
23	2	2	18	260.20	20.83	6.68	33.73	999.00	258.50	18.68	7.61	34.19	248.80	11.39	10.10	35.03	999.00	-1.01	999.00	-0.57	0.00
23	2	2	19	271.60	24.96	5.49	33.73	999.00	270.60	23.40	5.85	34.19	259.60	14.32	10.37	35.03	999.00	-1.07	999.00	-0.63	0.00
23	2	2	20	275.80	22.61	4.89	31.11	999.00	274.80	20.72	5.44	31.54	262.90	12.91	10.64	32.24	999.00	-1.12	999.00	-0.69	0.00
23	2	2	21	300.50	25.99	9.28	30.68	999.00	299.90	25.36	9.46	31.19	293.30	16.89	14.86	32.06	999.00	-1.48	999.00	-0.94	0.00
23	2	2	22	311.70	30.28	5.81	27.30	999.00	311.90	28.61	6.91	27.86	304.70	19.13	11.86	28.77	999.00	-1.32	999.00	-0.79	0.00
23	2	2	23	309.00	28.35	4.86	24.92	999.00	308.30	27.11	5.65	25.47	300.20	18.08	10.58	26.35	999.00	-1.38	999.00	-0.84	0.00
23	2	2	24	327.50	29.72	5.68	22.75	999.00	327.50	28.24	6.00	23.32	324.20	18.71	11.32	24.37	999.00	-1.73	999.00	-1.16	0.00
23	2	3	1	331.20	25.63	9.10	20.82	999.00	331.50	23.92	10.05	21.41	325.60	17.29	13.23	22.57	999.00	-1.82	999.00	-1.22	0.00
23	2	3	2	327.60	23.95	6.25	19.09	999.00	327.50	22.92	6.18	19.64	322.00	15.64	11.40	20.67	999.00	-1.61	999.00	-1.05	0.00
23	2	3	3	337.30	22.03	7.08	16.91	999.00	337.00	21.43	7.91	17.48	331.80	15.89	11.21	18.63	999.00	-1.69	999.00	-1.13	0.00

23	2	3	4	334.30	23.80	5.91	15.18	999.00	334.00	23.25	5.88	15.74	332.70	16.58	9.15	16.87	999.00	-1.72	999.00	-1.15	0.00
23	2	3	5	331.20	22.72	6.90	13.90	999.00	330.90	21.90	7.08	14.46	326.10	15.32	11.34	15.70	999.00	-1.83	999.00	-1.28	0.00
23	2	3	6	319.70	21.93	11.69	13.07	999.00	320.20	21.27	11.98	13.63	317.00	15.21	16.34	14.92	999.00	-1.84	999.00	-1.27	0.00
23	2	3	7	312.30	27.29	5.80	12.24	999.00	311.80	26.46	6.26	12.80	305.00	17.88	13.37	14.06	999.00	-1.86	999.00	-1.28	0.00
23	2	3	8	318.50	22.70	7.74	10.51	999.00	317.40	21.53	7.88	11.07	307.80	14.62	11.99	12.28	999.00	-1.79	999.00	-1.24	0.00
23	2	3	9	316.70	22.44	6.15	9.42	999.00	316.40	21.47	6.91	10.00	307.30	15.07	12.29	11.29	999.00	-2.07	999.00	-1.48	0.00
23	2	3	10	317.50	20.56	8.58	9.02	999.00	317.40	20.16	7.80	9.60	313.00	13.30	12.66	11.09	999.00	-2.19	999.00	-1.58	0.00
23	2	3	11	318.10	22.09	5.99	9.13	999.00	318.20	21.62	6.55	9.81	311.50	15.72	12.24	12.08	999.00	-3.07	999.00	-2.36	0.00
23	2	3	12	303.20	20.02	9.56	9.13	999.00	302.90	19.98	9.88	9.81	293.90	15.16	17.19	12.08	999.00	-3.25	999.00	-2.65	0.00
23	2	3	13	295.60	21.23	10.24	10.01	999.00	295.60	20.88	11.11	10.64	289.00	15.42	20.49	13.43	999.00	-3.49	999.00	-2.82	0.00
23	2	3	14	303.10	19.44	6.04	10.46	999.00	303.40	19.26	6.96	11.07	11.61	13.71	32.36	13.71	999.00	-2.98	999.00	-2.36	0.00
23	2	3	15	286.80	15.94	11.30	11.38	999.00	286.90	15.74	11.64	11.95	11.34	11.87	29.80	14.68	999.00	-3.19	999.00	-2.62	0.00
23	2	3	16	293.40	15.38	7.24	12.14	999.00	293.50	15.27	7.88	12.73	12.65	10.87	30.36	15.38	999.00	-3.31	999.00	-2.67	0.00
23	2	3	17	307.00	13.68	7.73	12.74	999.00	307.70	13.51	8.86	13.31	13.40	10.19	28.02	15.39	999.00	-2.61	999.00	-2.02	0.00
23	2	3	18	294.10	12.42	7.18	13.05	999.00	294.20	12.13	8.06	13.58	12.16	8.22	27.92	15.21	999.00	-1.76	999.00	-1.22	0.00
23	2	3	19	288.10	11.00	3.45	12.86	999.00	287.90	10.66	4.06	13.36	12.10	5.36	25.84	13.61	999.00	-0.19	999.00	0.30	0.00
23	2	3	20	287.00	10.33	3.90	12.69	999.00	285.60	9.83	3.80	13.19	15.91	5.59	25.73	12.88	999.00	-0.12	999.00	0.37	0.00
23	2	3	21	280.60	10.66	4.08	12.61	999.00	276.20	10.33	3.44	13.08	13.49	5.91	25.75	12.82	999.00	-0.31	999.00	0.12	0.00
23	2	3	22	289.90	6.88	7.71	12.53	999.00	274.70	6.77	7.07	12.86	12.62	3.76	21.54	12.72	999.00	0.03	999.00	0.24	0.00
23	2	3	23	253.50	4.14	5.73	12.31	999.00	248.50	5.43	1.91	12.53	11.80	3.47	21.52	11.22	999.00	1.87	999.00	2.17	0.00
23	2	3	24	239.80	6.77	5.33	12.26	999.00	236.50	7.34	4.28	12.51	12.80	4.79	22.02	10.72	999.00	1.01	999.00	1.30	0.00
23	2	4	1	169.40	4.65	4.82	12.26	999.00	176.40	4.66	5.00	12.51	13.34	3.35	20.87	10.72	999.00	0.20	999.00	0.29	0.00
23	2	4	2	169.10	6.97	1.62	12.32	999.00	171.00	7.12	2.70	12.53	14.13	3.80	21.70	12.22	999.00	-0.01	999.00	0.24	0.00
23	2	4	3	159.80	10.10	2.88	12.30	999.00	161.10	8.70	5.19	12.37	13.31	4.75	22.31	12.95	999.00	-1.36	999.00	-1.08	0.00
23	2	4	4	172.30	11.29	3.21	11.94	999.00	173.00	10.46	3.62	12.33	12.39	6.08	23.94	13.52	999.00	-1.67	999.00	-1.24	0.00
23	2	4	5	180.00	12.74	1.99	11.80	999.00	177.70	11.33	2.64	12.18	14.00	5.40	23.43	13.24	999.00	-1.14	999.00	-0.83	0.00
23	2	4	6	180.10	17.85	4.24	11.92	999.00	178.10	16.74	4.94	12.36	11.38	10.34	28.12	13.59	999.00	-1.85	999.00	-1.34	0.00
23	2	4	7	180.70	18.84	3.81	12.29	999.00	178.70	17.51	4.86	12.77	9.26	11.09	30.78	14.04	999.00	-1.72	999.00	-1.25	0.00
23	2	4	8	178.10	19.65	3.97	12.62	999.00	175.90	17.99	5.35	13.09	11.96	10.98	33.00	14.34	999.00	-1.58	999.00	-1.15	0.00
23	2	4	9	177.70	21.24	5.16	13.35	999.00	176.00	19.26	6.30	13.87	10.76	11.31	32.52	15.20	999.00	-1.97	999.00	-1.42	0.00
23	2	4	10	181.90	24.70	4.82	15.02	999.00	179.20	23.84	5.11	15.61	183.70	14.53	11.79	17.09	999.00	-2.16	999.00	-1.47	0.00
23	2	4	11	187.10	24.54	6.13	17.79	999.00	185.20	23.28	6.30	18.60	188.30	15.10	14.72	20.27	999.00	-2.66	999.00	-1.86	0.00
23	2	4	12	190.30	26.21	5.04	20.62	999.00	188.90	25.10	5.75	21.37	194.40	14.75	13.90	23.27	999.00	-2.60	999.00	-1.92	0.00
23	2	4	13	193.50	27.39	7.00	24.34	999.00	192.00	25.95	8.20	25.06	191.40	16.76	14.86	27.01	999.00	-2.68	999.00	-2.03	0.00
23	2	4	14	189.00	25.62	6.38	27.06	999.00	187.30	24.25	6.91	27.72	192.30	15.41	14.09	29.76	999.00	-2.67	999.00	-2.02	0.00
23	2	4	15	197.80	24.35	7.41	30.62	999.00	197.40	22.81	6.99	31.13	200.30	15.34	13.48	33.15	999.00	-2.46	999.00	-2.01	0.00
23	2	4	16	206.70	29.35	5.01	34.87	999.00	205.60	27.90	5.79	35.34	207.50	17.42	13.22	37.01	999.00	-1.84	999.00	-1.38	0.00
23	2	4	17	205.60	27.18	5.74	37.09	999.00	204.50	25.32	6.50	37.56	209.30	15.50	11.91	38.69	999.00	-1.45	999.00	-0.97	0.00
23	2	4	18	201.30	22.24	4.64	37.09	999.00	199.90	20.24	5.09	37.56	206.10	10.49	12.66	38.69	999.00	-0.67	999.00	-0.25	0.00
23	2	4	19	201.80	21.58	3.83	37.46	999.00	199.30	18.64	4.82	37.78	203.40	8.79	12.08	37.92	999.00	-0.38	999.00	-0.08	0.00
23	2	4	20	198.40	22.30	2.94	36.83	999.00	195.60	19.53	3.42	37.03	196.30	7.89	13.32	36.76	999.00	0.28	999.00	0.45	0.00
23	2	4	21	198.70	21.93	2.69	36.83	999.00	194.60	18.80	3.02	37.03	191.10	7.45	10.97	36.76	999.00	0.83	999.00	0.84	0.00
23	2	4	22	204.40	23.09	2.78	36.21	999.00	199.60	18.91	3.45	36.18	199.00	7.62	13.23	35.34	999.00	0.87	999.00	0.69	0.00
23	2	4	23	211.30	22.99	2.26	36.95	999.00	207.30	18.91	3.27	36.76	206.60	7.88	11.53	35.94	999.00	1.02	999.00	0.81	0.00
23	2	4	24	216.20	22.94	2.87	37.73	999.00	212.30	19.00	3.77	37.51	205.90	7.12	12.36	36.50	999.00	1.52	999.00	1.24	0.00
23	2	5	1	217.40	28.19	2.96	38.82	999.00	214.50	23.94	3.98	38.76	213.40	11.84	10.93	37.78	999.00	0.70	999.00	0.66	0.00
23	2	5	2	218.80	24.82	4.03	39.69	999.00	217.70	22.00	4.49	39.82	217.00	11.75	10.74	39.51	999.00	0.16	999.00	0.37	0.00
23	2	5	3	214.00	24.07	3.72	39.89	999.00	211.80	20.91	4.61	40.10	213.70	10.29	10.41	39.97	999.00	-0.02	999.00	0.14	0.00
23	2	5	4	210.30	26.78	4.72	39.78	999.00	208.30	23.41	5.42	40.03	210.70	12.94	11.22	40.10	999.00	-0.58	999.00	-0.28	0.00
23	2	5	5	209.50	26.94	4.10	39.06	999.00	207.00	23.49	5.11	39.33	208.70	12.57	12.27	39.37	999.00	-0.24	999.00	0.02	0.00
23	2	5	6	212.60	26.24	3.72	38.83	999.00	209.40	22.92	4.26	39.01	211.70	11.65	10.80	38.73	999.00	0.14	999.00	0.31	0.00
23	2	5	7	207.60	29.45	4.58	38.14	999.00	205.00	25.54	5.42	38.33	204.70	12.95	13.55	38.07	999.00	-0.16	999.00	0.06	0.00
23	2	5	8	207.60	26.99	3.67	38.06	999.00	204.70	24.03	4.47	38.28	207.00	11.42	12.71	38.20	999.00	-0.05	999.00	0.17	0.00

23	2	5	9	210.60	24.33	4.79	37.80	999.00	207.60	21.40	5.42	38.06	208.40	11.14	11.96	38.36	999.00	-0.83	999.00	-0.51	0.00
23	2	5	10	219.10	26.72	4.49	39.15	999.00	217.40	24.55	5.02	39.56	222.40	16.69	8.76	40.35	999.00	-1.27	999.00	-0.81	0.00
23	2	5	11	214.90	25.90	5.45	40.31	999.00	213.40	23.89	5.69	40.78	216.50	15.64	11.48	41.83	999.00	-1.67	999.00	-1.17	0.00
23	2	5	12	219.10	29.24	5.40	41.51	999.00	218.20	27.53	5.54	42.01	220.40	18.39	10.20	43.19	999.00	-1.76	999.00	-1.25	0.00
23	2	5	13	224.00	29.27	4.27	42.29	999.00	223.20	28.04	4.92	42.80	223.70	19.10	10.78	43.94	999.00	-1.42	999.00	-0.92	0.00
23	2	5	14	230.70	22.00	3.91	43.08	999.00	230.30	21.08	3.96	43.58	231.50	13.86	8.38	44.23	999.00	-0.65	999.00	-0.17	0.00
23	2	5	15	226.90	19.32	3.36	42.68	999.00	226.90	17.97	3.58	43.15	229.30	11.39	7.74	43.45	999.00	-0.67	999.00	-0.22	0.00
23	2	5	16	223.50	18.32	4.81	43.21	999.00	222.10	17.02	4.76	43.65	223.90	10.38	9.04	44.19	999.00	-1.18	999.00	-0.74	0.00
23	2	5	17	227.40	19.25	3.67	43.62	999.00	226.60	17.52	3.96	44.06	228.10	10.66	7.68	44.03	999.00	-0.34	999.00	0.08	0.00
23	2	5	18	232.10	18.30	3.70	43.32	999.00	231.10	16.18	3.92	43.69	233.60	9.26	6.85	42.92	999.00	0.80	999.00	1.14	0.00
23	2	5	19	239.10	19.60	3.39	42.78	999.00	236.80	17.62	3.39	43.10	235.30	9.36	7.29	42.21	999.00	0.86	999.00	1.13	0.00
23	2	5	20	253.50	18.76	3.67	41.91	999.00	253.20	15.65	4.87	42.12	252.00	7.83	10.63	41.90	999.00	-0.34	999.00	-0.19	0.00
23	2	5	21	268.20	15.20	3.57	40.96	999.00	262.60	12.31	4.43	41.08	253.60	5.26	9.15	41.18	999.00	0.05	999.00	0.11	0.00
23	2	5	22	286.90	16.60	4.11	39.42	999.00	285.40	14.94	4.72	39.64	272.20	7.86	9.70	39.49	999.00	-0.50	999.00	-0.10	0.00
23	2	5	23	301.20	21.25	4.12	36.67	999.00	300.30	20.32	5.26	37.13	295.20	11.37	12.05	37.79	999.00	-1.14	999.00	-0.73	0.00
23	2	5	24	314.40	24.13	3.93	34.10	999.00	313.30	21.79	5.03	34.53	311.50	14.43	10.86	35.36	999.00	-1.34	999.00	-0.88	0.00
23	2	6	1	305.00	22.64	4.03	32.49	999.00	304.60	21.25	5.22	32.98	307.30	12.63	9.71	33.89	999.00	-1.44	999.00	-0.94	0.00
23	2	6	2	303.20	17.60	4.96	31.91	999.00	301.60	16.90	5.44	32.40	306.10	9.51	11.61	33.36	999.00	-1.47	999.00	-0.97	0.00
23	2	6	3	312.30	17.64	4.45	31.46	999.00	312.00	16.16	4.90	31.96	312.10	10.41	10.04	32.92	999.00	-1.49	999.00	-0.98	0.00
23	2	6	4	342.20	19.46	4.03	31.24	999.00	340.70	18.90	4.80	31.74	344.70	12.94	8.98	32.71	999.00	-1.45	999.00	-0.95	0.00
23	2	6	5	327.30	17.58	2.43	999.00	999.00	326.50	16.93	3.52	999.00	329.60	10.80	9.67	32.09	999.00	-1.51	999.00	-1.02	0.00
23	2	6	6	313.90	15.33	4.28	999.00	999.00	312.80	14.58	4.82	999.00	312.00	9.33	10.72	32.09	999.00	-1.54	999.00	-1.01	0.00
23	2	6	7	329.10	14.49	2.69	29.85	999.00	328.70	14.06	3.67	30.38	327.00	9.94	9.38	31.42	999.00	-1.56	999.00	-1.02	0.00
23	2	6	8	355.90	8.80	11.55	29.72	999.00	354.70	8.22	12.86	30.26	342.90	7.01	10.11	31.32	999.00	-1.64	999.00	-1.09	0.00
23	2	6	9	9.36	6.04	16.35	29.37	999.00	9.68	5.38	15.79	29.91	3.79	5.41	16.16	31.01	999.00	-1.66	999.00	-1.10	0.00
23	2	6	10	49.41	8.98	7.90	29.30	999.00	49.01	9.01	6.84	29.84	52.50	6.88	18.06	30.97	999.00	-1.68	999.00	-1.14	0.00
23	2	6	11	68.65	9.74	8.61	29.10	999.00	65.92	9.61	8.96	29.70	63.98	7.11	14.02	31.04	999.00	-2.05	999.00	-1.42	0.00
23	2	6	12	95.40	5.72	14.12	29.31	999.00	92.20	5.60	15.85	29.93	87.80	4.48	29.11	31.36	999.00	-2.02	999.00	-1.39	0.00
23	2	6	13	100.40	6.07	12.00	29.48	999.00	93.50	6.12	13.57	30.10	76.10	4.62	13.47	31.59	999.00	-2.14	999.00	-1.52	0.00
23	2	6	14	105.20	6.56	11.83	30.01	999.00	93.90	6.27	12.52	30.64	93.00	5.33	24.05	32.20	999.00	-2.07	999.00	-1.45	0.00
23	2	6	15	166.90	4.41	15.51	30.79	999.00	159.70	4.52	14.12	31.52	180.50	3.74	20.69	33.03	999.00	-2.28	999.00	-1.45	0.00
23	2	6	16	156.60	5.31	54.53	31.76	999.00	146.00	4.65	63.58	32.48	110.60	3.62	89.20	33.87	999.00	-1.99	999.00	-1.35	0.00
23	2	6	17	114.20	12.80	5.01	30.56	999.00	100.50	12.71	4.04	30.77	97.60	6.51	17.52	32.03	999.00	-0.96	999.00	-1.04	0.00
23	2	6	18	119.90	15.94	2.75	30.85	999.00	114.60	15.81	1.93	31.07	117.10	8.47	12.07	31.89	999.00	-1.30	999.00	-0.93	0.00
23	2	6	19	161.60	11.06	7.38	30.22	999.00	155.30	9.72	8.61	30.57	136.70	4.00	14.18	31.30	999.00	-0.64	999.00	-0.33	0.00
23	2	6	20	148.90	15.87	5.82	31.18	999.00	147.00	15.03	6.23	31.67	147.10	7.83	15.29	32.58	999.00	-1.47	999.00	-0.97	0.00
23	2	6	21	142.30	18.85	5.95	31.27	999.00	139.20	17.21	7.17	31.75	141.60	9.18	13.09	32.65	999.00	-1.21	999.00	-0.77	0.00
23	2	6	22	146.80	17.47	3.79	31.01	999.00	143.10	15.59	4.55	31.38	142.70	6.58	12.89	31.98	999.00	-0.89	999.00	-0.55	0.00
23	2	6	23	147.00	15.66	3.65	30.68	999.00	142.30	12.92	4.80	30.93	140.30	5.75	12.95	31.32	999.00	-0.59	999.00	-0.38	0.00
23	2	6	24	145.00	16.22	3.45	30.27	999.00	138.70	13.45	4.59	30.45	139.40	5.89	12.20	30.73	999.00	-0.39	999.00	-0.22	0.00
23	2	7	1	144.90	19.43	4.28	30.28	999.00	139.90	16.17	5.09	30.33	138.80	7.65	12.89	30.52	999.00	-0.46	999.00	-0.35	0.00
23	2	7	2	150.30	17.83	2.88	30.68	999.00	145.40	14.46	3.89	30.66	143.70	5.64	12.09	30.77	999.00	0.15	999.00	0.07	0.00
23	2	7	3	160.90	19.66	1.98	31.77	999.00	153.40	16.33	2.20	31.50	150.80	6.41	10.17	30.81	999.00	1.57	999.00	1.19	0.00
23	2	7	4	153.30	25.91	3.56	32.87	999.00	147.00	21.44	4.33	32.33	147.10	9.06	14.77	31.62	999.00	0.52	999.00	0.16	0.00
23	2	7	5	166.10	24.03	3.52	32.87	999.00	162.40	20.37	4.32	32.33	162.00	9.05	14.61	31.62	999.00	0.48	999.00	0.28	0.00
23	2	7	6	173.30	25.86	4.37	36.76	999.00	170.40	22.87	5.27	36.77	174.00	11.05	14.67	36.72	999.00	-0.37	999.00	-0.20	0.00
23	2	7	7	187.40	28.82	5.56	40.23	999.00	185.20	25.46	6.00	40.36	187.10	12.03	12.85	40.43	999.00	-0.21	999.00	-0.03	0.00
23	2	7	8	193.50	31.44	3.98	42.12	999.00	191.00	28.48	4.50	42.38	197.40	14.74	13.07	42.57	999.00	-0.48	999.00	-0.21	0.00
23	2	7	9	194.10	33.61	4.35	42.46	999.00	192.00	30.22	4.71	42.73	196.00	16.46	12.62	42.99	999.00	-0.67	999.00	-0.36	0.00
23	2	7	10	198.60	30.57	4.30	43.30	999.00	195.70	27.24	5.01	43.56	200.10	14.48	12.83	44.06	999.00	-0.84	999.00	-0.56	0.00
23	2	7	11	206.00	29.81	4.82	45.26	999.00	203.80	26.62	4.98	45.55	205.60	13.88	12.37	46.05	999.00	-0.69	999.00	-0.42	0.00
23	2	7	12	205.40	28.22	3.97	48.40	999.00	203.10	25.39	4.39	48.76	209.70	15.65	11.52	49.49	999.00	-1.39	999.00	-1.02	0.00
23	2	7	13	229.10	33.50	5.19	51.15	999.00	228.60	32.08	5.22	51.58	227.30	22.28	10.23	52.48	999.00	-1.06	999.00	-0.58	0.00

23	2	7	14	229.70	28.76	5.14	52.64	999.00	229.10	27.94	5.03	53.10	233.70	19.15	8.74	53.67	999.00	-0.57	999.00	-0.13	0.00
23	2	7	15	245.30	33.93	5.89	53.64	999.00	245.20	31.19	6.95	54.10	243.20	20.39	11.62	55.38	999.00	-1.99	999.00	-1.51	0.00
23	2	7	16	247.50	31.95	5.82	53.75	999.00	247.10	29.82	7.12	54.21	248.40	19.30	11.61	55.50	999.00	-1.75	999.00	-1.27	0.00
23	2	7	17	256.80	24.01	5.36	52.54	999.00	256.10	21.84	6.14	53.00	255.60	14.52	11.41	54.07	999.00	-1.56	999.00	-1.05	0.00
23	2	7	18	277.10	17.71	13.44	50.42	999.00	277.00	15.92	15.42	50.81	262.60	8.57	11.54	51.20	999.00	0.01	999.00	0.26	0.00
23	2	7	19	309.20	27.83	3.62	50.42	999.00	310.10	24.71	4.57	50.81	309.20	14.69	9.22	51.20	999.00	-0.16	999.00	0.02	0.00
23	2	7	20	297.60	16.13	2.75	37.85	999.00	297.40	15.18	3.72	37.72	292.40	4.87	10.18	37.07	999.00	1.87	999.00	1.58	0.00
23	2	7	21	288.70	12.68	2.27	37.34	999.00	284.90	10.06	2.50	37.50	246.30	3.49	8.15	36.28	999.00	0.64	999.00	0.82	0.00
23	2	7	22	290.30	15.11	3.13	36.64	999.00	288.40	12.74	4.25	36.90	276.90	5.96	9.03	36.24	999.00	-0.36	999.00	-0.05	0.00
23	2	7	23	282.10	12.26	3.65	35.78	999.00	280.70	10.66	4.08	36.18	272.20	5.62	9.52	36.63	999.00	-0.98	999.00	-0.55	0.00
23	2	7	24	279.10	14.32	4.86	35.60	999.00	279.90	13.19	5.54	36.04	283.80	7.86	8.34	36.53	999.00	-0.99	999.00	-0.54	0.00
23	2	8	1	286.20	14.42	6.45	35.53	999.00	284.60	12.72	6.41	35.97	275.50	6.98	8.78	36.44	999.00	-0.90	999.00	-0.48	0.00
23	2	8	2	287.90	17.32	5.88	35.57	999.00	288.30	16.16	6.72	36.02	282.30	9.90	11.40	36.61	999.00	-1.14	999.00	-0.67	0.00
23	2	8	3	283.80	14.50	7.62	35.59	999.00	282.50	13.41	8.21	36.05	279.70	8.24	9.94	36.65	999.00	-1.09	999.00	-0.61	0.00
23	2	8	4	289.90	11.08	7.80	35.62	999.00	284.80	9.61	8.11	36.07	269.00	4.79	12.80	36.42	999.00	-0.62	999.00	-0.22	0.00
23	2	8	5	290.20	7.51	9.16	35.70	999.00	282.90	7.05	9.08	36.08	242.90	3.64	8.81	36.00	999.00	-0.17	999.00	0.22	0.00
23	2	8	6	280.30	8.19	12.20	35.84	999.00	267.90	7.31	10.99	36.10	227.40	2.96	11.88	35.23	999.00	1.06	999.00	1.26	0.00
23	2	8	7	291.20	6.93	7.57	35.86	999.00	287.00	6.37	8.04	36.12	201.90	2.71	9.50	34.78	999.00	0.78	999.00	1.10	0.00
23	2	8	8	261.30	8.16	3.46	35.23	999.00	249.20	7.49	2.06	35.48	160.80	2.14	12.82	33.30	999.00	2.87	999.00	3.06	0.00
23	2	8	9	254.10	6.72	3.45	34.57	999.00	231.90	6.50	3.01	34.55	174.40	4.30	8.40	32.80	999.00	1.32	999.00	1.27	0.00
23	2	8	10	217.40	6.78	7.16	34.82	999.00	211.70	6.40	9.46	35.09	205.20	5.59	14.32	35.57	999.00	-2.14	999.00	-1.52	0.00
23	2	8	11	197.10	9.97	6.96	34.82	999.00	197.60	9.59	7.82	35.09	210.20	7.22	19.13	35.57	999.00	-2.77	999.00	-2.06	0.00
23	2	8	12	184.70	9.85	9.18	37.23	999.00	183.10	9.60	10.44	38.19	185.30	6.73	16.78	39.91	999.00	-2.61	999.00	-1.49	0.00
23	2	8	13	182.50	7.60	12.35	38.46	999.00	178.80	7.36	12.51	39.35	191.40	5.24	21.06	41.06	999.00	-2.72	999.00	-1.75	0.00
23	2	8	14	188.00	4.62	17.81	39.58	999.00	178.60	4.50	17.65	40.45	174.70	4.03	16.30	41.98	999.00	-2.34	999.00	-1.39	0.00
23	2	8	15	109.40	5.55	10.07	39.84	999.00	97.20	6.11	9.35	40.44	98.60	4.78	20.09	41.66	999.00	-1.82	999.00	-1.47	0.00
23	2	8	16	128.40	6.38	4.61	39.73	999.00	115.60	6.80	3.28	39.95	108.50	3.69	19.11	40.97	999.00	-0.70	999.00	-0.49	0.00
23	2	8	17	111.60	8.63	4.49	40.11	999.00	97.70	10.49	3.37	39.57	86.10	4.87	10.72	38.26	999.00	2.12	999.00	1.88	0.00
23	2	8	18	98.20	10.39	3.25	38.98	999.00	87.90	11.50	2.60	38.63	88.50	4.46	11.01	36.85	999.00	2.17	999.00	1.80	0.00
23	2	8	19	97.50	13.80	1.86	38.14	999.00	93.20	14.53	4.46	37.67	91.80	5.82	14.04	35.49	999.00	2.84	999.00	2.19	0.00
23	2	8	20	98.80	16.33	1.74	37.67	999.00	97.90	17.51	1.65	36.89	97.50	5.24	13.13	35.09	999.00	2.66	999.00	1.63	0.00
23	2	8	21	96.30	22.78	0.98	37.64	999.00	93.30	19.35	3.23	35.94	100.60	7.24	12.50	34.84	999.00	2.31	999.00	0.39	0.00
23	2	8	22	100.60	21.20	2.11	37.13	999.00	94.20	19.92	2.95	34.90	98.70	8.53	13.66	35.18	999.00	2.84	999.00	-0.05	0.00
23	2	8	23	105.20	15.56	2.69	37.87	999.00	96.60	15.42	3.61	35.30	94.90	6.09	13.66	35.40	999.00	2.01	999.00	-0.09	0.00
23	2	8	24	139.40	17.58	1.63	39.95	999.00	120.50	14.67	4.30	36.60	108.20	5.84	13.60	35.29	999.00	6.73	999.00	2.45	0.00
23	2	9	1	146.30	20.33	1.08	39.46	999.00	135.80	15.03	1.94	37.43	116.60	4.16	10.17	34.61	999.00	4.93	999.00	2.95	0.01
23	2	9	2	141.20	20.08	1.43	41.25	999.00	133.60	15.50	2.47	39.23	99.20	3.63	9.73	35.27	999.00	5.41	999.00	4.40	0.04
23	2	9	3	113.80	17.14	2.23	39.24	999.00	99.40	15.22	2.26	38.96	73.20	6.28	9.40	35.30	999.00	2.86	999.00	2.63	0.04
23	2	9	4	99.60	21.50	1.32	38.22	999.00	85.10	21.05	3.02	37.73	77.60	8.97	10.53	35.61	999.00	2.50	999.00	1.33	0.06
23	2	9	5	68.95	19.03	14.07	37.02	999.00	57.51	17.12	15.54	36.02	33.10	10.62	29.24	35.84	999.00	0.35	999.00	0.04	0.19
23	2	9	6	88.70	27.05	3.00	37.41	999.00	80.10	25.18	3.08	36.62	81.40	10.02	11.96	36.00	999.00	1.99	999.00	0.98	0.58
23	2	9	7	108.80	24.62	1.31	38.43	999.00	100.50	22.14	2.97	37.15	90.40	8.54	12.34	36.58	999.00	3.58	999.00	1.85	0.14
23	2	9	8	111.00	23.33	1.38	40.32	999.00	102.00	22.57	1.83	39.73	102.70	9.44	12.46	38.03	999.00	1.49	999.00	0.81	0.05
23	2	9	9	139.60	20.40	4.35	43.39	999.00	123.60	17.98	4.20	41.17	108.90	8.27	12.22	38.64	999.00	5.35	999.00	3.85	0.04
23	2	9	10	159.20	21.35	2.78	46.79	999.00	146.60	16.92	4.59	44.96	107.40	6.10	12.91	40.13	999.00	7.65	999.00	5.79	0.00
23	2	9	11	180.00	26.64	4.69	46.79	999.00	176.50	23.29	5.38	44.96	173.60	11.48	13.95	40.13	999.00	1.17	999.00	3.13	0.01
23	2	9	12	181.60	35.71	4.83	58.21	999.00	179.40	32.69	5.38	59.79	183.90	18.86	11.73	57.05	999.00	1.21	999.00	1.61	0.00
23	2	9	13	182.80	35.66	5.69	60.97	999.00	180.30	33.31	6.10	61.38	187.90	18.15	14.14	61.39	999.00	-0.69	999.00	-0.25	0.00
23	2	9	14	217.00	30.00	4.44	57.42	999.00	215.60	27.53	5.11	58.05	213.20	16.50	11.16	57.83	999.00	-0.08	999.00	0.57	0.03
23	2	9	15	224.30	28.39	5.45	56.74	999.00	223.50	26.24	6.07	57.33	228.60	17.44	9.35	55.60	999.00	1.49	999.00	1.94	0.00
23	2	9	16	239.50	31.88	5.69	56.74	999.00	239.50	29.60	6.49	57.18	245.20	19.17	10.41	56.82	999.00	-0.77	999.00	-0.37	0.00
23	2	9	17	235.10	35.45	5.39	53.15	999.00	235.20	33.32	5.59	53.60	237.80	21.76	9.96	53.83	999.00	-0.62	999.00	-0.17	0.00
23	2	9	18	225.90	39.39	5.00	53.15	999.00	225.20	37.48	5.51	53.60	234.10	26.54	8.95	53.83	999.00	-1.01	999.00	-0.49	0.00

23	2	9	19	223.80	43.40	6.19	47.13	999.00	222.70	40.77	6.62	47.61	221.30	28.31	10.45	48.19	999.00	-1.13	999.00	-0.62	0.00
23	2	9	20	232.90	43.70	5.57	43.68	999.00	231.80	41.51	5.67	44.25	233.80	30.56	9.39	44.90	999.00	-1.43	999.00	-0.75	0.00
23	2	9	21	233.30	42.81	5.87	41.46	999.00	232.50	40.61	6.25	42.05	233.10	27.73	8.21	42.76	999.00	-1.34	999.00	-0.77	0.00
23	2	9	22	231.40	43.68	5.28	39.64	999.00	230.70	41.57	6.01	40.20	232.40	29.43	9.76	41.11	999.00	-1.48	999.00	-0.92	0.00
23	2	9	23	226.30	38.49	4.26	38.64	999.00	225.50	36.59	5.02	39.18	227.10	26.93	7.91	40.15	999.00	-1.52	999.00	-0.97	0.00
23	2	9	24	238.70	32.56	6.04	38.37	999.00	237.20	31.38	6.46	38.91	234.90	22.46	9.84	39.84	999.00	-1.46	999.00	-0.91	0.00
23	2	10	1	252.20	30.50	6.42	38.15	999.00	251.60	27.76	7.04	38.66	251.80	18.10	11.20	39.59	999.00	-1.42	999.00	-0.91	0.00
23	2	10	2	261.40	28.91	6.25	37.75	999.00	260.50	26.62	6.59	38.26	258.80	17.72	10.89	39.18	999.00	-1.42	999.00	-0.92	0.00
23	2	10	3	276.60	25.99	5.40	37.70	999.00	276.20	24.54	5.94	38.19	272.70	16.72	10.28	39.07	999.00	-1.32	999.00	-0.82	0.00
23	2	10	4	272.10	19.99	5.97	37.51	999.00	271.30	18.41	5.90	37.99	272.20	11.23	10.31	38.82	999.00	-1.34	999.00	-0.87	0.00
23	2	10	5	266.70	17.46	6.84	37.41	999.00	265.20	15.99	7.26	37.88	260.20	10.17	11.55	38.70	999.00	-1.34	999.00	-0.88	0.00
23	2	10	6	250.10	18.07	5.35	37.22	999.00	248.00	16.01	6.39	37.70	250.60	10.25	10.48	38.57	999.00	-1.34	999.00	-0.86	0.00
23	2	10	7	247.40	16.91	4.48	37.09	999.00	245.20	14.81	5.98	37.56	247.70	9.36	8.99	38.45	999.00	-1.38	999.00	-0.90	0.00
23	2	10	8	233.00	19.91	3.80	36.90	999.00	231.60	18.67	3.99	37.40	233.20	12.96	8.52	38.32	999.00	-1.43	999.00	-0.93	0.00
23	2	10	9	248.10	19.39	5.07	37.08	999.00	247.20	17.73	6.51	37.58	248.50	11.25	10.67	38.53	999.00	-1.45	999.00	-0.96	0.00
23	2	10	10	239.50	17.91	5.49	37.00	999.00	237.20	17.24	5.66	37.51	234.10	11.80	8.53	38.59	999.00	-1.61	999.00	-1.08	0.00
23	2	10	11	239.90	20.35	6.02	36.74	999.00	238.60	19.03	6.84	37.29	236.20	12.95	9.35	38.35	999.00	-1.59	999.00	-1.03	0.00
23	2	10	12	263.00	22.36	12.82	35.50	999.00	261.70	21.28	12.43	36.04	248.30	14.68	12.06	37.04	999.00	-1.58	999.00	-1.10	0.00
23	2	10	13	250.80	18.03	5.99	35.08	999.00	248.40	17.40	6.69	35.61	251.40	13.40	11.40	36.86	999.00	-1.94	999.00	-1.30	0.00
23	2	10	14	266.40	23.99	6.81	36.94	999.00	265.50	23.13	7.59	37.58	262.00	16.08	11.53	38.16	999.00	-2.41	999.00	-1.78	0.00
23	2	10	15	271.50	19.85	7.87	37.92	999.00	271.00	18.90	8.86	38.54	265.80	15.33	12.52	40.33	999.00	-2.48	999.00	-1.78	0.00
23	2	10	16	250.30	25.22	6.61	39.16	999.00	249.20	23.65	7.65	39.76	247.70	16.98	14.00	41.83	999.00	-2.26	999.00	-1.75	0.00
23	2	10	17	270.80	23.25	4.55	39.32	999.00	271.10	22.20	5.69	39.90	266.10	15.39	12.50	41.44	999.00	-1.89	999.00	-1.30	0.00
23	2	10	18	270.20	23.30	4.70	38.40	999.00	268.70	21.47	5.29	38.87	268.40	12.23	10.27	39.70	999.00	-0.85	999.00	-0.44	0.00
23	2	10	19	282.20	19.10	3.68	36.75	999.00	281.90	16.92	3.75	37.08	275.70	9.58	7.50	36.92	999.00	-0.03	999.00	0.34	0.00
23	2	10	20	299.80	23.10	6.48	34.45	999.00	299.20	22.33	7.02	34.92	292.80	13.60	11.27	35.15	999.00	-0.97	999.00	-0.47	0.00
23	2	10	21	307.80	21.79	5.97	32.11	999.00	308.50	21.06	6.01	32.62	311.00	13.69	9.28	33.25	999.00	-1.22	999.00	-0.69	0.00
23	2	10	22	296.20	24.22	4.78	29.69	999.00	295.60	23.76	5.83	30.22	300.20	14.42	12.59	30.98	999.00	-1.21	999.00	-0.69	0.00
23	2	10	23	287.10	17.82	4.54	28.34	999.00	284.50	16.06	4.35	28.81	274.50	9.53	8.49	29.26	999.00	-0.55	999.00	-0.14	0.00
23	2	10	24	290.20	17.99	4.64	27.97	999.00	287.80	16.78	4.57	28.38	282.20	10.89	8.21	28.58	999.00	-0.73	999.00	-0.30	0.00
23	2	11	1	289.00	17.47	3.60	27.33	999.00	286.70	15.23	3.82	27.72	281.80	9.00	8.91	27.92	999.00	-0.51	999.00	-0.14	0.00
23	2	11	2	307.80	17.86	5.40	27.09	999.00	306.70	17.33	6.23	27.47	301.00	11.06	14.00	27.61	999.00	-1.06	999.00	-0.56	0.00
23	2	11	3	314.30	17.34	5.14	27.09	999.00	313.80	16.70	5.72	27.47	314.50	11.04	11.47	27.61	999.00	-1.20	999.00	-0.70	0.00
23	2	11	4	314.40	14.43	4.28	26.80	999.00	313.10	13.94	4.57	27.30	314.20	9.10	9.17	27.87	999.00	-1.03	999.00	-0.53	0.00
23	2	11	5	307.50	10.39	9.55	26.65	999.00	298.20	9.68	13.76	27.10	304.60	5.95	12.17	27.47	999.00	-0.46	999.00	-0.14	0.00
23	2	11	6	291.00	10.25	3.01	26.07	999.00	281.60	10.74	2.17	26.27	259.00	6.39	7.19	25.13	999.00	1.06	999.00	1.19	0.00
23	2	11	7	287.10	10.65	2.37	25.75	999.00	281.70	10.82	1.61	25.88	251.90	5.30	7.42	24.80	999.00	1.00	999.00	1.27	0.00
23	2	11	8	300.50	9.52	2.13	25.89	999.00	293.80	10.95	1.52	26.20	268.80	4.46	7.35	24.17	999.00	1.74	999.00	1.97	0.00
23	2	11	9	268.90	4.97	11.81	25.82	999.00	249.40	3.94	14.02	26.12	219.90	3.09	18.16	25.79	999.00	-1.45	999.00	-1.10	0.00
23	2	11	10	233.90	4.24	12.97	26.33	999.00	230.90	4.24	13.63	26.97	237.00	4.05	16.23	28.38	999.00	-2.42	999.00	-1.75	0.00
23	2	11	11	226.50	5.34	8.73	27.41	999.00	229.80	5.15	11.11	28.04	231.60	4.53	16.25	29.83	999.00	-2.62	999.00	-2.00	0.00
23	2	11	12	196.90	5.74	21.84	28.67	999.00	194.00	5.78	23.39	29.48	222.20	5.04	22.71	31.36	999.00	-2.81	999.00	-1.63	0.00
23	2	11	13	207.50	7.77	11.07	30.60	999.00	206.50	7.38	10.48	31.42	221.30	6.26	19.88	33.53	999.00	-2.73	999.00	-2.02	0.00
23	2	11	14	206.20	10.13	11.28	32.52	999.00	205.60	9.75	12.42	33.24	214.30	8.08	19.21	35.45	999.00	-2.74	999.00	-2.10	0.00
23	2	11	15	209.50	11.70	8.16	34.67	999.00	209.50	11.18	10.52	35.19	220.00	9.24	14.07	37.59	999.00	-2.59	999.00	-2.09	0.00
23	2	11	16	200.70	13.93	8.57	36.17	999.00	200.60	13.25	9.34	36.67	199.50	8.62	14.95	38.83	999.00	-2.39	999.00	-1.95	0.00
23	2	11	17	200.50	16.43	5.53	37.35	999.00	200.00	15.82	6.60	37.88	207.70	9.93	12.59	39.59	999.00	-1.97	999.00	-1.46	0.00
23	2	11	18	205.70	13.25	2.90	37.24	999.00	204.40	12.19	2.97	37.70	207.70	5.89	10.54	38.58	999.00	-0.76	999.00	-0.34	0.00
23	2	11	19	214.10	16.22	2.57	36.87	999.00	209.90	14.29	3.22	37.03	202.40	5.59	9.01	36.36	999.00	1.18	999.00	1.20	0.00
23	2	11	20	213.30	16.24	1.19	36.80	999.00	207.40	14.91	1.72	36.76	191.80	5.00	8.75	35.00	999.00	2.34	999.00	2.00	0.00
23	2	11	21	224.40	18.18	1.09	37.01	999.00	219.70	16.39	1.71	36.76	202.10	4.64	10.21	34.15	999.00	3.36	999.00	3.21	0.00
23	2	11	22	224.40	18.76	1.74	36.90	999.00	216.00	15.71	2.01	36.25	202.70	5.64	9.57	33.41	999.00	3.35	999.00	2.63	0.00
23	2	11	23	218.30	21.71	1.89	35.75	999.00	211.30	17.51	2.78	34.58	200.00	5.83	11.74	32.73	999.00	2.80	999.00	1.70	0.00

23	2	11	24	230.10	21.68	1.12	35.14	999.00	221.90	17.65	1.63	34.10	208.80	5.69	10.09	32.04	999.00	3.64	999.00	2.36	0.00
23	2	12	1	225.00	18.56	4.01	35.40	999.00	210.40	15.52	3.26	33.91	194.40	5.47	9.43	31.53	999.00	3.65	999.00	2.17	0.00
23	2	12	2	232.40	21.52	1.67	35.24	999.00	222.80	17.01	2.22	33.60	202.80	5.20	10.92	31.19	999.00	4.89	999.00	3.00	0.00
23	2	12	3	239.30	17.43	4.15	33.95	999.00	228.90	14.06	4.74	32.78	211.40	4.85	10.01	30.76	999.00	3.80	999.00	2.65	0.00
23	2	12	4	250.80	17.35	1.80	35.05	999.00	240.30	13.02	2.44	33.51	206.50	4.16	9.09	30.23	999.00	4.66	999.00	3.00	0.00
23	2	12	5	275.10	21.38	1.63	36.64	999.00	273.90	20.13	1.82	35.12	272.20	4.16	10.72	30.26	999.00	7.74	999.00	6.81	0.00
23	2	12	6	280.70	15.29	2.69	36.87	999.00	266.90	10.50	5.66	34.79	203.10	4.09	32.75	30.14	999.00	6.37	999.00	4.23	0.00
23	2	12	7	277.70	11.35	2.25	34.86	999.00	258.00	8.48	4.22	33.08	186.50	2.44	10.13	28.43	999.00	6.70	999.00	5.26	0.00
23	2	12	8	291.50	11.44	2.28	35.46	999.00	278.40	8.98	3.89	34.05	231.50	1.34	38.36	27.89	999.00	7.96	999.00	6.75	0.00
23	2	12	9	280.10	9.92	1.36	35.88	999.00	252.90	8.25	5.70	34.51	178.40	2.30	18.10	29.17	999.00	5.28	999.00	3.17	0.00
23	2	12	10	279.20	6.14	7.13	34.65	999.00	263.40	4.48	11.70	33.38	202.90	4.24	15.64	33.26	999.00	-0.46	999.00	-0.47	0.00
23	2	12	11	294.50	5.47	16.15	36.70	999.00	291.00	5.39	14.71	37.08	247.40	4.00	33.80	38.30	999.00	-3.33	999.00	-2.61	0.00
23	2	12	12	303.70	5.39	8.12	39.44	999.00	304.40	5.49	7.09	40.17	310.10	5.00	13.54	42.90	999.00	-3.48	999.00	-2.82	0.00
23	2	12	13	347.20	3.12	40.42	41.52	999.00	359.60	3.15	35.35	42.73	12.66	3.98	16.86	43.13	999.00	-0.94	999.00	0.49	0.00
23	2	12	14	140.40	4.69	26.03	43.20	999.00	112.60	5.19	17.40	44.10	89.70	5.24	22.86	45.19	999.00	-1.73	999.00	-1.32	0.00
23	2	12	15	200.60	3.73	21.24	43.58	999.00	133.10	2.76	52.74	43.07	74.10	4.68	11.75	43.84	999.00	0.35	999.00	0.00	0.00
23	2	12	16	234.40	9.68	7.49	46.69	999.00	220.50	6.74	19.91	46.12	103.10	3.84	24.48	45.46	999.00	1.79	999.00	1.20	0.00
23	2	12	17	250.50	9.81	7.83	48.08	999.00	250.10	9.27	9.03	48.66	252.80	6.80	14.18	50.09	999.00	-2.11	999.00	-1.47	0.00
23	2	12	18	237.20	11.98	2.45	47.62	999.00	236.30	11.12	2.51	48.09	231.30	6.61	4.79	48.07	999.00	0.69	999.00	1.15	0.00
23	2	12	19	226.50	16.29	1.18	47.62	999.00	221.90	14.33	1.80	48.09	212.20	3.83	9.39	48.07	999.00	2.95	999.00	2.78	0.00
23	2	12	20	233.30	17.87	2.29	46.49	999.00	225.80	15.76	2.70	46.43	214.90	5.03	6.52	43.14	999.00	3.53	999.00	2.90	0.00
23	2	12	21	242.70	20.66	1.49	46.41	999.00	237.10	16.21	1.85	45.26	219.10	5.43	5.59	41.83	999.00	4.61	999.00	3.46	0.00
23	2	12	22	250.60	25.10	1.58	46.13	999.00	247.20	19.49	2.20	44.44	229.90	7.40	2.98	40.21	999.00	7.01	999.00	5.49	0.00
23	2	12	23	248.20	23.28	1.93	45.19	999.00	242.80	18.06	2.85	44.03	229.80	7.77	4.18	40.42	999.00	4.14	999.00	2.97	0.00
23	2	12	24	252.60	24.98	1.80	44.07	999.00	246.90	20.02	2.25	42.84	243.60	7.44	8.78	39.87	999.00	3.97	999.00	2.69	0.00
23	2	13	1	252.70	20.42	2.01	42.36	999.00	243.90	16.39	2.59	41.56	225.40	7.37	4.45	38.85	999.00	3.27	999.00	2.53	0.00
23	2	13	2	259.60	25.10	1.10	41.29	999.00	254.40	19.56	2.18	39.71	226.80	6.52	5.13	37.06	999.00	5.51	999.00	3.49	0.00
23	2	13	3	239.80	19.96	2.13	39.74	999.00	228.50	16.60	1.85	38.42	212.40	6.88	8.48	35.62	999.00	3.61	999.00	2.25	0.00
23	2	13	4	236.30	22.54	2.51	38.97	999.00	231.00	18.27	3.33	37.91	208.60	7.27	10.47	35.25	999.00	3.23	999.00	2.54	0.00
23	2	13	5	231.10	21.39	2.54	37.59	999.00	225.80	17.69	2.80	37.10	210.10	7.23	9.32	35.02	999.00	2.42	999.00	1.98	0.00
23	2	13	6	222.00	22.01	2.28	37.00	999.00	215.90	18.65	2.71	36.46	206.00	7.28	10.12	34.85	999.00	1.71	999.00	1.32	0.00
23	2	13	7	218.30	21.80	2.86	36.89	999.00	214.50	17.83	3.92	36.63	205.00	7.15	11.73	35.71	999.00	1.08	999.00	0.82	0.00
23	2	13	8	221.50	22.99	4.46	36.97	999.00	217.50	19.28	5.71	36.83	210.20	9.28	11.01	36.16	999.00	0.52	999.00	0.38	0.00
23	2	13	9	232.00	23.10	4.94	37.16	999.00	230.10	20.25	5.59	37.26	224.00	12.47	8.66	37.41	999.00	-0.68	999.00	-0.43	0.00
23	2	13	10	238.80	19.65	5.90	37.82	999.00	237.10	18.77	5.56	38.22	236.40	13.13	10.10	39.26	999.00	-1.94	999.00	-1.48	0.00
23	2	13	11	241.70	18.92	5.70	39.01	999.00	240.30	17.78	6.10	39.57	236.80	12.67	10.25	41.55	999.00	-2.45	999.00	-1.91	0.00
23	2	13	12	244.30	21.30	4.63	41.68	999.00	242.90	20.06	5.66	42.26	240.40	14.18	9.98	44.34	999.00	-2.69	999.00	-2.09	0.00
23	2	13	13	236.60	21.73	5.57	44.64	999.00	235.60	21.14	6.09	45.21	238.30	15.97	10.43	47.25	999.00	-2.57	999.00	-2.03	0.00
23	2	13	14	263.20	25.38	6.61	47.51	999.00	262.80	24.18	6.82	48.11	259.30	17.44	13.07	50.36	999.00	-2.95	999.00	-2.33	0.00
23	2	13	15	271.20	22.96	9.33	49.17	999.00	270.50	21.67	9.94	49.79	264.80	15.72	12.52	52.13	999.00	-2.88	999.00	-2.25	0.00
23	2	13	16	274.80	23.75	6.37	49.43	999.00	274.20	22.52	6.84	50.06	275.30	16.18	10.58	52.20	999.00	-2.60	999.00	-2.00	0.00
23	2	13	17	276.80	18.14	8.13	49.31	999.00	275.00	17.23	8.42	49.91	273.00	12.04	12.95	51.50	999.00	-2.02	999.00	-1.41	0.00
23	2	13	18	285.60	18.52	3.96	48.68	999.00	286.60	16.61	4.01	49.13	283.60	8.72	9.57	49.55	999.00	0.08	999.00	0.48	0.00
23	2	13	19	279.60	18.29	4.29	46.92	999.00	277.30	15.58	7.07	47.16	265.60	7.22	7.66	45.87	999.00	1.61	999.00	1.70	0.00
23	2	13	20	273.20	21.12	1.46	45.20	999.00	271.10	17.86	1.79	45.14	265.70	6.90	7.75	43.41	999.00	2.47	999.00	2.19	0.00
23	2	13	21	282.20	17.82	2.21	43.12	999.00	279.50	16.05	2.11	43.13	261.90	6.88	7.74	41.10	999.00	1.69	999.00	1.85	0.00
23	2	13	22	293.60	17.89	2.61	40.75	999.00	289.30	15.04	3.53	40.86	270.50	6.20	6.17	38.89	999.00	1.81	999.00	1.84	0.00
23	2	13	23	278.10	16.62	1.72	39.23	999.00	274.30	14.28	2.16	39.28	253.30	5.89	6.43	37.94	999.00	1.32	999.00	1.19	0.00
23	2	13	24	281.30	16.10	2.64	38.50	999.00	274.00	13.76	3.43	38.31	237.20	5.33	7.41	36.76	999.00	2.20	999.00	2.07	0.00
23	2	14	1	286.40	15.47	1.30	37.94	999.00	277.20	13.19	1.81	37.70	254.40	4.51	6.86	35.76	999.00	2.40	999.00	2.10	0.00
23	2	14	2	295.70	9.63	3.79	37.93	999.00	277.50	8.63	3.98	37.51	195.40	3.09	10.82	34.24	999.00	4.62	999.00	4.27	0.00
23	2	14	3	307.00	5.44	4.63	37.75	999.00	267.40	5.05	4.24	37.16	170.60	3.16	5.36	31.89	999.00	5.68	999.00	5.06	0.00
23	2	14	4	104.20	2.58	5.75	38.24	999.00	161.20	2.17	7.01	37.44	165.30	4.40	5.74	32.56	999.00	6.25	999.00	4.98	0.00

23	2	14	5	179.30	5.88	10.42	38.24	999.00	192.80	8.63	5.91	37.44	194.70	4.46	9.44	32.56	999.00	6.03	999.00	5.36	0.00
23	2	14	6	171.60	11.84	0.91	37.04	999.00	178.80	14.02	0.64	36.38	180.30	3.98	8.67	30.63	999.00	6.33	999.00	5.86	0.00
23	2	14	7	167.80	14.09	2.79	36.99	999.00	173.30	15.34	2.48	36.56	173.60	3.71	9.04	30.69	999.00	6.32	999.00	5.97	0.00
23	2	14	8	165.30	18.51	0.94	37.68	999.00	173.40	16.39	1.43	36.22	175.30	4.59	10.52	31.18	999.00	6.36	999.00	3.25	0.00
23	2	14	9	172.70	18.70	2.70	37.89	999.00	173.40	13.43	3.45	34.53	177.20	5.87	11.25	32.86	999.00	2.32	999.00	0.22	0.00
23	2	14	10	186.30	16.75	4.19	35.32	999.00	184.50	14.23	4.97	35.40	188.10	8.32	11.53	35.91	999.00	-1.63	999.00	-1.05	0.00
23	2	14	11	181.60	12.63	6.30	39.04	999.00	180.80	11.70	6.61	40.10	184.40	7.95	12.73	41.31	999.00	-2.60	999.00	-1.41	0.00
23	2	14	12	171.20	14.41	5.28	39.04	999.00	169.50	14.41	5.66	40.10	170.90	9.16	16.31	41.31	999.00	-2.52	999.00	-1.58	0.00
23	2	14	13	169.30	14.27	6.96	45.20	999.00	168.30	13.77	9.17	46.13	177.30	9.07	13.95	47.86	999.00	-2.83	999.00	-1.85	0.00
23	2	14	14	167.30	15.58	4.88	47.96	999.00	165.90	14.94	5.52	48.76	170.30	9.14	16.87	50.37	999.00	-2.14	999.00	-1.41	0.00
23	2	14	15	164.30	15.13	5.09	49.88	999.00	163.70	14.54	5.42	50.55	169.50	8.25	14.68	51.74	999.00	-1.75	999.00	-1.12	0.00
23	2	14	16	153.30	13.48	4.88	50.58	999.00	150.40	12.56	6.20	51.17	155.20	6.84	15.38	52.06	999.00	-1.31	999.00	-0.75	0.00
23	2	14	17	145.80	16.59	3.86	50.71	999.00	143.80	14.68	4.88	51.15	145.90	7.65	12.96	51.79	999.00	-0.86	999.00	-0.50	0.00
23	2	14	18	143.60	21.93	3.49	50.90	999.00	140.40	19.24	4.46	51.13	143.00	9.10	11.83	51.32	999.00	-0.27	999.00	-0.08	0.00
23	2	14	19	132.30	24.84	4.88	50.59	999.00	127.80	21.64	5.65	50.72	130.30	10.21	12.98	50.65	999.00	-0.27	999.00	-0.10	0.00
23	2	14	20	138.90	24.74	4.61	49.99	999.00	134.70	21.24	5.82	50.20	142.70	10.58	14.31	50.56	999.00	-0.48	999.00	-0.28	0.00
23	2	14	21	137.50	28.17	5.94	49.49	999.00	134.60	24.58	6.89	49.67	141.90	13.14	17.64	49.99	999.00	-0.59	999.00	-0.50	0.00
23	2	14	22	151.20	21.22	3.58	49.36	999.00	147.40	17.95	4.45	49.46	148.00	7.60	14.29	49.53	999.00	0.38	999.00	0.35	0.00
23	2	14	23	158.20	24.02	3.10	50.80	999.00	154.20	20.92	4.36	50.82	157.10	8.85	12.87	50.38	999.00	0.38	999.00	0.42	0.00
23	2	14	24	170.70	26.14	4.74	52.09	999.00	168.10	22.45	5.30	52.07	168.60	9.34	13.70	51.42	999.00	0.79	999.00	0.74	0.00
23	2	15	1	183.80	29.40	5.36	52.09	999.00	181.60	26.98	5.86	52.07	189.00	14.53	12.62	51.42	999.00	-0.40	999.00	0.23	0.00
23	2	15	2	174.20	35.71	4.94	54.06	999.00	171.20	32.16	5.47	54.34	179.20	17.80	11.31	54.44	999.00	-0.50	999.00	-0.26	0.00
23	2	15	3	171.60	36.89	5.50	54.54	999.00	168.50	33.33	6.06	54.83	171.20	17.50	14.09	55.07	999.00	-0.60	999.00	-0.33	0.00
23	2	15	4	186.40	36.99	5.33	54.54	999.00	184.00	34.17	6.46	54.83	189.90	19.07	13.13	55.07	999.00	-0.77	999.00	-0.38	0.00
23	2	15	5	186.80	33.81	4.52	54.67	999.00	184.70	31.23	4.65	55.02	189.60	17.25	12.00	55.28	999.00	-0.67	999.00	-0.32	0.00
23	2	15	6	187.40	34.32	4.26	54.00	999.00	184.80	31.33	5.41	54.35	188.90	16.68	12.73	54.67	999.00	-0.64	999.00	-0.28	0.00
23	2	15	7	188.10	32.07	4.31	53.41	999.00	185.80	29.10	5.03	53.76	192.50	15.31	12.83	54.11	999.00	-0.71	999.00	-0.37	0.00
23	2	15	8	191.40	30.97	4.49	53.68	999.00	188.30	27.85	5.23	54.04	191.80	14.41	12.87	54.42	999.00	-0.55	999.00	-0.25	0.00
23	2	15	9	213.40	38.65	6.15	55.82	999.00	211.90	35.46	7.07	56.23	215.00	22.47	11.10	56.58	999.00	-1.10	999.00	-0.65	0.00
23	2	15	10	217.30	43.28	6.05	56.30	999.00	216.80	40.28	6.29	56.77	219.10	27.01	10.63	57.48	999.00	-1.23	999.00	-0.75	0.00
23	2	15	11	228.00	49.30	5.36	56.72	999.00	227.40	46.81	5.51	57.22	229.10	34.44	9.03	58.13	999.00	-1.48	999.00	-0.99	0.00
23	2	15	12	233.30	46.16	3.85	57.41	999.00	233.10	44.20	4.19	57.91	235.90	31.33	8.59	59.05	999.00	-1.42	999.00	-0.92	0.00
23	2	15	13	226.80	45.45	6.02	57.75	999.00	226.20	43.50	6.53	58.26	232.20	30.34	8.54	59.63	999.00	-1.92	999.00	-1.40	0.00
23	2	15	14	235.40	44.47	5.73	57.75	999.00	234.90	42.57	5.68	58.26	233.20	30.49	9.51	59.63	999.00	-1.89	999.00	-1.39	0.00
23	2	15	15	238.40	37.90	5.90	59.41	999.00	238.20	35.97	6.72	59.89	237.00	24.80	9.13	61.19	999.00	-1.84	999.00	-1.36	0.00
23	2	15	16	238.80	40.60	4.91	59.80	999.00	238.50	38.78	5.45	60.27	242.50	25.73	10.98	61.61	999.00	-1.65	999.00	-1.18	0.00
23	2	15	17	244.70	29.86	6.22	59.03	999.00	245.20	27.06	7.33	59.53	245.20	18.46	11.42	60.64	999.00	-1.61	999.00	-1.08	0.00
23	2	15	18	254.00	24.77	5.14	56.99	999.00	254.40	23.03	5.84	57.46	256.10	14.76	11.23	58.23	999.00	-1.08	999.00	-0.59	0.00
23	2	15	19	261.30	22.01	5.10	53.30	999.00	260.70	19.26	6.01	53.70	259.60	10.78	9.96	54.08	999.00	-0.61	999.00	-0.26	0.00
23	2	15	20	268.70	20.34	5.00	49.92	999.00	267.70	18.19	5.38	50.27	268.40	9.87	10.34	50.24	999.00	-0.44	999.00	-0.13	0.00
23	2	15	21	270.60	18.60	3.16	46.97	999.00	268.60	17.50	3.45	47.27	263.90	9.37	11.03	47.26	999.00	-0.40	999.00	-0.09	0.00
23	2	15	22	264.30	15.37	2.44	44.91	999.00	260.70	13.80	3.17	45.18	258.50	6.65	8.74	45.13	999.00	-0.03	999.00	0.22	0.00
23	2	15	23	277.10	13.66	2.38	43.46	999.00	273.60	12.41	2.47	43.77	258.40	6.30	6.53	43.44	999.00	0.07	999.00	0.41	0.00
23	2	15	24	278.50	12.75	2.31	42.25	999.00	274.70	11.06	3.30	42.50	244.20	4.04	7.61	41.92	999.00	0.61	999.00	0.83	0.00
23	2	16	1	288.80	10.43	6.67	41.45	999.00	279.50	9.18	8.18	41.71	223.90	3.13	11.19	40.72	999.00	0.64	999.00	0.82	0.00
23	2	16	2	313.40	12.57	2.54	40.19	999.00	310.80	10.98	3.42	40.47	290.70	3.60	10.30	39.45	999.00	0.62	999.00	0.93	0.00
23	2	16	3	351.30	4.58	22.20	39.14	999.00	4.97	3.15	24.68	39.51	51.74	2.16	30.20	39.58	999.00	-1.34	999.00	-0.94	0.00
23	2	16	4	27.38	10.85	7.60	38.62	999.00	29.48	8.70	8.49	38.96	32.17	8.02	11.61	39.56	999.00	-0.83	999.00	-0.48	0.00
23	2	16	5	43.96	15.17	6.32	38.31	999.00	38.75	13.66	6.99	38.62	48.37	8.27	8.50	38.76	999.00	-0.33	999.00	-0.16	0.00
23	2	16	6	56.85	18.91	1.65	37.93	999.00	54.18	16.87	3.53	38.08	52.07	8.18	10.76	38.36	999.00	-0.20	999.00	-0.16	0.00
23	2	16	7	57.98	18.65	2.57	37.22	999.00	55.98	14.70	4.56	37.25	65.34	7.68	11.47	38.00	999.00	-0.96	999.00	-0.92	0.00
23	2	16	8	65.21	20.23	3.26	36.83	999.00	64.35	16.60	5.09	36.86	65.22	8.91	11.48	37.72	999.00	-0.77	999.00	-0.82	0.00
23	2	16	9	62.46	19.92	2.60	36.76	999.00	56.06	16.78	4.72	36.89	57.70	10.38	10.87	37.90	999.00	-1.03	999.00	-0.95	0.00

23	2	16	10	80.20	17.77	4.80	36.60	999.00	76.70	15.56	6.47	36.65	86.50	8.59	16.05	37.68	999.00	-1.40	999.00	-1.11	0.03
23	2	16	11	76.00	20.01	3.49	35.79	999.00	67.85	18.72	4.16	36.21	68.38	11.79	11.23	37.45	999.00	-1.68	999.00	-1.26	0.05
23	2	16	12	64.75	23.66	4.36	35.61	999.00	60.29	21.28	5.75	36.14	65.26	13.72	11.28	37.41	999.00	-2.10	999.00	-1.48	0.00
23	2	16	13	56.45	20.87	4.95	35.80	999.00	52.28	18.32	5.91	36.47	56.44	11.68	12.13	37.93	999.00	-1.95	999.00	-1.34	0.00
23	2	16	14	49.37	23.45	5.06	35.23	999.00	45.67	20.89	6.21	35.86	43.99	13.54	11.74	37.72	999.00	-2.60	999.00	-1.98	0.00
23	2	16	15	65.16	23.25	4.08	34.95	999.00	60.84	20.99	5.70	35.57	62.41	13.02	11.09	37.02	999.00	-1.92	999.00	-1.35	0.00
23	2	16	16	53.83	23.03	4.54	35.38	999.00	50.85	21.25	5.72	36.01	53.91	14.12	10.30	37.35	999.00	-1.82	999.00	-1.23	0.00
23	2	16	17	50.70	27.70	3.65	34.76	999.00	47.33	26.08	4.18	35.32	50.49	15.74	10.53	36.36	999.00	-1.40	999.00	-0.87	0.00
23	2	16	18	45.93	21.99	7.38	34.36	999.00	43.31	19.95	7.17	34.87	43.98	12.93	10.46	35.77	999.00	-1.46	999.00	-0.97	0.00
23	2	16	19	41.24	13.44	8.34	32.17	999.00	37.85	12.76	7.80	32.59	33.12	11.42	9.51	33.74	999.00	-1.50	999.00	-1.10	0.00
23	2	16	20	36.28	14.11	6.83	32.17	999.00	32.93	12.67	7.50	32.59	35.35	12.61	13.01	33.74	999.00	-1.49	999.00	-1.06	0.00
23	2	16	21	28.97	14.73	7.65	31.26	999.00	27.69	13.22	7.61	31.67	27.29	13.45	10.42	32.75	999.00	-1.50	999.00	-1.05	0.01
23	2	16	22	42.76	14.78	11.78	31.23	999.00	39.96	15.58	12.04	31.66	41.52	12.86	12.22	32.69	999.00	-1.47	999.00	-1.07	0.01
23	2	16	23	339.90	16.64	5.60	30.73	999.00	338.40	17.48	6.15	31.19	337.40	14.65	8.37	32.24	999.00	-1.51	999.00	-0.96	0.04
23	2	16	24	328.20	13.88	8.34	30.52	999.00	326.60	15.19	8.35	31.08	334.20	12.42	10.09	31.97	999.00	-1.40	999.00	-0.81	0.01
23	2	17	1	317.80	12.64	4.14	30.33	999.00	315.20	13.78	4.64	30.89	313.40	11.48	9.44	31.66	999.00	-1.26	999.00	-0.73	0.00
23	2	17	2	316.60	14.41	4.31	29.97	999.00	314.40	15.54	4.56	30.49	313.20	13.06	8.80	31.56	999.00	-1.79	999.00	-1.30	0.00
23	2	17	3	313.00	18.47	4.88	29.15	999.00	311.50	20.04	4.91	29.64	306.50	16.86	9.48	31.07	999.00	-1.65	999.00	-1.12	0.00
23	2	17	4	312.50	19.91	9.40	28.25	999.00	310.20	22.15	10.44	28.81	320.50	17.16	10.90	29.54	999.00	-1.39	999.00	-0.83	0.00
23	2	17	5	322.80	21.35	3.90	26.14	999.00	320.80	23.73	4.68	26.70	318.40	18.66	11.12	27.66	999.00	-1.56	999.00	-1.00	0.00
23	2	17	6	334.30	20.93	4.48	25.49	999.00	332.10	23.79	4.76	26.04	332.40	19.13	8.98	26.92	999.00	-1.35	999.00	-0.81	0.00
23	2	17	7	337.50	19.08	4.96	25.31	999.00	335.50	20.92	5.40	25.87	339.30	17.00	9.30	26.45	999.00	-1.12	999.00	-0.56	0.00
23	2	17	8	332.20	19.07	6.38	23.99	999.00	330.50	20.93	6.80	24.57	327.60	16.33	11.67	25.47	999.00	-1.70	999.00	-1.10	0.00
23	2	17	9	318.00	18.09	6.56	22.80	999.00	316.60	20.26	6.45	23.38	319.50	15.40	15.97	24.45	999.00	-1.68	999.00	-1.11	0.00
23	2	17	10	324.20	15.23	10.16	22.19	999.00	322.30	16.95	10.02	22.76	320.20	13.28	12.90	23.92	999.00	-1.82	999.00	-1.24	0.00
23	2	17	11	318.50	16.74	5.17	21.54	999.00	317.90	18.75	5.70	22.12	317.40	14.16	10.34	23.60	999.00	-2.41	999.00	-1.82	0.00
23	2	17	12	316.70	16.79	6.01	20.83	999.00	314.30	18.93	6.57	21.40	320.30	14.72	12.68	23.42	999.00	-2.76	999.00	-2.19	0.00
23	2	17	13	304.80	14.66	6.48	20.62	999.00	303.80	16.92	7.17	21.19	306.70	12.23	10.77	23.38	999.00	-3.54	999.00	-3.01	0.00
23	2	17	14	289.40	15.86	8.76	20.50	999.00	286.80	17.29	8.57	21.06	289.20	12.73	12.96	23.20	999.00	-2.31	999.00	-1.71	0.00
23	2	17	15	299.40	15.23	6.50	20.18	999.00	298.30	17.12	6.61	20.76	305.40	11.72	12.60	22.55	999.00	-2.31	999.00	-1.75	0.00
23	2	17	16	283.30	14.47	7.04	21.16	999.00	281.30	14.95	7.11	21.73	276.20	10.76	12.60	23.34	999.00	-2.07	999.00	-1.50	0.00
23	2	17	17	275.10	14.56	7.52	21.62	999.00	273.50	15.11	8.37	22.16	282.70	10.86	14.77	23.57	999.00	-2.00	999.00	-1.45	0.00
23	2	17	18	286.40	15.63	6.33	21.83	999.00	285.20	15.43	6.55	22.37	280.80	10.59	10.95	23.64	999.00	-1.56	999.00	-1.03	0.00
23	2	17	19	274.90	12.21	3.91	22.45	999.00	270.30	11.62	3.53	22.87	252.60	5.79	8.06	22.55	999.00	0.25	999.00	0.64	0.00
23	2	17	20	264.70	10.69	5.34	23.02	999.00	257.60	9.98	8.96	23.30	246.20	5.59	7.11	22.65	999.00	0.10	999.00	0.46	0.00
23	2	17	21	238.50	11.24	5.49	22.91	999.00	227.80	10.60	6.25	22.99	198.40	4.74	9.68	22.08	999.00	0.94	999.00	1.11	0.00
23	2	17	22	261.00	15.78	4.71	23.27	999.00	256.20	13.40	6.76	23.21	242.10	6.34	15.28	22.76	999.00	0.29	999.00	0.36	0.00
23	2	17	23	252.30	15.51	4.91	24.09	999.00	250.10	14.29	6.31	24.51	247.50	9.10	12.09	25.08	999.00	-1.24	999.00	-0.73	0.00
23	2	17	24	245.00	18.33	5.34	23.88	999.00	241.90	16.64	6.36	24.41	243.00	10.12	10.21	25.06	999.00	-1.23	999.00	-0.70	0.00
23	2	18	1	235.20	15.55	4.59	22.53	999.00	231.20	13.83	5.67	23.04	235.70	9.39	10.74	23.80	999.00	-1.12	999.00	-0.70	0.00
23	2	18	2	219.40	19.55	2.80	21.63	999.00	214.40	17.04	3.59	21.88	211.80	9.09	9.37	22.33	999.00	-0.65	999.00	-0.43	0.00
23	2	18	3	217.10	20.68	4.07	21.27	999.00	213.10	17.90	5.35	21.51	210.80	9.82	10.93	22.00	999.00	-0.81	999.00	-0.53	0.00
23	2	18	4	217.70	22.18	3.93	21.41	999.00	214.00	19.29	4.95	21.78	214.60	11.76	9.70	22.43	999.00	-0.99	999.00	-0.64	0.00
23	2	18	5	217.20	23.79	4.10	21.78	999.00	214.00	20.99	5.22	22.15	214.60	12.93	10.02	22.81	999.00	-1.01	999.00	-0.63	0.00
23	2	18	6	217.90	26.57	4.45	22.29	999.00	216.00	23.63	4.86	22.71	215.00	15.58	9.96	23.39	999.00	-1.19	999.00	-0.74	0.00
23	2	18	7	215.00	25.53	4.26	23.04	999.00	212.50	22.64	5.15	23.47	213.90	13.58	10.22	24.15	999.00	-1.09	999.00	-0.67	0.00
23	2	18	8	205.00	23.71	4.21	23.16	999.00	201.50	20.98	5.10	23.50	206.00	11.38	12.43	24.16	999.00	-1.13	999.00	-0.80	0.00
23	2	18	9	207.60	25.48	4.28	23.70	999.00	205.40	23.06	4.68	24.07	207.70	14.02	11.69	25.30	999.00	-1.77	999.00	-1.37	0.00
23	2	18	10	214.90	25.36	5.52	27.17	999.00	212.30	22.64	6.42	27.65	216.00	14.63	10.99	29.17	999.00	-2.10	999.00	-1.60	0.00
23	2	18	11	219.30	29.80	4.67	31.12	999.00	218.40	28.15	4.64	31.66	219.40	19.27	10.77	33.22	999.00	-2.21	999.00	-1.66	0.00
23	2	18	12	216.90	27.78	5.22	34.20	999.00	216.50	26.19	5.82	34.75	220.10	19.22	11.25	36.66	999.00	-2.63	999.00	-2.08	0.00
23	2	18	13	217.90	30.78	4.62	36.99	999.00	216.60	28.82	5.14	37.53	219.20	19.50	10.57	39.49	999.00	-2.50	999.00	-1.96	0.00
23	2	18	14	214.50	28.95	5.29	39.42	999.00	214.40	26.94	6.61	39.96	219.50	19.05	10.83	41.93	999.00	-2.60	999.00	-2.06	0.00

23	2	18	15	217.40	29.69	5.29	39.42	999.00	217.20	27.32	6.05	39.96	219.60	19.47	9.92	41.93	999.00	-2.17	999.00	-1.69	0.00
23	2	18	16	214.50	25.97	5.10	42.49	999.00	213.40	23.67	6.00	42.98	217.90	15.53	10.78	44.34	999.00	-1.79	999.00	-1.32	0.00
23	2	18	17	213.10	24.54	4.24	42.65	999.00	212.30	22.43	4.82	43.11	217.40	13.37	9.71	44.06	999.00	-1.14	999.00	-0.71	0.00
23	2	18	18	207.50	23.47	3.98	42.09	999.00	205.70	21.22	4.86	42.48	206.60	11.16	11.94	42.91	999.00	-0.71	999.00	-0.31	0.00
23	2	18	19	200.50	23.04	3.38	41.15	999.00	198.00	19.74	4.22	41.42	198.10	8.82	12.03	41.38	999.00	-0.15	999.00	0.05	0.00
23	2	18	20	195.10	23.74	2.45	39.84	999.00	192.90	20.55	2.96	39.96	193.70	9.21	12.00	39.62	999.00	0.26	999.00	0.35	0.00
23	2	18	21	192.50	22.03	2.82	38.79	999.00	190.50	19.08	3.49	38.93	193.70	8.60	12.52	38.69	999.00	-0.04	999.00	0.12	0.00
23	2	18	22	190.20	22.97	3.66	38.79	999.00	187.60	19.70	4.09	38.93	192.20	8.89	12.95	38.69	999.00	-0.39	999.00	-0.19	0.00
23	2	18	23	192.20	22.68	3.42	37.10	999.00	189.90	19.46	4.17	37.27	195.70	8.94	12.10	37.48	999.00	-0.30	999.00	-0.14	0.00
23	2	18	24	191.30	21.35	3.29	36.70	999.00	189.20	18.41	4.08	36.90	195.70	8.47	12.59	37.02	999.00	-0.35	999.00	-0.15	0.00
23	2	19	1	188.70	20.62	3.10	36.42	999.00	186.60	17.87	4.02	36.64	189.30	7.82	11.56	36.87	999.00	-0.45	999.00	-0.23	0.00
23	2	19	2	184.10	18.14	2.65	36.15	999.00	179.10	15.28	3.25	36.27	177.40	5.80	14.27	36.22	999.00	0.28	999.00	0.26	0.00
23	2	19	3	174.90	18.55	3.26	36.15	999.00	170.70	15.79	4.15	36.10	170.30	6.15	14.50	35.76	999.00	0.24	999.00	0.25	0.00
23	2	19	4	171.10	17.97	2.78	36.56	999.00	164.50	15.26	3.27	36.51	162.60	5.99	13.86	36.16	999.00	0.14	999.00	0.13	0.00
23	2	19	5	183.00	17.99	5.51	36.31	999.00	177.90	14.96	6.96	36.39	176.00	6.38	18.47	36.28	999.00	0.11	999.00	0.09	0.00
23	2	19	6	187.20	20.25	5.35	36.80	999.00	181.70	17.11	5.40	36.80	185.10	7.58	19.28	36.73	999.00	0.26	999.00	0.18	0.00
23	2	19	7	193.60	24.22	5.22	37.78	999.00	191.10	20.22	5.75	37.87	194.60	9.57	14.44	37.91	999.00	-0.01	999.00	-0.04	0.00
23	2	19	8	189.10	24.56	4.72	37.72	999.00	187.10	21.62	5.06	37.89	194.80	11.05	13.07	38.10	999.00	-0.68	999.00	-0.42	0.00
23	2	19	9	189.20	24.00	4.92	38.08	999.00	187.10	21.39	5.88	38.34	192.50	11.68	13.31	38.86	999.00	-1.09	999.00	-0.72	0.00
23	2	19	10	196.60	25.72	5.24	39.96	999.00	194.50	23.25	6.11	40.43	199.60	12.74	12.91	41.55	999.00	-2.10	999.00	-1.58	0.00
23	2	19	11	209.90	25.06	5.94	42.60	999.00	207.80	23.51	6.68	43.11	210.30	15.63	12.03	45.07	999.00	-2.58	999.00	-2.05	0.00
23	2	19	12	229.60	33.14	4.12	45.51	999.00	229.50	32.21	4.53	46.01	234.10	23.11	9.64	47.72	999.00	-2.07	999.00	-1.59	0.00
23	2	19	13	227.10	28.97	7.71	46.49	999.00	226.60	27.62	7.93	46.98	227.70	19.21	10.59	48.54	999.00	-2.05	999.00	-1.56	0.00
23	2	19	14	217.50	29.27	5.87	47.99	999.00	217.20	27.07	6.27	48.51	224.90	19.85	10.10	50.46	999.00	-2.62	999.00	-2.07	0.00
23	2	19	15	219.40	29.68	6.50	49.91	999.00	218.90	28.11	6.59	50.39	220.40	21.12	11.82	52.26	999.00	-2.24	999.00	-1.79	0.00
23	2	19	16	225.40	32.78	6.55	51.37	999.00	225.80	31.25	6.83	51.83	226.30	22.40	11.50	53.28	999.00	-1.60	999.00	-1.17	0.00
23	2	19	17	215.90	33.12	4.59	51.64	999.00	215.40	30.73	5.39	52.12	217.60	20.02	11.08	53.30	999.00	-1.47	999.00	-0.98	0.00
23	2	19	18	212.70	26.57	4.10	51.58	999.00	212.10	23.77	5.03	51.96	214.30	13.66	11.06	52.47	999.00	-0.46	999.00	-0.14	0.00
23	2	19	19	205.80	24.11	3.22	50.75	999.00	204.70	20.71	3.76	50.93	208.70	8.81	10.71	50.40	999.00	0.75	999.00	0.83	0.00
23	2	19	20	212.60	25.38	2.42	49.90	999.00	209.50	21.43	3.46	49.85	211.50	8.88	11.02	48.69	999.00	1.42	999.00	1.25	0.00
23	2	19	21	216.90	21.61	1.78	49.06	999.00	213.10	18.44	1.92	48.83	212.70	7.05	9.47	47.05	999.00	2.33	999.00	2.04	0.00
23	2	19	22	221.60	22.98	1.55	48.09	999.00	216.70	19.33	1.63	47.88	205.90	6.68	10.10	45.07	999.00	3.30	999.00	2.91	0.00
23	2	19	23	219.00	22.58	1.63	46.77	999.00	214.30	19.21	1.74	46.45	211.40	6.54	9.98	43.86	999.00	2.84	999.00	2.42	0.00
23	2	19	24	217.10	21.47	2.35	45.77	999.00	210.00	17.62	2.63	45.28	205.50	6.65	10.94	43.66	999.00	1.96	999.00	1.48	0.00
23	2	20	1	221.20	20.96	2.46	45.01	999.00	216.00	17.51	3.05	44.61	210.40	6.32	10.41	43.10	999.00	1.55	999.00	1.23	0.00
23	2	20	2	243.40	18.96	3.86	44.48	999.00	242.00	16.38	4.43	44.45	236.30	7.84	8.99	43.65	999.00	0.39	999.00	0.56	0.00
23	2	20	3	250.00	20.23	2.52	43.39	999.00	245.80	16.84	3.25	43.45	247.10	7.79	8.76	43.17	999.00	0.62	999.00	0.50	0.00
23	2	20	4	266.10	19.38	3.51	42.11	999.00	256.90	15.89	2.80	41.65	254.60	6.49	7.75	40.72	999.00	2.03	999.00	0.91	0.00
23	2	20	5	272.30	18.54	1.94	42.29	999.00	260.10	14.42	2.95	40.37	244.70	5.28	7.89	38.75	999.00	2.86	999.00	1.35	0.00
23	2	20	6	308.00	21.96	1.96	40.29	999.00	306.70	17.76	3.45	39.54	281.40	5.52	12.85	37.36	999.00	2.36	999.00	2.04	0.00
23	2	20	7	310.90	16.74	2.46	39.10	999.00	308.20	14.55	3.88	39.22	301.60	6.70	10.79	38.84	999.00	-0.02	999.00	0.24	0.00
23	2	20	8	296.60	9.16	4.67	37.64	999.00	288.20	7.34	6.46	37.90	179.20	2.53	24.84	37.01	999.00	1.51	999.00	1.74	0.00
23	2	20	9	320.30	9.74	5.89	36.97	999.00	317.00	8.63	7.02	37.33	287.10	4.66	15.87	37.57	999.00	-1.73	999.00	-1.22	0.00
23	2	20	10	351.80	7.96	9.49	36.74	999.00	346.80	7.96	9.84	37.43	338.00	7.45	12.36	38.90	999.00	-1.85	999.00	-1.24	0.00
23	2	20	11	2.44	7.23	13.86	37.03	999.00	358.40	7.17	13.17	37.54	351.40	7.51	11.97	38.59	999.00	-1.65	999.00	-1.03	0.00
23	2	20	12	0.85	7.07	11.13	37.07	999.00	357.00	6.82	11.05	37.60	357.50	7.61	13.28	38.51	999.00	-1.41	999.00	-0.88	0.00
23	2	20	13	31.26	7.00	13.47	36.95	999.00	29.64	6.60	12.78	37.47	20.24	7.90	11.28	38.06	999.00	-1.09	999.00	-0.50	0.00
23	2	20	14	50.47	8.38	10.06	37.01	999.00	45.11	8.06	10.64	37.60	37.39	7.63	13.25	38.65	999.00	-1.88	999.00	-1.22	0.00
23	2	20	15	70.10	10.12	7.23	37.13	999.00	64.79	9.86	7.49	37.86	66.47	8.07	15.72	39.46	999.00	-2.08	999.00	-1.43	0.00
23	2	20	16	70.60	8.07	5.74	37.03	999.00	71.30	7.67	7.04	37.62	79.90	5.72	14.19	39.02	999.00	-1.92	999.00	-1.46	0.00
23	2	20	17	71.20	12.42	2.51	36.91	999.00	69.58	12.11	3.25	37.38	76.80	8.27	10.56	38.78	999.00	-1.87	999.00	-1.43	0.00
23	2	20	18	72.60	13.96	1.92	36.97	999.00	70.50	12.19	4.36	37.06	71.00	7.32	9.88	38.09	999.00	-1.04	999.00	-0.96	0.00
23	2	20	19	82.40	15.87	2.17	37.41	999.00	83.90	13.41	3.46	36.96	89.90	6.01	13.71	37.50	999.00	0.04	999.00	-0.41	0.00

23	2	20	20	97.80	13.71	4.19	36.46	999.00	97.90	11.54	4.92	36.26	106.90	6.29	11.08	36.71	999.00	-0.67	999.00	-0.55	0.00
23	2	20	21	105.20	11.05	3.91	36.39	999.00	108.80	8.26	4.70	36.13	122.30	3.37	13.88	36.41	999.00	-0.10	999.00	-0.22	0.00
23	2	20	22	112.90	13.17	2.68	35.77	999.00	113.90	10.81	2.59	35.62	126.70	4.49	11.26	35.68	999.00	-0.15	999.00	-0.24	0.00
23	2	20	23	132.70	15.82	4.00	35.89	999.00	135.50	13.44	5.41	35.77	157.50	3.75	8.73	34.76	999.00	2.05	999.00	1.80	0.00
23	2	20	24	139.20	17.07	1.56	36.66	999.00	144.30	14.60	2.75	36.01	160.70	2.92	9.94	33.24	999.00	4.11	999.00	3.29	0.00
23	2	21	1	147.10	20.62	0.08	38.47	999.00	154.00	17.19	1.35	36.44	172.50	4.38	9.83	32.89	999.00	6.35	999.00	3.48	0.00
23	2	21	2	159.80	20.90	2.01	39.57	999.00	166.70	16.21	2.88	35.83	201.70	4.54	13.64	32.57	999.00	7.21	999.00	3.44	0.00
23	2	21	3	185.80	23.80	1.75	38.47	999.00	178.00	18.15	2.05	35.23	183.10	5.82	9.77	32.17	999.00	6.29	999.00	2.85	0.00
23	2	21	4	194.50	25.01	2.36	36.70	999.00	188.40	19.40	3.28	34.21	189.30	7.81	11.48	32.30	999.00	2.88	999.00	1.23	0.00
23	2	21	5	202.40	24.30	1.98	36.39	999.00	195.30	19.86	2.24	34.99	195.30	7.13	13.74	34.01	999.00	2.18	999.00	0.96	0.00
23	2	21	6	230.30	24.43	4.66	37.86	999.00	225.30	20.49	5.36	36.86	217.90	10.06	10.30	35.83	999.00	1.21	999.00	0.80	0.00
23	2	21	7	237.80	22.95	3.26	38.62	999.00	234.80	20.36	3.46	38.75	233.90	11.75	7.78	38.56	999.00	0.00	999.00	0.19	0.00
23	2	21	8	232.80	26.67	4.76	38.73	999.00	230.20	23.30	5.17	38.79	227.50	12.81	8.47	38.54	999.00	-0.05	999.00	0.00	0.00
23	2	21	9	242.90	27.81	5.79	39.27	999.00	241.20	25.42	6.42	39.70	240.10	17.25	9.04	40.38	999.00	-1.40	999.00	-0.91	0.00
23	2	21	10	258.90	31.86	6.89	39.27	999.00	258.30	30.02	7.85	39.70	261.60	20.83	11.08	40.38	999.00	-2.25	999.00	-1.67	0.00
23	2	21	11	268.30	30.93	5.43	38.53	999.00	268.60	30.03	6.30	39.17	270.80	21.35	10.95	41.26	999.00	-2.93	999.00	-2.29	0.00
23	2	21	12	268.60	31.57	7.08	38.00	999.00	268.40	30.32	8.29	38.66	268.80	22.99	11.90	41.02	999.00	-3.11	999.00	-2.43	0.00
23	2	21	13	269.40	31.96	4.93	37.11	999.00	269.60	31.11	5.62	37.82	274.00	23.17	11.35	40.54	999.00	-3.34	999.00	-2.66	0.00
23	2	21	14	273.10	27.25	5.95	35.44	999.00	272.90	26.21	6.92	36.10	276.00	19.33	11.64	38.40	999.00	-3.15	999.00	-2.43	0.00
23	2	21	15	286.40	22.56	10.20	33.59	999.00	286.10	22.23	10.43	34.23	283.30	16.34	13.81	36.47	999.00	-3.12	999.00	-2.46	0.00
23	2	21	16	287.30	18.99	9.25	32.79	999.00	288.70	18.88	8.69	33.42	297.60	15.30	14.17	35.87	999.00	-3.03	999.00	-2.40	0.00
23	2	21	17	273.70	15.37	9.27	32.79	999.00	273.60	15.01	8.57	33.42	278.60	11.20	10.96	35.87	999.00	-2.22	999.00	-1.63	0.00
23	2	21	18	260.60	14.62	6.25	32.64	999.00	259.90	13.24	7.44	33.19	271.70	8.61	12.28	34.51	999.00	-1.43	999.00	-0.94	0.00
23	2	21	19	284.30	13.13	5.12	32.17	999.00	283.60	11.93	5.30	32.65	276.90	6.50	9.58	33.28	999.00	-0.79	999.00	-0.32	0.00
23	2	21	20	297.00	8.68	4.89	31.83	999.00	295.80	8.12	5.15	32.30	282.70	3.14	8.35	32.40	999.00	-0.08	999.00	0.35	0.00
23	2	21	21	279.50	8.81	3.40	31.67	999.00	275.50	8.58	3.50	32.11	251.90	4.53	8.91	32.18	999.00	-0.69	999.00	-0.26	0.00
23	2	21	22	294.00	4.10	9.41	31.40	999.00	289.50	3.85	9.60	31.86	238.70	2.45	9.50	32.34	999.00	-0.83	999.00	-0.38	0.00
23	2	21	23	73.10	2.10	30.70	31.38	999.00	111.00	1.65	36.88	31.79	153.00	2.36	14.69	32.26	999.00	-0.91	999.00	-0.54	0.00
23	2	21	24	83.20	7.94	2.32	31.53	999.00	83.10	7.35	2.46	31.87	101.90	3.51	10.72	32.31	999.00	-0.86	999.00	-0.42	0.00
23	2	22	1	90.00	9.33	5.01	32.03	999.00	87.80	9.16	5.29	32.55	88.30	5.01	12.73	33.42	999.00	-1.41	999.00	-0.89	0.00
23	2	22	2	97.00	10.56	7.56	32.51	999.00	95.60	10.27	8.88	33.03	108.10	5.70	14.22	33.93	999.00	-1.48	999.00	-0.96	0.00
23	2	22	3	90.90	18.75	2.97	32.49	999.00	87.90	18.39	3.24	33.02	95.20	9.28	14.02	34.08	999.00	-1.63	999.00	-1.09	0.00
23	2	22	4	83.90	24.60	6.57	32.21	999.00	80.30	23.66	8.42	32.75	86.70	13.29	15.01	33.91	999.00	-1.77	999.00	-1.23	0.00
23	2	22	5	86.40	23.56	3.24	32.21	999.00	82.40	22.74	4.15	32.75	92.40	12.49	14.97	33.91	999.00	-1.73	999.00	-1.17	0.00
23	2	22	6	87.70	29.70	5.17	32.44	999.00	84.10	28.56	5.95	32.99	83.60	15.13	12.33	34.19	999.00	-1.76	999.00	-1.22	0.00
23	2	22	7	98.00	24.17	3.54	32.78	999.00	93.70	23.04	4.25	33.31	100.90	11.38	13.90	34.47	999.00	-1.67	999.00	-1.16	0.00
23	2	22	8	83.00	19.01	3.49	32.78	999.00	79.10	18.50	4.12	33.31	81.90	11.94	11.73	34.47	999.00	-1.23	999.00	-0.90	0.07
23	2	22	9	88.90	16.52	4.71	32.27	999.00	85.20	16.92	5.70	32.60	88.00	11.47	14.08	32.60	999.00	-0.42	999.00	-0.02	0.07
23	2	22	10	73.20	13.67	4.13	31.86	999.00	68.78	15.55	5.05	32.22	77.70	15.99	13.85	32.40	999.00	-0.73	999.00	-0.39	0.11
23	2	22	11	72.20	13.36	3.56	31.70	999.00	67.60	15.09	4.00	32.10	70.20	18.61	11.12	32.59	999.00	-0.95	999.00	-0.53	0.08
23	2	22	12	66.57	13.58	3.08	31.52	999.00	62.73	15.41	3.60	31.92	66.70	20.99	10.04	32.56	999.00	-1.14	999.00	-0.71	0.06
23	2	22	13	73.30	12.13	2.94	31.19	999.00	69.29	13.39	3.75	31.70	73.20	17.47	12.14	32.49	999.00	-1.34	999.00	-0.81	0.03
23	2	22	14	67.12	12.86	3.41	31.18	999.00	63.37	13.89	4.41	31.72	67.87	20.40	10.18	32.46	999.00	-1.23	999.00	-0.71	0.05
23	2	22	15	63.27	10.84	3.36	31.44	999.00	58.97	11.78	4.34	31.82	62.75	18.76	10.40	32.54	999.00	-1.17	999.00	-0.82	0.19
23	2	22	16	74.10	11.54	4.08	31.52	999.00	70.00	12.92	4.42	31.75	71.30	18.36	11.86	32.86	999.00	-1.41	999.00	-1.30	0.23
23	2	22	17	71.50	10.28	4.86	31.57	999.00	67.36	12.37	5.37	31.64	72.40	17.70	13.26	32.99	999.00	-1.43	999.00	-1.33	0.18
23	2	22	18	70.60	9.80	4.35	31.70	999.00	65.32	9.49	4.73	32.10	74.10	16.15	11.80	33.17	999.00	-1.45	999.00	-1.03	0.13
23	2	22	19	63.83	10.47	3.87	31.60	999.00	58.60	11.43	4.89	32.01	62.68	18.06	11.18	32.96	999.00	-1.32	999.00	-0.92	0.02
23	2	22	20	66.27	10.89	3.10	31.59	999.00	61.42	14.74	3.92	31.97	64.49	18.85	10.97	32.89	999.00	-1.30	999.00	-0.96	0.00
23	2	22	21	49.09	8.27	8.96	31.75	999.00	45.28	23.31	8.23	32.14	67.69	16.87	11.14	33.12	999.00	-1.45	999.00	-1.03	0.09
23	2	22	22	45.00	8.74	9.65	31.31	999.00	41.65	24.39	9.57	31.66	999.00	17.64	999.00	32.69	999.00	-1.25	999.00	-0.96	0.11
23	2	22	23	63.51	11.19	2.69	30.95	999.00	57.94	28.13	3.63	31.31	60.38	17.78	10.43	32.24	999.00	-1.27	999.00	-0.88	0.02
23	2	22	24	58.82	8.63	4.76	31.32	999.00	54.29	21.63	5.40	31.69	61.47	13.43	10.23	32.60	999.00	-1.31	999.00	-0.96	0.00

23	2	23	1	36.69	5.64	8.44	31.50	999.00	34.53	15.05	8.57	31.95	33.66	14.47	9.47	32.94	999.00	-1.44	999.00	-1.00	0.00
23	2	23	2	34.49	5.19	7.41	30.72	999.00	32.08	14.29	7.27	31.17	29.37	13.02	8.43	32.26	999.00	-1.50	999.00	-0.94	0.00
23	2	23	3	24.76	3.53	13.67	30.58	999.00	23.05	8.92	14.10	31.10	34.72	9.67	11.27	31.97	999.00	-1.39	999.00	-0.88	0.00
23	2	23	4	36.61	3.35	9.79	30.44	999.00	34.64	9.38	8.74	30.89	27.84	8.73	9.50	31.79	999.00	-1.35	999.00	-0.87	0.00
23	2	23	5	79.60	3.21	6.07	30.43	999.00	73.80	7.02	5.63	30.88	78.80	4.16	13.43	31.75	999.00	-1.30	999.00	-0.88	0.00
23	2	23	6	75.60	4.58	4.31	30.89	999.00	70.30	10.59	4.65	31.30	78.80	6.70	14.48	32.22	999.00	-1.32	999.00	-0.92	0.00
23	2	23	7	105.10	4.77	5.10	31.23	999.00	102.80	10.91	6.37	31.62	106.80	5.89	12.93	32.53	999.00	-1.24	999.00	-0.92	0.00
23	2	23	8	119.60	4.72	5.30	31.67	999.00	117.40	12.14	5.72	32.03	120.60	6.80	15.49	33.03	999.00	-1.42	999.00	-1.00	0.00
23	2	23	9	114.40	4.61	3.65	32.01	999.00	110.10	11.94	3.98	32.51	115.30	6.94	12.38	33.59	999.00	-1.72	999.00	-1.18	0.00
23	2	23	10	141.30	1.54	12.63	32.75	999.00	131.20	4.03	10.86	33.35	123.50	2.73	15.21	34.65	999.00	-1.98	999.00	-1.35	0.00
23	2	23	11	201.80	0.63	33.35	34.15	999.00	176.20	1.61	64.47	34.73	93.00	1.78	52.01	36.38	999.00	-2.25	999.00	-1.75	0.00
23	2	23	12	187.90	6.84	18.46	36.46	999.00	168.10	4.58	32.64	36.52	106.00	2.35	27.34	38.07	999.00	-0.75	999.00	-1.33	0.00
23	2	23	13	217.30	12.30	10.34	41.33	999.00	211.80	9.38	12.58	41.00	191.90	4.05	33.50	41.38	999.00	0.68	999.00	0.07	0.00
23	2	23	14	248.70	17.11	6.71	49.93	999.00	247.40	16.20	7.33	49.99	243.70	11.08	10.81	50.94	999.00	-1.74	999.00	-1.18	0.00
23	2	23	15	265.90	12.15	3.94	53.04	999.00	270.50	10.76	4.84	53.04	324.40	4.85	11.69	53.11	999.00	-0.14	999.00	-0.34	0.00
23	2	23	16	254.20	25.92	7.82	53.04	999.00	255.40	23.77	8.21	53.04	252.30	16.14	14.45	53.11	999.00	-1.16	999.00	-0.64	0.00
23	2	23	17	256.20	32.71	6.40	57.76	999.00	256.90	30.78	7.32	58.28	256.80	21.85	12.79	59.19	999.00	-1.66	999.00	-1.11	0.00
23	2	23	18	259.40	31.85	5.18	54.09	999.00	260.00	29.07	6.34	54.54	261.70	17.90	11.15	55.29	999.00	-1.17	999.00	-0.69	0.00
23	2	23	19	271.50	26.67	5.43	47.75	999.00	271.00	24.80	6.07	48.20	270.20	15.16	10.22	48.74	999.00	-0.88	999.00	-0.44	0.00
23	2	23	20	273.00	31.01	5.00	41.78	999.00	273.10	28.48	5.95	42.24	271.30	18.33	9.85	42.78	999.00	-1.04	999.00	-0.58	0.00
23	2	23	21	260.70	26.45	5.76	39.11	999.00	260.30	24.24	6.55	39.59	258.90	16.29	11.12	40.38	999.00	-1.42	999.00	-0.92	0.00
23	2	23	22	285.10	30.41	5.14	37.43	999.00	285.30	28.03	5.77	37.95	282.90	19.62	9.82	38.84	999.00	-1.48	999.00	-0.94	0.00
23	2	23	23	277.80	33.78	5.35	34.59	999.00	277.40	31.78	6.35	35.10	284.10	21.47	10.14	35.94	999.00	-1.30	999.00	-0.81	0.00
23	2	23	24	276.30	24.46	5.53	32.93	999.00	275.80	23.03	5.84	33.43	271.80	15.54	9.99	34.34	999.00	-1.42	999.00	-0.92	0.00
23	2	24	1	288.40	25.08	6.18	32.53	999.00	288.30	23.60	6.01	33.03	289.70	16.78	11.55	33.93	999.00	-1.44	999.00	-0.92	0.00
23	2	24	2	287.10	24.10	6.58	31.89	999.00	287.00	22.72	6.89	32.41	283.20	15.19	12.66	33.34	999.00	-1.44	999.00	-0.92	0.00
23	2	24	3	287.50	25.20	7.41	31.34	999.00	286.70	24.40	6.99	31.86	280.40	16.84	10.26	32.80	999.00	-1.50	999.00	-0.97	0.00
23	2	24	4	306.70	27.74	5.40	29.94	999.00	306.70	27.37	6.01	30.50	306.40	18.10	10.78	31.60	999.00	-1.64	999.00	-1.09	0.00
23	2	24	5	306.60	29.17	4.80	29.03	999.00	307.10	28.69	5.72	29.59	309.40	20.33	9.79	30.71	999.00	-1.67	999.00	-1.11	0.00
23	2	24	6	304.10	23.58	7.51	27.44	999.00	304.00	22.92	7.86	28.00	302.50	15.54	13.00	29.10	999.00	-1.58	999.00	-1.03	0.00
23	2	24	7	329.30	20.84	4.94	26.52	999.00	328.60	20.24	5.08	27.07	323.90	14.54	13.29	28.22	999.00	-1.83	999.00	-1.27	0.00
23	2	24	8	328.50	19.34	6.12	25.99	999.00	328.10	18.38	6.51	26.56	332.40	12.10	10.82	27.81	999.00	-1.89	999.00	-1.31	0.00
23	2	24	9	331.20	12.59	8.91	25.61	999.00	330.30	12.43	9.76	26.26	329.40	9.79	13.05	27.76	999.00	-2.11	999.00	-1.48	0.00
23	2	24	10	312.90	15.00	7.64	25.78	999.00	312.40	14.48	7.61	26.39	313.10	10.76	15.58	28.05	999.00	-2.54	999.00	-1.91	0.00
23	2	24	11	334.10	11.44	11.48	25.90	999.00	336.40	11.43	12.66	26.59	341.10	9.65	14.12	28.52	999.00	-2.44	999.00	-1.75	0.00
23	2	24	12	339.00	11.34	10.36	26.18	999.00	340.90	10.90	10.01	26.86	340.80	9.67	15.30	28.30	999.00	-2.09	999.00	-1.38	0.00
23	2	24	13	330.10	11.47	7.87	26.16	999.00	330.40	11.48	8.00	26.87	334.80	9.53	13.59	28.40	999.00	-2.31	999.00	-1.63	0.00
23	2	24	14	331.10	8.86	11.94	26.63	999.00	330.40	8.83	14.85	27.34	331.60	7.67	19.61	29.15	999.00	-2.55	999.00	-1.82	0.00
23	2	24	15	342.00	9.23	10.56	27.23	999.00	342.50	9.08	11.27	27.87	352.30	7.82	15.66	29.27	999.00	-1.89	999.00	-1.33	0.00
23	2	24	16	343.00	7.18	9.70	27.31	999.00	344.40	6.94	8.37	27.91	346.10	6.05	9.65	29.20	999.00	-1.85	999.00	-1.27	0.00
23	2	24	17	354.70	6.96	8.82	27.72	999.00	355.20	6.21	9.92	28.28	355.10	5.54	15.95	29.54	999.00	-1.79	999.00	-1.23	0.00
23	2	24	18	78.30	9.83	6.66	27.45	999.00	77.90	9.68	7.59	27.96	86.40	6.22	14.91	29.19	999.00	-1.81	999.00	-1.26	0.00
23	2	24	19	76.40	6.53	8.08	27.29	999.00	75.20	6.37	8.73	27.80	70.00	3.54	14.32	28.88	999.00	-1.47	999.00	-0.96	0.00
23	2	24	20	81.40	11.89	5.43	27.46	999.00	78.90	11.68	5.91	27.98	81.60	6.83	15.22	28.89	999.00	-1.52	999.00	-0.97	0.00
23	2	24	21	90.10	15.55	3.76	26.14	999.00	85.20	15.04	4.19	26.68	89.80	7.96	13.23	27.70	999.00	-1.55	999.00	-1.02	0.00
23	2	24	22	96.40	15.40	5.31	26.04	999.00	93.00	14.70	7.22	26.58	105.10	8.06	13.34	27.52	999.00	-1.49	999.00	-0.96	0.00
23	2	24	23	101.70	16.80	3.42	25.92	999.00	98.10	16.30	4.26	26.45	106.90	9.29	14.44	27.51	999.00	-1.70	999.00	-1.17	0.00
23	2	24	24	107.40	14.14	6.39	25.90	999.00	103.90	13.47	6.57	26.44	112.10	7.98	15.44	27.59	999.00	-1.73	999.00	-1.17	0.00
23	2	25	1	113.10	16.66	5.81	25.60	999.00	110.40	16.03	6.49	26.15	119.50	9.25	14.50	27.42	999.00	-1.87	999.00	-1.32	0.00
23	2	25	2	108.80	17.34	5.97	25.01	999.00	106.00	16.91	6.28	25.56	114.00	10.96	12.83	26.86	999.00	-1.87	999.00	-1.32	0.00
23	2	25	3	126.80	10.32	9.05	24.79	999.00	123.70	9.59	10.67	25.35	127.90	6.09	16.47	26.64	999.00	-1.82	999.00	-1.27	0.00
23	2	25	4	101.90	13.82	4.69	24.49	999.00	98.10	13.47	5.05	25.01	105.60	8.15	13.52	26.19	999.00	-1.57	999.00	-1.08	0.00
23	2	25	5	113.20	14.47	4.97	23.54	999.00	109.90	13.84	6.18	24.04	119.60	7.79	13.48	25.23	999.00	-1.76	999.00	-1.23	0.02

23	2	25	6	119.40	10.23	10.93	23.70	999.00	117.00	9.33	12.92	24.19	137.50	5.18	16.43	25.42	999.00	-1.72	999.00	-1.22	0.01
23	2	25	7	108.80	14.84	5.26	24.62	999.00	105.00	14.29	6.21	25.16	115.00	8.48	13.25	26.36	999.00	-1.80	999.00	-1.24	0.00
23	2	25	8	117.30	15.29	2.93	24.62	999.00	113.60	15.01	3.56	25.16	122.70	9.33	13.80	26.36	999.00	-1.70	999.00	-1.17	0.00
23	2	25	9	126.30	10.31	5.64	25.61	999.00	123.70	10.07	7.41	26.21	133.50	6.51	14.39	27.66	999.00	-2.11	999.00	-1.53	0.00
23	2	25	10	180.50	5.63	29.16	26.46	999.00	181.70	5.73	34.44	27.42	167.50	4.73	18.00	28.85	999.00	-2.68	999.00	-1.49	0.00
23	2	25	11	180.50	4.00	16.74	27.27	999.00	176.10	4.04	16.36	28.34	212.30	4.07	39.17	30.10	999.00	-2.41	999.00	-0.87	0.00
23	2	25	12	213.30	4.81	15.88	28.20	999.00	214.30	5.20	16.29	29.39	205.30	5.00	32.92	30.56	999.00	-2.47	999.00	-1.79	0.00
23	2	25	13	260.70	7.61	13.26	29.79	999.00	255.50	7.53	13.94	30.42	249.70	7.02	15.10	32.27	999.00	-2.65	999.00	-2.05	0.00
23	2	25	14	280.90	8.19	16.67	31.27	999.00	283.20	7.83	16.41	31.91	297.70	5.87	20.69	34.11	999.00	-2.94	999.00	-2.30	0.00
23	2	25	15	312.60	8.95	10.84	32.83	999.00	318.40	8.50	12.33	33.54	336.00	7.08	10.63	35.49	999.00	-2.48	999.00	-1.83	0.00
23	2	25	16	306.90	7.91	11.75	33.49	999.00	310.40	8.15	11.56	34.24	319.50	7.20	15.23	36.53	999.00	-2.95	999.00	-2.25	0.00
23	2	25	17	323.10	5.27	11.21	33.41	999.00	325.20	4.93	11.37	34.17	340.70	4.21	12.77	35.47	999.00	-2.01	999.00	-1.25	0.00
23	2	25	18	229.80	11.39	7.86	34.02	999.00	228.90	10.97	8.45	34.59	233.40	7.96	13.45	35.72	999.00	-1.53	999.00	-1.01	0.00
23	2	25	19	253.90	13.67	8.52	34.29	999.00	253.60	12.27	9.86	34.81	243.40	7.62	16.93	35.72	999.00	-1.36	999.00	-0.86	0.00
23	2	25	20	237.60	10.42	4.11	33.91	999.00	231.10	9.13	5.49	34.36	216.20	5.08	12.63	35.15	999.00	-1.11	999.00	-0.70	0.00
23	2	25	21	219.90	12.31	5.32	33.77	999.00	212.50	10.74	5.76	34.05	203.60	4.89	12.88	34.58	999.00	-0.78	999.00	-0.53	0.00
23	2	25	22	233.20	11.26	4.73	33.68	999.00	228.90	10.07	5.44	34.04	219.00	6.08	11.22	34.74	999.00	-1.33	999.00	-0.89	0.00
23	2	25	23	221.80	11.54	2.75	33.53	999.00	215.50	9.60	2.65	33.78	208.90	3.03	11.52	34.06	999.00	0.10	999.00	0.20	0.00
23	2	25	24	210.70	17.85	2.09	33.59	999.00	203.20	14.64	2.57	33.61	193.50	5.17	9.50	33.02	999.00	1.03	999.00	0.83	0.00
23	2	26	1	219.40	17.35	2.11	33.41	999.00	212.40	14.14	2.61	33.08	204.40	5.21	10.98	32.48	999.00	0.75	999.00	0.50	0.00
23	2	26	2	231.10	21.02	3.05	33.41	999.00	227.00	18.19	3.81	33.08	218.80	10.52	8.15	32.48	999.00	-0.24	999.00	-0.11	0.00
23	2	26	3	237.90	24.38	9.25	31.97	999.00	235.80	22.05	10.34	32.37	226.90	14.17	8.91	32.97	999.00	-1.14	999.00	-0.70	0.00
23	2	26	4	241.90	19.08	4.74	31.04	999.00	239.70	17.36	5.51	31.51	236.00	10.94	8.67	32.26	999.00	-1.32	999.00	-0.83	0.00
23	2	26	5	238.60	18.65	4.65	30.47	999.00	234.70	16.79	4.84	30.92	235.90	11.12	8.98	31.67	999.00	-1.16	999.00	-0.73	0.00
23	2	26	6	232.70	19.64	3.84	29.89	999.00	229.70	17.14	4.94	30.15	226.60	10.94	8.59	30.70	999.00	-0.85	999.00	-0.59	0.00
23	2	26	7	243.50	18.70	3.74	29.47	999.00	240.10	16.87	4.51	29.85	238.90	11.39	8.16	30.57	999.00	-1.25	999.00	-0.81	0.00
23	2	26	8	233.10	19.83	3.51	28.89	999.00	229.50	17.75	3.75	29.25	227.50	11.58	8.27	30.07	999.00	-1.37	999.00	-0.98	0.00
23	2	26	9	234.20	17.78	4.58	29.23	999.00	231.80	16.80	4.83	29.72	228.70	12.77	9.04	31.03	999.00	-1.97	999.00	-1.47	0.00
23	2	26	10	239.00	15.79	5.90	29.23	999.00	236.90	15.30	6.08	29.72	233.30	12.48	9.27	31.03	999.00	-2.48	999.00	-1.92	0.00
23	2	26	11	239.90	16.77	5.64	32.91	999.00	238.20	16.51	5.56	33.49	236.10	12.36	10.14	35.55	999.00	-2.71	999.00	-2.14	0.00
23	2	26	12	232.30	17.86	5.96	35.31	999.00	231.00	17.62	5.79	35.87	232.30	13.38	10.04	38.15	999.00	-2.79	999.00	-2.27	0.00
23	2	26	13	237.70	14.87	8.86	38.31	999.00	235.70	14.65	9.30	38.88	238.50	11.15	14.64	41.23	999.00	-3.02	999.00	-2.42	0.00
23	2	26	14	244.80	17.60	5.20	40.59	999.00	243.30	16.88	6.04	41.15	238.40	12.90	10.33	43.41	999.00	-2.83	999.00	-2.27	0.00
23	2	26	15	249.40	16.42	8.64	42.78	999.00	248.40	15.69	9.35	43.31	243.10	12.29	13.29	45.61	999.00	-2.92	999.00	-2.41	0.00
23	2	26	16	249.70	15.14	12.13	44.77	999.00	248.10	14.34	11.51	45.35	247.50	10.74	13.04	47.49	999.00	-2.59	999.00	-2.04	0.00
23	2	26	17	259.20	15.76	10.76	46.38	999.00	257.10	15.04	10.83	46.98	253.50	10.78	15.73	48.76	999.00	-2.21	999.00	-1.59	0.00
23	2	26	18	264.10	17.07	2.97	46.50	999.00	264.00	15.21	4.42	46.98	264.10	8.47	10.04	48.07	999.00	-0.96	999.00	-0.60	0.00
23	2	26	19	277.50	15.03	1.76	45.84	999.00	276.50	13.82	1.59	46.09	269.90	5.67	5.51	45.46	999.00	1.37	999.00	1.58	0.00
23	2	26	20	275.50	16.00	2.04	45.23	999.00	267.90	13.02	2.97	45.30	239.70	4.38	7.24	43.53	999.00	2.17	999.00	1.97	0.00
23	2	26	21	274.40	14.73	1.32	44.77	999.00	269.50	12.90	1.80	44.77	228.30	5.12	3.30	41.75	999.00	3.46	999.00	3.68	0.00
23	2	26	22	308.00	13.67	2.16	44.15	999.00	300.20	11.81	2.76	44.23	268.20	4.01	3.95	41.22	999.00	2.42	999.00	2.52	0.00
23	2	26	23	336.90	7.99	5.66	42.07	999.00	320.00	7.25	6.82	42.00	174.90	1.95	65.93	39.38	999.00	2.43	999.00	1.84	0.00
23	2	26	24	18.49	7.96	5.60	40.40	999.00	14.14	6.80	6.72	40.29	333.70	3.10	13.99	39.44	999.00	1.15	999.00	1.02	0.00
23	2	27	1	25.04	9.48	4.97	40.27	999.00	30.44	7.64	6.66	40.40	54.16	5.41	8.44	38.72	999.00	1.93	999.00	2.03	0.00
23	2	27	2	55.69	14.24	1.72	39.53	999.00	56.28	15.30	1.36	39.76	74.60	7.06	7.20	37.23	999.00	2.41	999.00	2.62	0.00
23	2	27	3	83.10	17.74	4.51	37.91	999.00	77.70	15.94	5.24	38.13	76.30	6.03	10.86	36.73	999.00	0.36	999.00	0.43	0.00
23	2	27	4	97.50	22.28	2.23	36.47	999.00	94.90	18.77	4.11	36.23	100.70	7.54	14.00	36.33	999.00	-0.35	999.00	-0.29	0.00
23	2	27	5	107.70	21.70	3.10	35.93	999.00	104.50	19.39	3.64	36.24	112.50	9.41	12.94	36.56	999.00	-0.67	999.00	-0.35	0.00
23	2	27	6	99.40	21.97	3.08	35.91	999.00	94.90	19.49	4.29	36.32	103.60	9.21	14.42	37.01	999.00	-1.24	999.00	-0.78	0.00
23	2	27	7	106.50	21.36	2.99	35.89	999.00	101.10	19.09	3.77	36.25	106.20	9.23	12.68	36.91	999.00	-0.98	999.00	-0.67	0.00
23	2	27	8	106.30	22.10	3.78	35.16	999.00	101.60	19.67	4.54	35.56	107.40	10.59	14.73	36.42	999.00	-1.45	999.00	-1.00	0.00
23	2	27	9	117.50	16.78	5.71	35.16	999.00	112.10	15.63	5.99	35.56	116.80	8.00	14.66	36.42	999.00	-1.40	999.00	-1.03	0.00
23	2	27	10	101.70	19.36	4.32	33.59	999.00	95.20	17.63	5.50	33.81	99.30	8.70	14.68	34.13	999.00	-0.69	999.00	-0.32	0.14

23	2	27	11	98.00	34.15	3.32	33.05	999.00	92.10	30.30	4.73	33.40	100.50	13.83	14.76	34.02	999.00	-1.25	999.00	-0.83	0.14
23	2	27	12	105.80	34.63	3.77	34.35	999.00	101.20	31.36	4.58	34.70	109.50	15.87	13.04	35.38	999.00	-1.06	999.00	-0.66	0.04
23	2	27	13	109.00	26.29	2.95	35.16	999.00	102.00	23.50	3.64	35.52	108.00	10.63	13.59	36.22	999.00	-0.91	999.00	-0.66	0.17
23	2	27	14	97.10	27.99	3.79	36.07	999.00	88.10	25.11	5.62	36.19	96.90	9.99	39.03	36.87	999.00	-0.58	999.00	-0.81	0.14
23	2	27	15	85.10	34.27	2.93	36.50	999.00	77.90	31.39	3.76	36.30	85.40	17.06	12.59	37.08	999.00	-1.13	999.00	-1.00	0.03
23	2	27	16	84.80	32.81	3.33	36.14	999.00	78.20	29.85	4.18	36.22	85.50	15.98	13.76	37.16	999.00	-1.17	999.00	-1.01	0.00
23	2	27	17	74.70	40.00	2.88	35.51	999.00	70.00	36.04	3.99	35.62	76.90	18.58	11.96	36.50	999.00	-1.02	999.00	-0.88	0.03
23	2	27	18	70.00	31.12	3.90	35.06	999.00	64.41	28.31	4.56	35.26	71.50	16.49	11.93	36.17	999.00	-1.02	999.00	-0.91	0.09
23	2	27	19	69.97	13.84	8.17	35.32	999.00	62.45	11.86	12.63	35.32	64.86	6.52	20.92	36.06	999.00	-0.94	999.00	-0.81	0.00
23	2	27	20	54.12	3.45	30.60	37.37	999.00	59.38	6.67	6.91	36.50	67.16	4.15	14.11	36.28	999.00	1.33	999.00	0.47	0.00
23	2	27	21	274.00	12.53	5.70	35.94	999.00	271.80	11.50	6.75	35.74	259.30	7.94	10.47	36.21	999.00	-1.31	999.00	-0.93	0.00
23	2	27	22	313.40	8.45	8.38	34.51	999.00	312.40	7.96	8.89	34.87	292.00	5.22	11.50	35.80	999.00	-1.29	999.00	-0.94	0.00
23	2	27	23	275.60	7.31	3.08	34.16	999.00	270.70	6.42	4.90	34.51	268.20	3.20	11.53	35.46	999.00	-1.29	999.00	-0.91	0.00
23	2	27	24	221.60	4.86	3.44	34.16	999.00	201.10	5.10	4.08	34.51	187.30	2.96	13.23	35.46	999.00	-1.22	999.00	-1.02	0.00
23	2	28	1	247.80	16.13	3.68	34.99	999.00	248.10	13.32	4.57	35.22	245.10	7.15	9.51	36.05	999.00	-0.70	999.00	-0.66	0.00
23	2	28	2	257.20	27.29	5.81	37.67	999.00	255.90	24.50	6.18	37.77	255.50	15.66	11.53	38.09	999.00	-0.87	999.00	-0.66	0.01
23	2	28	3	259.50	32.57	6.95	38.92	999.00	259.50	29.99	7.60	39.42	257.40	18.98	11.39	40.04	999.00	-0.95	999.00	-0.57	
23	2	28	4	258.30	25.35	5.37	37.52	999.00	256.60	22.72	6.17	37.79	256.60	14.91	10.60	38.62	999.00	-1.34	999.00	-1.01	0.00
23	2	28	5	283.60	24.13	5.73	37.19	999.00	283.10	22.11	5.97	37.56	276.50	15.25	9.39	38.24	999.00	-0.70	999.00	-0.19	0.00
23	2	28	6	284.60	23.76	6.61	36.96	999.00	284.50	22.01	6.01	37.52	281.50	15.27	9.86	37.15	999.00	0.16	999.00	0.59	0.00
23	2	28	7	272.00	19.71	5.44	36.58	999.00	271.50	18.11	5.84	36.78	268.90	10.94	9.56	37.04	999.00	-0.81	999.00	-0.57	0.00
23	2	28	8	275.70	21.97	5.31	36.28	999.00	274.60	20.14	6.23	36.73	274.60	12.33	9.65	37.31	999.00	-1.04	999.00	-0.58	0.00
23	2	28	9	285.80	22.64	5.95	36.03	999.00	286.10	20.93	6.54	36.54	281.60	14.13	11.25	37.04	999.00	-1.09	999.00	-0.57	0.00
23	2	28	10	281.50	18.94	5.30	35.81	999.00	280.90	17.64	6.00	36.34	278.50	12.97	10.13	37.27	999.00	-1.77	999.00	-1.23	0.00
23	2	28	11	278.80	16.08	4.90	35.78	999.00	279.60	15.43	5.29	36.32	280.30	11.44	10.10	37.68	999.00	-1.98	999.00	-1.41	0.00
23	2	28	12	284.20	16.35	11.60	36.15	999.00	284.50	16.01	11.92	36.72	271.80	11.04	13.84	38.27	999.00	-2.20	999.00	-1.62	0.00
23	2	28	13	268.40	12.59	11.11	36.82	999.00	269.90	12.40	11.13	37.42	273.50	9.55	11.20	39.23	999.00	-2.55	999.00	-1.93	0.00
23	2	28	14	252.60	12.08	12.00	38.09	999.00	251.10	11.55	12.93	38.68	253.00	9.29	14.75	40.66	999.00	-2.79	999.00	-2.22	0.00
23	2	28	15	249.90	9.68	10.78	39.82	999.00	249.80	9.58	12.59	40.37	243.50	7.77	17.30	42.63	999.00	-2.94	999.00	-2.42	0.00
23	2	28	16	229.70	8.10	12.09	41.31	999.00	228.30	7.96	11.77	41.85	229.00	6.78	10.47	44.06	999.00	-2.41	999.00	-1.90	0.00
23	2	28	17	148.50	3.29	53.82	41.58	999.00	130.80	3.50	41.61	42.18	84.80	4.95	14.89	43.43	999.00	-0.51	999.00	-0.07	0.00
23	2	28	18	173.70	4.80	22.42	41.30	999.00	142.90	4.38	22.66	41.51	83.40	4.73	11.96	40.78	999.00	0.93	999.00	1.19	0.00
23	2	28	19	184.20	8.19	2.40	41.56	999.00	171.00	7.11	10.05	41.27	106.80	3.34	9.35	39.22	999.00	3.23	999.00	2.88	0.00
23	2	28	20	173.70	7.99	1.77	42.19	999.00	169.80	7.63	1.94	42.33	120.90	3.39	4.89	39.01	999.00	2.35	999.00	2.55	0.00
23	2	28	21	159.50	10.81	2.44	42.00	999.00	151.10	10.38	4.03	41.86	114.20	3.80	7.32	39.31	999.00	2.95	999.00	2.55	0.00
23	2	28	22	156.80	16.60	3.28	41.67	999.00	150.60	15.88	2.95	41.17	136.90	5.24	10.90	39.03	999.00	2.44	999.00	1.62	0.00
23	2	28	23	165.90	15.93	1.02	41.67	999.00	161.60	12.76	1.91	41.17	152.70	3.61	8.60	39.03	999.00	1.54	999.00	1.13	0.00
23	2	28	24	150.60	13.32	1.79	41.04	999.00	141.50	11.20	2.06	40.08	114.30	3.99	6.12	38.54	999.00	2.46	999.00	1.51	0.00
23	3	1	1	131.90	15.50	2.07	39.94	999.00	120.00	12.64	2.51	39.24	110.90	4.80	11.06	38.25	999.00	0.81	999.00	0.45	0.00
23	3	1	2	110.20	17.91	2.15	38.41	999.00	100.60	16.48	3.71	38.16	96.70	6.67	13.46	38.09	999.00	0.12	999.00	-0.14	0.00
23	3	1	3	107.00	22.35	1.86	37.35	999.00	101.40	19.54	3.29	37.36	105.40	9.10	11.93	37.78	999.00	-0.56	999.00	-0.48	0.00
23	3	1	4	112.50	20.72	2.88	36.49	999.00	107.80	18.61	3.66	36.79	110.90	8.70	13.09	37.44	999.00	-1.16	999.00	-0.77	0.00
23	3	1	5	107.20	20.95	3.81	36.05	999.00	101.90	18.52	5.29	36.30	106.50	9.04	12.50	37.20	999.00	-1.31	999.00	-0.92	0.00
23	3	1	6	62.59	22.10	2.47	35.74	999.00	56.60	21.21	3.55	36.18	57.12	12.51	10.51	37.18	999.00	-1.29	999.00	-0.93	0.00
23	3	1	7	62.46	19.24	2.90	35.39	999.00	56.96	17.43	3.89	35.77	57.25	10.17	11.04	36.66	999.00	-1.15	999.00	-0.76	0.00
23	3	1	8	73.90	22.86	3.42	35.39	999.00	69.55	21.15	4.03	35.77	74.30	10.44	13.04	36.66	999.00	-1.50	999.00	-1.00	0.00
23	3	1	9	92.00	21.25	3.58	35.22	999.00	87.60	18.47	5.42	35.62	91.10	9.88	13.97	36.89	999.00	-2.04	999.00	-1.52	0.00
23	3	1	10	117.50	11.67	4.73	35.97	999.00	111.00	11.16	5.58	36.59	111.10	7.47	15.66	38.46	999.00	-2.55	999.00	-2.00	0.00
23	3	1	11	165.00	5.80	18.27	38.46	999.00	145.10	4.50	24.33	39.17	102.20	4.32	20.62	40.75	999.00	-1.53	999.00	-0.74	0.00
23	3	1	12	219.20	11.87	8.77	42.54	999.00	217.00	11.05	11.77	43.33	221.70	9.12	14.41	45.51	999.00	-3.03	999.00	-2.29	0.00
23	3	1	13	223.80	8.81	11.43	45.78	999.00	223.20	8.26	11.59	46.41	229.80	6.89	13.34	48.63	999.00	-3.01	999.00	-2.29	0.00
23	3	1	14	230.30	7.63	9.35	48.39	999.00	231.40	7.56	9.72	49.07	233.30	6.22	15.43	51.29	999.00	-3.21	999.00	-2.51	0.00
23	3	1	15	278.70	3.98	55.72	50.65	999.00	307.40	4.17	66.24	51.24	266.50	6.56	61.19	52.97	999.00	-0.74	999.00	-0.20	0.00

23	3	1	16	42.96	4.32	9.70	47.72	999.00	41.47	6.23	7.39	45.03	30.21	6.24	12.39	43.81	999.00	4.47	999.00	0.43	0.00
23	3	1	17	89.10	6.05	3.92	46.91	999.00	72.60	7.04	5.09	43.66	60.79	4.49	17.76	42.55	999.00	4.48	999.00	2.21	0.00
23	3	1	18	133.00	3.69	19.38	47.96	999.00	92.80	8.17	7.06	46.47	80.30	5.39	11.63	41.57	999.00	7.97	999.00	6.55	0.00
23	3	1	19	70.70	8.59	7.83	47.90	999.00	74.90	11.04	3.85	46.50	78.30	5.59	17.87	40.77	999.00	5.82	999.00	4.34	0.00
23	3	1	20	64.17	14.17	2.09	44.91	999.00	69.25	13.93	3.64	42.96	63.63	6.53	9.25	39.74	999.00	4.22	999.00	2.38	0.00
23	3	1	21	60.95	13.17	2.13	43.63	999.00	68.90	14.32	3.05	41.63	87.20	6.25	9.49	38.67	999.00	5.68	999.00	3.99	0.00
23	3	1	22	84.90	16.20	3.80	42.01	999.00	86.80	12.69	4.39	40.45	94.40	4.02	14.30	38.85	999.00	0.83	999.00	0.47	0.00
23	3	1	23	82.70	11.32	4.95	39.20	999.00	79.70	8.67	7.57	38.97	66.88	4.11	16.42	38.46	999.00	0.24	999.00	0.23	0.00
23	3	1	24	22.44	7.35	26.57	38.11	999.00	17.76	8.01	31.60	38.05	30.74	7.18	17.50	38.32	999.00	-0.88	999.00	-0.68	0.00
23	3	2	1	350.70	6.37	6.00	36.60	999.00	343.60	6.65	5.57	36.76	289.70	3.23	12.17	37.21	999.00	-0.42	999.00	-0.37	0.00
23	3	2	2	176.00	2.40	12.35	36.60	999.00	235.50	1.49	35.24	36.76	215.70	1.53	32.63	37.21	999.00	2.28	999.00	1.09	0.00
23	3	2	3	157.60	5.40	1.41	40.60	999.00	169.00	7.50	2.17	39.12	173.30	3.49	5.99	36.19	999.00	5.60	999.00	4.33	0.00
23	3	2	4	182.80	9.28	1.99	41.55	999.00	182.50	11.21	1.52	40.90	188.70	3.58	9.81	35.26	999.00	6.37	999.00	5.90	0.00
23	3	2	5	208.80	13.97	2.41	42.12	999.00	208.40	14.15	2.34	41.62	209.50	5.18	7.52	35.60	999.00	6.29	999.00	5.74	0.00
23	3	2	6	234.60	22.06	2.95	39.94	999.00	228.70	15.95	2.46	37.82	216.70	6.84	7.65	35.50	999.00	4.87	999.00	1.67	0.00
23	3	2	7	273.50	22.81	4.87	39.31	999.00	265.90	19.22	4.53	38.15	251.20	8.68	10.68	36.24	999.00	1.26	999.00	0.82	0.00
23	3	2	8	276.90	19.51	2.41	38.26	999.00	270.50	15.99	4.08	37.84	258.30	6.82	9.46	37.01	999.00	0.32	999.00	0.14	0.00
23	3	2	9	284.20	17.55	6.24	37.33	999.00	284.40	16.70	7.14	37.65	278.80	12.00	11.37	38.56	999.00	-2.26	999.00	-1.61	0.00
23	3	2	10	297.20	20.31	4.32	36.87	999.00	296.80	20.83	5.33	37.50	296.90	14.13	11.17	39.36	999.00	-2.33	999.00	-1.74	0.00
23	3	2	11	301.60	15.13	4.78	36.40	999.00	302.80	15.34	5.28	36.98	301.60	11.69	11.52	38.62	999.00	-2.24	999.00	-1.66	0.00
23	3	2	12	295.40	17.39	5.26	37.57	999.00	295.60	16.66	6.10	38.15	296.10	11.72	11.54	39.88	999.00	-2.26	999.00	-1.68	0.00
23	3	2	13	297.90	14.94	4.95	38.68	999.00	297.20	14.59	5.95	39.28	297.40	10.33	13.54	41.18	999.00	-2.55	999.00	-1.94	0.00
23	3	2	14	304.70	11.67	6.63	39.07	999.00	304.30	11.55	6.89	39.66	306.20	8.49	11.87	41.46	999.00	-2.35	999.00	-1.77	0.00
23	3	2	15	315.40	12.37	6.32	39.25	999.00	315.80	11.70	6.61	39.85	314.60	8.75	10.65	41.58	999.00	-2.40	999.00	-1.74	0.00
23	3	2	16	326.00	15.87	6.18	39.25	999.00	326.90	14.67	7.47	39.85	330.30	10.86	11.69	41.58	999.00	-2.18	999.00	-1.57	0.00
23	3	2	17	325.10	12.35	7.26	38.71	999.00	323.80	11.94	7.17	39.28	324.70	8.39	11.43	40.71	999.00	-1.87	999.00	-1.31	0.00
23	3	2	18	8.73	6.48	14.08	38.51	999.00	6.61	5.66	14.46	39.02	7.79	5.13	14.21	40.11	999.00	-1.55	999.00	-1.03	0.00
23	3	2	19	6.63	8.09	13.50	38.51	999.00	6.20	6.96	13.80	39.02	360.00	5.92	13.11	40.11	999.00	-1.33	999.00	-0.90	0.00
23	3	2	20	57.64	11.19	2.20	38.08	999.00	58.11	11.08	2.72	38.49	68.44	6.12	12.34	39.34	999.00	-1.20	999.00	-0.87	0.00
23	3	2	21	49.17	16.10	2.19	37.37	999.00	51.35	15.67	2.62	37.63	65.22	8.61	10.47	38.29	999.00	-0.75	999.00	-0.49	0.00
23	3	2	22	36.06	14.92	4.99	37.04	999.00	35.89	14.53	6.64	37.33	44.70	9.90	11.49	38.13	999.00	-1.19	999.00	-0.82	0.00
23	3	2	23	44.31	15.05	3.28	36.66	999.00	43.19	16.10	3.84	36.93	46.52	9.51	10.46	37.65	999.00	-0.79	999.00	-0.61	0.00
23	3	2	24	68.60	12.22	5.48	35.48	999.00	65.04	11.64	5.19	35.88	68.36	7.59	10.65	36.88	999.00	-1.61	999.00	-1.09	0.00
23	3	3	1	91.40	10.35	7.28	34.81	999.00	90.20	10.40	8.35	35.35	98.10	6.38	17.79	36.46	999.00	-1.67	999.00	-1.13	0.00
23	3	3	2	96.90	17.44	8.05	33.72	999.00	95.50	16.34	8.59	34.25	104.90	8.51	18.20	35.31	999.00	-1.52	999.00	-0.99	0.00
23	3	3	3	102.40	14.18	4.72	33.59	999.00	98.40	13.66	5.16	34.12	106.50	7.63	13.92	35.09	999.00	-1.48	999.00	-0.97	0.00
23	3	3	4	89.30	15.82	3.25	33.59	999.00	85.00	15.42	3.79	34.11	91.50	7.89	13.98	35.00	999.00	-1.40	999.00	-0.90	0.00
23	3	3	5	77.60	15.88	4.44	33.53	999.00	72.50	15.20	4.46	34.02	69.49	8.62	11.28	35.02	999.00	-1.49	999.00	-0.96	0.00
23	3	3	6	73.30	19.92	3.38	33.17	999.00	68.92	19.49	3.78	33.69	72.90	11.01	12.74	34.78	999.00	-1.61	999.00	-1.11	0.00
23	3	3	7	79.80	17.30	4.36	32.98	999.00	75.80	16.24	5.33	33.47	81.00	9.29	13.05	34.51	999.00	-1.55	999.00	-1.03	0.00
23	3	3	8	81.90	20.01	3.62	33.78	999.00	77.90	19.16	4.25	34.31	80.00	11.21	12.83	35.43	999.00	-1.68	999.00	-1.14	0.00
23	3	3	9	85.50	22.87	4.05	34.17	999.00	81.80	20.97	5.36	34.71	84.00	11.07	14.64	35.95	999.00	-1.79	999.00	-1.25	0.00
23	3	3	10	79.60	22.58	3.35	34.40	999.00	75.20	21.66	3.85	34.96	77.00	13.79	11.51	36.24	999.00	-1.91	999.00	-1.33	0.00
23	3	3	11	67.87	24.28	3.60	33.87	999.00	64.05	22.93	4.13	34.45	67.04	14.17	10.07	35.79	999.00	-1.87	999.00	-1.28	0.00
23	3	3	12	73.10	22.59	4.23	33.77	999.00	68.98	21.67	4.82	34.34	70.70	13.59	10.41	35.71	999.00	-1.93	999.00	-1.37	0.00
23	3	3	13	71.10	27.57	3.65	33.43	999.00	66.75	25.99	4.60	33.93	69.49	16.01	11.37	35.33	999.00	-1.82	999.00	-1.37	0.01
23	3	3	14	67.69	33.23	4.14	33.02	999.00	63.14	31.17	4.99	33.45	65.07	19.53	10.04	34.53	999.00	-1.22	999.00	-0.80	0.11
23	3	3	15	68.09	35.32	3.32	33.28	999.00	63.62	32.50	4.43	33.71	67.32	19.44	10.87	34.52	999.00	-1.28	999.00	-0.78	0.05
23	3	3	16	61.47	42.86	2.71	34.58	999.00	56.05	38.80	3.64	34.95	59.49	22.25	10.48	35.48	999.00	-0.83	999.00	-0.35	0.11
23	3	3	17	61.88	46.08	3.46	35.78	999.00	57.13	42.14	5.12	36.41	62.04	24.35	11.35	36.84	999.00	-1.17	999.00	-0.51	0.24
23	3	3	18	58.97	51.21	4.55	35.42	999.00	54.78	46.79	5.46	36.01	59.06	27.37	11.80	36.58	999.00	-1.15	999.00	-0.53	0.24
23	3	3	19	64.65	54.85	3.66	35.34	999.00	60.71	50.78	4.30	35.94	65.74	32.88	9.63	36.49	999.00	-1.04	999.00	-0.58	0.16
23	3	3	20	61.66	44.87	3.83	34.96	999.00	57.60	41.22	5.03	35.43	63.48	25.37	11.55	36.06	999.00	-1.26	999.00	-0.66	0.13

23	3	3	21	48.33	34.78	7.11	34.78	999.00	44.59	32.18	6.92	35.38	51.34	20.68	10.09	36.05	999.00	-1.31	999.00	-0.69	0.04
23	3	3	22	355.10	34.01	4.80	34.11	999.00	354.30	29.84	5.87	34.59	359.30	23.17	10.18	35.43	999.00	-1.36	999.00	-0.99	0.03
23	3	3	23	345.00	38.40	4.32	32.57	999.00	343.30	36.02	5.20	33.13	345.10	27.00	6.79	34.09	999.00	-1.51	999.00	-0.90	0.00
23	3	3	24	327.50	37.66	4.18	32.49	999.00	325.30	35.28	4.73	33.01	327.70	22.41	8.89	33.95	999.00	-1.41	999.00	-0.94	0.00
23	3	4	1	319.00	32.65	5.68	32.78	999.00	316.90	29.95	6.26	33.21	317.60	19.24	9.63	34.08	999.00	-1.15	999.00	-0.81	0.00
23	3	4	2	305.90	33.75	5.08	33.50	999.00	304.60	32.38	5.37	34.00	304.10	22.67	9.69	34.33	999.00	-0.73	999.00	-0.06	0.00
23	3	4	3	297.00	31.63	4.91	33.76	999.00	295.60	31.21	5.80	34.38	295.90	19.83	11.04	34.61	999.00	-0.86	999.00	-0.25	0.00
23	3	4	4	292.40	28.40	5.58	34.28	999.00	291.10	27.21	5.79	34.81	289.70	18.12	10.48	35.31	999.00	-1.20	999.00	-0.67	0.00
23	3	4	5	294.70	23.69	5.59	34.11	999.00	292.20	22.63	5.75	34.62	289.10	14.19	11.11	35.05	999.00	-0.60	999.00	-0.13	0.00
23	3	4	6	278.20	19.67	3.84	34.55	999.00	273.90	17.85	4.41	34.99	277.00	10.73	10.02	35.20	999.00	-0.43	999.00	-0.05	0.00
23	3	4	7	275.40	16.21	3.16	33.19	999.00	270.00	14.07	3.94	33.54	260.40	7.08	10.56	33.63	999.00	-0.45	999.00	-0.17	0.00
23	3	4	8	277.80	15.48	3.89	32.62	999.00	273.30	13.87	3.74	32.99	264.60	7.91	9.22	33.42	999.00	-1.31	999.00	-0.85	0.00
23	3	4	9	279.80	14.82	5.85	32.88	999.00	278.10	13.90	5.84	33.48	277.50	11.03	9.61	34.98	999.00	-2.39	999.00	-1.72	0.00
23	3	4	10	295.10	14.00	6.86	33.89	999.00	295.70	14.35	6.61	34.51	297.50	10.29	12.30	36.63	999.00	-2.91	999.00	-2.34	0.00
23	3	4	11	279.60	9.85	8.90	33.89	999.00	279.70	9.50	9.67	34.51	282.00	7.75	15.70	36.63	999.00	-3.28	999.00	-2.60	0.00
23	3	4	12	295.10	10.19	8.50	37.46	999.00	298.40	10.47	8.12	38.10	307.30	9.03	11.92	40.96	999.00	-3.34	999.00	-2.74	0.00
23	3	4	13	243.50	10.85	10.23	39.35	999.00	238.50	10.27	10.94	39.97	247.30	8.43	21.15	42.51	999.00	-2.98	999.00	-2.34	0.00
23	3	4	14	243.80	10.20	5.33	40.98	999.00	242.50	10.12	6.10	41.63	240.70	8.92	13.99	43.86	999.00	-2.81	999.00	-2.17	0.00
23	3	4	15	241.90	11.98	9.15	42.21	999.00	241.20	11.86	11.59	42.76	239.50	9.93	20.66	45.06	999.00	-2.88	999.00	-2.37	0.00
23	3	4	16	240.60	13.16	6.83	42.58	999.00	238.90	12.57	7.31	43.18	237.40	9.67	11.32	45.40	999.00	-2.73	999.00	-2.15	0.00
23	3	4	17	230.10	16.50	3.98	43.22	999.00	227.80	16.31	3.82	43.73	229.30	11.99	10.97	45.44	999.00	-2.02	999.00	-1.49	0.00
23	3	4	18	237.00	13.04	6.31	43.22	999.00	234.90	12.31	6.78	43.73	237.70	7.82	9.56	45.44	999.00	-1.21	999.00	-0.70	0.00
23	3	4	19	224.60	14.05	1.68	42.95	999.00	221.40	12.59	2.31	43.37	220.00	6.86	8.12	43.75	999.00	-0.66	999.00	-0.32	0.00
23	3	4	20	249.50	15.17	3.02	42.64	999.00	245.40	12.99	3.85	42.96	242.80	6.47	9.87	43.24	999.00	-0.76	999.00	-0.49	0.00
23	3	4	21	250.10	10.28	13.09	42.49	999.00	245.30	8.96	15.24	42.78	240.60	4.41	16.87	43.02	999.00	-0.34	999.00	-0.08	0.00
23	3	4	22	252.60	11.57	4.83	42.49	999.00	246.70	9.65	5.77	42.78	221.50	4.15	10.40	43.02	999.00	-0.18	999.00	0.06	0.00
23	3	4	23	240.80	11.30	5.91	42.86	999.00	231.30	9.03	10.56	42.62	210.40	3.78	17.11	42.35	999.00	1.07	999.00	0.52	0.00
23	3	4	24	229.40	9.78	3.08	42.97	999.00	215.30	8.37	2.53	42.65	198.20	3.63	8.26	42.03	999.00	0.60	999.00	0.49	0.00
23	3	5	1	221.90	13.83	1.78	42.35	999.00	217.00	11.21	2.90	42.09	209.20	4.00	11.24	41.62	999.00	0.55	999.00	0.31	0.00
23	3	5	2	274.30	10.90	3.30	41.05	999.00	278.20	8.74	5.36	41.14	298.40	3.75	8.76	41.26	999.00	0.09	999.00	0.17	0.00
23	3	5	3	268.90	15.57	4.24	41.14	999.00	264.40	13.07	5.55	41.28	258.30	7.00	10.35	41.43	999.00	-0.88	999.00	-0.60	0.00
23	3	5	4	282.70	20.74	5.63	40.74	999.00	281.40	18.51	5.63	41.11	272.20	11.14	10.12	41.26	999.00	-0.51	999.00	-0.08	0.00
23	3	5	5	289.60	20.22	4.41	39.11	999.00	288.30	18.57	5.37	39.59	290.00	11.41	11.18	40.06	999.00	-0.81	999.00	-0.35	0.00
23	3	5	6	279.60	17.72	2.75	38.17	999.00	276.10	15.78	3.19	38.56	267.30	7.59	7.67	38.40	999.00	0.24	999.00	0.57	0.00
23	3	5	7	281.40	16.10	2.21	37.46	999.00	277.10	14.10	2.70	37.70	262.50	6.26	7.99	37.07	999.00	0.45	999.00	0.68	0.00
23	3	5	8	269.40	14.06	4.05	36.68	999.00	259.10	11.80	5.13	36.89	242.50	5.81	9.36	36.62	999.00	-0.62	999.00	-0.41	0.00
23	3	5	9	275.10	10.88	7.55	36.63	999.00	269.90	9.92	8.12	37.08	265.60	8.03	11.26	38.43	999.00	-2.31	999.00	-1.68	0.00
23	3	5	10	290.30	7.48	12.01	38.26	999.00	291.50	7.27	12.76	38.86	308.80	6.59	10.17	41.02	999.00	-2.88	999.00	-2.30	0.00
23	3	5	11	299.90	9.30	8.50	40.61	999.00	298.10	9.50	7.82	41.24	298.70	7.93	17.74	43.77	999.00	-3.20	999.00	-2.60	0.00
23	3	5	12	307.40	8.04	11.81	41.59	999.00	313.40	8.07	11.39	42.38	325.70	7.01	17.46	44.60	999.00	-2.79	999.00	-1.99	0.00
23	3	5	13	315.50	10.17	7.45	42.35	999.00	321.90	9.92	7.76	43.09	336.60	8.90	11.43	44.46	999.00	-2.13	999.00	-1.39	0.00
23	3	5	14	331.10	11.31	6.47	42.35	999.00	335.70	10.21	7.68	43.09	358.70	8.63	8.97	44.46	999.00	-1.02	999.00	-0.60	0.00
23	3	5	15	349.90	8.70	4.72	43.34	999.00	352.90	8.45	7.84	43.36	15.66	6.58	12.73	43.92	999.00	-0.58	999.00	-0.62	0.00
23	3	5	16	6.59	7.29	14.26	43.65	999.00	11.80	6.11	17.71	43.88	29.51	6.66	16.56	44.67	999.00	-0.85	999.00	-0.52	0.00
23	3	5	17	32.94	7.72	3.41	43.65	999.00	33.62	7.43	4.28	43.85	73.40	6.93	15.66	43.69	999.00	0.85	999.00	1.22	0.00
23	3	5	18	62.19	8.94	2.21	43.13	999.00	65.35	7.35	8.58	42.99	70.60	3.82	13.19	43.24	999.00	0.25	999.00	-0.28	0.00
23	3	5	19	89.80	9.52	3.82	42.36	999.00	86.30	8.75	5.31	42.03	101.40	2.47	19.76	41.67	999.00	0.92	999.00	0.71	0.00
23	3	5	20	102.60	13.39	2.01	42.04	999.00	99.70	12.70	2.09	42.05	108.50	5.46	11.14	41.40	999.00	0.67	999.00	0.57	0.00
23	3	5	21	99.40	17.15	2.46	39.67	999.00	100.00	13.71	4.00	39.54	108.50	6.98	11.80	40.04	999.00	-0.18	999.00	-0.47	0.00
23	3	5	22	104.70	18.01	3.34	39.49	999.00	104.00	14.75	4.32	38.91	108.70	6.94	10.99	39.08	999.00	-0.28	999.00	-0.43	0.00
23	3	5	23	105.50	20.10	2.19	39.36	999.00	104.40	16.76	3.66	39.23	109.00	7.68	13.19	39.65	999.00	-0.40	999.00	-0.47	0.00
23	3	5	24	112.40	21.91	3.05	39.12	999.00	109.70	19.15	4.40	39.35	115.40	9.39	12.42	39.92	999.00	-0.92	999.00	-0.61	0.00
23	3	6	1	107.10	19.61	4.05	39.02	999.00	103.30	17.02	4.84	39.35	109.00	8.70	13.76	40.09	999.00	-1.00	999.00	-0.69	0.00

23	3	6	2	98.40	20.37	2.49	39.04	999.00	92.70	17.63	4.16	39.34	95.70	8.06	13.04	40.08	999.00	-0.98	999.00	-0.71	0.00
23	3	6	3	73.10	18.69	3.38	38.66	999.00	60.93	17.49	3.24	38.71	57.84	9.49	9.56	39.44	999.00	-0.22	999.00	-0.58	0.00
23	3	6	4	90.40	19.25	6.07	38.66	999.00	86.90	17.10	7.37	38.71	87.90	9.04	16.58	39.44	999.00	-1.51	999.00	-1.07	0.00
23	3	6	5	99.60	25.57	3.31	36.48	999.00	94.20	22.72	4.51	36.87	103.40	11.10	14.72	37.89	999.00	-1.41	999.00	-1.05	0.00
23	3	6	6	114.30	11.59	5.56	36.57	999.00	109.80	10.74	5.28	37.08	119.50	6.80	13.72	38.18	999.00	-1.56	999.00	-1.03	0.00
23	3	6	7	105.50	15.82	4.99	36.73	999.00	98.80	14.51	4.91	37.21	97.30	8.25	13.47	38.32	999.00	-1.53	999.00	-1.08	0.00
23	3	6	8	99.00	20.14	3.05	36.98	999.00	92.70	17.86	4.12	37.45	98.70	8.63	14.34	38.52	999.00	-1.51	999.00	-1.10	0.00
23	3	6	9	98.20	21.11	4.28	36.37	999.00	92.20	18.72	5.51	36.77	98.10	9.88	14.96	38.10	999.00	-1.87	999.00	-1.41	0.00
23	3	6	10	94.40	22.69	3.08	36.82	999.00	89.00	20.65	4.95	37.26	93.70	10.29	13.76	39.01	999.00	-2.35	999.00	-1.85	0.00
23	3	6	11	90.30	22.91	3.40	37.19	999.00	84.60	20.70	5.41	37.68	87.40	11.84	14.07	39.90	999.00	-2.60	999.00	-2.12	0.00
23	3	6	12	84.30	19.85	3.93	38.08	999.00	76.40	18.28	4.99	38.55	81.90	11.74	11.99	40.60	999.00	-2.07	999.00	-1.82	0.00
23	3	6	13	69.18	23.15	4.95	37.90	999.00	63.28	21.01	6.11	38.11	68.47	14.07	10.69	40.04	999.00	-2.26	999.00	-1.88	0.00
23	3	6	14	61.53	25.73	3.74	37.01	999.00	56.80	23.36	4.83	37.43	63.35	14.00	12.18	39.06	999.00	-1.85	999.00	-1.44	0.00
23	3	6	15	58.17	28.49	4.22	35.73	999.00	52.51	25.86	5.37	36.15	51.07	15.36	11.52	37.44	999.00	-1.53	999.00	-1.23	0.03
23	3	6	16	42.07	22.92	6.81	35.64	999.00	37.72	19.81	8.33	36.09	39.90	15.60	13.42	37.30	999.00	-1.75	999.00	-1.21	0.00
23	3	6	17	49.01	25.45	4.38	35.64	999.00	45.74	23.95	4.91	36.09	41.56	15.87	10.72	37.30	999.00	-1.81	999.00	-1.25	0.00
23	3	6	18	51.38	20.09	5.01	34.82	999.00	47.32	19.13	5.43	35.33	48.57	13.56	11.17	36.57	999.00	-1.84	999.00	-1.30	0.00
23	3	6	19	88.70	23.19	3.27	34.71	999.00	86.00	21.08	4.38	35.08	93.20	9.93	14.30	36.13	999.00	-1.39	999.00	-1.02	0.04
23	3	6	20	99.20	21.22	4.44	35.10	999.00	95.30	20.07	5.32	35.48	100.40	11.46	12.58	36.46	999.00	-1.33	999.00	-0.89	0.00
23	3	6	21	29.31	21.69	4.30	34.72	999.00	27.03	19.88	5.66	35.24	30.00	18.91	9.37	36.39	999.00	-1.75	999.00	-1.22	0.00
23	3	6	22	45.89	25.16	5.78	33.81	999.00	43.27	23.71	5.85	34.37	42.73	15.44	10.74	35.50	999.00	-1.62	999.00	-1.07	0.00
23	3	6	23	74.60	24.85	3.70	33.50	999.00	70.30	24.11	4.38	34.03	73.80	13.99	12.48	35.18	999.00	-1.67	999.00	-1.18	0.00
23	3	6	24	64.79	25.64	3.63	33.38	999.00	60.77	24.93	4.18	33.91	66.77	16.63	10.23	34.94	999.00	-1.54	999.00	-0.99	0.00
23	3	7	1	42.46	16.84	10.66	33.26	999.00	40.26	15.64	10.57	33.83	50.92	11.01	13.63	34.83	999.00	-1.54	999.00	-0.96	0.00
23	3	7	2	15.15	20.85	10.99	32.93	999.00	13.46	17.55	12.04	33.47	23.90	16.94	12.03	34.27	999.00	-1.37	999.00	-0.84	0.00
23	3	7	3	8.48	22.39	9.21	31.92	999.00	6.55	19.58	9.94	32.44	3.71	20.41	9.32	33.36	999.00	-1.23	999.00	-0.76	0.00
23	3	7	4	20.65	21.15	5.82	30.99	999.00	19.46	16.94	6.56	31.50	30.79	16.76	9.17	32.24	999.00	-1.12	999.00	-0.59	0.00
23	3	7	5	9.65	19.33	9.48	32.16	999.00	7.55	15.97	9.75	32.68	9.51	16.72	8.58	33.08	999.00	-0.94	999.00	-0.40	0.00
23	3	7	6	11.66	17.69	8.45	32.64	999.00	10.06	14.45	8.93	33.13	12.66	12.59	10.86	34.23	999.00	-1.62	999.00	-1.14	0.00
23	3	7	7	353.80	23.23	4.09	33.01	999.00	352.50	21.51	5.09	33.55	355.80	17.41	8.79	34.77	999.00	-1.89	999.00	-1.27	0.00
23	3	7	8	353.90	29.08	3.37	32.93	999.00	352.20	27.13	4.41	33.51	350.60	21.47	6.72	34.78	999.00	-1.87	999.00	-1.30	0.00
23	3	7	9	358.40	23.53	8.09	32.77	999.00	357.00	21.06	8.50	33.36	358.80	18.57	8.92	34.72	999.00	-1.94	999.00	-1.32	0.00
23	3	7	10	0.90	24.50	7.97	32.44	999.00	357.90	22.12	7.58	33.02	1.32	19.79	8.94	34.49	999.00	-2.27	999.00	-1.70	0.00
23	3	7	11	7.97	19.73	10.48	32.64	999.00	6.30	17.52	10.10	33.23	8.28	17.81	10.05	34.67	999.00	-1.98	999.00	-1.36	0.00
23	3	7	12	15.28	21.79	5.81	33.25	999.00	13.39	17.96	7.19	33.92	14.30	17.06	11.55	35.29	999.00	-2.20	999.00	-1.52	0.00
23	3	7	13	17.73	17.64	7.07	33.67	999.00	18.30	13.93	8.42	34.31	23.01	15.08	10.65	35.89	999.00	-2.07	999.00	-1.46	0.00
23	3	7	14	18.29	15.40	7.24	34.58	999.00	16.98	12.60	9.46	35.20	18.99	13.63	11.42	36.57	999.00	-2.02	999.00	-1.37	0.00
23	3	7	15	19.30	12.30	10.73	35.47	999.00	19.21	10.11	9.87	36.03	23.62	11.64	9.67	37.43	999.00	-2.00	999.00	-1.48	0.00
23	3	7	16	348.80	11.56	8.60	36.62	999.00	347.40	10.97	8.62	37.18	348.60	10.37	12.15	38.40	999.00	-1.72	999.00	-1.16	0.00
23	3	7	17	12.90	12.40	10.65	37.15	999.00	11.43	10.71	11.56	37.78	14.52	10.01	12.45	38.78	999.00	-1.57	999.00	-0.91	0.00
23	3	7	18	353.70	14.83	7.05	37.39	999.00	349.60	13.47	6.61	38.00	352.00	9.45	9.80	38.98	999.00	-1.40	999.00	-0.91	0.00
23	3	7	19	1.31	10.46	12.48	37.07	999.00	0.10	8.50	11.80	37.54	351.70	6.81	8.67	38.38	999.00	-1.28	999.00	-0.91	0.00
23	3	7	20	5.32	12.31	11.70	37.07	999.00	3.41	10.30	11.59	37.54	4.61	9.88	10.22	38.38	999.00	-1.53	999.00	-1.07	0.00
23	3	7	21	18.84	18.56	4.65	36.10	999.00	17.58	14.23	5.95	36.58	22.56	13.35	9.36	37.59	999.00	-1.55	999.00	-1.05	0.00
23	3	7	22	13.96	18.97	7.15	34.96	999.00	13.50	15.17	8.22	35.47	20.78	13.85	11.41	36.56	999.00	-1.66	999.00	-1.13	0.00
23	3	7	23	7.03	16.31	10.14	34.09	999.00	4.21	14.72	10.53	34.64	9.29	12.77	10.39	35.78	999.00	-1.68	999.00	-1.14	0.00
23	3	7	24	2.49	16.54	9.58	34.27	999.00	0.46	14.85	9.34	34.79	7.19	12.81	9.09	35.90	999.00	-1.59	999.00	-1.08	0.00
23	3	8	1	4.09	15.97	9.90	34.40	999.00	2.32	14.24	9.88	34.90	5.97	12.91	9.49	35.94	999.00	-1.54	999.00	-1.05	0.00
23	3	8	2	13.33	18.39	9.32	34.58	999.00	11.85	14.78	9.94	35.01	12.60	14.33	9.47	36.04	999.00	-1.38	999.00	-0.98	0.00
23	3	8	3	15.96	20.88	5.19	34.55	999.00	13.26	17.10	6.49	34.97	18.01	14.50	10.58	35.99	999.00	-1.49	999.00	-1.02	0.00
23	3	8	4	17.38	21.48	3.37	33.56	999.00	15.90	17.03	4.89	34.07	22.27	15.84	8.98	35.13	999.00	-1.60	999.00	-1.09	0.00
23	3	8	5	16.49	20.15	4.20	33.00	999.00	14.73	16.15	6.21	33.51	20.65	14.51	9.48	34.60	999.00	-1.63	999.00	-1.11	0.00
23	3	8	6	13.11	20.09	6.63	32.62	999.00	11.28	16.63	7.64	33.12	16.84	15.19	9.97	34.24	999.00	-1.63	999.00	-1.14	0.00

23	3	8	7	16.41	22.73	3.89	32.22	999.00	14.84	18.47	5.49	32.73	20.39	16.00	10.36	33.89	999.00	-1.64	999.00	-1.13	0.00
23	3	8	8	14.48	21.79	6.04	32.17	999.00	12.72	17.91	6.89	32.79	15.95	16.19	10.49	33.88	999.00	-1.80	999.00	-1.13	0.00
23	3	8	9	15.67	21.76	4.40	32.11	999.00	13.72	17.80	5.93	32.76	22.48	16.53	9.40	33.97	999.00	-1.90	999.00	-1.25	0.00
23	3	8	10	25.14	15.61	7.53	32.38	999.00	24.23	12.72	7.77	33.08	32.81	13.34	9.02	34.35	999.00	-1.86	999.00	-1.15	0.00
23	3	8	11	22.85	16.68	6.50	33.09	999.00	22.29	13.18	6.76	33.79	30.73	14.93	8.87	35.01	999.00	-1.91	999.00	-1.27	0.00
23	3	8	12	22.43	13.58	7.66	33.54	999.00	22.36	10.85	7.46	34.22	26.21	12.18	10.68	35.46	999.00	-1.82	999.00	-1.18	0.00
23	3	8	13	355.00	12.01	9.16	34.45	999.00	352.80	11.84	9.47	35.09	358.30	11.75	12.17	36.15	999.00	-1.53	999.00	-1.02	0.00
23	3	8	14	345.60	15.40	5.91	34.45	999.00	343.50	15.04	6.33	35.09	346.50	13.87	8.32	36.15	999.00	-2.04	999.00	-1.37	0.00
23	3	8	15	15.64	14.63	9.97	36.30	999.00	15.40	11.87	11.18	36.79	20.98	12.31	12.49	38.15	999.00	-1.87	999.00	-1.38	0.00
23	3	8	16	26.67	16.45	7.76	37.42	999.00	25.61	13.00	8.98	38.04	30.82	13.22	10.17	39.36	999.00	-1.83	999.00	-1.19	0.00
23	3	8	17	30.98	15.50	7.55	37.77	999.00	31.02	13.25	8.90	38.51	34.90	13.12	9.00	39.74	999.00	-1.92	999.00	-1.14	0.00
23	3	8	18	25.12	16.78	5.86	37.56	999.00	23.60	13.20	7.43	38.18	26.93	12.83	10.06	39.27	999.00	-1.66	999.00	-1.03	0.00
23	3	8	19	17.56	16.18	4.85	37.02	999.00	15.92	12.74	7.12	37.53	17.09	10.62	10.14	38.58	999.00	-1.57	999.00	-1.08	0.00
23	3	8	20	18.64	13.96	8.79	36.21	999.00	17.14	11.27	8.78	36.74	15.37	10.31	10.21	37.89	999.00	-1.63	999.00	-1.13	0.00
23	3	8	21	22.33	18.91	4.59	34.98	999.00	21.88	13.70	6.15	35.51	28.98	13.50	9.16	36.71	999.00	-1.75	999.00	-1.21	0.00
23	3	8	22	37.11	18.38	6.51	33.64	999.00	35.25	17.20	7.90	34.20	34.47	14.22	9.72	35.43	999.00	-1.83	999.00	-1.24	0.00
23	3	8	23	46.12	18.72	5.89	32.08	999.00	42.70	17.85	6.35	32.66	49.95	12.23	11.49	33.79	999.00	-1.69	999.00	-1.13	0.00
23	3	8	24	43.99	17.50	8.25	30.89	999.00	41.29	16.63	7.45	31.46	44.10	12.55	10.48	32.63	999.00	-1.71	999.00	-1.15	0.00
23	3	9	1	44.86	19.14	6.26	30.84	999.00	42.42	17.92	7.63	31.39	45.33	12.51	10.30	32.56	999.00	-1.65	999.00	-1.09	0.00
23	3	9	2	50.52	19.28	5.87	30.88	999.00	47.69	18.16	6.21	31.42	50.34	12.41	11.68	32.52	999.00	-1.59	999.00	-1.06	0.00
23	3	9	3	50.22	19.11	4.51	30.84	999.00	47.02	18.29	5.00	31.38	48.94	12.09	11.16	32.47	999.00	-1.60	999.00	-1.06	0.00
23	3	9	4	50.06	15.80	5.92	30.98	999.00	47.47	14.96	5.91	31.52	56.35	10.16	11.05	32.60	999.00	-1.62	999.00	-1.10	0.00
23	3	9	5	51.43	14.32	5.84	31.05	999.00	48.78	13.60	6.12	31.59	51.74	9.31	10.87	32.67	999.00	-1.57	999.00	-1.04	0.00
23	3	9	6	67.17	14.25	4.53	31.16	999.00	63.92	13.85	5.43	31.69	69.23	8.31	11.23	32.68	999.00	-1.56	999.00	-1.02	0.00
23	3	9	7	69.57	12.54	5.66	31.16	999.00	66.04	12.20	6.36	31.69	69.29	7.24	11.44	32.68	999.00	-1.44	999.00	-0.91	0.00
23	3	9	8	53.41	10.16	6.11	31.55	999.00	49.31	9.59	6.85	32.18	53.62	7.46	13.20	32.99	999.00	-1.43	999.00	-0.74	0.00
23	3	9	9	54.99	10.93	7.49	32.46	999.00	52.93	10.97	6.38	33.13	55.69	9.01	14.94	33.92	999.00	-1.60	999.00	-0.90	0.00
23	3	9	10	45.00	8.67	10.58	32.91	999.00	42.51	8.28	10.49	33.55	47.04	7.31	16.52	34.47	999.00	-1.63	999.00	-1.00	0.00
23	3	9	11	49.89	9.62	8.79	33.00	999.00	47.56	9.68	9.61	33.60	51.47	8.42	15.03	34.63	999.00	-1.40	999.00	-0.94	0.00
23	3	9	12	55.58	12.33	9.26	33.28	999.00	54.64	12.12	8.94	33.86	56.19	9.74	17.89	35.04	999.00	-2.16	999.00	-1.46	0.00
23	3	9	13	52.06	13.37	8.82	33.71	999.00	47.97	13.43	7.89	34.33	51.34	11.63	11.78	35.53	999.00	-2.12	999.00	-1.42	0.00
23	3	9	14	56.71	13.32	8.11	33.71	999.00	53.02	13.11	7.77	34.33	54.06	10.53	13.28	35.53	999.00	-2.57	999.00	-1.84	0.00
23	3	9	15	69.50	13.95	7.24	33.63	999.00	66.70	13.71	7.10	34.35	66.50	10.66	15.50	36.24	999.00	-2.59	999.00	-1.86	0.00
23	3	9	16	78.70	14.29	4.55	33.57	999.00	76.60	13.82	6.15	34.40	80.60	10.01	14.00	36.30	999.00	-2.63	999.00	-1.78	0.00
23	3	9	17	83.90	15.92	4.23	33.36	999.00	81.20	15.19	4.96	34.03	89.10	8.96	13.91	35.71	999.00	-2.03	999.00	-1.45	0.00
23	3	9	18	84.10	16.60	4.11	33.88	999.00	80.10	15.99	4.76	34.49	81.60	9.72	12.67	35.94	999.00	-2.02	999.00	-1.43	0.00
23	3	9	19	81.30	20.14	3.82	33.50	999.00	77.80	19.41	4.19	34.03	82.90	12.16	12.34	35.23	999.00	-1.74	999.00	-1.22	0.00
23	3	9	20	75.90	21.69	3.72	33.28	999.00	72.60	20.84	4.66	33.82	78.20	12.36	11.66	35.11	999.00	-1.86	999.00	-1.31	0.00
23	3	9	21	78.30	18.71	3.47	33.52	999.00	74.80	18.24	4.03	34.07	82.10	11.31	12.99	35.32	999.00	-1.78	999.00	-1.23	0.00
23	3	9	22	71.10	21.16	3.38	33.87	999.00	67.43	20.66	3.94	34.41	73.00	13.04	11.26	35.69	999.00	-1.78	999.00	-1.25	0.00
23	3	9	23	61.69	17.03	3.76	34.07	999.00	57.76	16.27	4.75	34.62	63.89	11.16	10.60	35.81	999.00	-1.72	999.00	-1.15	0.00
23	3	9	24	51.58	18.23	5.78	33.77	999.00	47.92	17.27	6.30	34.32	48.93	11.68	12.12	35.50	999.00	-1.76	999.00	-1.20	0.00
23	3	10	1	53.88	19.40	7.16	33.26	999.00	51.28	18.75	6.83	33.84	48.04	12.79	13.58	35.08	999.00	-1.76	999.00	-1.20	0.00
23	3	10	2	60.09	23.64	3.79	32.43	999.00	55.96	21.82	5.07	32.99	61.11	13.90	9.97	34.08	999.00	-1.67	999.00	-1.11	0.00
23	3	10	3	66.48	24.10	4.01	32.05	999.00	62.87	22.69	4.81	32.57	67.03	14.69	10.85	33.69	999.00	-1.59	999.00	-1.11	0.00
23	3	10	4	65.29	23.81	4.54	31.87	999.00	60.71	22.14	5.52	32.35	65.68	14.31	9.68	33.41	999.00	-1.59	999.00	-1.10	0.00
23	3	10	5	64.18	26.15	3.04	32.23	999.00	60.40	25.81	4.31	32.74	66.17	16.28	10.83	33.84	999.00	-1.60	999.00	-1.09	0.00
23	3	10	6	63.13	22.70	3.22	32.29	999.00	58.72	22.50	4.06	32.77	63.89	14.40	10.78	33.63	999.00	-1.08	999.00	-0.60	0.01
23	3	10	7	58.65	21.17	3.32	32.19	999.00	54.77	20.52	3.74	32.62	61.25	13.87	10.84	33.08	999.00	-0.86	999.00	-0.46	0.02
23	3	10	8	55.19	19.61	4.11	32.04	999.00	51.57	18.46	5.19	32.46	55.90	13.13	11.21	32.92	999.00	-0.93	999.00	-0.52	0.04
23	3	10	9	53.15	21.00	4.02	31.93	999.00	49.48	20.58	4.49	32.37	55.57	13.58	11.07	32.95	999.00	-0.94	999.00	-0.50	0.03
23	3	10	10	45.69	21.53	4.43	31.85	999.00	42.49	19.27	5.83	32.29	44.81	14.50	10.37	32.78	999.00	-0.97	999.00	-0.52	0.02
23	3	10	11	33.62	20.53	5.77	31.91	999.00	31.65	18.32	6.82	32.42	32.21	17.38	8.49	33.32	999.00	-1.40	999.00	-0.87	0.02

23	3	10	12	9.44	17.18	9.05	31.53	999.00	7.32	15.25	9.74	31.98	16.76	13.82	10.82	32.88	999.00	-1.12	999.00	-0.71	0.01
23	3	10	13	350.60	19.80	4.77	30.92	999.00	348.50	18.08	5.21	31.40	347.20	17.01	7.11	32.43	999.00	-1.56	999.00	-1.06	0.01
23	3	10	14	336.40	21.39	3.75	30.92	999.00	333.80	20.14	4.88	31.40	334.70	15.48	9.18	32.43	999.00	-1.70	999.00	-1.18	0.00
23	3	10	15	337.40	19.32	4.77	31.89	999.00	335.40	18.80	5.64	32.42	335.10	14.58	9.87	33.37	999.00	-1.38	999.00	-0.85	0.00
23	3	10	16	335.70	21.29	4.11	32.53	999.00	333.90	21.04	4.63	33.07	332.40	14.38	9.28	33.77	999.00	-1.20	999.00	-0.65	0.00
23	3	10	17	345.20	20.26	4.10	32.76	999.00	344.00	19.79	3.77	33.34	347.40	14.83	6.74	33.65	999.00	-0.76	999.00	-0.19	0.00
23	3	10	18	341.60	20.56	3.53	32.94	999.00	339.30	20.06	4.49	33.58	340.10	14.27	8.49	33.78	999.00	-1.03	999.00	-0.38	0.00
23	3	10	19	345.50	17.81	3.57	33.16	999.00	344.20	17.54	3.70	33.81	342.70	13.59	7.72	34.51	999.00	-1.40	999.00	-0.77	0.00
23	3	10	20	347.90	23.48	3.80	33.02	999.00	345.20	23.07	4.29	33.60	345.90	17.91	7.89	34.44	999.00	-1.37	999.00	-0.78	0.00
23	3	10	21	347.90	20.39	4.67	32.85	999.00	346.60	19.49	4.80	33.44	351.20	15.30	8.58	34.34	999.00	-1.38	999.00	-0.81	0.00
23	3	10	22	335.50	27.47	5.07	32.79	999.00	333.50	26.60	5.84	33.37	340.50	18.08	11.42	34.31	999.00	-1.65	999.00	-1.07	0.00
23	3	10	23	340.60	27.28	4.16	31.55	999.00	338.80	26.17	5.30	32.14	342.40	19.01	8.53	33.14	999.00	-1.61	999.00	-1.02	0.00
23	3	10	24	339.30	22.09	4.84	31.19	999.00	336.70	20.43	5.89	31.77	337.70	14.26	9.38	32.66	999.00	-1.42	999.00	-0.87	0.00
23	3	11	1	341.00	22.42	5.48	31.23	999.00	338.90	21.50	6.06	31.80	339.90	15.38	9.49	32.50	999.00	-1.38	999.00	-0.81	0.00
23	3	11	2	339.00	16.95	5.71	31.32	999.00	337.60	16.41	6.69	31.88	341.90	11.86	7.53	32.92	999.00	-1.61	999.00	-1.06	0.00
23	3	11	3	330.30	19.87	6.53	31.32	999.00	329.30	18.84	7.07	31.88	333.50	12.81	9.54	32.92	999.00	-1.65	999.00	-1.10	0.00
23	3	11	4	336.30	23.18	4.95	31.29	999.00	335.30	22.66	5.05	31.84	340.10	16.52	9.11	32.94	999.00	-1.72	999.00	-1.16	0.00
23	3	11	5	342.40	23.70	3.56	31.24	999.00	340.80	23.34	4.44	31.79	341.10	17.49	8.76	32.92	999.00	-1.72	999.00	-1.16	0.00
23	3	11	6	343.80	23.20	4.47	31.29	999.00	341.40	22.69	4.99	31.86	347.50	17.15	7.32	33.04	999.00	-1.75	999.00	-1.17	0.00
23	3	11	7	338.50	19.69	4.73	31.06	999.00	336.20	19.38	5.61	31.63	342.70	14.14	9.76	32.80	999.00	-1.73	999.00	-1.15	0.00
23	3	11	8	340.60	16.79	4.97	30.83	999.00	338.70	16.24	5.55	31.40	341.50	11.50	8.98	32.62	999.00	-1.82	999.00	-1.24	0.00
23	3	11	9	354.60	14.18	10.64	30.85	999.00	353.30	13.56	11.37	31.45	356.50	12.54	10.96	32.76	999.00	-1.89	999.00	-1.30	0.00
23	3	11	10	13.46	12.48	14.40	30.85	999.00	12.94	10.86	14.71	31.45	28.93	11.92	11.50	32.76	999.00	-1.80	999.00	-1.07	0.00
23	3	11	11	32.55	12.21	10.07	30.76	999.00	29.70	11.10	9.52	31.50	29.53	11.48	10.85	32.63	999.00	-1.67	999.00	-0.96	0.00
23	3	11	12	37.13	9.36	13.08	31.00	999.00	35.27	8.68	11.95	31.73	40.80	8.59	16.99	32.76	999.00	-1.80	999.00	-1.05	0.00
23	3	11	13	49.20	9.45	15.58	30.71	999.00	46.87	8.91	16.87	31.33	58.71	7.74	19.61	32.64	999.00	-2.03	999.00	-1.43	0.00
23	3	11	14	60.39	8.10	11.39	30.87	999.00	58.57	7.80	13.30	31.46	49.68	6.30	30.21	32.75	999.00	-2.23	999.00	-1.53	0.00
23	3	11	15	62.08	7.04	11.03	30.98	999.00	53.89	7.05	11.34	31.71	43.09	6.12	17.89	33.48	999.00	-2.83	999.00	-2.01	0.00
23	3	11	16	72.00	5.84	12.58	31.31	999.00	64.25	5.91	18.69	32.15	72.60	4.86	24.05	33.68	999.00	-2.28	999.00	-1.33	0.00
23	3	11	17	97.90	6.31	11.40	31.64	999.00	97.90	6.28	12.11	32.53	109.90	4.99	17.39	34.09	999.00	-2.49	999.00	-1.63	0.00
23	3	11	18	110.30	9.09	5.98	31.25	999.00	105.70	8.84	7.32	31.85	108.20	6.08	12.57	33.22	999.00	-1.89	999.00	-1.32	0.00
23	3	11	19	113.70	13.35	4.38	31.52	999.00	110.80	13.00	5.11	32.06	113.40	8.42	12.86	33.25	999.00	-1.70	999.00	-1.14	0.00
23	3	11	20	134.30	9.73	7.12	31.23	999.00	132.50	9.03	6.99	31.78	136.70	5.25	15.72	32.89	999.00	-1.69	999.00	-1.16	0.00
23	3	11	21	121.90	12.70	5.87	31.23	999.00	121.10	11.80	6.75	31.78	135.80	6.66	14.43	32.89	999.00	-1.64	999.00	-1.12	0.00
23	3	11	22	135.40	10.92	13.82	30.61	999.00	136.90	10.18	15.90	31.15	131.10	6.36	15.21	32.29	999.00	-1.73	999.00	-1.22	0.00
23	3	11	23	107.00	12.11	6.73	30.30	999.00	104.10	11.74	7.21	30.79	117.70	7.27	20.78	32.01	999.00	-1.66	999.00	-1.15	0.00
23	3	11	24	129.10	8.57	7.55	30.44	999.00	127.70	8.41	7.72	30.98	141.10	5.87	13.26	32.21	999.00	-1.75	999.00	-1.22	0.00
23	3	12	1	74.10	14.77	5.01	30.03	999.00	69.49	14.50	4.52	30.58	75.50	9.92	13.31	31.86	999.00	-1.90	999.00	-1.34	0.00
23	3	12	2	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	3	12	3	71.70	13.74	6.04	29.59	999.00	67.40	13.17	6.95	30.17	68.55	9.10	13.16	31.47	999.00	-1.84	999.00	-1.27	0.00
23	3	12	4	74.10	12.78	5.34	29.39	999.00	70.80	12.31	6.14	29.96	73.40	8.08	15.19	31.23	999.00	-1.87	999.00	-1.28	0.00
23	3	12	5	61.36	11.45	7.10	28.99	999.00	58.74	10.90	7.49	29.56	60.91	7.80	12.64	30.81	999.00	-1.82	999.00	-1.25	0.00
23	3	12	6	58.76	14.99	4.05	28.66	999.00	56.44	14.66	4.93	29.22	60.74	10.30	10.09	30.43	999.00	-1.77	999.00	-1.20	0.00
23	3	12	7	61.40	19.52	3.21	28.20	999.00	57.43	18.66	4.10	28.74	62.51	13.21	10.19	29.95	999.00	-1.74	999.00	-1.19	0.00
23	3	12	8	59.07	19.01	3.72	27.43	999.00	55.07	18.23	5.19	27.95	60.26	12.53	9.76	29.10	999.00	-1.66	999.00	-1.14	0.00
23	3	12	9	65.37	18.41	3.98	27.02	999.00	60.68	17.88	5.01	27.55	63.67	11.69	10.27	28.75	999.00	-1.80	999.00	-1.26	0.00
23	3	12	10	72.80	16.82	5.31	27.29	999.00	69.56	16.61	5.84	27.85	76.70	10.12	13.66	29.17	999.00	-1.92	999.00	-1.35	0.00
23	3	12	11	65.75	15.80	5.24	27.78	999.00	61.66	15.02	5.43	28.37	62.95	9.64	10.75	29.75	999.00	-1.97	999.00	-1.35	0.00
23	3	12	12	65.84	13.24	5.28	28.36	999.00	62.14	12.85	5.84	28.97	64.25	9.40	11.63	30.38	999.00	-2.02	999.00	-1.41	0.00
23	3	12	13	59.58	12.19	6.82	28.72	999.00	55.46	11.50	7.88	29.34	58.31	9.65	11.05	30.70	999.00	-1.91	999.00	-1.29	0.00
23	3	12	14	59.81	6.63	11.13	29.31	999.00	54.41	6.47	9.38	29.92	52.21	5.47	17.04	31.19	999.00	-1.81	999.00	-1.19	0.00
23	3	12	15	29.61	5.03	15.14	30.41	999.00	23.21	4.91	14.03	31.00	12.53	5.62	12.98	31.98	999.00	-1.37	999.00	-0.81	0.00
23	3	12	16	9.64	7.20	14.98	30.54	999.00	10.12	6.38	14.42	31.07	18.95	7.05	17.31	32.13	999.00	-1.56	999.00	-1.03	0.00

23	3	12	17	354.40	11.48	9.86	29.74	999.00	350.50	10.89	8.00	30.29	353.70	10.50	11.82	31.62	999.00	-1.99	999.00	-1.45	0.00
23	3	12	18	14.73	11.51	10.26	29.69	999.00	13.65	9.68	10.22	30.23	20.04	8.85	11.92	31.55	999.00	-1.85	999.00	-1.32	0.00
23	3	12	19	22.56	11.01	5.82	30.34	999.00	21.33	8.81	6.86	30.89	24.19	8.96	10.75	32.19	999.00	-1.86	999.00	-1.31	0.00
23	3	12	20	33.10	9.04	10.73	30.81	999.00	33.11	8.85	9.77	31.36	34.05	9.20	10.32	32.65	999.00	-1.85	999.00	-1.28	0.00
23	3	12	21	23.61	7.08	10.86	30.70	999.00	19.15	6.10	10.90	31.26	28.02	5.96	13.58	32.51	999.00	-1.76	999.00	-1.23	0.00
23	3	12	22	29.79	4.58	17.15	30.83	999.00	23.16	4.68	18.21	31.34	13.65	4.49	23.42	32.56	999.00	-1.71	999.00	-1.20	0.00
23	3	12	23	41.18	4.93	11.61	30.70	999.00	37.69	5.02	12.25	31.21	51.38	3.92	13.18	32.34	999.00	-1.64	999.00	-1.13	0.00
23	3	12	24	36.48	3.23	18.12	30.70	999.00	34.67	2.99	16.45	31.21	50.20	2.33	16.43	32.34	999.00	-1.62	999.00	-1.12	0.00
23	3	13	1	322.80	1.87	20.56	30.76	999.00	317.50	1.89	21.83	31.26	275.30	2.77	9.60	32.01	999.00	-0.84	999.00	-0.37	0.00
23	3	13	2	254.20	4.56	1.25	30.67	999.00	252.30	5.23	1.61	31.16	255.80	3.36	6.71	31.70	999.00	-1.00	999.00	-0.56	0.00
23	3	13	3	255.20	6.52	2.03	30.10	999.00	254.30	6.37	3.08	30.46	253.40	3.51	9.81	31.27	999.00	-1.29	999.00	-0.94	0.00
23	3	13	4	259.00	8.29	1.55	30.07	999.00	256.80	7.50	2.87	30.41	256.80	3.91	9.44	31.30	999.00	-1.15	999.00	-0.85	0.00
23	3	13	5	248.80	6.55	2.00	30.29	999.00	249.20	6.30	2.31	30.65	257.10	3.70	9.43	31.48	999.00	-1.29	999.00	-0.87	0.00
23	3	13	6	249.40	7.90	2.26	30.08	999.00	248.30	7.67	2.17	30.55	255.20	4.93	9.23	31.43	999.00	-1.36	999.00	-0.87	0.00
23	3	13	7	234.20	7.93	4.21	29.87	999.00	228.10	7.69	5.38	30.38	235.30	6.26	10.71	31.41	999.00	-1.53	999.00	-1.03	0.00
23	3	13	8	226.50	7.01	3.77	29.70	999.00	223.80	6.50	4.75	30.19	226.50	5.01	9.16	31.24	999.00	-1.57	999.00	-1.07	0.00
23	3	13	9	224.10	6.64	5.16	29.53	999.00	215.50	6.37	6.14	30.00	212.30	4.48	11.41	31.08	999.00	-1.60	999.00	-1.10	0.00
23	3	13	10	209.40	5.05	7.00	29.46	999.00	204.10	4.72	6.26	29.94	203.90	3.40	17.76	31.11	999.00	-1.63	999.00	-1.15	0.00
23	3	13	11	261.50	16.77	6.68	29.53	999.00	258.20	15.58	7.75	30.01	252.10	10.54	12.62	31.18	999.00	-1.79	999.00	-1.26	0.01
23	3	13	12	271.30	16.58	4.68	28.71	999.00	269.40	15.87	5.06	29.26	273.00	12.02	9.45	30.53	999.00	-1.82	999.00	-1.28	0.01
23	3	13	13	265.20	16.44	6.48	28.69	999.00	262.70	15.61	6.93	29.26	261.70	11.09	11.71	30.68	999.00	-2.12	999.00	-1.54	0.00
23	3	13	14	258.60	16.26	5.78	28.69	999.00	256.70	15.75	6.18	29.26	258.70	11.54	12.72	30.68	999.00	-2.23	999.00	-1.66	0.00
23	3	13	15	268.00	12.90	5.95	29.35	999.00	265.00	12.44	6.62	29.92	260.60	8.84	11.70	31.47	999.00	-2.17	999.00	-1.60	0.00
23	3	13	16	303.90	11.07	8.69	30.58	999.00	303.10	11.21	8.86	31.15	294.40	8.53	20.27	32.94	999.00	-2.48	999.00	-1.89	0.00
23	3	13	17	304.60	12.88	8.23	30.53	999.00	302.70	12.92	8.47	31.13	307.00	9.72	10.15	32.82	999.00	-2.25	999.00	-1.67	0.01
23	3	13	18	282.60	15.72	5.58	29.41	999.00	281.10	14.53	6.27	29.92	289.00	10.26	11.77	31.32	999.00	-1.78	999.00	-1.28	0.00
23	3	13	19	282.20	15.18	14.17	29.27	999.00	279.50	14.12	15.50	29.75	260.70	9.33	9.74	30.90	999.00	-1.62	999.00	-1.10	0.04
23	3	13	20	333.40	20.70	4.05	29.27	999.00	331.70	19.74	4.97	29.75	324.40	14.65	14.81	30.90	999.00	-1.60	999.00	-1.10	0.02
23	3	13	21	325.40	25.15	3.84	28.87	999.00	323.70	24.00	5.24	29.37	329.80	16.07	11.78	30.50	999.00	-1.64	999.00	-1.13	0.00
23	3	13	22	325.60	22.29	5.60	28.71	999.00	324.50	21.33	6.20	29.21	323.70	13.47	10.78	30.20	999.00	-1.46	999.00	-0.93	0.00
23	3	13	23	324.10	18.44	4.59	28.30	999.00	322.20	17.74	5.01	28.82	326.10	11.81	9.01	29.82	999.00	-1.57	999.00	-1.05	0.00
23	3	13	24	315.50	27.21	4.36	27.50	999.00	313.40	26.67	5.10	28.05	314.40	17.77	10.25	29.11	999.00	-1.61	999.00	-1.06	0.00
23	3	14	1	321.60	25.13	4.66	26.27	999.00	320.20	24.41	4.93	26.82	321.00	16.62	9.42	27.88	999.00	-1.64	999.00	-1.07	0.00
23	3	14	2	309.60	21.36	5.34	25.44	999.00	308.50	20.66	5.79	25.99	309.90	15.13	8.46	27.06	999.00	-1.63	999.00	-1.08	0.00
23	3	14	3	310.80	20.56	5.86	24.50	999.00	309.80	19.60	6.03	25.04	310.70	14.38	9.87	26.19	999.00	-1.68	999.00	-1.15	0.00
23	3	14	4	304.70	19.82	6.54	23.91	999.00	302.80	19.62	6.56	24.43	305.40	13.58	10.99	25.53	999.00	-1.64	999.00	-1.11	0.00
23	3	14	5	304.70	19.74	6.86	23.52	999.00	303.10	19.23	7.48	24.06	306.10	12.75	10.42	25.18	999.00	-1.67	999.00	-1.13	0.00
23	3	14	6	304.80	22.10	6.49	22.93	999.00	303.60	21.89	6.53	23.48	304.10	15.85	11.76	24.62	999.00	-1.69	999.00	-1.14	0.00
23	3	14	7	310.10	24.30	4.65	22.09	999.00	308.40	23.18	5.41	22.63	307.20	16.21	10.17	23.73	999.00	-1.70	999.00	-1.14	0.00
23	3	14	8	308.40	23.76	6.18	21.90	999.00	307.60	23.12	6.02	22.44	307.80	16.20	11.00	23.53	999.00	-1.64	999.00	-1.10	0.00
23	3	14	9	307.20	22.45	5.86	22.03	999.00	305.10	22.05	5.61	22.57	305.40	15.90	9.93	23.76	999.00	-1.93	999.00	-1.38	0.00
23	3	14	10	317.20	20.69	5.58	22.25	999.00	316.40	20.12	6.26	22.83	313.80	14.56	11.32	24.31	999.00	-2.12	999.00	-1.52	0.00
23	3	14	11	315.00	20.16	7.14	22.58	999.00	314.10	19.68	7.59	23.21	317.80	14.34	11.55	24.95	999.00	-2.59	999.00	-1.96	0.00
23	3	14	12	309.10	18.81	5.83	23.39	999.00	307.70	18.45	6.53	24.00	311.70	13.55	10.75	25.85	999.00	-2.38	999.00	-1.79	0.00
23	3	14	13	302.60	17.34	8.27	23.39	999.00	300.50	17.43	8.13	24.00	307.00	12.88	12.31	25.85	999.00	-2.97	999.00	-2.36	0.00
23	3	14	14	299.90	17.17	7.35	25.79	999.00	298.20	17.28	8.03	26.42	305.00	12.70	11.11	28.99	999.00	-3.41	999.00	-2.76	0.00
23	3	14	15	305.70	19.04	9.01	27.13	999.00	303.90	18.78	9.18	27.73	300.80	13.92	15.49	30.26	999.00	-3.12	999.00	-2.51	0.00
23	3	14	16	303.20	21.72	5.61	28.81	999.00	301.70	21.66	5.81	29.41	303.10	16.20	11.12	31.99	999.00	-2.70	999.00	-2.14	0.00
23	3	14	17	303.60	20.63	6.39	29.99	999.00	302.10	20.79	6.40	30.62	305.20	14.56	12.55	32.99	999.00	-2.62	999.00	-2.02	0.00
23	3	14	18	301.30	19.63	6.97	30.78	999.00	299.60	19.63	7.45	31.42	305.20	13.45	10.98	33.49	999.00	-2.51	999.00	-1.89	0.00
23	3	14	19	304.00	20.23	5.26	31.37	999.00	302.60	19.69	6.18	31.96	302.10	13.72	11.86	33.74	999.00	-2.01	999.00	-1.43	0.00
23	3	14	20	309.70	19.47	4.88	31.49	999.00	308.00	18.87	5.30	32.02	310.90	12.59	9.47	32.97	999.00	-1.16	999.00	-0.65	0.00
23	3	14	21	308.90	21.11	3.61	31.73	999.00	307.70	20.25	4.01	32.22	309.60	13.41	8.70	32.74	999.00	-1.01	999.00	-0.52	0.00

23	3	14	22	320.00	18.44	5.42	31.95	999.00	319.40	17.86	5.30	32.43	318.70	11.09	8.78	32.82	999.00	-0.86	999.00	-0.39	0.00
23	3	14	23	307.60	14.69	5.84	32.00	999.00	305.90	13.96	5.75	32.45	309.60	8.56	8.96	32.60	999.00	-0.62	999.00	-0.16	0.00
23	3	14	24	296.80	14.21	2.19	31.44	999.00	288.80	13.29	2.20	31.53	263.70	5.53	7.24	30.07	999.00	2.01	999.00	1.95	0.00
23	3	15	1	295.80	17.54	3.53	31.05	999.00	288.80	16.09	4.41	30.80	270.20	6.87	5.57	28.69	999.00	2.63	999.00	2.51	0.00
23	3	15	2	307.30	20.72	3.40	30.30	999.00	305.50	19.23	4.11	30.45	303.90	12.18	11.58	29.22	999.00	-0.80	999.00	-0.34	0.00
23	3	15	3	311.10	18.16	4.76	30.30	999.00	308.30	17.09	5.37	30.45	309.00	10.95	8.54	29.22	999.00	-0.93	999.00	-0.47	0.00
23	3	15	4	321.20	17.39	4.10	29.68	999.00	319.00	16.55	4.49	30.14	317.50	10.00	9.60	30.52	999.00	-0.85	999.00	-0.39	0.00
23	3	15	5	314.70	18.04	3.93	28.76	999.00	311.70	16.96	5.24	29.25	308.70	10.71	9.07	29.75	999.00	-1.09	999.00	-0.61	0.00
23	3	15	6	308.50	13.99	4.51	28.09	999.00	305.70	13.40	4.76	28.56	304.00	7.69	10.03	28.99	999.00	-0.80	999.00	-0.33	0.00
23	3	15	7	303.10	12.81	4.26	27.07	999.00	293.90	12.14	4.70	27.12	262.60	6.26	7.70	25.71	999.00	1.52	999.00	1.52	0.00
23	3	15	8	299.30	11.97	2.79	26.67	999.00	288.20	12.39	2.23	26.57	261.40	6.37	9.59	24.92	999.00	2.20	999.00	1.93	0.00
23	3	15	9	297.20	8.45	4.01	26.69	999.00	273.20	6.84	8.93	26.37	249.70	3.61	15.09	25.34	999.00	-0.60	999.00	-1.20	0.00
23	3	15	10	279.80	6.30	14.96	26.75	999.00	277.20	6.29	13.10	26.95	277.50	5.76	13.42	28.69	999.00	-2.64	999.00	-2.03	0.00
23	3	15	11	240.00	6.77	8.10	28.15	999.00	231.50	7.01	7.31	28.73	222.30	7.17	9.25	30.66	999.00	-2.48	999.00	-1.95	0.00
23	3	15	12	225.60	7.28	7.11	28.15	999.00	221.10	7.12	6.61	28.73	225.90	6.42	13.50	30.66	999.00	-2.60	999.00	-1.95	0.00
23	3	15	13	218.40	5.92	15.86	32.88	999.00	219.10	5.85	15.66	33.57	228.20	5.08	19.01	35.45	999.00	-2.55	999.00	-1.76	0.00
23	3	15	14	234.80	9.02	10.27	35.46	999.00	233.20	8.90	10.38	36.20	232.80	7.82	18.15	38.47	999.00	-3.21	999.00	-2.51	0.00
23	3	15	15	228.70	10.39	11.34	37.20	999.00	226.80	10.22	11.19	37.89	228.70	7.90	16.89	40.17	999.00	-2.68	999.00	-2.01	0.00
23	3	15	16	226.70	11.09	14.77	38.99	999.00	225.70	10.67	14.33	39.61	232.20	8.68	15.34	41.97	999.00	-3.08	999.00	-2.46	0.00
23	3	15	17	223.70	14.07	7.80	40.82	999.00	221.90	13.60	8.76	41.35	231.40	10.60	11.57	43.62	999.00	-2.68	999.00	-2.21	0.00
23	3	15	18	224.00	14.23	6.13	41.95	999.00	222.60	13.70	6.42	42.48	218.30	10.74	15.89	44.40	999.00	-2.40	999.00	-1.84	0.00
23	3	15	19	218.20	15.79	5.56	41.95	999.00	216.20	14.64	7.15	42.48	221.80	9.27	11.41	44.40	999.00	-1.40	999.00	-0.89	0.00
23	3	15	20	218.20	16.18	1.75	42.27	999.00	215.50	14.28	2.27	42.60	215.60	5.77	8.91	42.27	999.00	0.92	999.00	1.10	0.00
23	3	15	21	213.40	15.14	2.03	42.08	999.00	205.40	12.61	2.75	42.15	182.90	5.04	6.47	40.36	999.00	2.23	999.00	2.24	0.00
23	3	15	22	209.00	17.83	1.19	42.20	999.00	199.20	14.59	1.88	41.94	176.00	3.87	7.83	39.37	999.00	3.41	999.00	2.89	0.00
23	3	15	23	209.20	18.62	0.89	42.91	999.00	198.20	16.08	1.74	41.99	175.30	4.52	9.04	38.61	999.00	4.59	999.00	3.51	0.00
23	3	15	24	209.70	21.65	1.39	42.53	999.00	201.40	16.58	2.22	41.22	186.60	5.53	9.29	38.41	999.00	3.57	999.00	2.40	0.00
23	3	16	1	211.40	21.23	1.47	40.75	999.00	206.20	15.93	2.11	39.82	203.60	5.01	10.43	37.92	999.00	2.86	999.00	1.75	0.00
23	3	16	2	208.80	20.73	1.57	40.09	999.00	200.70	16.26	2.44	39.09	184.70	5.33	10.51	37.33	999.00	2.83	999.00	1.93	0.00
23	3	16	3	205.80	22.88	1.92	39.65	999.00	198.10	18.35	2.24	38.76	191.40	6.78	10.51	37.06	999.00	2.95	999.00	1.86	0.00
23	3	16	4	198.30	22.58	1.37	39.81	999.00	188.80	18.06	1.93	38.53	183.70	6.82	8.94	36.85	999.00	3.14	999.00	1.84	0.00
23	3	16	5	195.40	23.68	1.99	38.97	999.00	187.90	18.79	2.81	38.03	183.90	7.71	8.68	36.66	999.00	2.35	999.00	1.39	0.00
23	3	16	6	203.50	23.74	2.59	38.41	999.00	199.40	19.41	3.42	37.76	197.70	7.61	13.25	36.78	999.00	1.69	999.00	0.96	0.00
23	3	16	7	203.70	18.74	2.72	37.65	999.00	198.30	15.06	3.02	37.40	192.00	5.30	11.95	36.79	999.00	0.83	999.00	0.69	0.00
23	3	16	8	199.80	22.84	2.18	37.96	999.00	192.80	18.06	3.41	37.29	186.90	6.73	10.10	36.05	999.00	1.63	999.00	0.85	0.00
23	3	16	9	197.20	23.50	2.70	38.32	999.00	191.60	19.94	3.73	37.68	194.00	9.49	12.63	37.15	999.00	0.16	999.00	-0.26	0.00
23	3	16	10	198.20	19.08	4.56	38.78	999.00	195.50	16.94	5.74	38.87	198.40	9.12	14.26	39.87	999.00	-2.04	999.00	-1.71	0.00
23	3	16	11	195.30	18.82	5.59	41.08	999.00	191.90	17.23	5.78	41.54	196.80	9.94	13.39	43.06	999.00	-2.11	999.00	-1.59	0.00
23	3	16	12	191.90	20.14	5.89	41.08	999.00	190.10	19.12	6.46	41.54	192.50	11.59	14.39	43.06	999.00	-2.41	999.00	-1.74	0.00
23	3	16	13	188.30	19.07	5.59	48.35	999.00	186.10	18.36	6.30	48.99	196.40	11.86	14.13	50.80	999.00	-2.21	999.00	-1.54	0.00
23	3	16	14	202.20	22.89	5.48	51.24	999.00	200.90	21.83	6.36	51.76	210.50	13.31	13.43	53.56	999.00	-2.39	999.00	-1.90	0.00
23	3	16	15	192.30	23.47	4.88	52.11	999.00	190.60	22.10	5.28	52.69	193.70	12.45	15.53	54.22	999.00	-1.97	999.00	-1.40	0.00
23	3	16	16	189.30	23.18	5.64	54.10	999.00	187.20	21.86	6.39	54.71	192.60	13.03	14.12	56.22	999.00	-2.06	999.00	-1.48	0.00
23	3	16	17	190.20	24.15	5.04	55.56	999.00	187.90	22.45	5.90	56.17	194.70	12.55	13.67	57.43	999.00	-1.62	999.00	-1.06	0.00
23	3	16	18	196.30	20.18	5.25	56.00	999.00	193.70	18.38	5.81	56.50	198.30	9.69	13.66	57.21	999.00	-1.05	999.00	-0.59	0.00
23	3	16	19	188.10	22.04	4.37	53.31	999.00	185.70	19.35	4.79	53.96	194.20	9.52	13.25	54.13	999.00	-0.21	999.00	0.29	0.00
23	3	16	20	190.70	21.87	3.53	51.62	999.00	187.30	19.09	4.07	51.87	190.60	8.74	11.90	51.61	999.00	-0.28	999.00	0.04	0.00
23	3	16	21	188.90	20.64	2.35	49.62	999.00	186.00	16.80	3.32	49.81	191.00	6.95	10.32	49.47	999.00	0.90	999.00	0.72	0.00
23	3	16	22	191.10	24.14	4.10	50.35	999.00	188.10	20.72	5.00	50.30	190.10	9.62	13.49	49.61	999.00	0.31	999.00	0.39	0.00
23	3	16	23	191.00	26.25	4.85	51.84	999.00	189.20	22.97	5.75	51.97	196.10	10.83	12.55	51.77	999.00	-0.19	999.00	-0.02	0.00
23	3	16	24	188.60	23.80	4.27	51.60	999.00	186.00	20.81	5.24	51.87	188.70	10.42	12.73	52.01	999.00	-0.50	999.00	-0.21	0.00
23	3	17	1	194.60	25.75	4.55	50.52	999.00	192.10	23.16	4.78	50.91	199.70	12.44	12.64	51.15	999.00	-0.71	999.00	-0.31	0.00
23	3	17	2	192.10	21.98	3.30	48.65	999.00	188.20	18.79	3.92	49.09	192.40	8.63	13.01	49.35	999.00	-0.26	999.00	0.05	0.00

23	3	17	3	187.50	24.76	4.67	49.57	999.00	183.90	21.34	5.00	49.65	183.10	10.94	10.94	49.25	999.00	0.10	999.00	0.25	0.01
23	3	17	4	206.20	33.43	4.23	51.84	999.00	203.70	30.42	5.35	52.13	206.90	16.84	12.15	52.24	999.00	-0.65	999.00	-0.25	0.00
23	3	17	5	194.20	29.89	4.72	52.07	999.00	192.70	26.96	5.31	52.47	198.50	13.87	14.16	52.83	999.00	-0.80	999.00	-0.38	0.01
23	3	17	6	198.40	30.49	4.50	49.53	999.00	196.90	27.57	5.44	50.42	199.40	15.11	13.68	49.97	999.00	0.62	999.00	1.60	0.03
23	3	17	7	198.00	33.45	4.69	48.78	999.00	196.30	30.95	5.64	49.54	196.30	15.89	12.48	48.65	999.00	0.00	999.00	0.81	0.01
23	3	17	8	204.50	31.53	4.93	48.60	999.00	202.70	28.46	5.51	49.27	204.70	16.23	13.52	48.84	999.00	-0.25	999.00	0.38	0.00
23	3	17	9	212.70	29.90	4.69	48.60	999.00	210.70	27.31	5.46	49.27	210.30	16.10	11.97	48.84	999.00	0.01	999.00	0.58	0.00
23	3	17	10	229.50	30.06	4.38	48.01	999.00	228.40	28.82	4.54	48.59	231.20	20.19	9.34	48.12	999.00	-0.32	999.00	0.29	0.00
23	3	17	11	245.60	36.01	4.55	43.18	999.00	244.60	32.89	5.85	43.82	243.90	21.70	9.90	44.22	999.00	-1.65	999.00	-0.99	0.00
23	3	17	12	259.10	27.51	7.28	38.64	999.00	258.40	25.24	8.37	39.23	253.30	18.14	12.03	40.38	999.00	-1.82	999.00	-1.25	0.00
23	3	17	13	263.10	30.45	6.62	38.87	999.00	263.40	28.23	7.51	39.45	267.10	18.96	11.53	40.96	999.00	-2.06	999.00	-1.49	0.00
23	3	17	14	266.40	27.96	5.45	38.71	999.00	267.10	26.34	6.42	39.30	267.90	18.32	10.45	40.82	999.00	-2.25	999.00	-1.64	0.00
23	3	17	15	265.00	29.14	4.72	37.38	999.00	264.50	27.32	6.57	37.97	260.50	18.59	11.70	39.51	999.00	-1.97	999.00	-1.40	0.00
23	3	17	16	266.90	29.11	6.86	37.38	999.00	267.00	27.52	7.68	37.97	263.60	19.28	12.27	39.51	999.00	-2.15	999.00	-1.54	0.00
23	3	17	17	264.30	27.38	7.07	35.73	999.00	263.80	26.20	8.15	36.32	258.50	18.30	10.68	37.91	999.00	-2.14	999.00	-1.54	0.00
23	3	17	18	265.00	26.12	6.22	35.24	999.00	263.90	25.36	7.26	35.83	267.80	16.60	11.80	37.42	999.00	-2.02	999.00	-1.43	0.00
23	3	17	19	272.60	21.66	5.99	35.09	999.00	272.10	20.10	6.71	35.64	273.30	12.75	9.24	36.94	999.00	-1.52	999.00	-1.00	0.00
23	3	17	20	273.90	20.88	3.87	34.97	999.00	272.80	19.65	4.66	35.47	269.20	12.67	10.00	36.37	999.00	-1.20	999.00	-0.73	0.00
23	3	17	21	257.50	20.65	6.79	34.33	999.00	256.30	19.47	7.14	34.82	260.30	12.14	11.10	35.69	999.00	-1.48	999.00	-0.95	0.00
23	3	17	22	270.10	20.79	5.42	32.96	999.00	268.40	19.26	5.88	33.42	270.80	12.06	9.89	34.11	999.00	-1.06	999.00	-0.61	0.00
23	3	17	23	252.90	16.39	6.40	31.77	999.00	250.20	14.41	7.86	32.23	247.90	9.26	9.59	33.01	999.00	-1.32	999.00	-0.85	0.00
23	3	17	24	243.30	13.43	5.85	31.65	999.00	240.60	12.52	6.51	32.18	237.70	8.64	11.78	33.13	999.00	-1.59	999.00	-1.04	0.00
23	3	18	1	222.80	17.94	4.88	31.62	999.00	221.00	16.72	5.30	32.17	219.40	12.44	9.87	33.24	999.00	-1.68	999.00	-1.12	0.00
23	3	18	2	229.30	22.14	4.76	30.70	999.00	227.60	21.07	4.97	31.27	228.00	14.96	9.25	32.41	999.00	-1.69	999.00	-1.13	0.00
23	3	18	3	231.20	24.88	4.56	30.16	999.00	230.50	23.76	4.84	30.74	232.50	18.10	8.64	31.93	999.00	-1.79	999.00	-1.21	0.00
23	3	18	4	235.90	23.73	4.68	29.12	999.00	233.20	22.29	4.95	29.71	234.20	15.49	8.39	30.82	999.00	-1.63	999.00	-1.04	0.00
23	3	18	5	229.00	24.51	4.46	27.61	999.00	227.00	22.80	4.75	28.19	229.20	16.75	7.78	29.26	999.00	-1.64	999.00	-1.07	0.00
23	3	18	6	234.40	25.43	5.24	26.02	999.00	233.40	24.40	5.28	26.61	234.80	17.98	9.07	27.72	999.00	-1.72	999.00	-1.13	0.00
23	3	18	7	225.90	23.14	4.66	24.70	999.00	223.90	21.61	5.16	25.28	224.70	15.09	8.73	26.31	999.00	-1.57	999.00	-1.00	0.00
23	3	18	8	235.60	23.55	4.97	24.25	999.00	233.90	22.48	4.95	24.85	234.60	16.93	8.87	26.01	999.00	-1.83	999.00	-1.22	0.00
23	3	18	9	241.00	21.27	7.39	24.23	999.00	240.10	20.06	8.27	24.83	237.60	14.26	11.36	26.16	999.00	-2.12	999.00	-1.52	0.00
23	3	18	10	240.10	29.97	3.65	24.00	999.00	238.80	28.83	4.02	24.58	240.20	20.96	9.82	26.24	999.00	-2.61	999.00	-2.02	0.00
23	3	18	11	239.30	22.87	6.72	23.20	999.00	237.70	22.26	7.07	23.79	239.50	17.10	10.01	25.63	999.00	-2.52	999.00	-1.91	0.00
23	3	18	12	249.80	24.44	9.12	22.78	999.00	247.90	23.60	9.69	23.37	250.40	17.96	13.84	25.16	999.00	-2.59	999.00	-1.99	0.00
23	3	18	13	247.30	29.49	7.33	23.46	999.00	246.10	28.17	7.71	24.05	250.00	21.63	12.53	26.07	999.00	-2.85	999.00	-2.24	0.00
23	3	18	14	264.10	30.23	5.81	21.52	999.00	263.00	29.05	6.47	22.14	266.70	21.09	10.54	24.21	999.00	-2.65	999.00	-2.03	0.00
23	3	18	15	262.80	28.25	5.86	21.04	999.00	261.70	26.99	6.97	21.66	263.40	19.38	12.00	23.66	999.00	-2.41	999.00	-1.80	0.00
23	3	18	16	264.60	28.75	6.44	19.62	999.00	263.40	27.13	7.24	20.25	264.90	18.44	10.67	22.16	999.00	-2.47	999.00	-1.85	0.00
23	3	18	17	253.70	30.33	5.78	20.51	999.00	251.60	28.96	6.11	21.13	255.10	22.07	14.12	23.30	999.00	-2.72	999.00	-2.16	0.00
23	3	18	18	255.50	31.07	7.23	20.51	999.00	254.50	28.86	8.11	21.13	252.20	20.64	14.48	23.30	999.00	-2.66	999.00	-2.02	0.00
23	3	18	19	253.80	28.89	5.44	20.96	999.00	252.40	26.87	5.93	21.54	257.30	19.17	10.79	23.12	999.00	-2.00	999.00	-1.44	0.00
23	3	18	20	251.40	26.98	8.32	20.66	999.00	250.50	24.81	7.97	21.20	250.10	17.06	11.25	22.29	999.00	-1.53	999.00	-1.00	0.00
23	3	18	21	248.50	26.44	4.67	20.11	999.00	246.80	24.19	5.66	20.64	250.60	16.52	9.82	21.58	999.00	-1.49	999.00	-0.94	0.00
23	3	18	22	244.30	24.56	6.25	19.92	999.00	242.50	22.58	6.56	20.50	245.90	15.70	10.98	21.57	999.00	-1.59	999.00	-1.03	0.00
23	3	18	23	248.30	24.11	5.22	19.73	999.00	246.70	22.24	5.92	20.30	245.50	15.58	9.54	21.35	999.00	-1.56	999.00	-1.00	0.00
23	3	18	24	242.50	22.63	4.92	19.35	999.00	240.00	21.47	5.54	19.91	245.60	15.28	11.01	20.88	999.00	-1.61	999.00	-1.02	0.00
23	3	19	1	241.10	21.63	4.78	18.89	999.00	237.70	20.28	5.03	19.46	240.10	14.56	9.82	20.55	999.00	-1.62	999.00	-1.06	0.00
23	3	19	2	236.00	23.06	4.59	18.47	999.00	233.70	21.93	4.85	19.05	235.00	15.73	9.03	20.20	999.00	-1.83	999.00	-1.25	0.00
23	3	19	3	241.40	21.93	6.01	18.80	999.00	238.90	21.01	5.91	19.39	244.00	14.81	10.45	20.70	999.00	-1.85	999.00	-1.25	0.00
23	3	19	4	246.10	21.24	5.41	18.73	999.00	244.40	19.56	6.25	19.31	242.90	13.47	10.30	20.47	999.00	-1.53	999.00	-0.99	0.00
23	3	19	5	246.50	21.48	5.12	19.08	999.00	244.60	20.00	6.20	19.63	244.90	13.91	10.81	20.55	999.00	-1.57	999.00	-1.04	0.00
23	3	19	6	243.90	19.50	5.72	19.08	999.00	241.30	17.85	6.66	19.64	242.90	12.41	10.60	20.73	999.00	-1.58	999.00	-1.02	0.00
23	3	19	7	243.20	19.52	5.73	19.19	999.00	240.50	17.63	5.95	19.74	239.20	12.56	9.46	20.72	999.00	-1.51	999.00	-0.97	0.00

23	3	19	8	246.00	20.54	4.77	19.29	999.00	244.20	18.72	5.86	19.84	246.70	12.70	10.03	20.77	999.00	-1.45	999.00	-0.92	0.00
23	3	19	9	247.40	19.95	5.51	19.47	999.00	245.80	18.58	6.88	20.00	248.80	14.26	9.47	21.19	999.00	-1.96	999.00	-1.41	0.00
23	3	19	10	255.20	20.07	5.92	20.80	999.00	254.00	19.23	6.56	21.37	252.50	14.07	12.51	23.19	999.00	-2.51	999.00	-1.97	0.00
23	3	19	11	254.90	17.78	9.09	22.81	999.00	253.40	16.97	10.30	23.41	253.00	12.82	12.67	25.59	999.00	-2.80	999.00	-2.17	0.00
23	3	19	12	270.40	19.75	10.04	24.90	999.00	269.50	18.77	11.49	25.50	263.60	14.09	13.63	27.62	999.00	-2.80	999.00	-2.14	0.00
23	3	19	13	267.50	18.12	11.65	26.12	999.00	266.50	17.09	13.04	26.78	272.00	13.54	13.51	28.94	999.00	-3.08	999.00	-2.34	0.00
23	3	19	14	251.00	19.68	11.78	27.77	999.00	249.10	18.99	12.99	28.39	249.50	14.08	15.40	30.97	999.00	-3.54	999.00	-2.91	0.00
23	3	19	15	247.40	21.64	7.86	29.79	999.00	246.10	20.96	8.33	30.43	248.90	16.36	11.98	32.89	999.00	-3.01	999.00	-2.41	0.00
23	3	19	16	243.70	20.35	11.28	32.00	999.00	242.20	19.73	11.14	32.61	246.70	15.60	13.44	35.15	999.00	-3.08	999.00	-2.49	0.00
23	3	19	17	243.70	21.40	7.15	33.59	999.00	242.30	20.71	7.58	34.15	240.10	15.49	11.79	36.43	999.00	-2.65	999.00	-2.11	0.00
23	3	19	18	245.80	20.24	9.71	34.68	999.00	242.90	19.26	10.28	35.22	244.10	14.24	14.75	37.12	999.00	-2.36	999.00	-1.78	0.00
23	3	19	19	240.70	22.80	5.83	34.78	999.00	239.40	21.47	7.11	35.32	240.80	14.26	10.73	36.75	999.00	-1.66	999.00	-1.13	0.00
23	3	19	20	238.20	21.64	3.95	34.44	999.00	236.50	20.07	4.30	34.93	235.70	12.61	8.65	35.57	999.00	-0.84	999.00	-0.38	0.00
23	3	19	21	225.40	21.66	3.34	33.44	999.00	222.50	19.13	3.73	33.67	221.20	10.06	8.20	33.56	999.00	0.15	999.00	0.31	0.00
23	3	19	22	220.70	25.72	3.67	31.48	999.00	219.20	23.03	4.40	31.80	218.50	14.98	9.68	32.04	999.00	-0.96	999.00	-0.55	0.00
23	3	19	23	231.70	24.94	4.33	30.10	999.00	230.00	22.45	4.32	30.53	229.80	15.18	7.56	31.17	999.00	-1.09	999.00	-0.64	0.00
23	3	19	24	232.80	25.76	4.40	29.58	999.00	230.90	23.68	4.65	30.03	230.30	15.93	8.46	30.68	999.00	-1.02	999.00	-0.59	0.00
23	3	20	1	233.30	25.07	3.74	29.30	999.00	231.00	22.47	4.22	29.70	232.80	15.12	8.29	30.27	999.00	-1.00	999.00	-0.59	0.00
23	3	20	2	222.40	22.74	3.18	28.77	999.00	219.20	20.02	3.74	29.10	217.70	11.03	10.27	29.59	999.00	-0.55	999.00	-0.33	0.00
23	3	20	3	218.70	22.28	3.70	27.92	999.00	216.50	19.22	4.84	28.17	214.80	11.21	10.53	28.53	999.00	-0.69	999.00	-0.40	0.00
23	3	20	4	223.70	22.95	4.03	27.79	999.00	221.20	20.17	4.63	28.10	221.00	11.64	9.07	28.43	999.00	-0.67	999.00	-0.34	0.00
23	3	20	5	224.00	23.79	3.80	27.81	999.00	221.00	21.18	4.33	28.15	220.30	11.85	9.07	28.57	999.00	-0.66	999.00	-0.34	0.00
23	3	20	6	226.10	21.72	3.39	27.36	999.00	223.50	19.00	4.69	27.67	221.50	11.96	9.02	28.03	999.00	-0.76	999.00	-0.42	0.00
23	3	20	7	226.00	20.30	4.00	26.84	999.00	222.90	17.81	4.55	27.15	223.40	10.12	9.21	27.52	999.00	-0.64	999.00	-0.37	0.00
23	3	20	8	220.50	22.38	3.53	26.37	999.00	217.30	19.48	4.26	26.61	216.60	10.71	9.96	26.92	999.00	-0.63	999.00	-0.40	0.00
23	3	20	9	218.70	21.03	5.52	26.93	999.00	217.20	18.83	5.94	27.29	215.10	11.89	12.22	28.18	999.00	-1.72	999.00	-1.24	0.00
23	3	20	10	221.00	24.33	5.24	29.32	999.00	219.60	23.44	5.60	29.83	220.20	17.75	9.76	31.43	999.00	-2.23	999.00	-1.73	0.00
23	3	20	11	227.40	26.17	4.78	32.49	999.00	227.40	25.72	4.82	33.02	229.70	19.40	9.26	35.01	999.00	-2.52	999.00	-2.01	0.00
23	3	20	12	226.50	26.57	3.64	34.97	999.00	225.80	25.76	3.83	35.50	229.80	19.09	10.24	37.62	999.00	-2.59	999.00	-2.05	0.00
23	3	20	13	224.60	27.18	5.64	37.30	999.00	224.40	26.12	6.32	37.84	226.50	18.92	10.82	40.11	999.00	-2.90	999.00	-2.37	0.00
23	3	20	14	222.80	27.66	7.53	39.40	999.00	222.80	26.56	7.53	39.93	225.90	20.23	10.77	42.29	999.00	-2.93	999.00	-2.39	0.00
23	3	20	15	216.10	29.59	6.21	41.45	999.00	215.30	27.77	7.03	42.01	218.50	19.19	11.34	44.46	999.00	-3.05	999.00	-2.48	0.00
23	3	20	16	215.10	28.83	7.53	43.70	999.00	214.00	27.53	8.37	44.23	221.40	19.30	12.32	46.32	999.00	-2.61	999.00	-2.07	0.00
23	3	20	17	216.80	28.02	7.67	45.57	999.00	216.20	26.76	8.37	46.06	222.30	18.47	9.97	48.04	999.00	-2.36	999.00	-1.89	0.00
23	3	20	18	212.50	28.93	7.70	46.59	999.00	211.80	26.76	8.55	47.07	213.80	16.56	12.56	48.67	999.00	-2.14	999.00	-1.64	0.00
23	3	20	19	204.50	23.05	5.30	46.97	999.00	203.90	20.98	5.68	47.41	211.20	12.11	12.36	48.57	999.00	-1.38	999.00	-0.96	0.00
23	3	20	20	202.70	23.98	4.24	45.73	999.00	201.80	20.98	4.71	46.12	204.90	10.53	12.04	46.44	999.00	-0.32	999.00	0.00	0.00
23	3	20	21	200.20	24.23	4.87	44.21	999.00	198.70	21.09	4.90	44.42	200.70	10.66	13.13	44.37	999.00	-0.53	999.00	-0.26	0.00
23	3	20	22	194.50	27.16	3.28	43.09	999.00	192.20	24.04	4.16	43.34	196.10	11.85	12.62	43.56	999.00	-0.32	999.00	-0.11	0.00
23	3	20	23	212.70	26.38	3.46	42.39	999.00	211.80	23.40	4.44	42.63	213.10	12.77	10.57	42.51	999.00	0.04	999.00	0.24	0.00
23	3	20	24	212.40	23.28	3.06	42.39	999.00	210.00	19.94	3.78	42.63	213.80	9.41	10.49	42.51	999.00	0.52	999.00	0.61	0.00
23	3	21	1	206.90	19.90	2.60	39.74	999.00	201.50	16.79	2.79	39.69	193.30	6.51	10.67	38.77	999.00	1.39	999.00	1.31	0.00
23	3	21	2	218.80	20.37	1.39	38.68	999.00	211.30	16.45	1.97	38.14	203.10	5.86	11.02	36.76	999.00	2.48	999.00	1.74	0.00
23	3	21	3	210.20	19.11	1.86	38.46	999.00	198.00	17.49	1.93	37.45	184.20	6.72	9.86	34.99	999.00	3.60	999.00	2.69	0.00
23	3	21	4	214.20	21.67	1.93	38.11	999.00	203.80	18.16	1.85	37.30	193.70	6.92	11.38	34.74	999.00	3.08	999.00	2.22	0.00
23	3	21	5	210.10	22.55	1.72	37.54	999.00	201.10	18.95	1.93	36.54	195.30	7.04	11.96	34.25	999.00	3.19	999.00	2.06	0.00
23	3	21	6	209.80	22.82	1.72	36.77	999.00	203.20	17.65	2.59	35.66	199.40	5.58	11.37	33.89	999.00	2.76	999.00	1.72	0.00
23	3	21	7	209.90	21.35	2.05	36.00	999.00	202.00	17.04	2.24	34.95	197.80	6.12	10.76	33.14	999.00	3.05	999.00	2.00	0.00
23	3	21	8	207.40	20.93	1.81	35.30	999.00	200.40	16.50	2.20	34.39	194.70	6.21	11.55	32.61	999.00	2.36	999.00	1.55	0.00
23	3	21	9	202.30	19.61	3.10	35.15	999.00	196.90	16.61	3.58	34.47	198.00	7.97	11.80	34.10	999.00	-0.17	999.00	-0.59	0.00
23	3	21	10	211.80	16.61	6.09	36.61	999.00	210.20	15.26	6.51	36.91	209.40	10.84	11.68	38.37	999.00	-2.26	999.00	-1.77	0.00
23	3	21	11	220.50	17.13	6.20	40.61	999.00	219.60	16.50	6.20	41.15	221.10	12.93	10.12	43.33	999.00	-2.91	999.00	-2.37	0.00
23	3	21	12	227.50	18.25	8.36	44.19	999.00	225.80	17.85	9.08	44.72	230.90	13.51	9.91	46.97	999.00	-3.00	999.00	-2.45	0.00

23	3	21	13	225.90	18.44	10.50	47.05	999.00	225.40	17.80	11.14	47.60	224.70	13.44	14.26	50.02	999.00	-3.13	999.00	-2.55	0.00
23	3	21	14	207.30	14.07	11.10	49.43	999.00	205.80	13.27	12.76	50.01	212.40	9.32	16.40	52.56	999.00	-3.43	999.00	-2.79	0.00
23	3	21	15	184.80	13.92	12.11	51.74	999.00	184.00	13.14	13.16	52.37	198.20	9.39	20.35	54.50	999.00	-2.87	999.00	-2.12	0.00
23	3	21	16	206.60	18.52	8.80	53.01	999.00	206.60	17.08	9.83	53.62	210.10	12.51	16.72	55.63	999.00	-2.71	999.00	-2.16	0.00
23	3	21	17	204.70	20.34	7.20	54.51	999.00	205.00	19.23	8.27	55.02	197.20	12.61	16.28	57.17	999.00	-2.48	999.00	-2.01	0.00
23	3	21	18	198.60	15.84	6.28	55.42	999.00	198.00	14.66	7.33	55.96	198.50	8.66	14.13	57.57	999.00	-1.82	999.00	-1.27	0.00
23	3	21	19	189.40	12.70	2.79	54.65	999.00	188.50	11.84	3.31	55.17	193.40	5.68	12.03	55.81	999.00	-0.81	999.00	-0.35	0.00
23	3	21	20	176.50	17.01	3.78	54.10	999.00	174.20	14.99	4.11	54.40	170.70	5.77	12.15	54.11	999.00	0.26	999.00	0.51	0.00
23	3	21	21	179.90	13.30	2.81	53.27	999.00	177.00	11.08	3.55	53.33	178.60	3.90	8.69	52.43	999.00	1.30	999.00	1.23	0.00
23	3	21	22	169.10	11.49	3.15	53.19	999.00	166.80	9.83	1.28	53.04	139.70	3.21	6.68	51.32	999.00	1.56	999.00	1.58	0.00
23	3	21	23	175.40	14.83	5.93	52.95	999.00	168.10	13.27	6.25	52.53	150.30	3.56	14.35	50.67	999.00	3.28	999.00	2.73	0.00
23	3	21	24	200.60	22.13	7.36	53.37	999.00	200.10	19.87	8.45	53.45	197.90	9.65	14.14	52.37	999.00	0.08	999.00	0.37	0.00
23	3	22	1	235.60	26.10	4.89	48.35	999.00	235.70	24.81	5.06	48.81	236.40	16.82	9.59	49.37	999.00	-1.19	999.00	-0.70	0.00
23	3	22	2	241.10	19.06	3.33	43.56	999.00	240.50	17.20	4.10	44.04	240.90	10.23	8.76	44.60	999.00	-1.11	999.00	-0.68	0.00
23	3	22	3	222.70	10.91	4.63	40.99	999.00	220.10	9.33	5.55	41.43	222.40	4.96	8.26	42.06	999.00	-0.97	999.00	-0.56	0.01
23	3	22	4	208.40	9.97	3.04	40.34	999.00	203.70	8.27	3.95	40.75	188.00	3.27	11.20	41.24	999.00	-0.86	999.00	-0.45	0.00
23	3	22	5	181.00	9.37	2.81	40.20	999.00	170.80	8.29	4.53	40.48	152.90	3.46	7.88	40.80	999.00	-0.49	999.00	-0.28	0.00
23	3	22	6	163.30	15.88	2.07	40.23	999.00	156.10	13.20	2.97	40.38	150.70	5.53	13.50	40.81	999.00	-0.40	999.00	-0.46	0.00
23	3	22	7	163.10	15.22	2.87	40.84	999.00	157.70	13.23	3.72	40.89	157.60	5.65	13.38	41.24	999.00	-0.58	999.00	-0.43	0.00
23	3	22	8	150.00	14.93	3.31	40.82	999.00	143.10	12.87	4.64	41.07	141.40	6.11	12.10	41.73	999.00	-1.00	999.00	-0.75	0.00
23	3	22	9	160.20	15.96	5.23	41.00	999.00	155.50	13.51	5.78	41.33	150.50	6.55	14.70	42.20	999.00	-1.18	999.00	-0.86	0.00
23	3	22	10	167.90	16.69	4.27	42.12	999.00	165.40	14.76	4.57	42.48	166.00	7.13	12.83	43.32	999.00	-1.35	999.00	-0.92	0.00
23	3	22	11	177.70	18.13	4.86	43.41	999.00	175.10	16.51	5.70	43.95	177.60	9.42	11.95	44.98	999.00	-1.61	999.00	-1.05	0.00
23	3	22	12	189.80	20.98	5.24	44.81	999.00	187.60	19.24	6.59	45.40	190.10	10.63	13.96	46.43	999.00	-1.65	999.00	-1.07	0.00
23	3	22	13	194.40	23.63	5.07	45.20	999.00	193.30	22.15	5.86	45.76	196.00	12.70	13.93	47.03	999.00	-1.81	999.00	-1.26	0.00
23	3	22	14	195.30	22.73	4.90	45.83	999.00	193.90	21.16	5.06	46.38	198.40	11.34	15.58	47.65	999.00	-1.80	999.00	-1.25	0.00
23	3	22	15	196.70	23.89	5.46	46.77	999.00	194.60	22.32	6.34	47.33	194.70	12.38	13.64	48.56	999.00	-1.75	999.00	-1.19	0.00
23	3	22	16	188.10	25.63	4.62	47.30	999.00	186.40	24.41	5.76	47.87	191.30	13.63	14.91	49.11	999.00	-1.78	999.00	-1.21	0.00
23	3	22	17	195.80	22.63	5.72	47.57	999.00	194.70	21.29	6.45	48.12	200.60	12.14	13.71	49.28	999.00	-1.68	999.00	-1.15	0.00
23	3	22	18	195.30	20.03	4.45	47.68	999.00	194.00	17.85	5.55	48.26	197.80	9.28	12.97	49.12	999.00	-1.33	999.00	-0.74	0.03
23	3	22	19	185.50	17.50	4.30	47.68	999.00	183.30	15.85	5.27	48.26	187.90	8.82	13.02	49.12	999.00	-0.71	999.00	-0.22	0.01
23	3	22	20	178.60	17.03	4.06	47.08	999.00	176.60	14.77	4.91	47.52	179.10	8.07	10.73	47.45	999.00	-0.37	999.00	0.04	0.00
23	3	22	21	178.50	20.79	4.73	47.27	999.00	175.80	18.60	5.60	47.70	179.60	10.44	11.68	47.65	999.00	-0.36	999.00	0.09	0.00
23	3	22	22	192.00	19.20	4.85	47.64	999.00	191.30	16.89	5.29	48.11	192.80	8.19	14.01	47.90	999.00	-0.16	999.00	0.31	0.01
23	3	22	23	190.50	22.00	4.48	47.96	999.00	189.20	19.75	5.31	48.46	191.80	9.96	13.79	48.24	999.00	-0.33	999.00	0.16	0.01
23	3	22	24	183.50	23.26	4.67	48.10	999.00	181.90	20.34	5.63	48.58	187.10	11.95	12.72	48.43	999.00	-0.38	999.00	0.08	0.02
23	3	23	1	184.00	21.21	4.00	47.87	999.00	182.00	18.97	4.78	48.35	185.00	10.74	13.16	48.34	999.00	-0.54	999.00	-0.08	0.00
23	3	23	2	186.90	19.56	4.69	47.90	999.00	184.40	16.88	5.35	48.29	184.40	8.63	11.34	48.38	999.00	-0.34	999.00	0.04	0.00
23	3	23	3	197.10	17.96	3.41	48.45	999.00	193.90	15.68	4.04	48.86	192.30	7.15	13.52	49.01	999.00	-0.49	999.00	-0.09	0.00
23	3	23	4	195.90	17.83	3.75	49.04	999.00	192.20	15.50	4.51	49.35	188.70	7.18	11.47	49.54	999.00	-0.47	999.00	-0.22	0.01
23	3	23	5	199.20	15.55	4.04	49.65	999.00	194.30	13.42	3.87	49.93	188.80	6.09	12.25	50.07	999.00	-0.32	999.00	-0.04	0.02
23	3	23	6	204.10	14.65	10.57	50.18	999.00	202.90	12.94	12.40	50.52	224.80	6.74	17.41	50.57	999.00	-0.40	999.00	-0.02	0.03
23	3	23	7	200.40	16.15	3.00	50.49	999.00	196.50	13.31	3.49	50.74	193.50	5.32	13.70	50.78	999.00	-0.09	999.00	0.09	0.01
23	3	23	8	211.00	15.06	2.81	51.04	999.00	210.00	11.97	3.38	51.20	210.60	4.14	10.91	50.66	999.00	0.46	999.00	0.57	0.00
23	3	23	9	226.10	15.21	6.09	51.66	999.00	227.00	13.18	8.13	51.85	218.70	5.87	20.85	51.38	999.00	-0.08	999.00	0.15	0.02
23	3	23	10	259.30	12.61	13.79	52.31	999.00	261.50	10.76	16.76	52.54	250.40	5.09	21.30	52.23	999.00	-0.27	999.00	-0.05	0.02
23	3	23	11	314.90	16.86	15.02	50.60	999.00	314.30	15.71	13.44	50.58	297.10	8.80	13.15	51.06	999.00	-0.86	999.00	-0.88	0.04
23	3	23	12	349.40	19.31	1.51	47.92	999.00	348.20	18.10	2.90	47.99	341.60	9.87	9.76	47.50	999.00	0.93	999.00	1.05	0.07
23	3	23	13	338.10	15.77	4.01	46.30	999.00	335.90	15.75	3.01	46.42	331.10	8.22	9.57	45.84	999.00	0.01	999.00	0.31	0.01
23	3	23	14	341.80	13.19	2.64	46.15	999.00	337.30	12.40	2.46	46.29	339.50	8.07	9.89	47.00	999.00	-1.24	999.00	-1.08	0.00
23	3	23	15	343.50	13.45	1.49	46.56	999.00	343.00	13.21	2.09	46.77	333.70	7.37	8.46	47.14	999.00	-0.18	999.00	0.08	0.00
23	3	23	16	318.20	10.60	1.82	46.27	999.00	315.10	10.42	2.12	46.38	303.50	6.57	9.84	47.06	999.00	-1.18	999.00	-0.82	0.02
23	3	23	17	339.60	13.69	4.54	45.91	999.00	338.80	13.21	5.26	46.25	324.70	7.21	9.09	47.10	999.00	-0.60	999.00	-0.24	0.00

23	3	23	18	23.33	13.40	25.48	45.52	999.00	23.43	12.02	23.34	46.06	350.40	9.08	20.02	45.47	999.00	-0.74	999.00	-0.14	0.00
23	3	23	19	52.91	11.63	7.80	38.21	999.00	50.19	10.21	8.83	38.78	53.19	6.23	13.18	39.83	999.00	-1.46	999.00	-0.90	0.00
23	3	23	20	68.41	12.88	4.93	37.61	999.00	66.69	11.11	6.87	38.11	73.90	5.65	15.03	38.95	999.00	-1.28	999.00	-0.79	0.00
23	3	23	21	72.00	10.13	6.35	37.58	999.00	70.80	8.77	7.52	38.11	74.60	5.40	19.13	38.87	999.00	-1.39	999.00	-0.84	0.00
23	3	23	22	100.60	9.40	7.82	37.58	999.00	97.70	8.56	8.71	38.11	93.90	3.98	20.88	38.87	999.00	-1.65	999.00	-1.10	0.00
23	3	23	23	86.90	13.84	3.09	37.13	999.00	84.80	12.10	4.46	37.62	95.90	5.47	21.95	38.46	999.00	-1.14	999.00	-0.70	0.00
23	3	23	24	79.10	14.49	3.59	36.72	999.00	76.90	13.35	4.51	37.19	81.80	7.81	11.63	38.05	999.00	-1.38	999.00	-0.87	0.00
23	3	24	1	111.80	10.63	4.89	36.35	999.00	109.00	9.97	4.79	36.87	113.80	6.07	12.77	37.49	999.00	-1.10	999.00	-0.60	0.00
23	3	24	2	101.80	10.43	5.46	36.38	999.00	97.50	10.04	5.21	36.90	99.40	5.86	13.57	37.46	999.00	-1.23	999.00	-0.71	0.00
23	3	24	3	72.70	11.83	4.80	36.01	999.00	67.92	11.20	5.30	36.55	66.35	7.02	10.86	37.36	999.00	-1.33	999.00	-0.80	0.00
23	3	24	4	51.30	16.89	3.39	35.39	999.00	48.27	16.23	4.20	35.93	46.90	10.47	9.36	36.86	999.00	-1.51	999.00	-0.95	0.00
23	3	24	5	52.32	14.06	4.21	35.39	999.00	49.52	13.01	3.96	35.93	54.15	8.91	9.70	36.86	999.00	-1.12	999.00	-0.68	0.00
23	3	24	6	56.94	17.28	4.49	35.17	999.00	53.63	16.49	5.17	35.70	55.65	10.69	10.89	36.27	999.00	-1.14	999.00	-0.60	0.00
23	3	24	7	63.85	16.58	4.36	34.79	999.00	61.01	16.26	4.45	35.32	65.51	10.27	10.18	35.85	999.00	-1.20	999.00	-0.66	0.00
23	3	24	8	62.79	18.09	5.08	34.41	999.00	59.68	17.11	5.59	34.95	62.68	11.21	10.25	35.85	999.00	-1.59	999.00	-1.04	0.00
23	3	24	9	60.85	16.30	5.76	34.01	999.00	57.88	15.64	7.05	34.57	65.22	9.91	11.63	35.76	999.00	-1.84	999.00	-1.26	0.00
23	3	24	10	55.78	15.58	6.82	33.75	999.00	53.12	14.74	7.60	34.36	61.63	10.90	11.90	35.72	999.00	-2.08	999.00	-1.44	0.00
23	3	24	11	59.97	16.57	4.85	33.58	999.00	55.90	16.28	6.17	34.29	63.42	11.89	10.69	35.88	999.00	-2.28	999.00	-1.57	0.00
23	3	24	12	65.04	17.38	5.31	33.58	999.00	62.03	17.00	5.47	34.31	62.09	12.71	16.39	36.01	999.00	-2.45	999.00	-1.73	0.00
23	3	24	13	62.36	15.29	6.29	33.38	999.00	60.17	15.14	8.14	34.10	73.80	11.75	12.91	35.88	999.00	-2.49	999.00	-1.76	0.00
23	3	24	14	42.91	15.12	7.53	33.77	999.00	39.96	14.21	8.47	34.46	36.25	12.14	13.08	36.03	999.00	-2.32	999.00	-1.58	0.00
23	3	24	15	53.24	17.76	5.28	33.70	999.00	50.15	17.65	6.11	34.34	47.12	14.33	9.69	36.09	999.00	-2.43	999.00	-1.85	0.00
23	3	24	16	62.39	16.16	4.93	33.91	999.00	60.96	15.75	5.99	34.62	65.61	11.05	12.21	36.33	999.00	-2.46	999.00	-1.79	0.00
23	3	24	17	67.54	16.41	4.71	34.41	999.00	66.71	15.92	5.17	35.11	71.50	11.08	12.90	36.95	999.00	-2.76	999.00	-2.05	0.00
23	3	24	18	80.00	15.94	4.94	34.68	999.00	80.20	15.07	5.53	35.30	84.80	9.05	13.98	37.03	999.00	-2.18	999.00	-1.64	0.00
23	3	24	19	81.80	20.86	4.01	34.29	999.00	77.90	20.04	5.14	34.89	80.60	13.07	11.20	36.43	999.00	-2.06	999.00	-1.47	0.00
23	3	24	20	83.50	23.37	3.46	34.70	999.00	79.40	22.32	4.21	35.25	82.80	13.23	11.55	36.56	999.00	-1.77	999.00	-1.25	0.00
23	3	24	21	77.20	19.91	3.40	35.58	999.00	74.70	19.44	3.71	36.12	80.70	12.30	12.24	37.41	999.00	-1.85	999.00	-1.31	0.00
23	3	24	22	76.90	23.47	5.38	35.31	999.00	73.20	22.85	5.38	35.87	83.50	14.02	13.23	37.19	999.00	-1.89	999.00	-1.34	0.00
23	3	24	23	77.80	23.37	4.13	35.48	999.00	74.60	22.26	4.47	36.03	81.50	12.91	12.81	37.35	999.00	-1.84	999.00	-1.29	0.00
23	3	24	24	64.45	25.48	4.45	35.38	999.00	61.51	23.80	5.90	35.95	62.86	15.10	10.41	37.25	999.00	-1.82	999.00	-1.25	0.00
23	3	25	1	77.20	25.16	4.18	35.47	999.00	73.70	24.23	4.82	35.98	84.40	13.93	13.71	37.32	999.00	-1.79	999.00	-1.41	0.02
23	3	25	2	72.30	24.96	3.54	35.04	999.00	68.59	23.85	4.09	35.36	71.30	14.31	11.01	36.14	999.00	-0.81	999.00	-0.49	0.06
23	3	25	3	74.90	25.82	3.57	34.81	999.00	71.00	24.45	4.09	35.19	74.90	14.50	11.76	35.88	999.00	-1.19	999.00	-0.76	0.13
23	3	25	4	77.60	27.67	2.63	34.63	999.00	73.50	26.46	3.42	35.05	77.80	15.45	11.86	35.93	999.00	-1.37	999.00	-0.94	0.11
23	3	25	5	76.60	28.95	3.16	34.41	999.00	72.10	27.72	3.71	34.85	79.60	16.42	11.25	35.82	999.00	-1.43	999.00	-0.99	0.00
23	3	25	6	82.70	27.59	3.27	35.01	999.00	77.60	25.63	4.04	35.41	82.90	15.02	10.88	36.35	999.00	-1.27	999.00	-0.90	0.02
23	3	25	7	87.10	26.52	3.24	36.29	999.00	82.10	23.64	4.51	36.62	89.10	11.96	13.14	37.43	999.00	-0.97	999.00	-0.68	0.05
23	3	25	8	96.00	22.10	2.41	37.98	999.00	87.10	20.54	3.76	37.98	96.30	9.45	15.19	38.63	999.00	-0.41	999.00	-0.60	0.00
23	3	25	9	133.60	14.76	5.39	40.36	999.00	115.00	12.23	4.75	39.76	101.50	4.95	15.42	39.65	999.00	1.52	999.00	0.49	0.00
23	3	25	10	197.30	24.72	5.00	44.67	999.00	195.70	20.60	6.16	44.08	188.80	9.37	14.26	42.83	999.00	0.25	999.00	0.19	0.00
23	3	25	11	208.30	30.54	4.88	48.50	999.00	207.40	28.55	5.35	49.15	212.10	17.09	12.05	49.45	999.00	-1.15	999.00	0.20	0.00
23	3	25	12	206.60	29.14	5.09	50.64	999.00	204.90	26.47	6.39	51.33	207.30	15.18	12.21	51.01	999.00	-0.22	999.00	0.52	0.00
23	3	25	13	220.60	35.81	9.98	52.57	999.00	219.30	33.74	11.07	53.24	215.40	23.13	11.81	53.38	999.00	-0.62	999.00	0.14	0.00
23	3	25	14	235.80	42.70	5.60	52.45	999.00	235.40	41.01	6.02	53.05	236.20	29.34	9.61	53.87	999.00	-1.63	999.00	-1.13	0.00
23	3	25	15	225.10	47.96	4.64	46.12	999.00	224.10	45.62	5.06	46.17	226.30	33.69	8.79	47.63	999.00	-1.70	999.00	-1.24	0.00
23	3	25	16	235.30	49.39	5.07	43.59	999.00	234.50	46.79	5.72	44.13	237.80	33.41	9.48	45.33	999.00	-1.75	999.00	-1.20	0.00
23	3	25	17	238.60	44.92	6.65	41.27	999.00	238.10	42.58	6.74	41.83	237.60	30.10	9.57	42.99	999.00	-1.70	999.00	-1.13	0.00
23	3	25	18	235.30	45.49	5.79	40.59	999.00	234.10	43.44	6.14	41.15	235.80	32.25	9.71	42.26	999.00	-1.58	999.00	-1.01	0.00
23	3	25	19	240.20	40.94	5.51	39.90	999.00	239.50	38.26	6.11	40.46	240.60	25.24	10.62	41.46	999.00	-1.52	999.00	-0.97	0.00
23	3	25	20	244.60	37.05	6.28	39.35	999.00	244.00	34.44	7.08	39.90	242.40	22.63	10.62	40.87	999.00	-1.49	999.00	-0.94	0.00
23	3	25	21	250.10	35.81	6.07	38.56	999.00	248.70	32.66	7.21	39.07	250.10	21.47	10.77	39.97	999.00	-1.43	999.00	-0.92	0.00
23	3	25	22	253.80	31.05	5.62	37.97	999.00	252.70	28.85	6.40	38.49	254.30	19.33	11.49	39.38	999.00	-1.38	999.00	-0.87	0.00

23	3	25	23	257.00	30.39	6.33	38.04	999.00	256.20	27.61	6.69	38.54	256.70	18.22	10.88	39.41	999.00	-1.41	999.00	-0.92	0.00
23	3	25	24	261.20	25.72	5.61	37.94	999.00	259.30	22.76	7.14	38.41	261.30	14.10	11.65	39.15	999.00	-1.08	999.00	-0.64	0.00
23	3	26	1	244.80	20.99	4.13	37.38	999.00	240.90	18.63	4.50	37.79	242.80	11.42	10.50	38.33	999.00	-0.92	999.00	-0.57	0.00
23	3	26	2	232.30	20.13	3.04	36.56	999.00	228.50	17.43	3.87	36.82	220.50	9.72	8.14	36.96	999.00	-0.04	999.00	0.12	0.00
23	3	26	3	228.90	20.69	2.85	36.12	999.00	225.10	17.99	3.00	36.25	221.10	9.91	7.89	36.17	999.00	0.23	999.00	0.34	0.00
23	3	26	4	232.40	19.66	3.11	35.69	999.00	228.90	16.79	3.57	35.83	225.20	9.47	7.55	35.96	999.00	-0.24	999.00	-0.11	0.00
23	3	26	5	238.00	19.64	2.92	35.94	999.00	233.10	16.83	3.05	35.94	224.40	9.42	6.78	35.85	999.00	0.33	999.00	0.31	0.00
23	3	26	6	231.40	16.99	2.67	35.83	999.00	227.60	13.97	3.45	35.77	223.60	6.39	7.67	35.43	999.00	0.37	999.00	0.38	0.00
23	3	26	7	229.70	17.08	1.98	35.95	999.00	221.90	14.99	1.51	35.75	212.70	6.37	9.92	34.87	999.00	1.23	999.00	0.79	0.00
23	3	26	8	223.40	20.52	2.88	35.40	999.00	221.00	16.39	3.56	35.21	219.60	8.19	7.05	34.67	999.00	0.69	999.00	0.37	0.00
23	3	26	9	228.60	19.58	3.34	35.40	999.00	224.20	15.84	4.52	35.21	223.30	9.04	8.49	34.67	999.00	-0.59	999.00	-0.71	0.00
23	3	26	10	229.50	13.71	4.49	37.71	999.00	226.50	12.78	4.80	37.98	226.60	9.69	9.42	39.37	999.00	-2.19	999.00	-1.72	0.00
23	3	26	11	232.00	14.25	4.07	40.52	999.00	230.70	14.15	4.38	41.05	233.60	10.85	10.71	43.19	999.00	-2.71	999.00	-2.16	0.00
23	3	26	12	223.90	12.86	5.51	43.18	999.00	222.60	12.61	5.70	43.70	229.50	10.20	10.14	45.83	999.00	-2.61	999.00	-2.07	0.00
23	3	26	13	232.20	13.51	6.79	46.01	999.00	231.20	13.20	5.95	46.60	232.60	10.73	10.81	48.84	999.00	-3.06	999.00	-2.49	0.00
23	3	26	14	232.20	13.82	8.47	48.12	999.00	231.20	13.48	8.29	48.72	234.20	10.77	13.50	51.10	999.00	-3.04	999.00	-2.45	0.00
23	3	26	15	226.50	13.71	8.83	49.55	999.00	225.40	13.36	10.45	50.12	237.30	10.03	17.73	52.31	999.00	-2.74	999.00	-2.17	0.00
23	3	26	16	231.10	10.77	10.62	50.85	999.00	229.70	10.43	11.56	51.40	233.40	8.27	15.64	53.75	999.00	-2.43	999.00	-1.86	0.00
23	3	26	17	274.40	10.86	8.29	51.71	999.00	274.30	10.50	9.50	52.28	277.10	7.25	11.21	54.01	999.00	-1.95	999.00	-1.38	0.00
23	3	26	18	318.00	8.38	12.55	51.70	999.00	321.40	8.32	11.04	52.27	333.20	6.54	13.13	53.73	999.00	-1.50	999.00	-1.01	0.00
23	3	26	19	5.16	4.74	10.49	50.72	999.00	5.85	5.16	8.96	50.81	7.10	5.19	9.64	50.74	999.00	0.19	999.00	0.32	0.00
23	3	26	20	50.82	9.53	2.79	49.56	999.00	44.91	10.83	6.49	49.31	82.60	4.97	13.03	47.75	999.00	2.54	999.00	2.29	0.00
23	3	26	21	85.20	14.04	1.87	48.75	999.00	90.90	14.12	3.51	48.55	106.90	6.33	10.17	46.80	999.00	1.72	999.00	1.65	0.00
23	3	26	22	108.90	19.55	0.50	48.94	999.00	108.40	19.67	1.80	48.65	115.50	7.12	12.01	46.13	999.00	2.84	999.00	2.03	0.00
23	3	26	23	128.70	19.84	4.27	51.11	999.00	114.20	19.43	3.95	49.30	107.00	6.70	11.00	45.70	999.00	5.56	999.00	3.59	0.00
23	3	26	24	145.70	25.96	1.03	52.37	999.00	138.10	20.29	1.57	50.46	113.30	5.16	9.39	45.22	999.00	7.97	999.00	6.00	0.00
23	3	27	1	299.10	12.98	37.32	50.90	999.00	306.80	12.54	25.00	49.44	311.80	8.06	21.27	47.06	999.00	1.80	999.00	1.66	0.00
23	3	27	2	14.36	18.59	6.15	45.70	999.00	17.16	15.36	8.11	44.94	15.66	13.85	8.81	43.76	999.00	2.87	999.00	1.75	0.00
23	3	27	3	41.56	24.36	4.38	45.29	999.00	35.88	20.38	7.13	44.01	43.00	12.45	9.67	43.51	999.00	1.19	999.00	-0.11	0.00
23	3	27	4	57.14	31.09	2.71	44.63	999.00	35.35	25.16	4.66	43.13	53.41	12.23	11.04	43.03	999.00	1.41	999.00	0.08	0.00
23	3	27	5	80.40	19.42	4.55	43.57	999.00	76.70	16.89	5.29	42.95	84.70	7.45	14.72	43.13	999.00	-0.19	999.00	-0.54	0.00
23	3	27	6	82.10	19.53	3.97	42.17	999.00	83.00	17.16	5.61	42.13	88.20	8.35	13.14	42.67	999.00	-0.80	999.00	-0.71	0.00
23	3	27	7	96.20	13.44	4.68	40.73	999.00	91.70	11.27	8.20	41.07	96.30	6.28	17.26	41.89	999.00	-1.29	999.00	-0.88	0.00
23	3	27	8	89.00	8.93	4.01	40.62	999.00	84.60	8.16	4.77	40.93	94.80	4.71	16.07	41.68	999.00	-1.55	999.00	-1.04	0.00
23	3	27	9	34.14	12.04	6.68	39.76	999.00	32.23	10.86	7.71	40.18	29.10	8.67	10.02	40.99	999.00	-1.10	999.00	-0.73	0.00
23	3	27	10	22.77	15.54	3.26	39.99	999.00	20.08	10.41	6.69	40.16	20.24	9.55	12.52	40.92	999.00	-1.03	999.00	-0.92	0.00
23	3	27	11	16.03	18.27	4.44	38.58	999.00	13.78	14.74	7.32	38.89	15.79	12.70	10.09	40.00	999.00	-1.54	999.00	-1.17	0.00
23	3	27	12	3.93	20.61	9.32	38.02	999.00	2.00	18.03	9.23	38.54	356.40	15.95	12.81	39.83	999.00	-1.82	999.00	-1.28	0.00
23	3	27	13	345.70	21.58	4.88	38.15	999.00	343.90	19.86	5.80	38.73	340.40	15.48	9.31	40.14	999.00	-2.18	999.00	-1.54	0.00
23	3	27	14	356.30	19.62	8.18	37.84	999.00	354.20	17.70	8.42	38.46	353.90	15.04	10.72	39.92	999.00	-1.96	999.00	-1.39	0.00
23	3	27	15	348.90	14.81	7.37	37.94	999.00	347.00	13.93	7.50	38.55	341.80	12.57	8.77	39.92	999.00	-1.93	999.00	-1.36	0.00
23	3	27	16	347.70	17.06	4.15	37.84	999.00	346.40	15.63	5.93	38.46	345.70	13.59	7.85	39.83	999.00	-1.88	999.00	-1.30	0.00
23	3	27	17	353.00	17.01	3.40	38.00	999.00	351.60	15.61	4.86	38.47	346.90	11.32	9.55	39.70	999.00	-1.56	999.00	-1.16	0.00
23	3	27	18	13.00	7.70	11.57	38.51	999.00	13.85	6.23	12.45	39.01	6.21	5.41	13.04	40.17	999.00	-1.64	999.00	-1.13	0.00
23	3	27	19	45.84	9.26	8.74	38.59	999.00	49.90	8.04	8.63	39.03	53.26	4.67	11.84	40.15	999.00	-1.52	999.00	-1.13	0.00
23	3	27	20	46.93	6.51	11.73	38.89	999.00	46.21	4.74	17.41	39.23	53.63	3.27	15.75	40.18	999.00	-1.47	999.00	-1.04	0.00
23	3	27	21	51.52	6.29	8.36	38.94	999.00	63.14	4.47	10.22	39.22	46.56	1.53	30.38	40.16	999.00	-0.94	999.00	-0.86	0.00
23	3	27	22	73.50	9.62	3.33	38.94	999.00	73.50	8.11	6.22	39.22	87.40	3.78	13.69	40.16	999.00	-1.22	999.00	-0.89	0.00
23	3	27	23	58.55	13.03	3.34	38.72	999.00	57.45	11.67	4.83	39.13	68.35	7.29	8.54	40.05	999.00	-1.35	999.00	-0.99	0.00
23	3	27	24	58.98	10.00	2.73	38.60	999.00	58.36	10.01	2.48	38.98	59.75	6.28	8.05	39.73	999.00	-1.18	999.00	-0.78	0.00
23	3	28	1	343.70	2.77	31.67	38.19	999.00	334.70	3.25	29.74	38.62	23.02	3.01	49.69	39.51	999.00	-1.29	999.00	-0.85	0.00
23	3	28	2	14.99	2.18	16.59	37.65	999.00	13.07	2.08	16.38	38.09	355.40	1.93	18.18	38.91	999.00	-1.52	999.00	-1.10	0.00
23	3	28	3	11.35	5.64	10.21	36.97	999.00	8.29	5.18	9.24	37.42	20.35	4.58	19.09	38.44	999.00	-1.37	999.00	-1.01	0.00

23	3	28	4	19.16	3.65	13.57	36.74	999.00	18.46	3.35	11.93	37.13	355.70	3.44	15.15	37.66	999.00	-1.17	999.00	-0.74	0.00
23	3	28	5	41.00	6.62	4.44	35.79	999.00	41.95	7.42	3.98	36.23	48.27	5.98	5.56	37.21	999.00	-1.25	999.00	-0.85	0.00
23	3	28	6	28.40	7.07	7.94	34.91	999.00	26.28	5.83	7.10	35.31	22.72	6.85	8.45	36.27	999.00	-1.61	999.00	-1.15	0.00
23	3	28	7	33.45	6.51	10.34	34.08	999.00	38.57	6.81	8.90	34.56	45.19	5.82	14.54	35.61	999.00	-1.38	999.00	-0.90	0.00
23	3	28	8	37.56	5.66	13.70	34.34	999.00	37.13	5.93	13.43	34.83	35.00	4.50	16.22	35.71	999.00	-1.25	999.00	-0.66	0.00
23	3	28	9	32.52	4.65	13.07	36.03	999.00	34.20	3.82	10.93	36.82	57.66	4.20	13.60	36.94	999.00	-0.71	999.00	0.25	0.00
23	3	28	10	47.91	4.87	13.47	37.34	999.00	46.26	4.79	14.07	38.19	30.80	4.76	23.15	38.16	999.00	-1.11	999.00	-0.25	0.00
23	3	28	11	44.46	5.12	14.46	37.77	999.00	40.44	4.96	14.86	38.48	28.88	5.39	21.11	38.62	999.00	-0.94	999.00	-0.03	0.00
23	3	28	12	34.07	4.64	16.11	38.15	999.00	23.46	4.35	17.39	38.86	8.54	5.53	16.43	39.10	999.00	-1.09	999.00	-0.51	0.00
23	3	28	13	12.42	2.87	23.25	39.33	999.00	17.26	2.61	22.86	40.05	27.66	3.85	14.59	40.17	999.00	-0.71	999.00	0.19	0.00
23	3	28	14	349.30	6.20	14.17	39.71	999.00	0.97	5.62	17.56	40.51	23.99	6.19	17.83	40.96	999.00	-1.30	999.00	-0.51	0.00
23	3	28	15	318.50	6.45	8.85	40.88	999.00	319.60	6.49	8.87	41.72	330.60	5.18	18.54	42.94	999.00	-2.70	999.00	-1.85	0.00
23	3	28	16	21.61	3.89	21.34	42.48	999.00	18.87	3.60	22.42	43.29	29.50	3.73	24.95	44.47	999.00	-1.31	999.00	-0.69	0.00
23	3	28	17	46.28	4.31	21.83	43.02	999.00	48.97	4.63	17.38	43.70	46.29	4.32	21.19	44.51	999.00	-1.64	999.00	-1.02	0.00
23	3	28	18	93.50	4.31	15.63	42.58	999.00	91.20	4.30	13.14	43.27	99.60	3.72	22.16	44.32	999.00	-2.06	999.00	-1.41	0.00
23	3	28	19	152.20	3.74	10.81	42.74	999.00	139.80	4.21	10.12	43.33	130.00	3.39	17.77	44.60	999.00	-1.92	999.00	-1.28	0.00
23	3	28	20	164.40	7.17	2.15	43.43	999.00	161.40	6.97	2.10	44.08	159.00	2.58	12.60	44.80	999.00	-0.92	999.00	-0.45	0.00
23	3	28	21	186.40	11.05	2.64	43.26	999.00	176.00	12.12	1.90	43.35	173.10	3.93	9.45	42.85	999.00	1.22	999.00	1.16	0.00
23	3	28	22	232.00	11.24	2.93	44.00	999.00	221.70	10.21	3.65	44.09	184.60	5.61	7.17	41.78	999.00	2.68	999.00	2.81	0.00
23	3	28	23	241.40	16.07	1.76	43.84	999.00	232.10	13.09	1.68	43.22	205.80	4.29	8.05	40.78	999.00	2.94	999.00	2.09	0.00
23	3	28	24	237.70	17.06	1.34	44.02	999.00	229.80	13.33	1.64	42.59	196.00	4.65	8.23	39.82	999.00	4.69	999.00	3.08	0.00
23	3	29	1	245.30	19.26	0.99	44.00	999.00	238.10	15.29	1.67	42.29	213.00	4.32	7.42	39.11	999.00	4.93	999.00	2.75	0.00
23	3	29	2	245.20	20.53	1.55	43.53	999.00	237.60	15.27	1.73	41.20	209.80	4.91	8.62	38.54	999.00	4.88	999.00	2.51	0.00
23	3	29	3	246.40	18.72	1.36	42.57	999.00	236.60	15.55	2.28	40.66	216.00	5.48	8.92	37.94	999.00	4.04	999.00	2.66	0.00
23	3	29	4	237.90	21.42	2.16	40.67	999.00	229.70	16.94	2.06	39.24	213.40	7.24	7.87	37.05	999.00	3.74	999.00	2.17	0.00
23	3	29	5	231.30	20.38	1.56	39.78	999.00	221.20	15.76	2.55	37.97	214.00	5.86	8.22	36.21	999.00	3.76	999.00	1.61	0.00
23	3	29	6	229.50	21.69	2.21	38.98	999.00	220.90	18.12	2.86	37.80	218.70	7.40	8.84	36.28	999.00	2.16	999.00	1.26	0.00
23	3	29	7	231.30	20.77	2.64	37.60	999.00	225.50	17.05	2.69	36.99	215.80	8.05	8.79	36.21	999.00	1.22	999.00	0.65	0.00
23	3	29	8	232.20	19.67	2.69	36.97	999.00	227.50	16.50	3.31	36.65	218.50	8.32	8.58	36.22	999.00	0.52	999.00	0.35	0.00
23	3	29	9	229.60	18.05	3.81	36.28	999.00	226.00	15.41	4.60	36.38	222.20	10.28	9.29	36.92	999.00	-1.40	999.00	-1.11	0.00
23	3	29	10	224.40	15.84	4.76	38.35	999.00	221.80	14.98	4.84	38.79	221.20	10.84	9.94	40.40	999.00	-2.23	999.00	-1.75	0.00
23	3	29	11	225.10	19.07	6.14	42.16	999.00	223.60	18.31	6.23	42.69	225.30	14.80	9.82	44.51	999.00	-2.15	999.00	-1.62	0.00
23	3	29	12	235.40	28.64	5.74	44.81	999.00	235.00	27.77	6.19	45.35	234.60	19.24	9.12	47.02	999.00	-2.32	999.00	-1.78	0.00
23	3	29	13	240.10	35.03	6.30	46.20	999.00	239.30	32.59	6.70	46.77	245.50	22.20	13.19	48.69	999.00	-2.34	999.00	-1.77	0.00
23	3	29	14	253.70	33.99	4.93	46.85	999.00	253.10	31.64	6.12	47.44	256.00	20.97	11.37	49.19	999.00	-2.12	999.00	-1.53	0.00
23	3	29	15	290.10	31.38	6.37	44.14	999.00	290.70	30.62	5.94	44.72	294.30	21.07	12.97	46.29	999.00	-2.25	999.00	-1.73	0.02
23	3	29	16	302.20	26.16	4.58	37.12	999.00	302.80	25.97	5.31	37.67	304.10	17.92	10.54	39.17	999.00	-2.28	999.00	-1.66	0.00
23	3	29	17	307.90	23.74	7.56	37.12	999.00	307.80	22.74	7.88	37.67	315.80	15.56	11.06	39.17	999.00	-2.34	999.00	-1.73	0.00
23	3	29	18	290.40	23.59	5.26	37.29	999.00	289.70	22.54	5.84	37.90	290.40	15.17	12.33	39.78	999.00	-2.62	999.00	-1.99	0.00
23	3	29	19	297.70	20.04	5.62	38.28	999.00	297.60	19.81	6.37	38.87	290.60	12.03	14.39	40.71	999.00	-2.18	999.00	-1.58	0.00
23	3	29	20	295.00	20.86	3.51	37.38	999.00	294.30	20.07	4.81	37.92	292.50	12.17	11.25	38.75	999.00	-0.87	999.00	-0.37	0.00
23	3	29	21	281.10	18.94	3.49	36.16	999.00	278.30	16.98	4.18	36.54	260.90	7.88	8.88	36.12	999.00	0.47	999.00	0.73	0.00
23	3	29	22	287.60	16.89	4.71	35.00	999.00	286.10	14.98	5.06	35.35	269.90	7.12	7.37	34.04	999.00	0.70	999.00	1.07	0.00
23	3	29	23	305.20	15.83	6.77	33.98	999.00	303.50	15.09	6.83	34.32	289.50	7.90	10.20	33.72	999.00	-0.09	999.00	0.27	0.00
23	3	29	24	322.40	19.47	3.63	33.98	999.00	321.40	19.32	3.88	34.32	317.30	12.39	8.92	33.72	999.00	-1.04	999.00	-0.53	0.00
23	3	30	1	329.60	18.78	4.68	32.10	999.00	328.50	18.43	4.84	32.60	326.00	12.76	9.61	33.21	999.00	-1.20	999.00	-0.68	0.00
23	3	30	2	346.40	16.31	4.67	31.42	999.00	344.00	16.12	5.67	31.94	339.90	11.44	9.21	32.81	999.00	-1.54	999.00	-1.01	0.00
23	3	30	3	19.92	10.34	12.57	30.87	999.00	19.65	8.98	13.41	31.44	11.48	8.27	14.44	32.61	999.00	-1.78	999.00	-1.24	0.00
23	3	30	4	34.25	7.99	10.62	30.27	999.00	32.84	7.53	10.88	30.80	27.76	7.17	10.28	32.01	999.00	-1.69	999.00	-1.16	0.00
23	3	30	5	40.54	7.57	11.99	29.84	999.00	39.26	7.42	12.12	30.36	36.74	5.65	14.67	31.48	999.00	-1.51	999.00	-1.00	0.00
23	3	30	6	54.27	8.37	8.03	29.74	999.00	50.92	8.12	8.25	30.25	50.20	5.28	13.73	31.17	999.00	-1.30	999.00	-0.81	0.00
23	3	30	7	93.80	10.09	7.65	29.74	999.00	90.20	9.69	8.10	30.25	96.20	5.51	12.21	31.17	999.00	-1.26	999.00	-0.74	0.00
23	3	30	8	110.10	9.33	8.14	29.80	999.00	107.30	8.88	8.81	30.34	112.80	4.99	11.56	31.03	999.00	-1.35	999.00	-0.73	0.00

23	3	30	9	119.80	10.80	10.28	30.31	999.00	117.60	10.41	10.87	30.99	121.70	7.02	15.98	32.17	999.00	-2.07	999.00	-1.36	0.00
23	3	30	10	144.50	10.75	11.73	30.57	999.00	142.30	10.38	13.19	31.38	147.00	7.05	18.04	32.97	999.00	-2.59	999.00	-1.79	0.00
23	3	30	11	131.60	9.30	11.54	30.97	999.00	128.10	8.74	11.59	31.79	144.70	6.64	18.54	33.59	999.00	-2.76	999.00	-2.00	0.00
23	3	30	12	146.30	7.42	19.35	32.35	999.00	145.40	7.26	21.28	33.38	145.50	5.35	33.83	35.17	999.00	-2.81	999.00	-1.77	0.00
23	3	30	13	180.00	9.05	19.14	34.38	999.00	178.00	8.76	20.64	35.39	171.80	6.64	22.81	37.18	999.00	-2.61	999.00	-1.58	0.00
23	3	30	14	185.00	9.55	17.64	36.98	999.00	181.60	9.33	19.90	37.94	177.10	6.69	21.72	39.87	999.00	-2.92	999.00	-2.01	0.00
23	3	30	15	177.40	9.68	25.53	39.70	999.00	168.20	8.58	30.52	40.63	179.10	6.44	32.60	42.67	999.00	-2.34	999.00	-1.51	0.00
23	3	30	16	95.60	10.90	11.91	38.72	999.00	87.00	11.02	12.63	39.21	74.80	8.20	13.55	40.97	999.00	-2.20	999.00	-1.95	0.00
23	3	30	17	196.00	11.74	13.85	41.58	999.00	194.50	10.86	15.51	41.77	131.30	7.29	51.79	43.16	999.00	-2.28	999.00	-1.74	0.00
23	3	30	18	114.50	11.81	15.62	42.37	999.00	100.80	12.74	14.29	42.52	80.00	8.47	16.14	43.77	999.00	-0.43	999.00	-0.90	0.00
23	3	30	19	112.80	14.00	7.20	39.56	999.00	102.70	13.25	5.83	39.38	106.60	7.30	11.95	40.63	999.00	-0.49	999.00	-0.97	0.00
23	3	30	20	109.00	13.43	4.01	38.24	999.00	101.20	13.23	4.14	37.96	101.50	7.71	12.95	38.97	999.00	-0.43	999.00	-1.03	0.00
23	3	30	21	107.10	14.01	4.85	38.37	999.00	98.10	13.13	4.62	37.73	95.30	7.18	14.29	38.78	999.00	-0.25	999.00	-1.03	0.00
23	3	30	22	102.70	15.89	3.16	37.97	999.00	96.80	15.08	3.12	37.96	101.10	8.90	12.12	38.91	999.00	-0.99	999.00	-0.94	0.00
23	3	30	23	106.70	18.27	3.21	38.17	999.00	98.80	15.92	3.62	38.18	101.40	8.95	13.47	39.09	999.00	-0.08	999.00	-0.81	0.00
23	3	30	24	137.10	21.28	2.25	42.18	999.00	123.90	15.82	3.50	39.77	122.20	6.46	11.59	39.86	999.00	4.55	999.00	1.00	0.00
23	3	31	1	154.60	21.64	3.63	45.40	999.00	141.80	16.87	3.62	43.08	130.20	5.59	10.38	41.02	999.00	4.03	999.00	1.79	0.00
23	3	31	2	150.00	27.72	3.23	46.19	999.00	144.50	22.53	4.78	44.48	141.50	9.82	12.31	43.02	999.00	1.45	999.00	0.61	0.00
23	3	31	3	161.20	24.41	2.46	45.91	999.00	156.50	20.55	3.38	45.42	160.50	9.26	12.94	45.04	999.00	0.39	999.00	0.09	0.00
23	3	31	4	164.90	25.70	2.66	46.90	999.00	161.30	22.14	3.47	46.75	162.70	8.68	12.87	46.52	999.00	0.68	999.00	0.47	0.00
23	3	31	5	175.40	21.98	3.73	48.04	999.00	172.40	18.45	4.04	47.92	174.00	6.96	13.21	47.43	999.00	0.41	999.00	0.36	0.00
23	3	31	6	179.60	16.42	9.35	49.22	999.00	176.00	13.92	10.44	49.50	185.60	6.37	17.73	49.68	999.00	-0.83	999.00	-0.46	0.00
23	3	31	7	147.70	10.64	13.31	49.32	999.00	142.50	10.20	14.28	49.70	142.70	5.89	23.18	49.89	999.00	-0.87	999.00	-0.40	0.04
23	3	31	8	175.00	11.84	8.06	48.04	999.00	167.90	10.18	8.81	47.88	123.90	3.92	16.58	46.58	999.00	0.92	999.00	1.10	0.02
23	3	31	9	168.20	18.81	4.14	46.88	999.00	162.60	16.53	4.70	47.21	159.90	7.70	12.89	47.48	999.00	-0.89	999.00	-0.53	0.01
23	3	31	10	172.50	19.47	5.31	45.87	999.00	170.00	17.67	5.71	46.36	172.50	9.21	14.50	47.21	999.00	-1.45	999.00	-0.91	0.00
23	3	31	11	189.20	22.07	5.24	46.01	999.00	187.70	20.05	5.99	46.54	188.80	10.98	13.52	47.50	999.00	-1.48	999.00	-0.95	0.02
23	3	31	12	198.80	22.36	4.33	47.64	999.00	197.10	20.15	4.61	48.18	199.50	10.17	12.74	48.79	999.00	-0.73	999.00	-0.21	0.06
23	3	31	13	200.00	25.49	5.29	47.64	999.00	199.00	22.61	5.83	48.18	197.60	12.15	15.05	48.79	999.00	-0.19	999.00	0.41	0.00
23	3	31	14	200.50	25.58	4.85	51.85	999.00	199.50	23.18	5.50	52.51	204.00	12.41	13.36	52.01	999.00	-0.43	999.00	0.22	0.00
23	3	31	15	196.80	25.45	4.90	52.56	999.00	195.70	23.71	6.06	53.26	202.10	13.44	15.33	53.05	999.00	-0.84	999.00	-0.18	0.00
23	3	31	16	196.80	25.13	5.61	53.67	999.00	195.10	22.90	6.47	54.21	195.10	12.22	14.42	55.13	999.00	-1.27	999.00	-0.76	0.00
23	3	31	17	191.60	23.38	4.90	54.67	999.00	189.40	20.90	5.81	55.19	190.50	11.46	13.72	55.87	999.00	-1.09	999.00	-0.60	0.00
23	3	31	18	194.80	22.01	4.99	55.09	999.00	193.70	20.25	5.47	55.59	195.40	11.02	14.01	56.19	999.00	-1.16	999.00	-0.68	0.00
23	3	31	19	188.30	19.62	5.02	55.80	999.00	186.50	17.77	5.72	56.26	189.70	9.84	13.30	57.06	999.00	-1.22	999.00	-0.78	0.00
23	3	31	20	188.70	25.16	4.94	55.86	999.00	186.50	23.18	5.27	56.30	186.80	12.19	13.60	57.06	999.00	-1.20	999.00	-0.75	0.00
23	3	31	21	179.70	22.46	7.96	55.39	999.00	178.10	20.44	8.66	55.83	177.30	10.79	13.24	56.58	999.00	-1.07	999.00	-0.69	0.00
23	3	31	22	177.00	23.69	4.61	54.51	999.00	174.10	20.81	5.51	54.95	178.10	10.30	12.68	54.98	999.00	0.09	999.00	0.51	0.00
23	3	31	23	176.40	29.41	5.22	55.52	999.00	173.30	25.98	6.40	56.04	176.90	13.80	13.93	55.26	999.00	0.33	999.00	0.87	0.00
23	3	31	24	182.40	35.64	4.84	55.52	999.00	179.60	32.85	5.40	56.04	183.90	18.07	12.27	55.26	999.00	0.31	999.00	0.70	0.00
23	4	1	1	183.80	36.14	5.60	57.85	999.00	181.70	33.18	6.54	58.60	184.40	18.15	13.30	58.61	999.00	-0.69	999.00	0.06	0.17
23	4	1	2	250.70	42.63	5.93	56.34	999.00	249.00	38.48	6.56	55.94	244.10	24.72	10.10	56.83	999.00	-0.51	999.00	-1.78	0.03
23	4	1	3	224.10	18.55	5.11	54.49	999.00	222.60	16.78	5.68	54.84	227.30	9.21	12.35	52.91	999.00	2.09	999.00	2.48	0.00
23	4	1	4	221.10	30.07	4.97	54.00	999.00	220.00	26.74	5.76	54.17	217.30	16.16	9.37	52.99	999.00	0.40	999.00	0.58	0.00
23	4	1	5	229.10	29.69	4.22	53.84	999.00	229.20	27.09	4.42	54.15	227.00	17.24	8.40	53.73	999.00	-0.13	999.00	0.19	0.00
23	4	1	6	225.80	26.26	4.21	52.93	999.00	225.20	23.51	4.54	53.17	225.20	13.84	8.12	52.91	999.00	0.18	999.00	0.37	0.00
23	4	1	7	205.80	23.25	4.13	51.82	999.00	203.30	19.55	4.72	51.87	203.50	8.13	11.94	51.33	999.00	0.69	999.00	0.69	0.00
23	4	1	8	208.30	23.97	2.47	51.01	999.00	205.30	20.62	3.61	50.91	195.70	8.58	12.24	50.29	999.00	0.86	999.00	0.63	0.00
23	4	1	9	171.70	16.65	5.50	51.00	999.00	170.10	14.70	6.27	51.17	169.70	6.64	14.79	51.31	999.00	-1.30	999.00	-0.65	0.00
23	4	1	10	171.30	18.60	6.40	52.87	999.00	171.20	16.84	7.50	53.64	172.50	9.52	14.91	54.62	999.00	-1.68	999.00	-0.98	0.00
23	4	1	11	215.60	33.49	6.13	56.37	999.00	215.60	30.35	7.03	56.89	213.70	20.16	11.72	57.72	999.00	-1.04	999.00	-0.59	0.00
23	4	1	12	253.40	45.15	5.82	52.71	999.00	252.10	41.70	6.42	53.27	250.00	28.58	11.56	54.14	999.00	-2.34	999.00	-1.55	0.00
23	4	1	13	271.40	43.31	4.62	43.93	999.00	270.70	40.64	5.93	44.65	266.00	29.35	9.99	46.22	999.00	-2.23	999.00	-1.36	0.00

23	4	1	14	262.00	32.80	6.18	39.72	999.00	262.90	31.25	7.26	40.33	260.10	20.70	10.99	41.91	999.00	-2.25	999.00	-1.66	0.00
23	4	1	15	241.40	28.27	5.77	40.29	999.00	240.70	26.46	6.40	40.90	244.90	19.33	11.49	42.60	999.00	-2.24	999.00	-1.63	0.00
23	4	1	16	256.40	29.71	6.80	38.72	999.00	256.40	28.22	7.40	39.34	258.30	19.93	11.64	40.97	999.00	-2.41	999.00	-1.76	0.00
23	4	1	17	263.60	29.12	5.79	40.00	999.00	264.30	27.52	6.93	40.63	266.10	18.45	11.19	42.44	999.00	-2.14	999.00	-1.55	0.00
23	4	1	18	266.70	23.83	5.74	39.88	999.00	266.70	22.25	6.68	40.43	265.40	14.51	11.16	41.76	999.00	-1.74	999.00	-1.21	0.00
23	4	1	19	280.30	21.94	5.88	39.77	999.00	279.70	20.70	7.10	40.30	277.70	15.16	9.29	41.46	999.00	-1.63	999.00	-1.11	0.00
23	4	1	20	275.90	20.39	4.29	39.69	999.00	275.10	19.02	5.25	40.21	271.70	12.97	10.21	41.23	999.00	-1.50	999.00	-1.00	0.00
23	4	1	21	282.00	16.45	6.82	39.69	999.00	279.70	15.28	7.37	40.21	271.00	10.35	9.79	41.23	999.00	-1.40	999.00	-0.95	0.00
23	4	1	22	344.50	22.34	4.36	36.95	999.00	344.40	21.64	5.20	37.54	343.40	16.60	8.15	38.75	999.00	-1.84	999.00	-1.24	0.00
23	4	1	23	342.40	22.43	3.90	35.72	999.00	342.90	22.01	4.73	36.31	341.20	17.14	8.53	37.56	999.00	-1.81	999.00	-1.25	0.00
23	4	1	24	353.80	19.95	5.11	34.76	999.00	353.70	19.45	4.75	35.32	353.60	15.26	9.41	36.59	999.00	-1.93	999.00	-1.37	0.00
23	4	2	1	336.30	16.74	6.92	34.14	999.00	336.30	16.13	7.67	34.70	334.40	11.15	11.22	36.00	999.00	-1.78	999.00	-1.24	0.00
23	4	2	2	7.65	12.00	14.31	33.94	999.00	6.25	11.11	12.70	34.50	9.22	10.30	13.22	35.82	999.00	-1.83	999.00	-1.29	0.00
23	4	2	3	348.80	12.79	5.14	33.57	999.00	349.10	12.01	5.20	34.11	344.20	9.46	9.58	35.28	999.00	-1.70	999.00	-1.16	0.00
23	4	2	4	331.30	10.89	6.50	33.52	999.00	331.40	10.36	6.92	34.04	332.00	6.54	8.32	34.95	999.00	-1.16	999.00	-0.69	0.00
23	4	2	5	348.20	11.76	7.18	33.61	999.00	347.90	11.03	7.17	34.13	342.90	8.59	9.59	35.00	999.00	-1.68	999.00	-1.15	0.00
23	4	2	6	341.50	11.82	6.15	33.61	999.00	342.40	11.21	6.76	34.13	341.60	7.67	10.91	35.00	999.00	-1.67	999.00	-1.13	0.00
23	4	2	7	8.04	6.81	15.88	32.62	999.00	5.42	6.16	15.02	33.16	356.30	6.16	12.07	34.34	999.00	-1.83	999.00	-1.29	0.00
23	4	2	8	41.50	4.63	14.78	32.56	999.00	40.58	4.51	14.00	33.13	28.93	3.61	25.18	34.24	999.00	-1.54	999.00	-0.96	0.00
23	4	2	9	62.92	3.92	19.56	32.92	999.00	60.56	3.86	20.53	33.62	44.53	3.01	19.34	34.46	999.00	-1.57	999.00	-0.67	0.00
23	4	2	10	143.70	2.93	18.66	33.71	999.00	141.80	2.98	24.18	34.91	162.40	2.89	36.49	35.64	999.00	-1.85	999.00	-0.74	0.00
23	4	2	11	201.70	5.30	23.54	34.97	999.00	196.10	4.50	31.42	36.28	211.70	4.39	39.68	37.83	999.00	-2.72	999.00	-1.51	0.00
23	4	2	12	123.60	8.52	17.63	35.20	999.00	118.10	8.61	13.57	36.29	111.00	6.81	23.62	37.97	999.00	-3.11	999.00	-2.23	0.00
23	4	2	13	102.60	9.74	11.48	35.84	999.00	96.70	9.76	9.96	36.72	107.50	7.79	17.69	38.88	999.00	-3.46	999.00	-2.61	0.00
23	4	2	14	91.20	12.36	6.58	35.99	999.00	86.60	12.39	7.33	36.79	90.50	9.36	14.63	39.08	999.00	-3.13	999.00	-2.31	0.00
23	4	2	15	86.60	12.75	6.41	35.91	999.00	81.70	12.58	8.47	36.66	79.60	9.60	14.27	38.92	999.00	-2.96	999.00	-2.21	0.00
23	4	2	16	94.60	14.76	4.87	36.81	999.00	89.80	14.72	5.52	37.47	91.50	9.85	15.98	39.96	999.00	-3.04	999.00	-2.53	0.00
23	4	2	17	92.80	17.62	4.77	37.58	999.00	87.80	17.05	5.22	38.17	91.70	11.13	14.17	40.54	999.00	-2.60	999.00	-2.01	0.00
23	4	2	18	100.30	15.61	4.55	37.69	999.00	94.90	15.17	5.47	38.34	96.60	9.62	14.96	40.28	999.00	-2.47	999.00	-1.86	0.00
23	4	2	19	103.70	15.11	4.79	37.84	999.00	99.20	14.63	4.83	38.32	103.90	9.46	13.26	39.88	999.00	-1.82	999.00	-1.35	0.00
23	4	2	20	113.60	17.25	4.38	37.77	999.00	109.80	16.36	5.18	38.20	107.20	8.94	12.86	39.40	999.00	-1.61	999.00	-1.15	0.00
23	4	2	21	137.00	14.94	5.80	38.55	999.00	122.80	12.49	4.51	38.64	121.20	6.62	11.90	39.62	999.00	-0.08	999.00	-0.79	0.00
23	4	2	22	175.30	13.58	3.52	40.33	999.00	170.20	10.92	3.82	39.93	137.10	4.34	9.47	39.76	999.00	0.68	999.00	0.58	0.00
23	4	2	23	164.50	16.92	3.93	41.01	999.00	164.50	15.04	3.71	41.24	167.70	6.56	12.88	41.47	999.00	-0.60	999.00	-0.32	0.00
23	4	2	24	170.80	15.09	2.61	40.44	999.00	170.00	13.35	2.92	40.71	173.80	5.43	12.60	41.03	999.00	-0.54	999.00	-0.30	0.00
23	4	3	1	166.10	17.94	2.83	39.65	999.00	163.30	15.18	3.31	39.80	161.90	6.31	13.50	39.80	999.00	-0.37	999.00	-0.27	0.00
23	4	3	2	167.30	20.33	3.16	39.13	999.00	165.50	17.14	3.74	39.17	167.90	6.67	12.58	39.31	999.00	-0.02	999.00	-0.03	0.00
23	4	3	3	177.20	23.68	3.50	39.50	999.00	176.10	20.00	4.38	39.43	178.90	9.53	12.66	39.53	999.00	-0.12	999.00	-0.19	0.00
23	4	3	4	186.20	23.48	2.92	40.70	999.00	185.80	20.18	3.99	40.75	190.30	9.50	13.28	40.87	999.00	-0.22	999.00	-0.17	0.00
23	4	3	5	188.30	27.14	3.89	41.58	999.00	188.40	23.66	4.62	41.64	193.20	11.48	12.80	41.78	999.00	-0.40	999.00	-0.31	0.00
23	4	3	6	187.60	23.52	3.79	42.12	999.00	188.20	19.98	4.44	42.11	193.20	9.29	12.75	42.23	999.00	-0.13	999.00	-0.11	0.00
23	4	3	7	189.80	23.76	3.13	42.26	999.00	189.90	19.88	4.11	42.14	192.70	8.40	12.31	42.08	999.00	0.37	999.00	0.18	0.00
23	4	3	8	203.10	17.57	4.84	42.06	999.00	205.30	14.23	5.92	42.08	213.60	8.09	18.13	42.38	999.00	-0.70	999.00	-0.65	0.00
23	4	3	9	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	4	3	10	238.70	16.07	4.13	44.29	999.00	238.70	14.70	4.70	44.54	234.80	10.58	9.71	45.91	999.00	-2.16	999.00	-1.74	0.00
23	4	3	11	240.40	12.99	6.85	49.39	999.00	241.00	12.37	7.57	49.94	236.20	9.31	10.92	51.94	999.00	-2.79	999.00	-2.14	0.00
23	4	3	12	228.70	7.76	7.47	52.61	999.00	227.00	7.69	7.09	53.21	225.10	6.89	13.84	55.37	999.00	-2.62	999.00	-2.00	0.00
23	4	3	13	208.10	7.09	11.33	56.44	999.00	213.60	6.97	13.07	57.24	216.80	5.99	20.35	59.44	999.00	-2.91	999.00	-2.14	0.00
23	4	3	14	170.50	7.22	14.43	60.08	999.00	164.30	6.93	14.06	61.19	161.10	5.32	21.12	63.01	999.00	-2.77	999.00	-1.63	0.00
23	4	3	15	166.70	8.48	18.54	61.68	999.00	164.30	8.15	18.27	62.71	177.20	5.38	24.77	64.40	999.00	-2.48	999.00	-1.58	0.00
23	4	3	16	118.30	6.35	12.61	61.11	999.00	115.90	6.19	8.84	61.75	131.80	4.08	19.57	62.65	999.00	-1.08	999.00	-0.66	0.00
23	4	3	17	101.90	11.02	10.70	60.61	999.00	98.80	11.70	11.72	60.93	108.10	6.42	12.95	61.03	999.00	-0.38	999.00	0.07	0.00
23	4	3	18	44.09	16.66	2.67	57.40	999.00	43.76	16.17	4.80	57.44	29.22	8.84	8.56	56.94	999.00	1.28	999.00	1.17	0.00

23	4	3	19	35.44	15.13	3.23	57.55	999.00	33.89	13.49	5.98	57.61	27.01	10.19	6.85	56.29	999.00	0.91	999.00	1.05	0.00
23	4	3	20	28.70	17.18	3.80	56.39	999.00	29.77	16.28	5.14	56.45	25.23	12.22	9.13	54.61	999.00	1.70	999.00	1.81	0.00
23	4	3	21	47.37	24.78	3.73	53.63	999.00	46.50	24.10	4.41	53.34	46.93	11.45	9.52	51.21	999.00	2.31	999.00	1.60	0.00
23	4	3	22	65.41	22.24	2.03	49.78	999.00	64.26	20.71	2.43	49.32	68.20	10.26	10.39	48.15	999.00	0.89	999.00	0.53	0.00
23	4	3	23	75.80	20.70	2.45	47.60	999.00	71.00	16.69	4.67	46.74	69.67	8.00	13.25	46.80	999.00	0.19	999.00	-0.37	0.00
23	4	3	24	78.90	24.17	2.78	46.35	999.00	72.80	20.99	4.48	45.60	65.67	9.85	10.68	45.76	999.00	0.58	999.00	-0.04	0.00
23	4	4	1	75.30	26.57	3.12	45.81	999.00	70.30	22.54	4.32	44.89	78.30	11.10	11.02	45.36	999.00	-0.02	999.00	-0.62	0.00
23	4	4	2	65.88	20.42	2.68	45.74	999.00	59.86	18.12	3.82	45.20	63.38	9.84	9.37	45.41	999.00	0.60	999.00	0.12	0.00
23	4	4	3	44.43	15.56	8.08	45.58	999.00	32.46	12.04	8.88	45.33	27.11	9.22	17.36	45.66	999.00	-0.34	999.00	-0.37	0.00
23	4	4	4	64.44	23.71	1.65	45.11	999.00	59.56	21.49	2.64	44.14	54.56	12.52	8.85	43.63	999.00	2.01	999.00	1.34	0.00
23	4	4	5	49.65	22.38	4.31	44.85	999.00	39.29	18.23	7.02	43.74	27.38	11.65	9.83	43.56	999.00	1.69	999.00	0.51	0.00
23	4	4	6	52.66	21.20	3.91	45.71	999.00	46.31	18.12	5.78	44.78	47.58	10.35	11.45	44.50	999.00	0.14	999.00	-0.44	0.00
23	4	4	7	59.14	23.23	1.90	44.55	999.00	52.18	19.99	3.40	43.67	52.56	10.39	10.12	44.18	999.00	0.82	999.00	-0.35	0.00
23	4	4	8	72.80	20.03	1.83	44.51	999.00	69.08	15.73	3.47	43.78	64.77	7.67	10.31	43.92	999.00	0.92	999.00	0.20	0.00
23	4	4	9	83.10	13.35	7.83	43.84	999.00	83.60	10.58	9.35	43.79	84.30	5.26	19.28	44.55	999.00	-1.21	999.00	-1.00	0.00
23	4	4	10	72.80	20.18	3.60	43.89	999.00	70.80	18.23	4.83	44.23	77.00	10.84	11.29	45.72	999.00	-1.68	999.00	-1.46	0.00
23	4	4	11	84.30	17.13	2.77	43.57	999.00	79.30	17.51	3.62	43.84	79.10	9.91	15.47	45.38	999.00	-1.79	999.00	-1.66	0.00
23	4	4	12	104.90	11.24	7.35	43.84	999.00	93.60	10.39	8.19	44.09	82.70	7.28	12.90	46.00	999.00	-2.14	999.00	-2.13	0.00
23	4	4	13	60.57	7.93	7.47	45.40	999.00	51.35	8.52	9.48	45.84	62.07	8.23	17.39	47.25	999.00	-1.69	999.00	-0.98	0.00
23	4	4	14	61.77	10.54	4.78	45.95	999.00	57.45	11.79	5.78	45.11	47.23	10.18	11.26	45.85	999.00	0.58	999.00	-0.72	0.00
23	4	4	15	54.61	19.84	3.82	46.82	999.00	53.35	19.02	5.22	45.50	47.98	13.51	12.10	46.54	999.00	2.41	999.00	-0.49	0.00
23	4	4	16	76.00	20.05	5.27	47.08	999.00	73.70	16.96	6.03	45.35	74.60	11.05	12.00	46.63	999.00	-1.92	999.00	-1.85	0.00
23	4	4	17	84.50	22.75	3.13	45.23	999.00	79.50	20.66	3.63	45.06	79.30	13.78	10.62	46.78	999.00	-0.01	999.00	-0.92	0.00
23	4	4	18	84.00	21.77	4.13	43.82	999.00	80.10	17.45	5.09	43.43	80.00	10.66	11.30	44.78	999.00	-0.83	999.00	-1.23	0.00
23	4	4	19	80.90	27.75	2.53	44.62	999.00	74.80	23.72	4.06	43.80	76.60	12.86	10.83	44.98	999.00	-0.07	999.00	-1.04	0.00
23	4	4	20	81.70	26.83	2.59	44.98	999.00	77.40	23.63	4.25	44.92	80.40	12.90	12.06	46.02	999.00	-1.26	999.00	-1.17	0.00
23	4	4	21	90.80	29.80	3.26	45.42	999.00	89.10	25.62	4.75	45.28	94.00	12.24	14.11	46.31	999.00	-1.16	999.00	-0.98	0.00
23	4	4	22	83.50	24.96	2.71	45.12	999.00	81.60	22.22	3.86	45.40	83.50	11.84	10.81	46.47	999.00	-1.69	999.00	-1.32	0.00
23	4	4	23	89.40	24.36	2.93	43.69	999.00	87.50	21.00	4.12	44.07	88.60	10.36	11.33	45.33	999.00	-1.42	999.00	-1.15	0.00
23	4	4	24	93.50	27.92	2.63	44.02	999.00	90.00	23.69	3.99	43.98	92.50	11.80	13.55	45.01	999.00	-0.73	999.00	-1.00	0.00
23	4	5	1	115.80	22.55	2.16	46.56	999.00	103.60	17.82	4.25	44.36	99.70	8.67	13.19	44.98	999.00	5.02	999.00	-0.05	0.00
23	4	5	2	139.70	26.09	1.55	54.49	999.00	126.40	19.59	1.63	50.15	115.60	6.73	13.02	46.99	999.00	999.00	999.00	5.46	0.00
23	4	5	3	159.40	27.43	3.86	999.00	999.00	148.50	20.95	4.41	57.96	115.10	5.88	8.85	50.40	999.00	999.00	999.00	7.90	0.00
23	4	5	4	171.20	32.15	1.87	68.47	999.00	165.50	26.57	2.60	64.66	155.60	7.86	12.45	58.11	999.00	7.76	999.00	6.24	0.00
23	4	5	5	178.20	31.01	4.31	69.81	999.00	176.70	27.69	5.27	69.35	180.10	13.98	12.26	66.94	999.00	0.51	999.00	0.61	0.00
23	4	5	6	189.50	33.31	5.13	70.64	999.00	187.80	30.58	5.61	70.88	187.20	15.99	12.87	70.55	999.00	-0.23	999.00	0.11	0.00
23	4	5	7	187.20	29.06	3.86	69.50	999.00	185.20	25.90	5.00	69.78	189.50	13.72	13.13	69.72	999.00	-0.21	999.00	0.05	0.00
23	4	5	8	185.60	29.10	4.65	68.78	999.00	184.10	26.12	5.26	69.05	189.50	13.93	13.32	69.00	999.00	-0.25	999.00	0.03	0.00
23	4	5	9	193.60	32.10	4.64	69.41	999.00	192.40	28.94	5.16	69.72	196.40	15.41	12.04	69.86	999.00	-0.67	999.00	-0.30	0.00
23	4	5	10	185.80	31.94	4.94	69.93	999.00	183.50	29.41	5.65	70.33	185.50	17.11	12.56	70.70	999.00	-0.78	999.00	-0.37	0.00
23	4	5	11	191.90	31.35	4.80	999.00	999.00	191.40	29.00	5.11	999.00	196.60	15.60	13.18	71.73	999.00	-1.37	999.00	-0.87	0.00
23	4	5	12	198.20	29.38	7.66	72.76	999.00	197.30	27.21	7.47	73.28	196.80	15.33	14.72	74.15	999.00	-1.30	999.00	-0.78	0.00
23	4	5	13	214.80	29.93	5.12	74.28	999.00	214.70	27.44	5.99	74.74	214.70	17.45	11.73	75.47	999.00	-1.15	999.00	-0.73	0.00
23	4	5	14	213.40	29.42	6.91	75.13	999.00	213.90	27.42	7.87	75.57	221.40	17.87	9.09	76.20	999.00	-1.06	999.00	-0.59	0.00
23	4	5	15	203.10	31.30	5.11	71.69	999.00	201.60	29.28	5.78	72.39	207.10	17.92	12.82	73.05	999.00	-1.48	999.00	-0.64	0.03
23	4	5	16	237.60	14.87	11.65	65.68	999.00	235.50	13.90	12.10	66.19	248.50	8.76	13.56	67.02	999.00	-0.83	999.00	-0.26	0.04
23	4	5	17	181.10	16.95	4.32	63.04	999.00	177.00	15.06	5.44	63.81	184.40	9.30	15.05	64.78	999.00	-0.59	999.00	0.23	0.05
23	4	5	18	193.80	28.39	4.26	62.38	999.00	191.60	25.57	4.72	63.43	193.40	13.34	14.53	62.17	999.00	0.51	999.00	1.62	0.07
23	4	5	19	180.70	25.64	8.97	62.01	999.00	176.30	22.92	9.94	63.08	186.20	10.97	14.33	60.77	999.00	1.31	999.00	2.14	0.00
23	4	5	20	211.30	26.96	9.49	61.95	999.00	210.50	23.91	10.99	62.64	222.70	14.15	14.82	60.65	999.00	1.20	999.00	1.85	0.05
23	4	5	21	200.90	24.27	4.44	61.44	999.00	199.70	21.57	5.05	62.03	201.90	12.37	12.83	60.62	999.00	0.04	999.00	0.47	0.00
23	4	5	22	209.30	25.30	4.61	61.23	999.00	207.80	22.38	5.59	61.60	211.20	12.11	11.73	61.50	999.00	-0.41	999.00	-0.06	0.00
23	4	5	23	231.70	26.30	4.54	61.07	999.00	230.80	24.43	4.49	61.45	225.90	16.04	10.12	61.78	999.00	-0.74	999.00	-0.33	0.00

23	4	5	24	255.30	23.24	5.19	58.79	999.00	255.00	20.78	5.49	59.26	257.50	13.33	10.11	59.79	999.00	-0.96	999.00	-0.51	0.00
23	4	6	1	272.10	26.19	3.97	53.95	999.00	273.10	24.26	5.06	54.37	271.60	12.95	9.47	54.69	999.00	-0.41	999.00	-0.04	0.00
23	4	6	2	273.50	24.56	3.14	49.57	999.00	275.40	22.24	4.09	49.94	273.70	12.74	8.94	50.14	999.00	-0.62	999.00	-0.25	0.00
23	4	6	3	265.40	23.17	5.21	46.77	999.00	265.90	21.41	6.01	47.21	265.30	13.33	10.22	47.88	999.00	-1.20	999.00	-0.71	0.00
23	4	6	4	260.40	17.91	5.13	44.76	999.00	259.20	16.01	5.91	45.23	261.80	9.31	12.28	45.94	999.00	-1.17	999.00	-0.71	0.00
23	4	6	5	273.50	20.26	3.51	43.18	999.00	274.20	19.01	3.95	43.62	272.80	11.61	9.17	44.19	999.00	-0.82	999.00	-0.41	0.00
23	4	6	6	259.50	19.16	4.23	41.46	999.00	259.50	17.59	5.25	41.91	255.70	10.56	10.20	42.59	999.00	-1.25	999.00	-0.78	0.00
23	4	6	7	260.50	17.37	5.48	39.82	999.00	260.30	15.17	6.20	40.25	256.60	9.31	10.61	40.84	999.00	-0.95	999.00	-0.55	0.00
23	4	6	8	241.20	14.88	6.18	38.70	999.00	238.20	14.15	6.75	39.21	233.80	10.37	9.12	39.98	999.00	-1.55	999.00	-0.98	0.00
23	4	6	9	239.80	14.72	6.47	38.35	999.00	238.90	13.69	7.12	38.92	238.80	10.18	10.64	40.06	999.00	-1.79	999.00	-1.23	0.00
23	4	6	10	240.90	15.03	6.88	38.51	999.00	240.00	14.52	7.75	39.10	243.20	11.04	12.04	40.38	999.00	-1.85	999.00	-1.27	0.00
23	4	6	11	236.70	17.59	5.48	38.88	999.00	235.30	17.23	5.82	39.45	233.70	13.16	9.02	40.89	999.00	-2.13	999.00	-1.55	0.00
23	4	6	12	243.20	17.28	7.27	39.94	999.00	243.30	16.82	8.06	40.51	241.20	12.91	12.00	42.33	999.00	-2.41	999.00	-1.83	0.00
23	4	6	13	232.50	17.42	6.95	41.38	999.00	231.20	17.12	6.71	41.98	234.00	13.09	11.35	44.16	999.00	-2.87	999.00	-2.28	0.00
23	4	6	14	236.90	18.58	8.04	43.35	999.00	236.30	18.01	7.59	43.93	237.10	13.65	10.93	46.13	999.00	-2.71	999.00	-2.13	0.00
23	4	6	15	242.70	20.17	6.10	44.92	999.00	242.40	19.23	7.54	45.49	238.00	14.76	10.65	47.86	999.00	-3.01	999.00	-2.43	0.00
23	4	6	16	245.70	18.72	6.33	46.65	999.00	245.30	17.91	6.75	47.26	240.90	12.65	11.41	49.31	999.00	-2.50	999.00	-1.92	0.00
23	4	6	17	244.00	18.97	6.52	47.90	999.00	243.00	18.25	7.52	48.47	240.30	13.34	12.21	50.29	999.00	-2.38	999.00	-1.83	0.00
23	4	6	18	246.10	18.64	7.89	47.90	999.00	246.60	17.74	8.76	48.47	249.80	12.74	12.33	50.29	999.00	-1.93	999.00	-1.36	0.00
23	4	6	19	243.10	16.97	5.63	48.28	999.00	242.30	15.62	6.87	48.83	242.30	10.67	11.47	49.93	999.00	-1.58	999.00	-1.02	0.00
23	4	6	20	242.10	16.82	4.76	47.60	999.00	240.70	15.22	5.57	48.11	244.20	10.02	9.76	48.92	999.00	-1.21	999.00	-0.70	0.00
23	4	6	21	242.50	16.29	3.85	46.60	999.00	240.00	13.94	4.57	46.96	239.90	8.60	9.30	47.25	999.00	-0.52	999.00	-0.18	0.00
23	4	6	22	252.80	20.58	3.18	45.70	999.00	249.20	17.24	4.32	45.80	247.00	9.05	8.45	45.58	999.00	0.48	999.00	0.44	0.00
23	4	6	23	260.00	18.93	3.48	44.86	999.00	254.40	15.37	4.11	44.64	246.10	6.59	8.91	44.26	999.00	1.14	999.00	0.69	0.00
23	4	6	24	279.00	16.16	1.28	44.88	999.00	271.80	15.16	3.01	44.26	257.80	6.22	6.95	42.39	999.00	2.93	999.00	2.55	0.00
23	4	7	1	282.60	16.57	0.81	44.59	999.00	280.60	14.87	1.45	44.35	265.00	5.45	5.56	41.44	999.00	3.44	999.00	3.52	0.00
23	4	7	2	270.90	17.09	1.81	43.89	999.00	262.30	14.65	3.21	43.37	244.20	6.49	6.74	41.26	999.00	2.46	999.00	1.95	0.00
23	4	7	3	265.10	18.68	1.59	43.04	999.00	256.70	15.14	3.17	42.19	240.50	6.27	7.88	40.43	999.00	2.05	999.00	1.29	0.00
23	4	7	4	266.60	18.17	3.84	42.17	999.00	259.50	14.48	5.58	41.32	241.00	5.65	14.64	40.14	999.00	1.45	999.00	0.95	0.00
23	4	7	5	302.80	16.57	3.97	40.90	999.00	295.50	15.59	3.30	40.38	262.40	5.35	5.57	38.41	999.00	3.44	999.00	3.04	0.00
23	4	7	6	323.30	18.56	3.77	41.30	999.00	323.10	17.88	4.33	41.45	315.20	10.61	10.15	38.97	999.00	-0.30	999.00	0.16	0.00
23	4	7	7	342.60	17.30	3.32	39.91	999.00	342.40	16.90	3.87	40.40	338.80	12.49	7.95	41.01	999.00	-1.43	999.00	-0.92	0.00
23	4	7	8	346.20	14.07	3.90	39.91	999.00	345.90	13.42	5.04	40.40	340.30	10.27	8.81	41.01	999.00	-1.65	999.00	-1.06	0.00
23	4	7	9	15.02	10.76	11.32	38.55	999.00	15.89	9.14	11.12	39.24	7.37	9.68	18.61	40.38	999.00	-1.73	999.00	-0.94	0.00
23	4	7	10	25.89	11.96	9.61	38.43	999.00	25.77	9.97	8.99	39.25	24.07	11.66	10.36	40.06	999.00	-1.70	999.00	-0.94	0.00
23	4	7	11	57.33	15.50	6.17	36.70	999.00	55.24	15.37	6.24	37.43	58.30	12.54	12.43	38.76	999.00	-2.35	999.00	-1.59	0.00
23	4	7	12	55.19	13.34	8.77	35.99	999.00	53.25	13.18	9.14	36.69	57.21	11.45	17.26	38.18	999.00	-2.06	999.00	-1.41	0.00
23	4	7	13	51.63	11.64	12.12	36.80	999.00	49.27	11.67	12.45	37.44	50.30	9.56	19.62	38.74	999.00	-1.92	999.00	-1.28	0.00
23	4	7	14	44.88	10.94	10.61	37.25	999.00	43.12	10.99	12.30	37.97	51.53	10.35	16.87	39.38	999.00	-2.35	999.00	-1.61	0.00
23	4	7	15	65.41	11.26	8.78	37.25	999.00	63.61	10.95	9.07	37.97	55.39	8.92	23.16	39.38	999.00	-2.74	999.00	-1.94	0.00
23	4	7	16	80.10	9.82	9.62	37.75	999.00	76.10	9.54	11.44	38.55	78.60	7.19	23.65	40.63	999.00	-2.60	999.00	-1.79	0.00
23	4	7	17	94.80	8.69	14.05	38.73	999.00	95.60	8.29	12.57	39.44	102.80	6.10	22.43	41.34	999.00	-2.63	999.00	-1.91	0.00
23	4	7	18	109.90	11.37	7.06	39.69	999.00	107.90	11.08	8.32	40.46	113.10	8.32	15.43	42.38	999.00	-2.57	999.00	-1.88	0.00
23	4	7	19	118.30	12.60	6.03	40.01	999.00	116.80	12.09	6.67	40.61	127.70	7.56	14.26	42.40	999.00	-2.20	999.00	-1.60	0.00
23	4	7	20	119.90	12.35	4.28	39.45	999.00	116.20	12.06	5.02	40.02	130.20	7.78	13.71	41.31	999.00	-1.71	999.00	-1.15	0.00
23	4	7	21	114.70	13.46	4.57	39.35	999.00	111.00	13.31	5.83	39.89	119.90	7.33	13.92	40.85	999.00	-1.51	999.00	-0.97	0.00
23	4	7	22	107.20	14.93	5.57	38.89	999.00	104.30	14.52	5.63	39.42	110.90	8.57	13.02	40.40	999.00	-1.51	999.00	-0.98	0.00
23	4	7	23	100.30	15.38	4.16	38.97	999.00	95.50	14.92	4.81	39.50	99.20	8.18	13.53	40.38	999.00	-1.37	999.00	-0.86	0.00
23	4	7	24	102.80	15.02	4.15	38.76	999.00	100.00	14.37	5.22	39.30	104.20	8.04	13.79	40.24	999.00	-1.47	999.00	-0.93	0.00
23	4	8	1	100.80	14.90	5.09	38.20	999.00	98.60	14.56	6.36	38.74	108.50	8.47	14.06	39.64	999.00	-1.43	999.00	-0.91	0.00
23	4	8	2	100.70	15.64	4.14	37.36	999.00	98.50	14.96	5.30	37.89	105.50	8.23	13.82	38.83	999.00	-1.48	999.00	-0.94	0.00
23	4	8	3	110.30	15.26	3.47	36.90	999.00	107.10	14.98	3.78	37.43	110.70	8.27	11.89	38.36	999.00	-1.49	999.00	-0.98	0.00
23	4	8	4	112.80	13.46	5.27	36.94	999.00	110.10	13.00	6.28	37.47	113.30	7.28	13.16	38.37	999.00	-1.39	999.00	-0.87	0.00

23	4	8	5	108.40	11.81	5.92	36.58	999.00	108.30	9.94	8.29	36.94	133.00	4.43	12.55	37.33	999.00	-0.64	999.00	-0.25	0.00
23	4	8	6	104.90	12.20	8.48	35.81	999.00	108.00	10.75	8.70	36.07	133.10	4.56	12.58	36.48	999.00	-0.34	999.00	-0.08	0.00
23	4	8	7	99.60	13.70	6.67	36.03	999.00	96.60	12.62	7.47	36.52	108.00	7.39	13.68	37.24	999.00	-1.30	999.00	-0.79	0.00
23	4	8	8	104.00	14.50	6.26	36.09	999.00	101.00	13.98	6.57	36.65	109.50	8.41	14.39	37.60	999.00	-1.67	999.00	-1.07	0.00
23	4	8	9	101.80	14.42	6.35	36.27	999.00	99.10	13.87	7.51	36.89	107.80	8.00	15.42	38.31	999.00	-2.29	999.00	-1.60	0.00
23	4	8	10	114.30	16.52	5.73	36.63	999.00	111.40	15.91	6.55	37.26	118.50	10.57	14.04	39.28	999.00	-2.90	999.00	-2.25	0.00
23	4	8	11	119.30	18.88	5.59	36.96	999.00	115.00	18.90	6.09	37.60	130.50	11.94	14.28	39.92	999.00	-2.86	999.00	-2.27	0.00
23	4	8	12	96.90	15.10	5.03	38.30	999.00	92.60	14.55	7.01	39.01	98.50	9.79	17.46	41.42	999.00	-3.04	999.00	-2.30	0.00
23	4	8	13	80.40	12.11	6.50	39.53	999.00	72.50	12.14	6.00	40.36	74.50	9.94	14.42	42.44	999.00	-2.81	999.00	-1.97	0.00
23	4	8	14	83.20	13.03	7.38	40.69	999.00	76.50	13.04	8.04	41.44	79.90	9.71	14.57	43.65	999.00	-2.94	999.00	-2.16	0.00
23	4	8	15	79.70	12.39	6.65	42.22	999.00	73.20	12.40	5.73	43.02	77.30	10.19	14.68	45.21	999.00	-2.74	999.00	-2.06	0.00
23	4	8	16	46.77	15.96	5.50	42.31	999.00	42.85	15.37	7.30	42.98	44.94	12.03	12.38	44.83	999.00	-2.70	999.00	-2.03	0.00
23	4	8	17	50.91	18.61	5.17	40.39	999.00	46.38	18.00	5.74	41.02	44.61	14.13	11.91	43.01	999.00	-2.63	999.00	-2.06	0.00
23	4	8	18	60.48	14.54	5.80	40.35	999.00	55.70	14.22	6.63	41.11	56.64	11.06	12.04	42.76	999.00	-2.44	999.00	-1.57	0.00
23	4	8	19	63.93	13.27	5.60	40.77	999.00	59.64	12.97	6.50	41.52	65.95	8.80	12.13	43.03	999.00	-2.15	999.00	-1.45	0.00
23	4	8	20	79.30	13.83	4.22	40.70	999.00	77.70	13.56	4.39	41.35	80.60	9.15	12.81	42.58	999.00	-1.79	999.00	-1.22	0.00
23	4	8	21	90.20	15.09	3.89	40.70	999.00	86.60	14.81	4.56	41.35	94.30	8.62	13.97	42.58	999.00	-1.51	999.00	-0.99	0.00
23	4	8	22	91.90	13.38	4.03	39.13	999.00	90.20	12.85	4.66	39.63	97.40	6.82	13.25	40.51	999.00	-1.30	999.00	-0.81	0.00
23	4	8	23	96.70	13.95	4.06	39.45	999.00	94.30	13.32	4.66	39.94	100.70	7.87	13.31	40.74	999.00	-1.27	999.00	-0.80	0.00
23	4	8	24	100.80	13.86	3.67	40.00	999.00	98.40	12.75	4.30	40.42	105.50	7.01	11.16	41.18	999.00	-1.10	999.00	-0.72	0.00
23	4	9	1	109.10	13.59	2.23	40.31	999.00	106.40	12.58	3.02	40.71	111.80	6.95	13.04	41.41	999.00	-1.00	999.00	-0.63	0.00
23	4	9	2	106.40	12.08	3.73	41.01	999.00	104.10	10.11	5.32	41.23	119.00	4.24	11.42	41.51	999.00	-0.40	999.00	-0.14	0.00
23	4	9	3	114.10	12.14	2.19	41.74	999.00	112.00	9.96	2.55	41.80	140.90	3.43	9.86	41.09	999.00	1.01	999.00	0.94	0.00
23	4	9	4	118.00	10.87	0.83	42.25	999.00	122.40	11.62	1.46	42.24	143.20	2.51	10.18	41.14	999.00	1.34	999.00	1.31	0.00
23	4	9	5	116.00	12.30	1.51	42.46	999.00	109.10	10.38	1.50	42.29	130.20	3.53	8.00	41.14	999.00	1.52	999.00	1.35	0.00
23	4	9	6	113.90	8.34	1.88	42.48	999.00	105.20	7.28	1.75	42.42	122.60	2.01	10.65	41.29	999.00	0.78	999.00	0.95	0.00
23	4	9	7	98.30	6.50	2.43	41.76	999.00	89.40	6.10	1.81	42.04	9.83	0.93	26.66	40.37	999.00	1.43	999.00	1.70	0.00
23	4	9	8	96.70	6.83	4.97	41.93	999.00	84.80	6.46	3.52	42.25	88.50	2.86	8.01	41.67	999.00	-0.56	999.00	-0.16	0.00
23	4	9	9	101.90	6.98	9.46	42.37	999.00	95.20	6.34	10.36	43.06	96.90	4.95	24.00	44.07	999.00	-2.06	999.00	-1.29	0.00
23	4	9	10	101.90	6.54	9.55	42.90	999.00	89.60	6.55	10.76	43.73	85.90	5.67	18.23	45.22	999.00	-2.49	999.00	-1.71	0.00
23	4	9	11	91.30	6.35	8.81	43.89	999.00	75.50	6.58	9.11	44.66	69.46	5.90	13.73	46.18	999.00	-2.03	999.00	-1.30	0.00
23	4	9	12	77.10	6.86	9.00	45.44	999.00	65.83	7.16	10.44	45.87	72.10	6.60	16.67	47.11	999.00	-1.96	999.00	-1.19	0.00
23	4	9	13	64.31	8.69	7.50	46.10	999.00	55.03	9.01	7.26	46.99	49.30	8.72	10.93	48.09	999.00	-2.00	999.00	-1.19	0.00
23	4	9	14	72.70	9.69	7.36	46.58	999.00	67.60	9.82	8.84	47.32	63.09	8.91	14.39	48.83	999.00	-2.84	999.00	-2.00	0.00
23	4	9	15	79.70	14.75	3.38	47.09	999.00	72.10	13.93	3.96	47.35	79.00	10.18	10.90	49.13	999.00	-1.39	999.00	-1.61	0.00
23	4	9	16	95.00	13.51	2.51	48.71	999.00	87.00	11.92	5.40	48.14	79.30	8.97	12.06	49.77	999.00	-0.88	999.00	-1.63	0.00
23	4	9	17	87.90	12.19	2.24	50.39	999.00	81.40	12.13	3.46	49.50	79.70	7.49	12.29	51.14	999.00	-0.06	999.00	-1.45	0.00
23	4	9	18	90.60	14.39	1.77	50.90	999.00	83.70	14.39	3.66	49.44	77.50	9.12	10.84	50.36	999.00	0.23	999.00	-0.97	0.00
23	4	9	19	87.10	15.50	1.40	50.12	999.00	83.50	14.22	3.59	49.22	84.00	7.98	13.36	50.45	999.00	-0.49	999.00	-1.15	0.00
23	4	9	20	98.20	14.29	1.04	49.17	999.00	93.00	12.16	3.96	47.97	96.20	4.70	13.74	48.39	999.00	1.80	999.00	-0.14	0.00
23	4	9	21	97.60	15.66	1.33	49.09	999.00	90.70	14.09	3.44	46.95	93.30	6.24	10.89	46.17	999.00	2.96	999.00	0.48	0.00
23	4	9	22	96.20	16.57	1.59	48.15	999.00	97.60	15.11	3.81	45.85	102.70	7.15	10.23	45.53	999.00	2.67	999.00	0.16	0.00
23	4	9	23	113.90	16.77	2.36	47.44	999.00	114.20	13.90	3.22	45.36	123.50	5.82	14.14	45.33	999.00	0.37	999.00	-0.27	0.00
23	4	9	24	118.80	18.64	0.56	47.27	999.00	121.00	15.69	1.29	45.57	134.30	5.89	11.40	45.13	999.00	2.56	999.00	1.04	0.00
23	4	10	1	127.80	17.20	0.69	48.04	999.00	129.40	15.36	2.09	46.02	137.90	5.25	10.83	44.77	999.00	3.77	999.00	1.38	0.00
23	4	10	2	138.20	17.53	1.85	47.92	999.00	142.20	13.80	2.23	45.79	157.80	4.11	12.84	44.58	999.00	3.14	999.00	1.31	0.00
23	4	10	3	138.80	17.08	3.44	47.05	999.00	140.90	13.34	4.31	45.40	136.10	4.49	10.11	43.62	999.00	3.60	999.00	1.47	0.00
23	4	10	4	148.90	10.04	3.21	44.80	999.00	154.30	5.43	7.92	43.95	298.30	3.15	14.97	42.29	999.00	3.48	999.00	2.64	0.00
23	4	10	5	187.90	4.60	10.39	43.77	999.00	222.30	3.50	12.37	43.22	296.80	4.50	4.67	40.74	999.00	2.90	999.00	2.29	0.00
23	4	10	6	177.60	7.31	4.36	44.68	999.00	185.00	5.02	8.91	43.87	268.10	1.84	13.50	41.06	999.00	3.54	999.00	2.86	0.00
23	4	10	7	168.00	8.04	2.12	44.66	999.00	164.60	5.27	3.46	43.84	160.00	2.14	16.33	40.98	999.00	4.16	999.00	3.17	0.00
23	4	10	8	199.10	8.82	2.86	44.52	999.00	191.70	6.84	2.87	44.53	200.40	2.05	12.42	41.33	999.00	2.29	999.00	2.51	0.00
23	4	10	9	193.50	12.58	2.31	44.66	999.00	185.70	8.01	5.26	44.34	175.40	4.71	15.61	43.64	999.00	0.73	999.00	-0.56	0.00

23	4	10	10	194.60	6.82	6.43	46.05	999.00	192.50	6.17	8.82	46.50	182.20	5.20	15.02	47.58	999.00	-2.20	999.00	-1.30	0.00
23	4	10	11	197.40	3.88	33.09	49.91	999.00	206.90	3.78	32.00	50.72	240.40	3.58	24.31	52.35	999.00	-2.36	999.00	-1.49	0.00
23	4	10	12	257.90	2.16	76.40	53.70	999.00	61.70	3.48	62.07	54.44	37.72	6.19	14.35	54.69	999.00	1.40	999.00	1.57	0.00
23	4	10	13	50.87	5.10	12.71	53.81	999.00	51.25	6.70	10.87	53.24	54.29	7.12	14.61	53.02	999.00	1.32	999.00	-0.18	0.00
23	4	10	14	69.47	7.38	5.58	54.85	999.00	60.01	7.90	5.52	54.28	84.80	8.25	10.73	54.70	999.00	0.59	999.00	0.55	0.00
23	4	10	15	47.85	7.06	5.93	56.05	999.00	45.79	7.34	6.53	56.09	55.40	6.88	15.52	56.72	999.00	-0.08	999.00	-0.42	0.00
23	4	10	16	64.88	7.76	4.84	56.05	999.00	56.40	7.70	9.25	56.09	47.17	7.40	12.48	56.72	999.00	-1.06	999.00	-1.13	0.00
23	4	10	17	74.50	8.33	10.59	56.10	999.00	71.10	9.99	9.32	55.04	66.47	7.73	18.43	55.63	999.00	1.46	999.00	-0.29	0.00
23	4	10	18	105.20	8.52	2.69	57.40	999.00	97.00	10.30	3.26	56.27	105.30	5.57	17.59	56.06	999.00	1.68	999.00	0.82	0.00
23	4	10	19	116.70	8.92	2.83	57.97	999.00	108.30	10.24	4.01	57.04	106.30	5.81	15.17	56.51	999.00	1.34	999.00	0.54	0.00
23	4	10	20	140.50	8.50	7.00	58.52	999.00	129.80	8.46	2.19	57.89	116.10	4.01	14.31	56.35	999.00	3.48	999.00	2.72	0.00
23	4	10	21	163.10	7.53	3.52	59.88	999.00	136.80	8.44	3.02	58.34	111.90	5.41	6.65	54.01	999.00	6.58	999.00	5.12	0.00
23	4	10	22	223.10	7.44	3.73	60.46	999.00	200.70	5.93	5.20	60.18	109.80	4.31	9.10	52.78	999.00	7.97	999.00	7.97	0.00
23	4	10	23	224.60	9.55	2.76	60.46	999.00	217.90	8.59	1.81	60.18	164.20	3.16	6.06	52.78	999.00	999.00	999.00	7.97	0.00
23	4	10	24	230.70	10.82	1.49	999.00	999.00	221.60	9.72	2.00	999.00	171.10	3.22	5.48	52.20	999.00	999.00	999.00	7.97	0.00
23	4	11	1	223.60	14.16	1.48	999.00	999.00	212.90	13.21	2.07	60.23	184.40	4.93	4.86	52.42	999.00	999.00	999.00	7.96	0.00
23	4	11	2	230.90	19.00	1.54	999.00	999.00	217.20	16.66	1.34	59.45	194.80	4.62	6.87	51.59	999.00	999.00	999.00	7.89	0.00
23	4	11	3	244.10	20.18	1.90	999.00	999.00	230.80	16.41	1.99	57.78	223.60	4.54	8.16	50.52	999.00	999.00	999.00	6.41	0.00
23	4	11	4	242.70	20.30	1.83	999.00	999.00	230.30	18.52	1.81	56.76	204.00	5.51	7.33	50.13	999.00	999.00	999.00	6.87	0.00
23	4	11	5	239.10	21.72	1.20	999.00	999.00	224.70	17.90	1.19	55.55	198.30	5.84	7.85	49.13	999.00	999.00	999.00	5.61	0.00
23	4	11	6	241.30	22.54	1.33	999.00	999.00	226.50	18.59	1.82	54.62	208.10	5.84	7.91	48.75	999.00	999.00	999.00	5.38	0.00
23	4	11	7	244.00	23.99	1.52	55.90	999.00	230.50	18.21	1.74	53.17	214.30	6.49	7.44	48.15	999.00	7.97	999.00	4.79	0.00
23	4	11	8	233.80	24.80	2.03	55.13	999.00	224.30	19.48	2.61	51.72	209.20	7.74	9.32	47.84	999.00	5.93	999.00	2.86	0.00
23	4	11	9	231.90	20.04	3.06	53.32	999.00	227.30	15.74	3.96	51.64	220.60	8.53	8.93	50.83	999.00	0.70	999.00	-0.16	0.00
23	4	11	10	238.50	18.21	4.20	53.32	999.00	234.80	17.33	4.18	51.64	233.90	12.50	8.92	50.83	999.00	-1.85	999.00	-1.49	0.00
23	4	11	11	247.40	20.28	5.93	60.40	999.00	245.50	18.52	7.47	60.92	242.90	13.18	11.30	62.70	999.00	-2.64	999.00	-2.04	0.00
23	4	11	12	248.90	21.87	6.32	63.36	999.00	246.80	20.94	6.56	63.98	245.90	15.20	13.68	66.09	999.00	-2.79	999.00	-2.18	0.00
23	4	11	13	246.50	19.64	9.23	66.21	999.00	245.70	18.71	9.05	66.89	243.70	13.97	13.38	69.25	999.00	-3.14	999.00	-2.51	0.00
23	4	11	14	250.10	22.65	10.34	67.99	999.00	248.70	21.50	10.55	68.59	242.00	15.92	14.38	71.00	999.00	-2.95	999.00	-2.33	0.00
23	4	11	15	249.00	19.51	13.21	69.04	999.00	248.20	18.55	13.65	69.65	245.20	13.63	19.30	71.95	999.00	-2.68	999.00	-2.03	0.00
23	4	11	16	249.00	22.52	9.29	69.92	999.00	248.20	21.06	10.80	70.50	238.00	14.47	12.45	72.63	999.00	-2.86	999.00	-2.23	0.00
23	4	11	17	241.20	20.76	7.01	70.53	999.00	239.90	19.72	8.05	71.08	242.60	12.72	11.43	72.88	999.00	-2.41	999.00	-1.89	0.00
23	4	11	18	237.20	22.09	5.85	70.92	999.00	236.50	21.03	6.62	71.43	241.00	14.51	11.29	72.93	999.00	-1.79	999.00	-1.23	0.00
23	4	11	19	234.20	20.58	4.19	70.75	999.00	232.00	19.33	4.11	71.24	233.50	11.65	9.22	71.50	999.00	0.05	999.00	0.51	0.00
23	4	11	20	234.50	19.62	2.71	70.27	999.00	232.40	17.60	3.06	70.63	232.80	9.01	8.04	70.02	999.00	1.30	999.00	1.55	0.00
23	4	11	21	228.30	21.69	2.03	69.42	999.00	225.00	18.66	2.29	69.37	220.70	8.17	7.89	67.40	999.00	2.38	999.00	2.19	0.00
23	4	11	22	229.40	20.21	1.69	68.32	999.00	224.00	16.63	1.96	67.98	219.40	6.19	9.09	65.58	999.00	2.78	999.00	2.16	0.00
23	4	11	23	228.80	20.82	1.71	66.92	999.00	224.20	17.18	2.02	66.22	220.20	6.69	8.66	63.99	999.00	2.68	999.00	2.05	0.00
23	4	11	24	223.00	21.67	1.65	65.34	999.00	217.80	18.50	1.75	64.88	215.80	7.40	8.58	62.83	999.00	2.43	999.00	2.11	0.00
23	4	12	1	228.70	21.26	1.83	63.85	999.00	223.90	17.55	2.03	63.39	218.20	7.46	8.40	61.49	999.00	2.42	999.00	1.80	0.00
23	4	12	2	231.90	22.09	2.89	63.15	999.00	229.10	18.48	3.61	62.80	220.10	7.51	7.85	60.72	999.00	2.11	999.00	1.93	0.00
23	4	12	3	235.60	24.67	2.57	63.15	999.00	232.40	21.12	3.09	62.80	231.30	10.99	7.96	60.72	999.00	1.23	999.00	1.08	0.00
23	4	12	4	236.30	24.94	3.01	60.66	999.00	231.90	21.43	3.40	60.47	227.20	11.74	6.74	59.56	999.00	1.02	999.00	0.81	0.00
23	4	12	5	234.20	24.60	2.88	59.51	999.00	230.50	21.61	3.04	59.39	225.10	12.12	7.22	58.66	999.00	0.71	999.00	0.68	0.00
23	4	12	6	239.80	24.40	2.60	58.65	999.00	235.20	21.15	2.84	58.39	226.80	11.81	6.69	57.65	999.00	1.30	999.00	0.90	0.00
23	4	12	7	240.50	25.71	2.98	58.26	999.00	237.00	21.85	3.43	57.93	229.20	12.77	7.33	56.95	999.00	1.21	999.00	0.94	0.00
23	4	12	8	239.80	25.94	3.69	57.69	999.00	236.30	22.72	3.55	57.44	230.70	14.08	8.36	56.84	999.00	0.37	999.00	0.26	0.00
23	4	12	9	242.60	24.75	5.39	58.50	999.00	239.50	22.32	5.76	58.56	234.10	14.56	8.35	58.91	999.00	-0.97	999.00	-0.71	0.00
23	4	12	10	247.10	23.20	5.44	60.78	999.00	245.00	20.77	6.37	61.26	244.70	14.95	10.61	62.86	999.00	-2.49	999.00	-1.92	0.00
23	4	12	11	245.60	21.47	7.29	60.78	999.00	243.70	20.49	7.17	61.26	242.00	15.66	11.83	62.86	999.00	-2.56	999.00	-1.97	0.00
23	4	12	12	243.00	22.09	5.71	68.26	999.00	241.30	21.14	6.52	68.84	240.30	14.89	10.83	70.86	999.00	-2.75	999.00	-2.13	0.00
23	4	12	13	235.20	25.62	4.83	71.09	999.00	234.90	24.82	5.62	71.65	238.10	17.74	10.73	73.78	999.00	-2.76	999.00	-2.19	0.00
23	4	12	14	244.60	25.87	9.41	72.76	999.00	244.30	24.77	9.90	73.35	235.40	17.12	11.48	75.60	999.00	-2.80	999.00	-2.21	0.00

23	4	12	15	241.60	29.27	5.81	73.77	999.00	242.10	27.70	6.79	74.36	236.40	18.90	11.22	76.63	999.00	-2.87	999.00	-2.27	0.00
23	4	12	16	239.20	29.27	6.33	74.69	999.00	238.80	27.79	6.24	75.30	242.20	20.07	12.02	77.45	999.00	-2.41	999.00	-1.85	0.00
23	4	12	17	234.20	26.09	7.92	75.45	999.00	234.20	24.99	9.40	76.01	240.50	17.52	11.14	77.90	999.00	-1.99	999.00	-1.54	0.00
23	4	12	18	242.10	27.45	7.04	76.01	999.00	241.30	25.71	8.08	76.50	243.90	17.16	11.07	77.88	999.00	-1.88	999.00	-1.30	0.00
23	4	12	19	238.30	23.51	6.17	76.16	999.00	237.50	22.25	6.73	76.62	243.50	14.94	10.80	77.63	999.00	-1.13	999.00	-0.77	0.00
23	4	12	20	235.20	21.60	3.24	75.59	999.00	232.90	19.91	3.52	75.98	236.80	11.69	8.49	75.78	999.00	0.84	999.00	1.21	0.00
23	4	12	21	231.70	22.42	2.68	73.89	999.00	229.00	19.16	3.01	73.95	229.00	9.91	6.44	72.18	999.00	2.03	999.00	1.93	0.00
23	4	12	22	225.20	24.00	1.59	72.59	999.00	219.50	20.78	1.98	72.32	214.10	7.53	10.35	69.82	999.00	3.40	999.00	3.02	0.00
23	4	12	23	219.10	24.81	2.19	70.36	999.00	215.90	20.59	2.68	69.92	210.60	7.61	10.35	67.57	999.00	2.75	999.00	2.40	0.00
23	4	12	24	223.70	26.68	2.23	68.97	999.00	219.80	22.39	3.45	68.46	217.60	10.39	9.54	66.37	999.00	2.02	999.00	1.52	0.00
23	4	13	1	227.70	24.56	2.48	67.32	999.00	223.80	21.10	2.70	67.06	220.00	10.36	8.42	65.45	999.00	1.94	999.00	1.64	0.00
23	4	13	2	233.50	25.30	3.29	66.13	999.00	232.10	21.16	3.58	65.85	229.10	11.00	6.67	64.25	999.00	1.88	999.00	1.70	0.00
23	4	13	3	233.80	23.32	2.95	64.64	999.00	230.70	18.98	3.55	64.41	224.60	8.49	8.15	62.93	999.00	1.92	999.00	1.62	0.00
23	4	13	4	238.00	24.86	2.75	63.03	999.00	233.60	20.81	3.35	62.73	226.60	10.42	6.97	61.33	999.00	1.83	999.00	1.41	0.00
23	4	13	5	233.60	23.82	2.48	62.26	999.00	229.90	19.98	2.91	61.78	225.50	11.41	6.42	60.46	999.00	1.49	999.00	1.14	0.00
23	4	13	6	232.70	23.66	2.66	61.29	999.00	228.50	19.05	3.06	60.83	215.40	8.03	8.45	59.22	999.00	2.48	999.00	1.86	0.00
23	4	13	7	236.40	23.72	2.56	61.21	999.00	230.70	19.22	3.24	60.45	221.60	8.28	8.30	58.34	999.00	2.70	999.00	1.93	0.00
23	4	13	8	231.40	20.14	1.96	60.90	999.00	220.90	16.88	2.26	60.15	201.20	6.20	11.30	57.66	999.00	2.65	999.00	1.78	0.00
23	4	13	9	234.70	18.31	4.11	61.29	999.00	228.70	15.85	4.34	60.83	223.20	9.51	9.59	60.88	999.00	-0.88	999.00	-0.85	0.00
23	4	13	10	245.30	15.34	5.71	64.29	999.00	242.60	14.08	6.98	64.56	237.20	10.04	11.29	65.92	999.00	-2.21	999.00	-1.71	0.00
23	4	13	11	237.50	12.55	5.47	67.57	999.00	237.30	12.12	6.01	68.17	232.50	9.59	9.92	70.24	999.00	-2.74	999.00	-2.12	0.00
23	4	13	12	229.60	14.88	5.88	70.30	999.00	228.60	14.64	6.46	70.87	232.80	11.29	8.92	73.15	999.00	-2.98	999.00	-2.42	0.00
23	4	13	13	226.60	16.14	9.90	72.64	999.00	226.10	15.38	9.74	73.23	234.40	12.12	11.51	75.60	999.00	-3.26	999.00	-2.66	0.00
23	4	13	14	213.20	18.11	10.32	74.03	999.00	213.00	17.28	11.10	74.62	224.70	12.27	16.14	77.20	999.00	-3.04	999.00	-2.46	0.00
23	4	13	15	217.00	17.27	10.13	74.03	999.00	216.00	16.24	10.40	74.62	218.80	12.44	12.04	77.20	999.00	-3.32	999.00	-2.77	0.00
23	4	13	16	227.80	16.84	8.08	75.99	999.00	227.00	16.35	7.98	76.60	228.60	12.02	12.20	78.88	999.00	-2.47	999.00	-1.93	0.00
23	4	13	17	216.70	16.28	11.88	77.08	999.00	216.90	15.31	12.57	77.59	231.20	11.14	15.47	79.60	999.00	-2.56	999.00	-2.10	0.00
23	4	13	18	203.90	15.76	10.61	77.84	999.00	202.90	15.24	10.43	78.36	210.30	9.56	22.23	80.03	999.00	-2.22	999.00	-1.59	0.00
23	4	13	19	215.40	14.32	5.26	77.95	999.00	215.10	13.79	5.73	78.42	218.70	8.79	10.82	79.70	999.00	-1.38	999.00	-1.01	0.00
23	4	13	20	205.70	11.32	3.33	77.45	999.00	204.00	10.30	3.39	77.88	201.50	4.50	11.03	77.97	999.00	0.14	999.00	0.55	0.00
23	4	13	21	198.70	14.83	1.96	76.38	999.00	194.80	13.57	2.32	76.61	180.70	4.61	7.18	74.55	999.00	2.86	999.00	2.94	0.00
23	4	13	22	201.70	14.94	1.12	75.75	999.00	196.10	11.56	0.84	75.05	191.00	2.81	9.39	71.75	999.00	4.65	999.00	3.52	0.00
23	4	13	23	192.70	13.40	3.73	75.75	999.00	186.20	11.60	3.27	75.05	176.90	2.57	7.68	71.75	999.00	4.46	999.00	3.73	0.00
23	4	13	24	201.30	12.89	2.07	74.77	999.00	196.00	13.60	1.73	74.20	177.80	2.66	5.84	68.71	999.00	7.08	999.00	6.55	0.00
23	4	14	1	207.80	14.56	1.87	74.03	999.00	203.70	14.22	1.56	73.40	190.30	3.14	7.79	66.83	999.00	7.46	999.00	6.74	0.00
23	4	14	2	219.90	13.64	2.12	73.24	999.00	209.80	12.06	2.86	72.70	179.10	4.28	5.42	65.17	999.00	999.00	999.00	7.73	0.00
23	4	14	3	226.50	10.89	3.68	999.00	999.00	218.30	10.59	2.33	72.09	176.40	3.05	9.35	63.92	999.00	999.00	999.00	7.97	0.00
23	4	14	4	234.70	8.82	2.01	999.00	999.00	221.60	10.16	2.95	999.00	176.80	4.05	3.54	62.60	999.00	999.00	999.00	7.97	0.00
23	4	14	5	260.30	8.11	1.86	999.00	999.00	237.00	8.67	2.40	999.00	199.80	3.28	8.77	62.60	999.00	999.00	999.00	7.97	0.00
23	4	14	6	239.20	6.53	2.47	999.00	999.00	228.10	7.60	1.89	999.00	184.60	4.38	7.11	60.01	999.00	999.00	999.00	7.97	0.00
23	4	14	7	234.80	5.30	5.69	999.00	999.00	204.70	8.04	4.55	999.00	176.90	3.31	8.07	58.40	999.00	999.00	999.00	7.97	0.00
23	4	14	8	198.60	8.26	2.42	999.00	999.00	191.90	11.24	2.60	999.00	183.60	2.60	7.58	57.10	999.00	999.00	999.00	7.97	0.00
23	4	14	9	205.40	3.93	9.78	68.52	999.00	203.00	5.09	6.29	68.39	236.40	2.19	20.77	59.62	999.00	7.18	999.00	7.04	0.00
23	4	14	10	143.90	1.03	46.25	69.16	999.00	226.40	2.31	19.80	68.67	243.20	2.70	40.33	66.94	999.00	-0.45	999.00	-0.60	0.00
23	4	14	11	71.90	2.90	9.44	69.16	999.00	56.93	3.48	9.93	68.67	21.62	4.36	9.82	66.94	999.00	1.66	999.00	3.83	0.00
23	4	14	12	93.50	6.07	5.62	70.05	999.00	69.21	5.61	8.92	70.10	27.96	5.33	11.30	70.25	999.00	0.65	999.00	0.72	0.00
23	4	14	13	63.30	7.67	4.39	69.45	999.00	34.66	5.79	6.06	68.97	20.49	6.99	5.77	68.01	999.00	2.92	999.00	1.85	0.00
23	4	14	14	81.10	8.26	3.63	70.55	999.00	68.03	7.43	4.77	69.70	38.93	6.62	10.65	68.46	999.00	1.70	999.00	0.46	0.00
23	4	14	15	65.51	9.21	4.17	72.42	999.00	64.10	8.47	8.01	70.78	37.15	7.02	12.82	70.38	999.00	1.98	999.00	0.24	0.00
23	4	14	16	44.25	11.69	2.01	73.05	999.00	45.71	11.85	2.31	72.56	45.95	7.77	8.17	69.81	999.00	2.76	999.00	2.29	0.00
23	4	14	17	56.15	13.47	2.61	73.06	999.00	56.22	12.63	5.43	72.45	50.10	7.74	11.58	71.82	999.00	1.06	999.00	0.53	0.00
23	4	14	18	41.83	17.00	2.01	73.31	999.00	41.26	17.32	2.16	73.23	46.11	9.76	11.13	69.05	999.00	4.15	999.00	4.16	0.00
23	4	14	19	69.83	17.15	13.26	73.26	999.00	72.80	17.05	14.46	72.96	70.10	7.40	17.54	68.90	999.00	4.16	999.00	3.27	0.00

23	4	14	20	124.40	13.87	7.31	68.21	999.00	124.90	11.80	9.29	67.73	145.20	5.68	12.49	66.44	999.00	-0.56	999.00	-0.39	0.00
23	4	14	21	117.50	18.66	1.44	68.02	999.00	119.80	15.32	1.57	67.28	121.90	3.84	13.23	65.32	999.00	4.22	999.00	3.36	0.00
23	4	14	22	113.90	19.09	0.49	70.21	999.00	113.80	15.27	1.45	68.85	105.20	3.75	14.54	64.76	999.00	6.41	999.00	4.23	0.00
23	4	14	23	143.80	14.86	2.87	70.97	999.00	142.30	12.36	2.88	69.67	149.20	1.86	14.11	63.36	999.00	7.95	999.00	6.70	0.00
23	4	14	24	155.10	14.72	4.40	71.50	999.00	158.00	12.76	6.32	70.72	145.90	1.97	17.91	63.66	999.00	7.61	999.00	6.53	0.00
23	4	15	1	202.60	14.64	3.37	70.76	999.00	198.30	13.45	3.68	70.33	172.90	2.81	16.29	63.55	999.00	5.97	999.00	5.75	0.00
23	4	15	2	209.50	14.26	1.07	71.35	999.00	208.00	14.17	1.02	70.78	217.90	4.23	4.35	64.86	999.00	6.71	999.00	6.45	0.00
23	4	15	3	214.40	15.25	1.92	70.75	999.00	213.50	15.74	0.97	70.66	223.00	4.67	7.17	63.91	999.00	6.77	999.00	6.51	0.00
23	4	15	4	213.90	16.42	1.57	69.71	999.00	217.70	11.61	3.51	67.84	212.50	3.68	12.11	63.79	999.00	5.19	999.00	2.90	0.00
23	4	15	5	210.90	18.04	3.24	66.23	999.00	210.10	13.63	3.11	64.91	209.90	3.66	11.74	61.75	999.00	2.90	999.00	2.31	0.00
23	4	15	6	208.80	15.32	1.75	64.48	999.00	206.70	11.56	2.48	63.37	198.10	3.27	14.26	61.51	999.00	1.88	999.00	1.32	0.00
23	4	15	7	234.10	7.89	12.90	62.34	999.00	239.50	4.89	19.03	61.87	273.90	2.67	70.90	61.01	999.00	1.01	999.00	0.75	0.00
23	4	15	8	176.30	6.72	23.12	61.58	999.00	159.60	6.04	23.15	61.22	125.20	3.65	18.95	60.38	999.00	0.31	999.00	0.10	0.00
23	4	15	9	186.70	10.12	6.33	60.19	999.00	177.30	8.40	6.19	60.09	177.30	4.49	12.85	60.31	999.00	-1.25	999.00	-0.93	0.00
23	4	15	10	186.30	8.81	5.97	60.84	999.00	181.20	8.13	7.22	61.48	183.90	6.15	13.33	62.54	999.00	-2.05	999.00	-1.12	0.00
23	4	15	11	219.40	9.67	3.54	60.84	999.00	219.70	9.53	4.20	61.48	226.80	8.33	10.91	62.54	999.00	-2.98	999.00	-2.37	0.00
23	4	15	12	242.60	6.61	20.33	69.64	999.00	239.70	6.64	20.98	70.36	238.70	5.39	19.41	72.47	999.00	-2.93	999.00	-2.15	0.00
23	4	15	13	26.54	4.90	16.90	73.66	999.00	23.06	4.48	11.55	74.31	27.96	6.34	11.25	74.93	999.00	0.76	999.00	1.14	0.00
23	4	15	14	45.59	6.94	7.65	73.49	999.00	47.24	7.35	7.89	73.71	51.33	6.22	12.43	73.57	999.00	-0.60	999.00	-0.52	0.00
23	4	15	15	57.36	7.69	6.38	73.48	999.00	56.56	7.82	7.01	73.78	55.87	7.26	13.00	74.55	999.00	-0.84	999.00	-0.63	0.00
23	4	15	16	74.00	9.67	4.98	73.52	999.00	69.87	9.43	5.87	73.95	58.37	8.05	13.83	75.15	999.00	-2.66	999.00	-1.84	0.00
23	4	15	17	64.38	8.48	5.05	74.55	999.00	61.65	8.25	5.63	75.02	80.80	5.99	13.14	75.35	999.00	-0.66	999.00	-0.18	0.00
23	4	15	18	85.50	10.27	3.64	74.00	999.00	86.80	10.72	3.96	73.29	97.40	3.76	15.63	73.03	999.00	1.67	999.00	1.48	0.00
23	4	15	19	249.30	12.78	6.63	72.92	999.00	245.60	11.11	7.34	73.18	235.20	6.95	9.50	72.25	999.00	-0.34	999.00	-0.03	0.00
23	4	15	20	279.20	7.16	7.14	73.70	999.00	280.60	5.60	9.64	73.74	284.80	0.55	76.50	72.92	999.00	0.44	999.00	0.71	0.00
23	4	15	21	290.70	2.73	14.13	73.89	999.00	297.20	1.93	69.30	74.02	24.76	2.85	39.35	72.05	999.00	2.82	999.00	2.61	0.00
23	4	15	22	183.80	4.16	4.24	73.04	999.00	170.30	5.17	3.74	72.87	161.40	3.96	7.85	69.59	999.00	3.43	999.00	3.14	0.00
23	4	15	23	155.90	10.24	1.27	73.45	999.00	154.10	12.32	2.15	72.92	153.70	2.59	9.45	68.53	999.00	5.62	999.00	4.51	0.00
23	4	15	24	165.60	13.49	0.99	73.69	999.00	163.10	13.28	0.86	73.56	176.70	3.36	8.02	67.56	999.00	6.10	999.00	6.30	0.00
23	4	16	1	197.30	20.97	5.15	73.69	999.00	193.10	20.52	5.07	73.56	198.80	6.31	11.88	67.56	999.00	4.79	999.00	4.89	0.00
23	4	16	2	197.70	20.51	2.21	70.91	999.00	192.10	15.94	3.06	70.33	184.40	5.08	9.38	67.07	999.00	2.53	999.00	1.76	0.00
23	4	16	3	208.00	21.89	2.59	68.07	999.00	202.40	16.46	3.27	67.30	191.00	4.98	12.24	65.69	999.00	2.90	999.00	1.76	0.00
23	4	16	4	200.40	21.48	2.52	67.70	999.00	193.70	17.55	3.59	66.72	187.50	6.08	11.37	64.88	999.00	2.62	999.00	1.58	0.00
23	4	16	5	193.70	21.10	1.86	65.93	999.00	187.60	16.30	2.83	65.00	181.60	5.91	8.46	63.20	999.00	2.80	999.00	1.83	0.00
23	4	16	6	183.70	17.72	1.77	65.59	999.00	176.00	13.80	2.80	64.65	173.10	3.31	10.79	62.98	999.00	2.19	999.00	1.53	0.00
23	4	16	7	176.80	20.54	1.93	64.88	999.00	168.60	16.74	2.55	64.01	157.50	4.75	11.89	62.09	999.00	2.93	999.00	2.08	0.00
23	4	16	8	168.90	19.87	3.23	64.41	999.00	161.70	16.21	4.02	63.93	155.30	6.57	14.34	63.04	999.00	0.40	999.00	0.06	0.00
23	4	16	9	171.40	15.89	5.19	64.59	999.00	168.80	14.17	6.12	64.95	166.20	7.20	16.36	65.50	999.00	-1.84	999.00	-1.05	0.00
23	4	16	10	156.90	16.02	5.16	67.39	999.00	153.80	15.87	5.22	68.22	150.90	8.65	15.33	69.56	999.00	-2.33	999.00	-1.53	0.00
23	4	16	11	165.60	19.41	6.46	70.31	999.00	163.40	18.27	7.50	71.21	171.30	9.72	16.54	72.70	999.00	-2.38	999.00	-1.49	0.00
23	4	16	12	179.30	22.34	5.87	71.58	999.00	178.10	21.22	6.65	72.29	178.90	12.26	15.76	73.53	999.00	-1.98	999.00	-1.28	0.00
23	4	16	13	190.60	26.05	4.79	69.03	999.00	189.10	24.24	6.14	69.76	192.10	14.15	14.98	70.39	999.00	-2.47	999.00	-1.71	0.01
23	4	16	14	212.40	24.12	7.21	69.03	999.00	211.70	22.82	7.85	69.76	210.60	14.91	13.63	70.39	999.00	-2.43	999.00	-1.93	0.00
23	4	16	15	217.10	25.80	5.09	70.41	999.00	216.50	24.53	5.56	70.95	215.80	17.03	12.41	72.88	999.00	-1.95	999.00	-1.39	0.04
23	4	16	16	231.30	31.16	5.91	55.54	999.00	230.70	29.32	5.84	55.33	231.10	20.64	9.73	57.25	999.00	-0.42	999.00	-0.96	0.03
23	4	16	17	235.20	37.14	5.67	55.54	999.00	235.60	35.71	5.69	55.33	237.90	26.53	9.99	57.25	999.00	-1.58	999.00	-2.43	0.00
23	4	16	18	231.60	29.86	6.17	49.00	999.00	231.10	29.02	6.18	48.99	234.70	22.05	9.44	51.14	999.00	-2.23	999.00	-1.67	0.01
23	4	16	19	241.10	36.19	4.92	48.87	999.00	240.90	33.88	5.49	49.48	238.20	23.36	10.37	51.08	999.00	-2.11	999.00	-1.51	0.00
23	4	16	20	231.50	31.33	5.30	47.45	999.00	231.50	29.96	5.17	48.04	231.60	22.84	8.91	49.44	999.00	-1.87	999.00	-1.28	0.00
23	4	16	21	234.10	25.32	5.98	47.39	999.00	233.30	24.16	5.94	47.98	232.40	17.25	9.18	49.12	999.00	-1.72	999.00	-1.14	0.00
23	4	16	22	231.50	22.92	5.41	46.90	999.00	230.70	21.76	5.85	47.50	232.00	15.57	10.68	48.58	999.00	-1.69	999.00	-1.11	0.00
23	4	16	23	223.50	25.21	4.74	46.90	999.00	223.40	22.79	4.76	47.50	223.80	16.11	8.45	48.58	999.00	-1.51	999.00	-0.95	0.00
23	4	16	24	221.90	26.32	6.07	43.49	999.00	221.40	24.09	6.61	44.05	224.80	17.19	8.63	45.01	999.00	-1.54	999.00	-0.97	0.00

23	4	17	1	208.90	23.07	5.73	42.60	999.00	208.10	20.94	6.40	43.12	213.60	11.63	12.96	44.00	999.00	-1.35	999.00	-0.84	0.00
23	4	17	2	224.40	31.06	5.05	41.80	999.00	225.10	28.50	5.71	42.34	223.50	20.55	9.45	43.27	999.00	-1.57	999.00	-0.99	0.00
23	4	17	3	215.50	23.94	6.50	41.80	999.00	214.80	21.63	7.15	42.34	213.90	13.79	13.22	43.27	999.00	-1.57	999.00	-1.06	0.00
23	4	17	4	206.60	20.82	5.89	40.52	999.00	205.00	19.09	7.17	41.07	204.70	10.67	14.73	42.21	999.00	-1.75	999.00	-1.20	0.00
23	4	17	5	204.40	21.53	5.76	39.95	999.00	203.40	19.23	7.05	40.49	206.90	11.20	13.72	41.66	999.00	-1.67	999.00	-1.12	0.00
23	4	17	6	208.00	25.24	5.35	39.31	999.00	207.40	23.29	5.60	39.87	210.30	14.08	13.49	40.99	999.00	-1.72	999.00	-1.12	0.01
23	4	17	7	216.70	22.92	5.14	37.23	999.00	215.70	21.16	6.23	37.86	216.10	12.74	11.75	39.04	999.00	-1.79	999.00	-1.17	0.00
23	4	17	8	209.70	19.38	5.85	999.00	999.00	208.80	17.93	6.40	999.00	211.90	10.97	12.53	38.57	999.00	-1.77	999.00	-1.22	0.00
23	4	17	9	215.90	26.79	6.40	36.76	999.00	215.40	25.10	7.70	37.34	214.70	16.28	14.07	38.61	999.00	-1.90	999.00	-1.32	0.01
23	4	17	10	234.80	31.18	5.80	36.23	999.00	234.40	30.53	6.21	36.81	232.00	22.19	10.62	38.05	999.00	-2.02	999.00	-1.43	0.00
23	4	17	11	222.70	20.47	5.82	35.54	999.00	221.20	19.63	5.90	36.16	225.40	14.15	10.48	37.53	999.00	-1.95	999.00	-1.36	0.00
23	4	17	12	234.40	28.46	3.85	33.93	999.00	234.40	27.68	4.57	34.50	233.50	20.37	9.63	35.54	999.00	-1.66	999.00	-1.08	0.02
23	4	17	13	238.70	32.10	5.93	31.91	999.00	238.30	30.74	6.34	32.39	235.80	21.96	10.21	33.56	999.00	-1.87	999.00	-1.51	0.00
23	4	17	14	234.50	31.70	8.38	34.83	999.00	234.00	30.76	7.92	35.00	235.80	22.24	10.49	37.01	999.00	-2.54	999.00	-2.31	0.00
23	4	17	15	247.00	27.06	9.29	35.58	999.00	246.50	25.70	9.68	36.01	237.40	16.83	12.85	38.00	999.00	-2.31	999.00	-1.72	0.00
23	4	17	16	246.80	28.03	6.85	36.02	999.00	245.80	25.98	7.81	36.62	242.50	17.11	11.95	38.15	999.00	-2.13	999.00	-1.51	0.00
23	4	17	17	245.50	31.53	5.55	36.92	999.00	244.60	29.67	6.73	37.54	245.40	20.70	11.96	39.16	999.00	-2.18	999.00	-1.57	0.00
23	4	17	18	250.60	29.51	6.80	37.20	999.00	250.00	27.51	7.72	37.79	246.30	19.64	10.74	39.32	999.00	-1.96	999.00	-1.39	0.00
23	4	17	19	247.10	28.52	5.62	36.90	999.00	246.80	26.22	6.19	37.46	250.70	17.81	10.71	38.65	999.00	-1.70	999.00	-1.14	0.00
23	4	17	20	255.60	20.22	7.50	36.72	999.00	254.50	18.56	8.04	37.27	252.00	12.24	12.57	38.37	999.00	-1.55	999.00	-1.03	0.00
23	4	17	21	246.60	24.45	6.55	36.56	999.00	245.20	22.72	7.59	37.12	247.30	15.66	11.33	38.18	999.00	-1.66	999.00	-1.09	0.00
23	4	17	22	247.40	22.12	5.14	36.34	999.00	246.10	19.96	5.76	36.87	250.00	13.46	10.39	37.90	999.00	-1.52	999.00	-1.00	0.00
23	4	17	23	247.50	18.74	6.22	36.01	999.00	246.70	17.48	7.24	36.71	254.00	11.82	10.59	37.59	999.00	-1.60	999.00	-1.04	0.00
23	4	17	24	247.10	19.51	5.74	35.32	999.00	246.00	17.88	6.07	35.88	248.50	12.84	10.48	36.96	999.00	-1.60	999.00	-1.05	0.00
23	4	18	1	252.40	20.83	5.61	35.33	999.00	251.80	19.40	6.22	35.83	252.00	13.79	10.60	36.80	999.00	-1.50	999.00	-0.98	0.00
23	4	18	2	245.80	21.91	5.41	35.02	999.00	244.50	20.57	6.70	35.57	246.20	14.39	12.04	36.66	999.00	-1.69	999.00	-1.13	0.00
23	4	18	3	249.60	17.52	5.97	33.56	999.00	248.30	15.60	6.32	34.10	251.40	10.33	11.39	35.09	999.00	-1.48	999.00	-0.98	0.00
23	4	18	4	262.70	21.50	6.07	34.26	999.00	260.50	20.23	6.62	34.76	261.50	12.86	11.01	35.69	999.00	-1.50	999.00	-0.98	0.00
23	4	18	5	259.70	22.22	6.29	34.36	999.00	258.40	20.20	6.53	34.86	261.70	13.03	10.62	35.81	999.00	-1.42	999.00	-0.92	0.00
23	4	18	6	276.10	26.22	6.12	33.99	999.00	274.90	24.76	6.36	34.51	272.40	16.95	10.64	35.50	999.00	-1.48	999.00	-0.96	0.00
23	4	18	7	270.10	21.58	7.11	33.99	999.00	269.20	20.07	7.37	34.51	270.40	13.08	10.68	35.50	999.00	-1.46	999.00	-0.96	0.00
23	4	18	8	276.10	25.71	5.44	33.94	999.00	275.20	24.25	6.65	34.47	276.30	17.45	10.56	35.50	999.00	-1.66	999.00	-1.11	0.00
23	4	18	9	281.90	27.42	4.77	34.13	999.00	281.40	25.48	5.55	34.68	278.20	18.22	10.60	35.90	999.00	-1.82	999.00	-1.27	0.00
23	4	18	10	274.80	20.41	6.42	34.31	999.00	273.70	19.81	7.11	34.88	268.40	14.00	12.56	36.28	999.00	-2.08	999.00	-1.50	0.00
23	4	18	11	272.70	21.86	9.60	35.21	999.00	272.50	20.82	9.84	35.82	274.60	15.52	11.57	37.47	999.00	-2.24	999.00	-1.64	0.00
23	4	18	12	257.40	14.98	9.61	36.23	999.00	256.20	14.59	9.40	36.84	261.50	11.56	13.07	38.79	999.00	-2.55	999.00	-1.98	0.00
23	4	18	13	257.40	20.22	8.44	37.90	999.00	256.90	19.59	10.16	38.51	258.20	13.43	16.58	40.62	999.00	-2.67	999.00	-2.02	0.00
23	4	18	14	262.00	21.14	7.67	39.84	999.00	261.20	20.34	8.59	40.45	261.80	15.12	13.82	42.79	999.00	-2.74	999.00	-2.10	0.00
23	4	18	15	250.80	23.49	11.45	42.20	999.00	249.20	22.42	11.38	42.81	250.80	15.56	14.01	44.92	999.00	-2.59	999.00	-2.00	0.00
23	4	18	16	260.80	22.49	9.55	44.82	999.00	259.80	21.40	10.05	45.45	251.50	16.52	17.17	47.68	999.00	-3.11	999.00	-2.45	0.00
23	4	18	17	263.20	23.93	8.57	46.72	999.00	263.50	22.77	9.16	47.33	265.50	16.43	13.03	49.25	999.00	-2.73	999.00	-2.10	0.00
23	4	18	18	271.90	22.22	8.95	48.35	999.00	271.50	20.90	9.70	48.97	271.50	16.26	12.76	51.11	999.00	-2.79	999.00	-2.08	0.00
23	4	18	19	281.30	21.49	12.05	49.04	999.00	280.20	20.41	12.40	49.62	273.70	14.18	11.99	51.49	999.00	-2.16	999.00	-1.67	0.00
23	4	18	20	300.70	20.41	3.78	48.16	999.00	300.60	19.31	5.06	48.65	301.00	10.92	12.38	49.89	999.00	-1.31	999.00	-0.85	0.00
23	4	18	21	288.30	20.20	3.69	47.02	999.00	288.00	17.80	4.43	47.42	285.40	9.35	8.90	47.43	999.00	0.21	999.00	0.50	0.00
23	4	18	22	308.70	13.32	7.46	45.90	999.00	305.10	12.75	8.90	46.24	294.70	6.48	9.56	45.39	999.00	0.24	999.00	0.65	0.00
23	4	18	23	308.10	15.54	2.01	44.55	999.00	308.20	14.69	3.19	45.00	308.50	8.44	10.41	44.96	999.00	-0.47	999.00	-0.02	0.00
23	4	18	24	293.90	11.76	1.66	43.92	999.00	289.70	11.38	1.98	44.30	267.30	4.98	6.50	43.18	999.00	1.05	999.00	1.43	0.00
23	4	19	1	287.20	14.25	2.19	43.50	999.00	281.50	12.58	1.75	43.78	251.90	5.59	4.00	42.26	999.00	1.41	999.00	1.68	0.00
23	4	19	2	279.30	13.91	5.46	42.91	999.00	273.10	12.15	7.62	42.62	248.50	5.51	6.85	40.95	999.00	1.72	999.00	1.52	0.00
23	4	19	3	295.70	17.95	1.14	43.09	999.00	291.70	15.16	1.70	42.73	268.90	3.79	9.49	39.92	999.00	4.53	999.00	3.97	0.00
23	4	19	4	309.60	16.60	2.24	43.85	999.00	306.90	14.22	2.80	43.39	281.10	4.56	8.79	39.38	999.00	3.64	999.00	3.66	0.00
23	4	19	5	317.80	11.49	5.29	42.95	999.00	304.60	8.83	5.62	42.84	209.50	3.21	9.52	38.72	999.00	5.22	999.00	4.87	0.00

23	4	19	6	347.90	16.62	3.47	42.25	999.00	347.20	15.95	4.39	42.24	345.00	11.27	9.24	39.38	999.00	-1.41	999.00	-0.86	0.00
23	4	19	7	19.32	12.04	9.28	40.42	999.00	19.47	9.80	9.61	40.96	11.73	9.65	12.09	42.10	999.00	-1.73	999.00	-1.22	0.00
23	4	19	8	42.66	10.98	9.17	39.88	999.00	42.54	11.08	9.01	40.54	39.37	7.85	13.27	41.53	999.00	-1.62	999.00	-1.00	0.00
23	4	19	9	62.99	11.45	7.89	39.69	999.00	60.09	11.24	8.81	40.42	63.99	8.66	11.18	41.51	999.00	-2.05	999.00	-1.21	0.00
23	4	19	10	89.30	9.51	10.75	39.55	999.00	83.70	9.08	10.01	40.36	77.10	7.48	14.63	41.84	999.00	-2.53	999.00	-1.74	0.00
23	4	19	11	81.60	12.69	6.41	39.55	999.00	77.40	12.63	7.36	40.36	73.80	9.64	13.15	41.84	999.00	-2.83	999.00	-2.00	0.00
23	4	19	12	87.20	13.56	7.66	39.80	999.00	83.90	12.65	10.20	40.71	90.40	9.23	18.02	42.94	999.00	-3.45	999.00	-2.46	0.00
23	4	19	13	82.50	12.19	9.16	40.75	999.00	80.40	12.08	11.11	41.65	93.60	9.28	18.44	43.88	999.00	-3.01	999.00	-2.07	0.00
23	4	19	14	72.10	14.42	5.06	40.93	999.00	67.94	14.53	4.94	41.73	66.43	12.39	13.58	43.90	999.00	-3.06	999.00	-2.28	0.00
23	4	19	15	67.28	13.39	7.90	42.46	999.00	63.12	13.36	8.39	43.16	65.75	11.31	14.29	45.31	999.00	-2.87	999.00	-2.12	0.00
23	4	19	16	67.40	14.38	7.43	43.26	999.00	63.15	14.30	8.65	44.02	64.19	11.14	16.00	46.08	999.00	-2.89	999.00	-2.08	0.00
23	4	19	17	62.85	14.79	4.26	43.54	999.00	61.97	14.19	5.74	44.23	63.66	9.76	12.70	46.00	999.00	-2.43	999.00	-1.75	0.00
23	4	19	18	82.20	18.74	3.93	43.04	999.00	80.70	18.44	4.69	43.71	86.10	11.45	12.51	45.40	999.00	-2.40	999.00	-1.74	0.00
23	4	19	19	77.90	21.88	4.79	42.86	999.00	74.00	21.65	5.65	43.51	80.80	13.52	12.68	45.24	999.00	-2.17	999.00	-1.60	0.00
23	4	19	20	84.10	23.48	3.88	42.96	999.00	80.20	22.77	4.64	43.55	86.00	12.73	15.10	44.99	999.00	-1.86	999.00	-1.31	0.00
23	4	19	21	270.00	26.82	103.90	53.49	999.00	270.00	26.31	103.90	54.10	69.46	16.38	11.12	54.92	999.00	-1.10	999.00	-0.43	0.00
23	4	19	22	999.00	28.01	999.00	999.00	999.00	999.00	27.03	999.00	999.00	89.50	15.89	13.43	999.00	999.00	-0.28	999.00	0.47	0.00
23	4	19	23	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	52.55	999.00	10.16	999.00	999.00	999.00	999.00	999.00	0.00
23	4	19	24	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	67.38	999.00	10.10	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	1	80.60	21.84	999.00	999.00	999.00	76.80	999.00	999.00	999.00	80.30	13.38	11.53	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	2	92.60	22.59	3.40	999.00	999.00	88.20	999.00	3.65	999.00	94.10	11.31	14.08	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	3	93.00	22.54	2.50	999.00	999.00	89.30	999.00	3.33	999.00	92.40	12.02	12.09	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	4	75.70	15.05	6.05	999.00	999.00	72.00	999.00	7.47	999.00	73.40	8.22	14.95	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	5	50.78	999.00	6.00	999.00	999.00	46.10	999.00	6.57	999.00	49.39	8.00	11.12	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	6	55.16	999.00	4.88	999.00	999.00	50.11	999.00	5.77	999.00	50.56	11.72	11.81	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	7	80.10	999.00	4.24	999.00	999.00	74.10	999.00	5.14	999.00	71.00	8.54	14.41	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	8	81.30	999.00	3.62	999.00	999.00	78.00	999.00	4.21	999.00	80.60	9.72	11.27	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	9	98.70	999.00	3.08	999.00	999.00	92.80	999.00	4.30	999.00	93.60	8.76	14.53	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	10	98.20	999.00	6.22	999.00	999.00	91.00	999.00	8.09	999.00	90.10	7.05	15.71	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	11	82.90	999.00	9.36	999.00	999.00	74.80	999.00	7.31	999.00	79.70	7.30	12.56	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	12	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	13	68.59	999.00	9.21	999.00	999.00	64.65	999.00	9.52	999.00	59.66	7.42	17.63	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	14	88.00	999.00	3.87	999.00	999.00	73.80	999.00	3.58	999.00	75.80	11.21	10.48	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	15	93.20	999.00	1.52	999.00	999.00	83.90	999.00	3.42	999.00	83.90	12.07	10.31	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	16	107.50	999.00	3.62	999.00	999.00	106.60	999.00	4.07	999.00	96.70	7.28	13.74	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	17	68.20	999.00	21.21	999.00	999.00	47.42	999.00	17.53	999.00	42.42	8.73	16.87	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	18	119.40	999.00	5.36	999.00	999.00	95.80	999.00	5.33	999.00	93.70	8.60	14.18	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	19	147.50	999.00	4.94	999.00	999.00	115.40	999.00	3.69	999.00	101.20	8.28	11.62	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	20	174.90	999.00	1.65	999.00	999.00	160.90	19.31	2.01	999.00	105.80	6.55	10.12	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	21	181.10	999.00	2.50	999.00	999.00	176.70	15.64	2.57	999.00	104.20	2.49	11.47	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	22	181.70	999.00	2.59	999.00	999.00	175.90	18.63	3.30	999.00	175.20	6.00	11.92	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	23	188.80	999.00	3.23	999.00	999.00	183.60	21.06	3.60	999.00	182.60	8.25	10.65	999.00	999.00	999.00	999.00	999.00	0.00
23	4	20	24	191.40	999.00	3.69	999.00	999.00	188.80	25.37	4.20	999.00	191.00	10.79	13.24	999.00	999.00	999.00	999.00	999.00	0.00
23	4	21	1	194.00	999.00	3.72	999.00	999.00	190.70	24.28	4.05	999.00	194.40	10.00	12.59	999.00	999.00	999.00	999.00	999.00	0.00
23	4	21	2	201.90	999.00	6.59	999.00	999.00	198.30	24.46	7.06	999.00	202.70	11.26	14.53	999.00	999.00	999.00	999.00	999.00	0.00
23	4	21	3	239.40	999.00	3.36	999.00	999.00	235.30	20.25	3.47	999.00	238.30	11.02	8.31	999.00	999.00	999.00	999.00	999.00	0.00
23	4	21	4	235.60	999.00	4.07	999.00	999.00	230.00	14.25	3.94	999.00	214.60	6.27	11.09	999.00	999.00	999.00	999.00	999.00	0.00
23	4	21	5	220.50	999.00	2.71	999.00	999.00	214.40	15.76	2.52	999.00	206.00	5.53	10.99	999.00	999.00	999.00	999.00	999.00	0.00
23	4	21	6	224.70	999.00	2.64	999.00	999.00	219.40	17.55	2.54	999.00	218.40	6.02	10.27	999.00	999.00	999.00	999.00	999.00	0.00
23	4	21	7	231.30	999.00	3.39	999.00	999.00	227.00	16.24	3.54	999.00	224.70	7.39	9.86	999.00	999.00	999.00	999.00	999.00	0.00
23	4	21	8	243.00	999.00	4.31	999.00	999.00	239.90	17.04	4.57	999.00	242.20	9.49	9.78	999.00	999.00	999.00	999.00	999.00	0.00
23	4	21	9	228.20	999.00	5.29	999.00	999.00	224.90	12.60	5.18	999.00	227.00	8.85	10.57	999.00	999.00	999.00	999.00	999.00	0.00
23	4	21	10	237.80	999.00	4.43	999.00	999.00	236.60	15.18	4.55	999.00	237.50	10.72	9.98	999.00	999.00	999.00	999.00	999.00	0.00

23	4	21	11	272.30	999.00	7.31	999.00	999.00	272.00	11.17	7.45	999.00	270.10	13.03	11.92	999.00	999.00	999.00	999.00	999.00	0.00
23	4	21	12	261.60	999.00	5.35	999.00	999.00	257.00	15.23	6.62	999.00	260.00	12.27	11.04	999.00	999.00	999.00	999.00	999.00	0.01
23	4	21	13	307.40	999.00	10.00	999.00	999.00	310.10	999.00	8.96	999.00	313.00	8.62	13.51	999.00	999.00	999.00	999.00	999.00	0.00
23	4	21	14	297.00	11.12	6.26	999.00	999.00	304.40	11.22	6.70	999.00	311.50	9.03	9.33	50.71	999.00	-2.46	999.00	-2.10	0.01
23	4	21	15	311.30	8.23	8.39	46.69	999.00	314.10	8.11	7.88	47.11	321.30	6.30	15.10	48.80	999.00	-2.24	999.00	-1.66	0.00
23	4	21	16	316.20	4.48	12.19	47.12	999.00	326.10	4.62	10.30	47.78	341.50	4.36	12.54	49.36	999.00	-1.80	999.00	-1.28	0.06
23	4	21	17	311.70	16.95	5.33	46.24	999.00	312.70	16.12	5.40	46.57	314.00	11.37	9.78	47.79	999.00	-1.59	999.00	-1.15	0.03
23	4	21	18	297.90	13.08	6.37	44.53	999.00	300.00	13.14	5.93	45.09	301.60	8.70	13.49	46.28	999.00	-1.70	999.00	-1.06	0.05
23	4	21	19	298.50	10.38	9.74	44.22	999.00	296.80	9.80	11.15	44.86	301.90	6.33	18.40	45.15	999.00	-1.25	999.00	-0.64	0.00
23	4	21	20	292.30	10.70	6.93	45.61	999.00	290.60	10.06	7.83	46.27	267.20	6.53	13.09	46.75	999.00	-1.04	999.00	-0.35	0.05
23	4	21	21	72.60	7.85	10.73	45.40	999.00	72.90	7.60	11.08	46.32	108.30	4.17	19.74	46.08	999.00	-0.55	999.00	0.43	0.04
23	4	21	22	111.90	15.27	7.35	44.70	999.00	109.10	14.67	8.92	45.49	112.50	7.65	16.98	45.27	999.00	-0.39	999.00	0.33	0.01
23	4	21	23	121.50	14.61	5.70	44.62	999.00	119.30	13.81	6.69	45.53	143.40	7.15	17.43	45.16	999.00	-0.37	999.00	0.58	0.00
23	4	21	24	117.40	8.30	5.39	44.44	999.00	119.40	7.26	6.73	45.06	149.20	3.69	15.59	44.96	999.00	-0.49	999.00	0.09	0.00
23	4	22	1	210.80	4.33	33.08	44.56	999.00	214.30	4.76	25.60	44.99	162.10	3.76	24.36	44.97	999.00	-0.36	999.00	0.03	0.00
23	4	22	2	318.30	3.90	15.36	44.46	999.00	312.20	4.41	12.79	44.93	259.70	3.33	20.50	45.19	999.00	-0.32	999.00	0.17	0.00
23	4	22	3	141.40	2.47	41.55	44.36	999.00	147.60	2.56	49.66	44.79	117.30	1.97	39.79	45.01	999.00	-0.67	999.00	-0.43	0.00
23	4	22	4	242.80	6.24	6.83	44.43	999.00	242.90	6.46	5.70	44.82	258.50	4.43	12.98	44.63	999.00	-0.12	999.00	0.29	0.00
23	4	22	5	277.20	14.38	2.64	44.03	999.00	275.30	13.04	2.94	44.18	270.30	7.59	8.82	44.32	999.00	-0.44	999.00	-0.43	0.00
23	4	22	6	298.80	10.68	1.80	43.85	999.00	296.90	9.80	3.16	44.05	283.60	4.43	11.87	43.98	999.00	0.02	999.00	0.17	0.00
23	4	22	7	282.70	15.12	6.05	44.04	999.00	281.00	13.90	6.84	44.41	276.20	8.60	11.19	44.61	999.00	-1.04	999.00	-0.54	0.00
23	4	22	8	296.30	11.39	6.68	43.83	999.00	294.00	10.70	7.14	44.29	279.20	6.18	12.82	44.67	999.00	-0.80	999.00	-0.33	0.01
23	4	22	9	238.90	8.29	8.60	43.79	999.00	232.10	7.77	7.14	44.27	216.60	4.94	15.99	44.83	999.00	-0.89	999.00	-0.42	0.01
23	4	22	10	232.10	6.68	8.41	44.69	999.00	224.60	5.72	8.27	45.15	225.80	4.49	13.51	46.04	999.00	-1.64	999.00	-1.14	0.00
23	4	22	11	231.40	7.21	12.45	47.29	999.00	231.40	7.21	11.23	47.97	226.00	6.56	15.41	50.23	999.00	-3.51	999.00	-2.88	0.00
23	4	22	12	224.90	11.69	5.84	49.16	999.00	224.30	11.46	5.99	49.78	224.20	9.22	10.54	52.05	999.00	-1.75	999.00	-1.19	0.00
23	4	22	13	232.40	14.44	9.84	51.05	999.00	231.10	13.95	9.73	51.66	234.40	10.28	11.88	53.02	999.00	-1.85	999.00	-1.28	0.08
23	4	22	14	208.70	17.48	6.09	50.24	999.00	206.10	16.25	6.45	50.83	205.20	10.46	14.04	52.01	999.00	-1.94	999.00	-1.32	0.02
23	4	22	15	245.50	22.02	8.71	51.58	999.00	244.70	21.17	9.98	52.17	244.50	15.32	14.76	53.66	999.00	-2.10	999.00	-1.52	0.00
23	4	22	16	244.70	25.64	6.95	52.00	999.00	243.90	24.40	7.74	52.61	245.40	17.38	12.29	54.60	999.00	-2.55	999.00	-1.96	0.00
23	4	22	17	242.90	24.05	5.93	50.68	999.00	241.90	22.59	7.43	51.30	244.40	15.86	11.64	53.04	999.00	-2.42	999.00	-1.80	0.00
23	4	22	18	254.00	23.78	9.03	50.17	999.00	253.00	22.47	8.98	50.76	260.10	15.87	12.54	52.37	999.00	-2.09	999.00	-1.50	0.00
23	4	22	19	260.20	25.64	7.72	47.87	999.00	260.40	24.28	9.15	48.47	256.60	16.66	13.40	49.96	999.00	-1.93	999.00	-1.34	0.00
23	4	22	20	257.00	22.20	6.70	45.66	999.00	256.30	20.45	7.61	46.21	257.80	13.55	12.06	47.35	999.00	-1.63	999.00	-1.08	0.00
23	4	22	21	267.00	20.60	4.47	43.70	999.00	266.90	19.42	5.64	44.26	268.00	13.20	10.10	45.33	999.00	-1.63	999.00	-1.09	0.00
23	4	22	22	271.80	19.29	5.95	41.45	999.00	270.80	18.42	6.86	41.98	269.90	12.91	10.31	43.00	999.00	-1.68	999.00	-1.12	0.00
23	4	22	23	266.90	20.39	5.86	39.69	999.00	265.80	19.13	6.35	40.21	264.60	12.10	11.33	41.24	999.00	-1.52	999.00	-1.00	0.00
23	4	22	24	250.30	14.93	5.33	39.32	999.00	249.80	13.80	5.84	39.84	249.60	10.03	10.45	40.84	999.00	-1.54	999.00	-1.01	0.00
23	4	23	1	240.90	12.75	6.47	38.70	999.00	237.20	12.34	6.04	39.24	240.80	8.83	10.67	40.28	999.00	-1.60	999.00	-1.03	0.00
23	4	23	2	243.20	12.79	5.84	38.36	999.00	241.60	12.21	6.98	38.91	247.40	7.87	11.46	39.84	999.00	-1.36	999.00	-0.82	0.00
23	4	23	3	230.30	14.93	2.84	37.81	999.00	228.00	12.90	3.69	38.24	229.80	8.41	7.91	38.82	999.00	-0.75	999.00	-0.47	0.00
23	4	23	4	234.10	16.92	4.16	37.81	999.00	229.80	15.04	4.61	38.24	228.10	9.78	9.49	38.82	999.00	-0.94	999.00	-0.60	0.00
23	4	23	5	239.10	14.88	5.22	36.24	999.00	236.30	13.05	5.97	36.70	237.40	9.09	10.34	37.42	999.00	-1.14	999.00	-0.66	0.00
23	4	23	6	239.60	16.90	5.18	35.20	999.00	236.60	14.76	5.75	35.64	235.90	10.00	9.60	36.38	999.00	-1.20	999.00	-0.74	0.00
23	4	23	7	230.90	15.98	4.04	34.78	999.00	226.70	13.36	4.86	35.15	216.60	6.98	11.76	35.79	999.00	-0.66	999.00	-0.45	0.00
23	4	23	8	232.90	16.32	5.34	35.72	999.00	231.10	15.17	5.62	36.06	227.50	10.54	10.60	36.91	999.00	-1.68	999.00	-1.12	0.00
23	4	23	9	236.80	17.31	4.75	36.74	999.00	234.70	16.76	5.09	37.32	235.00	12.10	10.91	38.63	999.00	-2.05	999.00	-1.45	0.00
23	4	23	10	242.20	15.22	8.08	37.70	999.00	240.90	15.14	8.74	38.30	241.30	11.30	14.19	39.98	999.00	-2.35	999.00	-1.74	0.00
23	4	23	11	239.30	13.65	7.62	38.91	999.00	237.40	13.60	7.75	39.51	244.20	11.00	13.99	41.67	999.00	-3.04	999.00	-2.39	0.01
23	4	23	12	213.50	14.23	5.58	38.91	999.00	212.20	13.62	5.13	39.51	214.60	9.37	12.70	41.67	999.00	-2.03	999.00	-1.46	0.00
23	4	23	13	214.10	15.88	6.11	39.85	999.00	211.10	14.78	8.64	40.46	214.90	11.03	11.28	41.56	999.00	-1.86	999.00	-1.22	0.00
23	4	23	14	216.20	16.48	7.48	39.38	999.00	213.00	15.09	8.60	39.94	215.60	10.42	14.71	41.42	999.00	-2.19	999.00	-1.70	0.00
23	4	23	15	242.80	13.31	8.45	38.65	999.00	240.60	12.91	8.98	39.16	237.70	9.36	12.37	40.78	999.00	-2.35	999.00	-1.74	0.00

23	4	23	16	235.60	14.75	8.47	40.94	999.00	233.60	14.48	9.20	41.50	230.30	10.81	11.78	43.19	999.00	-2.31	999.00	-1.73	0.00
23	4	23	17	248.70	14.26	12.99	42.61	999.00	249.00	13.81	13.45	43.18	259.00	10.57	17.67	45.00	999.00	-2.43	999.00	-1.84	0.00
23	4	23	18	241.30	15.54	7.59	42.78	999.00	240.10	14.47	7.76	43.36	250.50	10.57	11.52	45.10	999.00	-2.43	999.00	-1.82	0.00
23	4	23	19	253.90	14.56	8.40	39.69	999.00	251.00	13.26	9.07	40.10	240.20	7.88	11.91	41.34	999.00	-0.98	999.00	-0.74	0.00
23	4	23	20	239.40	13.26	7.47	40.15	999.00	232.80	11.93	8.79	40.59	239.30	7.78	16.22	41.46	999.00	-1.42	999.00	-0.95	0.00
23	4	23	21	262.10	16.31	4.23	38.13	999.00	258.60	14.13	6.01	38.51	254.70	7.80	9.06	39.36	999.00	-0.80	999.00	-0.65	0.00
23	4	23	22	261.00	11.31	6.68	38.55	999.00	253.10	9.54	6.64	38.74	246.90	5.05	9.10	39.19	999.00	-0.72	999.00	-0.50	0.00
23	4	23	23	258.50	12.12	4.62	38.62	999.00	254.00	10.47	5.77	38.95	250.30	5.59	9.40	39.46	999.00	-1.07	999.00	-0.65	0.00
23	4	23	24	254.30	12.34	4.40	38.44	999.00	251.60	11.13	5.02	38.83	249.70	6.33	9.39	39.55	999.00	-1.28	999.00	-0.82	0.00
23	4	24	1	262.80	13.13	3.05	37.77	999.00	259.60	12.23	4.37	38.27	256.60	7.22	9.98	39.31	999.00	-1.51	999.00	-1.05	0.00
23	4	24	2	261.60	13.45	4.19	37.10	999.00	256.60	12.24	5.52	37.59	254.10	7.65	9.26	38.67	999.00	-1.60	999.00	-1.11	0.00
23	4	24	3	298.20	10.97	9.68	37.46	999.00	291.60	10.28	10.59	37.74	282.50	6.02	11.17	38.51	999.00	-0.89	999.00	-0.60	0.00
23	4	24	4	304.10	12.74	11.46	38.23	999.00	301.40	11.85	12.93	38.67	305.40	6.92	17.17	39.44	999.00	-1.32	999.00	-0.89	0.00
23	4	24	5	287.60	15.19	8.41	37.39	999.00	283.00	14.41	8.83	37.86	287.10	9.38	12.22	38.86	999.00	-1.17	999.00	-0.86	0.00
23	4	24	6	291.10	14.63	5.62	36.75	999.00	287.50	13.82	6.34	37.25	287.80	9.93	9.08	38.30	999.00	-1.67	999.00	-1.15	0.00
23	4	24	7	282.60	12.84	3.70	36.33	999.00	277.70	11.80	3.90	36.73	257.90	5.89	9.93	37.39	999.00	-0.68	999.00	-0.41	0.00
23	4	24	8	297.80	13.59	5.43	36.55	999.00	296.50	13.26	6.18	36.92	286.10	7.91	13.34	37.44	999.00	-1.47	999.00	-0.96	0.00
23	4	24	9	303.70	14.49	5.72	36.89	999.00	302.00	14.51	6.17	37.45	300.30	10.82	12.82	38.97	999.00	-2.34	999.00	-1.74	0.00
23	4	24	10	305.70	12.21	9.33	36.99	999.00	305.70	12.02	10.51	37.58	301.30	9.51	15.81	39.24	999.00	-2.40	999.00	-1.79	0.00
23	4	24	11	309.80	12.70	6.39	37.74	999.00	310.20	12.45	7.75	38.39	320.20	9.61	15.93	40.85	999.00	-3.13	999.00	-2.43	0.00
23	4	24	12	308.40	11.00	8.48	38.62	999.00	306.50	11.24	9.70	39.30	316.60	8.22	17.25	41.51	999.00	-2.46	999.00	-1.89	0.00
23	4	24	13	287.20	11.87	13.30	38.62	999.00	287.30	11.82	14.67	39.30	298.10	9.74	20.28	41.51	999.00	-2.61	999.00	-1.97	0.00
23	4	24	14	268.00	13.07	14.27	40.32	999.00	268.70	12.56	14.87	40.94	251.50	9.95	18.50	42.88	999.00	-2.31	999.00	-1.71	0.00
23	4	24	15	245.70	16.30	6.73	40.64	999.00	243.10	15.30	7.43	41.23	249.00	11.08	12.17	42.81	999.00	-1.92	999.00	-1.34	0.00
23	4	24	16	272.10	11.15	9.94	41.39	999.00	271.90	10.87	10.15	41.98	268.20	9.16	14.27	43.60	999.00	-2.52	999.00	-1.90	0.00
23	4	24	17	334.70	10.78	14.19	42.55	999.00	336.20	10.64	14.90	43.23	349.00	9.24	15.67	45.40	999.00	-2.05	999.00	-1.41	0.00
23	4	24	18	293.50	8.87	15.89	41.43	999.00	295.90	8.50	14.54	42.04	293.70	5.83	20.43	43.53	999.00	-2.09	999.00	-1.53	0.00
23	4	24	19	256.70	3.56	14.18	41.43	999.00	249.90	3.36	13.11	42.04	242.30	2.81	23.06	43.53	999.00	-1.78	999.00	-1.24	0.00
23	4	24	20	218.80	4.26	20.37	38.99	999.00	197.40	3.15	55.53	39.26	137.80	1.70	54.06	40.18	999.00	-0.94	999.00	-0.69	0.00
23	4	24	21	195.40	5.00	8.92	999.00	999.00	181.80	5.35	5.81	999.00	166.00	2.57	15.43	999.00	999.00	0.69	999.00	0.51	0.00
23	4	24	22	200.60	9.29	13.34	999.00	999.00	197.40	9.06	10.43	34.94	188.90	5.41	13.24	34.29	999.00	-0.55	999.00	-0.17	0.00
23	4	24	23	179.10	12.34	9.52	41.12	999.00	175.30	12.15	5.03	41.29	171.90	4.30	12.99	40.57	999.00	0.98	999.00	1.24	0.00
23	4	24	24	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	4	25	1	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	4	25	2	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	4	25	3	201.10	18.91	0.92	999.00	999.00	191.10	999.00	1.55	999.00	182.10	4.25	8.61	999.00	999.00	999.00	999.00	999.00	0.00
23	4	25	4	207.90	18.17	1.50	999.00	999.00	196.30	999.00	1.71	999.00	198.50	4.09	10.75	999.00	999.00	999.00	999.00	999.00	0.00
23	4	25	5	231.10	17.10	2.50	999.00	999.00	215.70	999.00	3.31	999.00	206.40	5.59	8.79	999.00	999.00	999.00	999.00	999.00	0.00
23	4	25	6	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	4	25	7	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	4	25	8	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	4	25	9	253.20	13.39	5.95	999.00	999.00	237.00	999.00	6.56	999.00	207.40	5.14	10.83	999.00	999.00	999.00	999.00	999.00	0.00
23	4	25	10	234.00	8.27	7.03	999.00	999.00	224.50	999.00	7.85	999.00	220.60	6.32	10.98	999.00	999.00	999.00	999.00	999.00	0.00
23	4	25	11	243.10	0.69	23.98	999.00	999.00	232.70	999.00	22.70	999.00	215.40	4.59	30.92	999.00	999.00	999.00	999.00	999.00	0.00
23	4	25	12	210.60	0.79	16.91	999.00	999.00	209.00	999.00	19.78	999.00	212.70	5.18	24.60	999.00	999.00	999.00	999.00	999.00	0.00
23	4	25	13	239.50	2.56	23.40	999.00	999.00	238.40	999.00	33.76	999.00	311.60	1.05	58.91	999.00	999.00	999.00	999.00	999.00	0.00
23	4	25	14	234.70	13.60	7.05	999.00	999.00	231.60	2.06	7.37	999.00	238.30	9.72	12.71	999.00	999.00	999.00	999.00	-1.10	0.00
23	4	25	15	188.50	3.34	38.06	41.37	999.00	188.30	2.94	36.29	41.90	199.50	1.22	50.35	42.82	999.00	-1.58	999.00	-0.95	0.00
23	4	25	16	20.00	3.74	13.14	42.06	999.00	15.78	3.70	11.21	42.75	3.04	4.35	14.15	43.58	999.00	-1.21	999.00	-0.63	0.01
23	4	25	17	5.55	6.94	14.30	40.99	999.00	5.97	6.36	14.44	41.55	7.08	6.24	12.06	42.67	999.00	-1.75	999.00	-1.20	0.02
23	4	25	18	15.31	6.66	10.40	40.12	999.00	13.05	5.97	7.48	40.67	13.76	6.27	15.83	41.86	999.00	-1.69	999.00	-1.15	0.01
23	4	25	19	6.68	5.50	13.96	40.11	999.00	5.29	5.06	12.23	40.67	8.77	5.11	19.07	41.81	999.00	-1.69	999.00	-1.14	0.02
23	4	25	20	23.65	6.23	10.57	39.72	999.00	23.30	5.11	9.24	40.25	21.16	5.96	17.36	41.46	999.00	-1.78	999.00	-1.29	0.08

23	4	25	21	16.16	3.48	14.31	39.78	999.00	17.66	3.12	14.87	40.31	39.13	2.79	17.18	41.54	999.00	-1.65	999.00	-1.14	0.01
23	4	25	22	43.28	5.72	9.94	40.18	999.00	43.98	5.49	8.61	40.70	28.62	2.96	23.85	41.74	999.00	-1.53	999.00	-0.98	0.00
23	4	25	23	52.54	3.82	5.43	40.50	999.00	52.74	3.61	4.96	41.02	46.26	1.71	18.68	42.14	999.00	-1.36	999.00	-0.83	0.00
23	4	25	24	3.49	3.66	15.37	40.94	999.00	4.47	3.31	12.90	41.44	8.74	2.86	18.89	42.55	999.00	-1.67	999.00	-1.14	0.00
23	4	26	1	11.44	3.69	15.78	41.19	999.00	14.28	3.26	15.38	41.71	358.20	3.28	21.47	42.96	999.00	-1.70	999.00	-1.21	0.00
23	4	26	2	352.60	5.60	17.21	41.39	999.00	349.30	5.60	14.03	41.91	3.60	4.47	20.19	43.07	999.00	-1.69	999.00	-1.17	0.00
23	4	26	3	346.80	9.16	5.91	41.08	999.00	345.30	8.58	7.11	41.58	340.20	5.72	9.66	42.71	999.00	-1.63	999.00	-1.11	0.00
23	4	26	4	346.70	8.46	5.38	40.60	999.00	346.00	8.33	5.75	41.12	341.60	5.36	8.26	41.96	999.00	-1.19	999.00	-0.66	0.00
23	4	26	5	350.80	8.93	8.66	40.22	999.00	349.40	8.71	7.12	40.77	340.30	5.78	10.40	41.76	999.00	-1.46	999.00	-0.90	0.00
23	4	26	6	352.10	10.04	5.71	40.02	999.00	352.10	9.36	6.22	40.56	349.60	7.32	8.73	41.46	999.00	-1.57	999.00	-1.03	0.00
23	4	26	7	355.50	11.71	8.57	39.97	999.00	354.10	10.89	7.63	40.51	358.80	9.08	17.04	41.67	999.00	-1.74	999.00	-1.18	0.00
23	4	26	8	34.18	3.80	20.71	40.13	999.00	40.69	3.88	20.78	40.74	142.60	2.42	78.30	41.58	999.00	-1.26	999.00	-0.65	0.00
23	4	26	9	61.96	4.36	38.82	40.56	999.00	67.55	3.15	55.17	41.24	67.19	2.54	45.14	41.42	999.00	-1.08	999.00	-0.03	0.00
23	4	26	10	31.08	5.23	17.84	41.74	999.00	26.81	4.66	18.02	42.73	8.89	5.10	32.48	43.32	999.00	-1.04	999.00	-0.12	0.00
23	4	26	11	43.88	5.68	18.73	42.45	999.00	42.78	5.60	17.89	43.36	36.98	5.54	22.69	43.65	999.00	-1.32	999.00	-0.26	0.00
23	4	26	12	76.70	5.38	13.88	42.52	999.00	71.30	5.87	11.22	43.56	65.50	5.57	28.60	44.55	999.00	-2.22	999.00	-1.31	0.00
23	4	26	13	23.62	4.90	15.09	43.31	999.00	18.60	4.90	14.91	43.98	14.16	5.11	12.06	44.67	999.00	-1.34	999.00	-0.61	0.00
23	4	26	14	23.37	6.67	13.59	43.81	999.00	22.75	6.17	11.93	44.64	20.57	6.84	19.23	45.21	999.00	-1.54	999.00	-0.79	0.00
23	4	26	15	51.70	7.87	12.96	43.79	999.00	47.43	8.23	10.18	44.41	42.40	8.24	10.77	45.34	999.00	-1.50	999.00	-0.96	0.00
23	4	26	16	65.55	10.09	7.70	44.28	999.00	66.08	10.13	7.96	44.95	75.60	8.14	13.43	46.56	999.00	-2.49	999.00	-1.80	0.00
23	4	26	17	84.50	9.08	10.79	45.03	999.00	88.20	8.89	12.11	45.81	78.40	6.80	14.72	47.51	999.00	-2.85	999.00	-1.89	0.00
23	4	26	18	85.70	8.20	11.31	45.82	999.00	80.90	8.04	13.15	46.64	84.40	6.57	19.98	48.55	999.00	-2.52	999.00	-1.79	0.00
23	4	26	19	94.60	7.57	7.42	46.63	999.00	93.00	7.58	8.55	47.40	95.20	5.20	17.27	49.09	999.00	-2.40	999.00	-1.77	0.00
23	4	26	20	108.70	9.10	5.18	46.70	999.00	107.10	9.06	6.63	47.24	107.20	6.13	14.55	48.73	999.00	-1.84	999.00	-1.33	0.00
23	4	26	21	124.50	13.07	3.14	46.01	999.00	122.30	12.76	3.32	46.51	128.30	6.73	15.14	47.56	999.00	-1.37	999.00	-0.90	0.00
23	4	26	22	120.30	13.10	2.86	45.23	999.00	119.20	12.32	3.80	45.63	128.00	5.34	13.37	46.13	999.00	-0.66	999.00	-0.27	0.00
23	4	26	23	125.30	12.63	1.62	45.17	999.00	121.80	11.90	2.92	45.45	136.90	4.10	11.61	45.40	999.00	0.31	999.00	0.45	0.00
23	4	26	24	133.70	13.63	3.34	45.66	999.00	131.50	11.63	3.92	45.46	160.20	3.90	12.44	44.95	999.00	0.88	999.00	0.48	0.00
23	4	27	1	134.70	12.45	0.69	45.09	999.00	133.50	11.17	1.07	44.85	130.90	4.35	11.45	43.83	999.00	0.63	999.00	0.73	0.00
23	4	27	2	134.00	13.68	0.90	44.53	999.00	132.20	11.44	1.90	44.21	129.90	4.08	10.28	43.72	999.00	1.40	999.00	0.43	0.00
23	4	27	3	111.60	12.70	2.78	43.59	999.00	109.70	11.58	2.94	43.68	122.00	4.57	11.74	43.42	999.00	-0.04	999.00	0.20	0.00
23	4	27	4	99.10	10.63	4.35	42.91	999.00	97.30	10.35	5.47	43.26	113.70	5.19	14.33	43.17	999.00	-0.91	999.00	-0.42	0.00
23	4	27	5	100.60	8.84	5.42	42.95	999.00	99.30	8.20	6.18	43.43	118.60	3.91	11.99	43.94	999.00	-0.96	999.00	-0.50	0.00
23	4	27	6	105.60	9.58	2.59	43.07	999.00	105.50	9.10	2.82	43.49	136.50	3.31	10.67	43.35	999.00	0.54	999.00	0.91	0.00
23	4	27	7	105.60	11.62	2.93	42.95	999.00	106.40	10.77	3.02	43.31	123.60	3.92	12.96	42.06	999.00	0.99	999.00	1.30	0.00
23	4	27	8	114.70	12.26	3.01	42.78	999.00	113.60	11.25	3.64	43.10	122.70	3.70	17.33	42.53	999.00	-0.14	999.00	0.24	0.00
23	4	27	9	105.90	12.91	6.32	42.95	999.00	103.70	12.64	7.57	43.56	121.50	8.54	13.79	44.65	999.00	-2.12	999.00	-1.43	0.00
23	4	27	10	116.90	10.77	6.19	43.84	999.00	113.00	10.15	9.01	44.51	138.40	6.85	18.83	46.51	999.00	-2.97	999.00	-2.26	0.00
23	4	27	11	114.20	10.32	8.94	45.98	999.00	109.60	9.77	10.59	46.81	110.60	7.01	18.21	48.97	999.00	-2.93	999.00	-2.02	0.00
23	4	27	12	102.50	8.75	9.14	47.32	999.00	93.60	8.40	12.44	48.08	76.90	7.26	20.01	50.21	999.00	-2.66	999.00	-1.73	0.00
23	4	27	13	66.08	10.09	7.56	48.05	999.00	57.97	10.14	8.52	49.03	55.92	9.54	14.46	50.67	999.00	-2.42	999.00	-1.34	0.00
23	4	27	14	62.73	13.85	6.36	48.34	999.00	56.81	13.26	7.01	49.15	57.65	9.92	10.39	50.52	999.00	-2.48	999.00	-1.71	0.00
23	4	27	15	60.89	15.09	7.85	48.51	999.00	56.11	13.81	8.58	49.28	56.31	11.25	12.01	51.25	999.00	-2.83	999.00	-1.97	0.00
23	4	27	16	62.88	14.45	6.92	48.34	999.00	57.77	13.43	8.00	49.19	56.14	10.96	12.10	51.02	999.00	-2.48	999.00	-1.69	0.00
23	4	27	17	67.95	16.56	4.86	48.24	999.00	66.04	15.95	6.12	49.02	71.90	11.88	10.90	50.90	999.00	-2.63	999.00	-1.85	0.00
23	4	27	18	72.30	17.09	3.71	47.27	999.00	67.96	17.29	4.25	48.00	70.20	13.24	9.84	49.64	999.00	-2.45	999.00	-1.71	0.00
23	4	27	19	78.00	18.22	5.07	46.66	999.00	75.30	17.63	5.91	47.36	79.90	10.41	15.04	49.02	999.00	-2.38	999.00	-1.69	0.00
23	4	27	20	82.50	22.37	3.95	46.38	999.00	79.80	21.17	5.00	47.02	85.70	12.67	13.72	48.47	999.00	-1.91	999.00	-1.33	0.00
23	4	27	21	78.20	22.65	3.45	46.18	999.00	75.20	22.15	4.19	46.73	81.10	13.20	12.95	47.92	999.00	-1.69	999.00	-1.16	0.00
23	4	27	22	80.10	20.84	3.40	46.31	999.00	77.10	20.21	3.59	46.84	85.00	12.22	13.53	47.93	999.00	-1.59	999.00	-1.08	0.00
23	4	27	23	75.50	22.23	4.24	47.08	999.00	72.30	19.97	5.36	47.58	74.20	10.79	12.35	48.59	999.00	-1.53	999.00	-1.04	0.00
23	4	27	24	75.90	25.17	3.71	47.96	999.00	73.20	22.97	4.87	48.43	80.90	12.47	14.26	49.42	999.00	-1.42	999.00	-0.98	0.00
23	4	28	1	81.40	26.40	4.58	48.37	999.00	77.80	23.74	5.69	48.83	84.00	12.35	14.89	49.73	999.00	-1.41	999.00	-0.92	0.00

23	4	28	2	76.70	24.94	3.35	47.69	999.00	72.90	23.50	4.02	48.20	79.30	12.91	12.77	49.23	999.00	-1.61	999.00	-1.09	0.00
23	4	28	3	70.40	21.58	3.15	47.24	999.00	66.29	20.45	4.17	47.75	69.29	12.87	10.51	48.84	999.00	-1.63	999.00	-1.10	0.00
23	4	28	4	69.69	22.08	2.71	46.44	999.00	65.66	21.41	3.49	46.98	66.61	13.67	10.01	48.10	999.00	-1.68	999.00	-1.15	0.00
23	4	28	5	70.70	15.62	4.28	46.16	999.00	65.29	15.26	5.64	46.70	65.43	9.97	10.03	47.82	999.00	-1.63	999.00	-1.10	0.00
23	4	28	6	64.65	12.38	2.74	45.92	999.00	58.38	12.38	2.97	46.41	65.52	8.19	10.78	47.48	999.00	-1.45	999.00	-0.96	0.01
23	4	28	7	65.13	14.61	3.55	45.97	999.00	57.81	13.94	3.77	46.22	63.53	8.19	11.37	46.88	999.00	-0.50	999.00	-0.33	0.00
23	4	28	8	56.01	17.47	2.62	45.97	999.00	46.24	15.81	4.18	46.17	48.44	9.77	9.72	46.53	999.00	-0.24	999.00	-0.35	0.02
23	4	28	9	56.11	19.41	3.13	48.02	999.00	44.41	17.67	4.67	47.18	45.64	10.26	10.76	47.18	999.00	1.17	999.00	0.08	0.02
23	4	28	10	55.77	21.86	4.62	48.08	999.00	45.17	19.23	5.55	47.36	37.93	11.87	9.14	47.64	999.00	0.19	999.00	-0.41	0.11
23	4	28	11	53.81	26.55	4.63	48.06	999.00	44.02	22.63	6.32	47.69	38.21	14.97	9.10	48.43	999.00	-0.33	999.00	-0.93	0.08
23	4	28	12	60.89	26.56	3.36	48.45	999.00	49.26	24.17	4.39	47.83	43.80	13.26	11.11	48.84	999.00	-0.06	999.00	-0.83	0.05
23	4	28	13	59.52	28.05	2.96	48.99	999.00	51.61	25.52	4.08	48.42	46.32	14.19	11.00	48.97	999.00	-0.57	999.00	-0.77	0.03
23	4	28	14	60.67	31.56	3.14	49.16	999.00	54.95	27.84	5.07	49.03	55.64	15.44	10.45	49.77	999.00	-0.71	999.00	-0.82	0.00
23	4	28	15	66.44	32.11	2.89	48.83	999.00	61.51	28.91	4.64	48.86	63.63	16.72	11.00	49.81	999.00	-1.15	999.00	-1.04	0.01
23	4	28	16	63.12	28.89	2.76	48.51	999.00	59.03	25.98	4.37	48.79	64.53	14.93	10.75	49.89	999.00	-1.45	999.00	-1.13	0.00
23	4	28	17	71.90	24.49	3.73	48.15	999.00	66.67	21.19	5.16	48.33	67.42	12.57	10.85	49.47	999.00	-1.31	999.00	-1.09	0.00
23	4	28	18	73.50	27.00	2.04	48.36	999.00	67.06	23.65	3.88	48.31	68.22	12.98	10.88	49.26	999.00	-0.54	999.00	-0.85	0.00
23	4	28	19	73.70	25.67	2.53	48.83	999.00	67.52	21.59	4.80	48.49	70.10	12.12	11.23	49.25	999.00	-0.28	999.00	-0.67	0.00
23	4	28	20	73.10	19.61	4.20	48.96	999.00	68.50	16.49	6.06	48.99	79.90	8.33	16.01	49.82	999.00	-1.15	999.00	-0.90	0.02
23	4	28	21	106.40	12.33	4.27	49.39	999.00	91.90	14.25	2.76	49.20	84.60	6.49	11.47	49.70	999.00	1.06	999.00	-0.01	0.11
23	4	28	22	179.00	10.27	13.05	52.46	999.00	170.40	7.19	15.31	51.46	127.80	2.46	51.79	50.68	999.00	1.32	999.00	0.61	0.01
23	4	28	23	230.50	14.27	3.71	52.46	999.00	227.60	12.20	4.53	51.46	228.70	6.51	8.49	50.68	999.00	-0.62	999.00	-0.25	0.00
23	4	28	24	217.80	10.11	1.88	50.91	999.00	220.20	9.62	1.08	51.13	222.90	3.67	13.92	51.40	999.00	-0.12	999.00	0.33	0.01
23	4	29	1	182.60	10.19	4.71	50.90	999.00	175.60	9.20	5.11	51.66	159.40	3.49	14.97	51.18	999.00	-0.40	999.00	0.55	0.01
23	4	29	2	168.60	8.85	3.44	50.39	999.00	162.80	7.73	3.41	51.30	150.20	2.19	14.59	50.76	999.00	-0.27	999.00	0.63	0.00
23	4	29	3	152.30	10.83	2.55	50.77	999.00	144.90	9.49	3.92	51.42	145.10	2.76	14.54	50.64	999.00	0.19	999.00	0.73	0.00
23	4	29	4	159.30	9.31	3.70	49.56	999.00	154.40	7.94	5.21	50.02	170.50	3.45	18.29	50.44	999.00	-1.23	999.00	-0.84	0.00
23	4	29	5	183.70	8.69	4.85	49.56	999.00	178.90	7.09	4.85	50.02	185.70	2.96	16.95	50.44	999.00	-1.00	999.00	-0.70	0.00
23	4	29	6	215.40	10.63	5.22	49.35	999.00	210.50	8.97	5.44	49.60	215.20	4.09	12.48	50.24	999.00	-0.85	999.00	-0.58	0.00
23	4	29	7	250.90	16.78	4.85	49.22	999.00	248.80	15.91	5.78	49.57	255.90	10.24	10.84	50.40	999.00	-1.30	999.00	-0.92	0.00
23	4	29	8	255.20	15.20	5.39	48.42	999.00	251.80	13.81	6.19	48.81	247.50	8.60	9.79	49.68	999.00	-1.29	999.00	-0.90	0.00
23	4	29	9	244.40	16.62	4.78	48.74	999.00	242.60	14.81	5.85	49.24	245.60	9.57	11.26	50.16	999.00	-1.42	999.00	-0.88	0.00
23	4	29	10	250.40	14.81	8.73	49.22	999.00	248.70	13.41	10.19	49.82	248.30	9.40	12.67	50.62	999.00	-1.57	999.00	-0.92	0.00
23	4	29	11	255.90	15.24	6.49	49.99	999.00	254.20	13.96	7.06	50.82	256.60	9.70	12.11	51.38	999.00	-1.88	999.00	-0.99	0.00
23	4	29	12	247.10	14.27	7.75	50.67	999.00	244.00	13.22	8.62	51.46	241.10	9.41	10.53	52.73	999.00	-1.99	999.00	-1.26	0.00
23	4	29	13	238.30	12.30	8.86	51.92	999.00	234.60	11.79	9.49	52.52	243.30	8.82	12.72	53.96	999.00	-2.28	999.00	-1.72	0.00
23	4	29	14	241.30	16.79	4.58	54.60	999.00	240.60	15.82	5.49	55.19	239.30	11.86	12.28	56.71	999.00	-1.99	999.00	-1.40	0.00
23	4	29	15	228.80	14.92	6.55	56.92	999.00	227.40	14.75	6.71	57.47	230.90	11.26	9.88	59.40	999.00	-2.59	999.00	-2.04	0.00
23	4	29	16	220.80	18.86	8.97	58.34	999.00	218.70	18.01	10.62	58.88	228.10	12.69	11.23	60.67	999.00	-2.27	999.00	-1.74	0.00
23	4	29	17	214.60	15.63	7.76	59.34	999.00	213.70	14.81	8.41	59.89	206.30	9.91	15.31	61.47	999.00	-2.08	999.00	-1.54	0.00
23	4	29	18	189.40	15.62	7.94	60.55	999.00	187.80	14.44	8.72	61.15	193.50	8.94	18.67	62.53	999.00	-1.94	999.00	-1.31	0.00
23	4	29	19	178.40	18.32	6.61	62.08	999.00	175.20	16.95	7.87	62.73	188.60	8.99	15.31	63.92	999.00	-1.60	999.00	-1.00	0.00
23	4	29	20	186.10	17.44	4.76	62.69	999.00	183.30	15.38	5.59	63.14	185.70	6.85	11.68	63.76	999.00	-0.35	999.00	-0.05	0.00
23	4	29	21	246.30	26.28	13.09	60.50	999.00	246.00	24.23	13.87	60.77	247.30	17.30	10.62	60.75	999.00	-1.50	999.00	-1.02	0.19
23	4	29	22	228.30	14.72	4.92	50.36	999.00	226.30	12.73	5.40	50.81	205.40	7.39	13.94	51.27	999.00	0.00	999.00	0.42	0.06
23	4	29	23	191.40	16.34	5.44	50.75	999.00	187.80	14.35	5.96	51.22	197.60	6.40	14.55	51.30	999.00	-0.62	999.00	-0.18	0.03
23	4	29	24	208.20	15.55	4.85	50.97	999.00	205.80	13.52	5.39	51.45	211.30	6.65	14.54	51.55	999.00	-0.60	999.00	-0.13	0.00
23	4	30	1	241.00	10.53	5.06	50.82	999.00	236.80	10.22	4.71	51.38	232.90	6.91	12.42	51.46	999.00	-0.62	999.00	0.00	0.00
23	4	30	2	250.90	13.59	5.04	49.73	999.00	247.50	12.31	5.96	50.32	234.00	7.00	14.21	49.57	999.00	0.52	999.00	1.08	0.00
23	4	30	3	242.20	8.85	6.83	48.24	999.00	236.30	7.92	7.38	48.67	212.40	5.40	13.33	48.23	999.00	-0.25	999.00	0.19	0.00
23	4	30	4	249.90	10.55	1.59	47.35	999.00	240.60	9.22	3.80	47.29	228.10	4.76	20.25	46.99	999.00	0.51	999.00	0.21	0.00
23	4	30	5	213.30	6.88	11.50	47.19	999.00	209.10	7.08	10.85	46.97	176.60	3.27	16.85	46.44	999.00	0.78	999.00	0.66	0.00
23	4	30	6	203.50	6.14	13.54	47.53	999.00	200.20	6.43	15.44	47.46	240.10	2.56	25.22	46.40	999.00	1.43	999.00	1.36	0.00

23	4	30	7	247.30	7.89	11.03	46.24	999.00	251.40	7.38	9.84	46.48	260.60	4.55	19.14	46.78	999.00	-0.83	999.00	-0.48	0.03
23	4	30	8	264.60	18.76	4.24	42.89	999.00	263.30	17.16	5.39	43.32	258.40	10.46	9.92	44.00	999.00	-1.12	999.00	-0.66	0.11
23	4	30	9	272.60	18.59	4.94	41.47	999.00	271.00	17.39	5.75	41.90	271.70	10.23	11.62	42.22	999.00	-0.42	999.00	0.02	0.04
23	4	30	10	281.80	9.45	6.37	40.70	999.00	278.60	8.21	6.42	41.10	264.50	5.13	11.99	41.34	999.00	-1.06	999.00	-0.61	0.00
23	4	30	11	258.30	8.19	14.89	42.12	999.00	255.50	7.96	15.96	42.47	264.40	6.47	19.06	45.29	999.00	-4.00	999.00	-3.97	0.00
23	4	30	12	257.40	10.75	12.20	44.73	999.00	254.50	10.33	13.71	45.36	251.40	8.56	17.17	47.08	999.00	-2.02	999.00	-1.22	0.00
23	4	30	13	276.90	13.81	10.93	46.92	999.00	276.30	13.15	10.92	47.60	268.20	9.03	12.89	49.42	999.00	-2.86	999.00	-2.19	0.00
23	4	30	14	249.80	14.97	9.27	47.53	999.00	248.60	14.11	9.13	48.16	236.80	10.75	12.24	50.04	999.00	-2.52	999.00	-1.92	0.00
23	4	30	15	261.00	14.17	7.99	46.51	999.00	259.90	12.72	8.93	47.07	278.30	9.08	14.95	48.90	999.00	-2.10	999.00	-1.57	0.00
23	4	30	16	254.00	13.77	11.20	48.42	999.00	252.80	13.35	11.76	49.12	253.10	10.42	19.62	51.20	999.00	-2.94	999.00	-2.27	0.00
23	4	30	17	265.10	13.55	11.86	50.65	999.00	263.30	13.16	12.13	51.27	247.60	9.64	17.05	53.37	999.00	-2.42	999.00	-1.83	0.00
23	4	30	18	250.70	15.21	7.20	51.36	999.00	250.30	14.07	8.73	51.96	251.20	10.01	13.17	53.61	999.00	-1.89	999.00	-1.32	0.00
23	4	30	19	250.20	23.34	5.06	49.30	999.00	249.00	21.86	6.48	49.85	253.80	15.41	12.13	50.65	999.00	-1.39	999.00	-0.83	0.00
23	4	30	20	230.10	11.47	6.70	45.84	999.00	229.80	10.49	8.35	46.33	214.90	7.47	12.18	47.36	999.00	-1.27	999.00	-0.84	0.00
23	4	30	21	215.90	18.68	5.44	46.83	999.00	213.90	16.70	6.78	47.25	222.60	10.63	10.22	48.07	999.00	-1.52	999.00	-0.96	0.00
23	4	30	22	217.20	12.95	6.85	44.36	999.00	218.40	11.17	7.84	44.83	213.30	6.70	13.48	45.78	999.00	-1.16	999.00	-0.81	0.00
23	4	30	23	246.30	15.97	6.92	43.41	999.00	242.10	14.95	8.70	43.93	256.10	10.64	12.39	44.76	999.00	-1.59	999.00	-1.01	0.00
23	4	30	24	230.30	12.62	7.00	42.66	999.00	225.80	11.71	7.52	43.15	221.60	8.51	10.73	44.03	999.00	-1.55	999.00	-1.03	0.02
23	5	1	1	242.10	19.32	6.65	41.29	999.00	241.00	17.15	8.02	41.84	237.40	11.43	9.60	42.91	999.00	-1.62	999.00	-1.04	0.00
23	5	1	2	238.10	17.39	6.09	39.76	999.00	234.60	16.56	6.24	40.36	238.20	12.93	10.86	41.53	999.00	-1.76	999.00	-1.16	0.01
23	5	1	3	234.30	15.24	5.64	39.10	999.00	231.40	14.57	6.03	39.69	237.00	11.52	10.55	40.83	999.00	-1.70	999.00	-1.13	0.00
23	5	1	4	231.80	15.53	5.06	37.92	999.00	228.30	15.10	5.28	38.49	227.90	11.07	10.05	39.55	999.00	-1.64	999.00	-1.07	0.00
23	5	1	5	238.20	15.80	6.86	37.37	999.00	236.90	15.26	7.37	37.98	237.10	11.10	11.40	39.08	999.00	-1.66	999.00	-1.06	0.00
23	5	1	6	247.80	15.64	7.37	36.89	999.00	245.50	13.61	8.05	37.48	254.50	9.13	11.59	38.51	999.00	-1.48	999.00	-0.95	0.00
23	5	1	7	265.90	16.32	4.70	37.15	999.00	263.50	14.95	5.66	37.67	260.30	9.63	10.61	38.63	999.00	-1.43	999.00	-0.92	0.00
23	5	1	8	250.00	15.73	5.26	37.15	999.00	248.30	14.92	5.86	37.67	248.30	9.66	12.26	38.63	999.00	-1.59	999.00	-1.05	0.00
23	5	1	9	240.20	17.30	6.12	37.96	999.00	237.70	16.38	6.69	38.55	242.80	12.80	12.32	39.83	999.00	-1.96	999.00	-1.35	0.00
23	5	1	10	244.40	18.80	7.12	39.29	999.00	243.60	18.21	8.15	39.89	243.40	13.25	11.77	41.35	999.00	-2.08	999.00	-1.50	0.01
23	5	1	11	241.60	22.23	5.57	40.47	999.00	239.30	21.27	6.38	41.07	242.90	15.37	12.37	42.73	999.00	-2.39	999.00	-1.80	0.00
23	5	1	12	237.10	23.30	6.40	40.75	999.00	236.70	22.42	7.21	41.37	234.10	16.73	12.91	43.37	999.00	-2.37	999.00	-1.74	0.00
23	5	1	13	242.30	24.56	6.75	40.03	999.00	241.40	23.32	8.19	40.65	236.20	17.01	12.87	42.31	999.00	-1.98	999.00	-1.38	0.01
23	5	1	14	247.50	29.05	7.28	40.15	999.00	247.50	27.55	8.28	40.78	249.70	19.01	13.85	42.81	999.00	-2.39	999.00	-1.78	0.00
23	5	1	15	245.20	26.64	5.31	41.23	999.00	244.40	24.61	6.82	41.93	245.60	16.38	13.64	43.46	999.00	-2.31	999.00	-1.60	0.00
23	5	1	16	233.20	26.42	7.08	41.06	999.00	231.50	25.46	7.84	41.72	231.60	19.34	9.40	43.96	999.00	-3.15	999.00	-2.55	0.00
23	5	1	17	255.40	26.11	7.92	42.72	999.00	254.50	24.42	8.95	43.35	252.90	16.53	14.24	45.61	999.00	-2.55	999.00	-1.89	0.00
23	5	1	18	262.90	21.12	11.91	42.72	999.00	263.10	19.57	13.15	43.35	249.30	13.31	12.32	45.61	999.00	-1.01	999.00	-0.50	0.00
23	5	1	19	257.00	26.18	6.75	43.15	999.00	256.60	23.97	8.23	43.81	247.90	15.84	12.23	43.79	999.00	-1.01	999.00	-0.44	0.00
23	5	1	20	260.70	29.07	6.61	42.26	999.00	259.50	26.27	6.79	42.83	261.40	17.24	10.92	43.68	999.00	-1.65	999.00	-1.11	0.00
23	5	1	21	256.20	26.44	6.75	42.26	999.00	255.30	24.31	8.65	42.83	260.20	16.19	11.83	43.68	999.00	-1.64	999.00	-1.08	0.00
23	5	1	22	261.20	25.16	6.31	38.40	999.00	259.70	23.38	6.97	38.96	257.80	15.14	10.67	39.79	999.00	-1.14	999.00	-0.60	0.02
23	5	1	23	258.70	24.78	5.77	36.73	999.00	257.30	22.70	6.76	37.26	257.20	14.97	11.04	37.08	999.00	-0.49	999.00	0.04	0.03
23	5	1	24	258.60	24.94	6.74	36.24	999.00	256.50	23.21	8.10	36.80	257.40	15.14	12.03	37.02	999.00	-0.97	999.00	-0.40	0.03
23	5	2	1	257.80	22.65	6.41	36.16	999.00	255.10	21.04	6.94	36.74	255.30	13.95	12.36	36.97	999.00	-0.88	999.00	-0.29	0.03
23	5	2	2	258.20	22.77	6.33	36.92	999.00	255.80	20.78	7.34	37.53	253.20	13.87	12.23	37.54	999.00	-0.71	999.00	-0.08	0.02
23	5	2	3	259.30	23.94	5.16	37.17	999.00	257.40	21.77	6.27	37.82	254.80	14.03	10.20	37.73	999.00	-0.52	999.00	0.12	0.00
23	5	2	4	257.60	23.58	6.03	999.00	999.00	256.00	21.86	6.56	999.00	253.50	14.01	10.76	37.72	999.00	-0.47	999.00	0.17	0.00
23	5	2	5	256.30	24.63	5.45	37.29	999.00	253.80	22.37	6.26	37.94	255.50	14.59	10.27	37.74	999.00	-0.45	999.00	0.18	0.00
23	5	2	6	262.20	19.38	6.97	37.29	999.00	260.90	17.51	8.17	37.94	257.50	10.76	11.56	37.74	999.00	-0.29	999.00	0.21	0.00
23	5	2	7	259.70	23.50	5.45	37.50	999.00	257.80	21.53	7.10	38.10	257.90	13.64	11.22	37.83	999.00	-0.27	999.00	0.33	0.00
23	5	2	8	258.90	23.52	6.06	37.55	999.00	256.70	21.74	7.01	38.09	256.50	14.50	10.59	37.75	999.00	-0.34	999.00	0.19	0.00
23	5	2	9	266.30	21.35	7.21	38.01	999.00	264.90	20.19	8.18	38.55	266.00	13.78	11.19	39.26	999.00	-1.62	999.00	-1.04	0.00
23	5	2	10	265.70	23.84	6.24	38.72	999.00	264.30	22.53	7.32	39.31	264.90	15.47	11.94	40.06	999.00	-1.55	999.00	-0.98	0.00
23	5	2	11	261.10	22.96	6.80	39.14	999.00	259.30	21.66	7.90	39.73	260.50	14.84	11.74	41.25	999.00	-2.25	999.00	-1.65	0.00

23	5	2	12	268.50	20.33	6.51	40.30	999.00	266.70	19.75	7.17	40.88	264.70	13.38	12.46	42.40	999.00	-2.08	999.00	-1.50	0.00
23	5	2	13	273.40	23.87	5.71	41.38	999.00	272.50	23.17	6.85	41.94	273.00	16.56	10.36	43.34	999.00	-1.98	999.00	-1.40	0.00
23	5	2	14	273.10	26.20	7.25	42.20	999.00	272.20	24.28	8.20	42.79	270.20	16.93	12.57	44.23	999.00	-1.96	999.00	-1.40	0.00
23	5	2	15	275.40	28.35	4.44	41.49	999.00	274.40	26.78	5.72	42.06	267.20	18.24	10.59	43.38	999.00	-1.89	999.00	-1.29	0.01
23	5	2	16	281.00	25.33	10.78	40.36	999.00	280.70	23.55	11.51	40.90	283.70	15.73	10.29	40.85	999.00	-0.20	999.00	0.30	0.01
23	5	2	17	276.50	26.79	6.18	40.71	999.00	275.70	25.25	7.43	41.19	275.40	17.50	11.68	40.72	999.00	0.09	999.00	0.59	0.00
23	5	2	18	265.60	24.97	11.07	40.36	999.00	264.50	23.29	11.54	40.94	277.20	15.63	11.32	40.56	999.00	-0.10	999.00	0.50	0.00
23	5	2	19	269.20	23.65	5.50	41.10	999.00	267.40	21.87	6.84	41.71	266.30	13.64	10.69	40.74	999.00	0.60	999.00	1.18	0.00
23	5	2	20	280.50	25.26	5.56	41.98	999.00	279.20	23.42	6.37	42.43	272.70	15.67	11.16	42.33	999.00	-0.33	999.00	0.14	0.01
23	5	2	21	287.20	24.34	5.73	40.12	999.00	286.00	22.42	6.48	40.54	280.90	14.68	9.48	39.93	999.00	0.35	999.00	0.80	0.00
23	5	2	22	280.70	23.24	5.36	38.83	999.00	279.30	21.26	6.30	39.33	271.20	14.50	12.56	38.69	999.00	0.15	999.00	0.63	0.01
23	5	2	23	281.10	17.93	5.23	38.08	999.00	277.50	16.10	6.46	38.52	271.60	9.19	11.19	38.02	999.00	0.26	999.00	0.65	0.00
23	5	2	24	283.30	20.57	5.84	38.50	999.00	280.80	18.18	6.21	39.00	272.90	11.09	9.52	38.15	999.00	0.58	999.00	1.12	0.00
23	5	3	1	277.30	19.37	4.98	38.41	999.00	275.10	18.00	5.41	38.90	272.60	11.63	10.53	38.32	999.00	-0.53	999.00	-0.09	0.01
23	5	3	2	295.10	19.43	6.96	38.21	999.00	293.60	18.38	7.73	38.68	292.20	11.55	12.59	38.90	999.00	-0.90	999.00	-0.40	0.00
23	5	3	3	311.10	21.57	6.26	38.57	999.00	310.00	20.65	6.62	39.08	313.60	14.31	12.70	39.65	999.00	-1.21	999.00	-0.68	0.00
23	5	3	4	318.60	19.91	7.71	38.65	999.00	316.40	18.81	7.79	39.18	308.80	11.87	10.86	39.87	999.00	-1.21	999.00	-0.67	0.01
23	5	3	5	321.60	23.45	5.64	38.78	999.00	319.80	22.50	6.20	39.32	322.70	14.80	12.44	40.03	999.00	-1.22	999.00	-0.69	0.00
23	5	3	6	321.20	23.66	5.01	38.89	999.00	319.10	22.67	4.77	39.43	316.10	14.70	11.39	40.08	999.00	-1.13	999.00	-0.60	0.00
23	5	3	7	299.60	24.32	5.47	39.28	999.00	298.60	23.19	6.49	39.80	290.30	14.26	11.82	40.41	999.00	-1.11	999.00	-0.59	0.02
23	5	3	8	289.30	20.26	5.84	39.01	999.00	285.20	18.58	6.59	39.40	287.40	11.30	11.60	39.62	999.00	-0.33	999.00	0.01	0.00
23	5	3	9	299.20	27.33	6.10	41.05	999.00	297.00	25.35	6.26	41.47	295.10	15.47	11.24	41.29	999.00	-0.28	999.00	0.19	0.00
23	5	3	10	299.90	29.18	4.55	43.33	999.00	298.30	28.00	4.93	43.85	297.50	17.65	11.50	43.69	999.00	-0.32	999.00	0.19	0.00
23	5	3	11	304.80	29.05	5.21	43.33	999.00	302.50	28.17	4.95	43.85	301.50	18.10	11.47	43.69	999.00	-1.47	999.00	-0.91	0.00
23	5	3	12	306.70	25.79	5.33	44.63	999.00	305.80	24.03	5.82	45.18	308.80	16.45	10.33	46.16	999.00	-1.46	999.00	-0.92	0.00
23	5	3	13	318.50	23.10	6.88	45.24	999.00	317.40	22.11	7.61	45.79	324.00	14.77	12.20	47.03	999.00	-2.04	999.00	-1.44	0.00
23	5	3	14	324.00	23.91	4.27	46.49	999.00	322.60	22.68	5.29	47.13	327.70	14.96	10.59	48.20	999.00	-1.74	999.00	-1.11	0.00
23	5	3	15	318.20	22.19	5.03	47.50	999.00	316.00	20.88	5.64	48.15	319.50	13.53	11.35	49.64	999.00	-1.95	999.00	-1.36	0.00
23	5	3	16	299.70	22.54	5.16	48.11	999.00	297.20	21.43	6.24	48.76	305.60	14.29	11.01	50.61	999.00	-2.66	999.00	-2.00	0.00
23	5	3	17	309.50	18.99	7.04	47.63	999.00	307.10	17.34	7.41	48.23	308.10	11.49	10.23	49.95	999.00	-2.42	999.00	-1.84	0.00
23	5	3	18	304.40	20.45	5.07	47.63	999.00	302.40	18.88	6.36	48.23	304.70	12.20	11.33	49.95	999.00	-2.14	999.00	-1.60	0.00
23	5	3	19	310.60	18.75	5.09	49.55	999.00	308.00	16.96	6.41	50.08	306.80	11.38	10.60	51.47	999.00	-1.64	999.00	-1.16	0.00
23	5	3	20	309.70	17.78	4.33	49.92	999.00	308.00	15.61	6.01	50.30	313.70	9.10	11.24	51.06	999.00	-1.05	999.00	-0.67	0.00
23	5	3	21	316.00	17.55	2.83	50.12	999.00	313.80	15.02	4.66	50.32	309.50	7.86	11.01	50.72	999.00	-0.23	999.00	-0.16	0.00
23	5	3	22	325.50	17.52	3.43	50.51	999.00	321.80	15.59	4.43	50.69	322.60	7.64	9.93	50.92	999.00	-0.20	999.00	-0.16	0.00
23	5	3	23	334.00	14.57	1.31	50.51	999.00	330.70	12.96	3.08	50.62	317.10	5.00	9.84	50.31	999.00	0.14	999.00	0.31	0.00
23	5	3	24	321.10	12.69	3.25	49.99	999.00	316.10	11.30	3.20	49.96	300.60	4.79	10.76	49.56	999.00	0.68	999.00	0.83	0.00
23	5	4	1	326.30	13.94	6.08	50.49	999.00	320.60	11.93	5.78	50.64	314.60	4.16	25.48	49.32	999.00	1.57	999.00	1.72	0.00
23	5	4	2	300.80	11.65	3.88	49.77	999.00	288.20	10.65	5.33	49.96	275.70	5.47	8.97	48.46	999.00	1.15	999.00	1.26	0.00
23	5	4	3	302.10	14.55	4.07	48.57	999.00	293.70	12.96	3.48	48.75	270.40	5.54	6.99	47.67	999.00	0.71	999.00	0.87	0.00
23	5	4	4	310.80	14.59	3.80	47.57	999.00	303.70	13.65	3.66	47.81	270.20	6.33	10.22	46.28	999.00	1.59	999.00	1.80	0.00
23	5	4	5	300.10	15.53	1.74	46.98	999.00	291.20	15.37	1.90	46.97	268.00	6.30	7.78	44.97	999.00	2.26	999.00	2.27	0.00
23	5	4	6	304.50	14.15	1.42	45.40	999.00	295.20	12.86	2.11	45.38	273.40	4.47	9.35	43.55	999.00	2.07	999.00	2.01	0.00
23	5	4	7	318.30	11.50	4.76	45.08	999.00	311.70	8.94	3.91	44.71	215.80	2.03	9.63	42.27	999.00	2.89	999.00	2.35	0.00
23	5	4	8	303.90	10.21	2.58	44.90	999.00	288.50	8.97	4.30	44.45	273.30	3.14	18.78	42.50	999.00	1.32	999.00	0.94	0.00
23	5	4	9	305.60	7.50	9.13	44.30	999.00	304.70	7.38	10.05	44.53	308.70	5.88	15.38	46.10	999.00	-2.99	999.00	-2.29	0.00
23	5	4	10	315.30	5.46	14.98	45.64	999.00	304.60	5.70	15.90	46.28	295.30	5.35	17.72	48.62	999.00	-3.02	999.00	-2.36	0.00
23	5	4	11	312.00	4.41	12.90	46.92	999.00	309.90	4.62	14.86	47.57	348.10	4.17	14.51	49.92	999.00	-3.07	999.00	-2.27	0.00
23	5	4	12	335.50	5.61	10.19	48.51	999.00	344.50	5.49	10.32	49.17	14.47	6.64	10.43	49.92	999.00	-0.76	999.00	-0.13	0.00
23	5	4	13	5.28	5.43	8.67	50.69	999.00	10.21	4.89	9.55	51.30	26.67	5.90	11.60	51.25	999.00	-0.65	999.00	-0.06	0.00
23	5	4	14	8.79	4.16	18.64	52.02	999.00	20.67	3.74	20.22	52.64	48.03	5.48	23.55	52.79	999.00	-0.91	999.00	-0.23	0.00
23	5	4	15	18.91	3.98	32.30	54.84	999.00	27.67	3.92	30.57	55.71	358.70	3.84	43.89	56.35	999.00	-1.88	999.00	-0.89	0.00
23	5	4	16	47.25	6.49	20.53	56.41	999.00	46.25	6.96	14.39	57.23	49.31	7.11	16.81	58.09	999.00	-1.37	999.00	-0.79	0.00

23	5	4	17	80.30	3.85	43.94	56.64	999.00	76.40	4.64	18.70	57.27	81.40	4.69	14.32	58.55	999.00	-1.92	999.00	-1.41	0.00
23	5	4	18	92.30	5.88	6.88	56.64	999.00	91.10	6.64	6.97	57.27	104.00	6.08	18.03	58.55	999.00	-2.13	999.00	-1.51	0.00
23	5	4	19	93.20	7.67	4.37	56.07	999.00	88.90	7.68	6.37	56.65	99.10	5.50	12.23	58.19	999.00	-1.90	999.00	-1.31	0.00
23	5	4	20	109.30	7.03	6.02	56.30	999.00	99.00	6.92	5.80	56.45	93.10	4.16	11.04	57.11	999.00	-0.50	999.00	-0.45	0.00
23	5	4	21	122.10	7.98	6.45	56.64	999.00	111.40	7.52	5.28	56.68	110.30	2.79	7.28	56.51	999.00	0.61	999.00	0.55	0.00
23	5	4	22	135.30	8.37	5.30	56.94	999.00	123.90	7.46	4.90	57.01	114.20	3.80	7.34	55.02	999.00	1.92	999.00	1.80	0.00
23	5	4	23	140.50	13.40	1.64	56.61	999.00	129.10	11.15	2.68	56.07	134.50	3.35	11.13	54.12	999.00	2.35	999.00	1.37	0.00
23	5	4	24	138.80	15.61	1.97	55.72	999.00	135.40	14.57	1.43	55.07	136.80	4.01	9.11	53.47	999.00	2.52	999.00	2.09	0.00
23	5	5	1	152.40	12.02	1.04	55.75	999.00	146.20	12.97	3.01	54.89	137.80	3.63	9.77	53.19	999.00	2.63	999.00	2.07	0.00
23	5	5	2	172.10	8.68	1.30	55.38	999.00	158.20	10.90	1.44	55.06	143.40	3.49	12.07	52.71	999.00	2.95	999.00	1.70	0.00
23	5	5	3	177.10	11.39	1.56	55.22	999.00	167.70	10.94	2.14	53.68	139.80	2.82	13.11	51.55	999.00	4.17	999.00	2.61	0.00
23	5	5	4	171.30	10.68	2.31	54.26	999.00	152.30	8.73	4.20	52.91	126.00	3.39	10.14	50.88	999.00	2.00	999.00	1.37	0.00
23	5	5	5	173.90	11.60	2.56	52.61	999.00	155.80	9.03	2.95	51.98	129.90	3.17	7.84	50.15	999.00	2.92	999.00	2.06	0.00
23	5	5	6	182.30	13.70	1.60	53.21	999.00	166.70	10.36	2.43	51.89	155.60	2.04	10.13	49.35	999.00	4.04	999.00	2.79	0.00
23	5	5	7	185.80	18.48	1.29	53.21	999.00	178.30	14.19	1.55	51.89	171.30	2.68	17.34	49.35	999.00	6.97	999.00	4.48	0.00
23	5	5	8	187.30	17.32	2.22	54.49	999.00	184.40	15.90	0.80	51.96	166.10	3.99	15.60	47.65	999.00	6.88	999.00	4.59	0.00
23	5	5	9	177.80	14.88	4.94	54.92	999.00	172.00	10.91	6.26	52.93	183.80	5.89	12.57	50.88	999.00	0.50	999.00	-0.31	0.00
23	5	5	10	190.10	10.68	9.96	53.26	999.00	186.60	9.88	11.06	54.08	187.90	6.84	17.85	55.10	999.00	-2.29	999.00	-1.30	0.00
23	5	5	11	188.20	7.38	13.41	56.58	999.00	185.20	6.99	15.76	57.57	182.20	5.28	15.49	59.06	999.00	-3.02	999.00	-1.78	0.00
23	5	5	12	164.30	8.85	18.94	59.17	999.00	160.70	8.26	20.59	60.41	152.40	6.30	24.27	61.85	999.00	-2.71	999.00	-1.57	0.00
23	5	5	13	102.20	10.49	12.82	60.25	999.00	90.70	10.19	10.62	61.35	84.00	8.14	17.61	63.13	999.00	-2.96	999.00	-2.17	0.00
23	5	5	14	92.00	10.94	7.16	60.21	999.00	81.40	10.92	6.66	60.76	79.50	8.55	11.70	62.35	999.00	-0.93	999.00	-0.88	0.00
23	5	5	15	72.70	15.84	3.70	58.77	999.00	67.04	15.43	4.92	58.76	76.50	10.30	13.69	59.98	999.00	-1.25	999.00	-1.34	0.00
23	5	5	16	75.60	19.64	2.21	58.17	999.00	69.77	19.02	4.06	58.23	79.20	10.38	13.97	59.93	999.00	-1.65	999.00	-1.82	0.00
23	5	5	17	80.70	23.44	2.54	56.89	999.00	78.30	21.75	4.01	56.95	86.80	12.56	15.60	58.84	999.00	-1.99	999.00	-1.81	0.00
23	5	5	18	87.70	27.45	2.53	55.08	999.00	84.80	23.80	5.36	54.84	93.60	11.74	15.80	56.42	999.00	-0.69	999.00	-1.20	0.00
23	5	5	19	94.10	20.34	2.17	54.65	999.00	88.50	18.42	4.33	53.97	97.20	9.82	13.85	55.06	999.00	-0.49	999.00	-0.99	0.00
23	5	5	20	91.80	20.21	3.56	52.28	999.00	87.60	16.69	5.21	52.27	91.10	8.54	14.21	53.27	999.00	-0.95	999.00	-0.86	0.00
23	5	5	21	88.70	22.43	3.09	51.54	999.00	85.40	19.36	4.84	51.78	93.30	8.90	15.32	52.67	999.00	-0.88	999.00	-0.75	0.00
23	5	5	22	93.50	24.26	3.80	52.03	999.00	89.90	20.39	5.30	52.15	96.90	9.64	14.29	52.72	999.00	-0.62	999.00	-0.55	0.00
23	5	5	23	94.80	24.89	3.39	52.59	999.00	91.80	20.57	5.44	52.65	98.00	9.00	15.78	53.11	999.00	-0.41	999.00	-0.41	0.00
23	5	5	24	101.10	25.76	2.29	53.77	999.00	96.10	21.21	4.76	53.53	101.70	9.21	15.08	53.73	999.00	0.68	999.00	0.01	0.00
23	5	6	1	99.00	24.31	2.17	55.23	999.00	93.70	19.94	4.77	54.48	90.70	7.54	14.33	53.94	999.00	1.17	999.00	0.50	0.00
23	5	6	2	102.20	25.13	2.96	54.13	999.00	95.20	20.18	5.40	53.13	100.30	8.31	14.61	52.77	999.00	1.80	999.00	0.30	0.00
23	5	6	3	107.40	21.31	1.19	54.13	999.00	102.40	17.08	3.40	53.13	108.20	7.29	13.04	52.77	999.00	0.94	999.00	0.00	0.00
23	5	6	4	111.10	16.33	0.78	52.65	999.00	107.60	13.14	1.99	52.06	109.10	4.19	13.97	51.78	999.00	1.09	999.00	0.66	0.00
23	5	6	5	116.00	15.18	1.88	52.73	999.00	107.20	12.68	2.64	52.39	102.10	5.26	12.03	51.69	999.00	0.72	999.00	0.37	0.00
23	5	6	6	118.00	13.33	1.52	52.13	999.00	105.90	11.36	2.95	51.87	102.80	4.60	12.46	51.83	999.00	0.26	999.00	-0.05	0.00
23	5	6	7	118.60	15.18	2.99	53.66	999.00	104.20	11.12	4.59	51.77	93.50	4.42	13.08	51.04	999.00	2.52	999.00	0.96	0.00
23	5	6	8	112.40	12.88	3.82	53.12	999.00	94.10	9.83	5.40	51.33	86.40	5.46	14.02	51.12	999.00	0.70	999.00	-0.55	0.00
23	5	6	9	98.20	10.65	6.62	50.10	999.00	89.90	9.99	7.51	50.20	84.90	7.29	12.70	51.38	999.00	-1.68	999.00	-1.24	0.00
23	5	6	10	105.30	10.19	7.03	50.63	999.00	91.50	9.24	8.61	50.71	75.80	6.55	13.73	52.21	999.00	-1.67	999.00	-1.69	0.00
23	5	6	11	104.50	9.05	8.13	50.83	999.00	96.40	8.43	11.45	51.37	86.30	7.74	19.08	53.00	999.00	-1.94	999.00	-1.32	0.00
23	5	6	12	103.60	6.65	8.87	52.80	999.00	87.30	7.89	6.87	53.23	70.50	7.48	13.31	54.62	999.00	-1.00	999.00	-1.23	0.00
23	5	6	13	71.40	9.32	6.63	54.70	999.00	62.03	9.76	6.25	54.59	64.24	9.46	14.55	55.63	999.00	-0.74	999.00	-0.48	0.00
23	5	6	14	64.85	15.06	3.83	55.18	999.00	60.20	15.18	5.59	55.01	64.97	11.65	10.73	56.57	999.00	-1.20	999.00	-1.39	0.00
23	5	6	15	71.40	15.80	3.96	55.09	999.00	69.90	14.51	5.12	54.56	80.30	10.41	12.55	55.85	999.00	-1.27	999.00	-1.46	0.00
23	5	6	16	75.80	16.95	4.40	55.09	999.00	78.80	12.49	8.99	54.56	92.10	8.47	15.54	55.85	999.00	-1.39	999.00	-1.57	0.00
23	5	6	17	77.10	18.14	3.41	53.57	999.00	77.60	16.03	5.02	52.90	85.50	9.85	12.55	54.39	999.00	-0.96	999.00	-1.37	0.00
23	5	6	18	88.90	26.15	3.37	52.39	999.00	83.90	21.38	4.99	52.14	85.20	10.38	14.07	53.45	999.00	-0.42	999.00	-1.09	0.00
23	5	6	19	93.60	19.65	4.58	52.53	999.00	90.20	15.91	7.02	51.86	97.90	7.36	14.91	52.94	999.00	-1.28	999.00	-1.16	0.00
23	5	6	20	92.60	24.84	3.93	52.36	999.00	90.30	20.61	5.83	52.54	96.60	9.65	15.37	53.60	999.00	-0.97	999.00	-0.93	0.00
23	5	6	21	95.00	24.26	3.56	52.88	999.00	91.70	20.22	6.19	52.80	101.50	9.43	13.89	53.58	999.00	-0.84	999.00	-0.80	0.00

23	5	6	22	98.80	30.63	1.99	54.72	999.00	94.90	25.67	4.87	54.17	101.40	11.34	15.62	54.56	999.00	0.53	999.00	-0.11	0.00
23	5	6	23	100.50	27.75	2.21	55.99	999.00	97.40	22.28	4.81	55.35	106.60	9.83	14.08	55.61	999.00	0.63	999.00	-0.22	0.00
23	5	6	24	114.70	20.47	0.93	58.53	999.00	112.40	15.95	1.90	56.76	107.00	5.05	13.57	55.81	999.00	3.70	999.00	1.81	0.00
23	5	7	1	137.90	15.55	3.68	61.42	999.00	128.60	10.02	2.69	59.49	78.40	2.69	15.25	56.50	999.00	6.28	999.00	3.78	0.00
23	5	7	2	145.10	17.06	1.88	61.73	999.00	134.90	11.77	3.38	59.66	102.90	3.35	11.57	55.13	999.00	7.91	999.00	6.03	0.00
23	5	7	3	82.10	11.62	11.76	59.56	999.00	63.21	12.78	9.06	57.72	74.50	7.40	18.80	53.69	999.00	3.41	999.00	1.80	0.00
23	5	7	4	113.90	11.64	7.54	57.75	999.00	95.00	13.84	6.16	55.20	92.90	5.90	14.80	52.64	999.00	5.10	999.00	2.27	0.00
23	5	7	5	163.20	14.42	3.88	60.21	999.00	147.40	14.38	3.41	58.74	154.60	4.88	22.95	52.74	999.00	999.00	999.00	7.97	0.00
23	5	7	6	196.50	18.22	1.61	62.04	999.00	191.90	16.11	2.02	60.97	172.10	4.32	13.85	54.86	999.00	5.76	999.00	5.72	0.01
23	5	7	7	192.50	25.96	3.53	60.71	999.00	186.40	22.74	3.72	59.09	353.00	7.39	81.30	56.14	999.00	5.57	999.00	2.54	0.01
23	5	7	8	192.50	23.28	2.36	58.07	999.00	188.20	19.59	3.33	57.78	186.50	8.67	12.10	57.18	999.00	1.00	999.00	0.59	0.00
23	5	7	9	194.90	30.02	3.81	60.11	999.00	191.20	26.09	4.48	59.87	200.80	11.76	14.28	59.34	999.00	-0.55	999.00	-0.52	0.00
23	5	7	10	209.60	17.55	4.68	59.92	999.00	207.20	15.05	5.45	60.19	220.50	8.17	14.11	61.05	999.00	-1.25	999.00	-1.02	0.00
23	5	7	11	308.10	15.54	7.66	60.85	999.00	308.00	14.41	9.10	61.34	329.30	10.50	13.61	62.78	999.00	-2.34	999.00	-1.69	0.00
23	5	7	12	46.05	5.31	21.15	58.71	999.00	50.89	5.43	19.82	58.86	108.00	5.01	22.35	59.56	999.00	-1.23	999.00	-1.00	0.00
23	5	7	13	169.50	7.66	11.83	60.36	999.00	140.50	6.13	16.85	60.43	140.10	4.94	43.81	61.67	999.00	-0.69	999.00	-0.79	0.00
23	5	7	14	223.30	15.08	5.78	66.87	999.00	221.20	14.64	6.71	67.35	227.50	11.08	13.41	69.05	999.00	-3.04	999.00	-2.42	0.00
23	5	7	15	244.80	17.66	8.89	66.87	999.00	241.80	17.04	8.40	67.35	252.30	11.90	12.98	69.05	999.00	-2.16	999.00	-1.61	0.00
23	5	7	16	297.10	10.84	9.64	72.28	999.00	304.40	10.34	9.39	72.89	332.00	7.95	13.96	74.57	999.00	-2.01	999.00	-1.47	0.00
23	5	7	17	287.00	8.92	11.91	71.26	999.00	296.90	8.02	11.87	71.57	326.40	5.23	15.04	72.60	999.00	-1.69	999.00	-1.37	0.00
23	5	7	18	285.60	12.49	10.30	74.04	999.00	288.80	11.85	10.32	74.42	300.40	7.61	15.80	75.65	999.00	-2.07	999.00	-1.55	0.00
23	5	7	19	287.30	15.33	7.94	76.44	999.00	286.30	14.98	7.26	77.03	276.60	9.90	9.55	78.85	999.00	-2.31	999.00	-1.69	0.00
23	5	7	20	294.10	14.52	6.22	76.70	999.00	290.90	12.98	6.29	77.14	297.80	6.74	12.74	77.67	999.00	-0.28	999.00	0.11	0.00
23	5	7	21	330.80	10.74	4.82	75.29	999.00	335.80	9.79	4.31	75.06	307.90	3.58	42.37	72.35	999.00	2.92	999.00	2.99	0.00
23	5	7	22	50.37	16.76	2.08	70.48	999.00	44.21	14.22	4.24	70.29	50.31	4.81	11.44	68.55	999.00	2.65	999.00	1.79	0.00
23	5	7	23	31.05	18.18	5.04	67.04	999.00	30.74	15.96	7.27	66.91	29.92	12.13	8.93	64.61	999.00	0.20	999.00	0.22	0.00
23	5	7	24	15.50	16.50	5.38	62.87	999.00	17.31	12.21	7.58	62.33	19.51	8.55	10.98	61.46	999.00	1.07	999.00	0.74	0.00
23	5	8	1	28.75	15.65	7.68	60.03	999.00	29.39	14.09	9.40	59.92	30.31	12.35	10.69	59.91	999.00	-0.60	999.00	-0.52	0.00
23	5	8	2	349.70	21.52	2.40	56.45	999.00	351.00	18.10	5.18	56.46	354.60	9.77	8.32	57.03	999.00	0.30	999.00	-0.11	0.00
23	5	8	3	358.90	10.63	11.91	56.38	999.00	0.84	7.75	12.61	56.49	23.70	4.63	15.96	56.79	999.00	-0.99	999.00	-0.72	0.00
23	5	8	4	55.96	16.92	4.52	53.90	999.00	53.57	15.87	5.09	54.30	56.32	10.11	11.78	55.21	999.00	-1.81	999.00	-1.22	0.00
23	5	8	5	39.85	17.34	7.70	53.90	999.00	36.96	15.84	8.41	54.30	32.79	12.84	10.06	55.21	999.00	-1.88	999.00	-1.28	0.00
23	5	8	6	23.61	12.44	8.31	50.13	999.00	20.86	10.03	8.85	50.69	25.41	9.69	12.36	52.02	999.00	-1.84	999.00	-1.29	0.00
23	5	8	7	24.77	4.58	10.98	49.93	999.00	19.70	3.73	10.90	50.37	17.75	3.45	19.04	51.47	999.00	-1.44	999.00	-1.05	0.00
23	5	8	8	21.46	8.54	4.81	50.18	999.00	19.59	6.32	7.71	50.57	16.21	6.08	15.41	51.64	999.00	-1.54	999.00	-1.08	0.00
23	5	8	9	41.31	9.42	10.73	50.38	999.00	39.76	9.26	9.09	50.95	49.56	7.89	11.48	52.15	999.00	-1.81	999.00	-1.20	0.00
23	5	8	10	65.27	9.94	6.86	49.81	999.00	61.89	9.72	7.75	50.30	60.65	7.13	13.06	51.46	999.00	-1.33	999.00	-0.89	0.00
23	5	8	11	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	15.42	51.46	999.00	999.00	999.00	999.00	0.00
23	5	8	12	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	17.60	999.00	999.00	999.00	999.00	999.00	0.00
23	5	8	13	84.60	7.37	8.75	50.07	999.00	79.20	7.26	11.53	50.86	75.90	6.05	16.10	52.75	999.00	-2.68	999.00	-1.89	0.00
23	5	8	14	79.50	7.04	16.29	51.17	999.00	74.80	6.52	18.66	52.17	69.17	5.09	19.72	53.99	999.00	-2.88	999.00	-1.72	0.00
23	5	8	15	30.86	7.26	12.37	51.17	999.00	23.33	6.37	11.43	52.17	34.08	7.86	14.07	53.99	999.00	-1.28	999.00	-0.57	0.00
23	5	8	16	47.69	10.41	8.12	51.87	999.00	42.46	9.58	8.25	52.50	52.18	8.35	11.57	53.59	999.00	-1.71	999.00	-1.08	0.00
23	5	8	17	59.19	9.00	8.22	51.86	999.00	55.27	7.78	7.70	52.33	58.22	6.09	11.51	53.47	999.00	-1.45	999.00	-1.10	0.00
23	5	8	18	52.78	8.55	5.64	51.86	999.00	52.38	6.99	6.98	52.33	47.23	4.70	15.07	53.47	999.00	-1.04	999.00	-0.85	0.00
23	5	8	19	75.60	8.11	11.08	53.46	999.00	82.60	6.43	14.78	53.91	84.50	3.98	18.52	55.08	999.00	-1.63	999.00	-1.24	0.00
23	5	8	20	34.73	10.19	8.27	53.30	999.00	33.93	8.76	8.17	53.64	47.27	6.27	14.61	54.66	999.00	-0.83	999.00	-0.68	0.00
23	5	8	21	43.84	16.17	4.38	55.01	999.00	37.09	12.60	5.14	54.26	63.46	7.05	14.04	54.68	999.00	1.33	999.00	-0.08	0.00
23	5	8	22	53.09	18.75	3.04	58.05	999.00	45.06	18.11	3.33	57.50	47.96	8.86	9.83	56.16	999.00	2.92	999.00	2.33	0.00
23	5	8	23	39.80	19.92	5.59	59.88	999.00	34.76	17.52	7.06	59.41	28.52	12.82	10.18	58.01	999.00	0.97	999.00	0.60	0.00
23	5	8	24	38.49	23.74	5.62	56.24	999.00	37.57	20.40	7.31	55.94	37.76	12.02	11.84	56.31	999.00	0.00	999.00	-0.41	0.00
23	5	9	1	44.63	22.25	3.70	53.74	999.00	41.07	19.00	6.11	53.90	40.50	11.51	8.89	54.69	999.00	-1.24	999.00	-0.91	0.00
23	5	9	2	49.50	18.38	4.78	51.99	999.00	47.48	16.52	5.68	52.46	54.33	10.86	10.73	53.47	999.00	-1.48	999.00	-0.99	0.00

23	5	9	3	32.09	7.97	11.53	51.35	999.00	30.30	7.26	9.81	51.83	20.11	6.55	11.43	52.79	999.00	-1.36	999.00	-0.91	0.00
23	5	9	4	359.40	8.94	11.68	51.74	999.00	355.40	7.74	11.82	52.14	347.70	6.84	10.39	53.13	999.00	-1.30	999.00	-0.94	0.00
23	5	9	5	353.20	9.78	11.08	51.19	999.00	343.40	8.85	6.56	51.46	346.00	6.86	7.09	52.36	999.00	-1.01	999.00	-0.94	0.00
23	5	9	6	7.11	12.73	9.11	51.19	999.00	5.81	11.22	9.79	51.52	15.14	9.67	12.69	52.43	999.00	-1.33	999.00	-0.94	0.00
23	5	9	7	9.82	14.93	7.66	50.85	999.00	8.96	12.41	8.90	51.28	17.21	11.46	11.03	52.28	999.00	-1.39	999.00	-1.00	0.00
23	5	9	8	1.09	11.80	10.97	50.33	999.00	358.60	10.29	11.03	50.83	1.12	9.27	12.58	51.88	999.00	-1.57	999.00	-1.02	0.00
23	5	9	9	11.36	15.97	6.87	50.63	999.00	9.24	13.93	7.65	51.26	10.35	12.49	10.96	52.06	999.00	-1.51	999.00	-0.90	0.00
23	5	9	10	15.38	13.22	7.58	50.66	999.00	11.27	11.52	9.28	51.31	7.85	11.53	13.65	52.32	999.00	-1.57	999.00	-0.94	0.00
23	5	9	11	16.47	15.69	7.29	51.68	999.00	11.83	13.11	8.81	52.43	11.80	12.34	11.11	53.18	999.00	-1.47	999.00	-0.43	0.00
23	5	9	12	23.75	12.02	8.09	53.29	999.00	21.46	9.98	9.33	53.65	29.30	10.21	44.51	54.39	999.00	-1.36	999.00	-0.93	0.00
23	5	9	13	48.60	8.71	12.26	54.51	999.00	45.07	8.34	12.55	54.92	50.72	7.53	19.30	55.92	999.00	-1.79	999.00	-1.21	0.00
23	5	9	14	56.31	9.43	10.72	55.01	999.00	55.34	9.33	12.37	55.85	62.62	7.72	23.95	57.05	999.00	-2.17	999.00	-1.20	0.00
23	5	9	15	89.40	9.83	9.61	54.94	999.00	87.70	9.65	11.60	55.87	88.70	7.60	21.05	57.76	999.00	-3.06	999.00	-2.10	0.00
23	5	9	16	98.20	7.94	8.37	54.58	999.00	95.70	7.70	9.65	55.41	99.30	7.37	15.58	57.56	999.00	-2.53	999.00	-1.76	0.00
23	5	9	17	107.20	8.88	7.43	56.57	999.00	106.10	8.43	9.93	57.25	116.30	6.53	19.90	59.19	999.00	-2.66	999.00	-2.09	0.00
23	5	9	18	75.00	5.82	13.42	58.48	999.00	82.30	5.73	11.02	59.22	97.30	4.83	20.11	60.80	999.00	-2.17	999.00	-1.49	0.00
23	5	9	19	55.79	12.62	5.09	59.91	999.00	60.79	11.03	5.96	60.19	72.60	6.92	12.64	61.60	999.00	-1.27	999.00	-1.01	0.00
23	5	9	20	71.30	12.04	4.16	59.94	999.00	74.20	10.55	5.09	60.27	94.00	5.05	14.86	61.31	999.00	-0.97	999.00	-0.67	0.00
23	5	9	21	67.59	13.70	3.00	59.65	999.00	71.80	11.22	4.53	59.75	93.20	3.64	12.42	59.81	999.00	0.69	999.00	0.44	0.00
23	5	9	22	72.80	13.64	2.49	59.22	999.00	75.70	12.04	2.47	59.11	91.10	4.21	11.69	58.48	999.00	0.86	999.00	0.83	0.00
23	5	9	23	70.90	13.21	2.63	58.96	999.00	78.00	10.97	3.90	58.83	96.50	3.74	11.85	58.37	999.00	0.80	999.00	0.55	0.00
23	5	9	24	119.10	6.59	7.35	58.07	999.00	146.70	4.86	12.77	57.57	236.30	2.97	11.06	56.55	999.00	2.76	999.00	2.00	0.00
23	5	10	1	189.80	6.75	4.36	58.07	999.00	212.20	5.33	4.24	57.57	339.50	1.65	25.48	56.55	999.00	2.77	999.00	2.02	0.00
23	5	10	2	256.60	3.30	5.86	56.36	999.00	279.90	3.09	10.08	56.15	329.70	2.15	2.51	53.28	999.00	2.52	999.00	2.72	0.00
23	5	10	3	349.50	3.60	6.51	55.70	999.00	6.31	3.72	11.94	55.58	65.43	2.92	9.99	53.43	999.00	1.48	999.00	1.25	0.00
23	5	10	4	20.62	2.58	17.09	54.52	999.00	53.84	4.79	6.57	53.83	999.00	2.79	999.00	52.96	999.00	2.01	999.00	1.59	0.00
23	5	10	5	353.40	1.43	17.03	54.67	999.00	60.82	3.46	2.61	54.16	999.00	1.28	999.00	51.55	999.00	4.22	999.00	3.58	0.00
23	5	10	6	101.50	0.92	11.20	55.06	999.00	59.96	3.05	5.24	54.61	140.90	1.66	3.63	50.26	999.00	5.85	999.00	5.12	0.00
23	5	10	7	132.40	2.33	4.84	55.81	999.00	109.60	3.48	2.65	55.31	208.30	1.25	22.18	49.05	999.00	7.43	999.00	7.16	0.00
23	5	10	8	188.90	2.71	7.98	55.84	999.00	152.70	3.05	4.30	55.65	180.20	1.94	0.10	49.62	999.00	5.57	999.00	5.96	0.00
23	5	10	9	187.80	3.28	9.85	56.27	999.00	194.70	3.09	14.64	57.08	243.20	2.65	29.38	53.49	999.00	0.91	999.00	1.83	0.00
23	5	10	10	209.00	4.22	14.26	56.78	999.00	208.00	4.29	14.34	57.36	271.30	4.05	18.80	58.10	999.00	-2.19	999.00	-1.25	0.00
23	5	10	11	211.70	3.74	25.62	58.94	999.00	218.70	3.88	26.78	59.86	274.30	3.11	48.15	61.37	999.00	-2.42	999.00	-1.22	0.00
23	5	10	12	78.00	4.74	16.03	59.98	999.00	72.50	5.15	12.29	61.01	112.20	5.41	10.96	61.85	999.00	-1.81	999.00	-1.04	0.00
23	5	10	13	101.70	6.70	7.83	59.80	999.00	82.10	6.96	9.70	60.43	93.70	6.63	14.71	61.80	999.00	-2.39	999.00	-1.29	0.00
23	5	10	14	99.80	8.15	5.54	61.71	999.00	79.50	8.74	6.04	61.97	108.30	7.53	11.52	63.91	999.00	-1.57	999.00	-0.63	0.00
23	5	10	15	103.40	7.04	7.01	62.66	999.00	86.50	7.34	8.78	62.88	97.80	7.03	14.50	64.61	999.00	-2.01	999.00	999.00	0.00
23	5	10	16	94.20	8.04	2.84	64.15	999.00	78.40	9.01	3.80	63.73	114.30	7.50	11.25	64.70	999.00	-0.58	999.00	999.00	0.00
23	5	10	17	98.30	8.17	5.64	64.65	999.00	93.50	8.43	8.07	64.30	116.40	7.23	10.27	65.25	999.00	-0.48	999.00	999.00	0.00
23	5	10	18	109.30	8.47	3.98	65.85	999.00	97.90	8.29	8.14	65.83	129.30	5.90	12.23	67.09	999.00	-1.33	999.00	999.00	0.00
23	5	10	19	112.60	11.25	1.14	66.92	999.00	106.30	10.65	2.29	66.69	129.90	5.78	10.06	66.93	999.00	0.27	999.00	999.00	0.00
23	5	10	20	132.50	10.25	2.61	67.73	999.00	124.40	11.27	2.11	67.49	145.60	4.11	11.92	67.44	999.00	0.87	999.00	999.00	0.00
23	5	10	21	158.70	12.45	0.56	67.09	999.00	147.50	11.65	1.27	66.64	175.60	2.86	15.02	65.73	999.00	2.38	999.00	999.00	0.00
23	5	10	22	166.70	16.60	0.99	66.21	999.00	158.20	13.89	1.96	65.31	185.10	3.00	15.36	63.30	999.00	3.12	999.00	999.00	0.00
23	5	10	23	176.20	15.97	1.60	66.28	999.00	164.70	14.87	3.07	64.19	192.50	2.86	13.22	61.85	999.00	5.37	999.00	999.00	0.00
23	5	10	24	178.80	14.53	0.83	67.82	999.00	166.00	16.22	1.00	64.60	185.80	2.92	19.42	60.72	999.00	7.56	999.00	999.00	0.00
23	5	11	1	177.60	14.18	1.03	67.66	999.00	168.90	12.56	1.31	64.23	181.10	1.59	29.98	59.74	999.00	7.96	999.00	999.00	0.00
23	5	11	2	187.10	14.54	1.51	66.50	999.00	179.20	12.08	1.95	62.70	202.30	2.76	16.47	58.82	999.00	7.21	999.00	999.00	0.00
23	5	11	3	188.00	14.40	0.86	65.54	999.00	179.10	12.54	1.97	62.20	187.80	2.27	14.60	57.75	999.00	7.52	999.00	999.00	0.00
23	5	11	4	197.10	12.54	0.63	65.24	999.00	183.00	15.07	1.16	63.64	222.40	3.37	9.42	57.08	999.00	999.00	999.00	999.00	0.00
23	5	11	5	195.90	10.85	2.19	999.00	999.00	177.10	12.55	1.79	64.04	193.50	2.25	11.45	56.26	999.00	999.00	999.00	999.00	0.00
23	5	11	6	199.40	11.17	1.65	63.49	999.00	194.50	10.34	4.02	60.95	195.70	2.83	14.30	55.68	999.00	7.82	999.00	999.00	0.00
23	5	11	7	194.90	9.89	2.33	62.82	999.00	186.80	8.71	3.06	60.80	158.50	1.31	37.47	55.09	999.00	7.19	999.00	999.00	0.00

23	5	11	8	210.20	2.65	7.91	59.66	999.00	291.90	1.07	91.70	58.30	77.30	1.86	30.07	56.92	999.00	-0.45	999.00	999.00	0.00
23	5	11	9	202.70	3.81	16.50	58.92	999.00	200.40	2.38	22.08	59.18	189.00	2.26	22.53	60.49	999.00	-1.50	999.00	999.00	0.00
23	5	11	10	207.70	3.12	24.93	61.26	999.00	188.70	2.96	33.10	61.54	197.50	2.74	24.38	63.29	999.00	-2.64	999.00	999.00	0.00
23	5	11	11	225.70	3.24	24.38	65.53	999.00	219.70	3.43	24.96	66.08	265.10	2.90	57.49	68.11	999.00	-2.57	999.00	999.00	0.00
23	5	11	12	127.30	3.75	11.42	68.58	999.00	106.40	3.96	12.50	69.33	99.60	4.55	13.62	71.00	999.00	-1.97	999.00	999.00	0.00
23	5	11	13	86.90	6.19	5.99	69.74	999.00	66.82	5.44	8.42	70.27	68.98	5.95	15.35	70.82	999.00	-1.15	999.00	999.00	0.00
23	5	11	14	80.00	8.22	7.33	69.85	999.00	62.63	7.75	8.84	70.28	59.62	7.28	12.48	71.72	999.00	-1.62	999.00	999.00	0.00
23	5	11	15	72.20	8.60	6.74	70.88	999.00	62.72	8.37	8.44	71.32	75.00	8.05	11.09	72.57	999.00	-0.87	999.00	999.00	0.00
23	5	11	16	64.21	12.05	4.49	70.36	999.00	56.34	11.73	6.83	70.74	79.00	10.25	11.43	72.25	999.00	-0.98	999.00	-0.77	0.00
23	5	11	17	64.39	13.37	4.31	70.30	999.00	50.22	11.96	5.49	70.47	76.30	9.56	12.85	71.80	999.00	-1.07	999.00	-1.21	0.00
23	5	11	18	72.20	12.64	3.87	71.22	999.00	63.90	11.64	6.22	71.19	93.80	8.82	15.41	72.20	999.00	-1.22	999.00	-1.35	0.00
23	5	11	19	83.20	13.11	3.07	72.06	999.00	75.20	13.41	3.61	71.61	114.40	7.03	12.61	72.03	999.00	0.70	999.00	-0.34	0.00
23	5	11	20	91.60	11.27	6.25	71.79	999.00	94.30	9.83	9.35	70.86	132.40	4.32	9.60	70.17	999.00	1.92	999.00	1.22	0.00
23	5	11	21	108.80	13.90	2.38	70.46	999.00	104.20	13.85	1.91	70.16	130.10	4.41	9.22	68.35	999.00	2.30	999.00	2.31	0.00
23	5	11	22	113.00	14.68	1.98	70.03	999.00	110.60	14.52	2.85	69.47	145.00	4.12	7.78	66.30	999.00	4.59	999.00	3.53	0.00
23	5	11	23	116.80	15.01	2.32	70.56	999.00	112.90	15.78	2.13	69.77	150.80	4.54	10.95	65.81	999.00	4.96	999.00	4.88	0.00
23	5	11	24	129.10	17.34	1.32	71.08	999.00	123.10	18.45	1.18	70.54	148.50	3.93	8.40	66.11	999.00	5.25	999.00	4.98	0.00
23	5	12	1	132.50	17.88	0.51	70.97	999.00	127.80	16.16	1.02	69.23	148.40	3.48	7.66	65.19	999.00	6.01	999.00	4.57	0.00
23	5	12	2	135.20	15.56	0.95	70.88	999.00	129.10	14.60	1.75	68.75	137.40	2.73	6.97	64.36	999.00	7.80	999.00	5.12	0.00
23	5	12	3	160.40	13.08	1.26	68.79	999.00	141.20	10.05	1.25	68.06	131.50	1.66	8.99	63.17	999.00	4.95	999.00	4.53	0.00
23	5	12	4	160.00	13.12	3.35	67.95	999.00	136.00	10.82	5.63	66.38	128.90	2.81	7.89	62.29	999.00	4.91	999.00	4.86	0.00
23	5	12	5	179.90	13.78	3.99	66.55	999.00	156.40	11.20	1.42	65.31	157.50	2.52	10.78	61.93	999.00	6.14	999.00	3.50	0.00
23	5	12	6	186.30	12.41	1.29	68.93	999.00	163.60	13.30	2.59	66.56	167.30	2.43	9.83	61.43	999.00	7.99	999.00	5.82	0.00
23	5	12	7	187.80	16.46	1.21	68.86	999.00	163.80	11.94	2.02	65.89	148.40	3.13	7.81	61.12	999.00	7.99	999.00	4.27	0.00
23	5	12	8	188.60	17.32	1.17	68.45	999.00	169.70	9.65	5.20	63.71	175.80	2.71	21.85	62.06	999.00	7.07	999.00	1.41	0.00
23	5	12	9	188.60	11.60	3.05	70.90	999.00	174.60	11.58	2.75	67.49	173.50	2.36	17.89	64.28	999.00	6.03	999.00	4.63	0.00
23	5	12	10	171.90	5.18	12.52	69.24	999.00	162.40	4.97	11.40	69.40	182.10	3.66	26.54	69.87	999.00	-2.51	999.00	-0.74	0.00
23	5	12	11	147.40	2.22	21.61	70.13	999.00	112.70	3.01	14.98	70.42	112.50	4.91	10.44	70.78	999.00	2.33	999.00	1.75	0.00
23	5	12	12	111.70	4.75	4.63	70.96	999.00	94.90	5.72	8.97	70.20	111.80	5.26	14.24	70.33	999.00	0.02	999.00	-0.88	0.00
23	5	12	13	103.60	6.96	2.54	72.12	999.00	90.60	7.38	3.50	71.78	116.30	6.16	7.39	70.86	999.00	2.46	999.00	0.67	0.00
23	5	12	14	76.20	7.45	6.75	72.96	999.00	67.23	9.36	5.44	71.81	96.70	6.60	10.90	69.69	999.00	2.97	999.00	1.42	0.00
23	5	12	15	81.10	8.38	4.51	72.71	999.00	69.84	8.43	6.46	71.68	106.20	5.76	18.27	69.59	999.00	2.31	999.00	2.24	0.00
23	5	12	16	89.70	11.66	2.46	70.84	999.00	79.10	9.16	5.84	69.44	110.60	6.16	11.58	69.21	999.00	1.61	999.00	-0.34	0.00
23	5	12	17	98.10	15.24	1.10	70.78	999.00	94.10	13.00	1.95	69.69	117.70	5.44	11.47	69.00	999.00	2.52	999.00	0.65	0.00
23	5	12	18	107.60	14.95	6.36	71.51	999.00	97.20	13.57	5.90	71.34	116.30	5.58	8.94	67.96	999.00	4.59	999.00	3.72	0.00
23	5	12	19	109.40	14.78	2.05	71.19	999.00	99.60	16.19	2.52	70.59	121.60	5.99	12.57	67.94	999.00	1.96	999.00	1.90	0.00
23	5	12	20	93.10	16.09	3.50	70.06	999.00	77.30	13.87	3.57	68.87	100.60	5.47	11.94	67.04	999.00	3.88	999.00	2.90	0.00
23	5	12	21	78.10	9.55	15.77	67.78	999.00	50.53	8.66	16.35	66.48	64.63	6.61	24.83	64.26	999.00	2.72	999.00	1.79	0.00
23	5	12	22	106.50	14.03	5.60	68.23	999.00	89.60	14.76	6.41	65.98	115.70	7.90	10.72	63.58	999.00	4.89	999.00	2.59	0.00
23	5	12	23	112.50	16.70	0.38	69.68	999.00	106.30	19.21	1.19	67.84	134.30	5.94	8.60	63.86	999.00	6.43	999.00	4.49	0.00
23	5	12	24	112.60	15.83	2.07	71.26	999.00	108.30	15.88	4.68	70.19	133.00	4.31	12.84	64.91	999.00	6.25	999.00	5.87	0.00
23	5	13	1	115.80	12.87	2.95	71.25	999.00	110.10	10.83	3.02	70.08	126.00	2.93	18.97	64.96	999.00	6.36	999.00	5.09	0.00
23	5	13	2	132.50	12.09	4.22	70.18	999.00	125.40	13.17	2.56	69.27	145.10	3.59	7.32	63.43	999.00	6.08	999.00	6.02	0.00
23	5	13	3	158.00	10.34	4.46	69.07	999.00	141.90	12.40	1.92	68.08	190.80	2.53	16.28	63.97	999.00	5.03	999.00	3.54	0.00
23	5	13	4	200.70	3.23	4.40	69.57	999.00	176.10	3.90	5.19	69.39	259.40	1.46	18.36	63.97	999.00	5.50	999.00	5.38	0.00
23	5	13	5	171.50	3.92	12.95	68.87	999.00	152.10	5.26	40.27	68.64	276.30	3.13	57.24	64.23	999.00	4.37	999.00	4.45	0.00
23	5	13	6	339.50	5.20	15.66	65.99	999.00	348.00	7.11	11.73	65.26	7.12	3.65	14.13	63.91	999.00	1.53	999.00	1.12	0.00
23	5	13	7	49.42	10.32	4.48	65.02	999.00	44.22	10.14	6.26	64.60	77.70	5.98	12.32	63.46	999.00	1.95	999.00	1.24	0.00
23	5	13	8	58.88	12.34	2.78	67.16	999.00	47.46	13.65	4.23	65.79	74.50	8.99	11.86	63.36	999.00	4.63	999.00	4.66	0.00
23	5	13	9	53.41	12.11	7.19	65.84	999.00	45.86	9.11	8.35	64.06	96.70	6.00	17.76	63.37	999.00	0.50	999.00	1.29	0.00
23	5	13	10	80.40	13.83	7.95	61.61	999.00	66.03	11.33	9.35	61.41	99.30	7.32	12.83	62.13	999.00	-0.91	999.00	-0.66	0.00
23	5	13	11	59.12	10.19	10.87	61.43	999.00	44.94	7.55	11.02	61.55	62.20	7.25	16.83	62.67	999.00	-1.41	999.00	-0.99	0.00
23	5	13	12	75.70	13.70	3.19	61.45	999.00	67.89	14.52	2.28	60.91	105.10	7.63	9.79	61.71	999.00	1.43	999.00	-0.48	0.01

23	5	13	13	99.40	11.26	5.70	61.07	999.00	90.00	9.99	7.68	61.20	125.50	6.18	15.76	62.63	999.00	-2.15	999.00	-1.86	0.00
23	5	13	14	65.47	8.29	8.93	61.06	999.00	54.80	8.06	9.29	61.46	86.70	8.15	12.84	63.00	999.00	-2.42	999.00	-1.01	0.00
23	5	13	15	64.62	12.05	7.33	60.30	999.00	54.81	11.49	8.10	60.81	90.20	9.23	15.04	62.47	999.00	-1.91	999.00	-1.22	0.00
23	5	13	16	92.30	7.47	5.38	61.26	999.00	80.70	7.34	7.45	61.56	111.90	6.04	13.00	63.06	999.00	-1.78	999.00	-1.66	0.00
23	5	13	17	82.00	6.71	5.60	61.62	999.00	81.60	6.04	8.01	61.95	116.10	4.43	18.69	63.46	999.00	-1.34	999.00	-1.53	0.00
23	5	13	18	81.30	6.96	5.04	61.69	999.00	81.60	6.37	8.07	61.39	111.50	5.26	13.40	62.60	999.00	-0.70	999.00	-1.19	0.00
23	5	13	19	75.10	9.89	5.07	61.75	999.00	58.68	7.47	5.21	61.17	91.80	4.40	13.90	61.96	999.00	0.36	999.00	-0.48	0.00
23	5	13	20	80.40	13.36	1.30	63.48	999.00	75.60	10.68	3.72	61.32	102.00	5.41	9.69	61.18	999.00	3.36	999.00	0.95	0.00
23	5	13	21	82.80	13.89	1.51	64.19	999.00	68.22	10.88	3.14	61.85	98.20	5.11	10.61	61.09	999.00	2.91	999.00	0.70	0.00
23	5	13	22	46.04	13.43	3.92	64.40	999.00	40.26	8.71	6.28	63.32	59.75	3.95	19.17	61.34	999.00	3.59	999.00	2.42	0.00
23	5	13	23	37.70	20.30	4.39	63.99	999.00	26.72	16.32	6.53	63.86	56.45	11.33	12.62	63.32	999.00	-1.00	999.00	-0.19	0.00
23	5	13	24	24.09	20.20	9.49	60.70	999.00	11.91	18.02	9.27	60.97	38.09	11.83	14.26	61.81	999.00	-1.13	999.00	-0.62	0.00
23	5	14	1	25.93	28.91	5.88	59.29	999.00	12.73	25.33	7.43	59.33	33.10	17.89	11.81	60.01	999.00	-0.54	999.00	-0.63	0.00
23	5	14	2	27.41	24.98	5.20	58.02	999.00	14.34	21.42	7.97	58.22	31.76	16.23	12.52	59.05	999.00	-1.12	999.00	-0.82	0.00
23	5	14	3	41.03	21.45	6.53	57.21	999.00	28.19	15.94	8.90	57.51	58.83	11.26	14.99	58.43	999.00	-1.30	999.00	-0.75	0.00
23	5	14	4	50.78	16.60	6.18	56.36	999.00	39.95	12.42	8.30	56.76	71.00	10.26	13.68	57.75	999.00	-1.29	999.00	-0.90	0.00
23	5	14	5	51.14	14.49	6.34	56.12	999.00	39.86	11.10	7.09	56.48	78.40	8.48	12.39	57.28	999.00	-1.05	999.00	-0.66	0.00
23	5	14	6	49.84	14.54	7.10	55.62	999.00	37.00	11.23	8.17	56.04	60.73	10.82	11.93	56.92	999.00	-1.42	999.00	-0.82	0.00
23	5	14	7	55.29	16.63	7.19	54.98	999.00	43.44	13.31	8.44	55.47	69.34	12.00	12.73	56.50	999.00	-1.57	999.00	-0.98	0.00
23	5	14	8	57.49	18.98	5.80	54.17	999.00	45.57	15.87	6.87	54.70	72.50	14.06	13.07	55.96	999.00	-1.75	999.00	-1.09	0.00
23	5	14	9	61.99	15.08	7.20	53.35	999.00	49.19	13.63	6.99	53.93	82.40	11.96	13.80	55.70	999.00	-2.61	999.00	-1.40	0.00
23	5	14	10	71.20	18.84	5.14	53.97	999.00	59.60	18.23	5.71	54.56	93.00	13.00	13.55	56.74	999.00	-2.71	999.00	-1.97	0.00
23	5	14	11	64.39	16.65	7.13	54.27	999.00	53.30	15.66	7.04	54.95	86.70	13.20	14.86	57.14	999.00	-2.96	999.00	-1.72	0.00
23	5	14	12	69.57	15.93	8.03	54.01	999.00	57.22	14.76	8.86	54.73	93.20	11.82	16.22	57.17	999.00	-3.12	999.00	-1.89	0.00
23	5	14	13	58.52	15.98	5.37	54.11	999.00	47.34	14.18	6.92	54.85	77.40	13.19	14.78	57.28	999.00	-3.39	999.00	-2.29	0.00
23	5	14	14	80.20	16.58	7.32	53.83	999.00	69.66	16.14	8.26	54.56	103.50	12.43	13.83	57.10	999.00	-3.03	999.00	-2.27	0.00
23	5	14	15	92.70	17.87	6.36	54.91	999.00	83.40	16.82	8.76	55.60	112.10	11.65	13.21	58.11	999.00	-3.55	999.00	-2.72	0.00
23	5	14	16	93.00	18.96	4.46	54.68	999.00	80.30	18.20	4.81	55.21	109.10	11.54	13.56	57.49	999.00	-2.59	999.00	-2.40	0.00
23	5	14	17	93.70	14.24	6.11	55.68	999.00	83.20	12.75	7.56	56.28	113.10	8.04	15.24	58.24	999.00	-2.43	999.00	-1.83	0.00
23	5	14	18	83.10	16.12	4.42	55.95	999.00	71.30	15.45	6.00	56.44	106.10	10.74	12.48	58.17	999.00	-2.11	999.00	-1.52	0.00
23	5	14	19	77.60	8.93	8.94	55.31	999.00	67.59	7.96	10.21	55.79	101.30	6.33	15.66	57.24	999.00	-1.77	999.00	-1.36	0.00
23	5	14	20	73.80	12.42	3.75	54.54	999.00	64.08	11.76	4.99	54.87	102.80	8.23	10.80	56.05	999.00	-1.52	999.00	-1.05	0.00
23	5	14	21	66.78	13.05	5.94	54.16	999.00	55.34	11.61	6.50	54.45	92.10	7.74	12.48	55.45	999.00	-1.14	999.00	-0.83	0.00
23	5	14	22	52.58	15.71	5.94	54.03	999.00	42.16	13.07	7.46	54.50	67.70	12.11	11.74	55.59	999.00	-1.78	999.00	-1.02	0.00
23	5	14	23	53.76	13.60	6.66	53.11	999.00	43.07	11.86	7.59	53.65	78.30	9.76	16.06	54.83	999.00	-1.64	999.00	-1.00	0.00
23	5	14	24	48.79	14.20	6.40	52.20	999.00	36.88	11.61	8.15	52.74	61.50	11.56	12.00	53.95	999.00	-1.81	999.00	-1.16	0.00
23	5	15	1	39.30	15.02	3.67	51.88	999.00	26.39	12.59	5.71	52.40	50.97	11.39	12.86	53.64	999.00	-1.74	999.00	-1.17	0.00
23	5	15	2	38.58	14.18	4.35	51.62	999.00	23.93	12.23	5.91	52.13	46.34	10.69	12.01	53.36	999.00	-1.74	999.00	-1.16	0.00
23	5	15	3	43.78	12.65	6.11	51.33	999.00	29.40	10.52	7.15	51.81	50.28	10.07	12.69	53.03	999.00	-1.65	999.00	-1.14	0.00
23	5	15	4	39.88	12.91	4.43	51.42	999.00	26.93	10.50	6.06	51.91	52.33	9.36	11.19	53.06	999.00	-1.66	999.00	-1.11	0.00
23	5	15	5	45.69	12.06	4.57	51.32	999.00	30.97	10.29	6.24	51.77	58.47	9.87	11.38	52.91	999.00	-1.57	999.00	-1.01	0.00
23	5	15	6	43.63	15.41	3.82	51.15	999.00	28.57	12.64	5.46	51.52	53.04	11.25	11.36	52.66	999.00	-1.51	999.00	-1.05	0.00
23	5	15	7	48.90	14.36	6.52	50.87	999.00	34.74	12.07	7.27	51.25	58.77	12.57	10.05	52.36	999.00	-1.70	999.00	-1.01	0.00
23	5	15	8	57.02	12.75	6.73	51.28	999.00	44.54	10.68	7.66	51.78	71.40	9.58	13.46	53.26	999.00	-2.23	999.00	-0.94	0.00
23	5	15	9	68.81	9.61	8.13	51.89	999.00	52.91	9.68	7.19	52.42	79.70	9.53	12.31	54.39	999.00	-2.60	999.00	-1.21	0.00
23	5	15	10	63.88	10.65	7.58	52.76	999.00	49.55	10.44	6.11	53.28	76.30	10.74	14.03	55.53	999.00	-2.77	999.00	-1.16	0.00
23	5	15	11	72.40	9.89	10.77	53.30	999.00	57.05	9.43	10.20	53.79	75.80	9.54	13.72	56.01	999.00	-2.63	999.00	-1.38	0.00
23	5	15	12	71.30	9.80	10.05	54.85	999.00	58.04	8.82	10.90	55.40	76.00	8.80	14.82	57.82	999.00	-3.26	999.00	-1.63	0.00
23	5	15	13	59.04	9.46	9.88	55.69	999.00	45.36	8.49	8.04	56.30	76.00	8.96	14.05	58.36	999.00	-2.63	999.00	-1.17	0.00
23	5	15	14	57.84	8.28	10.76	56.74	999.00	45.04	7.58	8.37	57.31	74.60	7.86	17.04	59.29	999.00	-2.62	999.00	-1.22	0.00
23	5	15	15	62.74	8.83	8.76	57.60	999.00	48.30	8.20	6.70	58.19	74.10	8.64	11.78	60.29	999.00	-2.55	999.00	-1.37	0.00
23	5	15	16	66.79	4.80	13.11	59.42	999.00	58.50	4.84	12.51	60.03	86.40	4.99	25.66	62.06	999.00	-2.39	999.00	-1.50	0.00
23	5	15	17	71.30	5.45	14.96	60.18	999.00	68.54	5.82	14.26	60.72	116.00	4.88	16.78	62.20	999.00	-1.98	999.00	-1.28	0.00

23	5	15	18	71.70	4.05	16.03	60.95	999.00	71.00	4.14	17.42	61.47	118.10	3.93	17.16	62.74	999.00	-1.51	999.00	-1.13	0.00
23	5	15	19	142.00	4.95	7.93	61.46	999.00	136.90	4.71	7.53	61.72	162.40	3.49	15.76	62.99	999.00	-1.59	999.00	-1.33	0.00
23	5	15	20	177.80	5.56	5.95	61.70	999.00	163.60	5.16	6.32	61.98	170.60	2.53	15.72	62.98	999.00	-1.21	999.00	-0.36	0.00
23	5	15	21	195.80	9.29	3.26	61.96	999.00	177.50	9.03	1.05	62.01	203.50	2.27	17.75	61.61	999.00	1.36	999.00	0.99	0.00
23	5	15	22	218.80	7.58	1.55	63.25	999.00	188.50	7.96	3.68	62.51	184.90	3.35	8.22	59.82	999.00	4.06	999.00	2.81	0.00
23	5	15	23	215.40	8.03	3.09	65.13	999.00	198.60	8.21	1.14	64.22	184.10	3.45	6.72	58.57	999.00	7.36	999.00	6.16	0.00
23	5	15	24	227.90	8.68	1.45	65.26	999.00	199.20	8.58	1.82	64.99	196.30	3.17	8.61	57.44	999.00	7.99	999.00	7.92	0.00
23	5	16	1	235.50	9.88	2.93	999.00	999.00	208.00	9.98	2.28	64.29	213.30	3.69	10.78	56.38	999.00	999.00	999.00	7.85	0.00
23	5	16	2	244.20	11.30	1.30	999.00	999.00	217.10	11.89	2.81	63.80	216.20	4.89	9.38	55.85	999.00	999.00	999.00	7.89	0.00
23	5	16	3	250.10	12.72	2.79	999.00	999.00	223.20	12.64	1.66	63.03	223.90	3.85	11.07	54.81	999.00	999.00	999.00	7.97	0.00
23	5	16	4	265.80	12.93	20.58	59.54	999.00	266.30	11.00	21.40	59.54	304.80	5.21	17.37	53.74	999.00	5.15	999.00	6.45	0.00
23	5	16	5	272.80	19.06	5.63	57.75	999.00	259.40	15.86	4.80	56.88	260.10	4.85	17.50	53.28	999.00	5.33	999.00	3.85	0.00
23	5	16	6	285.10	16.22	6.17	60.81	999.00	258.20	15.28	3.73	58.52	243.90	4.06	16.50	53.51	999.00	7.63	999.00	5.19	0.00
23	5	16	7	287.40	11.97	2.73	61.09	999.00	273.00	11.69	3.31	59.57	229.00	3.94	11.93	52.90	999.00	999.00	999.00	7.97	0.00
23	5	16	8	271.00	12.46	2.71	61.94	999.00	259.10	11.65	2.18	61.04	250.10	4.25	13.33	53.19	999.00	7.79	999.00	7.97	0.00
23	5	16	9	267.70	9.23	8.16	60.67	999.00	251.00	7.83	7.01	60.12	267.40	5.35	17.31	57.72	999.00	-0.73	999.00	0.40	0.00
23	5	16	10	286.40	8.28	7.04	59.90	999.00	273.50	7.54	7.89	60.07	299.40	5.86	9.81	61.19	999.00	-1.65	999.00	-1.26	0.00
23	5	16	11	279.70	8.63	13.26	61.64	999.00	266.20	8.51	10.86	62.13	292.70	6.42	12.33	63.75	999.00	-2.34	999.00	-1.57	0.00
23	5	16	12	259.50	11.08	12.85	63.96	999.00	247.10	10.71	13.02	64.50	218.90	7.87	18.81	66.50	999.00	-2.40	999.00	-1.96	0.00
23	5	16	13	249.70	12.45	6.51	66.33	999.00	240.10	12.39	6.55	66.84	216.70	8.67	15.17	68.67	999.00	-2.20	999.00	-1.65	0.00
23	5	16	14	253.10	14.96	7.43	67.51	999.00	242.90	14.23	7.26	68.01	221.50	10.67	13.45	69.81	999.00	-2.32	999.00	-1.67	0.00
23	5	16	15	259.30	12.41	14.80	69.64	999.00	249.20	12.02	15.75	70.20	237.30	9.17	39.17	72.50	999.00	-3.06	999.00	-2.34	0.00
23	5	16	16	283.20	11.45	19.16	71.55	999.00	272.70	11.08	18.28	72.09	259.10	8.39	31.09	74.28	999.00	-2.70	999.00	-2.12	0.00
23	5	16	17	301.40	11.55	11.78	72.43	999.00	295.70	10.51	12.26	72.98	312.20	7.44	25.49	75.05	999.00	-2.58	999.00	-2.12	0.00
23	5	16	18	272.40	14.81	8.95	73.22	999.00	263.50	14.02	9.65	73.74	250.80	9.78	18.78	75.35	999.00	-2.05	999.00	-1.59	0.00
23	5	16	19	275.10	13.12	7.67	74.05	999.00	264.10	12.38	9.05	74.52	272.20	7.32	12.91	75.60	999.00	-1.18	999.00	-0.97	0.00
23	5	16	20	308.80	17.72	4.15	73.92	999.00	298.60	15.01	5.05	74.14	317.60	5.89	11.36	74.03	999.00	0.65	999.00	0.50	0.00
23	5	16	21	37.02	27.14	4.57	69.39	999.00	26.52	21.18	7.23	69.20	35.71	17.02	10.91	68.35	999.00	-1.84	999.00	1.51	0.00
23	5	16	22	34.58	21.45	3.13	56.46	999.00	24.01	17.93	4.75	56.94	34.08	14.45	9.13	58.14	999.00	-1.62	999.00	-1.08	0.00
23	5	16	23	30.44	22.85	3.59	55.72	999.00	17.22	20.60	5.41	56.18	20.84	15.05	10.81	57.31	999.00	-1.55	999.00	-1.07	0.00
23	5	16	24	30.01	23.25	4.65	54.83	999.00	17.35	20.50	6.47	55.26	31.71	14.97	13.40	56.38	999.00	-1.60	999.00	-1.02	0.00
23	5	17	1	30.58	21.74	4.71	53.79	999.00	17.72	19.49	6.45	54.26	30.20	14.16	14.38	55.42	999.00	-1.51	999.00	-1.12	0.00
23	5	17	2	24.26	16.42	9.86	52.88	999.00	12.39	14.80	9.65	53.35	24.27	11.93	11.19	54.49	999.00	-1.64	999.00	-1.10	0.00
23	5	17	3	30.52	20.25	6.73	51.32	999.00	17.93	18.34	7.38	51.81	31.96	14.72	14.19	53.00	999.00	-1.78	999.00	-1.15	0.00
23	5	17	4	36.34	22.25	5.25	49.29	999.00	24.11	19.00	5.73	49.79	43.93	16.08	15.92	50.97	999.00	-1.60	999.00	-1.14	0.00
23	5	17	5	40.44	23.10	5.66	49.18	999.00	28.33	19.19	7.00	49.70	50.63	16.63	15.75	50.88	999.00	-1.75	999.00	-1.13	0.00
23	5	17	6	48.08	20.78	6.21	49.18	999.00	36.07	16.99	6.88	49.70	60.88	15.51	13.51	50.88	999.00	-1.68	999.00	-1.11	0.00
23	5	17	7	47.65	19.96	7.55	47.25	999.00	34.73	16.49	8.06	47.79	56.57	16.44	12.63	49.02	999.00	-1.87	999.00	-1.16	0.00
23	5	17	8	53.46	17.64	8.01	46.35	999.00	40.45	14.94	7.94	46.93	64.49	14.32	14.92	48.42	999.00	-2.10	999.00	-1.11	0.00
23	5	17	9	56.57	17.23	9.00	46.05	999.00	45.01	15.29	8.38	46.64	70.60	14.20	16.87	48.62	999.00	-2.68	999.00	-1.40	0.00
23	5	17	10	59.29	16.18	7.89	45.35	999.00	47.20	14.77	8.35	45.97	80.20	12.85	16.36	48.29	999.00	-3.04	999.00	-1.72	0.00
23	5	17	11	57.71	12.95	9.67	45.53	999.00	43.70	11.57	9.40	46.21	72.10	11.33	20.91	48.54	999.00	-3.02	999.00	-1.61	0.00
23	5	17	12	58.33	13.49	7.66	46.72	999.00	47.77	12.55	8.35	47.40	82.50	12.61	15.51	49.63	999.00	-3.12	999.00	-1.67	0.00
23	5	17	13	55.03	12.72	8.94	47.36	999.00	41.52	11.28	9.05	48.11	63.09	12.40	19.74	50.46	999.00	-3.17	999.00	-2.06	0.00
23	5	17	14	52.01	14.73	9.13	47.83	999.00	39.22	12.77	9.33	48.58	63.71	12.47	19.35	50.89	999.00	-2.99	999.00	-2.02	0.00
23	5	17	15	53.67	11.67	9.95	48.12	999.00	40.84	10.37	11.49	48.80	64.88	10.53	22.61	51.24	999.00	-3.28	999.00	-1.95	0.00
23	5	17	16	57.05	13.12	9.21	48.79	999.00	43.83	11.82	10.31	49.51	73.40	11.40	21.45	51.81	999.00	-3.08	999.00	-1.70	0.00
23	5	17	17	70.40	9.54	9.74	49.45	999.00	58.69	9.59	9.62	50.16	87.20	8.54	18.99	52.39	999.00	-2.88	999.00	-1.83	0.00
23	5	17	18	70.20	11.39	8.19	49.82	999.00	57.53	11.23	7.87	50.44	95.40	9.78	15.87	52.35	999.00	-2.51	999.00	-1.77	0.00
23	5	17	19	90.00	12.16	6.33	49.73	999.00	78.60	11.77	8.50	50.32	110.30	8.06	13.86	52.13	999.00	-2.32	999.00	-1.74	0.00
23	5	17	20	94.90	11.94	7.97	49.29	999.00	82.30	11.37	9.32	49.84	111.30	6.74	15.84	51.19	999.00	-1.71	999.00	-1.10	0.00
23	5	17	21	82.20	12.50	4.63	48.94	999.00	67.85	11.90	4.62	49.42	97.20	7.37	12.68	50.26	999.00	-1.07	999.00	-0.62	0.00
23	5	17	22	88.80	12.40	3.24	49.09	999.00	74.70	12.22	4.16	49.54	109.10	6.66	12.69	50.08	999.00	-1.06	999.00	-0.46	0.00

23	5	17	23	85.40	12.22	4.65	49.00	999.00	70.50	11.90	4.42	49.46	99.20	7.37	11.74	49.99	999.00	-1.03	999.00	-0.44	0.00
23	5	17	24	86.80	10.68	4.94	48.71	999.00	72.10	10.37	5.33	49.17	100.70	6.07	11.56	49.53	999.00	-0.80	999.00	-0.31	0.00
23	5	18	1	95.40	10.37	6.68	48.48	999.00	80.80	9.68	6.69	48.92	106.70	5.12	12.90	49.23	999.00	-0.61	999.00	-0.08	0.00
23	5	18	2	92.40	10.40	7.12	48.45	999.00	79.10	9.69	7.75	48.88	109.10	4.08	12.23	49.03	999.00	-0.49	999.00	-0.04	0.00
23	5	18	3	97.40	10.56	4.32	47.53	999.00	83.10	10.31	4.76	47.97	116.20	5.17	10.41	48.37	999.00	-0.86	999.00	-0.25	0.00
23	5	18	4	108.60	10.34	5.53	47.24	999.00	94.20	10.04	6.58	47.69	122.50	4.72	8.36	48.03	999.00	-0.85	999.00	-0.13	0.00
23	5	18	5	106.50	11.42	6.20	47.20	999.00	91.80	11.08	7.42	47.66	118.60	4.71	12.10	48.03	999.00	-0.72	999.00	-0.17	0.00
23	5	18	6	122.10	9.71	7.64	47.20	999.00	115.60	8.66	8.66	47.66	138.10	3.44	13.18	48.03	999.00	-0.72	999.00	-0.25	0.00
23	5	18	7	112.70	11.07	7.45	47.19	999.00	100.50	10.21	8.80	47.45	129.70	4.14	13.37	47.01	999.00	-0.31	999.00	0.80	0.00
23	5	18	8	106.30	12.57	5.98	47.96	999.00	92.40	12.08	7.39	48.46	120.20	6.70	11.03	49.30	999.00	-1.56	999.00	-0.88	0.00
23	5	18	9	99.40	13.25	5.53	48.27	999.00	84.40	12.75	7.31	48.84	111.10	7.77	14.51	50.33	999.00	-2.29	999.00	-1.42	0.00
23	5	18	10	101.40	11.07	9.05	49.02	999.00	89.10	10.95	10.76	49.64	117.10	7.63	12.99	51.49	999.00	-2.38	999.00	-1.95	0.00
23	5	18	11	88.20	12.85	6.07	49.66	999.00	75.30	12.58	7.32	50.35	107.20	9.66	13.57	52.40	999.00	-2.53	999.00	-2.03	0.00
23	5	18	12	82.00	11.50	8.87	49.66	999.00	70.20	11.28	10.43	50.35	98.80	10.25	14.34	52.40	999.00	-2.67	999.00	-2.02	0.00
23	5	18	13	76.60	10.14	11.59	50.95	999.00	64.43	9.90	12.45	51.63	88.60	9.16	21.42	53.80	999.00	-3.03	999.00	-1.72	0.00
23	5	18	14	74.50	11.75	8.37	51.17	999.00	61.63	11.72	10.56	51.78	84.60	10.82	16.11	54.12	999.00	-3.03	999.00	-2.10	0.00
23	5	18	15	84.20	13.74	7.17	51.17	999.00	73.30	13.64	8.36	51.78	103.00	10.98	13.75	54.12	999.00	-3.23	999.00	-2.59	0.00
23	5	18	16	82.70	14.12	5.58	51.48	999.00	71.40	14.18	6.18	52.00	103.00	11.31	13.64	54.27	999.00	-2.70	999.00	-2.40	0.00
23	5	18	17	86.60	12.94	5.78	51.81	999.00	76.00	12.82	8.31	52.39	111.90	9.21	12.87	54.57	999.00	-2.96	999.00	-2.26	0.00
23	5	18	18	88.30	11.62	5.72	52.33	999.00	78.00	11.61	8.17	52.87	109.90	8.77	14.52	54.96	999.00	-2.42	999.00	-2.24	0.00
23	5	18	19	89.80	13.71	5.21	52.38	999.00	77.40	13.72	6.32	52.94	108.30	8.76	13.58	54.82	999.00	-2.29	999.00	-1.86	0.00
23	5	18	20	98.30	13.25	3.94	52.21	999.00	84.50	13.14	4.97	52.73	113.70	7.58	11.28	54.15	999.00	-1.73	999.00	-1.15	0.00
23	5	18	21	100.30	14.04	2.54	52.53	999.00	86.80	13.72	3.34	52.99	119.20	6.49	9.77	53.80	999.00	-1.04	999.00	-0.50	0.00
23	5	18	22	108.60	12.09	3.69	52.80	999.00	95.90	11.88	4.36	53.24	123.00	6.20	7.70	53.72	999.00	-0.87	999.00	-0.24	0.00
23	5	18	23	106.70	9.86	3.98	53.21	999.00	92.30	9.83	4.28	53.63	117.60	5.31	8.03	54.01	999.00	-0.76	999.00	-0.17	0.00
23	5	18	24	105.10	8.86	3.02	53.19	999.00	89.60	8.87	2.83	53.58	117.20	3.94	9.32	53.88	999.00	-0.67	999.00	-0.09	0.00
23	5	19	1	109.10	8.77	3.47	53.54	999.00	91.10	8.48	3.49	53.88	116.50	3.14	7.41	53.89	999.00	-0.13	999.00	0.32	0.00
23	5	19	2	122.00	8.64	2.58	54.07	999.00	105.10	7.64	3.88	54.29	125.20	2.69	8.02	54.30	999.00	-0.35	999.00	0.23	0.00
23	5	19	3	146.40	13.44	1.62	55.59	999.00	126.80	8.94	2.23	54.79	156.70	2.18	10.75	53.68	999.00	4.64	999.00	1.67	0.00
23	5	19	4	167.60	16.17	2.97	59.74	999.00	144.90	13.25	2.24	56.54	153.00	3.30	11.86	53.42	999.00	7.11	999.00	3.24	0.00
23	5	19	5	185.00	15.04	0.63	60.70	999.00	165.00	17.08	0.47	58.48	182.00	3.04	15.50	52.27	999.00	999.00	999.00	7.11	0.00
23	5	19	6	194.30	17.07	1.46	999.00	999.00	183.10	18.11	1.89	59.54	211.50	3.53	13.43	51.45	999.00	999.00	999.00	7.97	0.00
23	5	19	7	205.20	22.31	0.85	999.00	999.00	187.10	20.69	1.51	58.54	203.80	4.11	18.86	50.84	999.00	999.00	999.00	7.15	0.00
23	5	19	8	207.10	24.81	1.74	59.49	999.00	190.60	16.43	3.36	56.80	215.40	4.62	18.95	52.24	999.00	5.41	999.00	3.11	0.00
23	5	19	9	209.60	13.51	5.66	58.30	999.00	194.80	11.38	6.99	57.09	222.80	5.64	21.93	57.50	999.00	-1.27	999.00	-0.36	0.00
23	5	19	10	224.00	12.25	7.00	62.13	999.00	212.20	11.29	8.27	62.47	240.90	7.66	21.88	64.38	999.00	-2.64	999.00	-1.44	0.00
23	5	19	11	213.50	14.97	6.81	67.21	999.00	201.60	14.12	6.83	67.72	226.60	8.21	23.66	69.69	999.00	-2.61	999.00	-1.30	0.00
23	5	19	12	221.50	14.76	12.88	71.03	999.00	214.30	13.69	14.42	71.56	252.50	9.94	20.94	73.95	999.00	-2.81	999.00	-1.98	0.00
23	5	19	13	221.70	14.39	9.43	72.94	999.00	216.10	13.93	9.20	73.44	247.10	9.80	22.13	75.65	999.00	-2.76	999.00	-1.63	0.00
23	5	19	14	225.90	15.24	10.77	74.32	999.00	217.50	14.24	12.35	74.86	244.10	9.69	23.83	77.13	999.00	-3.09	999.00	-1.55	0.00
23	5	19	15	217.30	17.37	11.02	75.37	999.00	209.80	16.88	11.81	75.89	235.70	10.94	24.97	78.25	999.00	-2.58	999.00	-2.19	0.00
23	5	19	16	214.60	20.74	6.64	76.35	999.00	205.00	19.80	8.09	76.83	221.80	12.04	24.78	78.50	999.00	-2.79	999.00	-1.21	0.00
23	5	19	17	218.40	20.32	9.32	77.41	999.00	210.00	19.48	10.75	77.90	235.40	11.94	23.14	79.57	999.00	-2.19	999.00	-1.01	0.00
23	5	19	18	208.70	20.14	5.09	77.99	999.00	200.00	19.02	6.26	78.45	223.00	10.45	20.20	79.40	999.00	-1.07	999.00	-0.65	0.00
23	5	19	19	216.50	18.46	5.26	78.05	999.00	207.80	16.67	5.59	78.43	229.20	7.81	21.27	78.85	999.00	-0.59	999.00	-0.23	0.00
23	5	19	20	268.80	18.12	20.29	76.62	999.00	262.60	17.11	16.85	76.98	300.10	10.74	7.37	77.00	999.00	-0.56	999.00	0.49	0.00
23	5	19	21	302.90	18.83	4.86	64.73	999.00	295.30	16.78	6.00	65.14	318.60	8.55	8.61	65.79	999.00	-0.74	999.00	-0.58	0.00
23	5	19	22	286.10	15.46	4.02	62.19	999.00	277.10	13.07	4.88	62.64	301.90	6.18	7.06	62.98	999.00	-0.76	999.00	-0.15	0.00
23	5	19	23	273.40	14.28	5.76	61.69	999.00	262.60	12.10	6.81	61.96	290.90	5.42	9.83	62.37	999.00	-0.75	999.00	-0.17	0.00
23	5	19	24	332.40	19.00	11.75	999.00	999.00	322.90	17.47	11.74	999.00	335.80	10.70	13.19	61.69	999.00	-1.76	999.00	-0.46	0.00
23	5	20	1	336.20	14.69	4.31	55.00	999.00	330.10	13.16	5.97	55.83	332.50	6.96	12.34	56.12	999.00	-0.76	999.00	0.83	0.00
23	5	20	2	338.50	10.39	3.70	54.94	999.00	333.30	8.52	5.29	56.54	327.40	3.75	15.43	56.02	999.00	-1.20	999.00	0.71	0.00
23	5	20	3	311.50	9.17	5.37	55.28	999.00	302.30	7.06	6.94	56.56	273.20	3.37	6.28	55.74	999.00	0.03	999.00	0.71	0.00

23	5	20	4	334.50	19.86	5.28	56.01	999.00	329.20	18.34	6.74	56.91	331.70	10.52	11.52	56.11	999.00	-1.00	999.00	0.94	0.00
23	5	20	5	329.00	15.38	4.45	54.42	999.00	323.40	14.39	5.58	56.01	327.10	8.50	11.41	55.11	999.00	-0.80	999.00	0.69	0.00
23	5	20	6	337.50	15.11	3.46	54.11	999.00	332.70	14.50	4.81	55.62	337.90	8.36	11.11	54.58	999.00	-0.28	999.00	1.29	0.00
23	5	20	7	329.90	12.59	6.13	53.93	999.00	324.00	11.98	7.26	55.41	326.90	7.21	12.58	54.20	999.00	-0.60	999.00	0.61	0.00
23	5	20	8	333.40	16.93	4.33	53.56	999.00	330.00	16.05	5.34	54.67	334.50	9.96	12.36	54.44	999.00	-1.13	999.00	-0.11	0.00
23	5	20	9	316.20	14.30	5.73	53.04	999.00	312.30	14.02	7.50	53.83	318.40	10.14	11.70	54.60	999.00	-1.77	999.00	-1.06	0.00
23	5	20	10	309.70	12.12	7.37	52.90	999.00	306.80	12.06	7.63	53.38	318.10	9.08	13.34	55.28	999.00	-3.13	999.00	-2.81	0.00
23	5	20	11	314.20	13.91	7.39	53.36	999.00	310.50	14.08	7.97	53.96	319.20	10.03	12.74	57.34	999.00	-3.99	999.00	-3.59	0.00
23	5	20	12	311.00	13.70	8.52	54.60	999.00	307.70	13.47	7.86	55.14	320.30	10.01	12.19	57.04	999.00	-2.58	999.00	-2.02	0.00
23	5	20	13	309.10	17.05	10.57	55.08	999.00	306.00	16.86	11.72	55.60	314.20	11.45	15.48	57.64	999.00	-2.93	999.00	-2.40	0.00
23	5	20	14	312.50	17.21	7.20	54.97	999.00	307.80	17.50	8.28	55.51	315.20	13.30	15.95	58.01	999.00	-2.97	999.00	-2.45	0.00
23	5	20	15	315.70	16.59	5.50	54.90	999.00	312.50	16.29	6.75	55.44	324.90	12.07	12.48	57.47	999.00	-2.36	999.00	-1.80	0.00
23	5	20	16	313.60	14.78	7.68	55.80	999.00	310.00	15.03	8.26	56.34	319.60	11.31	14.58	58.58	999.00	-2.80	999.00	-2.27	0.00
23	5	20	17	316.30	16.15	7.42	56.41	999.00	312.90	16.35	6.55	56.92	321.60	12.13	13.74	58.98	999.00	-2.61	999.00	-2.08	0.00
23	5	20	18	307.50	14.42	7.68	56.75	999.00	303.20	14.28	8.38	57.29	310.80	10.01	15.39	59.36	999.00	-2.77	999.00	-2.29	0.00
23	5	20	19	287.00	11.99	9.78	57.07	999.00	283.40	11.42	11.09	57.57	291.30	8.40	17.61	59.42	999.00	-2.12	999.00	-1.60	0.00
23	5	20	20	265.40	13.80	7.18	57.30	999.00	260.90	13.31	7.25	57.79	267.90	8.70	13.91	58.95	999.00	-1.44	999.00	-0.95	0.00
23	5	20	21	254.40	12.08	5.78	56.96	999.00	251.20	11.08	6.61	57.41	259.50	7.32	11.35	58.02	999.00	-1.06	999.00	-0.61	0.00
23	5	20	22	249.40	12.96	4.92	56.55	999.00	243.50	11.47	5.76	57.01	245.70	7.67	9.93	57.78	999.00	-1.20	999.00	-0.76	0.00
23	5	20	23	254.80	15.18	3.93	56.22	999.00	246.20	12.22	5.80	56.49	242.60	6.82	8.40	56.69	999.00	-0.06	999.00	0.02	0.00
23	5	20	24	255.10	16.85	3.29	55.69	999.00	247.80	12.79	5.49	55.59	234.20	6.21	8.66	55.31	999.00	0.67	999.00	0.39	0.00
23	5	21	1	255.60	17.68	3.61	54.72	999.00	246.80	13.56	5.22	54.30	232.30	8.05	9.25	53.71	999.00	0.85	999.00	0.48	0.00
23	5	21	2	270.30	17.65	2.77	53.57	999.00	258.30	14.70	3.93	53.41	254.30	7.35	9.51	53.18	999.00	0.66	999.00	0.31	0.00
23	5	21	3	272.30	18.41	3.36	53.33	999.00	260.20	15.21	4.33	52.71	253.90	7.61	9.03	52.34	999.00	1.20	999.00	0.65	0.00
23	5	21	4	271.60	16.60	2.72	52.46	999.00	258.10	14.00	3.61	51.88	254.50	6.99	9.24	51.38	999.00	1.06	999.00	0.63	0.00
23	5	21	5	294.20	17.25	2.17	52.11	999.00	275.40	14.17	4.47	51.10	260.70	5.41	8.15	50.41	999.00	3.41	999.00	1.54	0.00
23	5	21	6	295.70	16.24	2.08	52.11	999.00	274.90	13.44	3.54	51.10	258.50	4.94	7.74	50.41	999.00	3.68	999.00	1.62	0.00
23	5	21	7	285.70	14.72	5.18	51.74	999.00	263.20	10.84	7.15	50.08	233.90	4.56	13.28	48.65	999.00	2.80	999.00	1.09	0.00
23	5	21	8	280.00	11.93	5.95	51.72	999.00	255.90	8.50	7.61	50.12	231.40	6.09	9.25	49.35	999.00	1.17	999.00	-0.16	0.00
23	5	21	9	272.60	9.69	8.89	51.72	999.00	258.20	7.67	9.93	50.12	241.50	5.56	14.56	49.35	999.00	-0.78	999.00	-1.01	0.00
23	5	21	10	258.90	7.08	12.71	55.89	999.00	239.00	7.41	8.09	56.03	232.80	7.01	10.74	57.21	999.00	-1.44	999.00	-1.27	0.00
23	5	21	11	250.50	6.57	12.48	59.93	999.00	237.90	6.81	11.51	60.35	232.10	6.09	14.58	62.01	999.00	-2.10	999.00	-1.65	0.00
23	5	21	12	252.10	9.69	9.27	64.25	999.00	246.30	9.48	10.21	64.76	247.30	7.95	17.50	66.67	999.00	-2.64	999.00	-2.07	0.00
23	5	21	13	234.60	10.43	17.09	66.15	999.00	232.30	9.88	15.49	66.74	238.50	8.20	16.73	68.83	999.00	-2.75	999.00	-2.16	0.00
23	5	21	14	249.60	9.18	10.90	68.00	999.00	244.90	9.18	10.48	68.60	246.80	6.88	18.67	70.58	999.00	-2.51	999.00	-1.92	0.00
23	5	21	15	348.10	5.17	62.17	69.99	999.00	357.10	4.99	58.05	70.52	27.03	5.23	66.24	72.30	999.00	-1.46	999.00	-0.89	0.00
23	5	21	16	16.14	5.15	18.22	69.27	999.00	38.29	4.52	17.43	69.33	55.95	5.43	15.51	69.44	999.00	-0.42	999.00	-0.45	0.00
23	5	21	17	67.79	3.78	45.58	69.97	999.00	75.20	4.62	33.56	69.88	88.90	4.33	24.02	70.93	999.00	-1.41	999.00	-1.17	0.00
23	5	21	18	71.30	4.67	42.43	69.75	999.00	83.70	4.92	34.23	69.61	109.80	4.61	13.92	70.46	999.00	-0.14	999.00	-0.29	0.00
23	5	21	19	354.10	7.28	11.74	70.04	999.00	6.30	5.88	16.92	70.16	59.11	5.19	22.07	70.22	999.00	0.13	999.00	0.46	0.00
23	5	21	20	356.70	9.49	8.23	69.83	999.00	356.70	7.68	9.72	70.13	37.64	3.11	24.27	69.89	999.00	0.80	999.00	1.09	0.00
23	5	21	21	345.70	11.25	1.75	69.83	999.00	346.20	8.28	2.87	70.13	8.77	3.16	10.30	69.89	999.00	1.10	999.00	0.87	0.00
23	5	21	22	352.00	9.75	12.13	69.60	999.00	353.70	7.42	16.99	69.26	187.40	1.26	66.60	65.96	999.00	4.44	999.00	4.27	0.00
23	5	21	23	106.00	12.23	3.24	65.73	999.00	102.70	9.16	4.60	64.62	91.50	2.59	20.89	62.75	999.00	2.17	999.00	0.89	0.00
23	5	21	24	125.10	9.78	2.77	66.79	999.00	121.40	9.90	0.94	66.55	220.50	1.51	30.02	61.92	999.00	6.33	999.00	6.05	0.00
23	5	22	1	141.60	10.60	1.05	67.54	999.00	138.60	9.85	1.37	67.53	192.70	1.68	8.98	60.64	999.00	7.33	999.00	7.31	0.00
23	5	22	2	146.00	11.20	0.49	67.96	999.00	143.40	11.21	1.47	68.00	184.70	2.17	7.88	60.08	999.00	7.97	999.00	7.97	0.00
23	5	22	3	142.90	10.45	0.00	67.68	999.00	143.70	11.38	0.59	67.37	155.60	2.24	6.55	59.64	999.00	7.96	999.00	7.59	0.00
23	5	22	4	134.90	9.89	0.34	67.48	999.00	136.40	9.64	1.35	67.32	171.80	1.82	7.74	59.59	999.00	7.85	999.00	7.86	0.00
23	5	22	5	133.60	8.43	0.29	67.29	999.00	143.50	8.61	0.74	67.22	167.70	1.81	13.08	59.35	999.00	7.97	999.00	7.97	0.00
23	5	22	6	60.40	2.94	61.43	67.29	999.00	11.57	3.89	25.80	67.22	5.36	3.40	25.02	59.35	999.00	4.61	999.00	4.04	0.00
23	5	22	7	49.05	7.03	16.17	61.55	999.00	42.54	7.49	16.43	61.47	33.30	4.27	46.33	58.83	999.00	2.16	999.00	2.12	0.00
23	5	22	8	75.20	10.55	2.55	61.10	999.00	66.17	11.75	2.18	60.46	76.60	5.35	9.96	59.59	999.00	1.71	999.00	0.93	0.00

23	5	22	9	90.30	11.78	3.48	61.10	999.00	87.20	9.95	5.54	60.46	88.60	5.90	13.45	59.59	999.00	-0.04	999.00	-0.92	0.00
23	5	22	10	104.20	7.62	9.61	60.64	999.00	97.30	6.36	11.83	60.49	112.20	4.65	22.32	61.82	999.00	-1.62	999.00	-1.46	0.00
23	5	22	11	99.20	6.49	11.43	61.55	999.00	94.00	5.80	14.86	61.92	96.50	5.21	25.47	63.39	999.00	-2.27	999.00	-1.67	0.00
23	5	22	12	105.10	7.41	7.88	62.99	999.00	95.80	6.99	10.90	63.50	94.70	6.34	17.01	65.26	999.00	-1.99	999.00	-1.61	0.00
23	5	22	13	100.20	11.19	3.53	64.50	999.00	87.70	9.86	6.28	64.40	88.80	6.75	15.68	65.99	999.00	-0.30	999.00	-1.20	0.00
23	5	22	14	92.00	11.93	5.91	65.52	999.00	83.10	10.59	8.73	65.24	88.90	6.86	16.74	66.77	999.00	-1.60	999.00	-1.75	0.00
23	5	22	15	85.00	13.38	3.53	65.52	999.00	78.80	11.40	7.80	65.33	83.90	8.28	15.41	67.01	999.00	-2.20	999.00	-2.03	0.00
23	5	22	16	71.40	14.32	6.43	65.03	999.00	65.17	11.98	8.51	64.99	72.70	8.58	16.02	66.95	999.00	-1.77	999.00	-1.80	0.00
23	5	22	17	74.40	17.58	5.55	63.59	999.00	67.20	15.83	6.70	63.59	70.50	11.70	13.72	65.21	999.00	-1.34	999.00	-1.43	0.00
23	5	22	18	72.80	16.91	5.87	62.24	999.00	67.71	14.92	6.95	61.77	78.40	10.51	11.87	63.10	999.00	-1.14	999.00	-1.27	0.00
23	5	22	19	87.90	15.53	7.32	59.80	999.00	84.80	14.32	8.45	60.17	93.80	9.17	17.32	61.93	999.00	-2.21	999.00	-1.73	0.00
23	5	22	20	90.80	17.25	4.84	57.99	999.00	86.60	15.66	6.47	58.40	94.80	8.00	15.77	59.77	999.00	-1.56	999.00	-1.16	0.00
23	5	22	21	92.30	21.20	3.58	57.89	999.00	86.50	18.99	5.11	58.28	92.00	9.55	15.53	59.16	999.00	-1.01	999.00	-0.65	0.00
23	5	22	22	95.90	17.26	3.34	57.82	999.00	89.70	15.71	3.76	58.15	94.60	7.95	14.77	58.64	999.00	-0.66	999.00	-0.41	0.00
23	5	22	23	101.20	17.37	5.50	58.48	999.00	95.90	15.14	6.71	58.78	94.00	6.71	15.64	58.98	999.00	-0.48	999.00	-0.18	0.00
23	5	22	24	100.70	20.14	4.57	59.64	999.00	96.10	17.27	5.36	59.88	101.10	7.95	15.57	59.97	999.00	-0.28	999.00	-0.04	0.00
23	5	23	1	99.90	20.98	2.27	60.82	999.00	92.30	18.02	3.85	60.84	98.60	7.32	15.43	60.68	999.00	0.19	999.00	0.12	0.00
23	5	23	2	99.30	18.64	2.94	60.12	999.00	92.90	16.66	4.48	59.94	98.80	6.82	16.54	60.02	999.00	-0.56	999.00	-0.31	0.00
23	5	23	3	104.00	14.47	3.62	58.31	999.00	97.20	13.68	4.17	58.62	99.90	6.95	14.77	58.97	999.00	-0.57	999.00	-0.25	0.00
23	5	23	4	111.60	12.94	4.26	58.66	999.00	102.90	10.19	4.24	58.56	100.00	4.14	15.90	58.65	999.00	0.64	999.00	0.12	0.00
23	5	23	5	112.30	11.65	2.59	58.86	999.00	98.00	9.94	2.73	58.45	93.20	4.85	12.07	58.35	999.00	0.98	999.00	0.27	0.00
23	5	23	6	120.60	10.23	1.85	60.49	999.00	99.40	8.03	3.24	58.60	86.30	3.16	14.71	57.95	999.00	2.27	999.00	0.61	0.00
23	5	23	7	94.00	6.08	8.20	58.26	999.00	79.10	7.20	5.06	57.82	73.40	4.05	9.69	57.58	999.00	0.25	999.00	0.03	0.00
23	5	23	8	102.60	7.56	3.36	57.25	999.00	90.20	7.51	3.45	57.34	95.30	3.18	17.33	57.73	999.00	-0.90	999.00	-0.77	0.00
23	5	23	9	123.70	7.14	12.48	57.71	999.00	105.90	6.71	7.74	57.65	110.10	4.66	19.40	58.88	999.00	-1.20	999.00	-1.41	0.00
23	5	23	10	154.30	4.13	18.78	59.79	999.00	122.50	3.39	23.14	59.57	91.80	3.82	28.19	60.80	999.00	-1.08	999.00	-0.90	0.00
23	5	23	11	83.10	2.82	42.19	62.87	999.00	70.70	4.05	18.97	62.77	78.00	4.28	18.55	63.30	999.00	-0.78	999.00	-0.78	0.00
23	5	23	12	83.20	3.68	13.25	63.31	999.00	73.50	4.84	11.74	62.81	86.10	5.16	16.49	63.81	999.00	-1.04	999.00	-1.21	0.00
23	5	23	13	55.64	5.26	7.52	65.91	999.00	41.94	5.13	9.67	64.83	41.56	6.09	15.49	65.15	999.00	0.50	999.00	-0.60	0.00
23	5	23	14	68.00	6.96	7.43	65.33	999.00	62.05	7.10	9.66	64.83	53.82	7.79	8.47	65.02	999.00	-0.20	999.00	-0.59	0.00
23	5	23	15	59.69	7.13	6.91	66.29	999.00	57.31	6.79	6.31	65.66	52.39	7.83	8.16	66.71	999.00	0.62	999.00	-0.34	0.00
23	5	23	16	68.34	10.92	5.83	66.94	999.00	65.58	9.80	7.68	66.36	65.59	8.24	13.20	67.47	999.00	0.00	999.00	-1.08	0.00
23	5	23	17	67.80	11.33	4.96	68.68	999.00	63.54	9.76	8.18	67.26	68.63	7.56	13.64	68.24	999.00	0.71	999.00	-0.73	0.00
23	5	23	18	68.56	14.04	2.98	69.80	999.00	64.45	12.44	6.11	68.54	71.40	7.70	13.08	69.28	999.00	-0.11	999.00	-0.94	0.00
23	5	23	19	82.90	14.25	3.34	69.34	999.00	80.90	11.19	6.54	68.34	87.60	5.89	17.20	69.15	999.00	0.88	999.00	-0.72	0.00
23	5	23	20	95.50	16.28	1.07	69.73	999.00	89.70	14.52	3.31	68.54	96.50	5.39	12.79	68.04	999.00	1.93	999.00	0.84	0.00
23	5	23	21	97.10	16.34	2.63	69.31	999.00	97.20	12.35	4.01	67.85	103.90	3.96	11.26	66.49	999.00	3.41	999.00	1.81	0.00
23	5	23	22	104.40	17.57	0.59	70.02	999.00	102.90	15.08	3.18	67.09	111.20	5.47	13.57	65.08	999.00	5.04	999.00	1.95	0.00
23	5	23	23	102.70	15.39	1.34	70.68	999.00	98.30	13.93	3.29	68.33	111.50	4.42	12.34	65.27	999.00	5.13	999.00	2.66	0.00
23	5	23	24	101.80	14.76	0.95	70.97	999.00	102.60	16.14	0.87	69.70	115.10	4.98	12.53	65.27	999.00	5.88	999.00	4.83	0.00
23	5	24	1	104.20	13.82	1.54	71.60	999.00	102.30	14.78	4.22	71.28	138.00	5.28	15.55	65.67	999.00	5.70	999.00	5.26	0.00
23	5	24	2	171.40	7.78	6.01	71.80	999.00	151.90	7.94	7.80	71.78	148.70	3.57	13.08	66.51	999.00	5.28	999.00	5.39	0.00
23	5	24	3	199.10	5.32	9.94	70.63	999.00	174.20	4.41	13.57	70.62	83.50	2.55	37.12	65.53	999.00	5.03	999.00	5.06	0.00
23	5	24	4	225.70	7.13	6.25	69.78	999.00	212.50	5.36	5.50	69.57	148.00	2.62	17.07	64.28	999.00	5.88	999.00	5.79	0.00
23	5	24	5	220.20	13.17	1.84	69.57	999.00	209.10	11.28	2.00	69.35	181.40	4.31	5.55	63.84	999.00	6.51	999.00	6.15	0.00
23	5	24	6	227.00	15.20	1.17	70.06	999.00	216.20	13.12	2.59	69.31	201.40	3.66	18.15	62.49	999.00	7.71	999.00	6.99	0.00
23	5	24	7	247.60	13.41	0.69	68.98	999.00	236.50	12.02	1.09	68.58	220.50	3.45	10.69	62.34	999.00	6.28	999.00	5.88	0.00
23	5	24	8	252.60	11.41	1.18	66.70	999.00	238.00	9.18	4.04	65.93	283.80	3.37	27.49	61.59	999.00	4.02	999.00	2.39	0.00
23	5	24	9	266.50	7.19	9.76	63.43	999.00	257.70	5.03	21.28	62.15	252.60	3.01	23.35	62.12	999.00	-0.35	999.00	-0.92	0.00
23	5	24	10	345.20	10.65	8.06	62.80	999.00	341.50	9.16	9.06	63.15	2.21	7.61	7.26	64.24	999.00	-0.89	999.00	-0.66	0.00
23	5	24	11	356.00	19.49	4.67	65.77	999.00	349.60	16.19	6.97	65.87	0.14	12.17	8.22	67.27	999.00	-0.57	999.00	-0.73	0.00
23	5	24	12	30.14	22.05	5.49	64.39	999.00	26.34	16.06	7.99	64.72	31.33	17.57	8.45	65.61	999.00	-2.05	999.00	-1.37	0.00
23	5	24	13	25.92	23.40	6.57	61.08	999.00	21.30	18.48	7.58	61.82	31.49	16.01	10.98	63.38	999.00	-2.32	999.00	-1.60	0.00

23	5	24	14	33.07	19.01	7.34	60.46	999.00	29.90	14.92	8.40	61.08	37.60	16.64	10.91	62.58	999.00	-2.19	999.00	-1.55	0.00
23	5	24	15	35.19	21.00	6.84	60.04	999.00	31.87	16.96	8.29	60.59	40.56	17.42	9.41	62.16	999.00	-2.25	999.00	-1.68	0.00
23	5	24	16	35.14	21.09	8.20	59.69	999.00	32.12	18.22	9.58	60.29	40.44	18.60	10.38	61.97	999.00	-2.20	999.00	-1.60	0.00
23	5	24	17	31.27	21.05	8.18	59.69	999.00	28.54	16.91	8.77	60.29	38.77	18.08	11.78	61.97	999.00	-2.00	999.00	-1.46	0.00
23	5	24	18	29.00	23.48	5.76	58.80	999.00	25.42	18.49	7.19	59.40	35.57	19.15	10.98	60.96	999.00	-2.07	999.00	-1.47	0.00
23	5	24	19	32.58	22.40	6.69	58.35	999.00	28.60	18.12	7.93	58.97	37.60	18.49	10.67	60.41	999.00	-1.93	999.00	-1.32	0.00
23	5	24	20	24.43	30.62	4.40	57.20	999.00	20.79	24.69	6.99	57.75	28.10	21.47	9.30	58.97	999.00	-1.74	999.00	-1.14	0.00
23	5	24	21	23.11	27.31	6.33	54.79	999.00	19.48	22.49	7.44	55.32	24.18	20.67	10.48	56.48	999.00	-1.69	999.00	-1.20	0.00
23	5	24	22	28.84	27.18	5.35	53.08	999.00	25.66	20.79	7.36	53.60	33.25	20.05	9.59	54.84	999.00	-1.82	999.00	-1.28	0.00
23	5	24	23	29.24	26.96	5.14	51.32	999.00	26.10	20.62	7.09	51.86	35.40	20.05	9.37	53.14	999.00	-1.77	999.00	-1.24	0.00
23	5	24	24	29.06	27.10	5.51	49.69	999.00	26.07	20.80	7.66	50.22	31.89	20.13	9.92	51.54	999.00	-1.85	999.00	-1.32	0.00
23	5	25	1	34.95	24.81	6.74	48.78	999.00	31.85	20.77	7.84	49.30	38.58	19.30	10.75	50.58	999.00	-1.73	999.00	-1.23	0.00
23	5	25	2	35.74	24.90	4.72	48.78	999.00	31.79	20.14	6.38	49.30	38.14	19.58	9.35	50.58	999.00	-1.78	999.00	-1.28	0.00
23	5	25	3	48.27	23.80	8.59	48.70	999.00	43.56	21.66	7.80	49.21	44.47	18.28	10.76	50.39	999.00	-1.65	999.00	-1.13	0.00
23	5	25	4	54.50	24.93	6.20	48.57	999.00	49.70	23.19	7.25	49.11	54.03	15.76	12.35	50.11	999.00	-1.51	999.00	-0.97	0.00
23	5	25	5	59.25	23.49	5.57	47.85	999.00	54.71	22.01	6.66	48.38	61.79	13.30	12.63	49.22	999.00	-1.27	999.00	-0.76	0.00
23	5	25	6	60.72	23.90	5.09	47.52	999.00	55.74	22.29	6.41	48.04	59.63	14.32	11.75	48.85	999.00	-1.34	999.00	-0.83	0.00
23	5	25	7	62.93	24.00	4.68	47.83	999.00	58.22	22.48	5.88	48.32	62.95	14.53	11.46	49.06	999.00	-1.30	999.00	-0.81	0.00
23	5	25	8	74.90	22.60	6.94	48.88	999.00	70.60	21.52	7.48	49.39	72.50	13.20	13.18	50.38	999.00	-1.57	999.00	-1.06	0.00
23	5	25	9	77.90	22.07	4.12	48.79	999.00	73.90	21.16	5.12	49.31	79.40	12.96	13.40	50.63	999.00	-2.04	999.00	-1.51	0.00
23	5	25	10	73.50	21.04	6.77	48.71	999.00	68.18	19.85	7.76	49.35	72.20	13.41	13.32	51.19	999.00	-2.61	999.00	-1.94	0.00
23	5	25	11	70.10	19.55	6.30	48.67	999.00	65.70	18.21	7.72	49.29	67.81	13.38	13.36	51.49	999.00	-2.73	999.00	-2.12	0.00
23	5	25	12	68.33	19.32	6.84	48.77	999.00	63.58	18.21	8.41	49.35	64.68	13.71	12.46	51.49	999.00	-2.76	999.00	-2.16	0.00
23	5	25	13	64.98	17.66	8.05	48.68	999.00	59.59	16.53	8.86	49.29	62.70	12.74	15.43	51.40	999.00	-2.93	999.00	-2.33	0.00
23	5	25	14	62.68	16.72	10.28	49.17	999.00	56.80	15.58	9.65	49.76	56.75	12.62	14.41	52.05	999.00	-3.12	999.00	-2.49	0.00
23	5	25	15	68.88	16.51	6.62	49.40	999.00	63.83	15.83	8.16	49.98	71.20	12.26	15.46	52.44	999.00	-3.15	999.00	-2.58	0.00
23	5	25	16	84.50	16.28	5.66	50.03	999.00	79.10	15.69	8.34	50.61	84.50	11.74	14.37	53.19	999.00	-3.05	999.00	-2.44	0.00
23	5	25	17	86.90	12.50	6.92	51.64	999.00	81.20	12.43	6.93	52.17	87.40	9.40	14.05	54.65	999.00	-2.79	999.00	-2.31	0.00
23	5	25	18	82.30	13.10	6.44	51.88	999.00	79.00	12.32	8.70	52.39	81.40	8.93	16.37	54.67	999.00	-2.99	999.00	-2.46	0.00
23	5	25	19	83.80	9.88	8.45	52.80	999.00	78.10	9.32	10.81	53.32	80.80	6.95	17.67	55.20	999.00	-2.28	999.00	-1.67	0.00
23	5	25	20	68.91	11.56	4.30	52.80	999.00	63.99	11.35	4.81	53.32	68.54	8.27	12.09	55.20	999.00	-1.59	999.00	-1.12	0.00
23	5	25	21	56.18	9.23	6.37	54.18	999.00	51.76	8.94	6.62	54.71	63.07	6.35	12.56	55.53	999.00	-1.21	999.00	-0.70	0.00
23	5	25	22	60.59	12.68	3.79	54.35	999.00	57.54	12.28	3.72	54.86	68.68	7.55	9.94	55.26	999.00	-0.89	999.00	-0.38	0.00
23	5	25	23	55.26	16.61	6.48	54.06	999.00	49.33	15.40	7.26	54.56	53.99	10.74	11.89	55.11	999.00	-1.25	999.00	-0.74	0.00
23	5	25	24	60.44	20.73	5.70	53.12	999.00	55.37	18.86	7.09	53.62	60.61	12.58	11.74	54.24	999.00	-1.18	999.00	-0.68	0.00
23	5	26	1	62.00	17.89	4.51	52.50	999.00	57.47	16.74	5.40	52.98	64.81	10.80	10.69	53.57	999.00	-1.03	999.00	-0.56	0.00
23	5	26	2	53.33	15.55	6.07	52.22	999.00	48.05	14.54	6.39	52.71	53.77	9.71	10.06	53.33	999.00	-1.06	999.00	-0.57	0.00
23	5	26	3	52.42	14.87	5.64	52.19	999.00	47.05	13.80	7.26	52.69	51.15	9.77	10.25	53.31	999.00	-1.17	999.00	-0.67	0.00
23	5	26	4	45.33	13.31	8.16	51.69	999.00	39.50	11.95	8.94	52.20	39.81	11.58	8.66	53.10	999.00	-1.50	999.00	-0.99	0.00
23	5	26	5	59.83	15.18	4.51	51.69	999.00	53.30	13.58	5.48	52.20	60.12	7.39	10.24	53.10	999.00	-0.71	999.00	-0.37	0.00
23	5	26	6	69.97	16.49	3.61	52.29	999.00	64.78	15.68	4.37	52.72	69.90	8.90	10.05	53.02	999.00	-0.61	999.00	-0.19	0.00
23	5	26	7	73.90	14.86	3.84	52.59	999.00	68.11	14.19	4.33	53.05	71.90	8.36	10.48	53.32	999.00	-0.91	999.00	-0.41	0.00
23	5	26	8	66.61	15.37	5.37	52.26	999.00	61.41	14.69	6.18	52.79	66.55	9.32	12.33	53.54	999.00	-1.48	999.00	-0.94	0.00
23	5	26	9	73.90	13.38	7.48	52.59	999.00	68.28	12.40	7.96	53.14	72.10	9.00	13.01	54.51	999.00	-2.17	999.00	-1.61	0.00
23	5	26	10	73.20	15.84	6.59	53.37	999.00	68.91	15.25	8.28	53.98	77.40	10.93	13.71	55.65	999.00	-2.37	999.00	-1.74	0.00
23	5	26	11	78.30	16.40	4.75	53.37	999.00	73.00	16.10	5.15	53.98	77.00	11.82	12.10	55.65	999.00	-2.88	999.00	-2.34	0.00
23	5	26	12	68.05	15.19	5.99	54.75	999.00	61.15	14.40	7.37	55.32	60.32	11.99	10.99	57.44	999.00	-2.62	999.00	-2.04	0.00
23	5	26	13	68.62	15.01	7.11	55.61	999.00	62.22	14.61	8.80	56.11	67.96	11.31	12.85	58.25	999.00	-2.58	999.00	-2.14	0.00
23	5	26	14	71.60	16.70	7.14	57.20	999.00	65.16	15.83	9.20	57.81	65.49	12.75	13.20	60.17	999.00	-2.98	999.00	-2.37	0.00
23	5	26	15	63.00	14.39	9.61	57.94	999.00	54.92	13.61	8.95	58.48	56.66	12.13	12.94	60.78	999.00	-2.97	999.00	-2.39	0.00
23	5	26	16	68.72	17.59	5.30	58.41	999.00	62.85	16.60	7.87	58.94	68.75	11.93	13.67	61.19	999.00	-3.00	999.00	-2.42	0.00
23	5	26	17	72.30	14.36	7.12	58.41	999.00	66.04	13.38	9.14	58.94	66.00	10.68	11.38	61.19	999.00	-2.42	999.00	-1.94	0.00
23	5	26	18	87.50	14.49	4.60	59.70	999.00	81.40	13.74	5.09	60.17	87.80	8.90	18.02	62.25	999.00	-2.60	999.00	-2.19	0.00

23	5	26	19	88.60	16.33	5.36	60.06	999.00	83.00	14.63	6.89	60.47	91.20	8.92	14.33	62.33	999.00	-1.93	999.00	-1.61	0.00
23	5	26	20	86.40	16.34	4.32	60.86	999.00	82.30	13.97	5.98	61.11	87.80	7.62	16.14	62.46	999.00	-1.17	999.00	-1.05	0.00
23	5	26	21	85.70	17.44	3.04	60.64	999.00	80.10	15.25	4.07	60.68	84.80	7.30	15.08	61.09	999.00	-0.33	999.00	-0.24	0.00
23	5	26	22	83.70	16.22	3.79	60.26	999.00	78.60	13.74	3.86	60.10	79.90	7.04	10.84	59.96	999.00	0.19	999.00	0.21	0.00
23	5	26	23	81.30	17.09	3.79	60.26	999.00	76.70	14.77	4.54	60.10	78.90	7.02	11.51	59.96	999.00	0.48	999.00	0.47	0.00
23	5	26	24	83.00	14.70	3.50	58.78	999.00	77.50	13.29	4.06	59.12	77.70	7.29	10.97	58.94	999.00	-0.09	999.00	0.22	0.00
23	5	27	1	69.16	16.11	4.18	58.60	999.00	61.97	14.86	4.46	58.87	64.87	8.50	10.48	58.74	999.00	-0.56	999.00	-0.20	0.00
23	5	27	2	67.61	14.30	3.89	57.90	999.00	60.84	13.19	4.20	58.20	66.76	7.48	9.66	58.25	999.00	-0.35	999.00	-0.03	0.00
23	5	27	3	61.56	14.62	3.99	58.21	999.00	54.95	13.88	3.61	58.55	61.03	7.54	7.66	58.52	999.00	-0.40	999.00	-0.04	0.00
23	5	27	4	74.80	14.59	3.50	58.38	999.00	70.00	14.01	4.64	58.80	75.00	7.62	11.43	58.67	999.00	-0.32	999.00	0.14	0.00
23	5	27	5	65.82	13.58	4.13	57.75	999.00	61.12	12.77	4.76	58.17	66.86	6.87	10.01	58.16	999.00	-0.43	999.00	0.00	0.00
23	5	27	6	71.30	13.97	3.07	57.54	999.00	66.13	12.97	3.51	57.94	70.40	6.96	9.70	57.98	999.00	-0.35	999.00	0.03	0.00
23	5	27	7	77.80	14.10	3.40	57.62	999.00	72.70	13.00	4.16	58.02	75.10	6.85	10.75	57.91	999.00	-0.47	999.00	-0.06	0.00
23	5	27	8	82.30	13.69	4.01	57.58	999.00	75.80	13.08	4.09	58.05	77.40	7.77	12.93	58.66	999.00	-1.41	999.00	-0.92	0.00
23	5	27	9	79.80	11.28	5.89	57.40	999.00	73.60	10.75	6.68	57.92	75.90	8.54	12.54	59.36	999.00	-2.11	999.00	-1.58	0.00
23	5	27	10	86.30	11.65	4.68	57.29	999.00	80.60	11.64	4.81	57.86	86.50	7.60	14.63	59.64	999.00	-2.38	999.00	-1.83	0.00
23	5	27	11	76.90	9.74	9.75	57.29	999.00	68.92	9.72	10.17	57.86	65.95	8.49	11.90	59.64	999.00	-2.00	999.00	-1.53	0.00
23	5	27	12	72.00	9.76	5.39	58.85	999.00	65.18	9.68	5.59	59.26	64.40	8.94	10.86	60.73	999.00	-1.51	999.00	-1.22	0.00
23	5	27	13	75.20	9.27	11.75	59.81	999.00	73.20	8.86	14.35	60.26	63.81	7.87	18.01	62.06	999.00	-2.97	999.00	-2.33	0.00
23	5	27	14	78.70	9.99	9.28	59.81	999.00	69.97	10.16	10.70	60.26	60.76	10.28	13.00	62.06	999.00	-2.06	999.00	-1.56	0.00
23	5	27	15	73.00	10.91	8.59	60.36	999.00	64.49	10.70	8.80	60.80	71.20	9.83	12.93	62.88	999.00	-1.66	999.00	-1.35	0.00
23	5	27	16	71.40	11.04	7.42	61.12	999.00	65.48	10.45	7.82	61.45	69.50	8.49	15.08	63.34	999.00	-2.18	999.00	-1.91	0.00
23	5	27	17	72.30	15.11	2.58	61.14	999.00	66.42	13.86	3.89	61.23	76.20	9.26	10.57	62.52	999.00	-0.84	999.00	-1.13	0.00
23	5	27	18	78.80	13.22	4.83	61.36	999.00	75.20	11.75	7.28	61.48	78.10	8.73	12.51	62.84	999.00	-1.54	999.00	-1.30	0.00
23	5	27	19	90.20	17.42	5.05	61.27	999.00	85.00	14.69	6.20	61.18	92.20	7.91	15.99	62.41	999.00	-0.87	999.00	-1.00	0.00
23	5	27	20	96.60	14.09	4.17	61.27	999.00	91.20	11.39	5.73	61.18	99.20	5.64	16.25	62.41	999.00	-0.31	999.00	-0.52	0.00
23	5	27	21	97.50	15.65	2.02	61.87	999.00	90.00	12.44	4.37	61.47	94.10	5.70	13.17	61.62	999.00	0.56	999.00	0.05	0.00
23	5	27	22	100.10	14.50	1.19	61.94	999.00	90.80	11.60	2.02	61.18	97.60	3.48	20.51	60.69	999.00	1.95	999.00	0.96	0.00
23	5	27	23	99.90	13.32	1.78	62.17	999.00	90.40	10.17	3.71	61.13	99.70	3.12	12.51	60.19	999.00	2.75	999.00	1.24	0.00
23	5	27	24	90.20	12.47	3.89	62.20	999.00	75.40	9.49	5.88	61.22	68.44	4.00	10.49	60.07	999.00	1.76	999.00	1.08	0.00
23	5	28	1	87.60	13.04	3.08	61.82	999.00	66.88	11.33	4.55	60.64	61.11	5.68	8.55	59.61	999.00	2.14	999.00	0.92	0.00
23	5	28	2	78.50	12.78	5.95	60.80	999.00	62.86	10.99	4.63	60.21	68.60	4.78	10.24	59.62	999.00	0.84	999.00	0.31	0.00
23	5	28	3	77.90	10.20	2.65	60.62	999.00	61.66	9.16	2.41	59.83	67.12	4.87	6.33	59.15	999.00	1.11	999.00	0.58	0.00
23	5	28	4	66.42	11.57	3.40	59.51	999.00	57.92	10.31	3.55	59.44	63.12	6.21	5.41	59.19	999.00	-0.04	999.00	0.10	0.00
23	5	28	5	67.97	11.37	4.05	59.51	999.00	57.41	10.29	4.22	59.44	68.81	6.14	8.99	59.19	999.00	0.52	999.00	0.38	0.00
23	5	28	6	58.09	7.97	8.01	59.44	999.00	46.64	6.55	8.49	59.52	31.16	3.00	14.86	59.13	999.00	0.15	999.00	0.34	0.00
23	5	28	7	65.41	8.72	2.81	58.98	999.00	58.63	8.43	2.54	59.34	68.05	4.16	8.35	59.11	999.00	-0.33	999.00	0.15	0.00
23	5	28	8	79.70	10.57	3.14	58.85	999.00	73.50	10.25	3.47	59.32	76.80	6.11	13.00	59.84	999.00	-1.58	999.00	-1.13	0.00
23	5	28	9	68.49	8.33	8.04	59.34	999.00	60.64	8.15	9.10	59.75	63.12	7.46	13.68	61.03	999.00	-1.50	999.00	-1.04	0.00
23	5	28	10	62.91	8.28	8.09	59.90	999.00	52.64	8.97	7.89	60.36	55.99	8.30	12.09	61.42	999.00	-1.10	999.00	-0.78	0.00
23	5	28	11	66.70	8.32	6.94	60.57	999.00	56.32	8.35	7.01	60.82	50.75	8.40	9.10	61.59	999.00	-1.19	999.00	-0.95	0.00
23	5	28	12	69.89	8.99	8.11	62.17	999.00	62.38	9.11	9.30	62.50	69.56	7.96	15.18	63.79	999.00	-1.73	999.00	-1.46	0.00
23	5	28	13	64.85	9.03	9.62	64.11	999.00	61.16	9.18	7.84	64.35	73.70	8.06	12.71	65.89	999.00	-1.65	999.00	-1.58	0.00
23	5	28	14	61.52	9.14	10.04	65.47	999.00	57.12	8.58	9.19	65.53	57.76	7.28	13.73	67.10	999.00	-1.46	999.00	-1.40	0.00
23	5	28	15	38.24	11.66	7.78	67.52	999.00	38.77	10.99	9.07	67.04	46.92	9.81	11.55	68.13	999.00	-0.83	999.00	-1.09	0.00
23	5	28	16	25.04	13.19	3.37	69.27	999.00	21.27	11.70	6.05	69.08	37.41	11.50	8.24	69.36	999.00	0.05	999.00	-0.17	0.00
23	5	28	17	42.37	11.65	3.43	69.74	999.00	30.29	10.53	4.62	69.40	37.99	10.54	7.78	68.96	999.00	1.01	999.00	0.76	0.00
23	5	28	18	54.47	14.35	3.39	70.95	999.00	47.63	12.54	5.75	70.29	54.12	8.48	10.15	69.84	999.00	0.81	999.00	0.38	0.00
23	5	28	19	68.57	12.34	5.48	70.95	999.00	62.23	9.71	9.28	70.87	58.73	7.11	11.47	70.85	999.00	-0.84	999.00	-0.82	0.00
23	5	28	20	69.46	11.57	5.26	71.11	999.00	63.02	11.43	6.07	69.89	90.00	4.83	21.74	68.38	999.00	3.85	999.00	2.66	0.00
23	5	28	21	71.30	9.90	8.71	70.42	999.00	62.36	9.45	9.84	70.03	75.90	4.84	17.40	67.59	999.00	2.98	999.00	2.47	0.00
23	5	28	22	83.10	8.37	6.22	68.62	999.00	98.40	6.30	8.54	68.06	191.00	1.79	19.40	65.03	999.00	4.60	999.00	3.64	0.00
23	5	28	23	64.01	9.41	2.33	69.31	999.00	67.05	6.47	2.57	68.02	10.73	1.58	24.96	63.12	999.00	5.49	999.00	4.51	0.00

23	5	28	24	45.31	12.97	3.63	68.56	999.00	46.47	10.69	6.80	67.31	76.60	2.48	15.59	63.99	999.00	4.78	999.00	3.18	0.00
23	5	29	1	49.24	12.42	7.89	66.96	999.00	40.29	8.85	10.02	66.63	35.14	5.87	7.39	65.17	999.00	0.96	999.00	0.79	0.00
23	5	29	2	44.12	12.23	9.68	66.74	999.00	39.71	8.72	10.75	66.00	35.17	6.90	8.67	65.20	999.00	0.78	999.00	0.38	0.00
23	5	29	3	51.29	10.63	3.39	64.35	999.00	43.91	8.51	5.69	64.25	83.60	3.49	15.40	63.65	999.00	1.00	999.00	0.80	0.00
23	5	29	4	52.17	11.17	2.40	64.01	999.00	49.09	9.22	4.26	63.74	69.08	3.50	8.79	62.86	999.00	1.13	999.00	0.89	0.00
23	5	29	5	48.73	6.52	11.81	62.51	999.00	35.24	4.53	13.21	62.61	41.85	2.54	22.26	61.94	999.00	0.05	999.00	0.16	0.00
23	5	29	6	64.61	9.77	4.01	62.13	999.00	50.36	7.80	5.74	61.96	61.60	3.93	9.76	61.64	999.00	0.33	999.00	0.11	0.00
23	5	29	7	55.55	10.05	6.05	61.69	999.00	40.65	7.65	7.55	61.43	52.26	4.55	10.74	61.27	999.00	0.26	999.00	0.15	0.00
23	5	29	8	54.46	7.08	10.66	61.69	999.00	45.04	5.16	11.51	61.43	29.31	5.26	10.16	61.27	999.00	-0.46	999.00	-0.25	0.00
23	5	29	9	49.61	9.21	9.62	62.79	999.00	41.66	8.06	9.40	62.88	40.05	7.39	9.86	63.24	999.00	-0.99	999.00	-0.66	0.00
23	5	29	10	49.06	10.19	9.05	62.52	999.00	38.50	8.64	9.08	62.85	40.06	8.47	9.65	63.41	999.00	-1.00	999.00	-0.73	0.00
23	5	29	11	56.63	11.01	9.73	63.44	999.00	44.34	9.68	9.12	63.54	39.95	9.31	9.49	64.12	999.00	-0.85	999.00	-0.72	0.00
23	5	29	12	58.87	12.10	8.68	64.58	999.00	48.16	11.12	8.35	64.70	41.38	10.34	8.89	65.72	999.00	-1.19	999.00	-1.12	0.00
23	5	29	13	64.38	9.94	6.95	65.35	999.00	51.46	8.89	8.39	65.38	49.19	7.93	13.41	66.63	999.00	-1.18	999.00	-1.20	0.00
23	5	29	14	72.10	8.70	8.62	65.35	999.00	59.78	8.55	7.41	65.38	53.60	8.88	9.27	66.63	999.00	-0.99	999.00	-0.86	0.00
23	5	29	15	67.40	13.29	6.67	68.83	999.00	62.21	10.51	8.08	68.69	55.42	8.60	10.83	70.33	999.00	-0.52	999.00	-0.97	0.00
23	5	29	16	73.50	12.15	6.44	71.54	999.00	67.85	10.54	8.79	71.44	67.33	7.95	12.64	72.98	999.00	-1.52	999.00	-1.69	0.00
23	5	29	17	999.00	13.53	6.97	71.09	999.00	70.50	11.08	10.48	71.02	75.40	7.36	16.87	72.70	999.00	-1.33	999.00	-1.59	0.00
23	5	29	18	73.30	13.31	4.19	71.55	999.00	67.15	11.60	6.10	71.19	67.94	8.75	11.70	72.68	999.00	-0.81	999.00	-1.34	0.00
23	5	29	19	78.00	14.56	2.93	72.76	999.00	69.97	11.51	5.35	71.72	74.30	6.51	13.15	72.52	999.00	0.45	999.00	-0.29	0.00
23	5	29	20	79.40	15.50	3.69	70.71	999.00	78.60	11.26	5.86	69.77	96.10	4.95	17.87	70.36	999.00	1.15	999.00	-0.10	0.00
23	5	29	21	85.70	17.12	2.20	70.11	999.00	85.70	15.41	2.69	68.94	101.40	5.74	12.09	67.70	999.00	3.55	999.00	2.63	0.00
23	5	29	22	102.50	19.32	2.82	69.78	999.00	103.50	15.70	3.10	68.17	104.40	5.18	15.20	66.18	999.00	4.36	999.00	2.10	0.00
23	5	29	23	77.60	19.56	1.08	69.91	999.00	67.70	16.62	2.06	68.79	68.29	6.56	7.98	66.38	999.00	3.53	999.00	2.62	0.00
23	5	29	24	81.90	19.67	1.97	68.54	999.00	72.40	16.63	2.99	68.32	72.30	7.55	9.18	66.37	999.00	1.43	999.00	1.10	0.00
23	5	30	1	90.60	18.54	2.75	67.30	999.00	82.60	15.06	4.34	67.03	84.20	5.88	13.10	66.12	999.00	0.72	999.00	0.65	0.00
23	5	30	2	86.80	15.77	3.51	65.75	999.00	76.30	12.49	5.05	65.59	70.50	5.28	11.54	65.23	999.00	0.63	999.00	0.38	0.00
23	5	30	3	77.50	17.97	3.43	66.02	999.00	67.32	15.66	4.21	65.65	66.44	7.46	9.44	64.93	999.00	1.12	999.00	0.89	0.00
23	5	30	4	72.50	13.33	2.76	65.03	999.00	59.80	11.17	5.79	64.81	58.60	5.51	10.38	64.44	999.00	0.40	999.00	0.28	0.00
23	5	30	5	83.40	14.11	1.64	64.48	999.00	71.90	13.48	2.41	64.57	72.10	6.22	10.61	63.98	999.00	0.37	999.00	0.52	0.00
23	5	30	6	104.70	10.38	4.74	63.45	999.00	96.40	9.45	5.45	63.69	104.10	3.86	19.81	63.37	999.00	-0.27	999.00	0.14	0.00
23	5	30	7	127.60	7.44	3.91	63.06	999.00	109.60	5.65	2.77	62.70	99.00	2.68	9.92	62.60	999.00	1.02	999.00	0.12	0.00
23	5	30	8	161.40	10.83	6.73	63.96	999.00	145.00	7.39	7.40	63.02	148.40	2.99	20.28	63.49	999.00	0.76	999.00	-0.73	0.00
23	5	30	9	191.40	8.85	8.06	67.61	999.00	179.80	7.33	9.43	67.25	183.60	4.05	19.85	67.10	999.00	-1.38	999.00	-0.22	0.00
23	5	30	10	180.00	7.80	10.01	69.70	999.00	177.60	7.20	10.86	71.30	189.90	5.33	17.33	71.68	999.00	-1.98	999.00	-0.25	0.00
23	5	30	11	177.60	8.06	9.66	73.15	999.00	169.30	7.48	9.53	74.58	175.70	4.40	26.76	75.48	999.00	-2.53	999.00	-0.97	0.00
23	5	30	12	117.00	8.21	14.79	75.47	999.00	98.20	8.35	9.87	76.19	83.80	7.28	14.95	77.22	999.00	-0.93	999.00	-1.14	0.00
23	5	30	13	108.50	9.51	6.63	75.80	999.00	83.90	10.30	7.10	74.50	86.80	8.06	13.29	74.57	999.00	1.95	999.00	-0.11	0.00
23	5	30	14	86.80	12.14	2.58	76.16	999.00	76.50	13.65	3.69	74.99	85.80	9.50	12.11	75.88	999.00	0.11	999.00	-0.93	0.00
23	5	30	15	85.40	18.16	1.35	76.66	999.00	79.30	18.54	3.03	75.93	83.10	9.94	14.25	77.78	999.00	-1.45	999.00	-2.21	0.00
23	5	30	16	87.90	18.84	1.88	77.00	999.00	80.50	17.89	3.46	75.95	89.10	9.39	14.96	77.77	999.00	-0.40	999.00	-1.22	0.00
23	5	30	17	80.30	18.97	2.00	77.34	999.00	72.10	16.10	5.36	76.49	79.20	9.50	14.38	78.13	999.00	-0.52	999.00	-1.20	0.00
23	5	30	18	81.90	18.90	3.88	75.72	999.00	76.50	15.86	6.15	74.76	86.10	8.96	15.49	76.20	999.00	-0.39	999.00	-1.39	0.00
23	5	30	19	92.50	22.38	4.53	73.21	999.00	86.50	19.06	6.24	72.10	92.20	9.22	17.43	73.45	999.00	-1.13	999.00	-1.48	0.00
23	5	30	20	94.70	27.22	3.12	72.17	999.00	92.90	21.34	5.68	70.72	97.60	8.01	17.18	70.97	999.00	2.39	999.00	0.42	0.00
23	5	30	21	102.80	20.86	1.19	71.85	999.00	94.10	18.42	3.10	70.01	93.50	7.54	15.39	69.40	999.00	2.42	999.00	0.77	0.00
23	5	30	22	103.60	20.68	2.34	68.84	999.00	99.50	15.27	4.24	67.61	91.40	4.89	12.98	66.93	999.00	2.41	999.00	1.25	0.00
23	5	30	23	126.50	19.14	3.48	72.21	999.00	110.40	13.57	2.95	69.24	99.40	5.64	12.75	67.54	999.00	7.65	999.00	2.20	0.00
23	5	30	24	151.40	19.21	0.85	75.25	999.00	141.30	17.44	1.93	74.49	118.20	4.40	11.52	67.54	999.00	999.00	999.00	7.97	0.00
23	5	31	1	154.00	22.04	0.83	75.90	999.00	147.10	17.64	1.25	74.66	135.10	2.71	13.72	68.04	999.00	7.97	999.00	6.78	0.00
23	5	31	2	162.40	21.12	1.43	75.73	999.00	152.40	16.33	1.88	74.11	147.70	3.01	14.96	69.17	999.00	5.71	999.00	4.11	0.00
23	5	31	3	166.10	21.29	0.78	75.50	999.00	158.50	16.21	1.40	73.99	150.90	3.25	16.31	70.40	999.00	5.53	999.00	3.66	0.00
23	5	31	4	162.10	21.33	1.23	74.22	999.00	153.40	16.33	2.87	72.72	155.00	3.46	20.31	70.17	999.00	3.76	999.00	2.37	0.00

23	5	31	5	157.30	19.61	2.56	71.98	999.00	149.60	15.66	4.00	71.04	149.50	4.74	18.68	69.39	999.00	1.21	999.00	0.74	0.00
23	5	31	6	157.40	20.59	1.77	69.60	999.00	150.10	16.17	3.75	69.09	144.40	5.37	17.95	68.37	999.00	1.39	999.00	0.82	0.00
23	5	31	7	159.80	20.22	2.04	68.73	999.00	152.90	15.55	4.26	68.32	163.70	4.48	21.39	67.68	999.00	1.15	999.00	0.64	0.00
23	5	31	8	164.10	10.84	7.26	67.69	999.00	156.60	8.76	9.13	67.84	151.90	3.53	25.03	68.03	999.00	-1.33	999.00	-0.71	0.00
23	5	31	9	174.00	9.39	8.06	68.34	999.00	169.40	8.88	8.99	69.23	180.60	4.69	24.60	70.12	999.00	-2.19	999.00	-1.00	0.00
23	5	31	10	196.70	7.03	8.93	70.31	999.00	188.40	6.59	9.41	71.94	186.40	4.80	19.45	72.40	999.00	-2.16	999.00	-0.15	0.00
23	5	31	11	127.00	4.11	32.45	73.23	999.00	100.80	4.90	28.62	74.48	98.00	5.56	26.70	75.40	999.00	-1.91	999.00	-1.28	0.00
23	5	31	12	99.30	9.48	3.85	72.53	999.00	88.70	9.86	7.56	72.18	77.30	8.30	13.68	74.18	999.00	-1.00	999.00	-1.76	0.00
23	5	31	13	88.90	9.58	5.37	73.07	999.00	74.20	9.44	5.47	72.57	93.30	6.81	13.60	74.35	999.00	-0.95	999.00	-1.45	0.00
23	5	31	14	75.50	12.13	6.69	73.09	999.00	69.53	10.78	9.60	73.20	65.05	9.73	14.03	75.13	999.00	-3.00	999.00	-2.47	0.00
23	5	31	15	78.30	10.69	8.15	73.85	999.00	72.50	8.85	11.18	74.18	62.39	9.21	12.65	76.47	999.00	-2.69	999.00	-2.22	0.00
23	5	31	16	76.20	15.48	6.00	74.83	999.00	68.36	13.69	8.85	75.20	71.80	9.97	16.45	77.32	999.00	-2.77	999.00	-2.40	0.00
23	5	31	17	78.00	20.56	4.12	72.48	999.00	72.00	17.19	6.94	72.36	74.30	11.55	12.41	74.38	999.00	-1.82	999.00	-2.06	0.00
23	5	31	18	85.00	22.38	4.35	73.32	999.00	79.00	18.01	7.10	72.81	83.90	9.05	16.75	74.63	999.00	-1.13	999.00	-1.66	0.00
23	5	31	19	95.30	26.88	4.73	71.73	999.00	88.90	22.48	6.48	71.09	99.10	9.30	18.49	72.50	999.00	-0.08	999.00	-0.98	0.00
23	5	31	20	102.70	20.93	4.65	71.21	999.00	98.00	17.24	6.80	70.16	105.90	7.83	16.54	70.65	999.00	0.00	999.00	-0.45	0.00
23	5	31	21	108.50	25.12	2.89	70.32	999.00	103.80	20.78	5.29	69.84	112.50	8.71	15.50	69.94	999.00	1.04	999.00	0.29	0.00
23	5	31	22	113.30	22.53	2.61	71.07	999.00	107.60	18.08	4.57	70.23	114.30	7.83	16.40	69.70	999.00	1.69	999.00	0.57	0.00
23	5	31	23	115.00	22.85	0.97	72.17	999.00	113.00	19.44	2.99	70.58	121.80	6.46	16.20	68.92	999.00	3.61	999.00	2.05	0.00
23	5	31	24	120.10	21.18	1.05	72.60	999.00	113.40	17.92	1.15	71.51	117.10	5.96	13.67	69.32	999.00	3.24	999.00	2.48	0.00
23	6	1	1	141.50	21.26	1.08	75.29	999.00	131.50	17.03	2.09	72.36	124.50	4.69	10.97	68.55	999.00	7.97	999.00	5.34	0.00
23	6	1	2	155.60	20.70	1.14	75.89	999.00	146.40	15.43	2.27	73.33	150.70	3.14	14.84	68.80	999.00	6.82	999.00	4.37	0.00
23	6	1	3	166.70	19.45	1.66	76.96	999.00	162.10	16.26	1.58	74.61	139.70	2.58	21.84	69.11	999.00	7.97	999.00	6.16	0.00
23	6	1	4	169.00	9.74	2.58	73.85	999.00	147.50	8.03	2.85	72.56	112.90	2.81	10.51	67.78	999.00	5.47	999.00	4.73	0.00
23	6	1	5	165.30	9.86	2.65	73.72	999.00	139.20	8.04	5.53	72.51	118.60	3.92	9.01	66.67	999.00	7.85	999.00	6.41	0.00
23	6	1	6	163.50	10.11	1.97	74.06	999.00	152.10	9.46	2.81	72.96	153.70	2.52	8.72	66.26	999.00	7.97	999.00	7.15	0.00
23	6	1	7	178.40	10.56	1.81	73.72	999.00	165.00	10.65	1.52	73.00	190.90	1.91	17.51	65.79	999.00	7.97	999.00	7.85	0.00
23	6	1	8	165.00	9.03	2.50	74.50	999.00	157.00	10.05	3.15	73.85	131.90	2.38	19.99	66.14	999.00	7.71	999.00	7.29	0.00
23	6	1	9	153.10	10.99	3.19	73.96	999.00	129.40	8.80	6.46	71.24	120.20	4.93	15.15	67.91	999.00	5.48	999.00	0.87	0.00
23	6	1	10	144.90	8.08	6.75	74.08	999.00	148.20	5.49	5.70	70.75	122.60	3.34	19.45	70.13	999.00	3.08	999.00	0.59	0.00
23	6	1	11	132.80	7.54	4.24	75.45	999.00	127.40	6.53	7.33	74.77	125.30	3.90	19.83	75.23	999.00	-1.03	999.00	-1.14	0.00
23	6	1	12	113.80	6.52	13.10	77.17	999.00	104.70	5.69	15.66	77.59	95.90	5.15	26.86	79.35	999.00	-2.39	999.00	-1.79	0.00
23	6	1	13	91.30	7.44	6.73	76.81	999.00	74.50	6.66	8.52	76.49	56.84	7.07	9.57	77.47	999.00	1.25	999.00	0.29	0.00
23	6	1	14	75.00	6.56	4.62	76.38	999.00	66.10	6.42	6.65	74.89	57.17	7.04	8.75	74.57	999.00	2.23	999.00	0.36	0.00
23	6	1	15	70.60	8.63	8.87	77.36	999.00	64.93	8.52	8.83	76.51	62.47	7.82	12.04	76.90	999.00	-0.28	999.00	-0.62	0.00
23	6	1	16	69.27	14.04	4.70	74.89	999.00	66.77	11.85	7.56	74.45	65.40	8.78	14.37	76.15	999.00	-1.06	999.00	-1.86	0.00
23	6	1	17	63.99	16.63	2.21	76.85	999.00	57.98	13.82	5.59	76.43	55.38	8.84	10.17	77.70	999.00	-0.14	999.00	-0.97	0.00
23	6	1	18	69.02	15.51	4.76	79.16	999.00	62.14	12.67	8.36	78.75	57.64	8.43	9.98	79.13	999.00	-0.74	999.00	-0.97	0.00
23	6	1	19	59.23	14.88	1.68	79.44	999.00	54.32	13.70	3.81	79.05	58.17	6.99	11.84	78.85	999.00	0.91	999.00	0.33	0.00
23	6	1	20	71.10	11.58	6.39	80.40	999.00	61.10	10.39	5.57	79.92	65.17	4.01	11.60	77.97	999.00	2.87	999.00	2.87	0.00
23	6	1	21	51.91	10.68	3.39	79.94	999.00	38.90	8.33	5.95	79.37	37.72	5.20	9.81	76.00	999.00	4.97	999.00	4.16	0.00
23	6	1	22	50.58	11.42	5.38	78.67	999.00	41.11	8.08	8.33	77.71	109.20	1.57	49.89	73.93	999.00	4.95	999.00	3.93	0.00
23	6	1	23	59.01	14.86	2.03	77.71	999.00	55.59	14.08	1.25	76.81	61.53	6.14	8.61	73.10	999.00	4.77	999.00	4.72	0.00
23	6	1	24	55.65	15.67	1.73	78.53	999.00	51.54	14.53	1.51	78.46	67.53	5.05	7.89	73.75	999.00	5.18	999.00	5.04	0.00
23	6	2	1	55.52	16.69	2.62	78.90	999.00	49.25	15.43	4.17	77.56	73.00	4.28	9.71	73.05	999.00	6.66	999.00	4.46	0.00
23	6	2	2	49.01	12.41	2.23	79.49	999.00	40.71	14.30	3.59	78.73	73.50	5.74	10.51	72.93	999.00	6.22	999.00	5.38	0.00
23	6	2	3	80.20	9.82	7.84	76.75	999.00	90.40	9.05	6.16	75.55	167.50	2.20	19.70	69.80	999.00	6.34	999.00	5.76	0.00
23	6	2	4	87.20	4.81	7.69	72.47	999.00	130.30	3.60	20.17	71.84	236.50	1.85	28.89	67.39	999.00	4.42	999.00	3.43	0.00
23	6	2	5	78.90	4.82	4.06	71.46	999.00	93.90	4.46	7.39	71.06	150.20	1.16	12.19	66.19	999.00	5.85	999.00	5.69	0.00
23	6	2	6	28.34	4.71	11.02	70.80	999.00	8.35	3.96	13.69	70.87	327.20	2.09	10.00	64.02	999.00	6.66	999.00	6.62	0.00
23	6	2	7	36.53	5.67	7.77	70.59	999.00	12.79	4.59	8.60	70.54	295.00	1.02	30.40	65.10	999.00	6.07	999.00	5.72	0.00
23	6	2	8	55.15	6.04	17.80	70.35	999.00	38.16	5.21	19.54	70.40	22.16	4.57	40.15	67.72	999.00	-0.02	999.00	0.23	0.00
23	6	2	9	62.72	3.93	15.35	71.42	999.00	23.82	2.73	21.62	71.15	1.43	3.04	13.62	71.15	999.00	0.22	999.00	-0.04	0.00

23	6	2	10	28.45	5.07	9.57	72.78	999.00	19.14	4.35	11.30	72.64	11.11	5.45	15.45	72.30	999.00	0.08	999.00	0.50	0.00
23	6	2	11	14.84	5.41	11.14	72.84	999.00	9.68	5.39	9.70	73.25	23.01	5.85	12.71	73.00	999.00	0.41	999.00	0.46	0.00
23	6	2	12	45.39	5.32	10.19	73.68	999.00	43.29	5.93	10.56	73.48	45.47	6.04	14.02	73.43	999.00	-0.53	999.00	-0.48	0.00
23	6	2	13	57.91	9.98	5.59	74.77	999.00	49.69	8.30	7.12	74.06	57.51	6.62	14.98	74.82	999.00	-0.22	999.00	-1.08	0.00
23	6	2	14	42.38	8.36	8.05	75.94	999.00	40.04	7.36	9.44	75.40	60.23	6.64	15.01	76.52	999.00	-0.96	999.00	-1.18	0.00
23	6	2	15	78.30	8.02	8.71	77.22	999.00	71.40	6.86	9.93	77.28	67.32	5.74	18.91	78.63	999.00	-1.95	999.00	-1.83	0.00
23	6	2	16	80.90	6.51	15.38	78.27	999.00	65.50	6.12	14.57	78.60	52.71	5.98	18.55	80.10	999.00	-1.76	999.00	-1.26	0.00
23	6	2	17	53.10	5.60	15.66	77.99	999.00	28.75	4.66	15.84	78.54	22.17	5.34	18.23	79.65	999.00	-0.57	999.00	-0.25	0.00
23	6	2	18	48.45	4.25	17.14	78.86	999.00	29.68	3.80	16.90	79.29	14.09	4.60	13.13	79.60	999.00	-0.75	999.00	-0.19	0.00
23	6	2	19	58.03	4.72	10.62	80.35	999.00	42.65	3.59	15.66	81.11	14.81	3.46	16.98	81.20	999.00	-0.88	999.00	-0.23	0.00
23	6	2	20	26.69	5.53	11.40	80.91	999.00	12.27	3.92	10.63	81.17	357.70	3.63	8.41	81.10	999.00	0.38	999.00	0.71	0.00
23	6	2	21	33.75	10.42	3.57	80.43	999.00	29.24	6.85	5.10	80.29	21.86	4.39	15.47	79.30	999.00	2.29	999.00	2.00	0.00
23	6	2	22	39.98	15.65	6.74	79.54	999.00	34.50	13.16	8.54	79.62	38.92	11.65	8.53	78.60	999.00	-0.36	999.00	-0.20	0.00
23	6	2	23	44.65	20.01	7.13	76.48	999.00	39.76	16.66	8.60	76.44	45.29	10.31	11.09	76.70	999.00	0.00	999.00	-0.14	0.00
23	6	2	24	40.35	20.40	6.57	75.11	999.00	35.53	15.83	8.55	74.87	39.86	12.97	9.68	74.93	999.00	0.12	999.00	-0.13	0.00
23	6	3	1	27.70	21.44	2.39	74.08	999.00	23.82	14.12	5.30	73.63	32.20	10.34	9.91	73.60	999.00	1.22	999.00	0.34	0.00
23	6	3	2	20.32	23.32	4.82	73.52	999.00	14.09	18.04	8.46	73.07	21.31	13.94	9.91	73.00	999.00	-0.15	999.00	-0.20	0.00
23	6	3	3	27.08	21.62	6.42	71.92	999.00	17.20	17.36	7.96	71.51	23.07	14.10	11.25	71.85	999.00	0.48	999.00	-0.23	0.00
23	6	3	4	25.72	19.25	5.34	72.07	999.00	16.72	15.39	7.99	71.54	23.01	12.57	11.08	71.85	999.00	-0.17	999.00	-0.50	0.00
23	6	3	5	29.45	16.12	3.45	70.84	999.00	20.26	12.80	5.67	70.55	24.14	11.19	10.26	70.90	999.00	-0.19	999.00	-0.42	0.00
23	6	3	6	40.82	13.74	2.42	70.84	999.00	29.49	10.52	4.31	70.55	32.28	8.64	6.84	70.90	999.00	0.37	999.00	0.05	0.00
23	6	3	7	42.72	11.16	8.22	68.28	999.00	33.54	9.33	9.01	68.25	30.40	7.04	10.66	68.73	999.00	-0.54	999.00	-0.43	0.00
23	6	3	8	46.13	10.81	10.40	68.22	999.00	35.70	9.25	10.66	68.52	31.85	8.61	8.84	69.10	999.00	-0.98	999.00	-0.61	0.00
23	6	3	9	42.32	8.94	11.12	68.84	999.00	33.35	7.70	11.55	69.29	28.93	8.09	11.07	69.91	999.00	-1.12	999.00	-0.56	0.00
23	6	3	10	46.42	10.21	11.67	69.40	999.00	39.01	8.70	11.02	69.89	35.00	9.19	9.54	70.53	999.00	-1.10	999.00	-0.55	0.00
23	6	3	11	51.58	11.88	10.03	69.64	999.00	44.79	9.71	12.73	70.15	39.90	8.50	11.77	70.93	999.00	-1.79	999.00	-1.25	0.00
23	6	3	12	54.87	16.23	6.54	70.05	999.00	46.30	14.08	9.04	70.46	46.22	11.68	10.56	72.00	999.00	-1.88	999.00	-1.60	0.00
23	6	3	13	72.70	18.07	7.39	70.95	999.00	63.74	16.86	7.01	71.31	62.32	12.71	11.29	73.35	999.00	-3.08	999.00	-2.53	0.00
23	6	3	14	77.10	20.32	3.30	69.54	999.00	73.30	19.59	4.89	70.08	81.00	13.01	12.38	72.65	999.00	-3.33	999.00	-2.90	0.00
23	6	3	15	90.30	14.28	5.63	69.54	999.00	85.10	13.96	8.16	70.08	86.20	9.82	16.13	72.65	999.00	-3.40	999.00	-2.89	0.00
23	6	3	16	89.80	16.66	4.81	67.98	999.00	80.60	16.46	5.02	68.40	85.00	10.85	16.21	71.05	999.00	-3.04	999.00	-2.69	0.00
23	6	3	17	90.80	21.11	5.95	68.05	999.00	85.90	19.30	7.60	68.45	90.20	10.45	17.68	70.97	999.00	-3.04	999.00	-2.52	0.00
23	6	3	18	87.70	24.06	6.42	67.40	999.00	83.30	22.04	8.54	67.93	89.30	13.32	16.27	70.40	999.00	-2.79	999.00	-2.28	0.00
23	6	3	19	94.90	29.54	4.71	66.54	999.00	90.90	27.81	5.84	67.05	102.20	12.94	18.08	68.96	999.00	-1.85	999.00	-1.38	0.00
23	6	3	20	93.50	25.00	6.53	65.92	999.00	88.90	22.38	8.15	66.38	98.00	11.12	18.25	67.61	999.00	-1.50	999.00	-1.04	0.00
23	6	3	21	89.10	26.43	4.35	65.92	999.00	84.10	24.50	5.77	66.38	89.50	12.26	16.64	67.61	999.00	-1.02	999.00	-0.56	0.00
23	6	3	22	84.70	29.37	3.89	66.06	999.00	79.70	26.99	4.87	66.49	87.90	13.41	14.30	66.94	999.00	-0.82	999.00	-0.41	0.00
23	6	3	23	999.00	24.65	4.56	66.19	999.00	80.40	23.00	6.04	66.63	88.00	11.34	17.19	67.04	999.00	-0.90	999.00	-0.45	0.00
23	6	3	24	85.60	25.73	4.70	65.18	999.00	80.20	24.13	6.11	65.64	83.00	13.09	13.31	65.96	999.00	-0.80	999.00	-0.34	0.00
23	6	4	1	78.50	31.59	3.23	64.25	999.00	73.10	30.40	3.91	64.71	77.60	17.14	13.19	65.13	999.00	-0.91	999.00	-0.44	0.00
23	6	4	2	74.40	31.68	4.85	63.25	999.00	69.62	29.37	5.70	63.73	74.60	18.25	11.05	64.22	999.00	-1.04	999.00	-0.57	0.00
23	6	4	3	71.90	33.63	4.18	62.05	999.00	65.98	31.24	5.32	62.54	71.80	19.00	11.36	63.11	999.00	-1.07	999.00	-0.59	0.00
23	6	4	4	72.20	26.78	5.28	61.06	999.00	67.34	25.49	5.85	61.55	72.80	15.41	11.66	62.12	999.00	-1.06	999.00	-0.56	0.00
23	6	4	5	70.30	24.25	4.32	60.31	999.00	64.85	22.67	5.65	60.78	69.29	14.37	11.46	61.35	999.00	-1.07	999.00	-0.59	0.00
23	6	4	6	68.90	23.09	4.57	59.83	999.00	63.54	21.80	5.39	60.29	71.50	13.16	11.88	60.83	999.00	-1.02	999.00	-0.57	0.00
23	6	4	7	68.89	22.73	3.39	59.69	999.00	63.31	21.83	4.59	60.18	70.10	13.70	11.28	60.77	999.00	-1.19	999.00	-0.67	0.00
23	6	4	8	75.70	19.05	6.20	59.77	999.00	71.50	18.65	6.17	60.31	76.30	11.52	12.32	61.25	999.00	-1.72	999.00	-1.20	0.00
23	6	4	9	71.60	17.38	7.32	59.99	999.00	65.29	16.29	9.58	60.53	70.30	10.37	15.02	62.07	999.00	-2.23	999.00	-1.64	0.00
23	6	4	10	70.60	20.78	4.67	59.98	999.00	65.12	19.53	6.56	60.61	71.70	13.20	13.48	62.36	999.00	-2.51	999.00	-1.87	0.00
23	6	4	11	60.98	19.71	7.11	60.59	999.00	54.68	19.03	7.14	61.20	58.34	13.85	12.10	63.27	999.00	-2.74	999.00	-2.22	0.00
23	6	4	12	56.97	24.31	5.22	60.56	999.00	51.00	23.21	5.68	61.15	54.61	15.51	12.73	63.47	999.00	-3.16	999.00	-2.60	0.00
23	6	4	13	57.55	22.85	5.49	60.55	999.00	51.60	21.59	5.92	61.05	55.76	15.91	12.62	63.67	999.00	-3.28	999.00	-2.72	0.00
23	6	4	14	57.12	21.32	5.53	61.12	999.00	50.05	20.81	5.90	61.61	54.68	14.68	12.53	64.35	999.00	-3.19	999.00	-2.74	0.00

23	6	4	15	64.42	23.07	6.16	63.17	999.00	57.87	21.77	7.37	63.68	62.80	16.03	11.58	66.30	999.00	-3.19	999.00	-2.58	0.00
23	6	4	16	67.88	22.73	6.45	63.88	999.00	62.11	21.27	8.04	64.52	67.93	15.99	13.35	67.07	999.00	-2.96	999.00	-2.34	0.00
23	6	4	17	77.10	24.30	4.66	63.62	999.00	72.50	23.22	5.72	64.19	79.20	13.90	12.90	66.41	999.00	-2.78	999.00	-2.25	0.00
23	6	4	18	74.60	20.61	4.57	64.41	999.00	70.50	20.01	5.14	64.93	80.20	12.85	13.39	66.89	999.00	-2.28	999.00	-1.80	0.00
23	6	4	19	83.10	17.91	5.06	64.47	999.00	77.80	17.25	5.66	64.93	82.80	10.14	14.79	66.58	999.00	-1.97	999.00	-1.52	0.00
23	6	4	20	87.30	16.61	4.67	64.10	999.00	82.30	16.08	5.83	64.56	86.40	8.43	15.07	65.76	999.00	-1.34	999.00	-0.90	0.00
23	6	4	21	67.12	16.74	4.42	63.71	999.00	61.24	15.64	5.60	64.17	68.19	8.73	11.87	64.75	999.00	-0.87	999.00	-0.43	0.00
23	6	4	22	73.80	13.33	5.17	63.06	999.00	68.19	12.44	5.99	63.50	74.30	7.21	10.67	63.83	999.00	-0.66	999.00	-0.23	0.00
23	6	4	23	86.80	15.34	4.52	63.06	999.00	82.30	14.87	4.52	63.50	87.20	6.41	15.34	63.83	999.00	-0.22	999.00	0.25	0.00
23	6	4	24	83.60	14.66	4.67	62.48	999.00	78.10	13.92	4.97	62.91	80.90	7.00	13.51	62.74	999.00	-0.29	999.00	0.15	0.00
23	6	5	1	88.30	17.81	3.80	62.73	999.00	83.70	16.30	4.34	63.14	91.20	7.12	16.72	62.86	999.00	-0.04	999.00	0.31	0.00
23	6	5	2	75.50	15.82	4.01	62.73	999.00	70.10	15.14	4.34	63.14	72.20	8.39	10.23	62.86	999.00	-0.38	999.00	0.02	0.00
23	6	5	3	78.70	13.23	4.55	62.90	999.00	72.40	12.11	4.78	63.28	76.00	5.93	13.09	63.04	999.00	0.00	999.00	0.36	0.00
23	6	5	4	73.40	11.59	6.07	62.38	999.00	65.13	10.82	5.85	62.74	67.46	5.42	10.72	62.11	999.00	0.35	999.00	0.68	0.00
23	6	5	5	64.86	11.05	4.26	62.53	999.00	58.50	10.74	4.29	62.93	66.90	6.15	10.01	62.80	999.00	-0.45	999.00	-0.02	0.00
23	6	5	6	67.74	13.50	3.59	62.13	999.00	62.14	12.85	4.66	62.57	69.48	6.99	11.90	62.76	999.00	-0.57	999.00	-0.14	0.00
23	6	5	7	73.40	10.38	4.01	61.50	999.00	67.29	10.08	3.79	61.96	72.30	5.54	9.34	62.15	999.00	-0.60	999.00	-0.14	0.00
23	6	5	8	101.30	6.68	4.78	61.50	999.00	93.80	6.48	4.70	61.96	101.80	2.53	14.00	62.15	999.00	-0.28	999.00	0.10	0.00
23	6	5	9	82.70	4.35	6.78	61.51	999.00	76.50	4.28	6.90	61.95	87.90	2.18	16.63	62.33	999.00	-1.10	999.00	-0.63	0.00
23	6	5	10	71.40	4.40	22.88	62.17	999.00	67.09	4.27	22.18	62.58	58.93	3.93	33.71	63.38	999.00	-1.47	999.00	-0.90	0.00
23	6	5	11	58.12	6.79	9.78	62.82	999.00	51.38	7.00	9.55	63.31	55.22	6.42	13.38	64.41	999.00	-1.24	999.00	-0.94	0.00
23	6	5	12	50.84	5.51	19.96	62.98	999.00	47.26	5.77	16.22	63.44	39.07	5.51	21.73	64.58	999.00	-1.57	999.00	-0.98	0.00
23	6	5	13	81.30	4.89	14.02	63.23	999.00	78.90	5.04	14.12	63.62	81.60	4.15	24.02	65.21	999.00	-2.03	999.00	-1.65	0.00
23	6	5	14	58.01	5.37	12.16	64.53	999.00	51.68	5.58	11.21	64.81	51.61	5.06	21.61	65.99	999.00	-1.38	999.00	-1.11	0.00
23	6	5	15	60.76	5.20	15.98	65.79	999.00	50.74	5.06	15.92	66.22	45.34	4.64	14.65	67.25	999.00	-1.56	999.00	-1.07	0.00
23	6	5	16	90.70	5.30	12.98	65.85	999.00	83.00	5.73	9.29	66.20	86.80	4.42	24.08	67.59	999.00	-2.09	999.00	-1.82	0.00
23	6	5	17	99.20	4.43	11.84	65.85	999.00	101.40	4.55	13.05	66.20	134.80	4.26	16.63	67.59	999.00	-2.19	999.00	-1.73	0.00
23	6	5	18	6.53	1.90	75.70	69.45	999.00	66.23	1.89	53.67	69.49	101.80	2.21	41.53	70.56	999.00	-0.86	999.00	-0.54	0.00
23	6	5	19	131.00	3.64	6.49	69.99	999.00	123.70	4.44	7.55	70.43	124.10	4.13	14.89	71.52	999.00	-1.14	999.00	-1.06	0.00
23	6	5	20	161.90	4.60	9.56	69.99	999.00	144.80	5.04	12.71	70.43	127.90	2.70	14.45	71.52	999.00	0.44	999.00	0.46	0.00
23	6	5	21	183.00	10.31	3.22	70.31	999.00	175.70	9.77	3.77	70.33	198.20	3.49	17.84	69.77	999.00	0.57	999.00	0.21	0.00
23	6	5	22	186.00	11.23	1.80	69.71	999.00	175.70	11.67	1.29	69.47	178.50	2.83	14.24	67.69	999.00	2.73	999.00	2.59	0.00
23	6	5	23	182.80	11.58	1.92	69.63	999.00	178.10	11.94	3.32	69.68	202.30	1.51	36.32	65.90	999.00	4.51	999.00	4.59	0.00
23	6	5	24	195.40	11.19	1.19	69.84	999.00	188.00	11.96	1.00	69.60	200.20	2.56	12.38	65.06	999.00	5.24	999.00	4.78	0.00
23	6	6	1	210.50	14.55	1.24	69.67	999.00	204.20	14.24	1.10	69.05	208.80	3.96	9.30	64.44	999.00	5.13	999.00	4.13	0.00
23	6	6	2	228.70	14.70	1.20	69.96	999.00	219.60	15.72	1.67	68.47	221.80	5.17	11.02	63.90	999.00	6.29	999.00	4.32	0.00
23	6	6	3	238.20	16.75	2.89	70.71	999.00	234.00	14.70	4.89	69.29	222.50	4.66	16.32	64.10	999.00	6.02	999.00	3.34	0.00
23	6	6	4	228.60	17.11	1.04	69.88	999.00	222.60	14.28	0.96	67.28	212.40	4.46	10.86	64.07	999.00	4.92	999.00	3.54	0.00
23	6	6	5	235.10	17.52	1.26	65.52	999.00	229.10	13.83	1.75	64.64	216.20	5.17	12.10	63.13	999.00	2.38	999.00	1.38	0.00
23	6	6	6	242.40	18.42	4.26	64.87	999.00	230.40	15.46	3.01	64.16	223.90	6.57	10.19	62.60	999.00	2.27	999.00	1.40	0.00
23	6	6	7	268.90	14.40	4.04	64.49	999.00	245.90	12.40	3.66	63.30	228.20	5.66	13.59	62.02	999.00	2.78	999.00	1.21	0.00
23	6	6	8	283.40	11.68	4.46	64.49	999.00	261.40	9.93	5.52	63.30	255.70	4.55	12.38	62.02	999.00	0.89	999.00	0.19	0.00
23	6	6	9	309.20	10.07	8.07	62.56	999.00	294.90	8.36	10.87	62.34	282.80	5.59	14.04	63.23	999.00	-1.87	999.00	-1.56	0.00
23	6	6	10	11.28	6.54	14.70	64.64	999.00	3.60	6.12	14.34	65.20	10.21	6.24	21.57	66.86	999.00	-1.56	999.00	-0.90	0.00
23	6	6	11	26.00	8.88	11.08	65.87	999.00	21.00	7.91	9.40	66.48	34.18	8.55	11.09	67.13	999.00	-1.12	999.00	-0.55	0.00
23	6	6	12	15.45	4.88	15.25	65.97	999.00	10.13	4.60	16.47	66.60	10.38	5.57	20.67	67.24	999.00	-1.64	999.00	-0.87	0.00
23	6	6	13	11.38	8.11	13.75	66.01	999.00	3.91	7.91	14.09	66.65	7.19	8.05	12.46	67.31	999.00	-1.40	999.00	-0.80	0.00
23	6	6	14	37.82	8.21	14.00	66.35	999.00	34.96	7.30	12.60	66.93	41.18	7.66	11.61	67.83	999.00	-1.51	999.00	-1.02	0.00
23	6	6	15	62.02	11.20	7.15	66.35	999.00	56.48	10.98	8.82	66.68	57.00	9.81	12.50	68.11	999.00	-2.04	999.00	-1.64	0.00
23	6	6	16	60.99	12.04	9.77	67.06	999.00	57.38	11.40	10.57	67.43	65.28	8.41	15.83	69.13	999.00	-2.20	999.00	-1.86	0.00
23	6	6	17	60.95	13.94	6.39	67.06	999.00	57.35	12.06	7.62	67.43	65.36	7.70	13.03	69.13	999.00	-1.67	999.00	-1.34	0.00
23	6	6	18	58.38	10.80	9.46	67.28	999.00	56.80	9.98	9.22	67.59	62.59	7.71	14.85	68.87	999.00	-1.60	999.00	-1.30	0.00
23	6	6	19	53.09	12.61	5.48	67.57	999.00	50.15	11.58	6.40	67.90	59.16	8.03	10.93	69.01	999.00	-1.38	999.00	-1.06	0.00

23	6	6	20	61.24	12.70	3.34	67.57	999.00	60.91	11.44	3.87	67.90	76.30	6.65	10.14	69.01	999.00	-0.67	999.00	-0.53	0.00
23	6	6	21	44.18	12.06	9.28	66.79	999.00	40.36	10.63	9.24	67.16	48.09	8.19	11.66	67.75	999.00	-1.11	999.00	-0.61	0.00
23	6	6	22	38.97	16.78	6.82	65.36	999.00	35.20	14.68	8.05	65.87	41.69	14.56	8.92	66.72	999.00	-1.43	999.00	-0.92	0.00
23	6	6	23	36.73	19.29	8.18	65.36	999.00	32.22	15.55	9.21	65.87	38.25	15.59	10.32	66.72	999.00	-1.46	999.00	-0.94	0.00
23	6	6	24	31.53	20.83	7.13	62.86	999.00	27.53	16.46	8.55	63.33	35.88	16.89	11.19	64.22	999.00	-1.34	999.00	-0.88	0.00
23	6	7	1	30.18	17.56	6.93	62.06	999.00	25.96	14.14	9.07	62.53	33.17	12.55	10.96	63.42	999.00	-1.32	999.00	-0.86	0.00
23	6	7	2	29.76	16.55	4.65	61.46	999.00	27.86	12.26	6.02	61.92	36.55	11.81	10.63	62.77	999.00	-1.31	999.00	-0.84	0.00
23	6	7	3	28.71	15.54	5.42	60.84	999.00	25.52	11.78	7.35	61.30	32.33	10.59	10.45	62.12	999.00	-1.24	999.00	-0.80	0.00
23	6	7	4	25.54	14.34	6.65	60.48	999.00	22.13	11.36	7.46	60.92	34.63	10.72	9.46	61.71	999.00	-1.20	999.00	-0.77	0.00
23	6	7	5	28.43	13.06	5.79	999.00	999.00	25.86	10.08	7.87	999.00	37.88	8.88	11.44	61.64	999.00	-1.17	999.00	-0.75	0.00
23	6	7	6	29.22	12.91	6.09	60.46	999.00	25.43	9.73	7.31	60.89	35.53	9.13	10.02	61.64	999.00	-1.24	999.00	-0.79	0.00
23	6	7	7	26.15	11.89	5.34	60.27	999.00	22.49	9.38	6.28	60.72	32.39	8.76	9.91	61.49	999.00	-1.22	999.00	-0.77	0.00
23	6	7	8	12.75	10.31	11.88	60.19	999.00	7.68	9.00	11.53	60.74	17.87	8.07	13.47	61.57	999.00	-1.47	999.00	-0.85	0.00
23	6	7	9	9.71	9.95	13.18	59.91	999.00	3.76	9.23	12.00	60.59	12.36	8.71	11.73	61.59	999.00	-1.67	999.00	-0.96	0.00
23	6	7	10	348.80	12.10	6.39	60.35	999.00	344.70	11.73	7.64	61.03	354.30	9.57	11.49	62.10	999.00	-1.99	999.00	-1.29	0.00
23	6	7	11	330.10	11.34	8.49	60.32	999.00	324.10	11.32	8.45	61.00	333.40	9.34	17.13	62.74	999.00	-2.93	999.00	-2.26	0.00
23	6	7	12	347.90	10.40	11.28	60.99	999.00	345.20	9.81	11.48	61.67	354.60	8.93	15.73	63.47	999.00	-2.12	999.00	-1.44	0.00
23	6	7	13	13.63	8.56	15.23	62.38	999.00	8.27	7.74	16.85	63.04	11.06	8.07	16.95	64.02	999.00	-1.50	999.00	-0.80	0.00
23	6	7	14	24.11	5.41	12.42	63.89	999.00	13.49	4.99	12.77	64.60	19.69	5.05	22.90	65.32	999.00	-1.36	999.00	-0.70	0.00
23	6	7	15	15.89	7.64	20.82	65.43	999.00	12.90	6.86	20.96	66.02	12.18	6.57	20.73	67.35	999.00	-2.13	999.00	-1.47	0.00
23	6	7	16	64.21	7.00	12.81	66.17	999.00	57.07	6.57	14.59	66.62	45.54	5.38	28.84	67.88	999.00	-1.99	999.00	-1.51	0.00
23	6	7	17	74.80	6.89	15.54	66.09	999.00	75.30	6.69	14.85	66.57	84.40	5.33	24.95	68.64	999.00	-2.34	999.00	-1.92	0.00
23	6	7	18	84.30	9.04	8.61	66.09	999.00	77.70	8.88	11.13	66.51	85.80	6.49	16.78	68.51	999.00	-2.35	999.00	-1.95	0.00
23	6	7	19	79.20	11.38	5.13	65.82	999.00	74.40	10.45	6.95	66.31	77.20	7.62	12.64	68.15	999.00	-2.20	999.00	-1.67	0.00
23	6	7	20	58.00	18.26	5.01	65.79	999.00	52.36	17.32	6.34	66.25	57.63	11.28	13.08	67.44	999.00	-1.46	999.00	-1.00	0.00
23	6	7	21	50.71	20.40	6.21	64.66	999.00	45.32	18.32	7.72	65.16	51.19	12.48	12.34	66.01	999.00	-1.33	999.00	-0.82	0.00
23	6	7	22	56.36	17.90	5.95	62.68	999.00	51.99	16.73	6.96	63.20	61.68	10.32	11.69	64.00	999.00	-1.22	999.00	-0.71	0.00
23	6	7	23	44.29	18.88	8.09	61.30	999.00	40.41	16.84	9.24	61.81	43.39	14.13	10.67	62.63	999.00	-1.43	999.00	-0.91	0.00
23	6	7	24	29.58	18.30	5.54	61.20	999.00	26.30	14.25	7.58	61.69	35.54	13.94	11.31	62.61	999.00	-1.38	999.00	-0.91	0.00
23	6	8	1	23.74	16.21	6.91	60.87	999.00	19.08	13.26	7.63	61.34	25.15	11.69	11.71	62.20	999.00	-1.31	999.00	-0.87	0.00
23	6	8	2	11.49	14.10	11.92	60.94	999.00	8.45	12.12	12.61	61.40	15.27	10.85	11.54	62.28	999.00	-1.34	999.00	-0.88	0.00
23	6	8	3	3.70	13.22	8.33	60.96	999.00	359.10	11.80	9.19	61.41	7.10	10.20	11.71	62.26	999.00	-1.32	999.00	-0.86	0.00
23	6	8	4	6.81	11.43	11.28	60.71	999.00	2.17	10.20	12.50	61.19	9.64	8.34	13.35	61.84	999.00	-1.19	999.00	-0.75	0.00
23	6	8	5	6.63	10.79	12.61	60.54	999.00	359.80	9.84	11.07	60.99	1.00	8.14	10.40	61.79	999.00	-1.21	999.00	-0.74	0.00
23	6	8	6	352.70	10.50	4.92	60.21	999.00	336.70	7.53	10.70	60.08	213.20	2.88	15.14	57.77	999.00	5.06	999.00	4.14	0.00
23	6	8	7	345.70	16.02	5.37	59.18	999.00	335.70	12.47	7.95	58.68	262.10	3.60	28.02	52.42	999.00	6.70	999.00	6.36	0.00
23	6	8	8	330.00	17.58	5.44	59.38	999.00	324.70	15.78	6.84	59.44	314.70	8.18	21.09	56.71	999.00	0.81	999.00	1.04	0.00
23	6	8	9	328.60	14.26	6.47	58.75	999.00	323.80	13.59	7.27	59.27	327.50	9.21	12.93	60.35	999.00	-1.91	999.00	-1.37	0.00
23	6	8	10	316.90	12.03	6.86	58.96	999.00	309.00	12.33	7.66	59.55	316.60	8.72	14.35	61.74	999.00	-3.12	999.00	-2.58	0.00
23	6	8	11	328.50	10.97	9.83	59.95	999.00	321.90	10.88	10.79	60.65	330.50	8.30	17.54	62.85	999.00	-3.22	999.00	-2.53	0.00
23	6	8	12	331.40	10.39	9.57	61.00	999.00	326.10	10.45	9.83	61.62	336.30	8.65	16.28	64.04	999.00	-2.90	999.00	-2.30	0.00
23	6	8	13	337.90	10.43	9.36	62.81	999.00	332.80	10.11	10.30	63.46	347.00	8.74	16.31	65.37	999.00	-2.39	999.00	-1.71	0.00
23	6	8	14	337.60	10.36	11.89	64.83	999.00	332.10	10.37	13.40	65.55	348.20	8.32	17.56	67.24	999.00	-2.40	999.00	-1.74	0.00
23	6	8	15	340.80	10.91	10.46	66.55	999.00	337.50	10.63	10.00	67.27	351.80	8.57	16.96	69.08	999.00	-2.29	999.00	-1.49	0.00
23	6	8	16	316.20	8.11	19.28	67.97	999.00	314.30	7.66	21.68	68.67	323.60	6.27	29.05	70.72	999.00	-3.20	999.00	-2.50	0.00
23	6	8	17	336.50	8.29	12.62	68.81	999.00	332.10	8.27	13.85	69.39	348.10	6.24	19.39	71.98	999.00	-2.23	999.00	-1.63	0.00
23	6	8	18	40.58	4.51	20.96	69.21	999.00	31.16	4.46	20.29	69.79	25.98	4.38	24.88	70.85	999.00	-1.33	999.00	-0.76	0.00
23	6	8	19	79.10	10.72	3.90	67.46	999.00	74.70	10.45	5.06	67.91	80.10	6.00	14.36	69.19	999.00	-1.60	999.00	-1.17	0.00
23	6	8	20	72.80	11.22	4.30	67.06	999.00	67.58	10.70	4.70	67.49	75.70	6.76	10.24	68.48	999.00	-1.28	999.00	-0.82	0.00
23	6	8	21	67.29	13.75	2.95	66.45	999.00	61.63	13.27	3.51	66.89	69.45	7.35	10.83	67.57	999.00	-1.03	999.00	-0.59	0.00
23	6	8	22	85.60	10.05	4.12	65.98	999.00	80.10	9.57	4.02	66.37	88.70	4.35	14.40	66.45	999.00	-0.24	999.00	0.17	0.00
23	6	8	23	84.60	14.20	2.98	65.12	999.00	79.00	13.87	3.63	65.58	83.50	6.18	16.46	65.79	999.00	-0.72	999.00	-0.23	0.00
23	6	8	24	73.00	15.38	4.52	63.99	999.00	68.35	14.73	6.09	64.45	74.00	8.90	10.93	64.74	999.00	-0.94	999.00	-0.50	0.00

23	6	9	1	55.25	13.13	6.05	63.06	999.00	50.42	12.63	7.39	63.54	62.33	7.95	13.59	64.14	999.00	-1.12	999.00	-0.61	0.00
23	6	9	2	43.69	11.07	8.88	61.94	999.00	40.05	10.00	10.76	62.45	46.73	9.10	12.11	63.21	999.00	-1.38	999.00	-0.87	0.00
23	6	9	3	30.80	9.28	9.05	60.78	999.00	26.69	7.71	9.77	61.28	31.03	6.96	13.41	62.26	999.00	-1.50	999.00	-1.00	0.00
23	6	9	4	31.54	12.22	6.52	59.83	999.00	28.86	9.51	7.86	60.34	34.47	10.02	10.30	61.32	999.00	-1.50	999.00	-1.00	0.00
23	6	9	5	30.10	13.01	6.83	58.89	999.00	26.69	10.30	6.72	59.38	38.64	10.26	11.82	60.33	999.00	-1.41	999.00	-0.93	0.00
23	6	9	6	27.03	9.38	10.14	59.02	999.00	24.22	7.87	9.80	59.50	27.00	7.98	11.02	60.41	999.00	-1.42	999.00	-0.94	0.00
23	6	9	7	25.21	11.10	7.90	58.95	999.00	22.63	9.19	8.47	59.45	31.40	8.92	11.22	60.39	999.00	-1.43	999.00	-0.90	0.00
23	6	9	8	29.88	12.70	6.77	59.42	999.00	26.83	9.79	7.23	60.01	35.95	9.86	10.90	60.91	999.00	-1.51	999.00	-0.89	0.00
23	6	9	9	30.70	10.16	8.68	59.91	999.00	29.16	8.51	8.39	60.60	41.03	8.97	12.31	61.45	999.00	-1.46	999.00	-0.77	0.00
23	6	9	10	32.02	10.64	6.66	60.28	999.00	27.21	8.66	7.32	61.06	32.53	10.10	9.95	61.70	999.00	-1.47	999.00	-0.68	0.00
23	6	9	11	29.78	8.04	12.50	61.02	999.00	24.74	7.17	13.80	61.72	30.57	7.80	15.19	62.40	999.00	-1.48	999.00	-0.82	0.00
23	6	9	12	359.20	8.76	15.01	61.81	999.00	350.50	8.40	16.16	62.56	358.20	7.75	17.64	63.35	999.00	-1.72	999.00	-1.02	0.00
23	6	9	13	1.33	8.02	12.89	61.81	999.00	355.40	7.77	14.43	62.56	1.50	7.07	14.96	63.35	999.00	-1.84	999.00	-1.00	0.00
23	6	9	14	12.37	5.35	14.36	63.91	999.00	4.75	4.86	12.49	64.56	19.01	4.50	24.95	65.72	999.00	-1.66	999.00	-1.12	0.00
23	6	9	15	4.55	3.61	45.09	66.34	999.00	4.61	3.35	46.10	66.94	30.73	3.30	57.47	68.41	999.00	-2.55	999.00	-1.65	0.00
23	6	9	16	346.90	7.72	10.64	68.03	999.00	343.10	7.62	11.45	68.79	10.33	6.28	22.63	70.15	999.00	-1.93	999.00	-1.13	0.00
23	6	9	17	1.79	7.99	14.77	69.37	999.00	6.30	7.29	15.56	70.10	34.44	7.03	12.31	70.85	999.00	-1.17	999.00	-0.64	0.00
23	6	9	18	331.60	6.23	16.58	70.68	999.00	343.10	6.06	16.30	71.25	13.30	6.53	10.20	71.63	999.00	-1.10	999.00	-0.42	0.00
23	6	9	19	124.90	7.85	4.23	70.48	999.00	116.00	7.85	4.20	70.89	121.00	5.87	13.84	72.07	999.00	-1.63	999.00	-1.59	0.00
23	6	9	20	145.90	6.95	7.66	70.42	999.00	137.10	5.95	10.74	70.66	134.30	3.52	20.90	71.82	999.00	-1.14	999.00	-0.84	0.00
23	6	9	21	165.20	3.76	10.51	70.95	999.00	142.30	3.70	7.60	71.38	120.60	2.00	13.27	71.45	999.00	0.18	999.00	0.41	0.00
23	6	9	22	237.50	2.78	14.91	71.14	999.00	206.20	2.99	12.00	71.27	205.70	1.69	68.12	69.82	999.00	2.29	999.00	2.38	0.00
23	6	9	23	252.70	2.83	13.23	70.81	999.00	219.00	2.94	10.69	70.72	131.70	1.94	60.83	67.43	999.00	3.69	999.00	4.04	0.00
23	6	9	24	223.90	4.86	3.27	70.62	999.00	195.50	5.79	3.55	70.83	190.60	2.58	8.96	65.58	999.00	5.01	999.00	4.84	0.00
23	6	10	1	224.10	6.35	6.49	70.08	999.00	201.40	7.35	5.50	69.99	175.30	3.32	13.10	63.97	999.00	6.72	999.00	6.36	0.00
23	6	10	2	215.60	9.34	6.34	69.63	999.00	202.40	11.88	3.26	69.17	201.60	4.87	8.25	62.25	999.00	7.66	999.00	7.09	0.00
23	6	10	3	221.40	16.46	11.91	68.64	999.00	217.10	14.14	13.52	66.77	225.10	4.86	21.91	60.96	999.00	7.26	999.00	3.54	0.00
23	6	10	4	252.30	8.43	3.38	66.80	999.00	242.20	9.86	3.02	66.06	195.60	4.95	8.04	60.75	999.00	6.77	999.00	6.46	0.00
23	6	10	5	265.60	7.29	6.80	66.49	999.00	238.60	9.09	3.74	65.69	205.80	3.72	12.76	59.10	999.00	7.53	999.00	6.22	0.00
23	6	10	6	274.20	9.06	3.16	65.95	999.00	251.80	9.80	5.98	64.76	224.10	3.39	19.93	58.82	999.00	6.27	999.00	4.41	0.00
23	6	10	7	284.20	7.29	6.84	64.30	999.00	268.30	8.58	6.33	63.08	219.50	4.63	11.70	57.63	999.00	7.15	999.00	6.24	0.00
23	6	10	8	288.20	8.81	2.14	63.89	999.00	270.90	9.79	5.27	62.38	224.70	4.50	11.80	57.11	999.00	6.12	999.00	3.87	0.00
23	6	10	9	285.10	7.61	3.18	63.89	999.00	262.60	7.92	5.38	62.38	236.00	5.15	11.32	57.11	999.00	3.17	999.00	1.36	0.00
23	6	10	10	260.20	6.40	10.95	64.88	999.00	251.60	6.43	11.27	64.35	242.20	5.00	16.57	64.86	999.00	-1.85	999.00	-1.29	0.00
23	6	10	11	238.90	8.24	9.60	67.10	999.00	232.10	7.97	13.01	67.66	232.20	6.59	23.71	69.36	999.00	-2.29	999.00	-1.73	0.00
23	6	10	12	236.40	7.53	7.95	67.10	999.00	230.70	7.37	8.28	67.66	238.30	6.37	17.83	69.36	999.00	-2.53	999.00	-1.90	0.00
23	6	10	13	238.90	6.52	32.56	72.35	999.00	232.20	5.24	37.55	73.11	204.40	4.00	77.40	75.07	999.00	-2.45	999.00	-1.71	0.00
23	6	10	14	64.49	2.84	45.25	72.83	999.00	67.62	3.76	21.38	72.75	80.40	5.30	16.28	73.45	999.00	-0.13	999.00	-0.91	0.00
23	6	10	15	359.80	4.83	32.49	75.05	999.00	21.28	4.42	37.26	74.64	54.47	5.15	17.76	75.25	999.00	-0.44	999.00	-0.33	0.00
23	6	10	16	45.76	5.32	23.98	75.43	999.00	54.21	5.63	18.51	75.26	74.30	5.25	26.50	76.10	999.00	-0.64	999.00	-0.90	0.00
23	6	10	17	212.90	8.80	24.01	75.64	999.00	199.20	7.20	30.59	75.62	150.90	5.45	41.04	76.63	999.00	-0.09	999.00	0.32	0.00
23	6	10	18	82.80	4.77	20.44	77.10	999.00	79.70	6.54	15.18	77.18	98.30	4.92	20.72	77.63	999.00	0.55	999.00	0.26	0.00
23	6	10	19	68.15	4.55	28.38	78.87	999.00	76.20	6.28	17.78	78.50	98.00	6.45	16.75	77.93	999.00	1.51	999.00	0.89	0.00
23	6	10	20	109.60	8.69	4.17	77.09	999.00	109.60	11.30	2.32	76.24	116.80	5.38	12.73	75.90	999.00	1.98	999.00	0.60	0.00
23	6	10	21	119.00	8.62	4.98	76.78	999.00	117.70	11.26	3.09	76.08	126.80	4.41	11.89	73.63	999.00	3.89	999.00	3.36	0.00
23	6	10	22	126.20	9.26	3.71	76.99	999.00	122.50	11.42	2.31	76.99	131.80	3.70	8.98	72.42	999.00	4.64	999.00	4.79	0.00
23	6	10	23	134.90	9.83	1.70	999.00	999.00	130.80	11.22	1.17	999.00	103.10	2.02	27.96	72.20	999.00	5.86	999.00	6.14	0.00
23	6	10	24	135.60	13.48	1.23	77.08	999.00	128.00	13.07	1.04	76.37	125.60	2.95	11.08	71.47	999.00	5.40	999.00	3.98	0.00
23	6	11	1	139.40	11.14	2.39	76.47	999.00	133.90	11.41	2.83	74.43	129.30	1.80	13.26	69.98	999.00	7.84	999.00	5.26	0.00
23	6	11	2	146.10	8.61	0.99	76.81	999.00	162.50	8.98	2.41	74.71	175.90	1.36	27.02	68.85	999.00	7.97	999.00	6.24	0.00
23	6	11	3	195.40	11.17	3.52	75.59	999.00	199.00	12.06	4.55	74.38	179.90	2.09	10.96	68.35	999.00	7.31	999.00	5.25	0.00
23	6	11	4	220.10	13.11	2.88	74.88	999.00	214.10	13.10	5.80	74.60	193.60	3.81	8.97	66.96	999.00	7.91	999.00	7.52	0.00
23	6	11	5	216.80	19.46	1.76	71.19	999.00	205.00	15.00	2.28	69.47	201.00	4.15	13.51	66.16	999.00	3.40	999.00	2.19	0.00

23	6	11	6	221.20	16.50	2.52	67.42	999.00	212.80	13.39	2.84	67.00	212.40	4.99	12.80	65.88	999.00	0.94	999.00	0.66	0.00
23	6	11	7	216.90	12.97	3.88	66.80	999.00	211.40	10.01	5.73	66.50	222.00	3.68	14.46	65.90	999.00	0.11	999.00	0.11	0.00
23	6	11	8	225.20	15.72	3.56	66.63	999.00	213.90	12.66	3.88	66.25	207.90	5.08	12.15	65.90	999.00	1.33	999.00	0.52	0.00
23	6	11	9	237.40	15.35	6.24	69.65	999.00	227.60	11.41	6.98	68.15	235.30	4.38	11.18	67.40	999.00	1.79	999.00	0.62	0.00
23	6	11	10	203.80	7.08	8.22	69.48	999.00	195.50	6.64	9.12	69.74	201.20	4.01	23.13	70.25	999.00	-1.60	999.00	-0.63	0.00
23	6	11	11	246.90	2.95	33.26	70.71	999.00	251.80	2.76	46.69	71.80	269.30	2.24	83.80	72.60	999.00	-2.03	999.00	-0.83	0.00
23	6	11	12	35.26	8.53	7.81	70.16	999.00	33.72	7.52	8.61	70.43	42.55	8.69	8.72	70.67	999.00	-1.15	999.00	-0.81	0.00
23	6	11	13	50.96	15.28	8.85	68.04	999.00	46.07	13.55	9.50	68.49	46.58	11.89	13.16	69.48	999.00	-2.07	999.00	-1.52	0.00
23	6	11	14	65.20	17.13	4.01	65.84	999.00	59.28	15.72	5.15	66.23	65.91	10.30	10.92	67.79	999.00	-1.69	999.00	-1.35	0.00
23	6	11	15	73.70	16.78	4.68	66.05	999.00	68.99	15.46	5.77	66.51	77.50	9.17	13.04	67.85	999.00	-1.69	999.00	-1.25	0.00
23	6	11	16	108.90	13.90	7.91	65.57	999.00	102.70	12.71	9.30	66.05	104.80	6.56	20.81	67.24	999.00	-1.71	999.00	-1.19	0.00
23	6	11	17	58.73	16.86	7.16	64.13	999.00	52.89	16.14	7.51	64.49	56.59	10.91	12.78	65.61	999.00	-1.52	999.00	-1.12	0.00
23	6	11	18	29.68	19.88	4.91	63.02	999.00	25.92	15.01	6.26	63.55	33.73	15.93	10.46	63.16	999.00	0.22	999.00	0.81	0.00
23	6	11	19	54.53	26.19	8.32	60.75	999.00	48.91	23.63	8.44	61.24	52.13	16.56	13.26	61.11	999.00	-0.87	999.00	-0.40	0.00
23	6	11	20	31.61	28.28	5.32	59.87	999.00	27.76	21.67	7.39	60.36	36.91	21.18	10.50	60.07	999.00	-0.80	999.00	-0.28	0.00
23	6	11	21	20.68	28.93	6.59	58.84	999.00	15.97	23.33	7.84	59.54	21.79	20.14	10.03	59.95	999.00	-1.56	999.00	-0.63	0.00
23	6	11	22	25.12	28.89	4.91	57.92	999.00	21.57	22.51	6.89	58.55	29.56	20.10	11.02	59.37	999.00	-1.48	999.00	-0.94	0.00
23	6	11	23	11.00	25.79	8.11	57.68	999.00	6.73	23.69	8.66	58.09	16.21	21.13	10.23	59.09	999.00	-1.60	999.00	-1.22	0.00
23	6	11	24	11.76	28.69	8.33	57.65	999.00	6.85	25.77	8.45	58.01	15.31	22.79	9.85	59.03	999.00	-1.27	999.00	-0.96	0.00
23	6	12	1	15.70	28.06	9.15	56.97	999.00	11.34	24.86	9.72	57.27	17.95	23.90	9.09	59.00	999.00	-1.54	999.00	-1.22	0.00
23	6	12	2	21.50	29.82	6.55	57.92	999.00	17.57	24.06	7.98	58.20	22.27	21.02	9.57	59.00	999.00	-1.21	999.00	-0.87	0.00
23	6	12	3	2.17	26.39	5.99	57.82	999.00	358.00	23.49	7.35	58.04	3.68	19.33	9.44	58.88	999.00	-1.17	999.00	-0.90	0.00
23	6	12	4	349.10	28.87	4.93	56.69	999.00	344.60	26.90	6.28	56.95	352.70	19.61	8.54	57.86	999.00	-1.11	999.00	-0.90	0.00
23	6	12	5	340.00	28.58	4.31	56.12	999.00	335.70	27.30	5.26	56.35	345.40	18.56	9.89	57.07	999.00	-1.08	999.00	-0.93	0.00
23	6	12	6	332.60	27.93	5.30	55.04	999.00	327.60	26.47	6.23	55.48	334.70	16.89	11.15	56.27	999.00	-1.28	999.00	-0.31	0.00
23	6	12	7	328.60	25.77	5.99	54.52	999.00	324.00	24.95	6.34	55.48	331.00	16.37	11.14	56.41	999.00	-1.95	999.00	-0.99	0.00
23	6	12	8	323.80	25.20	5.60	54.46	999.00	318.60	23.35	6.95	55.48	326.10	14.47	11.75	56.50	999.00	-2.08	999.00	-1.02	0.00
23	6	12	9	322.60	22.33	6.55	54.18	999.00	317.80	20.86	7.35	55.27	324.50	13.49	12.06	56.38	999.00	-2.24	999.00	-1.19	0.00
23	6	12	10	317.20	20.95	6.76	54.20	999.00	312.20	20.41	7.53	55.06	320.30	13.75	12.76	56.35	999.00	-2.24	999.00	-1.38	0.00
23	6	12	11	301.80	21.15	5.55	55.02	999.00	295.80	20.33	5.91	55.57	300.80	13.28	14.53	57.24	999.00	-2.46	999.00	-1.93	0.00
23	6	12	12	303.70	20.56	7.10	55.85	999.00	297.80	19.98	8.16	56.40	303.10	14.24	14.48	58.90	999.00	-3.38	999.00	-2.81	0.00
23	6	12	13	307.40	20.33	5.98	56.92	999.00	303.00	20.41	7.09	57.44	311.90	13.91	14.97	59.97	999.00	-2.85	999.00	-2.37	0.00
23	6	12	14	307.60	16.17	7.33	58.22	999.00	302.90	16.28	8.31	58.75	310.10	11.24	15.34	61.45	999.00	-2.77	999.00	-2.22	0.00
23	6	12	15	296.10	13.78	8.04	59.30	999.00	290.80	13.34	8.20	59.81	294.90	9.55	14.75	61.85	999.00	-2.40	999.00	-1.89	0.00
23	6	12	16	274.20	13.66	8.51	59.55	999.00	269.50	12.95	8.26	60.04	272.20	8.56	12.18	61.32	999.00	-1.54	999.00	-1.07	0.00
23	6	12	17	268.70	15.06	8.92	60.11	999.00	263.40	14.26	9.65	60.59	270.80	10.11	14.68	62.17	999.00	-2.21	999.00	-1.75	0.00
23	6	12	18	277.80	16.93	8.38	61.29	999.00	272.50	16.30	9.73	61.77	277.90	11.90	14.14	63.28	999.00	-2.20	999.00	-1.70	0.00
23	6	12	19	276.90	18.41	4.73	61.10	999.00	272.60	17.78	5.69	61.60	277.50	11.92	12.25	62.86	999.00	-1.77	999.00	-1.28	0.00
23	6	12	20	271.40	18.47	6.86	60.90	999.00	265.70	16.70	8.26	61.39	269.20	10.24	12.81	62.48	999.00	-1.39	999.00	-0.92	0.00
23	6	12	21	278.00	19.72	4.25	59.96	999.00	272.80	18.16	5.41	60.39	276.20	10.80	10.56	60.95	999.00	-0.79	999.00	-0.40	0.00
23	6	12	22	262.60	15.65	3.51	58.73	999.00	256.00	13.94	3.79	59.04	257.00	6.90	10.15	58.95	999.00	0.15	999.00	0.45	0.00
23	6	12	23	284.90	18.13	2.62	56.59	999.00	279.10	16.30	3.01	56.90	276.10	7.57	9.78	56.44	999.00	0.48	999.00	0.74	0.00
23	6	12	24	262.80	13.47	4.59	55.06	999.00	254.60	11.79	4.83	55.31	258.00	6.11	8.98	54.43	999.00	0.16	999.00	0.45	0.00
23	6	13	1	250.20	17.14	3.52	54.04	999.00	241.60	14.19	4.48	53.86	236.20	9.10	7.61	53.47	999.00	1.02	999.00	0.61	0.00
23	6	13	2	239.50	16.56	3.77	53.77	999.00	228.60	13.56	3.46	52.64	225.70	5.78	9.62	51.84	999.00	1.98	999.00	0.78	0.00
23	6	13	3	240.20	16.68	4.15	52.63	999.00	233.40	13.37	4.89	51.73	216.70	6.42	12.61	51.05	999.00	0.45	999.00	0.33	0.00
23	6	13	4	241.10	18.02	3.32	51.94	999.00	230.70	13.14	4.60	51.09	211.00	5.62	12.89	50.68	999.00	2.70	999.00	0.78	0.00
23	6	13	5	206.00	16.67	2.79	52.90	999.00	195.00	13.26	3.36	51.59	198.80	4.60	17.89	50.96	999.00	1.16	999.00	0.28	0.00
23	6	13	6	203.40	16.79	2.58	53.14	999.00	197.30	13.24	3.86	52.03	206.90	4.76	17.01	51.57	999.00	0.37	999.00	-0.05	0.00
23	6	13	7	213.90	13.80	7.49	52.08	999.00	202.60	10.93	10.58	52.03	186.60	3.89	30.24	52.01	999.00	0.21	999.00	0.25	0.00
23	6	13	8	204.60	20.07	3.34	52.22	999.00	195.90	17.01	4.01	51.97	199.60	7.36	15.82	51.76	999.00	0.72	999.00	0.31	0.00
23	6	13	9	204.60	21.18	4.80	53.13	999.00	199.40	18.82	5.92	53.31	204.50	9.04	16.16	53.72	999.00	-1.04	999.00	-0.70	0.00
23	6	13	10	211.20	18.59	6.20	53.52	999.00	206.60	17.13	7.08	54.01	214.60	10.21	17.42	54.82	999.00	-1.50	999.00	-0.95	0.06

23	6	13	11	223.00	18.59	7.02	55.70	999.00	218.70	17.47	7.95	56.23	227.60	11.31	15.49	57.85	999.00	-2.34	999.00	-1.87	0.00
23	6	13	12	223.90	16.83	6.50	57.79	999.00	218.80	15.68	6.84	58.25	226.40	9.58	15.11	59.56	999.00	-1.64	999.00	-1.18	0.00
23	6	13	13	223.70	21.07	6.75	59.73	999.00	219.30	20.27	7.61	60.16	227.30	13.57	14.65	62.47	999.00	-3.12	999.00	-2.70	0.00
23	6	13	14	224.80	20.48	8.33	61.02	999.00	220.60	19.47	10.32	61.45	231.10	13.27	13.01	63.58	999.00	-2.38	999.00	-1.89	0.00
23	6	13	15	225.50	20.08	5.74	61.29	999.00	222.20	19.35	6.43	61.77	230.30	12.72	12.74	63.51	999.00	-2.41	999.00	-1.93	0.00
23	6	13	16	230.30	24.09	6.26	62.50	999.00	226.00	23.26	6.63	62.92	231.90	15.11	13.07	64.72	999.00	-1.94	999.00	-1.50	0.00
23	6	13	17	238.20	23.02	5.36	63.01	999.00	234.50	23.00	5.70	63.44	241.00	16.03	12.38	65.58	999.00	-2.74	999.00	-2.35	0.00
23	6	13	18	225.80	29.19	5.75	62.42	999.00	221.60	27.61	6.80	62.90	230.50	17.98	12.46	64.53	999.00	-2.09	999.00	-1.57	0.00
23	6	13	19	229.20	27.94	4.85	60.38	999.00	225.20	26.82	5.66	60.84	229.50	16.98	12.53	62.54	999.00	-1.83	999.00	-1.34	0.00
23	6	13	20	239.10	21.48	5.21	59.53	999.00	234.60	20.54	5.67	60.02	239.00	14.20	10.69	61.30	999.00	-1.68	999.00	-1.16	0.00
23	6	13	21	228.90	13.96	4.75	58.93	999.00	224.10	13.11	5.57	59.43	228.20	7.99	11.81	60.41	999.00	-1.39	999.00	-0.89	0.00
23	6	13	22	210.70	10.81	7.31	58.42	999.00	207.10	9.58	8.04	58.87	214.10	5.40	16.64	59.67	999.00	-1.31	999.00	-0.86	0.12
23	6	13	23	204.60	11.97	3.67	57.12	999.00	195.20	10.69	4.37	57.45	200.40	4.65	14.80	57.99	999.00	-0.30	999.00	-0.13	0.21
23	6	13	24	240.90	6.44	9.17	56.26	999.00	226.60	5.41	7.54	56.43	227.10	2.40	12.86	56.75	999.00	-0.46	999.00	-0.29	0.16
23	6	14	1	19.33	2.44	30.69	55.89	999.00	35.18	2.07	26.48	56.25	49.21	1.86	50.57	56.53	999.00	-0.39	999.00	-0.01	0.11
23	6	14	2	340.90	11.17	3.91	56.24	999.00	336.00	10.37	5.22	56.59	340.70	5.74	10.80	56.20	999.00	0.18	999.00	0.60	0.02
23	6	14	3	324.30	14.24	2.89	56.80	999.00	319.10	13.45	3.89	57.20	319.50	6.82	11.23	55.92	999.00	1.29	999.00	1.65	0.00
23	6	14	4	329.90	17.62	3.46	57.26	999.00	324.60	16.89	3.86	57.69	328.90	10.18	10.68	56.06	999.00	0.89	999.00	1.35	0.00
23	6	14	5	335.50	16.48	5.43	56.71	999.00	330.30	15.66	6.40	57.12	335.90	9.42	12.86	55.72	999.00	0.59	999.00	0.99	0.00
23	6	14	6	322.10	15.83	4.78	56.81	999.00	316.60	14.95	5.30	57.22	319.00	8.73	10.31	55.88	999.00	1.21	999.00	1.62	0.00
23	6	14	7	323.60	16.13	5.86	56.37	999.00	318.30	14.58	6.87	56.58	319.30	8.54	11.84	54.59	999.00	1.00	999.00	1.38	0.00
23	6	14	8	303.50	18.76	5.92	56.80	999.00	297.80	18.00	6.37	57.29	302.60	10.94	12.96	58.00	999.00	-1.95	999.00	-1.45	0.00
23	6	14	9	314.80	15.75	7.13	55.53	999.00	308.60	15.49	7.83	56.03	312.30	10.26	14.46	56.92	999.00	-1.40	999.00	-0.87	0.00
23	6	14	10	304.90	14.93	4.76	55.53	999.00	300.30	15.02	5.66	56.03	312.20	10.39	13.39	56.92	999.00	-1.29	999.00	-0.83	0.00
23	6	14	11	314.60	14.01	7.34	58.48	999.00	308.70	14.20	7.98	59.04	317.40	9.96	14.97	61.20	999.00	-3.08	999.00	-2.49	0.00
23	6	14	12	318.90	12.52	10.60	59.39	999.00	314.90	12.46	11.91	60.00	328.30	9.69	16.03	62.69	999.00	-3.12	999.00	-2.52	0.00
23	6	14	13	331.90	10.96	12.13	59.39	999.00	328.70	11.17	10.77	60.00	346.30	9.16	12.55	62.69	999.00	-2.36	999.00	-1.72	0.00
23	6	14	14	337.80	10.51	11.64	62.07	999.00	336.30	10.43	11.31	62.80	351.60	9.41	12.57	64.26	999.00	-2.23	999.00	-1.44	0.00
23	6	14	15	339.90	11.68	10.82	63.64	999.00	338.40	11.31	9.73	64.36	351.60	10.24	13.20	65.85	999.00	-2.31	999.00	-1.54	0.00
23	6	14	16	22.95	6.16	12.17	64.93	999.00	17.75	5.90	12.24	65.45	21.32	7.54	12.73	66.18	999.00	-0.92	999.00	-0.50	0.00
23	6	14	17	49.40	7.21	13.04	65.54	999.00	46.04	7.38	14.98	66.01	44.36	6.91	19.90	66.83	999.00	-1.58	999.00	-1.26	0.00
23	6	14	18	69.53	7.43	11.41	65.18	999.00	65.26	7.64	9.64	65.49	71.40	6.65	16.79	66.78	999.00	-1.66	999.00	-1.39	0.00
23	6	14	19	84.70	4.90	16.67	65.42	999.00	82.60	5.06	14.20	65.83	86.20	3.91	26.01	67.33	999.00	-1.93	999.00	-1.54	0.00
23	6	14	20	127.60	5.44	9.45	65.48	999.00	125.80	5.19	9.92	65.92	141.50	3.33	25.40	67.11	999.00	-1.52	999.00	-1.04	0.00
23	6	14	21	151.00	6.02	5.97	65.55	999.00	146.80	6.03	6.11	65.90	148.80	2.85	17.73	66.27	999.00	0.04	999.00	0.37	0.00
23	6	14	22	128.80	3.85	4.14	65.74	999.00	131.90	5.38	6.38	65.74	151.60	2.80	12.23	64.87	999.00	2.31	999.00	2.10	0.00
23	6	14	23	183.70	7.89	2.19	66.10	999.00	177.30	9.89	1.07	65.86	193.40	1.91	14.54	63.31	999.00	3.76	999.00	3.29	0.00
23	6	14	24	192.00	10.86	1.67	66.41	999.00	183.80	12.35	2.49	65.99	201.10	3.78	10.13	62.07	999.00	4.56	999.00	4.07	0.00
23	6	15	1	192.80	13.37	1.01	65.70	999.00	187.70	14.43	1.23	64.69	202.00	4.11	9.59	61.13	999.00	4.85	999.00	4.09	0.00
23	6	15	2	214.10	13.96	2.42	64.70	999.00	195.90	12.50	2.16	63.35	206.60	3.73	11.72	60.26	999.00	3.86	999.00	2.43	0.00
23	6	15	3	260.20	14.80	1.35	63.92	999.00	243.60	14.81	2.24	62.11	217.70	4.84	10.33	59.55	999.00	5.68	999.00	2.98	0.00
23	6	15	4	271.80	14.05	2.78	64.23	999.00	243.60	13.20	3.04	61.16	220.00	5.23	12.15	58.42	999.00	5.56	999.00	2.05	0.00
23	6	15	5	276.10	13.16	0.70	64.23	999.00	266.50	14.20	1.23	62.53	250.70	5.87	7.17	58.19	999.00	5.30	999.00	4.82	0.00
23	6	15	6	295.20	11.90	2.75	63.42	999.00	283.20	12.68	2.09	62.41	257.20	4.00	8.35	58.29	999.00	5.23	999.00	4.81	0.00
23	6	15	7	288.50	10.08	2.78	62.38	999.00	270.70	10.80	3.60	62.03	232.00	4.20	15.76	58.04	999.00	3.46	999.00	3.15	0.00
23	6	15	8	270.60	9.05	1.89	61.69	999.00	251.40	9.09	3.88	60.31	213.40	3.65	17.02	57.88	999.00	3.61	999.00	1.65	0.00
23	6	15	9	255.40	7.61	3.26	60.92	999.00	233.70	6.92	8.77	58.39	226.70	4.02	14.60	58.29	999.00	1.47	999.00	-0.86	0.00
23	6	15	10	213.80	7.33	7.43	61.20	999.00	207.20	6.40	8.59	60.38	215.00	4.62	17.42	61.19	999.00	-1.67	999.00	-1.02	0.00
23	6	15	11	221.10	8.21	7.42	63.12	999.00	218.80	7.91	9.73	63.83	235.60	7.06	15.34	65.26	999.00	-2.39	999.00	-1.76	0.00
23	6	15	12	235.50	9.86	11.63	65.42	999.00	229.40	9.48	12.86	65.96	232.30	7.46	18.69	67.68	999.00	-2.37	999.00	-1.86	0.00
23	6	15	13	232.90	7.97	8.18	66.68	999.00	231.60	7.73	10.81	67.19	243.40	6.20	18.46	68.87	999.00	-2.08	999.00	-1.57	0.00
23	6	15	14	200.60	5.76	19.30	67.98	999.00	196.70	5.39	19.05	68.87	206.90	3.52	29.16	70.16	999.00	-1.78	999.00	-0.74	0.00
23	6	15	15	173.20	10.70	10.59	69.09	999.00	167.10	10.15	10.68	70.07	175.40	5.48	27.52	71.10	999.00	-2.33	999.00	-1.31	0.00

23	6	15	16	175.70	14.22	10.90	70.50	999.00	171.10	13.30	11.90	71.40	182.40	7.35	24.75	72.75	999.00	-2.30	999.00	-1.43	0.00
23	6	15	17	184.20	14.67	11.25	71.98	999.00	179.20	13.93	11.75	72.90	192.80	7.11	24.97	74.10	999.00	-2.03	999.00	-1.15	0.00
23	6	15	18	187.40	18.37	6.53	71.98	999.00	182.40	16.70	7.03	72.90	190.00	8.54	18.28	74.10	999.00	-1.27	999.00	-0.68	0.01
23	6	15	19	135.80	20.60	12.93	72.33	999.00	126.40	18.31	13.81	72.73	111.80	8.50	22.91	72.80	999.00	0.42	999.00	0.84	0.99
23	6	15	20	133.70	16.97	6.62	61.82	999.00	131.90	15.46	6.34	61.56	135.60	7.27	19.52	61.74	999.00	0.37	999.00	-0.78	0.00
23	6	15	21	115.50	12.25	18.14	64.07	999.00	118.40	11.49	26.28	63.66	149.10	6.34	67.83	63.13	999.00	2.06	999.00	1.88	0.00
23	6	15	22	151.80	11.29	12.75	63.26	999.00	146.40	10.05	10.15	63.91	154.10	3.59	31.53	64.52	999.00	-1.32	999.00	-0.99	0.00
23	6	15	23	228.90	10.93	4.76	66.83	999.00	221.70	11.57	5.57	65.31	225.10	6.04	10.78	63.83	999.00	3.87	999.00	2.01	0.00
23	6	15	24	287.60	18.28	7.02	65.00	999.00	273.70	16.48	6.62	64.03	265.30	7.99	10.07	62.83	999.00	0.32	999.00	0.38	0.00
23	6	16	1	299.40	19.32	4.69	61.76	999.00	291.80	17.32	5.34	61.86	287.00	9.60	10.46	61.62	999.00	-0.20	999.00	0.07	0.00
23	6	16	2	315.20	17.99	7.57	60.96	999.00	308.40	16.35	8.76	61.14	306.40	8.08	15.15	60.76	999.00	-0.12	999.00	0.09	0.00
23	6	16	3	8.68	15.64	9.54	61.18	999.00	4.57	13.37	10.44	61.65	8.27	12.91	11.10	62.63	999.00	-1.53	999.00	-1.04	0.00
23	6	16	4	24.91	17.78	6.72	61.29	999.00	20.60	14.62	9.10	61.76	30.10	12.87	10.86	62.78	999.00	-1.47	999.00	-1.00	0.00
23	6	16	5	11.40	18.45	9.08	60.48	999.00	7.31	16.17	9.50	60.99	16.46	14.54	9.14	62.01	999.00	-1.54	999.00	-1.02	0.00
23	6	16	6	13.58	18.97	9.30	59.51	999.00	8.72	17.01	9.72	59.99	16.74	15.76	11.81	61.04	999.00	-1.54	999.00	-1.05	0.00
23	6	16	7	6.31	16.19	10.29	59.36	999.00	2.28	13.34	10.28	59.85	7.36	13.64	9.21	60.90	999.00	-1.59	999.00	-1.09	0.00
23	6	16	8	355.70	23.51	4.28	59.25	999.00	351.60	21.56	5.14	59.75	356.30	17.78	7.89	60.83	999.00	-1.61	999.00	-1.10	0.00
23	6	16	9	0.64	22.51	4.98	58.96	999.00	356.40	20.26	5.66	59.48	1.19	16.19	8.74	60.60	999.00	-1.70	999.00	-1.17	0.00
23	6	16	10	358.40	21.55	5.43	58.80	999.00	354.30	20.05	6.04	59.33	0.69	16.25	9.18	60.50	999.00	-1.73	999.00	-1.21	0.00
23	6	16	11	0.83	20.48	5.27	59.32	999.00	356.40	18.04	6.02	59.83	2.19	14.88	8.85	61.07	999.00	-1.78	999.00	-1.25	0.00
23	6	16	12	348.30	19.22	5.28	61.37	999.00	342.90	18.21	6.50	61.94	353.80	14.15	9.28	63.11	999.00	-1.95	999.00	-1.32	0.00
23	6	16	13	354.20	17.65	4.54	62.11	999.00	350.40	16.33	5.08	62.68	357.40	14.25	7.76	63.99	999.00	-1.83	999.00	-1.23	0.00
23	6	16	14	8.88	12.80	13.16	63.04	999.00	2.89	11.95	11.79	63.59	8.55	12.05	11.09	64.62	999.00	-1.58	999.00	-0.91	0.00
23	6	16	15	6.76	13.50	11.63	63.70	999.00	0.26	12.66	10.75	64.25	4.05	12.02	10.27	65.27	999.00	-1.52	999.00	-0.99	0.00
23	6	16	16	1.51	11.09	10.76	63.72	999.00	356.10	10.32	8.76	64.28	0.73	9.76	12.37	65.26	999.00	-1.53	999.00	-1.01	0.00
23	6	16	17	359.50	10.38	8.07	64.55	999.00	353.20	10.19	7.27	65.09	0.92	9.29	8.14	65.99	999.00	-1.39	999.00	-0.91	0.00
23	6	16	18	15.17	8.19	16.37	65.27	999.00	9.90	7.46	15.72	65.89	11.34	8.42	13.44	66.69	999.00	-1.30	999.00	-0.62	0.00
23	6	16	19	5.48	16.12	7.82	65.33	999.00	1.05	14.04	7.95	65.94	9.06	12.84	8.89	66.81	999.00	-1.48	999.00	-0.91	0.00
23	6	16	20	4.95	10.19	9.07	64.81	999.00	358.60	9.92	8.29	65.36	6.75	8.22	9.68	66.20	999.00	-1.33	999.00	-0.76	0.00
23	6	16	21	25.72	8.36	7.94	64.37	999.00	19.67	6.94	10.48	64.96	19.65	5.84	10.88	65.71	999.00	-1.31	999.00	-0.76	0.00
23	6	16	22	28.81	8.82	7.52	64.12	999.00	24.13	7.28	7.94	64.60	19.84	6.29	11.88	65.38	999.00	-1.24	999.00	-0.77	0.00
23	6	16	23	359.20	9.12	6.89	63.98	999.00	353.60	8.71	5.72	64.46	357.40	5.76	7.08	65.18	999.00	-1.03	999.00	-0.53	0.00
23	6	16	24	323.60	8.70	2.53	63.84	999.00	318.00	7.98	2.93	64.30	255.60	3.86	10.96	63.31	999.00	1.47	999.00	1.86	0.00
23	6	17	1	335.80	10.33	4.14	63.42	999.00	330.20	9.32	5.09	63.61	250.40	3.51	12.43	60.92	999.00	2.32	999.00	2.65	0.00
23	6	17	2	317.40	10.92	6.82	63.41	999.00	307.00	9.63	7.52	63.55	265.10	4.54	7.37	60.58	999.00	3.15	999.00	3.20	0.00
23	6	17	3	318.50	9.99	4.34	63.15	999.00	308.20	9.37	4.91	63.32	261.20	3.35	9.37	59.47	999.00	3.98	999.00	4.16	0.00
23	6	17	4	320.60	13.53	2.31	62.42	999.00	310.90	11.47	3.77	62.46	274.40	4.72	5.67	58.12	999.00	4.09	999.00	3.95	0.00
23	6	17	5	327.10	9.33	4.16	62.30	999.00	320.10	8.33	5.07	62.04	159.10	1.35	54.34	58.54	999.00	3.23	999.00	3.41	0.00
23	6	17	6	324.30	12.80	4.61	62.20	999.00	313.40	10.50	5.33	61.96	232.40	4.15	8.46	58.47	999.00	5.14	999.00	5.00	0.00
23	6	17	7	308.80	11.17	3.47	61.91	999.00	297.50	10.90	3.53	61.77	201.10	2.99	11.12	56.72	999.00	5.11	999.00	5.00	0.00
23	6	17	8	302.50	8.03	4.47	61.60	999.00	272.80	6.40	8.79	60.29	194.80	2.93	11.75	56.14	999.00	4.52	999.00	3.19	0.00
23	6	17	9	263.90	5.41	18.83	59.60	999.00	234.40	4.41	15.28	58.67	216.00	3.43	22.09	59.12	999.00	-0.86	999.00	-0.94	0.00
23	6	17	10	278.10	3.86	19.79	61.12	999.00	253.40	3.83	22.86	61.50	234.50	3.95	26.55	62.60	999.00	-1.63	999.00	-1.17	0.00
23	6	17	11	241.70	4.63	9.37	64.71	999.00	234.70	4.63	11.98	65.21	237.60	3.86	19.97	66.55	999.00	-1.83	999.00	-1.28	0.00
23	6	17	12	316.80	3.33	88.30	68.12	999.00	21.49	3.52	51.81	68.87	48.40	5.41	14.64	69.44	999.00	-0.25	999.00	0.75	0.00
23	6	17	13	7.19	5.90	16.24	69.35	999.00	12.38	5.05	15.73	69.75	33.24	5.91	10.76	69.53	999.00	-0.72	999.00	0.26	0.00
23	6	17	14	11.12	7.36	13.40	69.74	999.00	11.08	6.83	13.84	70.45	36.12	5.79	16.47	70.67	999.00	-1.14	999.00	-0.50	0.00
23	6	17	15	14.46	7.76	10.96	70.78	999.00	14.42	6.71	11.16	71.23	37.69	6.07	21.21	71.90	999.00	-0.95	999.00	-0.53	0.00
23	6	17	16	25.64	5.40	21.71	71.96	999.00	32.39	4.80	28.80	72.42	56.96	4.53	34.26	73.10	999.00	-1.03	999.00	-0.58	0.00
23	6	17	17	56.48	5.95	17.55	72.07	999.00	56.89	5.71	20.46	72.54	62.92	4.90	23.75	73.60	999.00	-1.23	999.00	-0.96	0.00
23	6	17	18	45.45	6.45	24.22	72.65	999.00	39.73	6.20	23.39	73.01	56.50	5.33	28.12	73.80	999.00	-1.05	999.00	-0.69	0.00
23	6	17	19	12.83	8.89	11.43	73.96	999.00	7.97	8.04	12.52	74.56	9.05	8.28	11.43	74.92	999.00	-0.95	999.00	-0.47	0.00
23	6	17	20	11.16	7.48	15.05	73.82	999.00	9.44	5.62	13.94	74.38	16.47	4.41	19.81	74.67	999.00	-0.71	999.00	-0.11	0.00

23	6	17	21	353.40	11.32	1.41	74.32	999.00	350.60	9.70	3.68	74.69	359.50	4.56	7.15	74.43	999.00	0.49	999.00	0.81	0.00
23	6	17	22	343.60	11.43	1.24	74.57	999.00	338.90	11.50	1.55	74.90	315.10	2.26	15.65	72.35	999.00	3.68	999.00	4.07	0.00
23	6	17	23	352.90	11.83	3.19	74.39	999.00	347.30	10.48	3.52	74.76	142.70	1.79	21.41	70.65	999.00	4.49	999.00	4.64	0.00
23	6	17	24	83.70	8.65	6.59	71.84	999.00	81.30	7.87	7.89	72.10	131.50	2.94	17.14	69.51	999.00	2.02	999.00	2.37	0.00
23	6	18	1	123.70	7.37	6.69	70.65	999.00	128.40	6.94	7.29	70.89	120.30	2.04	23.03	68.38	999.00	2.38	999.00	2.41	0.00
23	6	18	2	126.60	6.84	5.59	69.21	999.00	121.70	6.49	4.82	69.49	148.20	3.11	9.12	67.21	999.00	1.34	999.00	1.67	0.00
23	6	18	3	153.90	8.89	4.21	68.90	999.00	160.50	8.37	2.81	68.87	193.10	1.66	17.62	65.06	999.00	4.91	999.00	4.91	0.00
23	6	18	4	165.90	8.53	4.41	68.95	999.00	174.90	9.23	5.25	68.55	177.50	1.83	9.55	62.86	999.00	6.12	999.00	5.46	0.00
23	6	18	5	191.50	11.25	4.68	68.64	999.00	197.70	10.67	1.16	67.15	199.10	2.94	9.52	61.44	999.00	7.14	999.00	4.94	0.00
23	6	18	6	207.80	11.33	1.28	68.27	999.00	207.00	11.21	2.79	66.40	227.50	3.40	9.19	60.61	999.00	7.61	999.00	5.54	0.00
23	6	18	7	211.20	8.80	0.80	68.14	999.00	213.50	8.27	5.19	66.24	200.30	0.86	27.59	60.39	999.00	7.97	999.00	5.82	0.00
23	6	18	8	255.90	5.22	5.63	64.41	999.00	273.20	4.73	4.85	64.08	187.80	1.32	28.85	60.50	999.00	3.43	999.00	3.56	0.00
23	6	18	9	284.40	1.39	27.44	64.41	999.00	344.00	1.30	77.10	64.08	133.80	2.22	34.14	60.50	999.00	0.03	999.00	2.17	0.00
23	6	18	10	202.50	3.60	22.00	66.05	999.00	191.30	3.49	25.51	67.73	175.20	2.43	43.68	67.50	999.00	-1.70	999.00	0.34	0.00
23	6	18	11	139.30	3.27	29.89	68.21	999.00	107.50	3.55	20.70	69.42	94.20	3.83	25.56	69.82	999.00	-1.63	999.00	-1.24	0.00
23	6	18	12	78.00	7.21	8.45	68.83	999.00	72.70	7.51	8.19	69.40	78.10	6.34	17.51	70.63	999.00	-2.07	999.00	-1.73	0.00
23	6	18	13	88.10	10.08	5.05	68.90	999.00	79.20	10.18	6.63	69.27	79.50	8.35	13.72	71.15	999.00	-2.38	999.00	-1.92	0.00
23	6	18	14	85.00	11.46	4.43	69.23	999.00	77.50	11.64	6.15	69.63	83.60	8.34	14.42	71.70	999.00	-2.40	999.00	-2.04	0.00
23	6	18	15	85.50	13.47	4.79	69.40	999.00	78.70	13.26	6.20	69.69	83.40	9.39	14.56	71.72	999.00	-2.55	999.00	-2.22	0.00
23	6	18	16	86.40	13.64	3.68	69.91	999.00	79.50	13.16	5.94	70.12	84.50	9.35	14.48	72.22	999.00	-2.10	999.00	-1.90	0.00
23	6	18	17	86.20	15.28	4.64	69.73	999.00	79.80	14.99	6.04	69.98	82.20	9.23	16.45	71.97	999.00	-2.44	999.00	-2.12	0.00
23	6	18	18	91.10	15.95	4.63	69.24	999.00	86.20	14.69	6.59	69.48	90.90	8.78	13.67	71.35	999.00	-2.07	999.00	-1.82	0.00
23	6	18	19	91.90	16.05	4.36	69.31	999.00	85.90	14.56	6.64	69.52	89.30	8.26	15.26	71.13	999.00	-1.52	999.00	-1.38	0.00
23	6	18	20	94.60	17.52	2.43	69.15	999.00	89.20	15.27	4.33	68.98	91.90	7.61	15.00	69.95	999.00	-0.30	999.00	-0.68	0.00
23	6	18	21	99.20	16.70	4.18	69.15	999.00	94.30	14.81	4.95	68.98	97.70	6.30	15.84	69.95	999.00	-0.12	999.00	0.05	0.00
23	6	18	22	100.60	16.63	4.24	68.75	999.00	96.60	14.36	5.18	68.96	100.80	5.74	15.63	68.67	999.00	0.20	999.00	0.41	0.00
23	6	18	23	97.80	18.07	2.81	68.19	999.00	92.80	16.41	3.56	68.43	101.20	7.40	14.23	68.07	999.00	0.08	999.00	0.30	0.00
23	6	18	24	101.40	17.65	3.88	68.19	999.00	95.50	16.05	4.70	68.43	96.50	7.46	15.15	68.07	999.00	-0.30	999.00	0.05	0.00
23	6	19	1	108.20	15.54	4.68	67.67	999.00	103.20	13.30	5.12	67.84	112.50	5.26	13.99	67.44	999.00	0.69	999.00	0.69	0.00
23	6	19	2	116.60	14.97	2.65	69.10	999.00	112.20	12.16	2.90	68.87	122.30	4.53	11.20	67.62	999.00	1.85	999.00	1.47	0.00
23	6	19	3	113.20	16.94	2.66	69.10	999.00	106.30	14.49	3.38	68.87	111.40	5.36	14.75	67.62	999.00	1.39	999.00	1.14	0.00
23	6	19	4	106.10	16.39	3.69	68.83	999.00	101.70	13.67	4.57	68.64	109.40	5.07	13.38	67.60	999.00	1.04	999.00	0.87	0.00
23	6	19	5	110.20	11.66	3.12	68.21	999.00	104.80	10.72	3.69	68.31	108.80	4.01	12.97	67.65	999.00	0.01	999.00	0.40	0.00
23	6	19	6	105.70	10.60	3.14	66.50	999.00	96.50	10.24	3.19	66.91	95.10	4.48	11.83	66.50	999.00	0.05	999.00	0.43	0.00
23	6	19	7	116.80	9.15	3.66	66.08	999.00	108.90	8.29	3.27	66.40	118.90	3.56	11.10	66.04	999.00	-0.04	999.00	0.30	0.00
23	6	19	8	110.50	9.24	11.48	66.15	999.00	98.60	8.92	10.07	66.28	105.70	3.95	17.35	65.97	999.00	0.16	999.00	0.22	0.00
23	6	19	9	88.20	10.43	5.75	65.99	999.00	80.00	10.44	5.76	66.37	79.70	7.26	15.18	67.54	999.00	-1.95	999.00	-1.50	0.00
23	6	19	10	84.00	10.45	6.14	65.71	999.00	77.50	10.05	8.58	66.20	76.50	8.09	11.78	67.65	999.00	-1.96	999.00	-1.45	0.00
23	6	19	11	79.10	11.59	5.86	66.27	999.00	73.70	11.59	6.36	66.75	82.50	9.39	14.33	68.40	999.00	-2.11	999.00	-1.68	0.00
23	6	19	12	75.70	13.17	7.29	66.75	999.00	68.04	13.17	7.90	67.22	70.70	10.24	14.84	69.12	999.00	-2.39	999.00	-1.97	0.00
23	6	19	13	73.50	12.94	9.47	67.65	999.00	68.14	12.15	10.88	68.14	64.17	11.37	10.84	70.10	999.00	-2.42	999.00	-1.90	0.00
23	6	19	14	60.39	16.00	6.82	68.08	999.00	51.94	15.97	6.11	68.55	54.79	12.09	10.84	70.40	999.00	-1.83	999.00	-1.49	0.00
23	6	19	15	65.82	16.43	7.69	67.54	999.00	59.14	14.84	8.33	67.97	65.71	10.56	13.73	70.05	999.00	-2.66	999.00	-2.14	0.00
23	6	19	16	64.52	14.31	8.61	69.03	999.00	55.29	13.99	8.47	69.49	51.11	11.68	10.79	71.35	999.00	-1.82	999.00	-1.47	0.00
23	6	19	17	62.98	16.33	7.32	69.46	999.00	57.17	14.09	8.04	69.87	65.36	9.27	14.06	71.45	999.00	-2.03	999.00	-1.68	0.00
23	6	19	18	72.20	18.06	6.65	70.05	999.00	67.66	16.55	7.43	70.36	78.10	9.97	14.52	71.88	999.00	-2.01	999.00	-1.59	0.00
23	6	19	19	76.30	17.62	4.40	69.71	999.00	72.00	15.91	6.25	70.04	76.50	10.26	13.72	71.75	999.00	-1.82	999.00	-1.60	0.00
23	6	19	20	74.60	15.15	4.71	69.12	999.00	67.88	13.91	5.97	69.46	71.00	9.14	11.51	70.63	999.00	-1.43	999.00	-1.04	0.00
23	6	19	21	82.40	17.37	4.51	69.31	999.00	76.10	15.11	6.05	69.59	82.50	6.80	16.47	70.25	999.00	-0.71	999.00	-0.48	0.00
23	6	19	22	83.50	22.06	5.41	69.60	999.00	79.50	18.83	7.06	69.85	90.20	8.45	16.84	69.99	999.00	-0.40	999.00	-0.19	0.00
23	6	19	23	73.50	21.99	4.13	69.95	999.00	67.32	19.48	5.90	70.15	73.00	10.86	12.01	70.43	999.00	-0.59	999.00	-0.41	0.00
23	6	19	24	62.21	20.37	5.19	69.10	999.00	55.65	17.98	6.12	69.43	62.26	10.87	10.48	69.96	999.00	-0.85	999.00	-0.53	0.00
23	6	20	1	59.99	19.57	4.66	68.68	999.00	54.37	17.41	5.49	69.00	61.47	9.70	12.31	69.52	999.00	-0.94	999.00	-0.61	0.00

23	6	20	2	68.91	18.12	6.13	68.38	999.00	62.91	16.00	6.53	68.75	70.20	8.88	12.00	69.29	999.00	-0.94	999.00	-0.53	0.00
23	6	20	3	64.33	17.63	4.59	67.50	999.00	58.60	16.25	5.17	67.96	63.86	10.86	10.78	68.62	999.00	-1.18	999.00	-0.70	0.00
23	6	20	4	67.13	16.49	4.20	66.26	999.00	61.65	15.17	5.78	66.73	67.30	8.79	10.32	67.43	999.00	-1.11	999.00	-0.66	0.00
23	6	20	5	67.31	17.45	5.20	65.63	999.00	61.92	15.89	6.86	66.10	71.10	9.19	12.91	66.77	999.00	-1.15	999.00	-0.68	0.00
23	6	20	6	83.50	16.74	3.11	65.26	999.00	78.70	16.61	3.16	65.73	82.20	9.01	14.39	66.34	999.00	-1.06	999.00	-0.57	0.00
23	6	20	7	84.80	13.17	3.48	64.83	999.00	76.50	12.73	3.79	65.28	80.00	7.90	11.16	65.84	999.00	-1.04	999.00	-0.60	0.00
23	6	20	8	93.20	10.19	5.01	65.46	999.00	81.50	9.51	4.50	65.68	77.70	6.83	9.94	66.57	999.00	-1.23	999.00	-1.10	0.00
23	6	20	9	75.10	8.55	9.23	66.22	999.00	66.01	7.37	12.53	66.71	80.80	4.42	17.67	68.11	999.00	-2.06	999.00	-1.50	0.00
23	6	20	10	95.60	12.21	5.73	67.63	999.00	81.60	11.30	6.28	67.84	78.80	7.22	13.02	69.49	999.00	-1.46	999.00	-1.61	0.00
23	6	20	11	75.70	12.75	6.40	69.13	999.00	66.20	11.60	7.74	69.16	67.44	8.72	12.98	70.80	999.00	-2.27	999.00	-1.67	0.00
23	6	20	12	79.00	20.02	3.73	68.84	999.00	72.00	18.87	5.80	69.17	76.40	13.70	11.18	70.97	999.00	-2.08	999.00	-1.89	0.00
23	6	20	13	87.80	17.26	5.95	69.06	999.00	81.30	15.79	6.84	69.36	79.80	11.19	12.88	71.45	999.00	-2.54	999.00	-2.29	0.00
23	6	20	14	74.90	15.69	8.01	69.26	999.00	66.00	13.97	8.87	69.57	70.00	9.87	14.67	71.73	999.00	-2.26	999.00	-1.96	0.00
23	6	20	15	64.55	19.66	5.52	69.84	999.00	58.98	16.92	8.47	70.15	67.28	11.48	12.38	72.35	999.00	-2.16	999.00	-1.87	0.00
23	6	20	16	72.70	19.17	4.94	69.92	999.00	68.09	18.59	6.56	70.28	78.00	12.57	12.48	72.40	999.00	-2.46	999.00	-2.07	0.00
23	6	20	17	74.40	24.04	5.34	70.26	999.00	67.11	21.53	7.05	70.59	74.30	13.01	13.63	72.57	999.00	-1.96	999.00	-1.76	0.00
23	6	20	18	75.60	24.73	3.74	70.75	999.00	71.70	21.80	5.64	70.86	75.30	13.44	12.51	72.65	999.00	-1.86	999.00	-1.83	0.00
23	6	20	19	87.70	19.56	6.02	69.79	999.00	83.00	17.38	8.19	70.17	89.20	9.26	19.24	72.25	999.00	-2.43	999.00	-2.02	0.00
23	6	20	20	84.60	22.80	5.65	69.16	999.00	79.90	19.75	7.38	69.53	84.00	10.03	18.07	71.00	999.00	-1.44	999.00	-1.14	0.00
23	6	20	21	85.50	25.13	3.49	70.18	999.00	80.20	21.72	5.15	70.44	87.30	10.55	14.64	71.28	999.00	-0.86	999.00	-0.62	0.00
23	6	20	22	91.00	25.31	4.45	70.53	999.00	84.10	20.79	5.49	70.58	88.30	9.36	15.98	70.78	999.00	0.31	999.00	0.07	0.00
23	6	20	23	102.60	24.70	2.44	72.33	999.00	92.50	20.79	3.80	71.54	101.90	7.05	19.41	71.10	999.00	2.01	999.00	0.56	0.00
23	6	20	24	112.00	17.65	2.07	72.19	999.00	99.70	13.86	6.59	70.99	100.70	5.37	16.07	70.47	999.00	2.95	999.00	0.89	0.00
23	6	21	1	114.20	12.17	4.85	73.43	999.00	94.40	11.07	7.75	71.18	94.00	3.62	18.91	69.35	999.00	3.20	999.00	1.09	0.00
23	6	21	2	113.60	11.65	6.23	73.45	999.00	97.20	9.45	9.55	71.95	75.00	5.12	9.49	69.10	999.00	4.37	999.00	2.84	0.00
23	6	21	3	78.00	13.47	6.91	69.82	999.00	69.79	11.94	6.72	68.71	77.20	5.81	14.00	68.19	999.00	-0.32	999.00	-0.34	0.00
23	6	21	4	81.50	15.26	3.91	67.43	999.00	73.80	13.63	4.47	67.55	74.90	7.97	10.67	67.81	999.00	-0.72	999.00	-0.40	0.00
23	6	21	5	72.80	16.54	3.63	67.21	999.00	65.80	14.85	4.72	67.48	73.40	8.17	11.90	67.90	999.00	-0.87	999.00	-0.55	0.00
23	6	21	6	78.90	16.24	2.90	66.65	999.00	71.00	14.31	4.22	66.93	76.80	7.97	12.19	67.38	999.00	-0.47	999.00	-0.36	0.00
23	6	21	7	82.20	16.19	3.04	67.10	999.00	72.80	14.03	4.28	67.15	76.10	6.82	13.46	67.43	999.00	-0.34	999.00	-0.31	0.00
23	6	21	8	89.60	17.02	2.92	68.25	999.00	79.50	15.25	3.46	67.62	83.40	7.06	15.30	68.01	999.00	-0.17	999.00	-0.67	0.00
23	6	21	9	89.10	14.78	4.30	67.86	999.00	79.60	13.69	5.14	67.81	80.10	7.54	15.30	69.11	999.00	-1.63	999.00	-1.56	0.00
23	6	21	10	97.90	14.53	4.13	68.03	999.00	88.30	13.63	5.81	68.33	91.20	7.65	17.37	70.04	999.00	-2.28	999.00	-1.97	0.00
23	6	21	11	95.40	10.55	6.11	68.90	999.00	85.50	9.85	8.10	69.28	85.50	7.58	15.40	71.27	999.00	-2.45	999.00	-1.98	0.00
23	6	21	12	69.10	13.59	7.35	69.43	999.00	59.93	12.84	8.09	69.94	56.82	10.62	11.59	71.82	999.00	-2.24	999.00	-1.77	0.00
23	6	21	13	66.53	12.06	7.67	69.67	999.00	57.57	11.26	8.50	70.11	54.31	10.73	10.94	72.00	999.00	-1.86	999.00	-1.51	0.00
23	6	21	14	65.72	15.18	7.05	70.07	999.00	57.53	15.09	7.06	70.35	55.11	13.24	9.22	72.00	999.00	-1.88	999.00	-1.68	0.00
23	6	21	15	63.32	15.08	8.24	70.07	999.00	57.59	13.77	8.87	70.35	66.79	9.74	15.24	72.00	999.00	-2.73	999.00	-2.13	0.00
23	6	21	16	68.60	17.52	6.87	70.27	999.00	61.45	15.89	7.48	70.82	69.65	11.30	13.38	73.00	999.00	-2.55	999.00	-2.05	0.00
23	6	21	17	67.52	17.27	7.89	70.77	999.00	60.81	15.60	8.90	71.31	71.90	10.66	12.89	73.28	999.00	-2.29	999.00	-1.74	0.00
23	6	21	18	73.70	17.79	6.60	71.35	999.00	69.02	15.67	8.16	71.75	75.20	10.71	13.39	73.60	999.00	-1.91	999.00	-1.66	0.00
23	6	21	19	76.20	14.34	6.84	71.64	999.00	74.30	13.20	7.50	71.97	83.00	7.96	15.73	73.50	999.00	-1.99	999.00	-1.57	0.00
23	6	21	20	79.90	18.40	4.93	70.82	999.00	74.80	15.89	6.60	71.26	84.50	7.67	15.15	72.52	999.00	-1.46	999.00	-1.07	0.00
23	6	21	21	79.50	18.15	3.93	70.82	999.00	76.10	14.70	5.81	71.26	83.70	6.62	15.90	72.52	999.00	-0.21	999.00	-0.46	0.00
23	6	21	22	70.70	17.78	2.55	999.00	999.00	63.38	15.30	3.91	999.00	71.50	7.78	12.29	70.90	999.00	0.02	999.00	0.04	0.00
23	6	21	23	76.30	16.90	4.74	71.52	999.00	70.50	13.86	6.86	71.57	81.80	5.91	14.25	71.55	999.00	0.21	999.00	0.21	0.00
23	6	21	24	92.00	12.95	5.61	70.15	999.00	85.70	11.19	7.21	70.48	94.00	4.64	20.59	70.71	999.00	-0.55	999.00	-0.24	0.00
23	6	22	1	107.90	10.68	4.67	69.02	999.00	97.30	9.58	4.88	69.36	94.80	4.85	13.27	69.61	999.00	-0.68	999.00	-0.35	0.00
23	6	22	2	134.60	10.33	9.03	69.76	999.00	109.60	8.09	10.49	69.24	88.70	3.36	13.44	69.21	999.00	1.86	999.00	0.58	0.00
23	6	22	3	156.00	12.73	3.43	69.76	999.00	150.70	10.83	4.62	69.24	149.60	3.28	22.21	69.21	999.00	-0.36	999.00	-0.04	0.00
23	6	22	4	152.50	12.35	5.37	68.94	999.00	146.60	11.03	6.63	69.29	144.90	4.88	17.76	69.42	999.00	-0.67	999.00	-0.25	0.00
23	6	22	5	161.20	9.87	3.23	67.15	999.00	153.10	8.63	4.05	67.50	138.50	3.39	22.72	67.80	999.00	-0.58	999.00	-0.31	0.00
23	6	22	6	149.20	12.43	2.84	67.15	999.00	145.60	11.53	2.78	67.50	143.80	4.97	13.34	67.80	999.00	-0.28	999.00	0.14	0.00

23	6	22	7	142.70	12.11	2.00	65.06	999.00	136.70	9.93	4.77	65.27	139.30	4.52	15.85	65.32	999.00	-0.48	999.00	-0.33	0.00
23	6	22	8	124.00	8.66	6.67	64.15	999.00	123.20	7.75	8.56	64.49	126.30	4.12	17.73	65.12	999.00	-1.14	999.00	-0.77	0.00
23	6	22	9	107.10	13.50	6.04	64.53	999.00	101.30	12.45	7.81	64.96	106.20	6.57	18.87	65.81	999.00	-1.46	999.00	-1.03	0.00
23	6	22	10	101.00	18.35	6.20	65.03	999.00	96.10	17.00	7.88	65.46	105.70	9.17	18.83	66.83	999.00	-1.95	999.00	-1.51	0.00
23	6	22	11	84.50	21.02	4.03	65.34	999.00	79.00	20.42	4.86	65.80	85.70	11.92	15.50	67.35	999.00	-2.11	999.00	-1.62	0.00
23	6	22	12	83.60	20.16	4.89	65.33	999.00	77.90	19.28	7.04	65.92	79.50	12.12	13.63	68.27	999.00	-3.10	999.00	-2.52	0.00
23	6	22	13	84.00	19.50	6.21	65.14	999.00	79.00	18.48	8.60	65.71	81.50	12.12	14.16	68.34	999.00	-3.41	999.00	-2.76	0.00
23	6	22	14	71.70	17.68	7.95	65.21	999.00	66.52	16.87	9.18	65.79	76.10	12.29	15.11	68.35	999.00	-2.93	999.00	-2.35	0.00
23	6	22	15	70.50	20.28	5.77	65.21	999.00	65.01	19.26	7.15	65.79	66.50	13.58	14.41	68.35	999.00	-3.39	999.00	-2.67	0.00
23	6	22	16	67.70	16.32	7.72	65.60	999.00	60.91	15.35	8.71	66.19	68.84	10.48	15.46	68.60	999.00	-2.54	999.00	-1.97	0.00
23	6	22	17	68.33	15.59	10.49	65.73	999.00	63.87	14.34	11.29	66.30	67.74	10.75	16.57	68.27	999.00	-2.46	999.00	-1.88	0.00
23	6	22	18	69.77	15.70	6.29	65.66	999.00	63.95	14.80	7.70	66.17	70.40	10.58	13.18	67.91	999.00	-2.14	999.00	-1.60	0.00
23	6	22	19	73.20	14.29	5.98	65.68	999.00	67.52	13.29	7.10	66.23	72.80	8.92	13.16	67.77	999.00	-2.06	999.00	-1.51	0.00
23	6	22	20	80.30	16.61	4.74	65.58	999.00	75.30	15.90	6.14	66.11	80.90	9.61	13.99	67.63	999.00	-1.99	999.00	-1.46	0.00
23	6	22	21	78.80	16.84	4.91	65.47	999.00	73.40	15.94	6.25	65.97	74.30	10.70	12.42	67.12	999.00	-1.48	999.00	-0.98	0.00
23	6	22	22	80.80	17.53	2.34	65.64	999.00	75.80	17.10	3.10	66.13	81.90	9.32	15.17	67.07	999.00	-1.37	999.00	-0.88	0.00
23	6	22	23	85.10	15.30	3.44	66.02	999.00	79.70	14.53	4.22	66.49	86.80	7.27	15.11	67.31	999.00	-1.24	999.00	-0.78	0.00
23	6	22	24	92.70	12.27	5.60	66.29	999.00	87.50	11.49	7.21	66.75	97.30	5.37	18.03	67.45	999.00	-1.09	999.00	-0.65	0.00
23	6	23	1	93.10	10.37	3.63	66.63	999.00	86.40	9.98	3.85	67.07	95.40	4.53	14.92	67.74	999.00	-1.14	999.00	-0.69	0.00
23	6	23	2	101.80	8.13	3.18	66.51	999.00	96.10	7.86	4.04	66.97	101.70	3.83	14.67	67.68	999.00	-1.12	999.00	-0.67	0.00
23	6	23	3	110.80	8.45	4.57	66.66	999.00	103.00	6.62	6.34	67.03	105.20	2.66	19.51	67.67	999.00	-0.74	999.00	-0.55	0.00
23	6	23	4	136.60	9.08	2.85	66.93	999.00	136.40	7.84	6.10	67.32	139.60	4.63	15.37	67.96	999.00	-1.11	999.00	-0.82	0.05
23	6	23	5	131.20	6.58	4.89	65.64	999.00	129.80	5.37	6.80	65.95	141.70	2.55	18.18	66.67	999.00	-0.95	999.00	-0.63	0.05
23	6	23	6	118.90	11.01	3.01	65.24	999.00	113.30	10.44	4.06	65.63	118.80	5.13	16.81	66.20	999.00	-1.13	999.00	-0.64	0.14
23	6	23	7	114.70	9.93	3.27	64.26	999.00	109.50	9.34	3.86	64.73	114.60	4.88	14.07	65.42	999.00	-1.17	999.00	-0.69	0.09
23	6	23	8	104.40	6.75	7.25	63.90	999.00	104.20	5.84	9.68	64.28	119.00	2.97	14.93	64.90	999.00	-1.03	999.00	-0.69	0.00
23	6	23	9	91.90	4.99	12.66	63.54	999.00	89.30	4.46	16.82	63.88	112.20	2.57	28.32	64.57	999.00	-1.10	999.00	-0.75	0.01
23	6	23	10	121.60	4.43	6.68	63.30	999.00	122.20	4.33	8.61	63.63	131.90	3.57	14.52	64.53	999.00	-1.36	999.00	-1.00	0.00
23	6	23	11	99.80	4.95	12.67	63.19	999.00	99.50	4.68	13.44	63.54	117.20	3.48	24.31	64.56	999.00	-1.27	999.00	-1.00	0.00
23	6	23	12	71.70	7.25	6.34	63.56	999.00	64.78	7.12	7.69	63.96	72.60	6.05	13.70	64.90	999.00	-1.35	999.00	-0.95	0.00
23	6	23	13	70.80	8.18	6.02	64.43	999.00	65.98	8.08	7.69	64.80	76.40	5.91	16.12	65.82	999.00	-1.40	999.00	-0.98	0.00
23	6	23	14	55.23	8.26	9.55	65.12	999.00	48.09	8.09	10.28	65.52	56.27	7.25	14.42	66.36	999.00	-1.30	999.00	-0.90	0.00
23	6	23	15	57.98	8.08	10.88	65.12	999.00	53.28	7.92	12.28	65.52	62.37	6.38	18.16	66.36	999.00	-1.61	999.00	-1.27	0.00
23	6	23	16	48.39	6.27	11.86	66.37	999.00	46.67	6.27	9.93	66.76	61.78	5.20	16.57	67.83	999.00	-1.29	999.00	-0.96	0.00
23	6	23	17	57.54	8.59	6.16	66.31	999.00	52.84	8.66	6.49	66.71	62.69	7.02	12.69	67.77	999.00	-1.55	999.00	-1.19	0.00
23	6	23	18	57.10	6.82	12.48	66.35	999.00	53.82	6.81	11.71	66.75	59.92	5.57	17.28	67.90	999.00	-1.65	999.00	-1.22	0.00
23	6	23	19	66.65	5.82	8.56	66.22	999.00	61.38	5.75	8.87	66.68	69.28	5.05	15.59	67.77	999.00	-1.54	999.00	-1.12	0.00
23	6	23	20	92.20	6.64	9.80	65.87	999.00	88.80	6.37	10.16	66.36	96.60	4.14	20.69	67.45	999.00	-1.64	999.00	-1.15	0.00
23	6	23	21	75.90	3.83	8.86	65.58	999.00	71.80	3.93	7.18	66.05	82.90	2.80	18.53	67.07	999.00	-1.39	999.00	-0.93	0.00
23	6	23	22	57.67	3.63	16.30	65.68	999.00	60.48	3.74	6.58	66.13	74.40	2.62	10.63	66.99	999.00	-1.24	999.00	-0.79	0.00
23	6	23	23	99.60	4.19	4.55	65.70	999.00	93.00	4.24	4.22	66.18	100.00	2.15	30.07	66.92	999.00	-1.18	999.00	-0.69	0.00
23	6	23	24	352.50	1.03	67.55	65.58	999.00	258.80	0.88	37.72	66.00	269.80	0.97	14.85	66.79	999.00	-1.08	999.00	-0.71	0.00
23	6	24	1	152.60	2.94	2.90	65.60	999.00	151.30	3.37	3.86	66.00	171.90	2.15	24.79	66.70	999.00	-1.06	999.00	-0.65	0.00
23	6	24	2	165.60	2.94	10.93	65.46	999.00	171.00	2.67	10.05	65.84	185.60	1.99	14.73	66.54	999.00	-1.17	999.00	-0.82	0.00
23	6	24	3	141.70	1.36	25.13	64.65	999.00	157.60	1.47	14.20	64.99	190.40	0.91	22.00	65.68	999.00	-1.03	999.00	-0.66	0.00
23	6	24	4	256.90	1.89	18.59	64.46	999.00	262.30	1.85	20.28	64.86	330.10	1.87	19.05	65.32	999.00	-0.76	999.00	-0.38	0.00
23	6	24	5	259.60	1.47	13.86	64.76	999.00	263.90	1.40	14.13	65.05	310.90	2.39	9.57	65.42	999.00	-0.62	999.00	-0.30	0.00
23	6	24	6	227.40	3.41	10.88	64.93	999.00	223.10	3.69	10.52	65.17	226.10	2.30	28.42	65.49	999.00	-0.77	999.00	-0.47	0.00
23	6	24	7	245.40	6.45	12.57	64.74	999.00	246.50	5.82	10.86	64.87	260.50	3.83	28.03	65.36	999.00	-0.93	999.00	-0.75	0.00
23	6	24	8	268.60	4.30	8.24	64.81	999.00	264.80	4.03	8.71	65.13	264.60	3.67	16.21	66.37	999.00	-1.87	999.00	-1.39	0.00
23	6	24	9	256.90	3.81	9.37	65.92	999.00	245.50	3.95	10.88	66.36	248.90	3.89	17.14	67.61	999.00	-1.92	999.00	-1.39	0.00
23	6	24	10	264.00	7.18	9.14	67.51	999.00	259.10	7.30	11.19	68.08	270.50	6.12	19.95	69.39	999.00	-2.08	999.00	-1.58	0.00
23	6	24	11	291.80	8.69	6.98	68.05	999.00	286.30	8.58	7.68	68.54	290.90	6.57	16.50	70.13	999.00	-2.18	999.00	-1.69	0.00

23	6	24	12	280.80	8.99	5.64	68.85	999.00	276.10	9.04	5.83	69.34	283.20	7.31	11.59	70.85	999.00	-1.86	999.00	-1.44	0.00
23	6	24	13	311.20	8.13	32.20	70.69	999.00	310.20	7.99	32.21	71.25	325.80	6.80	38.17	73.38	999.00	-2.86	999.00	-2.23	0.00
23	6	24	14	339.00	10.09	8.62	71.79	999.00	340.00	10.21	9.58	72.46	358.90	9.65	11.07	73.50	999.00	-1.57	999.00	-0.95	0.00
23	6	24	15	341.80	7.33	10.59	72.74	999.00	342.20	7.43	11.58	73.41	1.41	7.65	12.26	74.72	999.00	-1.64	999.00	-0.98	0.00
23	6	24	16	346.40	7.89	14.55	74.51	999.00	345.30	7.47	14.98	75.23	1.72	6.85	18.56	76.05	999.00	-1.79	999.00	-0.99	0.00
23	6	24	17	16.99	4.49	17.63	75.54	999.00	18.61	4.14	17.53	76.08	34.66	4.25	23.90	76.57	999.00	-0.72	999.00	-0.34	0.00
23	6	24	18	47.40	1.89	78.60	77.15	999.00	82.40	2.28	54.47	77.44	100.80	3.20	24.44	78.35	999.00	-0.61	999.00	-0.78	0.00
23	6	24	19	122.00	5.34	6.81	77.15	999.00	113.70	5.74	10.05	77.43	116.70	4.93	18.25	78.45	999.00	-1.45	999.00	-1.12	0.00
23	6	24	20	136.90	8.98	3.83	77.50	999.00	124.10	8.72	3.67	77.75	119.00	4.89	15.67	78.57	999.00	-0.39	999.00	-0.24	0.00
23	6	24	21	171.70	8.38	2.66	77.43	999.00	167.00	7.70	2.85	77.74	174.10	2.43	15.57	77.47	999.00	-0.09	999.00	0.34	0.00
23	6	24	22	184.80	11.33	1.15	77.27	999.00	178.90	10.61	1.48	77.45	183.60	2.46	13.54	76.05	999.00	1.73	999.00	1.90	0.00
23	6	24	23	185.60	12.09	1.57	77.34	999.00	179.70	11.38	1.29	77.39	197.50	1.98	21.74	74.88	999.00	2.74	999.00	2.74	0.00
23	6	24	24	189.30	12.79	1.02	77.04	999.00	180.40	12.68	0.93	76.56	187.70	2.07	18.50	73.90	999.00	3.58	999.00	3.27	0.00
23	6	25	1	200.10	15.58	2.06	76.75	999.00	193.30	13.64	2.18	75.81	206.80	3.90	9.93	72.70	999.00	4.25	999.00	3.01	0.00
23	6	25	2	215.70	13.76	1.88	76.37	999.00	201.40	12.35	3.17	74.63	203.80	3.90	11.29	71.90	999.00	4.39	999.00	2.76	0.00
23	6	25	3	219.50	16.90	1.86	75.45	999.00	213.10	13.47	1.85	74.11	201.70	3.98	10.20	71.02	999.00	4.59	999.00	2.82	0.00
23	6	25	4	219.90	17.23	2.77	75.70	999.00	218.40	14.65	2.88	73.41	211.20	3.85	11.31	70.28	999.00	5.98	999.00	3.66	0.00
23	6	25	5	215.40	17.25	1.42	76.07	999.00	206.50	14.73	3.42	74.03	201.00	3.71	11.30	69.59	999.00	6.56	999.00	3.81	0.00
23	6	25	6	222.80	15.81	1.51	76.02	999.00	210.40	13.68	2.30	72.15	208.40	3.77	10.74	69.12	999.00	7.07	999.00	3.11	0.00
23	6	25	7	208.00	12.06	3.33	75.79	999.00	197.20	12.44	2.86	72.59	173.80	3.82	17.58	68.72	999.00	7.41	999.00	5.66	0.00
23	6	25	8	200.80	13.90	4.01	74.05	999.00	191.30	9.83	6.33	72.11	193.00	4.51	14.85	69.79	999.00	-0.10	999.00	-0.15	0.00
23	6	25	9	205.10	9.33	6.10	72.14	999.00	198.00	7.72	9.32	72.72	203.20	4.22	24.37	72.93	999.00	-1.23	999.00	-0.16	0.00
23	6	25	10	205.00	12.17	9.39	75.48	999.00	200.70	11.33	9.42	76.58	213.10	6.75	18.59	77.32	999.00	-1.76	999.00	-0.65	0.00
23	6	25	11	154.10	9.38	14.07	77.09	999.00	149.30	8.76	15.93	78.01	153.70	5.54	21.63	79.17	999.00	-2.20	999.00	-1.12	0.00
23	6	25	12	191.20	19.31	4.97	78.40	999.00	186.90	17.89	5.39	79.05	200.10	9.39	16.60	80.10	999.00	-1.28	999.00	-0.57	0.00
23	6	25	13	198.30	18.06	6.60	77.05	999.00	192.50	17.01	7.54	78.02	200.90	9.17	17.33	78.82	999.00	-1.90	999.00	-0.82	0.00
23	6	25	14	194.70	18.86	5.90	77.94	999.00	191.30	17.77	6.49	78.94	201.50	10.37	16.45	79.85	999.00	-1.81	999.00	-0.83	0.00
23	6	25	15	193.30	20.32	5.62	78.77	999.00	187.70	19.26	6.97	79.73	195.20	11.00	16.86	80.60	999.00	-1.92	999.00	-0.98	0.00
23	6	25	16	193.40	22.01	6.32	80.29	999.00	188.20	20.95	6.88	81.15	194.70	11.39	16.65	82.17	999.00	-1.74	999.00	-0.91	0.00
23	6	25	17	186.80	23.38	9.11	81.14	999.00	181.60	21.77	10.04	81.97	194.80	11.78	20.76	83.05	999.00	-2.11	999.00	-1.28	0.00
23	6	25	18	192.70	22.75	7.40	81.70	999.00	187.60	21.33	8.35	82.38	196.70	10.90	19.93	83.25	999.00	-1.11	999.00	-0.58	0.00
23	6	25	19	273.40	38.54	6.93	77.82	999.00	266.10	35.78	7.82	78.49	272.50	21.60	13.68	79.11	999.00	-1.91	999.00	-0.67	0.48
23	6	25	20	267.70	7.48	7.42	63.00	999.00	263.30	5.82	8.29	63.56	98.30	2.45	33.80	63.30	999.00	1.56	999.00	2.06	0.00
23	6	25	21	56.36	5.76	12.41	68.62	999.00	63.30	5.93	14.50	68.36	122.50	4.38	9.57	64.25	999.00	5.02	999.00	5.23	0.00
23	6	25	22	118.10	14.30	2.77	68.86	999.00	117.10	13.64	3.50	69.05	139.80	4.92	15.58	65.72	999.00	2.63	999.00	2.82	0.00
23	6	25	23	244.90	11.41	74.40	67.79	999.00	252.30	11.63	72.60	67.71	290.90	8.37	63.22	66.14	999.00	1.11	999.00	1.27	0.00
23	6	25	24	69.04	3.15	13.77	67.78	999.00	60.00	3.41	10.37	67.99	82.50	3.01	28.31	66.18	999.00	2.54	999.00	2.88	0.01
23	6	26	1	127.40	11.59	5.57	68.31	999.00	117.90	11.43	4.88	68.56	141.60	4.92	18.17	65.31	999.00	2.93	999.00	3.02	0.00
23	6	26	2	138.70	9.66	2.79	68.04	999.00	133.20	8.36	4.71	67.99	158.70	2.51	27.84	66.22	999.00	2.27	999.00	2.08	0.00
23	6	26	3	177.10	15.20	7.12	68.41	999.00	170.70	12.56	2.82	68.01	194.60	3.90	16.72	65.99	999.00	2.59	999.00	1.46	0.01
23	6	26	4	214.80	17.69	5.91	67.56	999.00	203.30	14.35	6.10	66.48	199.20	5.83	15.21	65.32	999.00	1.72	999.00	1.12	0.00
23	6	26	5	230.10	22.12	3.64	66.94	999.00	224.30	18.96	4.77	66.98	226.70	9.14	12.25	66.12	999.00	0.10	999.00	0.15	0.00
23	6	26	6	232.40	19.40	3.40	66.65	999.00	226.60	16.58	4.19	66.86	228.30	8.04	12.70	67.04	999.00	-0.44	999.00	-0.26	0.00
23	6	26	7	225.00	14.60	3.76	66.03	999.00	219.20	12.45	4.87	66.28	221.60	5.80	14.59	66.73	999.00	-0.73	999.00	-0.48	0.00
23	6	26	8	215.90	15.37	5.71	65.99	999.00	209.40	12.90	6.41	66.24	213.60	5.70	17.37	66.87	999.00	-1.11	999.00	-0.82	0.00
23	6	26	9	209.80	13.76	6.52	66.42	999.00	203.80	12.44	7.19	66.88	209.50	6.09	17.70	67.97	999.00	-1.82	999.00	-1.25	0.00
23	6	26	10	216.30	16.34	7.64	66.78	999.00	211.10	15.15	8.03	67.29	218.20	9.24	15.82	68.63	999.00	-1.89	999.00	-1.39	0.00
23	6	26	11	220.60	18.60	6.37	67.01	999.00	216.30	17.02	7.54	67.62	222.00	9.38	16.57	68.83	999.00	-1.70	999.00	-1.04	0.00
23	6	26	12	224.80	21.08	5.66	67.67	999.00	220.60	19.80	6.64	68.28	230.20	12.95	12.63	70.03	999.00	-2.35	999.00	-1.76	0.00
23	6	26	13	225.20	17.50	6.43	68.06	999.00	219.40	16.52	7.85	68.62	224.40	10.11	15.14	69.97	999.00	-1.91	999.00	-1.37	0.00
23	6	26	14	245.10	13.82	7.48	65.34	999.00	242.60	12.16	8.56	65.91	251.10	7.22	14.16	66.30	999.00	-0.95	999.00	-0.20	0.00
23	6	26	15	261.20	18.51	5.67	67.88	999.00	256.40	16.38	7.19	68.88	266.90	9.70	11.64	68.60	999.00	-0.93	999.00	0.11	0.00
23	6	26	16	232.70	16.49	7.52	69.29	999.00	228.60	15.07	8.70	70.09	238.10	9.84	14.36	69.74	999.00	-0.58	999.00	-0.45	0.00

23	6	26	17	288.40	15.51	9.44	68.79	999.00	284.20	14.13	9.94	69.90	287.30	8.76	19.53	69.13	999.00	-0.99	999.00	-0.04	0.00
23	6	26	18	236.40	16.47	5.06	66.89	999.00	230.60	14.79	5.14	67.76	230.60	8.73	12.62	67.25	999.00	-0.26	999.00	0.28	0.00
23	6	26	19	262.80	21.26	6.08	68.32	999.00	256.90	19.51	6.66	69.76	261.50	11.55	12.02	67.87	999.00	1.03	999.00	2.37	0.00
23	6	26	20	264.20	22.89	5.88	69.17	999.00	258.60	21.01	6.16	70.13	262.90	12.71	10.75	70.00	999.00	-0.96	999.00	-0.54	0.00
23	6	26	21	266.30	21.76	7.19	68.62	999.00	261.00	19.55	7.98	69.03	267.10	11.96	11.87	69.57	999.00	-0.97	999.00	-0.54	0.00
23	6	26	22	275.60	14.75	5.26	67.23	999.00	270.70	13.34	5.69	67.63	274.80	8.10	9.78	68.12	999.00	-1.04	999.00	-0.65	0.03
23	6	26	23	266.00	17.37	5.45	66.38	999.00	259.30	15.68	6.26	66.80	264.60	9.34	12.23	67.48	999.00	-1.19	999.00	-0.74	0.00
23	6	26	24	268.10	17.93	5.22	66.38	999.00	262.30	16.08	6.80	66.80	265.10	9.24	11.74	67.48	999.00	-1.14	999.00	-0.71	0.00
23	6	27	1	270.70	16.97	4.70	64.88	999.00	264.10	15.31	5.88	65.30	267.20	8.87	10.02	66.07	999.00	-1.15	999.00	-0.75	0.03
23	6	27	2	268.50	15.60	5.25	64.41	999.00	262.50	13.90	6.24	64.85	265.90	8.31	11.41	65.69	999.00	-1.30	999.00	-0.85	0.01
23	6	27	3	274.50	16.71	6.24	63.78	999.00	267.70	15.31	6.93	64.24	270.00	8.87	11.36	65.10	999.00	-1.30	999.00	-0.84	0.02
23	6	27	4	280.80	17.18	6.29	63.28	999.00	274.40	15.43	7.48	63.74	276.50	9.80	12.59	64.64	999.00	-1.39	999.00	-0.93	0.00
23	6	27	5	281.90	16.67	5.33	63.05	999.00	275.10	15.25	6.28	63.46	275.50	9.95	11.25	64.33	999.00	-1.31	999.00	-0.86	0.00
23	6	27	6	287.80	17.31	4.17	62.12	999.00	281.70	15.69	4.92	62.53	281.90	9.46	9.44	63.12	999.00	-0.54	999.00	-0.12	0.06
23	6	27	7	289.60	17.72	3.97	61.94	999.00	282.80	16.11	5.21	62.41	281.40	10.48	10.17	62.63	999.00	-0.76	999.00	-0.26	0.00
23	6	27	8	295.30	18.95	4.73	61.61	999.00	288.90	17.32	5.46	62.13	292.10	10.89	12.17	62.50	999.00	-0.98	999.00	-0.48	0.00
23	6	27	9	297.30	17.76	6.14	61.58	999.00	291.10	17.08	5.95	62.05	293.90	11.15	12.05	62.84	999.00	-1.60	999.00	-1.12	0.00
23	6	27	10	298.80	12.95	7.28	61.67	999.00	262.60	12.31	7.21	62.18	291.00	8.85	11.30	63.33	999.00	-1.66	999.00	-1.26	0.00
23	6	27	11	293.20	13.03	7.10	62.18	999.00	258.90	12.07	7.54	62.78	296.10	8.75	12.26	63.85	999.00	-1.27	999.00	-1.50	0.00
23	6	27	12	293.80	13.33	5.48	63.14	999.00	260.40	12.61	6.08	63.71	297.10	9.12	13.14	64.67	999.00	-2.02	999.00	-1.72	0.00
23	6	27	13	292.90	13.78	7.03	63.67	999.00	257.60	15.15	6.72	64.23	288.20	10.45	11.71	65.81	999.00	-2.17	999.00	-2.04	0.00
23	6	27	14	292.90	13.78	7.03	63.77	999.00	257.60	13.75	6.72	64.34	288.20	10.45	11.71	65.94	999.00	-2.17	999.00	-2.17	0.00
23	6	27	15	292.90	13.78	7.03	999.00	999.00	257.60	13.75	6.72	999.00	288.20	10.45	11.71	999.00	999.00	-2.17	999.00	-2.17	0.00
23	6	27	16	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	6	27	17	304.00	14.98	6.18	999.00	999.00	298.10	14.99	7.60	999.00	305.70	10.63	16.03	68.19	999.00	-3.31	999.00	-2.86	0.00
23	6	27	18	312.30	14.96	4.46	66.49	999.00	307.30	14.78	5.32	66.97	320.30	10.14	12.75	69.73	999.00	-2.94	999.00	-2.44	0.00
23	6	27	19	307.40	15.49	5.32	67.62	999.00	302.90	15.45	6.34	68.14	311.20	8.96	14.28	69.80	999.00	-1.68	999.00	-1.19	0.00
23	6	27	20	308.60	17.85	5.52	67.83	999.00	303.20	17.63	6.24	68.32	313.30	10.63	13.88	69.48	999.00	-1.54	999.00	-1.07	0.00
23	6	27	21	308.60	17.85	5.52	999.00	999.00	303.20	17.63	6.24	999.00	313.30	10.63	13.88	999.00	999.00	-1.54	999.00	-1.07	0.00
23	6	27	22	309.50	14.44	4.05	67.84	999.00	303.80	14.55	5.19	68.33	313.20	9.38	13.01	69.65	999.00	-1.80	999.00	-1.31	0.00
23	6	27	23	309.50	14.44	4.05	999.00	999.00	303.80	14.55	5.19	999.00	313.20	9.38	13.01	999.00	999.00	-1.80	999.00	-1.31	0.00
23	6	27	24	309.50	14.44	4.05	999.00	999.00	303.80	14.55	5.19	999.00	313.20	9.38	13.01	999.00	999.00	-1.80	999.00	-1.31	0.00
23	6	28	1	299.80	13.66	6.58	67.84	999.00	292.60	12.76	6.30	68.31	291.50	7.74	11.60	69.16	999.00	-1.15	999.00	-0.71	0.00
23	6	28	2	300.70	13.08	3.35	67.71	999.00	289.70	11.90	3.77	68.07	272.40	5.10	9.18	68.17	999.00	0.41	999.00	0.64	0.00
23	6	28	3	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	6	28	4	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	6	28	5	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	6	28	6	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	6	28	7	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	6	28	8	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	6	28	9	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	6	28	10	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	6	28	11	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	6	28	12	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	6	28	13	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	6	28	14	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	6	28	15	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	6	28	16	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	6	28	17	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	6	28	18	85.50	7.86	6.78	68.91	999.00	79.30	7.69	8.48	69.35	85.30	5.76	15.38	70.80	999.00	-1.91	999.00	-1.50	0.00
23	6	28	19	101.30	8.71	4.29	68.96	999.00	94.10	8.26	5.35	69.30	102.80	4.51	15.62	70.41	999.00	-1.23	999.00	-0.91	0.00
23	6	28	20	116.10	8.81	4.26	68.73	999.00	110.80	8.18	5.85	69.09	124.60	3.85	16.81	69.72	999.00	-0.81	999.00	-0.43	0.00
23	6	28	21	126.10	10.53	2.56	68.67	999.00	121.70	9.72	3.80	69.05	139.60	3.41	15.63	68.82	999.00	0.08	999.00	0.41	0.00

23	6	28	22	128.20	10.07	2.33	68.33	999.00	124.70	9.09	4.08	68.58	140.70	3.39	11.97	68.21	999.00	0.12	999.00	0.37	0.00
23	6	28	23	125.80	11.86	2.00	67.87	999.00	123.80	11.15	3.14	68.07	142.00	4.06	13.39	67.45	999.00	0.69	999.00	0.86	0.00
23	6	28	24	125.80	11.86	2.00	999.00	999.00	123.80	11.15	3.14	999.00	142.00	4.06	13.39	999.00	999.00	0.69	999.00	0.86	0.00
23	6	29	1	141.70	13.67	3.02	67.50	999.00	140.30	11.35	3.29	67.50	152.20	3.29	15.55	66.53	999.00	1.28	999.00	1.04	0.00
23	6	29	2	141.70	13.67	3.02	999.00	999.00	140.30	11.35	3.29	999.00	152.20	3.29	15.55	999.00	999.00	1.28	999.00	1.04	0.00
23	6	29	3	146.90	15.86	2.73	66.97	999.00	145.00	12.50	2.92	66.61	156.00	2.94	16.49	64.84	999.00	2.18	999.00	1.63	0.00
23	6	29	4	149.80	16.77	1.73	67.09	999.00	148.30	13.22	2.76	66.15	150.80	2.63	19.07	64.25	999.00	3.57	999.00	2.29	0.00
23	6	29	5	147.90	18.43	0.55	67.09	999.00	145.10	14.22	1.77	66.15	147.40	2.77	16.39	64.25	999.00	3.17	999.00	1.81	0.00
23	6	29	6	147.90	18.43	0.55	999.00	999.00	145.10	14.22	1.77	999.00	147.40	2.77	16.39	999.00	999.00	3.17	999.00	1.81	0.00
23	6	29	7	159.20	15.07	1.78	66.48	999.00	159.50	11.60	2.44	65.18	184.80	2.43	16.05	63.60	999.00	2.36	999.00	1.57	0.00
23	6	29	8	157.90	14.95	1.37	66.13	999.00	158.10	11.78	1.51	64.92	171.00	2.16	21.47	62.68	999.00	3.78	999.00	2.46	0.00
23	6	29	9	168.90	16.81	1.30	66.01	999.00	162.80	12.82	1.56	64.72	176.60	2.76	17.49	62.26	999.00	3.52	999.00	2.35	0.00
23	6	29	10	163.90	15.93	0.67	65.64	999.00	155.60	12.12	1.61	63.98	141.20	3.51	12.96	61.89	999.00	3.13	999.00	1.54	0.00
23	6	29	11	166.40	18.82	0.79	65.22	999.00	157.20	14.00	1.33	63.26	140.40	3.40	13.95	61.70	999.00	4.17	999.00	1.88	0.00
23	6	29	12	166.40	18.82	0.79	999.00	999.00	157.20	14.00	1.33	999.00	140.40	3.40	13.95	999.00	999.00	4.17	999.00	1.88	0.00
23	6	29	13	172.50	20.88	1.11	66.30	999.00	160.30	15.01	2.06	63.12	169.20	3.94	21.85	61.52	999.00	4.77	999.00	1.43	0.00
23	6	29	14	172.30	19.20	1.18	67.15	999.00	160.90	12.93	2.73	63.29	163.00	2.97	24.44	62.06	999.00	5.48	999.00	1.20	0.00
23	6	29	15	173.10	20.20	1.16	67.82	999.00	163.50	13.47	3.75	63.93	174.20	4.04	20.25	63.31	999.00	4.56	999.00	0.37	0.00
23	6	29	16	196.20	13.61	13.76	80.94	999.00	192.40	12.41	15.20	81.91	197.80	7.33	25.29	83.00	999.00	-2.06	999.00	-1.09	0.00
23	6	29	17	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	0.00
23	6	29	18	186.60	12.62	12.04	82.15	999.00	181.00	11.80	13.20	83.11	190.00	5.76	24.29	83.70	999.00	-1.43	999.00	-0.53	0.00
23	6	29	19	180.30	16.86	5.75	82.03	999.00	174.90	15.31	6.48	82.67	190.20	6.96	19.40	83.07	999.00	-0.71	999.00	-0.15	0.00
23	6	29	20	167.70	16.80	4.35	81.20	999.00	160.80	14.68	4.72	81.59	166.90	5.49	20.38	81.57	999.00	-0.22	999.00	0.13	0.00
23	6	29	21	163.00	17.26	5.61	80.60	999.00	155.90	14.39	6.80	80.82	155.40	4.92	26.31	80.50	999.00	0.10	999.00	0.32	0.00
23	6	29	22	150.20	16.38	5.20	80.30	999.00	142.40	14.02	6.42	80.49	141.20	6.05	14.91	80.25	999.00	0.14	999.00	0.33	0.00
23	6	29	23	133.00	19.45	2.71	79.42	999.00	124.90	16.98	3.40	79.50	124.10	6.09	14.58	78.73	999.00	1.27	999.00	1.26	0.00
23	6	29	24	133.00	19.45	2.71	999.00	999.00	124.90	16.98	3.40	999.00	124.10	6.09	14.58	999.00	999.00	1.27	999.00	1.26	0.00
23	6	30	1	139.40	15.72	4.73	78.29	999.00	133.10	13.06	6.04	78.17	127.50	4.58	17.60	76.53	999.00	1.20	999.00	1.33	0.00
23	6	30	2	157.50	14.97	3.41	76.51	999.00	152.30	11.96	3.77	76.62	169.80	3.31	20.74	75.50	999.00	0.63	999.00	0.58	0.00
23	6	30	3	223.20	19.18	7.21	74.81	999.00	214.70	17.09	8.56	74.75	211.60	7.57	18.33	73.87	999.00	0.69	999.00	0.82	0.00
23	6	30	4	223.20	19.18	7.21	999.00	999.00	214.70	17.09	8.56	999.00	211.60	7.57	18.33	999.00	999.00	0.69	999.00	0.82	0.00
23	6	30	5	251.80	14.07	7.52	71.40	999.00	245.30	12.57	7.15	71.84	251.60	7.74	12.39	72.24	999.00	-1.10	999.00	-0.62	0.00
23	6	30	6	242.90	9.18	5.33	69.27	999.00	233.60	8.40	4.93	69.67	221.10	4.66	17.28	70.10	999.00	-0.74	999.00	-0.35	0.00
23	6	30	7	233.80	12.95	2.28	68.65	999.00	223.70	12.04	2.66	68.96	214.80	4.62	14.58	68.77	999.00	0.07	999.00	0.34	0.00
23	6	30	8	218.90	12.12	2.30	67.41	999.00	201.90	11.35	3.03	67.40	183.40	4.09	18.29	67.25	999.00	0.48	999.00	0.31	0.00
23	6	30	9	218.30	14.32	3.51	66.29	999.00	209.10	11.36	4.85	66.06	218.30	4.55	14.69	65.96	999.00	-0.26	999.00	-0.38	0.00
23	6	30	10	217.90	14.04	3.45	66.64	999.00	210.30	11.86	4.68	66.68	214.60	5.59	15.64	67.30	999.00	-0.98	999.00	-0.78	0.00
23	6	30	11	235.00	11.62	6.86	67.51	999.00	229.20	11.57	6.20	68.24	235.40	8.52	11.02	69.25	999.00	-1.88	999.00	-1.41	0.00
23	6	30	12	227.00	8.69	11.73	68.08	999.00	223.70	8.08	11.69	68.59	237.20	6.76	13.04	70.04	999.00	-2.35	999.00	-1.80	0.00
23	6	30	13	236.30	8.54	9.42	71.79	999.00	232.40	8.24	9.22	72.39	241.20	6.71	13.25	74.14	999.00	-2.38	999.00	-1.84	0.00
23	6	30	14	236.80	5.38	18.21	75.10	999.00	233.60	5.28	18.66	75.65	231.30	4.06	33.47	77.43	999.00	-2.14	999.00	-1.48	0.00
23	6	30	15	239.50	5.71	14.58	77.65	999.00	234.00	5.58	13.11	78.20	241.80	4.19	29.74	80.10	999.00	-2.19	999.00	-1.65	0.00
23	6	30	16	84.80	5.69	15.11	79.05	999.00	62.51	6.81	11.71	79.50	64.51	7.07	13.05	80.73	999.00	-0.56	999.00	-0.54	0.00
23	6	30	17	70.60	4.40	15.53	78.60	999.00	53.34	5.53	10.26	78.42	75.20	4.94	19.18	79.40	999.00	-0.15	999.00	-0.47	0.00
23	6	30	18	71.70	4.10	11.43	80.04	999.00	46.05	4.36	11.50	79.68	48.27	5.34	17.61	79.93	999.00	0.10	999.00	0.15	0.00
23	6	30	19	260.20	5.25	16.71	80.53	999.00	221.70	2.86	53.65	80.19	76.50	3.16	23.59	79.53	999.00	1.66	999.00	1.53	0.00
23	6	30	20	242.70	10.38	3.15	81.50	999.00	209.60	9.37	4.22	81.68	206.80	3.21	17.42	80.71	999.00	-0.25	999.00	0.08	0.00
23	6	30	21	200.60	10.17	12.23	81.29	999.00	165.90	10.05	11.69	81.55	191.80	3.17	26.98	80.86	999.00	1.13	999.00	1.20	0.00
23	6	30	22	246.00	11.03	3.51	81.51	999.00	215.80	9.87	3.40	81.27	242.50	4.13	6.04	79.29	999.00	2.65	999.00	2.07	0.00
23	6	30	23	272.70	16.55	1.75	80.50	999.00	242.50	13.15	3.41	79.96	240.10	5.10	10.18	78.29	999.00	1.74	999.00	1.30	0.00
23	6	30	24	267.10	17.54	1.67	79.00	999.00	236.30	13.77	2.19	78.69	232.90	5.84	9.68	77.77	999.00	1.60	999.00	0.97	0.00
23	7	1	1	280.10	18.26	5.53	78.08	999.00	247.80	15.55	5.66	78.00	251.20	7.91	9.59	77.43	999.00	0.28	999.00	0.31	0.00
23	7	1	2	320.20	25.73	5.68	72.68	999.00	294.00	22.57	6.53	72.79	296.10	11.66	12.59	71.88	999.00	2.84	999.00	2.49	0.01

23	7	1	3	266.30	9.97	9.32	73.70	999.00	229.90	9.03	12.22	73.03	172.70	4.53	21.84	68.57	999.00	7.63	999.00	7.36	0.00
23	7	1	4	118.80	9.65	6.56	72.52	999.00	111.20	8.95	6.31	72.41	126.60	4.63	16.14	69.86	999.00	0.48	999.00	0.70	0.00
23	7	1	5	138.30	5.71	13.33	71.82	999.00	139.30	5.21	8.60	71.22	192.30	2.78	16.70	70.47	999.00	3.02	999.00	1.15	0.00
23	7	1	6	192.00	7.43	4.66	73.84	999.00	172.90	9.45	0.79	71.81	181.00	2.52	21.86	69.95	999.00	4.10	999.00	2.00	0.00
23	7	1	7	182.00	16.88	1.93	72.96	999.00	175.70	13.19	3.55	70.99	189.90	4.93	17.90	69.70	999.00	2.86	999.00	1.29	0.00
23	7	1	8	201.80	13.12	2.82	72.23	999.00	193.90	9.22	4.91	71.61	200.50	3.48	20.13	71.10	999.00	0.39	999.00	-0.11	0.00
23	7	1	9	201.80	5.09	8.15	72.23	999.00	182.60	3.97	12.89	71.61	185.50	2.81	24.82	71.10	999.00	-1.80	999.00	-0.31	0.00
23	7	1	10	230.20	5.95	9.06	74.69	999.00	218.50	5.66	9.98	75.69	226.40	4.47	15.95	76.80	999.00	-2.11	999.00	-1.48	0.00
23	7	1	11	214.80	10.34	6.27	76.57	999.00	204.40	9.61	7.46	77.36	215.00	5.80	16.11	78.40	999.00	-1.71	999.00	-0.96	0.00
23	7	1	12	231.30	14.89	7.51	77.30	999.00	221.50	14.36	7.92	77.89	230.70	9.40	14.52	78.88	999.00	-1.55	999.00	-1.07	0.00
23	7	1	13	235.20	22.20	4.62	75.30	999.00	224.00	20.54	5.87	75.80	232.50	13.32	10.56	76.88	999.00	-1.68	999.00	-1.15	0.00
23	7	1	14	255.90	14.94	7.76	72.51	999.00	244.60	13.98	8.23	73.00	252.50	9.59	11.65	74.05	999.00	-1.70	999.00	-1.13	0.00
23	7	1	15	267.10	8.40	11.02	72.70	999.00	251.80	8.05	9.49	73.24	253.60	5.73	13.84	74.35	999.00	-1.61	999.00	-1.10	0.00
23	7	1	16	299.30	7.03	20.72	73.21	999.00	289.50	6.66	21.20	73.75	303.40	4.99	30.82	75.38	999.00	-2.99	999.00	-2.38	0.00
23	7	1	17	219.10	6.78	6.58	73.89	999.00	210.40	6.30	7.64	74.46	223.70	4.94	13.33	75.82	999.00	-1.60	999.00	-1.03	0.00
23	7	1	18	187.50	7.41	16.81	75.61	999.00	177.70	7.17	20.36	76.55	187.80	4.20	35.42	77.50	999.00	-2.07	999.00	-0.97	0.00
23	7	1	19	216.20	8.26	10.71	78.64	999.00	204.30	7.74	11.82	79.39	218.60	5.89	19.42	80.55	999.00	-1.74	999.00	-0.94	0.00
23	7	1	20	215.40	8.02	11.88	78.64	999.00	207.30	7.62	11.01	79.39	222.00	5.00	16.60	80.55	999.00	-1.07	999.00	-0.32	0.00
23	7	1	21	224.40	10.67	9.08	79.62	999.00	216.10	9.36	10.86	80.04	215.30	3.73	20.30	80.07	999.00	-0.05	999.00	0.23	0.00
23	7	1	22	211.80	11.32	6.45	77.71	999.00	196.00	10.89	4.74	77.94	201.40	3.91	13.24	77.43	999.00	0.62	999.00	0.76	0.00
23	7	1	23	206.60	10.90	3.74	77.71	999.00	193.50	8.28	2.63	77.94	208.00	2.07	16.19	77.43	999.00	0.68	999.00	0.40	0.00
23	7	1	24	184.90	11.34	4.89	77.21	999.00	171.10	8.87	6.46	76.70	160.40	2.11	35.18	75.63	999.00	1.13	999.00	1.25	0.00
23	7	2	1	194.00	10.22	6.20	73.96	999.00	181.10	7.87	7.94	74.00	175.70	1.68	51.35	73.28	999.00	0.39	999.00	0.49	0.00
23	7	2	2	186.30	11.30	2.43	73.62	999.00	172.00	9.20	3.64	73.45	167.70	2.71	23.08	73.03	999.00	-0.13	999.00	-0.13	0.00
23	7	2	3	191.20	13.20	2.46	72.68	999.00	179.00	10.43	3.88	72.71	184.30	2.98	17.20	73.10	999.00	-0.40	999.00	-0.44	0.00
23	7	2	4	201.30	14.01	6.56	72.53	999.00	191.90	11.88	7.30	72.51	205.10	5.22	17.12	72.83	999.00	-0.55	999.00	-0.39	0.03
23	7	2	5	230.50	12.75	3.63	72.53	999.00	221.90	10.93	4.67	72.51	229.00	5.62	10.62	72.83	999.00	-0.27	999.00	0.07	0.02
23	7	2	6	222.90	13.96	5.88	70.28	999.00	211.70	11.69	7.33	70.73	216.80	5.61	14.45	70.88	999.00	-0.46	999.00	-0.03	0.01
23	7	2	7	216.20	13.78	3.27	68.85	999.00	207.70	11.92	4.34	69.27	219.20	5.25	12.72	69.18	999.00	-0.48	999.00	-0.06	0.00
23	7	2	8	206.80	17.13	4.31	68.37	999.00	195.30	14.90	5.28	68.71	206.20	7.21	16.42	69.12	999.00	-0.82	999.00	-0.49	0.00
23	7	2	9	223.70	11.88	6.15	68.63	999.00	210.70	10.68	7.54	69.10	216.10	5.57	16.04	69.54	999.00	-0.90	999.00	-0.40	0.01
23	7	2	10	241.50	13.73	4.90	69.11	999.00	230.30	13.55	5.33	69.62	234.20	9.11	11.34	70.05	999.00	-1.13	999.00	-0.61	0.00
23	7	2	11	251.70	12.34	8.31	69.51	999.00	241.30	11.24	7.78	70.01	248.50	7.38	12.32	70.68	999.00	-1.11	999.00	-0.59	0.00
23	7	2	12	253.30	13.18	5.87	69.93	999.00	242.90	12.65	6.22	70.43	251.10	9.46	11.55	71.58	999.00	-1.72	999.00	-1.24	0.00
23	7	2	13	259.40	9.96	6.05	70.73	999.00	250.10	9.48	7.09	71.22	256.50	6.15	12.09	72.53	999.00	-1.77	999.00	-1.29	0.00
23	7	2	14	241.90	9.45	4.99	72.09	999.00	232.40	9.01	5.11	72.57	242.70	6.59	12.23	74.03	999.00	-2.18	999.00	-1.72	0.00
23	7	2	15	207.80	9.40	11.49	74.49	999.00	192.10	9.02	11.26	75.02	192.20	5.09	21.14	76.53	999.00	-1.73	999.00	-1.01	0.00
23	7	2	16	306.50	3.91	46.55	75.91	999.00	304.80	4.20	41.03	76.63	328.30	4.55	28.79	78.57	999.00	-2.75	999.00	-2.20	0.00
23	7	2	17	74.40	9.81	9.80	76.05	999.00	64.84	10.04	11.68	76.28	66.94	8.82	18.73	77.22	999.00	-1.65	999.00	-1.55	0.05
23	7	2	18	91.20	14.18	2.89	74.99	999.00	80.90	13.21	5.82	75.28	92.00	5.38	19.31	76.78	999.00	-0.96	999.00	-0.89	0.00
23	7	2	19	337.50	8.07	18.27	69.52	999.00	338.80	6.88	30.02	70.38	332.00	3.11	59.75	70.34	999.00	0.19	999.00	1.69	0.19
23	7	2	20	110.30	9.29	12.46	69.52	999.00	104.10	9.14	8.95	70.38	113.00	5.06	19.10	70.34	999.00	-0.26	999.00	0.02	0.00
23	7	2	21	117.10	10.82	5.80	69.74	999.00	112.00	10.09	5.05	70.71	119.10	4.67	14.50	69.92	999.00	0.05	999.00	1.13	0.00
23	7	2	22	120.30	9.71	5.22	69.74	999.00	107.30	9.22	4.77	70.27	114.70	4.24	14.60	69.96	999.00	-0.40	999.00	0.25	0.05
23	7	2	23	211.20	17.24	6.07	69.65	999.00	200.90	15.39	6.93	70.30	207.80	7.68	16.40	70.35	999.00	-0.76	999.00	0.01	0.29
23	7	2	24	175.60	14.18	3.26	68.08	999.00	166.10	13.59	2.34	68.84	178.90	5.63	16.82	68.84	999.00	-0.29	999.00	0.44	0.00
23	7	3	1	216.70	5.08	28.85	67.94	999.00	217.20	4.05	33.07	68.57	245.40	2.35	48.48	68.82	999.00	-0.96	999.00	-0.39	0.00
23	7	3	2	240.00	6.80	8.81	67.58	999.00	233.90	6.28	8.34	68.25	267.60	3.87	18.79	68.27	999.00	-0.53	999.00	0.37	0.00
23	7	3	3	244.90	13.64	4.30	67.20	999.00	231.40	11.97	6.20	68.11	227.60	6.04	15.65	67.89	999.00	-0.62	999.00	0.29	0.00
23	7	3	4	237.30	15.95	2.34	67.01	999.00	223.40	13.40	4.55	67.65	222.40	6.49	12.90	67.46	999.00	-0.13	999.00	0.36	0.00
23	7	3	5	251.20	13.02	4.43	67.01	999.00	239.90	11.54	5.34	67.65	240.50	7.84	10.71	67.46	999.00	-0.57	999.00	0.07	0.00
23	7	3	6	254.60	9.51	5.32	66.92	999.00	242.60	7.60	6.60	67.43	251.60	4.00	11.47	67.50	999.00	-0.64	999.00	-0.11	0.00
23	7	3	7	247.10	12.55	9.92	66.93	999.00	234.60	10.11	9.52	67.29	236.10	4.93	16.45	67.40	999.00	-0.25	999.00	-0.09	0.00

23	7	3	8	251.00	7.42	6.90	66.93	999.00	239.60	7.00	6.85	67.29	244.10	5.22	12.19	67.40	999.00	-0.84	999.00	-0.53	0.00
23	7	3	9	287.50	7.51	6.79	68.10	999.00	274.70	7.44	8.33	68.30	275.60	5.59	12.64	69.24	999.00	-1.55	999.00	-1.41	0.00
23	7	3	10	310.00	6.54	7.16	69.31	999.00	300.60	6.24	7.80	69.64	313.60	4.87	15.29	71.27	999.00	-2.72	999.00	-1.81	0.00
23	7	3	11	284.20	4.86	15.51	69.43	999.00	279.10	4.60	18.87	70.50	306.40	3.45	27.56	72.45	999.00	-3.62	999.00	-2.46	0.00
23	7	3	12	308.40	5.91	11.89	70.96	999.00	301.30	5.93	13.00	71.68	316.50	4.64	19.86	73.42	999.00	-2.32	999.00	-1.77	0.00
23	7	3	13	299.20	3.36	38.96	71.98	999.00	298.70	3.18	41.49	72.73	320.30	2.83	68.77	74.55	999.00	-2.89	999.00	-1.97	0.00
23	7	3	14	17.02	3.76	20.40	74.35	999.00	17.66	3.36	18.73	75.30	35.47	4.16	13.81	75.83	999.00	-0.79	999.00	0.00	0.00
23	7	3	15	335.30	6.79	13.40	75.96	999.00	326.70	6.86	13.86	76.92	348.50	6.30	15.05	77.97	999.00	-2.69	999.00	-1.86	0.00
23	7	3	16	321.10	8.61	11.19	76.59	999.00	314.10	8.89	11.18	77.37	331.90	7.19	18.97	79.22	999.00	-3.32	999.00	-2.66	0.00
23	7	3	17	310.50	8.94	7.14	77.62	999.00	302.80	8.95	7.44	78.29	319.30	6.61	15.32	80.68	999.00	-3.49	999.00	-2.91	0.00
23	7	3	18	338.10	7.54	10.33	78.38	999.00	334.20	7.56	9.44	79.05	349.10	6.72	12.12	81.10	999.00	-2.06	999.00	-1.27	0.00
23	7	3	19	331.60	5.75	10.59	78.15	999.00	326.90	5.70	10.91	78.89	345.80	4.96	12.69	80.25	999.00	-2.21	999.00	-1.31	0.00
23	7	3	20	341.00	4.26	10.68	78.61	999.00	341.50	3.98	11.97	79.23	20.69	3.63	16.12	79.80	999.00	-0.79	999.00	-0.19	0.00
23	7	3	21	40.33	3.38	11.98	77.48	999.00	31.63	2.87	12.45	77.91	79.70	2.96	12.98	77.77	999.00	0.15	999.00	0.37	0.00
23	7	3	22	39.50	4.35	9.02	76.73	999.00	26.59	3.54	11.28	76.90	63.98	1.48	65.00	76.42	999.00	0.29	999.00	0.46	0.00
23	7	3	23	34.80	5.95	9.26	76.19	999.00	20.46	3.88	19.02	76.33	3.59	1.44	64.94	76.15	999.00	0.04	999.00	0.16	0.00
23	7	3	24	53.59	11.89	8.15	74.83	999.00	41.36	10.24	9.40	75.23	48.20	7.38	12.03	75.83	999.00	-1.23	999.00	-0.77	0.00
23	7	4	1	59.00	10.63	4.48	73.54	999.00	49.20	9.73	5.12	73.92	63.52	5.67	9.86	74.42	999.00	-0.92	999.00	-0.49	0.00
23	7	4	2	63.32	10.46	2.58	73.54	999.00	53.67	10.33	2.29	73.92	67.67	5.88	10.54	74.42	999.00	-0.86	999.00	-0.38	0.00
23	7	4	3	76.70	6.78	3.33	72.22	999.00	68.10	6.64	4.21	72.67	84.60	2.42	20.12	72.88	999.00	-0.48	999.00	0.00	0.00
23	7	4	4	74.70	5.32	3.73	72.04	999.00	63.81	5.18	3.26	72.48	77.60	2.14	9.95	72.47	999.00	-0.24	999.00	0.21	0.00
23	7	4	5	184.90	1.28	51.36	71.88	999.00	197.90	1.32	62.88	72.27	253.40	3.52	5.62	71.60	999.00	0.99	999.00	1.33	0.00
23	7	4	6	269.50	3.16	6.44	72.05	999.00	260.60	3.41	3.48	72.13	269.00	2.52	10.84	69.64	999.00	3.15	999.00	3.04	0.00
23	7	4	7	318.40	5.09	4.52	71.95	999.00	299.10	5.76	4.27	71.94	331.60	1.42	35.01	69.29	999.00	1.71	999.00	1.71	0.00
23	7	4	8	352.70	4.44	8.25	72.09	999.00	346.40	4.13	10.25	72.70	342.30	2.30	14.49	72.72	999.00	-2.26	999.00	-1.36	0.00
23	7	4	9	355.60	2.10	30.10	73.89	999.00	351.70	1.99	31.21	75.00	9.03	2.69	20.92	75.68	999.00	-1.59	999.00	-0.09	0.00
23	7	4	10	22.40	3.03	18.90	74.88	999.00	19.80	2.85	19.88	76.28	25.49	3.89	20.96	76.60	999.00	-0.56	999.00	0.91	0.00
23	7	4	11	356.40	1.66	43.73	76.51	999.00	349.50	2.15	35.84	77.89	12.95	3.48	19.90	78.05	999.00	-1.37	999.00	-0.29	0.00
23	7	4	12	11.13	4.18	14.61	78.12	999.00	17.10	3.86	15.00	78.92	36.15	5.97	7.19	78.32	999.00	1.05	999.00	1.33	0.00
23	7	4	13	33.00	5.22	14.97	77.96	999.00	32.88	4.87	12.90	78.53	33.77	6.34	16.62	78.68	999.00	-1.30	999.00	-0.65	0.00
23	7	4	14	58.00	5.47	14.87	999.00	999.00	51.18	6.62	10.61	999.00	62.19	7.09	13.57	79.60	999.00	-0.76	999.00	-0.78	0.00
23	7	4	15	87.40	8.70	7.59	77.93	999.00	77.90	9.04	5.48	78.33	90.70	7.18	13.27	80.22	999.00	-2.45	999.00	-2.08	0.00
23	7	4	16	103.80	9.64	5.25	77.94	999.00	96.00	9.46	6.16	78.36	99.70	6.49	16.47	80.35	999.00	-2.28	999.00	-1.98	0.00
23	7	4	17	112.20	9.81	7.61	79.06	999.00	103.10	9.23	9.56	79.46	112.60	5.72	21.01	81.28	999.00	-2.25	999.00	-1.90	0.00
23	7	4	18	93.90	9.69	3.85	999.00	999.00	84.30	9.29	6.34	999.00	96.40	5.72	17.20	81.87	999.00	-2.11	999.00	-1.71	0.00
23	7	4	19	108.60	11.10	5.19	80.10	999.00	94.60	9.81	6.03	80.24	101.80	5.25	17.27	81.67	999.00	-1.39	999.00	-1.25	0.00
23	7	4	20	122.00	11.76	3.12	79.93	999.00	109.30	10.63	4.99	80.06	112.90	5.15	14.28	80.80	999.00	-0.61	999.00	-0.49	0.00
23	7	4	21	131.00	11.04	2.95	79.93	999.00	118.30	10.07	1.86	80.06	120.60	3.89	12.83	80.80	999.00	1.31	999.00	0.80	0.00
23	7	4	22	138.80	11.78	1.32	80.58	999.00	126.70	10.41	1.13	79.75	133.50	3.79	12.79	78.48	999.00	2.19	999.00	1.28	0.00
23	7	4	23	144.40	12.45	1.61	80.36	999.00	137.60	10.72	1.60	79.83	135.80	3.37	12.71	78.15	999.00	1.91	999.00	1.29	0.00
23	7	4	24	155.60	11.26	3.14	80.82	999.00	150.80	8.78	6.05	79.72	194.40	1.15	27.72	77.22	999.00	3.86	999.00	3.23	0.00
23	7	5	1	160.20	13.35	1.25	80.43	999.00	153.60	10.81	1.73	79.32	148.70	1.82	12.97	75.85	999.00	3.84	999.00	2.96	0.00
23	7	5	2	178.90	16.34	0.80	79.64	999.00	166.40	12.30	1.49	78.93	169.80	2.14	19.87	75.27	999.00	4.69	999.00	3.36	0.00
23	7	5	3	223.10	12.78	6.37	79.24	999.00	201.30	11.87	3.86	77.38	197.60	3.39	16.87	74.55	999.00	5.70	999.00	3.28	0.00
23	7	5	4	245.00	15.32	2.55	79.72	999.00	235.20	12.31	2.08	76.82	205.30	3.67	9.14	73.10	999.00	7.92	999.00	4.08	0.00
23	7	5	5	256.70	12.56	2.89	80.02	999.00	249.80	13.62	2.40	77.17	202.80	3.48	10.09	71.70	999.00	999.00	999.00	7.23	0.00
23	7	5	6	262.80	13.40	2.05	999.00	999.00	252.30	13.44	2.98	78.54	212.00	3.49	10.97	70.82	999.00	999.00	999.00	7.39	0.00
23	7	5	7	249.80	16.00	5.10	77.48	999.00	232.30	13.63	7.11	75.96	203.80	4.84	12.34	70.82	999.00	5.30	999.00	3.45	0.00
23	7	5	8	261.30	13.75	2.09	78.32	999.00	241.80	11.20	4.78	75.63	216.70	4.51	12.86	71.70	999.00	6.09	999.00	2.88	0.00
23	7	5	9	254.70	10.36	4.81	75.95	999.00	233.30	7.57	5.93	73.92	225.90	4.58	13.47	73.88	999.00	0.44	999.00	-0.51	0.00
23	7	5	10	225.70	5.99	9.55	76.37	999.00	216.70	5.34	10.78	76.55	240.50	4.88	14.30	77.50	999.00	-1.74	999.00	-0.99	0.00
23	7	5	11	230.90	6.64	7.56	79.75	999.00	224.90	6.43	7.28	80.44	243.90	5.09	14.15	81.68	999.00	-1.99	999.00	-1.40	0.00
23	7	5	12	260.50	7.06	12.60	81.99	999.00	251.00	6.69	15.48	82.59	256.10	5.44	27.23	84.07	999.00	-2.10	999.00	-1.57	0.00

23	7	5	13	212.10	4.81	61.63	83.08	999.00	195.90	4.58	63.99	83.84	171.00	4.23	63.81	85.20	999.00	-2.45	999.00	-1.34	0.00
23	7	5	14	90.30	8.20	8.79	82.31	999.00	81.60	8.67	9.01	82.54	76.10	6.39	18.33	83.75	999.00	-1.05	999.00	-0.98	0.00
23	7	5	15	92.00	10.76	5.99	81.80	999.00	74.60	9.60	9.10	81.89	54.04	7.34	14.34	83.28	999.00	-1.00	999.00	-1.01	0.00
23	7	5	16	100.90	12.10	5.75	82.24	999.00	85.90	12.38	5.63	81.88	90.90	7.24	15.50	83.03	999.00	-0.90	999.00	-1.25	0.00
23	7	5	17	97.00	11.94	3.65	82.43	999.00	82.10	11.88	3.96	82.40	86.10	6.86	17.61	83.72	999.00	-1.08	999.00	-1.42	0.00
23	7	5	18	114.20	13.22	4.54	82.83	999.00	96.80	12.65	4.90	82.32	100.80	6.31	16.04	83.72	999.00	-0.18	999.00	-1.06	0.00
23	7	5	19	130.40	12.09	5.61	83.18	999.00	115.00	10.25	6.70	82.73	105.70	5.41	16.47	83.10	999.00	-0.48	999.00	-0.83	0.00
23	7	5	20	208.40	14.43	5.35	83.38	999.00	199.40	13.13	6.50	83.74	206.10	6.47	18.63	84.10	999.00	-0.98	999.00	-0.25	0.00
23	7	5	21	208.00	8.43	8.46	80.96	999.00	202.20	7.80	10.33	81.44	202.90	3.52	17.65	81.80	999.00	-0.37	999.00	-0.12	0.00
23	7	5	22	191.00	9.97	4.22	79.21	999.00	180.20	8.34	4.71	79.35	190.30	2.16	21.46	79.00	999.00	0.66	999.00	0.58	0.00
23	7	5	23	202.40	13.49	2.45	79.84	999.00	187.00	12.40	2.46	79.33	187.90	2.71	21.27	77.65	999.00	3.50	999.00	2.97	0.00
23	7	5	24	193.40	15.47	3.95	80.00	999.00	179.30	13.01	4.93	79.13	175.30	3.23	19.18	76.70	999.00	2.73	999.00	2.19	0.00
23	7	6	1	207.70	17.90	2.58	77.70	999.00	192.10	13.23	2.97	76.81	185.40	3.88	14.14	75.50	999.00	2.76	999.00	1.37	0.00
23	7	6	2	214.80	18.23	2.37	78.97	999.00	199.20	14.38	2.53	77.17	189.70	3.89	15.08	75.03	999.00	3.55	999.00	2.22	0.00
23	7	6	3	211.80	17.49	2.22	77.74	999.00	194.40	13.38	3.08	76.22	203.00	3.83	13.65	74.50	999.00	2.78	999.00	1.36	0.00
23	7	6	4	221.80	15.87	7.98	76.93	999.00	213.50	11.89	13.65	75.26	231.20	4.58	23.04	73.88	999.00	1.89	999.00	0.94	0.00
23	7	6	5	221.50	16.92	2.41	74.92	999.00	203.60	13.85	2.54	73.88	203.40	4.17	16.09	72.95	999.00	1.90	999.00	1.07	0.00
23	7	6	6	217.40	14.37	2.08	75.13	999.00	192.80	12.23	4.02	73.28	203.70	3.97	17.43	72.38	999.00	3.21	999.00	0.73	0.00
23	7	6	7	201.90	15.95	1.65	75.49	999.00	183.50	12.78	3.66	73.05	191.00	4.09	18.80	72.20	999.00	2.80	999.00	0.36	0.00
23	7	6	8	232.40	12.47	6.84	72.34	999.00	225.00	11.25	8.14	72.37	234.90	7.65	14.79	72.95	999.00	-1.64	999.00	-1.19	0.00
23	7	6	9	237.50	13.25	5.28	73.36	999.00	227.70	12.10	5.81	73.63	234.20	8.66	12.31	74.80	999.00	-1.60	999.00	-1.20	0.00
23	7	6	10	236.60	15.26	4.68	75.41	999.00	229.00	15.00	5.00	75.87	238.50	10.93	11.45	77.38	999.00	-1.98	999.00	-1.55	0.00
23	7	6	11	235.90	13.27	9.35	76.76	999.00	228.30	12.84	9.32	77.23	236.30	9.30	16.71	78.75	999.00	-2.04	999.00	-1.51	0.00
23	7	6	12	242.30	14.45	5.26	77.80	999.00	233.30	13.82	6.79	78.30	237.90	10.68	11.25	79.95	999.00	-2.39	999.00	-1.89	0.00
23	7	6	13	241.40	13.93	6.52	79.08	999.00	232.20	13.74	7.56	79.61	240.00	9.58	13.34	81.38	999.00	-2.43	999.00	-1.91	0.00
23	7	6	14	254.80	11.64	12.28	80.17	999.00	246.20	11.24	12.56	80.64	253.60	8.60	19.96	82.48	999.00	-2.33	999.00	-1.84	0.00
23	7	6	15	255.70	11.99	7.61	80.88	999.00	247.90	11.71	7.41	81.38	256.90	9.58	13.23	83.12	999.00	-2.29	999.00	-1.85	0.00
23	7	6	16	294.20	13.14	5.73	80.05	999.00	288.20	12.14	7.25	80.42	303.50	7.86	17.46	82.38	999.00	-1.65	999.00	-1.48	0.00
23	7	6	17	300.60	7.77	14.46	79.86	999.00	310.50	7.34	15.52	80.27	351.50	5.99	17.58	81.07	999.00	-1.59	999.00	-1.09	0.00
23	7	6	18	51.63	4.50	14.48	79.26	999.00	44.59	4.72	12.69	79.78	37.18	5.07	16.44	80.35	999.00	-0.99	999.00	-0.64	0.00
23	7	6	19	98.60	4.46	8.79	79.01	999.00	85.40	4.61	8.54	79.32	96.30	3.68	15.79	79.92	999.00	-1.53	999.00	-1.22	0.00
23	7	6	20	89.50	2.85	26.41	78.85	999.00	82.20	3.30	12.82	79.25	103.80	2.80	13.13	79.55	999.00	-0.26	999.00	0.11	0.00
23	7	6	21	266.00	1.48	44.02	78.77	999.00	177.20	2.42	28.49	79.06	170.80	2.95	11.92	78.57	999.00	0.28	999.00	0.16	0.00
23	7	6	22	302.90	7.11	22.70	75.48	999.00	293.10	5.61	32.97	75.31	255.60	1.76	81.70	75.35	999.00	1.35	999.00	1.26	0.00
23	7	6	23	36.30	14.93	8.13	75.85	999.00	27.37	12.48	9.12	76.16	32.29	12.80	11.07	76.13	999.00	-1.36	999.00	-0.83	0.00
23	7	6	24	54.12	16.38	5.55	73.36	999.00	46.70	15.87	6.18	73.84	55.70	10.57	11.78	74.57	999.00	-1.18	999.00	-0.72	0.00
23	7	7	1	55.05	13.47	6.84	999.00	999.00	47.95	13.32	5.76	999.00	62.68	8.74	12.50	73.80	999.00	-1.13	999.00	-0.66	0.00
23	7	7	2	37.90	12.50	7.66	72.21	999.00	29.18	9.92	8.58	72.72	35.40	11.24	10.48	73.70	999.00	-1.56	999.00	-1.03	0.00
23	7	7	3	40.29	11.73	7.96	70.49	999.00	32.43	10.48	8.16	71.00	38.13	10.19	13.32	72.07	999.00	-1.61	999.00	-1.09	0.00
23	7	7	4	40.33	11.92	8.34	69.62	999.00	32.25	10.28	8.90	70.14	37.14	10.83	9.45	71.20	999.00	-1.56	999.00	-1.08	0.00
23	7	7	5	40.98	13.21	6.84	69.15	999.00	32.33	10.97	8.81	69.66	37.68	11.64	10.40	70.72	999.00	-1.54	999.00	-1.02	0.00
23	7	7	6	45.61	12.68	9.71	68.35	999.00	37.68	10.82	10.23	68.88	44.76	10.65	13.28	69.91	999.00	-1.48	999.00	-0.95	0.00
23	7	7	7	47.87	12.06	9.35	67.68	999.00	38.80	10.98	10.05	68.20	46.01	9.52	11.67	69.14	999.00	-1.51	999.00	-1.00	0.00
23	7	7	8	48.72	11.00	11.15	67.90	999.00	40.42	9.84	10.98	68.43	47.03	9.51	11.75	69.20	999.00	-1.42	999.00	-0.86	0.00
23	7	7	9	51.42	12.57	9.92	68.55	999.00	41.02	11.34	10.34	69.11	42.29	11.24	13.58	70.04	999.00	-1.44	999.00	-0.83	0.00
23	7	7	10	57.13	12.94	8.60	68.55	999.00	47.92	11.99	9.28	69.11	58.05	9.62	12.21	70.07	999.00	-1.50	999.00	-1.03	0.00
23	7	7	11	71.60	11.71	6.60	68.73	999.00	62.84	11.34	7.43	69.17	71.60	9.00	16.31	70.48	999.00	-2.07	999.00	-1.53	0.00
23	7	7	12	62.17	9.59	9.89	69.51	999.00	53.61	9.75	10.44	69.94	63.01	7.92	17.87	71.25	999.00	-1.56	999.00	-1.24	0.00
23	7	7	13	51.24	7.81	16.68	69.75	999.00	42.11	7.16	17.47	70.17	45.85	6.47	23.23	71.45	999.00	-1.50	999.00	-0.94	0.00
23	7	7	14	31.20	6.67	17.73	70.46	999.00	19.55	5.87	17.91	71.11	24.09	6.41	22.73	71.95	999.00	-1.57	999.00	-0.90	0.00
23	7	7	15	84.50	6.27	11.75	70.46	999.00	74.20	6.52	13.98	71.11	90.90	5.49	26.53	71.95	999.00	-2.43	999.00	-1.87	0.00
23	7	7	16	95.80	7.29	10.77	71.72	999.00	86.10	7.37	13.54	72.18	85.20	6.07	21.96	74.05	999.00	-2.58	999.00	-2.02	0.00
23	7	7	17	102.00	7.07	9.79	72.21	999.00	94.00	7.08	10.02	72.74	105.30	5.59	21.86	74.72	999.00	-2.36	999.00	-1.92	0.00

23	7	7	18	123.30	7.79	7.86	72.99	999.00	117.80	7.56	9.44	73.44	118.80	5.37	18.61	75.35	999.00	-2.32	999.00	-1.88	0.00
23	7	7	19	120.40	8.36	9.54	73.46	999.00	111.90	7.92	10.79	73.91	115.10	4.77	21.06	75.55	999.00	-1.82	999.00	-1.30	0.00
23	7	7	20	121.90	10.11	4.34	73.58	999.00	111.30	9.73	5.88	73.96	112.90	5.53	17.65	74.93	999.00	-1.12	999.00	-0.73	0.00
23	7	7	21	119.40	11.98	3.34	72.72	999.00	109.60	11.18	4.53	73.18	113.90	5.06	14.67	73.48	999.00	-0.50	999.00	-0.05	0.00
23	7	7	22	122.60	12.67	3.25	72.19	999.00	113.90	11.46	5.09	72.58	119.60	4.10	16.25	72.28	999.00	-0.02	999.00	0.37	0.00
23	7	7	23	125.00	13.49	2.40	72.08	999.00	116.70	11.91	3.75	72.30	129.20	4.51	14.80	71.90	999.00	0.28	999.00	0.45	0.00
23	7	7	24	125.70	14.31	3.39	999.00	999.00	119.20	12.37	5.13	999.00	133.70	4.75	17.07	71.93	999.00	0.17	999.00	0.31	0.00
23	7	8	1	137.80	17.30	1.99	999.00	999.00	129.70	15.12	3.27	999.00	140.20	6.28	16.86	71.97	999.00	0.23	999.00	0.36	0.00
23	7	8	2	124.00	13.40	3.73	70.93	999.00	118.40	11.27	4.80	70.97	123.50	4.08	14.25	70.60	999.00	0.45	999.00	0.49	0.00
23	7	8	3	124.20	14.66	3.47	70.75	999.00	117.60	13.35	4.47	70.96	129.40	5.56	15.00	70.65	999.00	-0.23	999.00	0.07	0.00
23	7	8	4	135.20	19.30	2.57	70.10	999.00	128.40	17.12	5.06	70.40	139.50	7.83	17.28	70.72	999.00	-0.62	999.00	-0.43	0.00
23	7	8	5	140.50	16.29	3.14	68.63	999.00	131.40	13.81	4.74	68.95	135.80	5.91	18.27	69.51	999.00	-0.71	999.00	-0.49	0.00
23	7	8	6	153.20	12.58	4.48	68.14	999.00	145.00	9.98	6.42	68.38	147.90	3.91	24.88	68.80	999.00	-0.69	999.00	-0.46	0.00
23	7	8	7	152.70	14.31	3.34	67.92	999.00	144.60	11.24	5.37	68.05	152.80	3.77	26.65	68.35	999.00	-0.44	999.00	-0.40	0.00
23	7	8	8	161.60	13.09	5.26	68.26	999.00	154.00	11.10	5.90	68.44	167.30	5.24	23.04	69.04	999.00	-1.24	999.00	-0.86	0.00
23	7	8	9	170.30	11.10	6.57	67.48	999.00	162.00	9.49	8.12	68.02	175.20	4.83	21.69	69.08	999.00	-1.70	999.00	-1.12	0.00
23	7	8	10	175.00	9.99	5.97	68.44	999.00	166.50	8.91	7.43	69.01	174.90	4.60	19.84	70.04	999.00	-1.46	999.00	-0.88	0.07
23	7	8	11	243.20	18.65	6.53	67.61	999.00	236.00	17.43	6.96	68.17	246.40	11.25	13.13	68.97	999.00	-1.75	999.00	-1.05	0.26
23	7	8	12	194.80	8.59	6.20	63.51	999.00	180.80	7.52	7.43	63.95	177.40	3.34	22.25	64.85	999.00	-1.45	999.00	-1.02	0.04
23	7	8	13	166.50	11.17	6.95	64.61	999.00	155.40	10.16	7.85	65.04	160.30	5.31	20.58	66.33	999.00	-2.08	999.00	-1.66	0.00
23	7	8	14	215.20	7.41	13.20	65.43	999.00	208.40	6.93	13.57	66.14	221.70	4.78	24.77	67.25	999.00	-1.82	999.00	-0.87	0.00
23	7	8	15	221.10	11.69	10.10	65.43	999.00	211.20	10.77	13.37	66.14	221.30	7.56	19.80	67.25	999.00	-2.16	999.00	-0.61	0.00
23	7	8	16	241.70	10.38	38.55	70.30	999.00	235.00	10.23	40.06	70.98	253.60	6.57	47.27	72.20	999.00	-2.33	999.00	-1.69	0.00
23	7	8	17	1.57	8.58	7.25	69.79	999.00	354.30	8.60	6.80	70.39	2.73	9.00	8.37	72.02	999.00	-1.74	999.00	-1.13	0.00
23	7	8	18	347.90	5.03	13.88	70.49	999.00	345.80	5.39	11.93	71.02	357.80	6.39	7.41	71.90	999.00	-1.40	999.00	-0.88	0.00
23	7	8	19	12.78	5.06	13.73	71.61	999.00	4.79	4.94	12.05	72.31	6.46	6.04	10.86	72.77	999.00	-1.02	999.00	-0.25	0.00
23	7	8	20	89.10	5.74	5.26	71.63	999.00	80.00	5.68	7.08	72.02	84.40	4.03	16.14	72.48	999.00	-1.47	999.00	-0.96	0.00
23	7	8	21	150.50	6.21	7.28	70.88	999.00	135.70	5.82	5.88	71.20	132.50	3.41	13.01	71.78	999.00	-0.47	999.00	-0.41	0.00
23	7	8	22	218.90	6.67	12.61	71.96	999.00	195.30	5.48	20.63	71.88	176.30	1.79	18.22	71.55	999.00	0.73	999.00	0.51	0.00
23	7	8	23	303.80	9.18	19.44	72.12	999.00	287.80	8.29	23.96	72.37	277.30	4.55	30.70	71.50	999.00	0.00	999.00	0.40	0.00
23	7	8	24	338.30	14.63	4.45	71.07	999.00	330.90	13.61	5.43	71.53	337.50	7.39	11.25	71.88	999.00	-0.99	999.00	-0.51	0.00
23	7	9	1	339.70	13.85	4.57	69.36	999.00	332.70	13.33	5.41	69.86	340.10	8.52	13.10	70.56	999.00	-1.13	999.00	-0.67	0.00
23	7	9	2	328.10	12.51	5.29	68.17	999.00	319.30	11.82	6.45	68.63	322.80	6.14	13.64	69.02	999.00	-0.73	999.00	-0.28	0.00
23	7	9	3	318.80	14.49	4.41	67.16	999.00	309.80	14.06	4.99	67.62	315.10	8.03	12.54	67.78	999.00	-0.85	999.00	-0.38	0.00
23	7	9	4	325.80	12.17	5.21	65.26	999.00	316.90	11.62	5.23	65.73	319.80	7.28	11.39	66.16	999.00	-0.89	999.00	-0.43	0.00
23	7	9	5	324.40	14.50	5.46	64.43	999.00	315.30	14.02	6.38	64.90	316.30	8.05	12.11	65.42	999.00	-1.00	999.00	-0.53	0.00
23	7	9	6	329.50	13.62	5.34	63.96	999.00	319.90	13.20	6.26	64.42	321.20	8.60	11.07	65.14	999.00	-1.22	999.00	-0.76	0.00
23	7	9	7	343.20	11.97	5.52	63.87	999.00	335.40	11.75	6.54	64.33	342.20	7.76	13.95	65.23	999.00	-1.45	999.00	-0.99	0.00
23	7	9	8	338.60	11.42	5.86	64.07	999.00	332.10	11.31	6.98	64.56	337.20	7.88	13.86	65.67	999.00	-1.71	999.00	-1.21	0.00
23	7	9	9	347.70	7.55	6.12	64.36	999.00	340.30	7.28	6.76	64.85	342.90	5.55	11.16	66.03	999.00	-1.62	999.00	-1.12	0.00
23	7	9	10	329.50	10.19	7.87	64.99	999.00	319.30	10.22	8.60	65.51	322.70	7.29	15.95	66.86	999.00	-1.89	999.00	-1.38	0.00
23	7	9	11	331.20	12.56	5.61	65.13	999.00	321.60	12.20	6.33	65.64	326.40	8.76	13.34	67.11	999.00	-2.17	999.00	-1.63	0.00
23	7	9	12	330.40	11.77	6.64	65.72	999.00	320.90	11.61	7.74	66.24	327.40	8.25	13.75	68.09	999.00	-2.19	999.00	-1.69	0.00
23	7	9	13	337.70	14.29	7.82	66.66	999.00	330.20	14.04	8.99	67.25	338.00	10.90	13.05	69.34	999.00	-2.65	999.00	-2.03	0.00
23	7	9	14	350.00	14.13	6.21	66.96	999.00	342.10	13.88	6.29	67.61	350.90	11.64	11.90	69.26	999.00	-2.13	999.00	-1.52	0.00
23	7	9	15	332.80	11.48	7.49	67.87	999.00	324.10	11.46	8.89	68.47	332.90	8.63	16.34	69.98	999.00	-2.72	999.00	-2.12	0.00
23	7	9	16	323.80	8.63	10.32	68.73	999.00	314.20	8.60	12.20	69.43	327.40	6.32	21.64	71.55	999.00	-2.80	999.00	-2.09	0.00
23	7	9	17	313.00	10.34	10.46	69.56	999.00	304.60	10.13	10.55	70.10	315.80	7.20	18.44	72.40	999.00	-3.07	999.00	-2.53	0.00
23	7	9	18	316.10	10.87	10.76	71.60	999.00	308.90	11.02	10.77	72.10	318.60	8.70	16.88	74.70	999.00	-3.17	999.00	-2.71	0.00
23	7	9	19	307.30	8.76	9.48	71.60	999.00	299.70	8.70	10.44	72.10	309.20	6.27	18.63	74.70	999.00	-2.67	999.00	-2.03	0.00
23	7	9	20	306.40	4.51	8.15	73.81	999.00	299.60	4.24	9.28	74.31	300.00	2.54	21.40	75.90	999.00	-1.87	999.00	-1.30	0.00
23	7	9	21	69.28	1.99	9.95	73.58	999.00	73.10	2.84	3.71	74.12	95.40	2.26	5.72	74.40	999.00	-0.36	999.00	-0.13	0.00
23	7	9	22	101.30	5.73	6.07	73.58	999.00	95.20	5.44	5.05	74.12	115.00	2.82	8.25	74.40	999.00	-0.26	999.00	0.22	0.00

23	7	9	23	123.50	7.80	2.41	72.31	999.00	113.40	7.74	2.72	72.80	139.50	2.97	8.31	71.40	999.00	1.37	999.00	1.85	0.00
23	7	9	24	146.30	9.01	6.79	71.52	999.00	140.50	9.62	10.09	71.93	192.40	2.29	24.17	69.49	999.00	2.89	999.00	3.16	0.00
23	7	10	1	179.60	11.50	1.94	70.42	999.00	177.50	11.53	1.36	70.37	182.80	2.06	22.79	67.54	999.00	2.95	999.00	2.92	0.00
23	7	10	2	196.20	10.71	1.56	70.52	999.00	187.40	10.69	2.48	69.97	201.50	3.09	11.67	67.26	999.00	3.67	999.00	2.84	0.00
23	7	10	3	224.20	11.16	7.25	70.72	999.00	214.40	10.99	3.79	70.49	207.10	3.50	12.60	66.44	999.00	4.28	999.00	4.32	0.00
23	7	10	4	243.90	13.54	2.42	69.97	999.00	223.70	11.84	2.06	69.36	200.80	4.46	9.75	66.13	999.00	3.41	999.00	2.47	0.00
23	7	10	5	254.20	13.72	1.14	68.75	999.00	237.20	11.25	2.63	67.18	206.00	3.66	10.18	64.80	999.00	4.75	999.00	3.07	0.00
23	7	10	6	263.60	14.52	3.10	69.74	999.00	246.00	12.15	3.05	67.74	211.10	3.69	10.39	64.02	999.00	6.61	999.00	4.51	0.00
23	7	10	7	286.30	13.08	6.26	69.74	999.00	263.70	9.86	6.29	67.74	247.60	4.34	12.34	64.02	999.00	1.34	999.00	0.57	0.00
23	7	10	8	327.30	10.70	2.46	67.41	999.00	300.00	7.76	7.25	65.55	231.60	2.44	13.73	64.33	999.00	3.03	999.00	1.35	0.00
23	7	10	9	308.40	4.40	13.78	68.16	999.00	265.90	3.48	19.86	67.40	235.80	3.44	14.05	67.96	999.00	-0.99	999.00	-0.86	0.00
23	7	10	10	280.10	5.06	13.87	68.16	999.00	269.40	5.09	16.63	67.40	277.00	4.31	21.69	67.96	999.00	-2.60	999.00	-1.91	0.00
23	7	10	11	287.30	7.64	11.70	72.67	999.00	279.80	7.55	12.74	73.29	291.10	5.55	20.60	75.08	999.00	-2.80	999.00	-2.19	0.00
23	7	10	12	317.30	6.38	18.12	74.82	999.00	310.20	6.64	17.00	75.48	331.30	5.07	25.03	77.97	999.00	-3.55	999.00	-2.82	0.00
23	7	10	13	282.20	6.30	17.84	76.20	999.00	275.60	6.01	17.65	76.87	296.20	4.50	28.94	79.30	999.00	-3.37	999.00	-2.76	0.00
23	7	10	14	309.60	3.64	50.28	77.52	999.00	307.90	3.51	54.94	78.44	350.80	2.61	57.82	80.13	999.00	-2.91	999.00	-1.86	0.00
23	7	10	15	64.36	6.30	16.83	78.23	999.00	59.62	6.48	13.54	79.07	75.50	5.36	30.25	80.57	999.00	-1.83	999.00	-1.46	0.00
23	7	10	16	84.40	6.02	21.05	78.13	999.00	78.20	6.30	21.50	78.55	89.10	5.38	25.45	79.92	999.00	-1.91	999.00	-1.51	0.00
23	7	10	17	122.30	7.81	11.56	999.00	999.00	107.20	8.17	8.89	999.00	108.00	5.61	21.08	80.13	999.00	-1.75	999.00	-1.57	0.00
23	7	10	18	260.70	5.74	63.93	79.94	999.00	269.00	4.79	71.90	80.48	354.30	3.48	74.30	81.47	999.00	-1.50	999.00	-0.86	0.00
23	7	10	19	245.00	10.96	7.90	81.13	999.00	236.30	10.69	7.82	81.67	247.50	6.77	13.53	82.75	999.00	-1.48	999.00	-0.93	0.00
23	7	10	20	236.40	11.52	3.53	81.09	999.00	227.40	10.67	4.36	81.50	226.10	5.38	12.81	81.93	999.00	-0.41	999.00	-0.02	0.00
23	7	10	21	234.70	11.97	2.41	80.77	999.00	220.20	11.13	2.92	81.10	206.40	4.12	10.57	80.38	999.00	1.21	999.00	1.40	0.00
23	7	10	22	237.40	12.65	3.14	80.77	999.00	222.60	11.84	4.64	81.10	208.10	3.27	11.78	80.38	999.00	3.26	999.00	3.12	0.00
23	7	10	23	250.90	17.44	2.21	78.48	999.00	238.10	13.92	3.16	77.85	220.80	5.01	12.36	75.57	999.00	2.88	999.00	2.23	0.00
23	7	10	24	250.10	18.89	2.45	76.36	999.00	235.30	14.83	2.57	75.52	223.20	5.11	10.59	73.25	999.00	3.20	999.00	2.24	0.00
23	7	11	1	258.20	19.48	2.66	74.59	999.00	244.60	14.70	4.92	73.63	236.90	7.05	8.14	71.90	999.00	2.17	999.00	1.29	0.00
23	7	11	2	258.70	19.65	1.57	73.34	999.00	243.90	14.36	3.39	72.03	233.50	6.65	9.12	70.63	999.00	3.54	999.00	1.91	0.00
23	7	11	3	254.80	20.14	1.39	73.44	999.00	237.90	15.16	2.71	71.27	212.80	4.85	12.78	69.29	999.00	5.05	999.00	2.63	0.00
23	7	11	4	260.10	19.58	0.90	72.13	999.00	243.10	14.99	2.84	70.14	232.70	5.32	9.46	67.81	999.00	4.07	999.00	2.20	0.00
23	7	11	5	252.80	18.99	1.84	70.46	999.00	233.30	14.35	2.24	68.64	207.90	4.46	11.25	66.90	999.00	4.24	999.00	2.28	0.00
23	7	11	6	246.60	18.94	1.34	70.17	999.00	226.30	15.05	1.87	68.21	202.50	5.42	10.29	65.88	999.00	4.77	999.00	2.38	0.00
23	7	11	7	239.60	19.01	1.87	69.46	999.00	223.50	15.31	2.97	67.76	208.20	5.28	9.43	65.52	999.00	3.22	999.00	1.89	0.00
23	7	11	8	242.50	17.56	4.09	68.62	999.00	229.70	13.77	5.21	67.33	224.60	6.21	13.16	66.83	999.00	0.60	999.00	-0.14	0.00
23	7	11	9	243.00	15.19	5.77	69.16	999.00	233.90	14.34	6.40	69.21	237.20	10.09	12.02	70.25	999.00	-1.74	999.00	-1.33	0.00
23	7	11	10	241.50	13.58	5.39	71.92	999.00	234.10	13.34	5.92	72.45	242.80	9.51	12.26	73.95	999.00	-2.24	999.00	-1.67	0.00
23	7	11	11	241.20	17.11	5.81	74.41	999.00	233.90	16.81	6.02	74.89	244.60	12.10	12.93	76.63	999.00	-2.18	999.00	-1.70	0.00
23	7	11	12	244.70	19.57	4.88	76.80	999.00	235.70	19.43	4.86	77.27	243.00	13.53	10.18	78.72	999.00	-1.78	999.00	-1.32	0.00
23	7	11	13	251.00	18.49	7.59	78.55	999.00	242.00	17.88	8.35	79.02	248.20	12.23	12.73	80.52	999.00	-1.89	999.00	-1.42	0.00
23	7	11	14	255.90	21.06	7.83	80.09	999.00	247.00	19.93	8.28	80.56	252.20	13.98	11.81	81.93	999.00	-2.01	999.00	-1.54	0.00
23	7	11	15	251.60	22.06	9.86	81.49	999.00	243.70	20.41	10.72	81.97	252.80	14.51	14.70	83.48	999.00	-2.03	999.00	-1.54	0.00
23	7	11	16	243.30	23.78	11.59	82.74	999.00	234.40	23.30	12.01	83.18	241.60	16.07	16.16	84.68	999.00	-1.71	999.00	-1.25	0.00
23	7	11	17	238.00	24.32	7.94	83.44	999.00	230.30	23.11	7.38	83.89	239.40	15.30	12.82	85.15	999.00	-1.22	999.00	-0.79	0.00
23	7	11	18	237.00	23.88	6.90	83.64	999.00	228.10	22.91	7.29	84.06	236.60	14.11	11.22	84.55	999.00	-1.02	999.00	-0.59	0.00
23	7	11	19	241.70	17.12	5.15	83.01	999.00	233.00	15.63	5.55	83.42	239.00	9.48	10.67	83.88	999.00	-0.85	999.00	-0.47	0.00
23	7	11	20	245.80	19.22	5.36	83.03	999.00	236.70	17.54	5.37	83.41	243.50	10.73	9.99	83.55	999.00	-0.44	999.00	-0.08	0.00
23	7	11	21	263.90	18.62	24.70	81.93	999.00	254.50	17.12	23.75	82.25	263.50	9.66	23.34	82.25	999.00	-0.53	999.00	-0.14	0.00
23	7	11	22	313.90	16.89	4.89	73.79	999.00	303.80	15.53	5.45	73.70	302.20	7.91	13.67	73.73	999.00	-0.16	999.00	0.01	0.00
23	7	11	23	282.40	15.07	1.19	76.09	999.00	270.00	12.73	3.07	74.96	227.50	4.47	10.99	72.78	999.00	4.51	999.00	3.62	0.00
23	7	11	24	267.80	13.40	5.03	76.20	999.00	247.70	11.10	7.49	75.61	196.80	4.74	10.28	72.35	999.00	3.66	999.00	3.12	0.00
23	7	12	1	257.50	13.60	3.14	74.67	999.00	239.10	11.65	3.54	74.20	221.50	4.89	10.19	72.27	999.00	2.00	999.00	1.40	0.00
23	7	12	2	249.80	12.67	4.32	999.00	999.00	233.90	11.86	2.73	999.00	205.70	4.98	12.88	72.50	999.00	1.92	999.00	0.83	0.00
23	7	12	3	261.00	12.62	5.38	73.13	999.00	247.30	10.05	6.35	72.64	244.90	5.55	8.77	72.30	999.00	-0.20	999.00	-0.19	0.00

23	7	12	4	321.70	8.13	5.28	999.00	999.00	311.90	6.72	6.13	999.00	278.00	3.07	22.83	70.33	999.00	1.43	999.00	0.71	0.00
23	7	12	5	308.60	10.31	4.10	71.05	999.00	295.50	9.07	4.34	70.26	255.40	4.12	8.02	68.88	999.00	2.64	999.00	1.67	0.00
23	7	12	6	307.00	7.63	7.83	69.92	999.00	287.40	7.76	7.47	70.17	271.70	2.71	18.55	68.00	999.00	0.58	999.00	1.90	0.00
23	7	12	7	50.77	8.13	24.22	66.83	999.00	38.03	7.15	30.69	67.89	32.52	3.85	64.49	67.33	999.00	-0.62	999.00	0.32	0.19
23	7	12	8	60.59	10.48	8.32	66.18	999.00	48.82	9.64	9.73	66.94	56.63	6.75	14.57	67.41	999.00	-1.12	999.00	-0.51	0.00
23	7	12	9	65.94	5.32	15.54	66.91	999.00	53.70	4.65	17.50	67.60	48.17	3.74	22.74	68.04	999.00	-0.98	999.00	-0.19	0.09
23	7	12	10	76.60	9.16	7.25	67.65	999.00	65.57	8.96	8.77	68.30	71.60	5.92	15.43	68.85	999.00	-1.19	999.00	-0.83	0.00
23	7	12	11	73.50	11.42	8.84	68.97	999.00	63.87	11.20	10.64	69.15	76.00	8.08	16.35	70.33	999.00	-1.63	999.00	-1.84	0.00
23	7	12	12	94.10	10.80	8.04	69.96	999.00	82.30	10.19	11.13	69.74	86.20	7.40	18.30	72.28	999.00	-2.07	999.00	-2.51	0.00
23	7	12	13	107.80	7.67	9.81	71.22	999.00	96.50	7.38	12.28	70.86	99.20	4.69	23.23	73.15	999.00	-1.75	999.00	-2.01	0.00
23	7	12	14	77.70	5.41	32.00	72.14	999.00	65.42	5.62	27.23	72.81	71.90	5.47	24.23	74.00	999.00	-2.42	999.00	-1.19	0.00
23	7	12	15	217.60	8.77	10.67	73.36	999.00	207.80	8.38	12.87	74.06	217.00	5.05	19.63	75.10	999.00	-1.54	999.00	-0.90	0.00
23	7	12	16	248.20	6.81	8.59	73.87	999.00	239.30	6.72	8.45	74.46	248.40	5.27	14.32	75.65	999.00	-1.87	999.00	-1.35	0.00
23	7	12	17	276.30	5.60	9.01	75.48	999.00	268.50	5.43	10.35	76.01	277.50	4.14	11.16	77.60	999.00	-1.87	999.00	-1.36	0.10
23	7	12	18	25.23	1.89	56.24	75.45	999.00	22.10	2.78	33.54	75.92	57.80	3.70	26.17	76.73	999.00	-0.59	999.00	-0.23	0.26
23	7	12	19	150.20	14.33	7.38	73.95	999.00	137.40	12.96	7.96	74.33	138.10	7.25	17.82	75.10	999.00	-1.41	999.00	-1.06	0.01
23	7	12	20	136.10	7.29	9.63	72.78	999.00	123.00	7.11	9.47	73.09	119.50	4.15	15.25	73.90	999.00	-0.98	999.00	-0.62	0.00
23	7	12	21	100.00	9.39	3.72	72.78	999.00	87.80	9.13	4.19	72.95	92.10	4.78	13.62	73.50	999.00	-1.02	999.00	-0.60	0.00
23	7	12	22	136.60	13.76	6.09	72.54	999.00	125.30	12.17	6.78	72.99	133.80	6.02	16.60	73.50	999.00	-0.94	999.00	-0.56	0.00
23	7	12	23	156.70	19.49	4.91	72.25	999.00	147.00	16.10	5.95	72.39	151.80	6.12	21.46	72.93	999.00	-0.29	999.00	-0.35	0.00
23	7	12	24	194.30	23.02	4.50	73.63	999.00	183.70	19.25	5.27	73.39	195.10	8.50	16.67	73.27	999.00	0.20	999.00	0.02	0.00
23	7	13	1	201.80	26.43	4.78	74.42	999.00	191.30	22.75	5.87	74.32	197.70	11.17	16.60	74.20	999.00	-0.01	999.00	0.00	0.00
23	7	13	2	209.60	28.91	5.17	74.70	999.00	200.40	25.35	5.69	74.91	207.00	11.54	16.68	75.20	999.00	-0.54	999.00	-0.31	0.00
23	7	13	3	215.90	29.72	5.15	999.00	999.00	206.60	26.64	6.32	999.00	213.20	13.02	16.40	76.15	999.00	-0.42	999.00	-0.13	0.00
23	7	13	4	239.90	24.95	5.69	75.98	999.00	230.80	23.17	5.77	76.31	234.30	13.87	11.41	76.57	999.00	-0.69	999.00	-0.32	0.00
23	7	13	5	275.30	25.76	7.25	74.83	999.00	265.90	23.15	9.08	75.30	270.60	14.81	12.26	75.82	999.00	-1.23	999.00	-0.72	0.00
23	7	13	6	272.10	22.33	5.26	74.83	999.00	261.30	20.06	5.95	75.30	265.30	12.04	11.34	75.82	999.00	-0.90	999.00	-0.48	0.00
23	7	13	7	317.00	26.47	5.31	67.15	999.00	309.10	25.71	5.84	67.70	319.30	16.29	11.34	68.68	999.00	-1.68	999.00	-1.13	0.00
23	7	13	8	301.00	18.34	4.88	63.73	999.00	290.80	16.73	5.44	64.22	292.10	11.11	12.72	65.28	999.00	-1.52	999.00	-1.05	0.00
23	7	13	9	328.60	14.16	6.84	64.28	999.00	319.40	13.71	7.64	64.79	329.40	9.92	14.30	66.14	999.00	-2.00	999.00	-1.46	0.00
23	7	13	10	297.50	11.45	6.26	63.99	999.00	288.00	11.10	6.62	64.51	290.80	7.92	12.97	65.94	999.00	-1.91	999.00	-1.40	0.00
23	7	13	11	309.20	10.55	5.36	63.89	999.00	299.40	10.46	6.36	64.39	305.10	7.73	13.69	65.87	999.00	-2.18	999.00	-1.71	0.00
23	7	13	12	297.90	8.70	7.32	63.89	999.00	287.30	8.82	8.09	64.39	286.80	7.35	13.43	65.87	999.00	-2.39	999.00	-1.89	0.00
23	7	13	13	323.60	8.04	15.22	65.59	999.00	316.70	8.06	17.01	66.19	329.60	6.00	26.07	68.61	999.00	-3.49	999.00	-2.74	0.00
23	7	13	14	331.40	9.50	8.72	66.35	999.00	322.80	9.78	10.67	67.08	331.80	8.23	15.63	69.18	999.00	-2.90	999.00	-2.30	0.00
23	7	13	15	337.10	8.51	10.56	66.72	999.00	330.80	8.66	10.29	67.40	349.20	6.90	17.78	69.33	999.00	-2.26	999.00	-1.60	0.00
23	7	13	16	345.60	6.13	19.27	67.68	999.00	340.50	6.40	17.05	68.40	354.80	5.95	18.70	70.63	999.00	-2.34	999.00	-1.58	0.00
23	7	13	17	331.30	6.88	19.57	68.86	999.00	327.00	6.76	17.98	69.63	348.50	5.28	20.48	72.20	999.00	-3.02	999.00	-2.29	0.00
23	7	13	18	344.40	8.35	12.94	69.48	999.00	338.60	8.50	12.13	70.22	351.40	7.55	15.17	72.13	999.00	-2.09	999.00	-1.39	0.00
23	7	13	19	338.00	6.30	10.44	70.05	999.00	334.10	6.17	10.57	70.81	350.00	5.70	17.11	71.82	999.00	-1.89	999.00	-1.07	0.00
23	7	13	20	331.20	7.78	7.24	70.63	999.00	324.80	7.85	7.20	71.25	336.10	5.50	13.48	72.38	999.00	-1.84	999.00	-1.19	0.00
23	7	13	21	328.10	7.26	5.49	70.89	999.00	320.20	6.84	5.78	71.48	303.40	2.79	11.10	72.23	999.00	-0.41	999.00	0.02	0.00
23	7	13	22	288.60	2.50	15.93	70.96	999.00	286.90	2.12	25.02	71.35	191.70	2.30	24.78	71.30	999.00	-0.08	999.00	0.24	0.00
23	7	13	23	209.70	4.61	5.63	70.95	999.00	182.50	6.19	2.36	70.66	179.70	2.65	13.30	69.24	999.00	2.29	999.00	1.88	0.00
23	7	13	24	217.60	4.85	2.97	70.75	999.00	201.60	5.00	1.36	70.53	184.40	3.17	8.82	67.99	999.00	2.75	999.00	2.72	0.00
23	7	14	1	211.10	7.98	3.69	70.43	999.00	195.00	9.78	2.57	70.06	219.40	4.22	8.38	67.35	999.00	3.21	999.00	2.27	0.00
23	7	14	2	217.10	7.03	4.53	70.43	999.00	199.00	8.43	2.68	70.06	215.30	3.64	10.09	67.35	999.00	3.57	999.00	3.21	0.00
23	7	14	3	210.20	10.16	2.11	69.15	999.00	205.50	10.30	5.48	68.27	221.20	4.34	10.60	65.53	999.00	3.73	999.00	2.14	0.00
23	7	14	4	215.80	9.49	6.44	68.70	999.00	202.00	11.30	3.24	66.35	213.10	4.17	14.00	64.45	999.00	4.22	999.00	2.10	0.00
23	7	14	5	226.70	10.16	1.83	68.31	999.00	209.30	11.66	2.07	66.64	216.80	4.41	12.76	64.02	999.00	4.44	999.00	2.62	0.00
23	7	14	6	224.70	12.39	1.49	68.27	999.00	215.10	12.29	6.00	67.42	224.90	4.01	13.52	63.86	999.00	3.63	999.00	1.85	0.00
23	7	14	7	218.40	13.14	5.11	67.72	999.00	206.60	12.41	4.70	67.31	215.40	3.52	12.05	63.78	999.00	3.18	999.00	2.35	0.00
23	7	14	8	238.60	8.13	2.43	67.72	999.00	221.50	9.28	5.20	67.31	212.60	5.77	13.37	63.78	999.00	2.05	999.00	-0.03	0.00

23	7	14	9	240.50	5.73	11.00	67.40	999.00	233.40	5.05	9.41	66.73	233.40	4.30	15.20	67.46	999.00	-1.26	999.00	-1.04	0.00
23	7	14	10	217.40	6.39	10.71	68.97	999.00	210.50	6.29	12.49	69.84	226.70	5.25	23.44	70.89	999.00	-2.20	999.00	-1.03	0.00
23	7	14	11	220.50	8.51	11.32	71.24	999.00	210.80	8.03	12.61	72.09	223.10	6.27	17.86	73.33	999.00	-2.14	999.00	-1.05	0.00
23	7	14	12	217.60	7.38	12.14	73.14	999.00	206.10	6.82	12.60	74.06	219.60	5.54	22.35	75.50	999.00	-2.23	999.00	-1.11	0.00
23	7	14	13	224.30	9.00	10.40	74.76	999.00	216.60	8.87	9.87	75.85	232.80	6.86	14.84	77.13	999.00	-2.31	999.00	-1.66	0.00
23	7	14	14	225.80	9.25	10.54	76.66	999.00	213.40	8.54	13.46	77.42	222.30	6.74	22.88	79.07	999.00	-2.35	999.00	-1.43	0.00
23	7	14	15	218.60	11.61	15.27	78.05	999.00	207.20	10.65	17.69	78.79	219.70	8.13	21.05	80.45	999.00	-2.34	999.00	-1.47	0.00
23	7	14	16	217.90	12.95	10.32	79.60	999.00	209.70	12.20	10.88	80.19	220.50	8.14	16.04	82.05	999.00	-2.27	999.00	-1.72	0.00
23	7	14	17	216.90	14.84	7.69	999.00	999.00	209.20	13.96	9.14	999.00	219.10	8.47	16.62	82.70	999.00	-2.06	999.00	-1.49	0.00
23	7	14	18	227.60	13.99	9.53	81.41	999.00	219.10	13.19	10.00	81.95	230.70	9.24	13.80	83.50	999.00	-1.97	999.00	-1.53	0.00
23	7	14	19	215.80	10.36	7.74	82.04	999.00	207.20	9.77	8.47	82.59	215.10	5.55	15.89	83.65	999.00	-1.09	999.00	-0.51	0.00
23	7	14	20	202.20	12.39	4.67	999.00	999.00	191.20	10.44	5.87	999.00	198.50	4.43	17.54	82.50	999.00	-0.38	999.00	-0.05	0.00
23	7	14	21	179.40	18.16	6.47	77.30	999.00	168.20	17.46	7.23	77.01	175.60	5.58	26.90	75.57	999.00	4.18	999.00	3.37	0.00
23	7	14	22	27.43	24.87	74.00	78.21	999.00	24.02	21.27	68.82	77.30	19.57	18.14	42.82	72.73	999.00	2.38	999.00	2.08	0.53
23	7	14	23	38.61	18.97	22.37	78.21	999.00	28.77	17.71	23.24	77.30	29.50	15.36	24.47	72.73	999.00	-0.33	999.00	-0.71	0.66
23	7	14	24	176.70	16.25	3.83	69.17	999.00	161.40	14.72	3.86	68.86	173.40	5.53	19.80	68.45	999.00	0.34	999.00	0.26	0.02
23	7	15	1	143.80	15.30	4.69	69.61	999.00	134.90	12.65	7.07	69.07	145.50	5.46	16.81	68.54	999.00	0.28	999.00	0.19	0.00
23	7	15	2	158.10	19.79	2.68	70.48	999.00	151.60	14.80	4.57	70.45	165.00	4.22	26.33	69.23	999.00	2.32	999.00	1.47	0.00
23	7	15	3	179.00	18.41	2.42	72.03	999.00	174.40	13.37	4.04	71.08	195.20	3.78	17.80	69.45	999.00	2.94	999.00	1.75	0.00
23	7	15	4	201.10	20.25	1.11	999.00	999.00	186.40	15.12	2.55	999.00	193.00	4.47	15.33	69.48	999.00	5.48	999.00	2.73	0.00
23	7	15	5	205.70	19.38	2.00	74.53	999.00	192.10	15.29	1.78	72.33	193.10	4.09	16.89	69.47	999.00	4.23	999.00	2.93	0.00
23	7	15	6	326.10	22.25	7.15	71.16	999.00	317.00	20.65	8.04	71.03	320.90	11.94	17.76	70.06	999.00	-0.62	999.00	-0.17	0.00
23	7	15	7	356.30	10.00	6.54	69.13	999.00	348.90	9.12	6.47	69.48	353.80	6.09	10.90	70.04	999.00	-1.23	999.00	-0.81	0.00
23	7	15	8	111.00	6.32	4.64	69.28	999.00	106.60	6.09	3.89	69.69	121.30	3.62	11.66	70.30	999.00	-0.80	999.00	-0.44	0.00
23	7	15	9	185.20	4.68	25.62	999.00	999.00	194.90	4.00	27.25	999.00	255.70	3.03	20.06	70.57	999.00	-1.07	999.00	-0.70	0.00
23	7	15	10	165.80	4.78	9.20	999.00	999.00	164.80	3.56	14.53	999.00	191.00	2.58	29.85	70.47	999.00	-1.13	999.00	-0.84	0.00
23	7	15	11	117.80	5.72	7.78	999.00	999.00	108.90	5.38	7.23	999.00	112.00	3.60	16.36	71.07	999.00	-1.35	999.00	-1.02	0.00
23	7	15	12	105.40	5.42	12.04	70.38	999.00	91.60	4.45	15.40	70.74	64.38	2.32	26.73	71.50	999.00	-1.12	999.00	-0.73	0.01
23	7	15	13	106.30	2.02	12.53	70.76	999.00	95.70	2.00	8.89	71.07	93.40	1.64	15.66	71.45	999.00	0.08	999.00	0.36	0.18
23	7	15	14	153.60	3.00	15.30	69.48	999.00	146.20	2.30	26.78	69.59	189.50	1.22	62.10	68.88	999.00	-0.02	999.00	0.27	0.08
23	7	15	15	283.30	3.85	31.81	68.76	999.00	272.60	4.03	34.70	69.14	276.40	2.40	32.20	69.00	999.00	-0.66	999.00	-0.29	0.08
23	7	15	16	3.49	8.36	7.45	67.67	999.00	352.40	8.40	7.97	68.05	1.54	7.65	13.36	68.45	999.00	-0.84	999.00	-0.45	0.01
23	7	15	17	77.70	4.84	9.84	67.16	999.00	63.98	4.84	9.96	67.72	74.40	3.60	19.31	67.90	999.00	-0.85	999.00	0.02	0.04
23	7	15	18	148.70	4.17	26.33	67.04	999.00	128.60	3.06	23.01	67.75	116.50	2.44	20.86	67.69	999.00	-0.36	999.00	-0.33	0.12
23	7	15	19	167.70	7.93	6.93	68.18	999.00	156.30	7.11	7.72	68.99	163.70	3.43	27.95	68.91	999.00	-0.85	999.00	0.06	0.00
23	7	15	20	153.10	6.23	8.32	68.24	999.00	140.40	5.70	8.56	68.85	140.30	3.47	20.13	69.14	999.00	-0.94	999.00	-0.52	0.00
23	7	15	21	144.40	8.54	4.67	68.13	999.00	135.60	8.01	6.48	68.52	147.30	4.37	15.58	68.91	999.00	-0.92	999.00	-0.26	0.00
23	7	15	22	159.30	7.71	4.41	67.52	999.00	149.10	6.56	6.69	68.09	164.80	2.83	24.50	68.42	999.00	-0.99	999.00	-0.47	0.00
23	7	15	23	173.00	6.07	5.41	67.21	999.00	170.60	5.48	7.44	67.79	191.80	1.66	26.82	67.85	999.00	-0.75	999.00	-0.11	0.00
23	7	15	24	164.70	8.91	1.86	66.46	999.00	163.00	7.96	2.77	66.95	183.50	3.23	17.73	67.31	999.00	-0.54	999.00	-0.12	0.00
23	7	16	1	187.20	10.89	2.35	66.32	999.00	186.30	10.47	2.72	66.50	211.40	4.22	13.65	66.43	999.00	-0.04	999.00	-0.01	0.00
23	7	16	2	196.70	11.72	1.82	66.04	999.00	191.80	10.24	1.80	66.02	207.50	3.28	13.29	65.69	999.00	0.51	999.00	0.59	0.00
23	7	16	3	201.40	12.65	1.76	66.14	999.00	194.80	9.76	3.17	65.79	207.70	3.42	14.79	65.24	999.00	1.59	999.00	0.64	0.00
23	7	16	4	229.40	10.07	4.06	65.74	999.00	218.30	7.77	5.62	64.71	219.50	4.72	13.04	64.93	999.00	0.23	999.00	-0.24	0.00
23	7	16	5	238.40	9.01	5.61	64.68	999.00	225.60	8.25	5.88	64.73	209.90	4.09	13.48	64.92	999.00	-0.24	999.00	-0.07	0.00
23	7	16	6	239.70	11.39	5.97	65.39	999.00	229.70	10.59	7.02	65.64	233.10	6.91	12.84	66.07	999.00	-0.73	999.00	-0.46	0.00
23	7	16	7	251.90	12.03	6.22	65.98	999.00	241.40	11.62	5.69	66.22	244.70	8.62	10.66	66.65	999.00	-0.68	999.00	-0.44	0.00
23	7	16	8	259.20	10.68	5.61	66.12	999.00	249.40	10.10	7.19	66.35	255.50	6.99	12.34	66.78	999.00	-0.70	999.00	-0.48	0.00
23	7	16	9	260.60	9.06	6.06	66.77	999.00	246.90	8.60	7.14	66.81	246.30	7.05	10.98	67.18	999.00	-0.22	999.00	-0.29	0.00
23	7	16	10	235.10	7.25	7.87	68.31	999.00	218.50	6.61	10.69	68.19	223.30	5.20	17.05	68.32	999.00	-0.09	999.00	-0.20	0.00
23	7	16	11	230.60	8.02	8.55	71.15	999.00	221.40	7.83	11.31	71.79	238.70	6.25	13.64	71.30	999.00	-0.03	999.00	0.74	0.00
23	7	16	12	244.50	11.70	6.32	74.00	999.00	235.00	11.45	6.59	74.91	245.30	8.71	11.72	75.53	999.00	-1.93	999.00	-0.75	0.00
23	7	16	13	243.20	15.75	5.84	75.08	999.00	233.30	15.42	5.97	75.49	241.90	11.28	11.24	77.65	999.00	-3.17	999.00	-1.41	0.00

23	7	16	14	249.80	18.64	7.07	76.54	999.00	240.40	17.84	7.70	77.02	249.10	12.59	11.84	78.18	999.00	-1.56	999.00	-1.11	0.00
23	7	16	15	256.30	17.75	5.30	77.18	999.00	246.10	16.27	6.47	77.62	251.60	10.64	10.94	78.60	999.00	-1.33	999.00	-0.90	0.00
23	7	16	16	259.40	20.72	5.51	77.49	999.00	249.80	18.79	6.78	77.93	256.70	12.22	12.82	79.03	999.00	-1.59	999.00	-1.15	0.00
23	7	16	17	252.40	20.46	6.03	999.00	999.00	243.40	19.44	6.40	999.00	248.00	12.67	12.12	79.40	999.00	-1.44	999.00	-0.97	0.00
23	7	16	18	258.30	18.53	5.73	78.25	999.00	249.70	17.10	6.83	78.66	256.80	11.27	12.20	79.55	999.00	-1.27	999.00	-0.86	0.00
23	7	16	19	261.90	16.30	6.28	78.02	999.00	253.20	14.31	6.92	78.42	259.10	9.10	12.10	79.05	999.00	-0.90	999.00	-0.51	0.00
23	7	16	20	266.10	13.68	4.85	77.49	999.00	256.50	11.92	5.52	77.81	258.20	5.90	10.52	77.88	999.00	-0.05	999.00	0.25	0.00
23	7	16	21	278.40	12.75	3.40	76.68	999.00	264.70	11.22	3.42	76.88	261.80	4.77	7.36	76.32	999.00	0.76	999.00	0.94	0.00
23	7	16	22	298.60	11.20	1.52	75.41	999.00	285.80	9.49	2.29	75.45	266.30	3.33	5.76	74.52	999.00	1.15	999.00	1.23	0.00
23	7	16	23	307.60	13.83	3.09	74.60	999.00	299.70	11.84	3.08	74.50	293.40	3.32	10.02	72.80	999.00	2.26	999.00	2.06	0.00
23	7	16	24	305.20	10.36	1.99	999.00	999.00	292.90	9.49	2.22	999.00	246.30	3.68	7.12	72.20	999.00	1.61	999.00	1.82	0.00
23	7	17	1	259.30	7.46	5.49	73.36	999.00	236.00	7.59	4.52	73.41	199.60	3.50	10.37	70.52	999.00	3.51	999.00	3.44	0.00
23	7	17	2	237.40	9.50	1.58	72.82	999.00	223.50	9.67	2.97	72.61	210.00	4.09	10.18	68.78	999.00	4.33	999.00	4.18	0.00
23	7	17	3	233.20	13.47	3.37	72.74	999.00	224.80	13.39	4.20	72.29	214.90	3.82	11.16	67.75	999.00	5.09	999.00	4.12	0.00
23	7	17	4	235.10	17.47	2.36	70.79	999.00	227.30	13.74	3.02	68.14	224.10	4.36	11.30	66.11	999.00	5.09	999.00	1.60	0.00
23	7	17	5	239.70	16.97	2.08	68.29	999.00	229.30	13.47	2.56	66.80	219.60	4.12	13.17	65.42	999.00	1.54	999.00	1.15	0.00
23	7	17	6	235.20	14.97	2.26	65.89	999.00	218.00	12.83	3.33	65.66	203.80	5.72	12.92	65.40	999.00	0.23	999.00	0.07	0.00
23	7	17	7	230.80	15.26	3.13	65.74	999.00	211.50	13.08	3.19	65.44	203.70	4.87	13.32	64.83	999.00	0.96	999.00	0.48	0.00
23	7	17	8	237.40	15.65	4.20	65.69	999.00	225.90	12.98	5.48	65.37	225.40	7.04	13.19	65.53	999.00	-0.72	999.00	-0.62	0.00
23	7	17	9	244.30	13.07	5.34	66.95	999.00	234.50	11.66	5.84	67.21	235.00	7.54	11.87	68.19	999.00	-1.34	999.00	-1.02	0.00
23	7	17	10	269.30	11.06	8.98	69.56	999.00	261.40	10.84	9.44	70.01	268.70	8.54	13.99	71.28	999.00	-1.95	999.00	-1.45	0.00
23	7	17	11	250.20	12.58	8.29	71.10	999.00	241.30	12.18	9.40	71.60	240.70	9.00	11.25	73.13	999.00	-2.04	999.00	-1.50	0.00
23	7	17	12	251.70	13.92	8.29	72.40	999.00	242.90	13.46	8.19	72.88	251.10	10.26	13.45	74.45	999.00	-2.19	999.00	-1.69	0.00
23	7	17	13	247.60	15.81	3.74	73.49	999.00	239.80	15.36	4.05	73.98	246.70	11.61	10.50	75.47	999.00	-1.84	999.00	-1.38	0.00
23	7	17	14	243.30	16.61	6.22	74.44	999.00	234.90	16.49	6.73	74.87	242.10	11.61	12.02	76.40	999.00	-2.10	999.00	-1.66	0.00
23	7	17	15	259.90	15.73	7.24	75.53	999.00	250.60	14.96	7.28	75.98	257.00	10.29	13.75	77.40	999.00	-1.55	999.00	-1.10	0.00
23	7	17	16	264.70	15.20	10.36	76.30	999.00	256.40	14.25	10.79	76.78	263.70	10.50	13.47	78.38	999.00	-2.25	999.00	-1.73	0.00
23	7	17	17	269.80	13.94	6.91	76.79	999.00	259.50	13.27	7.90	77.32	267.40	8.88	12.49	79.13	999.00	-1.98	999.00	-1.51	0.00
23	7	17	18	270.30	14.65	9.48	77.70	999.00	260.20	13.97	9.08	78.14	266.40	9.52	13.05	79.53	999.00	-1.62	999.00	-1.22	0.00
23	7	17	19	254.60	13.96	6.04	77.70	999.00	244.70	12.45	7.20	78.14	250.00	7.49	11.12	79.53	999.00	-1.18	999.00	-0.80	0.00
23	7	17	20	260.50	11.09	4.01	77.31	999.00	245.20	10.50	4.43	77.62	247.10	6.61	8.30	77.72	999.00	-0.31	999.00	-0.18	0.00
23	7	17	21	261.50	10.75	4.45	76.53	999.00	246.90	8.63	5.78	76.80	225.00	4.00	14.93	76.25	999.00	0.41	999.00	0.48	0.00
23	7	17	22	266.40	14.89	4.11	74.76	999.00	250.30	11.51	5.94	74.52	228.00	4.54	14.52	73.68	999.00	1.71	999.00	1.29	0.00
23	7	17	23	310.00	13.72	5.91	73.60	999.00	294.60	11.51	7.67	73.08	264.30	3.99	9.09	71.43	999.00	2.01	999.00	1.73	0.00
23	7	17	24	318.60	13.90	4.29	73.01	999.00	309.60	13.14	4.51	73.28	311.90	6.22	11.39	72.03	999.00	0.36	999.00	0.76	0.00
23	7	18	1	329.80	15.29	4.13	73.01	999.00	320.60	14.58	4.96	73.28	323.90	7.43	12.69	72.03	999.00	-0.29	999.00	0.15	0.00
23	7	18	2	316.00	9.26	5.17	71.08	999.00	300.00	8.58	5.09	71.41	259.30	5.28	7.27	70.73	999.00	1.16	999.00	1.41	0.00
23	7	18	3	306.30	13.15	2.43	69.84	999.00	288.40	12.59	2.62	69.71	266.70	5.70	8.33	67.74	999.00	2.16	999.00	1.88	0.00
23	7	18	4	319.90	11.50	2.75	68.14	999.00	302.80	10.43	3.02	68.02	265.20	4.82	6.33	66.02	999.00	2.32	999.00	2.22	0.00
23	7	18	5	330.10	8.90	2.57	67.58	999.00	317.60	7.95	2.96	67.61	252.60	3.61	5.35	64.72	999.00	3.16	999.00	3.23	0.00
23	7	18	6	324.30	8.80	3.46	67.47	999.00	308.70	9.22	3.84	67.35	265.70	2.80	7.41	63.45	999.00	4.64	999.00	4.56	0.00
23	7	18	7	328.60	7.87	3.81	66.98	999.00	311.50	7.62	4.05	66.87	245.10	3.77	6.43	62.39	999.00	3.93	999.00	3.91	0.00
23	7	18	8	336.50	5.74	7.69	67.33	999.00	313.40	5.22	14.63	67.17	257.20	3.34	10.06	64.29	999.00	2.46	999.00	2.38	0.00
23	7	18	9	321.50	7.15	6.60	67.40	999.00	303.30	6.77	8.27	67.34	280.30	5.08	10.61	67.01	999.00	-1.41	999.00	-1.18	0.00
23	7	18	10	348.20	7.50	8.49	67.80	999.00	340.50	7.43	8.08	68.61	354.10	6.66	14.00	70.19	999.00	-2.28	999.00	-1.33	0.00
23	7	18	11	337.30	5.69	12.35	68.11	999.00	329.60	5.69	11.48	69.09	339.90	5.31	24.86	70.88	999.00	-2.89	999.00	-2.04	0.00
23	7	18	12	346.50	6.01	23.20	69.16	999.00	341.40	6.15	20.75	70.02	358.40	5.82	23.62	72.20	999.00	-2.51	999.00	-1.61	0.00
23	7	18	13	30.16	5.56	14.92	70.38	999.00	19.46	5.22	17.21	71.21	17.95	5.45	20.21	71.65	999.00	-1.10	999.00	-0.35	0.00
23	7	18	14	77.00	6.55	16.90	71.12	999.00	60.88	5.94	18.01	71.73	51.22	5.00	25.10	72.73	999.00	-2.22	999.00	-1.37	0.00
23	7	18	15	57.87	5.60	11.70	71.67	999.00	48.30	5.81	10.22	72.10	56.88	6.00	12.77	73.43	999.00	-1.40	999.00	-1.10	0.00
23	7	18	16	60.38	8.37	8.29	72.56	999.00	50.43	8.65	7.89	72.84	60.76	7.93	14.55	74.05	999.00	-1.43	999.00	-1.18	0.00
23	7	18	17	69.89	7.84	9.78	72.92	999.00	59.06	7.80	10.92	73.28	61.64	7.09	14.55	74.45	999.00	-1.64	999.00	-1.11	0.00
23	7	18	18	70.10	8.87	6.77	73.68	999.00	61.82	8.88	8.42	74.05	75.70	7.37	13.90	75.32	999.00	-1.78	999.00	-1.37	0.00

23	7	18	19	83.30	6.94	6.94	999.00	999.00	73.20	6.66	8.33	999.00	75.20	4.96	13.09	75.47	999.00	-1.94	999.00	-1.37	0.00
23	7	18	20	61.84	8.15	4.06	73.88	999.00	51.69	7.98	4.90	74.31	61.12	6.10	9.34	74.97	999.00	-0.86	999.00	-0.41	0.00
23	7	18	21	100.10	8.34	3.52	73.62	999.00	90.10	8.32	3.75	74.14	103.60	4.05	10.36	74.03	999.00	-0.05	999.00	0.44	0.00
23	7	18	22	129.40	11.07	2.94	73.24	999.00	124.40	10.27	3.11	73.63	138.70	3.48	12.70	72.55	999.00	0.85	999.00	1.09	0.00
23	7	18	23	127.90	10.50	2.09	72.39	999.00	119.80	10.00	1.98	72.72	136.50	3.37	10.38	71.20	999.00	1.11	999.00	1.50	0.00
23	7	18	24	125.20	7.08	2.01	999.00	999.00	119.10	6.50	4.53	999.00	201.90	1.65	27.09	70.90	999.00	2.18	999.00	2.37	0.00
23	7	19	1	113.90	4.84	1.56	72.18	999.00	110.50	4.18	2.26	72.42	225.10	1.55	35.18	69.30	999.00	2.80	999.00	3.09	0.00
23	7	19	2	145.40	3.35	6.60	71.55	999.00	142.20	3.29	5.81	71.82	231.30	2.12	18.74	68.44	999.00	3.76	999.00	4.06	0.00
23	7	19	3	77.90	4.20	9.03	71.50	999.00	62.59	3.16	19.77	71.63	313.50	1.81	13.47	66.26	999.00	6.21	999.00	5.80	0.00
23	7	19	4	81.60	6.98	3.88	71.85	999.00	71.20	6.14	3.98	72.15	167.20	1.71	20.60	68.00	999.00	1.57	999.00	1.89	0.00
23	7	19	5	142.90	5.77	7.49	70.05	999.00	156.00	5.78	4.28	69.72	201.50	3.17	12.41	66.33	999.00	2.78	999.00	2.38	0.00
23	7	19	6	99.90	5.09	9.69	70.02	999.00	118.60	4.97	14.70	69.93	188.40	1.83	16.77	64.93	999.00	4.79	999.00	4.56	0.00
23	7	19	7	94.10	4.58	4.81	70.10	999.00	108.40	3.17	18.17	69.68	211.90	1.44	35.19	65.63	999.00	4.93	999.00	4.43	0.00
23	7	19	8	142.60	4.69	3.22	70.07	999.00	158.60	5.09	8.68	69.92	215.00	2.32	16.78	66.74	999.00	2.45	999.00	2.16	0.00
23	7	19	9	140.90	3.53	20.88	69.59	999.00	203.10	2.25	29.71	69.66	268.70	2.68	20.78	68.55	999.00	0.12	999.00	0.30	0.00
23	7	19	10	176.90	3.02	32.77	70.65	999.00	168.60	3.18	33.60	72.06	172.10	2.79	43.82	71.80	999.00	-1.85	999.00	-0.26	0.00
23	7	19	11	100.90	6.19	11.90	72.02	999.00	87.00	5.97	13.92	72.97	78.80	5.80	15.79	74.25	999.00	-2.23	999.00	-1.50	0.00
23	7	19	12	104.70	6.66	13.47	72.77	999.00	92.60	6.57	16.13	73.40	101.40	5.27	25.88	75.35	999.00	-2.63	999.00	-1.92	0.00
23	7	19	13	89.60	7.55	12.23	73.17	999.00	77.70	7.43	14.49	73.80	85.70	5.99	16.80	75.68	999.00	-2.36	999.00	-1.72	0.00
23	7	19	14	104.00	7.59	14.45	73.56	999.00	95.20	7.48	15.00	74.12	106.90	5.43	23.72	76.10	999.00	-2.61	999.00	-2.13	0.00
23	7	19	15	95.20	7.97	10.32	74.00	999.00	82.10	7.82	12.91	74.54	75.70	6.39	20.39	76.72	999.00	-2.82	999.00	-2.23	0.00
23	7	19	16	92.10	8.28	9.97	999.00	999.00	80.10	8.27	10.84	999.00	79.50	6.77	15.49	77.07	999.00	-2.39	999.00	-1.92	0.00
23	7	19	17	102.70	9.68	8.11	999.00	999.00	90.70	9.42	8.59	999.00	92.80	6.97	18.68	77.07	999.00	-2.35	999.00	-1.89	0.00
23	7	19	18	105.60	9.45	6.87	999.00	999.00	92.70	9.36	7.42	999.00	103.50	6.18	17.39	77.35	999.00	-2.16	999.00	-1.83	0.00
23	7	19	19	110.40	8.03	4.92	75.46	999.00	97.80	7.77	6.61	75.81	102.20	5.01	13.72	77.40	999.00	-1.65	999.00	-1.32	0.00
23	7	19	20	124.30	9.74	4.26	75.55	999.00	110.50	9.28	3.80	75.80	111.30	4.81	13.35	76.57	999.00	-0.68	999.00	-0.40	0.00
23	7	19	21	128.20	11.30	2.53	75.43	999.00	117.50	10.52	3.02	75.79	126.20	3.94	12.91	75.50	999.00	0.29	999.00	0.60	0.00
23	7	19	22	122.70	11.47	1.17	75.04	999.00	113.70	11.11	1.82	75.40	123.60	4.32	9.12	74.20	999.00	1.20	999.00	1.49	0.00
23	7	19	23	132.40	11.19	2.71	999.00	999.00	126.50	10.02	4.53	999.00	147.50	3.25	15.00	72.73	999.00	0.95	999.00	0.99	0.00
23	7	19	24	136.00	12.74	1.25	73.10	999.00	133.40	11.80	1.56	73.23	152.10	3.63	16.33	71.93	999.00	1.27	999.00	1.18	0.00
23	7	20	1	145.10	15.49	1.23	72.29	999.00	139.70	13.16	2.07	71.90	142.20	4.15	17.57	70.53	999.00	2.16	999.00	1.57	0.00
23	7	20	2	151.30	16.79	1.57	72.26	999.00	143.70	13.45	2.66	71.29	152.80	3.58	21.91	70.38	999.00	2.02	999.00	0.91	0.00
23	7	20	3	160.70	18.42	2.24	71.66	999.00	154.00	13.94	3.57	70.37	163.00	4.08	22.49	69.44	999.00	1.34	999.00	0.46	0.00
23	7	20	4	168.00	17.77	1.63	70.60	999.00	161.10	13.47	3.28	69.60	173.10	3.72	17.91	69.00	999.00	1.57	999.00	0.82	0.00
23	7	20	5	168.90	19.17	2.72	70.63	999.00	160.60	15.43	3.63	69.79	171.70	4.63	23.00	68.74	999.00	1.07	999.00	0.84	0.00
23	7	20	6	177.50	17.92	2.69	69.39	999.00	166.80	14.25	3.57	69.15	179.50	4.21	19.07	68.95	999.00	0.50	999.00	0.24	0.00
23	7	20	7	203.20	18.33	4.13	68.50	999.00	190.30	14.52	4.82	68.13	202.90	4.88	16.22	67.75	999.00	0.70	999.00	0.37	0.00
23	7	20	8	221.00	15.07	5.12	67.55	999.00	208.70	11.79	6.85	67.52	215.30	5.98	15.73	68.03	999.00	-1.18	999.00	-0.98	0.00
23	7	20	9	226.10	12.81	7.33	68.46	999.00	217.80	11.61	7.68	68.85	227.90	8.71	12.21	70.10	999.00	-1.86	999.00	-1.37	0.00
23	7	20	10	223.00	10.18	8.98	71.71	999.00	214.80	9.83	10.24	72.21	222.90	7.21	17.17	73.72	999.00	-2.10	999.00	-1.50	0.00
23	7	20	11	208.40	11.64	6.96	73.36	999.00	200.20	11.29	8.42	74.05	211.40	7.32	19.47	75.30	999.00	-2.24	999.00	-1.15	0.00
23	7	20	12	215.40	15.20	6.39	75.01	999.00	206.60	14.13	8.14	75.84	217.70	9.94	16.23	77.25	999.00	-2.89	999.00	-2.04	0.00
23	7	20	13	224.60	18.11	10.22	76.79	999.00	215.50	17.43	10.95	77.40	221.40	11.32	17.91	79.27	999.00	-2.32	999.00	-1.77	0.00
23	7	20	14	236.80	19.94	5.89	78.88	999.00	228.00	19.42	6.93	79.33	235.80	13.58	11.81	81.18	999.00	-2.07	999.00	-1.60	0.00
23	7	20	15	225.20	19.99	8.37	80.61	999.00	216.30	18.63	9.32	81.06	225.20	12.21	16.81	82.90	999.00	-2.38	999.00	-1.89	0.00
23	7	20	16	230.10	23.76	6.82	81.57	999.00	221.00	22.03	7.36	82.00	229.10	14.14	12.85	83.50	999.00	-1.55	999.00	-1.13	0.00
23	7	20	17	235.10	24.49	5.80	81.94	999.00	225.70	23.11	6.58	82.38	231.00	13.69	12.91	83.53	999.00	-1.38	999.00	-0.92	0.00
23	7	20	18	282.40	24.56	24.12	78.41	999.00	276.60	23.32	24.74	79.76	296.30	12.14	27.11	78.64	999.00	2.81	999.00	6.21	0.00
23	7	20	19	291.10	20.48	14.78	73.41	999.00	281.40	18.45	16.64	75.44	288.60	10.75	21.94	71.75	999.00	2.20	999.00	2.68	0.00
23	7	20	20	325.10	16.51	7.43	73.45	999.00	314.90	14.93	8.37	73.83	318.80	8.21	13.62	72.47	999.00	-1.17	999.00	-0.76	0.00
23	7	20	21	222.10	13.09	5.68	73.86	999.00	211.00	11.08	6.87	74.29	222.70	5.60	14.65	74.78	999.00	-1.02	999.00	-0.67	0.00
23	7	20	22	234.10	12.47	6.71	70.88	999.00	217.20	9.91	6.16	71.08	210.20	3.92	13.24	71.55	999.00	-0.25	999.00	-0.34	0.00
23	7	20	23	254.60	14.57	2.41	71.89	999.00	239.90	13.56	3.48	70.18	226.50	5.64	11.90	69.39	999.00	3.36	999.00	1.72	0.00

23	7	20	24	260.00	17.11	7.24	70.13	999.00	244.30	13.72	5.90	69.60	242.00	8.44	11.16	69.40	999.00	0.63	999.00	0.01	0.00
23	7	21	1	301.60	19.68	2.61	70.92	999.00	286.30	16.68	2.40	70.01	276.60	6.93	9.64	68.81	999.00	3.05	999.00	2.40	0.00
23	7	21	2	322.50	17.91	6.44	71.32	999.00	311.80	16.88	6.82	71.26	308.70	7.54	14.98	69.24	999.00	0.57	999.00	0.94	0.00
23	7	21	3	331.70	19.05	5.47	70.62	999.00	322.80	18.09	6.17	71.04	325.90	10.32	12.83	71.02	999.00	-0.69	999.00	-0.23	0.00
23	7	21	4	342.30	16.95	5.20	69.44	999.00	333.70	16.02	6.69	69.91	342.30	10.31	11.75	70.24	999.00	-0.98	999.00	-0.50	0.00
23	7	21	5	348.00	17.81	4.83	68.22	999.00	339.10	17.17	4.91	68.69	348.00	11.88	8.01	69.18	999.00	-1.15	999.00	-0.67	0.00
23	7	21	6	351.60	16.97	6.41	67.13	999.00	343.20	16.07	7.38	67.62	350.60	11.06	10.14	68.31	999.00	-1.29	999.00	-0.80	0.00
23	7	21	7	351.60	15.65	6.42	66.36	999.00	342.50	14.93	6.60	66.84	348.70	10.83	10.19	67.66	999.00	-1.39	999.00	-0.90	0.00
23	7	21	8	355.90	15.75	5.39	66.16	999.00	346.20	15.02	6.39	66.68	354.90	11.26	9.77	67.74	999.00	-1.63	999.00	-1.10	0.00
23	7	21	9	351.30	14.41	6.38	66.18	999.00	343.80	13.82	7.18	66.84	355.50	11.34	10.62	68.29	999.00	-2.24	999.00	-1.48	0.00
23	7	21	10	349.20	14.36	6.44	66.35	999.00	341.10	13.73	7.85	67.06	349.60	11.08	13.60	68.55	999.00	-2.11	999.00	-1.45	0.00
23	7	21	11	328.20	12.77	7.85	66.78	999.00	319.80	12.65	9.07	67.43	327.20	9.61	15.44	69.06	999.00	-2.55	999.00	-1.93	0.00
23	7	21	12	328.80	13.14	7.50	67.53	999.00	319.00	13.00	8.00	68.15	329.30	9.49	15.80	70.43	999.00	-3.37	999.00	-2.67	0.00
23	7	21	13	339.30	10.64	13.75	68.58	999.00	329.00	10.57	16.41	69.25	335.20	8.83	25.19	71.60	999.00	-2.53	999.00	-1.80	0.00
23	7	21	14	318.40	9.38	14.60	69.62	999.00	308.30	9.29	17.03	70.37	319.60	7.72	29.94	72.85	999.00	-3.26	999.00	-2.52	0.00
23	7	21	15	324.20	8.86	15.14	70.72	999.00	313.60	8.58	14.46	71.33	328.40	6.57	22.80	74.32	999.00	-3.53	999.00	-2.85	0.00
23	7	21	16	333.50	8.42	10.54	71.90	999.00	327.30	8.29	12.49	72.62	344.30	6.12	21.54	75.22	999.00	-2.74	999.00	-1.84	0.00
23	7	21	17	358.00	5.89	12.25	73.21	999.00	354.20	5.94	10.72	74.02	8.17	5.83	14.97	76.10	999.00	-1.50	999.00	-0.74	0.00
23	7	21	18	307.20	5.43	16.29	74.18	999.00	292.90	5.14	16.60	75.01	292.20	4.09	27.80	77.00	999.00	-3.19	999.00	-2.51	0.00
23	7	21	19	99.10	4.02	25.70	73.77	999.00	94.80	4.16	21.09	74.42	117.70	3.44	24.75	76.00	999.00	-1.36	999.00	-0.92	0.00
23	7	21	20	169.40	1.66	30.89	73.92	999.00	139.00	1.95	16.34	74.38	133.10	1.83	14.65	74.82	999.00	-0.90	999.00	-0.20	0.00
23	7	21	21	100.20	2.11	12.56	73.46	999.00	93.40	2.82	6.05	74.39	119.80	2.67	13.62	73.90	999.00	0.03	999.00	0.44	0.00
23	7	21	22	137.90	4.82	5.16	73.04	999.00	136.60	4.72	7.23	73.39	200.70	1.69	16.45	73.22	999.00	0.29	999.00	0.64	0.00
23	7	21	23	95.30	4.93	9.70	73.04	999.00	97.90	2.65	11.34	72.94	253.50	0.79	27.74	71.70	999.00	1.52	999.00	0.88	0.00
23	7	21	24	137.40	3.15	8.70	72.45	999.00	143.40	2.56	10.25	72.56	221.00	2.67	6.39	71.65	999.00	1.95	999.00	2.19	0.00
23	7	22	1	186.20	2.29	6.86	72.25	999.00	205.80	2.54	4.86	71.78	223.40	2.35	7.03	69.26	999.00	2.77	999.00	2.50	0.00
23	7	22	2	230.00	4.55	1.58	71.69	999.00	224.80	5.47	0.90	71.66	213.10	2.26	14.17	68.56	999.00	3.57	999.00	3.55	0.00
23	7	22	3	232.30	5.72	0.82	71.69	999.00	228.40	6.21	1.49	71.66	224.50	2.77	11.38	68.56	999.00	4.57	999.00	4.77	0.00
23	7	22	4	245.10	9.43	1.24	70.77	999.00	235.10	11.22	1.76	70.53	219.80	4.52	12.03	65.89	999.00	5.17	999.00	4.94	0.00
23	7	22	5	244.70	12.41	0.85	70.59	999.00	238.40	14.58	1.24	69.80	210.50	3.98	13.23	65.29	999.00	5.47	999.00	4.26	0.00
23	7	22	6	257.20	14.47	5.32	69.97	999.00	250.00	13.21	4.49	68.79	226.80	3.96	15.74	63.90	999.00	6.02	999.00	4.47	0.00
23	7	22	7	291.20	13.50	3.44	68.53	999.00	284.60	11.93	3.27	66.56	235.20	4.64	13.78	63.39	999.00	5.11	999.00	4.16	0.00
23	7	22	8	293.80	10.75	3.09	70.24	999.00	277.60	9.52	4.01	69.92	221.20	4.59	10.15	63.60	999.00	6.77	999.00	6.26	0.00
23	7	22	9	305.80	9.31	3.25	70.24	999.00	278.40	7.44	8.16	69.92	257.30	4.77	11.72	63.60	999.00	0.59	999.00	-0.55	0.00
23	7	22	10	277.70	6.49	10.58	68.25	999.00	266.60	6.37	12.74	68.66	275.70	5.53	13.80	70.46	999.00	-2.42	999.00	-1.83	0.00
23	7	22	11	312.90	8.71	9.70	70.68	999.00	307.90	8.73	12.61	71.33	328.20	6.63	18.84	73.80	999.00	-3.31	999.00	-2.66	0.00
23	7	22	12	314.50	9.23	9.93	70.68	999.00	308.90	9.49	9.05	71.33	322.80	6.84	17.21	73.80	999.00	-3.34	999.00	-2.73	0.00
23	7	22	13	320.90	8.72	9.78	73.65	999.00	312.90	8.88	11.27	74.28	324.40	6.43	19.09	76.90	999.00	-3.44	999.00	-2.75	0.00
23	7	22	14	329.30	9.71	8.54	74.96	999.00	322.60	9.68	10.27	75.70	335.20	7.28	16.98	78.07	999.00	-3.00	999.00	-2.25	0.00
23	7	22	15	343.30	7.82	16.24	75.74	999.00	338.50	7.61	18.92	76.54	354.60	6.57	24.14	78.40	999.00	-2.33	999.00	-1.53	0.00
23	7	22	16	10.75	5.01	16.75	76.94	999.00	7.12	4.93	16.52	77.61	29.44	4.94	14.54	78.32	999.00	-1.08	999.00	-0.39	0.00
23	7	22	17	352.00	4.34	16.41	77.89	999.00	351.10	4.35	16.96	78.97	11.66	3.76	35.19	79.57	999.00	-2.08	999.00	-1.03	0.00
23	7	22	18	89.40	5.42	11.45	77.52	999.00	79.00	5.72	10.21	78.08	88.30	5.01	17.27	79.40	999.00	-1.88	999.00	-1.40	0.00
23	7	22	19	128.10	4.58	7.14	76.90	999.00	112.40	4.65	7.12	77.24	112.20	3.07	16.07	78.35	999.00	-1.06	999.00	-0.65	0.00
23	7	22	20	202.70	12.64	4.30	74.84	999.00	194.40	10.48	5.99	75.16	215.60	4.38	13.87	75.63	999.00	-0.56	999.00	-0.38	0.00
23	7	22	21	258.70	12.26	7.04	73.59	999.00	248.70	10.44	8.86	73.67	254.50	5.52	8.49	73.23	999.00	1.39	999.00	0.99	0.00
23	7	22	22	242.90	9.03	3.85	73.74	999.00	233.00	7.93	7.09	73.20	209.40	3.23	11.79	71.82	999.00	2.43	999.00	1.82	0.00
23	7	22	23	248.80	10.51	3.55	73.83	999.00	237.50	9.18	6.12	73.63	213.20	3.85	13.96	70.97	999.00	3.04	999.00	2.61	0.00
23	7	22	24	237.60	7.78	3.35	73.95	999.00	231.70	8.05	1.49	73.83	210.70	3.66	8.14	69.41	999.00	4.77	999.00	4.79	0.00
23	7	23	1	222.40	11.44	1.76	72.67	999.00	212.70	12.11	2.89	72.38	208.00	4.40	9.50	68.68	999.00	4.53	999.00	4.55	0.00
23	7	23	2	227.50	14.29	3.00	72.50	999.00	217.70	13.18	2.55	72.21	202.10	4.82	9.44	67.77	999.00	4.82	999.00	3.33	0.00
23	7	23	3	235.10	13.24	1.56	72.94	999.00	225.80	14.94	1.22	71.69	199.20	4.24	9.25	66.33	999.00	7.29	999.00	6.71	0.00
23	7	23	4	227.00	16.58	2.10	72.16	999.00	219.20	13.56	1.60	69.90	215.80	3.44	12.88	65.32	999.00	6.66	999.00	4.34	0.00

23	7	23	5	224.40	17.02	1.04	71.43	999.00	207.30	12.92	2.13	69.78	193.80	4.03	9.11	65.04	999.00	4.72	999.00	2.76	0.00
23	7	23	6	232.70	17.94	1.14	71.73	999.00	221.10	15.72	3.81	68.55	205.90	4.68	9.26	64.50	999.00	7.57	999.00	4.93	0.00
23	7	23	7	242.30	16.85	2.71	70.94	999.00	227.10	14.22	3.96	68.64	203.50	4.74	11.94	64.49	999.00	5.89	999.00	3.67	0.00
23	7	23	8	255.20	13.69	2.38	70.16	999.00	235.20	13.12	3.79	68.55	213.30	5.19	12.04	64.99	999.00	4.76	999.00	3.16	0.00
23	7	23	9	232.40	10.68	6.53	69.60	999.00	212.70	8.81	6.77	67.63	221.60	5.38	13.84	68.02	999.00	-0.59	999.00	-1.17	0.00
23	7	23	10	212.00	5.62	10.42	69.72	999.00	198.40	5.25	9.22	70.93	192.10	4.24	18.87	71.25	999.00	-2.01	999.00	-0.18	0.00
23	7	23	11	220.40	6.67	12.99	73.38	999.00	215.70	6.27	14.03	74.47	238.10	6.09	12.84	75.43	999.00	-2.08	999.00	-1.24	0.00
23	7	23	12	227.20	9.00	8.82	76.02	999.00	218.90	8.58	8.27	76.77	233.80	6.83	14.08	78.10	999.00	-1.79	999.00	-1.28	0.00
23	7	23	13	225.20	9.55	15.87	71.69	999.00	215.80	7.66	17.06	74.13	157.20	3.42	61.20	72.09	999.00	0.67	999.00	5.72	0.00
23	7	23	14	137.00	12.82	35.62	74.35	999.00	126.30	12.53	35.68	75.09	134.70	7.33	35.24	71.70	999.00	2.25	999.00	2.10	0.00
23	7	23	15	334.30	9.98	38.55	70.83	999.00	327.10	9.94	37.98	71.07	337.00	7.79	36.12	69.02	999.00	0.75	999.00	1.24	0.05
23	7	23	16	190.00	7.72	19.21	71.49	999.00	181.70	6.97	20.96	72.69	199.80	3.69	44.09	72.80	999.00	-2.07	999.00	-0.82	0.02
23	7	23	17	316.10	5.31	5.45	67.92	999.00	308.60	5.55	11.57	68.00	307.10	3.39	30.47	67.64	999.00	1.69	999.00	1.20	0.00
23	7	23	18	220.50	12.80	3.30	67.06	999.00	211.30	11.53	4.90	66.94	219.00	6.26	14.42	65.90	999.00	0.31	999.00	0.07	0.00
23	7	23	19	234.70	10.67	4.30	67.44	999.00	224.50	10.23	6.91	67.10	226.50	5.07	18.35	66.08	999.00	2.62	999.00	1.96	0.01
23	7	23	20	171.40	7.75	4.27	68.54	999.00	164.60	7.42	5.62	67.82	194.60	2.61	19.90	65.69	999.00	2.18	999.00	1.40	0.00
23	7	23	21	176.40	12.03	2.53	68.54	999.00	170.20	10.76	3.20	67.82	185.00	3.10	18.51	65.69	999.00	2.63	999.00	2.22	0.00
23	7	23	22	216.50	12.22	2.39	67.04	999.00	208.50	10.50	3.18	67.05	210.90	4.14	11.28	65.85	999.00	1.31	999.00	1.25	0.00
23	7	23	23	212.50	13.59	2.43	66.92	999.00	206.30	10.47	2.54	66.72	210.40	4.74	9.86	65.60	999.00	2.04	999.00	1.53	0.00
23	7	23	24	204.00	16.33	1.98	66.53	999.00	198.20	12.24	2.76	65.95	201.80	4.69	14.63	65.24	999.00	1.58	999.00	0.47	0.00
23	7	24	1	207.80	18.64	1.47	68.71	999.00	192.20	14.61	1.91	66.05	189.30	4.26	19.06	64.58	999.00	5.05	999.00	1.98	0.00
23	7	24	2	245.60	7.16	17.29	68.83	999.00	237.10	6.61	16.48	67.07	216.40	3.87	31.60	64.67	999.00	3.32	999.00	3.23	0.28
23	7	24	3	172.50	12.94	5.06	67.65	999.00	158.20	11.88	4.71	66.28	188.20	3.63	20.44	63.93	999.00	4.47	999.00	2.50	0.00
23	7	24	4	218.90	12.55	3.87	67.94	999.00	205.90	11.78	2.94	67.85	207.00	5.61	9.16	63.26	999.00	4.14	999.00	4.34	0.00
23	7	24	5	238.80	13.25	7.04	66.00	999.00	219.10	12.03	9.29	65.88	198.80	4.85	13.98	62.92	999.00	2.58	999.00	2.25	0.00
23	7	24	6	262.30	11.69	4.89	65.33	999.00	237.30	9.71	5.83	64.65	198.40	4.25	11.29	62.59	999.00	2.84	999.00	2.21	0.00
23	7	24	7	255.50	15.03	4.92	64.29	999.00	238.20	15.09	5.39	63.38	229.20	5.97	10.52	61.81	999.00	3.43	999.00	1.75	0.00
23	7	24	8	267.20	12.38	6.20	64.86	999.00	245.20	9.30	6.57	63.32	234.00	5.77	11.58	62.81	999.00	1.51	999.00	-0.01	0.00
23	7	24	9	261.30	7.32	7.82	65.31	999.00	239.40	6.51	6.57	64.30	238.10	5.35	11.23	64.53	999.00	-0.39	999.00	-0.49	0.00
23	7	24	10	272.60	5.99	12.79	66.83	999.00	258.60	5.87	10.51	67.15	256.00	4.74	17.16	68.30	999.00	-1.73	999.00	-1.26	0.00
23	7	24	11	243.40	7.65	6.51	70.27	999.00	233.90	7.73	7.36	70.84	233.70	6.39	16.42	72.28	999.00	-1.88	999.00	-1.35	0.00
23	7	24	12	244.00	6.26	15.87	72.57	999.00	231.20	6.26	11.71	73.18	241.30	4.97	21.09	74.63	999.00	-2.23	999.00	-1.58	0.00
23	7	24	13	244.20	7.47	9.78	74.48	999.00	235.70	7.38	9.99	75.14	240.20	5.52	19.60	76.77	999.00	-2.35	999.00	-1.67	0.00
23	7	24	14	250.20	7.12	13.29	76.45	999.00	239.40	7.13	12.63	77.04	233.70	5.37	20.27	78.75	999.00	-2.15	999.00	-1.57	0.00
23	7	24	15	72.70	4.61	24.94	77.66	999.00	61.66	4.96	19.91	78.28	53.10	4.83	15.24	79.75	999.00	-1.29	999.00	-0.86	0.00
23	7	24	16	82.90	4.17	21.62	78.04	999.00	83.00	4.79	15.07	78.35	86.90	4.92	15.32	79.48	999.00	-1.53	999.00	-1.46	0.00
23	7	24	17	93.50	7.05	9.28	77.98	999.00	82.90	7.52	10.68	78.42	88.00	5.73	18.05	79.90	999.00	-2.07	999.00	-1.65	0.00
23	7	24	18	103.20	6.97	10.41	999.00	999.00	91.30	7.15	9.93	999.00	92.60	5.14	17.87	80.27	999.00	-1.84	999.00	-1.47	0.00
23	7	24	19	139.10	6.08	9.74	78.60	999.00	123.70	5.87	10.51	78.84	115.80	3.25	19.91	80.05	999.00	-1.18	999.00	-0.96	0.00
23	7	24	20	106.30	4.47	10.46	79.53	999.00	90.90	5.78	6.61	79.80	85.10	3.86	13.74	79.95	999.00	-0.07	999.00	0.21	0.00
23	7	24	21	161.40	7.21	4.93	79.55	999.00	148.40	7.01	4.77	79.84	139.10	2.44	15.46	79.00	999.00	0.70	999.00	1.02	0.00
23	7	24	22	171.30	7.92	1.91	79.43	999.00	160.30	8.07	2.83	79.64	187.30	0.84	62.16	77.25	999.00	3.29	999.00	3.49	0.00
23	7	24	23	168.40	10.93	2.29	78.66	999.00	158.60	11.25	1.94	78.22	202.10	1.91	32.83	75.43	999.00	4.12	999.00	3.62	0.00
23	7	24	24	177.40	16.88	4.56	76.90	999.00	170.90	13.47	4.00	76.03	188.80	3.76	16.84	73.88	999.00	2.02	999.00	1.38	0.00
23	7	25	1	236.80	10.11	9.49	73.21	999.00	235.60	9.01	10.61	73.11	256.10	4.57	16.80	72.20	999.00	0.21	999.00	0.57	0.00
23	7	25	2	221.30	12.50	6.77	70.71	999.00	207.30	10.46	7.49	70.66	220.30	4.32	13.25	70.50	999.00	0.73	999.00	0.48	0.00
23	7	25	3	249.20	14.44	1.11	71.05	999.00	236.70	10.80	1.24	70.31	209.40	4.03	11.09	69.09	999.00	2.47	999.00	1.67	0.00
23	7	25	4	203.70	16.64	5.62	68.78	999.00	193.00	13.91	5.36	68.45	202.00	5.99	15.46	67.99	999.00	-0.49	999.00	-0.51	0.00
23	7	25	5	226.40	16.10	3.61	67.03	999.00	213.20	12.18	3.98	66.40	223.80	5.08	10.81	66.56	999.00	0.63	999.00	-0.11	0.00
23	7	25	6	237.70	15.03	3.95	66.51	999.00	220.20	11.84	4.95	65.51	218.10	5.31	13.32	65.50	999.00	0.89	999.00	-0.09	0.00
23	7	25	7	256.40	11.86	4.67	66.31	999.00	237.60	9.59	5.38	65.13	222.20	4.57	14.47	64.71	999.00	0.72	999.00	0.10	0.00
23	7	25	8	256.80	8.42	5.49	65.53	999.00	227.90	6.92	7.29	64.49	211.10	3.66	15.17	64.91	999.00	-0.23	999.00	-0.82	0.00
23	7	25	9	262.30	7.34	8.29	65.43	999.00	239.50	7.01	8.27	65.32	235.70	5.60	11.44	66.49	999.00	-1.31	999.00	-1.29	0.00

23	7	25	10	273.90	3.13	33.14	68.73	999.00	246.70	2.99	42.73	69.16	235.20	2.99	28.58	70.43	999.00	-2.20	999.00	-1.36	0.00
23	7	25	11	280.20	4.85	13.65	71.59	999.00	269.10	4.94	14.88	72.38	258.90	4.03	22.30	74.15	999.00	-2.54	999.00	-1.84	0.00
23	7	25	12	339.90	4.48	13.99	73.99	999.00	344.70	4.48	13.22	75.02	5.12	5.15	13.48	76.93	999.00	-2.04	999.00	-0.81	0.00
23	7	25	13	0.99	5.88	11.83	76.22	999.00	358.90	5.46	10.80	77.37	18.08	5.59	14.80	77.45	999.00	-0.92	999.00	0.02	0.00
23	7	25	14	11.75	4.07	22.22	77.29	999.00	6.96	3.69	21.23	78.33	13.47	3.76	30.74	78.53	999.00	-1.18	999.00	-0.05	0.00
23	7	25	15	14.70	4.77	16.21	78.25	999.00	11.23	4.43	15.21	78.91	29.90	4.82	14.34	78.90	999.00	-0.78	999.00	-0.16	0.00
23	7	25	16	3.93	4.45	15.87	78.64	999.00	0.69	4.56	15.88	79.45	8.10	5.01	14.78	79.88	999.00	-1.48	999.00	-0.54	0.00
23	7	25	17	24.31	3.37	24.10	79.74	999.00	17.26	3.10	24.64	80.53	38.00	3.85	19.09	80.65	999.00	-0.55	999.00	0.06	0.00
23	7	25	18	111.80	1.89	46.25	79.82	999.00	100.00	2.63	21.43	80.66	106.70	3.27	18.02	82.15	999.00	-1.25	999.00	-0.85	0.00
23	7	25	19	138.90	4.66	9.71	79.40	999.00	119.20	5.33	4.48	79.53	115.60	3.38	16.23	80.05	999.00	-1.07	999.00	-0.93	0.00
23	7	25	20	167.00	6.13	3.05	79.24	999.00	149.70	5.84	3.73	79.30	132.80	2.23	15.89	79.45	999.00	0.00	999.00	0.20	0.00
23	7	25	21	173.10	10.04	2.81	79.15	999.00	163.30	9.51	2.97	79.32	174.20	2.24	17.96	78.57	999.00	1.30	999.00	1.39	0.00
23	7	25	22	193.40	11.09	3.05	79.15	999.00	179.90	10.99	2.80	79.32	184.30	2.28	14.60	78.57	999.00	3.20	999.00	3.21	0.00
23	7	25	23	213.30	15.49	4.11	79.16	999.00	199.30	12.20	2.43	78.95	187.80	2.44	11.16	75.90	999.00	3.14	999.00	2.65	0.00
23	7	25	24	218.70	14.33	3.16	79.22	999.00	203.30	13.38	3.73	77.58	198.90	3.40	12.82	74.57	999.00	5.33	999.00	3.37	0.00
23	7	26	1	217.70	16.80	2.56	78.49	999.00	198.40	13.49	4.45	76.48	188.00	3.07	13.55	73.07	999.00	5.30	999.00	2.99	0.00
23	7	26	2	227.50	17.69	2.27	76.95	999.00	208.30	13.86	4.53	74.77	206.20	3.59	12.52	71.65	999.00	5.69	999.00	2.97	0.00
23	7	26	3	230.40	14.53	4.88	77.25	999.00	206.20	13.30	5.28	74.66	199.70	3.51	9.79	70.88	999.00	7.23	999.00	3.93	0.00
23	7	26	4	217.80	18.23	1.40	76.45	999.00	206.80	16.22	1.59	73.77	205.30	4.03	13.10	69.57	999.00	7.51	999.00	5.05	0.00
23	7	26	5	204.50	18.70	2.45	73.89	999.00	189.90	13.66	2.32	71.41	190.20	4.26	13.55	69.10	999.00	3.64	999.00	1.49	0.00
23	7	26	6	203.40	20.52	1.56	73.35	999.00	191.00	15.32	2.14	70.45	199.20	4.29	16.02	68.30	999.00	3.84	999.00	1.79	0.00
23	7	26	7	195.30	20.51	2.42	72.47	999.00	179.60	15.14	2.68	70.10	183.80	3.51	19.56	68.11	999.00	3.84	999.00	1.81	0.00
23	7	26	8	187.90	17.51	3.90	70.76	999.00	178.50	13.08	5.84	70.04	190.80	4.71	18.63	69.15	999.00	0.21	999.00	0.09	0.00
23	7	26	9	189.80	17.06	5.86	70.76	999.00	181.20	14.51	6.78	70.04	193.80	7.81	17.88	69.15	999.00	-1.29	999.00	-0.51	0.00
23	7	26	10	183.60	16.87	6.98	73.78	999.00	176.90	15.47	6.88	74.89	191.70	9.27	17.30	75.52	999.00	-1.93	999.00	-0.70	0.00
23	7	26	11	179.20	19.31	6.12	76.95	999.00	171.10	18.25	7.39	78.07	183.80	9.02	21.00	79.05	999.00	-2.14	999.00	-1.14	0.00
23	7	26	12	179.80	21.55	7.89	79.76	999.00	172.30	21.00	8.86	80.76	184.90	10.78	22.15	81.90	999.00	-2.13	999.00	-1.10	0.00
23	7	26	13	189.80	21.53	7.42	81.70	999.00	181.90	19.84	7.54	82.79	194.80	10.94	18.87	83.93	999.00	-2.22	999.00	-1.05	0.00
23	7	26	14	186.00	23.86	7.92	83.22	999.00	177.60	22.70	8.97	84.16	189.00	10.60	21.58	85.32	999.00	-1.95	999.00	-1.10	0.00
23	7	26	15	197.20	25.58	6.71	84.77	999.00	191.10	24.27	6.29	85.61	202.30	12.55	16.11	86.55	999.00	-1.62	999.00	-0.83	0.00
23	7	26	16	245.90	27.37	42.53	81.37	999.00	242.20	23.96	40.37	81.06	278.70	14.42	27.66	78.90	999.00	2.72	999.00	3.33	0.46
23	7	26	17	296.90	13.59	5.71	68.20	999.00	295.70	11.08	6.79	68.55	322.20	4.09	13.90	68.96	999.00	0.02	999.00	-0.24	0.02
23	7	26	18	28.42	2.95	23.31	69.94	999.00	51.07	3.78	18.63	69.86	96.20	3.16	22.01	70.26	999.00	-0.38	999.00	-0.17	0.00
23	7	26	19	118.90	7.71	5.12	71.41	999.00	110.70	7.47	6.73	72.03	119.10	3.96	20.29	72.00	999.00	-0.78	999.00	-0.15	0.00
23	7	26	20	140.70	11.67	4.16	71.54	999.00	138.00	9.36	5.91	72.17	160.40	3.63	24.06	72.42	999.00	-0.77	999.00	-0.25	0.03
23	7	26	21	207.10	18.74	4.95	73.49	999.00	190.20	15.63	6.13	73.33	175.90	3.62	24.72	72.35	999.00	2.39	999.00	2.41	0.24
23	7	26	22	299.90	17.86	7.88	67.89	999.00	290.60	14.67	8.25	68.75	295.20	6.86	17.91	68.45	999.00	-0.71	999.00	-0.37	0.04
23	7	26	23	339.30	31.69	5.71	68.25	999.00	331.50	28.90	6.53	68.44	339.70	16.57	11.90	68.37	999.00	-1.48	999.00	-0.60	0.11
23	7	26	24	295.00	22.20	19.51	68.25	999.00	287.70	19.93	20.61	68.44	293.30	11.26	28.91	68.37	999.00	-0.66	999.00	-0.35	0.01
23	7	27	1	218.40	17.80	4.57	70.16	999.00	206.70	13.64	5.60	70.26	215.30	5.53	15.60	70.50	999.00	-0.24	999.00	-0.25	0.01
23	7	27	2	246.50	19.36	6.09	69.78	999.00	238.50	16.76	6.33	70.16	244.10	10.12	10.50	69.88	999.00	-0.02	999.00	0.58	0.00
23	7	27	3	262.50	20.62	4.57	69.97	999.00	251.60	16.36	6.16	70.25	256.40	8.47	9.53	69.84	999.00	1.02	999.00	0.32	0.00
23	7	27	4	257.70	19.05	4.23	72.04	999.00	247.70	16.34	5.60	71.69	254.10	8.73	10.07	70.73	999.00	1.18	999.00	1.29	0.00
23	7	27	5	259.60	15.21	4.87	71.16	999.00	248.30	12.95	7.17	71.42	256.50	7.19	11.00	70.80	999.00	-0.03	999.00	0.34	0.00
23	7	27	6	285.70	15.32	5.16	69.81	999.00	270.60	13.10	5.26	69.98	268.00	5.97	10.39	69.78	999.00	-0.02	999.00	0.05	0.00
23	7	27	7	285.20	15.50	4.01	69.85	999.00	267.90	12.47	5.32	69.68	261.90	5.48	10.49	69.48	999.00	0.44	999.00	0.02	0.00
23	7	27	8	272.20	12.23	4.74	69.58	999.00	256.60	10.19	5.01	69.48	252.80	5.52	10.02	69.68	999.00	-0.48	999.00	-0.41	0.00
23	7	27	9	270.90	9.55	6.29	69.92	999.00	257.20	8.72	6.98	70.24	260.10	5.81	12.78	71.05	999.00	-1.41	999.00	-1.00	0.00
23	7	27	10	291.90	8.97	9.23	71.42	999.00	283.60	8.60	9.54	71.91	289.10	6.41	15.30	73.40	999.00	-2.41	999.00	-1.87	0.00
23	7	27	11	313.10	10.89	7.97	72.78	999.00	305.10	10.79	8.52	73.30	309.80	8.54	17.10	75.40	999.00	-2.86	999.00	-2.33	0.00
23	7	27	12	307.90	8.19	14.57	72.78	999.00	299.90	7.98	15.50	73.30	314.40	6.25	22.00	75.40	999.00	-2.99	999.00	-2.42	0.00
23	7	27	13	353.00	10.54	9.70	74.04	999.00	348.20	9.96	10.52	74.68	353.30	8.87	14.51	76.50	999.00	-2.18	999.00	-1.40	0.00
23	7	27	14	9.10	9.00	10.96	74.34	999.00	3.53	8.23	11.21	75.10	11.09	8.53	14.42	75.78	999.00	-1.24	999.00	-0.50	0.00

23	7	27	15	23.36	7.73	12.73	74.34	999.00	15.26	6.76	13.47	75.10	15.77	7.58	13.59	75.78	999.00	-1.52	999.00	-0.92	0.00
23	7	27	16	37.35	7.71	13.70	74.75	999.00	31.88	7.46	15.09	75.31	43.04	7.87	19.49	76.05	999.00	-1.38	999.00	-0.79	0.00
23	7	27	17	35.12	6.78	13.42	75.32	999.00	27.94	6.57	14.94	75.85	38.38	6.65	20.27	76.60	999.00	-1.19	999.00	-0.69	0.00
23	7	27	18	82.90	6.94	12.81	75.70	999.00	75.50	6.78	12.10	76.17	76.80	5.29	21.11	77.35	999.00	-2.29	999.00	-1.78	0.00
23	7	27	19	84.50	5.70	11.39	75.35	999.00	79.00	5.73	11.47	75.87	86.30	4.20	17.14	77.63	999.00	-1.92	999.00	-1.49	0.00
23	7	27	20	104.30	6.51	7.15	75.64	999.00	104.10	5.76	6.70	76.02	102.20	3.37	13.89	77.00	999.00	-0.78	999.00	-0.55	0.00
23	7	27	21	125.90	8.64	2.99	76.18	999.00	121.70	9.13	3.72	75.76	139.20	3.89	11.02	75.88	999.00	0.73	999.00	0.34	0.00
23	7	27	22	99.60	9.20	6.71	75.93	999.00	90.30	9.17	6.14	75.81	99.90	3.89	15.44	74.75	999.00	0.76	999.00	1.13	0.00
23	7	27	23	104.80	8.79	8.09	75.51	999.00	100.10	8.97	6.17	75.59	106.80	3.95	15.32	74.95	999.00	1.32	999.00	0.70	0.00
23	7	27	24	146.40	11.25	2.29	75.15	999.00	137.40	12.07	2.89	75.03	143.20	3.67	10.40	73.95	999.00	2.15	999.00	1.47	0.00
23	7	28	1	159.80	11.91	0.80	75.06	999.00	155.40	12.22	1.18	74.54	162.50	2.60	19.81	72.65	999.00	3.67	999.00	3.51	0.00
23	7	28	2	170.10	10.68	1.58	76.52	999.00	157.60	10.99	1.16	75.06	156.70	1.75	38.85	72.07	999.00	4.70	999.00	3.35	0.00
23	7	28	3	163.60	13.54	2.59	76.87	999.00	149.00	12.10	1.03	76.31	133.40	2.64	18.65	72.45	999.00	3.57	999.00	3.08	0.00
23	7	28	4	182.50	11.37	3.08	76.97	999.00	159.30	9.48	2.29	76.07	133.40	2.86	13.33	73.15	999.00	2.65	999.00	1.86	0.00
23	7	28	5	196.20	12.85	5.18	999.00	999.00	180.00	10.19	5.99	999.00	136.50	2.24	27.41	73.50	999.00	1.85	999.00	1.54	0.00
23	7	28	6	235.40	10.53	8.35	75.04	999.00	220.00	8.12	9.86	74.77	197.80	2.73	13.78	74.08	999.00	1.17	999.00	0.88	0.00
23	7	28	7	226.40	14.39	4.26	74.76	999.00	207.80	11.77	3.88	74.41	184.10	4.22	11.34	73.35	999.00	1.89	999.00	1.34	0.00
23	7	28	8	236.10	12.97	2.20	74.23	999.00	214.60	10.92	5.12	73.69	197.00	3.98	15.29	72.75	999.00	0.73	999.00	0.42	0.00
23	7	28	9	225.40	10.57	5.99	73.81	999.00	213.70	9.07	7.76	73.97	217.60	5.69	14.90	74.78	999.00	-1.35	999.00	-0.92	0.00
23	7	28	10	220.30	8.55	7.06	74.98	999.00	208.50	8.56	6.74	75.52	220.10	6.12	14.91	77.00	999.00	-2.18	999.00	-1.55	0.00
23	7	28	11	241.20	11.07	7.40	77.32	999.00	232.70	10.56	7.08	77.92	241.90	7.35	12.26	79.38	999.00	-2.16	999.00	-1.65	0.05
23	7	28	12	238.90	6.81	11.06	78.19	999.00	232.90	6.39	16.49	78.28	237.00	3.34	32.83	77.53	999.00	4.46	999.00	4.03	0.00
23	7	28	13	192.40	11.76	7.08	76.17	999.00	182.60	10.31	7.08	76.52	191.30	5.80	19.02	75.25	999.00	-0.77	999.00	0.44	0.00
23	7	28	14	194.80	12.64	8.85	79.48	999.00	186.30	12.29	9.29	80.90	191.50	8.10	22.16	80.63	999.00	-1.35	999.00	-0.08	0.00
23	7	28	15	228.90	13.71	5.84	80.74	999.00	220.40	12.95	6.37	81.69	229.90	8.26	13.73	82.82	999.00	-1.62	999.00	-1.13	0.00
23	7	28	16	253.70	12.74	9.09	81.51	999.00	245.80	11.96	10.37	81.96	254.70	8.48	13.94	83.43	999.00	-1.86	999.00	-1.41	0.00
23	7	28	17	273.70	12.37	8.71	83.08	999.00	264.20	11.74	9.67	83.58	270.70	8.27	13.53	85.05	999.00	-2.22	999.00	-1.73	0.00
23	7	28	18	254.60	12.77	7.49	84.04	999.00	245.20	12.19	7.90	84.50	247.70	9.17	11.25	86.10	999.00	-1.68	999.00	-1.27	0.00
23	7	28	19	340.60	5.04	71.20	83.78	999.00	359.00	5.16	73.00	84.30	40.72	4.57	68.12	85.78	999.00	-1.43	999.00	-1.00	0.00
23	7	28	20	200.60	3.31	23.69	82.76	999.00	175.40	2.86	20.63	83.15	121.20	3.42	13.02	81.85	999.00	1.01	999.00	2.19	0.00
23	7	28	21	231.40	10.53	6.78	82.18	999.00	220.30	9.50	5.19	82.66	200.80	2.50	13.83	80.93	999.00	1.46	999.00	1.55	0.00
23	7	28	22	266.70	10.69	0.96	82.24	999.00	258.80	10.29	2.66	82.02	223.50	2.46	13.36	80.32	999.00	2.69	999.00	2.56	0.00
23	7	28	23	220.10	7.93	7.39	81.32	999.00	204.90	8.25	5.30	81.38	166.60	3.53	8.12	78.40	999.00	3.02	999.00	3.25	0.00
23	7	28	24	192.30	8.20	5.28	81.00	999.00	180.10	9.00	5.42	80.69	159.90	2.60	22.43	77.40	999.00	3.59	999.00	3.03	0.00
23	7	29	1	193.30	11.04	3.96	79.72	999.00	178.00	10.85	4.53	79.88	179.40	3.20	26.85	76.95	999.00	1.60	999.00	1.84	0.00
23	7	29	2	201.30	15.15	4.59	76.46	999.00	188.30	12.18	5.06	76.33	196.30	4.19	17.49	76.15	999.00	0.49	999.00	0.12	0.00
23	7	29	3	291.70	25.18	16.07	74.06	999.00	282.80	22.29	17.87	73.90	283.70	12.76	26.53	73.89	999.00	0.44	999.00	-0.35	0.33
23	7	29	4	287.00	7.76	23.56	74.06	999.00	262.80	7.18	24.69	73.90	223.60	4.72	23.02	73.89	999.00	2.47	999.00	1.83	0.01
23	7	29	5	278.50	14.33	5.08	73.40	999.00	271.20	11.89	6.81	73.79	267.00	4.23	20.58	70.07	999.00	3.26	999.00	4.31	0.14
23	7	29	6	179.40	17.53	5.49	68.93	999.00	168.60	16.04	6.05	69.73	176.60	6.45	22.44	68.94	999.00	-0.89	999.00	-0.55	0.02
23	7	29	7	259.50	5.79	26.85	67.62	999.00	257.30	5.65	25.57	68.01	286.10	4.73	19.17	68.23	999.00	-0.35	999.00	0.06	0.00
23	7	29	8	243.10	15.59	5.23	67.49	999.00	231.30	14.26	6.03	67.91	230.00	8.74	13.80	68.17	999.00	-0.86	999.00	-0.46	0.00
23	7	29	9	258.00	12.01	8.23	67.98	999.00	244.50	11.26	8.40	68.37	246.50	8.06	11.44	68.88	999.00	-1.03	999.00	-0.67	0.00
23	7	29	10	288.20	15.08	6.43	69.18	999.00	279.20	14.30	6.35	69.72	283.10	10.13	11.96	70.73	999.00	-1.27	999.00	-0.58	0.00
23	7	29	11	295.00	14.86	6.78	70.92	999.00	286.60	13.77	6.56	71.47	293.60	9.85	13.34	72.30	999.00	-1.81	999.00	-1.29	0.00
23	7	29	12	313.60	18.31	6.73	71.69	999.00	305.30	18.25	6.99	72.18	311.10	12.78	14.98	73.35	999.00	-1.53	999.00	-0.97	0.00
23	7	29	13	332.40	12.07	9.14	71.69	999.00	327.00	12.00	9.84	72.18	341.90	9.38	15.62	73.35	999.00	-2.55	999.00	-1.89	0.00
23	7	29	14	19.41	9.91	12.21	74.44	999.00	11.18	9.14	11.85	75.08	20.43	9.46	11.99	76.60	999.00	-1.40	999.00	-0.91	0.00
23	7	29	15	6.82	5.78	17.22	75.40	999.00	5.10	5.41	17.14	76.05	25.69	5.38	20.96	76.70	999.00	-1.21	999.00	-0.58	0.00
23	7	29	16	349.50	11.16	9.49	75.72	999.00	344.10	10.47	11.08	76.53	358.20	9.10	14.29	77.70	999.00	-2.11	999.00	-1.28	0.00
23	7	29	17	359.20	15.50	4.19	76.27	999.00	351.20	15.05	5.25	76.96	0.13	13.30	8.66	78.35	999.00	-1.83	999.00	-1.23	0.00
23	7	29	18	52.01	9.57	11.69	999.00	999.00	44.82	9.39	11.38	999.00	53.94	8.55	14.04	77.80	999.00	-1.60	999.00	-1.10	0.00
23	7	29	19	50.72	11.58	9.26	75.47	999.00	43.97	10.85	8.81	76.01	57.12	8.30	14.59	77.25	999.00	-1.69	999.00	-1.15	0.00

23	7	29	20	63.46	11.31	5.53	75.16	999.00	54.89	10.57	5.82	75.58	71.30	6.74	12.38	76.40	999.00	-1.11	999.00	-0.67	0.00
23	7	29	21	70.40	11.15	3.47	74.49	999.00	62.95	10.99	3.75	74.99	76.00	6.05	10.91	75.30	999.00	-0.60	999.00	-0.09	0.00
23	7	29	22	113.50	7.51	6.63	73.95	999.00	111.20	6.56	9.14	74.37	128.30	2.88	15.42	74.07	999.00	-0.27	999.00	0.05	0.00
23	7	29	23	94.50	7.72	4.78	73.14	999.00	96.00	5.01	11.95	73.31	203.50	2.52	7.58	72.55	999.00	1.20	999.00	1.02	0.00
23	7	29	24	86.90	10.07	5.18	72.28	999.00	78.60	9.80	5.33	72.58	92.70	3.80	12.58	71.92	999.00	0.22	999.00	0.69	0.00
23	7	30	1	103.00	9.60	5.11	71.71	999.00	94.90	9.53	5.80	72.16	110.70	4.17	12.60	71.60	999.00	0.07	999.00	0.54	0.00
23	7	30	2	132.60	8.32	5.41	999.00	999.00	134.50	7.21	8.24	999.00	220.00	2.81	12.02	70.99	999.00	1.74	999.00	1.72	0.00
23	7	30	3	138.20	6.34	1.91	71.23	999.00	138.20	6.01	4.08	71.06	293.70	2.19	13.98	68.19	999.00	3.25	999.00	3.03	0.00
23	7	30	4	165.20	6.33	2.52	71.05	999.00	172.40	6.87	2.92	70.84	232.10	3.55	5.73	67.70	999.00	3.68	999.00	3.45	0.00
23	7	30	5	191.50	3.75	7.74	70.37	999.00	201.20	5.11	3.21	69.64	195.60	2.27	15.71	67.23	999.00	2.86	999.00	1.90	0.00
23	7	30	6	243.70	6.48	1.65	69.49	999.00	243.90	7.61	1.40	68.78	261.20	2.72	8.11	66.54	999.00	2.40	999.00	1.90	0.00
23	7	30	7	249.60	9.09	1.74	68.71	999.00	248.50	10.03	1.69	68.36	251.50	4.50	7.19	66.22	999.00	2.60	999.00	2.42	0.00
23	7	30	8	231.50	9.26	2.15	69.01	999.00	233.00	10.06	2.11	68.42	214.90	3.80	12.71	66.91	999.00	2.28	999.00	1.62	0.00
23	7	30	9	223.30	7.25	9.29	68.67	999.00	216.10	6.02	9.44	68.30	227.70	4.54	16.43	68.72	999.00	-1.03	999.00	-0.86	0.00
23	7	30	10	209.10	7.31	9.40	69.89	999.00	199.10	6.82	12.01	71.08	206.30	5.29	22.06	71.75	999.00	-2.00	999.00	-0.37	0.00
23	7	30	11	205.70	7.26	17.91	71.58	999.00	196.90	6.80	17.73	73.31	207.10	5.59	22.19	73.93	999.00	-2.21	999.00	-0.41	0.00
23	7	30	12	218.60	3.65	48.61	72.72	999.00	208.00	3.42	41.36	73.87	213.60	2.84	56.49	75.13	999.00	-2.27	999.00	-1.16	0.00
23	7	30	13	37.70	5.20	15.15	73.91	999.00	34.56	5.08	14.94	74.74	36.38	5.51	20.11	75.93	999.00	-1.24	999.00	-0.60	0.00
23	7	30	14	5.32	6.71	12.41	74.64	999.00	356.30	6.67	12.15	75.50	0.33	7.11	14.30	76.05	999.00	-1.56	999.00	-0.69	0.00
23	7	30	15	9.28	8.49	9.09	74.00	999.00	1.78	8.04	8.28	74.67	13.87	7.75	12.98	75.63	999.00	-1.44	999.00	-0.87	0.00
23	7	30	16	3.31	7.73	10.58	74.21	999.00	356.90	7.34	10.37	74.87	10.50	6.11	15.87	76.00	999.00	-1.57	999.00	-0.92	0.00
23	7	30	17	11.97	9.11	11.11	999.00	999.00	0.56	8.62	11.08	999.00	3.23	8.48	13.38	75.73	999.00	-1.45	999.00	-0.87	0.00
23	7	30	18	46.91	6.16	21.98	74.09	999.00	37.95	5.89	22.67	74.75	29.84	5.81	22.42	75.53	999.00	-1.58	999.00	-0.93	0.00
23	7	30	19	345.10	6.53	10.30	74.39	999.00	338.70	6.18	11.86	75.26	345.60	4.84	15.46	76.15	999.00	-1.90	999.00	-1.08	0.00
23	7	30	20	347.90	9.52	7.71	73.86	999.00	342.60	8.90	8.00	74.43	352.40	6.98	11.63	75.45	999.00	-1.32	999.00	-0.79	0.00
23	7	30	21	354.80	18.70	5.22	74.72	999.00	348.20	17.80	5.53	75.27	355.50	13.04	8.22	75.95	999.00	-1.21	999.00	-0.70	0.00
23	7	30	22	357.30	17.41	4.56	73.72	999.00	350.30	16.71	4.95	74.21	356.20	12.48	8.09	74.85	999.00	-1.13	999.00	-0.63	0.00
23	7	30	23	359.10	12.81	5.85	73.14	999.00	351.60	11.84	5.33	73.64	358.20	9.11	10.35	74.15	999.00	-1.02	999.00	-0.52	0.00
23	7	30	24	358.50	14.58	5.72	72.48	999.00	352.00	13.86	6.08	72.99	357.40	9.81	10.44	73.55	999.00	-1.02	999.00	-0.52	0.00
23	7	31	1	45.71	11.10	9.74	71.54	999.00	37.20	9.60	9.56	72.05	40.29	9.50	10.90	72.77	999.00	-1.30	999.00	-0.80	0.00
23	7	31	2	54.98	10.62	8.39	70.77	999.00	48.10	10.06	7.91	71.25	64.85	6.30	12.26	71.60	999.00	-0.65	999.00	-0.16	0.00
23	7	31	3	47.90	5.90	13.45	70.53	999.00	42.30	5.25	11.37	70.97	100.00	1.86	62.55	70.72	999.00	0.17	999.00	0.62	0.00
23	7	31	4	11.41	2.24	24.96	70.22	999.00	353.50	1.36	42.51	70.35	200.40	3.64	23.60	67.78	999.00	4.03	999.00	3.99	0.00
23	7	31	5	318.90	1.50	18.58	70.01	999.00	237.60	3.45	11.11	69.65	218.30	2.93	16.03	64.38	999.00	5.95	999.00	5.42	0.00
23	7	31	6	269.20	8.69	12.96	68.75	999.00	260.20	9.51	25.62	68.56	268.60	4.05	16.28	62.90	999.00	5.01	999.00	4.91	0.00
23	7	31	7	311.20	10.66	4.21	68.24	999.00	296.00	11.42	6.44	67.90	264.30	4.95	8.34	62.85	999.00	6.25	999.00	5.73	0.00
23	7	31	8	309.00	13.26	1.31	68.97	999.00	298.90	15.02	1.31	68.69	277.20	5.47	9.39	63.60	999.00	5.01	999.00	4.60	0.00
23	7	31	9	322.60	11.42	3.28	68.31	999.00	311.30	9.81	5.60	68.45	295.50	4.81	12.57	66.34	999.00	-0.55	999.00	-0.59	0.00
23	7	31	10	26.62	6.57	15.03	68.57	999.00	19.92	5.80	15.51	69.41	26.89	6.15	16.87	70.50	999.00	-1.27	999.00	-0.21	0.00
23	7	31	11	352.20	9.37	9.25	69.55	999.00	344.90	9.01	8.77	70.53	354.70	7.70	14.06	71.52	999.00	-2.22	999.00	-1.34	0.00
23	7	31	12	346.90	8.09	11.95	70.17	999.00	339.50	7.86	14.81	70.97	349.20	6.38	21.58	72.30	999.00	-2.40	999.00	-1.62	0.00
23	7	31	13	345.50	9.51	10.57	70.96	999.00	338.70	9.32	10.86	71.76	354.50	8.00	18.88	73.28	999.00	-2.20	999.00	-1.30	0.00
23	7	31	14	333.90	5.94	14.70	71.46	999.00	324.70	5.87	15.98	72.29	343.30	4.62	26.51	74.27	999.00	-2.90	999.00	-2.06	0.00
23	7	31	15	329.00	7.45	14.87	999.00	999.00	321.10	7.53	15.27	999.00	337.00	5.59	28.45	75.27	999.00	-3.17	999.00	-2.38	0.00
23	7	31	16	317.60	6.97	14.29	72.53	999.00	313.40	6.92	14.78	73.21	317.70	4.85	24.94	75.98	999.00	-3.35	999.00	-2.58	0.00
23	7	31	17	321.20	8.67	7.27	73.27	999.00	315.70	8.88	8.88	73.92	327.10	6.21	15.65	76.40	999.00	-3.33	999.00	-2.62	0.00
23	7	31	18	309.80	9.22	9.70	73.81	999.00	302.90	8.94	11.19	74.36	315.00	6.07	19.91	76.82	999.00	-3.00	999.00	-2.47	0.00
23	7	31	19	310.90	4.32	11.91	74.14	999.00	300.10	4.03	13.73	74.75	298.00	3.28	20.65	76.80	999.00	-2.40	999.00	-1.74	0.00
23	7	31	20	294.30	8.65	6.24	74.10	999.00	283.10	8.34	6.40	74.53	271.80	5.06	7.72	75.05	999.00	-0.18	999.00	0.21	0.00
23	7	31	21	299.30	9.44	6.93	73.90	999.00	287.50	9.21	5.35	74.30	273.90	4.53	6.41	73.50	999.00	0.75	999.00	1.18	0.00
23	7	31	22	302.80	10.76	3.68	73.96	999.00	291.30	10.32	2.58	74.33	280.50	4.14	5.16	72.38	999.00	2.28	999.00	2.66	0.00
23	7	31	23	313.70	9.55	6.40	73.82	999.00	294.60	7.62	13.68	73.97	159.20	2.47	19.77	70.56	999.00	4.15	999.00	3.77	0.00
23	7	31	24	354.50	5.72	13.70	72.62	999.00	346.10	4.55	21.54	71.76	274.80	2.35	54.09	69.04	999.00	1.43	999.00	1.21	0.00

23	8	1	1	353.90	3.51	8.45	71.65	999.00	325.80	2.69	12.72	71.66	231.40	2.97	8.70	69.36	999.00	2.75	999.00	2.82	0.00
23	8	1	2	267.50	2.56	7.18	71.59	999.00	232.30	4.07	3.58	71.42	219.90	3.46	8.66	67.92	999.00	4.26	999.00	4.22	0.00
23	8	1	3	275.50	6.82	7.54	71.09	999.00	279.50	7.58	3.27	71.17	239.70	4.08	8.36	67.06	999.00	3.88	999.00	4.11	0.00
23	8	1	4	304.30	9.04	1.47	71.24	999.00	288.50	8.98	1.91	70.64	245.40	4.38	5.37	66.48	999.00	4.62	999.00	4.42	0.00
23	8	1	5	317.00	9.12	5.17	69.65	999.00	290.80	9.08	5.53	68.62	255.50	3.83	7.03	65.43	999.00	3.88	999.00	2.94	0.00
23	8	1	6	326.00	7.83	4.23	70.30	999.00	307.20	7.24	5.16	69.64	234.20	3.98	11.24	64.56	999.00	5.00	999.00	4.76	0.00
23	8	1	7	322.40	7.68	5.43	70.03	999.00	279.30	7.60	7.66	68.60	215.00	3.36	15.19	64.14	999.00	6.37	999.00	3.65	0.00
23	8	1	8	303.70	4.82	6.02	69.28	999.00	272.30	7.66	6.35	66.40	236.30	4.31	8.21	63.14	999.00	5.96	999.00	3.61	0.00
23	8	1	9	285.30	6.80	2.19	68.74	999.00	280.40	9.42	3.89	67.23	257.80	5.50	8.87	64.62	999.00	3.11	999.00	1.56	0.00
23	8	1	10	286.50	6.50	9.70	67.98	999.00	246.60	6.01	6.33	66.72	235.50	5.36	11.34	66.58	999.00	-0.10	999.00	-0.98	0.00
23	8	1	11	251.60	5.16	11.20	67.75	999.00	241.40	4.98	9.98	67.70	250.20	4.67	19.66	68.94	999.00	-1.92	999.00	-1.33	0.00
23	8	1	12	265.90	5.52	15.52	69.86	999.00	255.90	5.52	16.40	70.42	262.90	4.97	26.11	72.03	999.00	-2.60	999.00	-1.96	0.00
23	8	1	13	297.50	8.52	15.37	72.24	999.00	290.70	8.61	14.66	72.83	292.10	6.22	18.65	74.85	999.00	-2.89	999.00	-2.31	0.00
23	8	1	14	322.30	9.58	8.64	73.21	999.00	314.30	9.57	9.28	73.80	325.30	7.11	17.86	76.48	999.00	-3.35	999.00	-2.72	0.00
23	8	1	15	329.90	10.61	7.99	73.62	999.00	322.80	10.83	8.85	74.26	335.90	8.22	16.13	76.67	999.00	-2.84	999.00	-2.25	0.00
23	8	1	16	357.00	9.03	9.29	74.21	999.00	349.20	8.75	9.21	74.94	358.70	8.21	13.09	76.55	999.00	-1.79	999.00	-1.06	0.00
23	8	1	17	351.70	8.06	9.67	74.66	999.00	347.50	7.92	9.98	75.40	3.46	7.51	12.84	76.57	999.00	-1.67	999.00	-1.00	0.00
23	8	1	18	344.70	3.48	23.29	74.66	999.00	345.50	3.54	20.97	75.40	359.20	2.96	21.44	76.57	999.00	-1.76	999.00	-0.86	0.00
23	8	1	19	10.64	3.25	17.33	75.18	999.00	7.58	2.75	18.70	76.04	14.78	2.21	29.08	76.57	999.00	-1.25	999.00	-0.37	0.00
23	8	1	20	118.80	5.95	3.75	74.04	999.00	112.30	6.01	4.23	74.55	116.10	3.30	11.00	75.02	999.00	-0.73	999.00	-0.26	0.00
23	8	1	21	141.50	7.05	3.21	73.50	999.00	138.10	7.01	2.63	73.88	189.20	1.95	26.42	73.38	999.00	0.75	999.00	1.17	0.00
23	8	1	22	150.30	9.52	1.25	72.95	999.00	140.20	9.59	0.77	73.39	149.40	2.46	15.60	72.25	999.00	0.86	999.00	1.29	0.00
23	8	1	23	153.40	11.73	1.96	72.10	999.00	153.00	9.97	1.39	72.11	165.90	2.04	25.35	70.48	999.00	2.01	999.00	1.53	0.00
23	8	1	24	156.80	13.17	2.56	70.90	999.00	148.50	10.28	4.23	70.26	133.30	3.35	16.54	69.18	999.00	1.90	999.00	1.15	0.00
23	8	2	1	169.50	14.49	1.05	71.37	999.00	161.80	11.73	0.88	70.35	196.40	2.63	16.69	68.36	999.00	3.28	999.00	2.23	0.00
23	8	2	2	178.70	15.29	1.18	70.22	999.00	170.80	12.16	1.51	69.48	183.20	2.67	19.45	67.58	999.00	2.14	999.00	1.62	0.00
23	8	2	3	187.20	17.14	0.87	70.22	999.00	184.20	12.76	1.13	69.48	202.50	3.14	15.64	67.58	999.00	3.77	999.00	1.82	0.00
23	8	2	4	198.60	16.91	1.06	68.99	999.00	195.20	12.37	1.45	67.32	204.50	3.96	10.50	65.73	999.00	3.51	999.00	1.60	0.00
23	8	2	5	202.60	16.65	1.16	68.88	999.00	197.60	12.34	1.73	67.04	209.40	3.32	10.24	64.94	999.00	3.74	999.00	2.08	0.00
23	8	2	6	204.00	16.93	1.39	68.12	999.00	200.10	11.98	1.16	66.24	209.60	3.80	10.95	64.62	999.00	3.27	999.00	1.45	0.00
23	8	2	7	202.40	17.93	1.29	67.75	999.00	195.20	13.87	1.42	65.90	196.00	3.63	13.50	64.12	999.00	4.15	999.00	2.24	0.00
23	8	2	8	205.40	17.89	1.10	67.77	999.00	200.20	12.82	1.91	65.86	210.10	3.42	15.01	63.93	999.00	3.52	999.00	1.42	0.00
23	8	2	9	213.30	15.14	3.58	67.36	999.00	206.20	10.84	5.95	65.83	210.40	4.66	13.81	65.57	999.00	0.28	999.00	-0.41	0.00
23	8	2	10	213.40	9.16	5.01	67.92	999.00	201.40	8.06	6.10	67.85	200.80	5.19	18.26	68.47	999.00	-1.32	999.00	-0.65	0.00
23	8	2	11	218.00	6.68	9.26	69.55	999.00	208.30	6.47	8.16	70.65	218.80	5.35	17.92	71.38	999.00	-1.80	999.00	-0.69	0.00
23	8	2	12	223.40	9.18	8.11	72.42	999.00	213.80	8.60	10.06	73.34	224.50	6.39	16.85	74.63	999.00	-2.56	999.00	-1.69	0.00
23	8	2	13	236.10	9.99	10.65	73.91	999.00	229.70	9.43	12.01	74.53	243.80	8.03	13.39	76.25	999.00	-2.32	999.00	-1.71	0.00
23	8	2	14	263.80	8.53	8.89	74.85	999.00	256.60	8.32	10.51	75.52	270.90	6.82	15.94	77.38	999.00	-2.78	999.00	-2.21	0.00
23	8	2	15	220.70	6.02	22.04	75.74	999.00	217.40	5.69	24.84	76.40	236.10	4.83	27.81	78.10	999.00	-2.28	999.00	-1.46	0.00
23	8	2	16	206.40	7.25	12.80	76.59	999.00	199.20	6.79	15.23	77.74	194.40	5.02	23.33	78.95	999.00	-2.12	999.00	-0.81	0.00
23	8	2	17	181.70	6.18	9.07	77.08	999.00	173.40	5.76	8.12	78.12	177.00	4.13	22.20	79.07	999.00	-1.99	999.00	-0.63	0.00
23	8	2	18	193.70	6.44	11.25	77.68	999.00	187.60	6.30	12.47	78.70	192.70	4.24	23.99	79.77	999.00	-1.93	999.00	-0.59	0.00
23	8	2	19	163.80	8.21	6.46	77.42	999.00	153.80	7.52	7.56	78.40	159.20	3.12	25.34	79.13	999.00	-1.50	999.00	-0.79	0.00
23	8	2	20	171.10	10.28	2.36	77.07	999.00	161.80	9.11	2.52	77.54	170.70	3.20	15.64	77.78	999.00	-0.06	999.00	0.24	0.00
23	8	2	21	184.40	13.70	1.27	76.54	999.00	177.10	11.48	1.60	76.68	195.50	2.92	15.71	75.57	999.00	1.71	999.00	1.47	0.00
23	8	2	22	196.20	14.11	2.30	76.19	999.00	189.30	12.37	2.44	75.88	198.00	3.29	11.79	73.50	999.00	3.10	999.00	2.85	0.00
23	8	2	23	196.20	12.45	0.91	76.19	999.00	187.70	12.03	1.32	75.85	186.40	2.52	14.37	72.57	999.00	3.81	999.00	3.58	0.00
23	8	2	24	197.20	13.08	0.83	75.55	999.00	190.80	12.94	0.89	75.11	187.00	3.13	10.62	71.75	999.00	3.89	999.00	3.51	0.00
23	8	3	1	198.80	18.10	0.97	74.39	999.00	190.40	14.59	1.78	73.58	186.10	2.64	15.71	70.04	999.00	4.39	999.00	3.49	0.00
23	8	3	2	199.60	16.08	0.75	72.85	999.00	197.30	11.95	1.30	71.57	203.60	2.52	11.26	69.12	999.00	4.42	999.00	2.78	0.00
23	8	3	3	202.80	18.60	0.83	72.78	999.00	198.20	14.41	1.37	71.24	210.20	4.04	9.93	68.16	999.00	4.33	999.00	3.03	0.00
23	8	3	4	203.70	15.64	1.75	70.51	999.00	205.60	11.68	2.15	68.82	215.60	3.42	9.70	66.97	999.00	4.49	999.00	1.94	0.00
23	8	3	5	207.80	17.97	1.08	70.83	999.00	205.90	14.23	0.89	68.94	216.10	3.46	10.72	66.10	999.00	5.65	999.00	3.40	0.00

23	8	3	6	223.50	15.69	1.31	71.39	999.00	205.90	14.80	0.69	69.49	214.10	4.21	9.85	65.54	999.00	6.33	999.00	4.28	0.00
23	8	3	7	226.70	12.44	1.28	70.48	999.00	203.80	14.52	0.98	68.47	206.90	3.70	10.29	64.67	999.00	6.59	999.00	4.67	0.00
23	8	3	8	222.20	13.98	1.76	70.66	999.00	204.90	12.64	1.80	67.83	214.50	3.88	12.82	64.64	999.00	5.49	999.00	2.23	0.00
23	8	3	9	234.30	12.23	2.54	70.35	999.00	218.60	10.36	5.58	67.60	215.70	5.84	11.73	66.29	999.00	2.88	999.00	0.29	0.00
23	8	3	10	259.20	6.26	5.15	69.49	999.00	241.90	5.36	8.15	68.66	243.00	4.42	12.21	69.49	999.00	-1.19	999.00	-1.10	0.00
23	8	3	11	283.80	4.06	23.61	71.50	999.00	268.70	4.26	21.22	72.03	259.80	3.51	20.54	73.35	999.00	-2.42	999.00	-1.74	0.00
23	8	3	12	256.10	2.83	27.50	74.98	999.00	252.00	2.99	33.40	75.78	276.40	2.68	70.30	77.17	999.00	-2.57	999.00	-1.70	0.00
23	8	3	13	46.86	4.31	17.40	76.93	999.00	41.21	4.49	15.06	78.17	34.72	4.84	25.24	78.73	999.00	-0.92	999.00	-0.22	0.00
23	8	3	14	105.80	6.21	23.91	76.62	999.00	97.50	5.98	23.13	77.36	83.40	5.23	20.70	78.10	999.00	-2.58	999.00	-1.71	0.00
23	8	3	15	59.91	4.39	37.33	77.06	999.00	49.46	4.59	31.95	77.84	54.26	5.50	13.58	78.80	999.00	-1.46	999.00	-0.90	0.00
23	8	3	16	67.89	6.05	12.88	77.77	999.00	60.37	6.12	12.60	78.30	64.43	5.60	18.63	79.63	999.00	-1.89	999.00	-1.42	0.00
23	8	3	17	68.39	4.28	49.68	78.25	999.00	63.56	4.63	43.22	78.89	93.10	4.10	30.78	80.25	999.00	-1.92	999.00	-1.20	0.00
23	8	3	18	103.80	3.93	17.30	78.39	999.00	90.20	4.59	14.81	78.82	94.20	4.31	13.68	80.38	999.00	-1.83	999.00	-1.55	0.00
23	8	3	19	92.80	3.44	13.99	78.36	999.00	84.90	3.79	8.48	78.93	106.90	3.16	16.59	80.32	999.00	-1.60	999.00	-1.06	0.00
23	8	3	20	210.40	3.26	10.67	78.93	999.00	174.40	2.64	14.47	79.30	117.50	1.74	8.96	79.40	999.00	-0.10	999.00	0.42	0.00
23	8	3	21	252.50	11.12	4.22	78.55	999.00	238.80	8.04	6.86	78.80	234.50	4.04	11.12	78.68	999.00	0.36	999.00	0.25	0.00
23	8	3	22	258.30	15.23	1.76	78.66	999.00	246.00	10.64	6.28	77.68	200.70	3.61	9.90	76.10	999.00	3.31	999.00	2.10	0.00
23	8	3	23	261.50	14.64	1.60	78.91	999.00	250.60	14.30	2.03	78.19	222.60	4.09	11.41	74.75	999.00	4.46	999.00	4.45	0.00
23	8	3	24	257.70	19.32	1.59	78.67	999.00	245.10	15.73	4.07	78.16	233.30	6.85	8.49	74.45	999.00	3.95	999.00	2.86	0.00
23	8	4	1	269.50	17.87	3.62	77.22	999.00	251.50	13.13	5.61	75.81	248.00	5.82	11.12	74.35	999.00	2.05	999.00	0.92	0.00
23	8	4	2	291.30	20.30	0.80	75.80	999.00	274.10	17.02	2.67	74.17	259.00	6.28	6.57	72.47	999.00	5.12	999.00	2.79	0.00
23	8	4	3	319.50	17.96	1.65	75.71	999.00	305.00	15.33	2.05	74.50	292.40	3.87	8.77	71.28	999.00	5.50	999.00	4.68	0.00
23	8	4	4	333.60	11.68	2.58	74.82	999.00	318.70	10.24	2.97	74.69	281.80	2.05	39.30	70.95	999.00	3.84	999.00	3.78	0.00
23	8	4	5	298.20	11.31	4.44	73.76	999.00	270.90	8.75	8.19	73.04	224.00	4.04	13.37	70.56	999.00	3.22	999.00	2.21	0.00
23	8	4	6	281.40	12.19	3.13	71.39	999.00	251.90	9.69	5.68	69.39	211.60	3.33	16.96	67.67	999.00	4.06	999.00	1.68	0.00
23	8	4	7	293.80	11.78	6.41	69.83	999.00	266.20	10.86	8.13	68.26	262.70	3.59	9.84	66.94	999.00	3.08	999.00	1.30	0.00
23	8	4	8	287.90	10.42	6.37	69.89	999.00	260.10	8.60	6.64	68.36	250.40	4.63	11.39	67.95	999.00	0.70	999.00	-0.34	0.00
23	8	4	9	303.30	8.57	6.32	70.03	999.00	282.10	7.99	5.55	69.39	271.30	5.41	14.35	70.51	999.00	-1.91	999.00	-1.81	0.00
23	8	4	10	333.00	9.61	7.04	71.27	999.00	327.50	9.58	7.24	71.90	341.10	7.50	14.37	73.97	999.00	-2.83	999.00	-2.00	0.00
23	8	4	11	343.90	7.16	11.07	72.41	999.00	337.50	7.32	10.93	73.35	349.90	6.56	16.10	74.93	999.00	-2.55	999.00	-1.58	0.00
23	8	4	12	350.90	9.47	8.41	73.03	999.00	345.20	9.41	10.29	73.92	355.40	8.22	16.64	75.05	999.00	-2.02	999.00	-1.27	0.00
23	8	4	13	11.98	6.49	13.58	999.00	999.00	6.41	5.96	12.85	999.00	18.35	6.84	15.18	75.37	999.00	-1.34	999.00	-0.35	0.00
23	8	4	14	27.71	5.84	16.03	74.75	999.00	22.92	5.27	13.99	75.58	34.82	6.23	15.29	76.08	999.00	-1.04	999.00	-0.42	0.00
23	8	4	15	43.63	6.52	14.85	75.73	999.00	37.69	6.35	12.76	76.26	36.45	7.09	17.53	77.00	999.00	-1.45	999.00	-0.95	0.00
23	8	4	16	15.33	7.99	13.06	76.77	999.00	7.71	7.07	12.87	77.23	19.60	6.55	16.40	78.22	999.00	-1.11	999.00	-0.60	0.00
23	8	4	17	26.64	5.30	23.56	78.85	999.00	19.41	5.26	25.19	79.67	40.99	4.45	31.23	80.27	999.00	-1.27	999.00	-0.57	0.00
23	8	4	18	24.86	4.33	23.71	79.77	999.00	21.63	4.12	27.17	80.60	17.23	4.15	26.61	81.25	999.00	-1.33	999.00	-0.56	0.00
23	8	4	19	79.00	8.73	5.10	77.40	999.00	72.40	8.55	7.12	77.98	78.80	5.71	13.70	79.38	999.00	-1.78	999.00	-1.24	0.00
23	8	4	20	70.40	12.38	3.77	76.70	999.00	62.85	11.75	4.46	77.17	74.20	6.89	12.51	77.98	999.00	-1.06	999.00	-0.61	0.00
23	8	4	21	66.77	12.60	3.58	76.10	999.00	59.02	12.15	4.39	76.55	72.70	7.33	11.16	76.88	999.00	-0.67	999.00	-0.21	0.00
23	8	4	22	60.75	11.93	3.74	76.24	999.00	52.71	11.69	4.50	76.70	69.21	6.66	9.09	76.90	999.00	-0.61	999.00	-0.14	0.00
23	8	4	23	77.70	16.86	5.30	76.18	999.00	69.16	16.09	6.13	76.67	75.40	9.07	12.85	77.02	999.00	-1.01	999.00	-0.49	0.00
23	8	4	24	70.20	20.20	4.81	73.73	999.00	62.14	18.45	5.75	74.21	68.23	10.97	12.89	74.80	999.00	-0.92	999.00	-0.48	0.00
23	8	5	1	66.45	17.60	4.69	72.63	999.00	58.19	16.52	5.64	73.09	68.12	10.09	10.71	73.60	999.00	-0.96	999.00	-0.50	0.00
23	8	5	2	63.73	16.53	5.08	71.42	999.00	55.32	15.67	5.80	71.92	62.66	10.04	11.25	72.53	999.00	-1.15	999.00	-0.64	0.00
23	8	5	3	58.25	14.06	6.20	69.91	999.00	51.13	13.02	7.61	70.39	68.29	8.30	13.54	70.97	999.00	-1.12	999.00	-0.63	0.00
23	8	5	4	66.96	12.01	5.66	69.40	999.00	59.99	11.51	6.19	69.85	79.20	5.94	15.27	70.25	999.00	-0.73	999.00	-0.27	0.00
23	8	5	5	63.75	10.72	6.89	69.25	999.00	55.20	10.46	7.18	69.71	71.50	5.99	13.88	69.95	999.00	-0.77	999.00	-0.29	0.00
23	8	5	6	62.32	11.42	5.73	68.91	999.00	53.44	10.97	6.93	69.39	66.06	6.70	10.57	69.82	999.00	-0.88	999.00	-0.39	0.00
23	8	5	7	64.37	10.44	5.94	68.82	999.00	57.86	10.04	5.93	69.30	72.60	5.92	13.07	69.81	999.00	-0.89	999.00	-0.44	0.00
23	8	5	8	75.60	10.17	4.75	999.00	999.00	69.34	10.07	4.87	999.00	78.80	6.01	12.36	70.01	999.00	-1.13	999.00	-0.63	0.00
23	8	5	9	70.90	8.61	6.47	69.11	999.00	60.47	8.39	7.29	69.62	67.87	6.05	15.79	70.60	999.00	-1.65	999.00	-1.10	0.00
23	8	5	10	69.92	9.13	6.46	69.38	999.00	61.25	8.49	7.99	69.96	71.80	6.41	16.92	71.20	999.00	-1.74	999.00	-1.14	0.00

23	8	5	11	83.50	6.26	10.14	69.38	999.00	72.70	6.27	13.74	69.97	81.10	4.48	27.67	71.38	999.00	-2.10	999.00	-1.44	0.00
23	8	5	12	66.22	7.45	13.60	70.64	999.00	59.84	7.23	13.04	71.24	59.76	6.41	22.41	72.55	999.00	-2.02	999.00	-1.53	0.00
23	8	5	13	70.30	9.37	10.75	71.09	999.00	62.68	9.12	14.04	71.65	67.21	7.44	28.64	73.03	999.00	-2.18	999.00	-1.64	0.00
23	8	5	14	60.47	8.25	14.79	71.71	999.00	53.23	7.90	14.57	72.22	53.84	6.36	21.16	73.70	999.00	-1.99	999.00	-1.37	0.00
23	8	5	15	71.30	9.79	10.01	72.16	999.00	65.32	9.90	8.68	72.62	78.90	7.48	16.94	74.25	999.00	-2.39	999.00	-1.95	0.00
23	8	5	16	86.60	8.23	9.91	72.18	999.00	81.20	7.96	12.55	72.73	100.50	5.46	18.67	74.45	999.00	-2.15	999.00	-1.63	0.00
23	8	5	17	89.90	10.04	10.58	72.71	999.00	83.00	9.48	12.27	73.31	91.50	5.86	18.97	75.05	999.00	-2.20	999.00	-1.61	0.00
23	8	5	18	88.30	10.55	5.20	72.71	999.00	80.10	10.27	5.99	73.31	93.10	5.48	17.59	75.05	999.00	-1.42	999.00	-0.92	0.00
23	8	5	19	97.70	13.47	5.04	72.33	999.00	90.10	13.03	5.99	72.79	97.20	5.58	18.44	73.28	999.00	-0.86	999.00	-0.41	0.00
23	8	5	20	87.40	16.03	4.22	999.00	999.00	79.80	15.35	5.28	999.00	84.80	7.86	16.28	73.37	999.00	-0.97	999.00	-0.52	0.00
23	8	5	21	84.40	17.16	5.97	999.00	999.00	75.90	15.89	7.20	999.00	77.10	9.57	13.40	73.37	999.00	-1.00	999.00	-0.55	0.00
23	8	5	22	92.70	18.02	4.79	72.11	999.00	84.30	17.43	6.34	72.54	89.70	8.65	15.46	72.80	999.00	-0.76	999.00	-0.31	0.00
23	8	5	23	93.80	18.73	3.95	72.06	999.00	85.60	18.22	4.61	72.51	94.80	8.43	17.74	72.92	999.00	-0.90	999.00	-0.44	0.00
23	8	5	24	93.40	20.69	4.52	999.00	999.00	85.80	19.38	6.24	999.00	93.10	9.14	16.04	72.90	999.00	-0.89	999.00	-0.44	0.00
23	8	6	1	101.60	20.37	4.49	72.14	999.00	93.00	19.46	5.99	72.59	101.20	8.69	15.87	72.95	999.00	-0.80	999.00	-0.34	0.00
23	8	6	2	106.70	22.06	3.53	72.73	999.00	98.70	20.65	5.10	73.17	107.30	9.86	16.70	73.53	999.00	-0.91	999.00	-0.44	0.00
23	8	6	3	103.00	21.97	4.59	72.73	999.00	94.50	20.51	6.29	73.17	100.80	8.88	16.24	73.53	999.00	-0.86	999.00	-0.41	0.00
23	8	6	4	99.60	21.36	5.12	999.00	999.00	90.70	20.24	5.46	999.00	95.30	9.10	18.60	73.80	999.00	-0.84	999.00	-0.40	0.01
23	8	6	5	114.00	14.84	4.56	999.00	999.00	106.60	13.89	5.30	999.00	112.70	6.51	19.65	73.50	999.00	-1.05	999.00	-0.58	0.03
23	8	6	6	92.30	20.90	3.42	70.89	999.00	84.40	19.73	4.48	71.21	91.40	8.77	14.23	71.14	999.00	0.70	999.00	0.68	0.01
23	8	6	7	82.90	23.06	4.04	69.79	999.00	74.60	21.89	4.75	69.35	79.00	11.98	12.24	68.00	999.00	1.48	999.00	1.86	0.00
23	8	6	8	96.60	24.32	3.92	71.46	999.00	88.20	23.19	4.63	71.94	96.70	10.31	16.95	70.48	999.00	0.69	999.00	1.18	0.00
23	8	6	9	104.70	24.10	3.98	72.32	999.00	95.90	22.78	4.87	72.74	103.70	10.49	17.12	71.45	999.00	0.89	999.00	1.31	0.01
23	8	6	10	120.00	19.66	5.77	72.82	999.00	112.20	18.33	6.42	73.24	117.50	8.55	17.36	73.38	999.00	-0.50	999.00	-0.15	0.00
23	8	6	11	129.90	15.35	6.34	73.00	999.00	121.10	14.58	7.17	73.41	124.20	7.75	17.50	74.57	999.00	-2.09	999.00	-1.63	0.00
23	8	6	12	136.70	11.18	6.62	73.64	999.00	127.00	10.76	7.77	74.11	128.80	6.42	18.26	75.55	999.00	-2.05	999.00	-1.61	0.00
23	8	6	13	165.00	12.57	11.41	76.14	999.00	156.30	11.92	10.96	76.79	161.40	6.24	21.18	78.45	999.00	-1.93	999.00	-1.22	0.00
23	8	6	14	176.80	10.21	9.32	78.29	999.00	170.20	9.80	9.05	79.13	179.10	5.11	28.20	80.60	999.00	-2.01	999.00	-1.03	0.00
23	8	6	15	184.10	15.56	8.46	80.56	999.00	176.50	14.42	9.56	81.72	186.30	7.15	23.10	82.63	999.00	-1.71	999.00	-0.81	0.00
23	8	6	16	256.40	21.66	8.36	78.84	999.00	248.20	20.47	9.52	79.41	253.00	14.63	13.71	81.35	999.00	-2.33	999.00	-1.78	0.00
23	8	6	17	242.70	19.66	6.08	76.77	999.00	236.60	18.78	6.41	77.26	245.60	12.36	11.24	78.85	999.00	-2.42	999.00	-1.90	0.00
23	8	6	18	246.70	22.78	4.33	74.46	999.00	239.60	21.82	4.62	75.00	246.60	15.29	9.40	76.20	999.00	-1.68	999.00	-1.12	0.00
23	8	6	19	248.20	23.31	4.47	71.55	999.00	241.20	22.29	4.87	72.09	248.10	15.85	10.12	73.20	999.00	-1.64	999.00	-1.11	0.00
23	8	6	20	236.70	18.04	5.93	70.40	999.00	229.10	17.32	6.61	70.93	238.20	11.94	10.98	72.02	999.00	-1.63	999.00	-1.13	0.00
23	8	6	21	227.20	18.15	5.55	69.41	999.00	220.30	16.73	6.11	69.93	223.60	9.74	14.85	70.85	999.00	-1.19	999.00	-0.68	0.00
23	8	6	22	228.70	15.77	4.75	67.66	999.00	219.40	13.70	6.56	68.17	222.90	7.21	15.92	69.10	999.00	-1.27	999.00	-0.86	0.00
23	8	6	23	217.80	16.01	5.24	67.14	999.00	209.80	13.56	6.59	67.45	217.00	7.17	14.58	68.10	999.00	-0.75	999.00	-0.49	0.00
23	8	6	24	228.00	16.82	5.22	67.70	999.00	218.80	15.15	6.03	67.83	224.60	7.63	15.50	68.15	999.00	-0.33	999.00	-0.22	0.00
23	8	7	1	228.90	19.97	5.02	68.10	999.00	220.10	17.76	5.51	68.49	225.10	9.94	13.28	68.28	999.00	-0.22	999.00	0.42	0.00
23	8	7	2	237.40	20.06	5.46	68.19	999.00	229.50	18.28	6.34	68.71	234.10	11.72	11.66	68.59	999.00	-0.44	999.00	-0.01	0.00
23	8	7	3	237.10	18.03	5.05	68.18	999.00	228.30	16.13	6.04	68.59	231.70	9.55	11.83	68.49	999.00	-0.53	999.00	-0.14	0.00
23	8	7	4	246.60	11.70	9.55	67.80	999.00	239.10	10.26	10.09	68.25	240.40	5.86	15.05	68.09	999.00	-0.26	999.00	0.19	0.00
23	8	7	5	231.20	15.02	2.71	67.05	999.00	219.60	13.15	4.13	67.39	215.90	5.10	14.79	67.26	999.00	-0.31	999.00	-0.14	0.00
23	8	7	6	251.10	12.41	8.13	65.88	999.00	240.40	10.07	8.80	66.05	246.50	5.45	13.51	66.31	999.00	-0.58	999.00	-0.42	0.00
23	8	7	7	219.70	12.05	5.03	65.60	999.00	204.30	10.88	4.33	65.70	204.70	4.74	14.48	66.00	999.00	-0.60	999.00	-0.45	0.00
23	8	7	8	246.70	10.32	6.06	65.19	999.00	237.90	8.73	7.02	65.46	247.60	5.88	10.10	66.27	999.00	-1.02	999.00	-0.69	0.05
23	8	7	9	240.10	9.01	7.54	65.19	999.00	229.70	8.17	8.77	65.46	228.20	5.22	14.19	66.27	999.00	-1.00	999.00	-0.55	0.00
23	8	7	10	234.70	9.82	7.16	65.41	999.00	224.70	8.99	7.60	65.85	232.00	6.14	15.70	66.37	999.00	-0.94	999.00	-0.49	0.00
23	8	7	11	259.60	11.69	9.50	65.93	999.00	253.10	10.71	9.14	66.40	258.90	7.34	13.62	66.70	999.00	-0.84	999.00	-0.40	0.00
23	8	7	12	255.30	9.51	7.92	66.81	999.00	248.90	9.17	8.61	67.27	258.20	6.60	12.90	67.65	999.00	-0.65	999.00	-0.13	0.00
23	8	7	13	302.10	14.34	6.56	66.46	999.00	292.10	13.10	7.77	66.94	292.70	7.67	12.97	67.18	999.00	-0.20	999.00	0.22	0.00
23	8	7	14	323.90	14.70	4.76	67.22	999.00	316.60	14.51	5.13	67.77	325.20	10.29	12.11	69.20	999.00	-2.58	999.00	-2.03	0.00
23	8	7	15	325.80	16.58	6.54	67.85	999.00	318.40	16.01	6.57	68.44	324.10	10.43	13.76	70.47	999.00	-2.53	999.00	-1.95	0.00

23	8	7	16	328.20	21.31	6.11	68.47	999.00	320.30	20.85	7.27	69.09	328.80	13.85	14.43	71.15	999.00	-3.09	999.00	-2.43	0.00
23	8	7	17	330.30	22.80	6.12	67.84	999.00	323.20	21.96	7.00	68.46	329.30	14.46	13.81	70.25	999.00	-2.19	999.00	-1.60	0.00
23	8	7	18	335.10	21.25	6.30	67.44	999.00	327.90	20.50	6.27	67.99	337.10	13.12	11.97	69.44	999.00	-2.07	999.00	-1.54	0.00
23	8	7	19	342.60	20.40	4.41	68.59	999.00	335.50	20.19	5.33	69.11	345.60	14.51	10.78	70.31	999.00	-1.73	999.00	-1.21	0.00
23	8	7	20	337.10	22.37	5.22	69.47	999.00	329.80	21.31	6.35	70.01	338.00	13.29	13.81	71.12	999.00	-1.43	999.00	-0.88	0.00
23	8	7	21	333.80	15.55	5.89	69.47	999.00	325.80	14.45	7.89	70.01	331.00	7.78	13.77	71.12	999.00	-0.67	999.00	-0.25	0.00
23	8	7	22	303.50	11.64	11.45	70.18	999.00	286.10	10.62	11.15	70.50	258.30	5.81	8.31	70.04	999.00	1.02	999.00	1.10	0.00
23	8	7	23	282.80	15.84	3.03	69.33	999.00	267.70	14.61	3.33	69.36	257.00	5.91	7.56	67.35	999.00	2.08	999.00	1.82	0.00
23	8	7	24	269.70	17.66	3.75	69.33	999.00	260.10	14.27	3.77	69.36	267.40	5.17	9.09	67.35	999.00	2.18	999.00	1.32	0.00
23	8	8	1	268.70	18.45	3.14	67.81	999.00	257.30	14.62	3.49	66.84	264.40	5.89	10.08	65.56	999.00	1.88	999.00	1.00	0.00
23	8	8	2	290.30	19.52	2.60	67.19	999.00	269.60	16.49	3.54	65.76	271.50	6.79	10.09	64.67	999.00	2.74	999.00	1.04	0.00
23	8	8	3	311.00	17.62	1.21	67.19	999.00	297.10	16.09	2.08	65.76	275.90	5.18	9.32	64.67	999.00	3.89	999.00	3.09	0.00
23	8	8	4	305.40	17.86	1.63	66.30	999.00	290.80	15.35	2.66	65.81	276.70	5.77	9.79	63.60	999.00	2.79	999.00	2.33	0.00
23	8	8	5	297.10	17.04	0.88	65.49	999.00	281.50	16.12	1.57	65.15	264.80	6.81	9.20	63.33	999.00	2.06	999.00	1.68	0.00
23	8	8	6	286.80	17.41	2.58	64.53	999.00	267.10	14.47	4.15	63.91	256.80	6.20	9.46	62.78	999.00	1.56	999.00	0.88	0.00
23	8	8	7	283.60	19.67	3.61	64.37	999.00	265.70	16.62	4.20	63.38	257.20	7.63	9.25	62.38	999.00	2.04	999.00	0.87	0.00
23	8	8	8	274.70	16.11	3.92	63.51	999.00	260.80	13.04	5.05	63.06	255.10	7.18	8.00	62.89	999.00	-0.07	999.00	-0.19	0.00
23	8	8	9	284.60	14.99	4.80	63.51	999.00	269.50	12.59	6.08	63.06	263.50	6.76	11.53	62.89	999.00	-0.55	999.00	-0.68	0.00
23	8	8	10	291.50	11.64	7.16	65.16	999.00	281.40	10.78	8.13	65.53	284.20	7.61	12.73	67.03	999.00	-2.09	999.00	-1.55	0.00
23	8	8	11	271.90	8.40	8.50	67.95	999.00	259.80	8.22	8.68	68.51	263.70	6.80	16.04	70.23	999.00	-2.14	999.00	-1.57	0.00
23	8	8	12	269.50	13.03	10.34	70.87	999.00	260.10	12.30	10.70	71.40	265.20	9.57	16.14	73.20	999.00	-2.49	999.00	-1.92	0.00
23	8	8	13	277.90	16.99	6.01	73.88	999.00	269.40	16.04	7.95	74.39	274.00	10.83	13.01	76.35	999.00	-2.25	999.00	-1.75	0.00
23	8	8	14	259.40	15.65	8.41	74.85	999.00	251.90	15.21	9.07	75.37	259.70	10.87	15.14	77.08	999.00	-1.86	999.00	-1.38	0.00
23	8	8	15	303.30	14.05	8.77	75.42	999.00	295.10	14.01	9.90	75.96	304.60	10.09	19.01	78.10	999.00	-3.10	999.00	-2.52	0.00
23	8	8	16	303.20	11.15	12.63	76.16	999.00	296.10	10.94	12.66	76.74	304.40	8.31	20.61	79.40	999.00	-3.09	999.00	-2.51	0.00
23	8	8	17	306.40	7.67	20.92	76.91	999.00	301.00	7.29	20.69	77.48	318.00	6.01	23.92	79.53	999.00	-3.01	999.00	-2.32	0.00
23	8	8	18	257.00	12.50	3.83	77.21	999.00	249.00	11.44	5.60	77.67	253.30	6.82	10.33	78.80	999.00	-1.07	999.00	-0.67	0.00
23	8	8	19	251.00	14.43	3.94	76.66	999.00	241.90	13.55	4.23	77.06	247.10	8.41	9.55	77.68	999.00	-0.78	999.00	-0.41	0.00
23	8	8	20	256.30	14.86	3.05	75.81	999.00	246.40	13.18	3.97	76.10	252.00	6.82	8.89	76.23	999.00	-0.25	999.00	0.00	0.00
23	8	8	21	272.20	13.85	1.61	75.62	999.00	259.40	11.30	2.38	75.56	252.50	4.05	7.16	74.90	999.00	1.39	999.00	1.19	0.00
23	8	8	22	258.50	12.91	0.74	75.50	999.00	245.80	12.40	2.01	75.35	214.10	3.75	10.75	72.78	999.00	3.45	999.00	3.26	0.00
23	8	8	23	271.70	14.61	2.05	75.39	999.00	259.20	12.88	3.09	74.96	218.80	2.99	12.67	71.03	999.00	4.65	999.00	3.83	0.00
23	8	8	24	254.90	15.08	8.82	74.68	999.00	234.70	12.88	9.32	73.73	201.80	5.10	10.20	69.49	999.00	4.94	999.00	3.59	0.00
23	8	9	1	251.30	17.87	6.45	72.95	999.00	232.80	14.55	3.79	71.16	216.10	4.82	11.77	67.54	999.00	5.13	999.00	3.15	0.00
23	8	9	2	258.90	19.54	1.95	72.16	999.00	239.00	15.59	3.66	69.93	218.60	5.52	11.74	66.79	999.00	4.40	999.00	2.22	0.00
23	8	9	3	261.60	18.64	3.53	72.16	999.00	246.10	13.64	4.46	69.93	231.80	6.89	8.88	66.79	999.00	2.13	999.00	1.04	0.00
23	8	9	4	273.30	18.25	3.83	67.84	999.00	254.80	14.23	4.42	66.98	254.70	6.11	10.02	65.97	999.00	2.07	999.00	0.91	0.00
23	8	9	5	264.60	17.68	3.46	66.86	999.00	246.80	13.54	4.16	65.93	221.50	5.18	12.14	65.30	999.00	2.07	999.00	0.97	0.00
23	8	9	6	251.90	16.39	6.00	65.59	999.00	233.80	13.56	4.64	64.73	214.90	5.13	14.08	63.78	999.00	1.66	999.00	0.94	0.00
23	8	9	7	251.80	15.83	2.63	64.97	999.00	232.40	13.24	2.17	64.16	211.00	4.64	14.60	62.96	999.00	2.40	999.00	1.40	0.00
23	8	9	8	247.20	14.11	3.75	63.83	999.00	233.60	11.26	5.62	63.01	223.90	5.77	12.68	62.77	999.00	-0.37	999.00	-0.53	0.00
23	8	9	9	255.80	10.74	6.46	63.85	999.00	242.40	9.75	5.77	63.71	242.50	7.59	11.04	64.78	999.00	-1.52	999.00	-1.33	0.00
23	8	9	10	243.30	7.98	7.66	66.76	999.00	225.30	7.49	6.44	67.03	229.70	6.31	13.75	68.35	999.00	-1.53	999.00	-1.22	0.00
23	8	9	11	222.30	7.61	7.21	69.87	999.00	210.90	7.40	9.68	70.62	223.70	5.64	17.79	72.18	999.00	-2.60	999.00	-1.64	0.00
23	8	9	12	238.20	12.35	6.36	72.40	999.00	232.50	12.31	7.53	73.03	245.80	9.48	14.39	74.95	999.00	-2.56	999.00	-2.00	0.00
23	8	9	13	240.00	13.68	7.39	74.57	999.00	233.40	13.41	6.68	75.06	238.60	9.92	11.63	77.00	999.00	-2.41	999.00	-1.88	0.00
23	8	9	14	245.90	11.44	9.52	75.96	999.00	240.70	10.94	9.56	76.50	252.80	8.62	16.45	78.47	999.00	-2.73	999.00	-2.11	0.00
23	8	9	15	247.40	14.95	4.11	77.47	999.00	240.20	14.70	4.38	78.02	246.80	10.28	12.33	79.97	999.00	-2.34	999.00	-1.85	0.00
23	8	9	16	237.30	14.07	6.51	78.46	999.00	228.50	13.67	6.98	78.95	238.00	9.94	12.50	80.85	999.00	-2.40	999.00	-1.91	0.00
23	8	9	17	234.40	14.52	7.02	78.98	999.00	225.90	13.99	7.32	79.49	232.20	9.96	13.12	81.17	999.00	-2.07	999.00	-1.60	0.00
23	8	9	18	233.80	13.15	3.65	78.57	999.00	225.50	12.50	4.20	79.05	230.60	8.06	10.25	80.02	999.00	-1.28	999.00	-0.81	0.00
23	8	9	19	225.10	10.39	3.79	78.22	999.00	215.40	9.18	4.28	78.60	210.80	3.95	14.56	78.95	999.00	-0.36	999.00	0.01	0.00
23	8	9	20	227.60	16.15	1.91	77.75	999.00	217.90	14.16	2.62	77.91	218.50	6.05	13.82	77.80	999.00	0.20	999.00	0.29	0.00

23	8	9	21	232.50	13.56	1.75	77.75	999.00	223.70	10.76	3.15	77.91	236.60	4.01	12.92	77.80	999.00	0.91	999.00	0.69	0.00
23	8	9	22	237.80	15.93	2.01	76.08	999.00	226.10	13.42	3.29	75.93	229.40	4.57	12.51	74.80	999.00	1.09	999.00	1.08	0.00
23	8	9	23	225.40	15.48	5.24	74.30	999.00	215.40	12.66	6.20	74.29	218.60	5.49	13.59	74.02	999.00	-0.15	999.00	-0.03	0.00
23	8	9	24	240.90	14.15	5.41	71.98	999.00	232.00	11.94	6.30	72.30	231.30	6.63	13.06	72.48	999.00	-0.78	999.00	-0.33	0.11
23	8	10	1	242.40	12.66	6.68	68.99	999.00	231.50	12.09	6.30	69.40	225.40	6.66	15.37	69.14	999.00	0.46	999.00	0.69	0.03
23	8	10	2	224.00	13.77	4.54	66.98	999.00	215.00	11.88	4.62	67.27	214.50	4.77	14.53	66.35	999.00	0.19	999.00	0.39	0.01
23	8	10	3	233.20	8.49	8.44	66.98	999.00	226.00	6.98	9.94	67.27	232.50	3.92	13.81	66.35	999.00	0.23	999.00	0.34	0.00
23	8	10	4	248.10	12.79	6.49	66.52	999.00	240.50	10.49	6.73	66.22	238.50	5.96	13.76	65.46	999.00	1.13	999.00	0.87	0.00
23	8	10	5	258.80	13.90	5.23	65.49	999.00	247.20	11.51	5.82	65.53	256.00	6.10	10.09	64.56	999.00	1.10	999.00	1.12	0.00
23	8	10	6	263.30	13.05	7.30	64.99	999.00	246.30	10.40	7.69	64.93	250.50	6.14	10.20	64.54	999.00	0.27	999.00	0.17	0.00
23	8	10	7	258.80	11.59	6.44	63.24	999.00	249.60	10.11	6.14	63.49	257.30	6.57	11.81	63.78	999.00	-0.65	999.00	-0.42	0.00
23	8	10	8	280.40	12.10	5.29	62.93	999.00	269.10	10.35	7.45	63.19	271.70	6.05	14.39	63.71	999.00	-0.85	999.00	-0.62	0.00
23	8	10	9	250.60	10.68	7.25	64.14	999.00	239.10	9.72	7.02	64.13	240.00	7.49	10.93	65.50	999.00	-1.91	999.00	-1.71	0.00
23	8	10	10	256.10	11.29	6.23	66.08	999.00	244.80	11.08	6.36	66.25	247.10	8.77	10.99	68.41	999.00	-2.39	999.00	-2.28	0.00
23	8	10	11	256.80	11.06	9.20	68.79	999.00	247.20	10.70	10.22	69.35	248.00	8.55	13.61	69.94	999.00	-2.03	999.00	-1.47	0.00
23	8	10	12	256.60	11.47	9.71	68.79	999.00	248.30	10.99	10.86	69.35	251.50	8.66	15.34	69.94	999.00	-2.52	999.00	-1.90	0.00
23	8	10	13	261.40	13.04	9.75	73.52	999.00	252.40	12.34	10.39	74.09	256.70	9.40	17.16	76.07	999.00	-2.69	999.00	-2.10	0.00
23	8	10	14	260.10	17.71	8.91	999.00	999.00	251.00	16.97	10.35	999.00	254.70	11.57	15.40	77.50	999.00	-2.47	999.00	-1.96	0.00
23	8	10	15	265.90	17.71	9.71	999.00	999.00	257.00	17.28	11.41	999.00	267.20	13.12	14.85	77.50	999.00	-2.68	999.00	-2.19	0.00
23	8	10	16	262.70	19.00	7.79	77.03	999.00	254.70	17.53	9.02	77.56	257.80	12.11	15.35	79.63	999.00	-2.37	999.00	-1.84	0.00
23	8	10	17	254.30	21.16	8.50	77.38	999.00	246.50	20.32	8.89	77.89	251.10	13.87	12.71	79.47	999.00	-1.78	999.00	-1.30	0.00
23	8	10	18	263.10	16.88	8.75	77.49	999.00	254.30	15.34	9.98	77.93	261.70	10.29	15.71	79.18	999.00	-1.42	999.00	-1.08	0.00
23	8	10	19	262.50	19.29	6.59	77.03	999.00	253.90	17.64	7.00	77.48	261.60	12.11	11.91	78.65	999.00	-1.50	999.00	-1.10	0.00
23	8	10	20	272.60	19.87	5.74	76.76	999.00	264.10	18.03	6.21	77.14	266.30	10.83	11.82	77.80	999.00	-0.69	999.00	-0.34	0.00
23	8	10	21	280.80	14.14	3.92	76.19	999.00	272.10	13.02	4.59	76.48	272.70	7.05	13.26	76.30	999.00	0.05	999.00	0.39	0.00
23	8	10	22	292.90	19.58	3.11	75.19	999.00	282.60	16.86	3.77	75.26	276.90	7.26	9.57	73.97	999.00	1.55	999.00	1.65	0.00
23	8	10	23	297.10	18.21	1.90	73.77	999.00	286.00	15.39	1.97	73.78	277.30	6.24	7.92	71.95	999.00	2.30	999.00	2.23	0.00
23	8	10	24	301.50	18.98	2.89	73.77	999.00	289.10	15.03	3.30	73.78	276.20	5.56	8.91	71.95	999.00	2.61	999.00	2.31	0.00
23	8	11	1	311.20	17.66	3.26	72.39	999.00	300.10	16.71	3.37	72.06	283.80	6.14	7.87	69.11	999.00	3.36	999.00	3.20	0.00
23	8	11	2	313.30	14.77	3.05	71.84	999.00	301.80	14.15	3.36	71.93	275.50	5.01	9.04	69.32	999.00	2.82	999.00	2.85	0.00
23	8	11	3	325.90	14.39	3.37	71.31	999.00	317.20	12.97	3.85	71.38	283.40	3.88	8.83	67.25	999.00	4.13	999.00	4.21	0.00
23	8	11	4	341.20	14.17	4.22	70.87	999.00	333.60	13.32	5.19	71.18	341.00	6.88	10.60	69.06	999.00	0.30	999.00	0.72	0.00
23	8	11	5	356.70	10.96	2.87	70.10	999.00	350.00	10.66	3.12	70.56	353.60	6.57	6.88	70.35	999.00	-0.54	999.00	-0.03	0.00
23	8	11	6	20.91	3.96	12.71	69.28	999.00	9.54	3.33	13.73	69.74	200.70	2.87	9.19	69.24	999.00	2.77	999.00	3.08	0.00
23	8	11	7	174.80	1.29	35.86	68.10	999.00	218.50	4.19	8.87	67.67	225.90	4.22	8.61	62.27	999.00	5.48	999.00	4.72	0.00
23	8	11	8	246.10	2.95	6.69	67.99	999.00	237.70	6.08	5.32	67.18	237.00	3.80	16.99	63.15	999.00	3.97	999.00	3.01	0.00
23	8	11	9	139.90	1.78	36.86	68.26	999.00	212.30	2.38	15.59	67.36	236.90	1.97	30.33	65.99	999.00	1.22	999.00	0.80	0.00
23	8	11	10	171.00	3.18	15.97	68.86	999.00	167.90	2.87	23.40	70.02	187.00	2.49	48.88	69.84	999.00	-2.38	999.00	-0.34	0.00
23	8	11	11	211.20	6.68	13.42	70.49	999.00	206.70	6.49	15.92	72.03	225.20	5.50	19.78	72.70	999.00	-2.02	999.00	-0.72	0.00
23	8	11	12	203.70	6.99	16.01	72.21	999.00	200.10	6.77	18.04	73.66	201.20	4.52	28.17	74.55	999.00	-2.37	999.00	-0.87	0.00
23	8	11	13	200.40	9.08	13.27	73.85	999.00	192.60	8.36	14.27	75.43	199.30	5.59	23.27	76.40	999.00	-2.61	999.00	-0.84	0.00
23	8	11	14	196.00	10.92	11.41	75.66	999.00	189.40	10.08	13.06	76.98	205.80	6.75	21.49	78.35	999.00	-2.67	999.00	-1.37	0.00
23	8	11	15	189.00	11.88	9.87	76.50	999.00	182.50	11.18	9.76	77.76	196.50	7.53	20.85	78.93	999.00	-2.70	999.00	-1.23	0.00
23	8	11	16	157.30	9.31	13.45	76.65	999.00	146.60	8.65	13.16	77.36	147.30	5.77	19.60	78.90	999.00	-2.42	999.00	-1.74	0.07
23	8	11	17	47.12	19.91	7.88	74.14	999.00	40.49	20.39	7.96	74.67	50.61	17.25	10.60	75.43	999.00	-0.69	999.00	-0.77	0.27
23	8	11	18	85.10	13.99	6.62	68.60	999.00	77.20	13.47	6.76	68.82	83.60	7.90	14.53	69.99	999.00	-1.59	999.00	-1.19	0.00
23	8	11	19	106.90	12.10	6.03	70.70	999.00	97.30	11.55	6.98	71.18	97.80	6.13	16.16	72.70	999.00	-1.48	999.00	-1.08	0.00
23	8	11	20	112.70	15.45	8.10	70.53	999.00	105.60	14.20	9.27	70.97	113.70	7.38	19.58	72.03	999.00	-1.20	999.00	-0.83	0.00
23	8	11	21	128.20	16.35	5.57	70.92	999.00	120.50	14.04	7.09	71.05	123.60	6.50	18.90	71.47	999.00	-0.15	999.00	-0.32	0.05
23	8	11	22	157.70	12.43	8.18	70.36	999.00	152.60	11.33	8.99	70.12	162.60	4.93	34.88	70.21	999.00	0.95	999.00	0.06	0.02
23	8	11	23	149.90	11.38	6.20	68.95	999.00	132.60	11.01	6.17	68.77	133.50	5.07	15.77	68.56	999.00	0.35	999.00	0.20	0.05
23	8	11	24	168.10	6.61	17.21	69.63	999.00	151.30	4.71	32.41	69.07	79.50	2.04	52.98	68.96	999.00	0.15	999.00	0.10	0.16
23	8	12	1	195.90	12.42	4.84	70.25	999.00	185.80	11.20	4.86	69.45	186.70	4.44	16.00	68.97	999.00	1.91	999.00	1.06	0.00

23	8	12	2	231.60	13.43	4.48	70.32	999.00	220.40	11.57	5.23	69.57	213.40	5.01	14.77	68.98	999.00	1.02	999.00	0.55	0.00
23	8	12	3	226.60	13.19	3.59	69.61	999.00	215.40	10.42	3.70	69.11	206.70	4.34	11.26	68.75	999.00	0.95	999.00	0.41	0.00
23	8	12	4	240.10	19.18	2.87	70.52	999.00	230.20	15.79	3.86	69.43	229.90	8.02	11.39	68.61	999.00	1.49	999.00	0.61	0.00
23	8	12	5	236.40	19.32	3.35	69.97	999.00	225.40	16.53	4.70	69.86	222.20	7.57	13.74	68.91	999.00	1.05	999.00	1.02	0.00
23	8	12	6	228.70	18.30	4.40	69.44	999.00	220.20	15.39	6.16	69.54	223.10	7.66	13.75	68.88	999.00	0.20	999.00	0.45	0.00
23	8	12	7	235.70	17.69	4.20	69.38	999.00	227.30	14.84	5.06	69.57	232.20	7.81	11.56	69.08	999.00	0.16	999.00	0.36	0.00
23	8	12	8	232.50	17.27	4.18	69.84	999.00	222.40	14.71	5.41	69.97	225.20	7.60	11.99	70.10	999.00	-0.95	999.00	-0.71	0.00
23	8	12	9	236.70	18.68	4.37	70.88	999.00	229.10	17.72	4.86	71.26	235.60	12.04	10.67	72.60	999.00	-2.02	999.00	-1.59	0.00
23	8	12	10	243.50	15.47	5.67	72.36	999.00	235.10	15.11	5.34	72.85	239.70	11.01	10.91	73.57	999.00	-0.98	999.00	-0.44	0.00
23	8	12	11	252.40	11.85	8.58	74.76	999.00	242.20	11.51	7.35	75.28	245.80	8.39	12.22	76.70	999.00	-2.20	999.00	-1.67	0.00
23	8	12	12	250.90	15.69	6.73	77.61	999.00	242.60	15.33	6.79	78.11	245.10	11.47	11.16	79.82	999.00	-2.28	999.00	-1.76	0.00
23	8	12	13	228.10	12.31	12.07	79.66	999.00	221.00	11.54	13.36	80.19	235.10	8.19	15.66	81.88	999.00	-2.03	999.00	-1.44	0.00
23	8	12	14	257.50	15.82	7.21	79.66	999.00	249.90	14.57	8.09	80.19	254.10	8.89	11.82	81.88	999.00	-1.10	999.00	-0.64	0.52
23	8	12	15	348.40	3.23	91.30	72.84	999.00	37.67	3.01	87.20	73.53	148.50	2.77	49.90	74.90	999.00	-2.02	999.00	-1.31	0.03
23	8	12	16	3.21	6.48	17.62	74.32	999.00	3.06	5.83	19.55	75.07	17.41	5.68	20.64	75.93	999.00	-1.83	999.00	-0.91	0.00
23	8	12	17	60.87	5.31	16.00	75.46	999.00	61.04	5.57	14.04	76.04	76.30	4.74	21.88	77.20	999.00	-1.35	999.00	-1.18	0.00
23	8	12	18	115.80	5.94	15.52	75.04	999.00	111.70	6.08	9.60	75.02	116.70	3.58	24.80	75.82	999.00	-1.42	999.00	-1.09	0.00
23	8	12	19	316.40	3.62	24.84	75.96	999.00	310.10	3.04	27.47	76.65	330.00	2.43	37.21	77.42	999.00	-1.78	999.00	-1.23	0.00
23	8	12	20	318.90	16.78	4.07	77.72	999.00	309.50	15.97	5.06	78.11	315.50	8.96	12.37	79.30	999.00	-1.22	999.00	-0.81	0.00
23	8	12	21	299.30	18.64	1.69	77.40	999.00	289.70	15.58	2.27	77.57	285.20	6.35	8.50	76.70	999.00	1.98	999.00	2.03	0.00
23	8	12	22	305.40	19.51	4.22	75.78	999.00	295.00	16.57	5.39	75.83	288.10	7.06	9.51	73.97	999.00	1.71	999.00	1.75	0.00
23	8	12	23	303.40	19.83	4.70	74.21	999.00	293.80	17.05	5.62	74.35	290.20	8.48	10.72	73.03	999.00	0.89	999.00	1.03	0.00
23	8	12	24	314.80	19.64	4.93	72.60	999.00	306.40	18.11	6.30	72.81	302.30	8.08	14.95	71.65	999.00	0.85	999.00	1.11	0.00
23	8	13	1	319.80	18.39	4.78	72.09	999.00	311.50	17.24	5.87	72.49	316.20	9.56	11.85	72.35	999.00	-0.43	999.00	-0.01	0.00
23	8	13	2	314.60	12.75	3.64	70.83	999.00	299.00	11.51	3.64	71.03	251.10	5.18	8.61	70.21	999.00	2.17	999.00	1.95	0.00
23	8	13	3	303.10	13.51	3.59	69.18	999.00	283.90	12.49	4.85	68.68	257.00	4.92	7.02	66.55	999.00	2.88	999.00	2.35	0.00
23	8	13	4	298.80	13.11	2.79	68.48	999.00	278.20	11.86	3.28	68.08	250.80	5.68	5.67	65.56	999.00	2.84	999.00	2.53	0.00
23	8	13	5	286.60	12.24	4.54	67.15	999.00	257.80	10.39	5.58	65.91	233.30	3.03	18.96	64.15	999.00	3.15	999.00	1.60	0.00
23	8	13	6	294.00	13.02	3.16	66.91	999.00	268.50	11.09	3.71	65.26	219.20	3.40	12.19	62.96	999.00	4.67	999.00	2.77	0.00
23	8	13	7	306.60	6.54	2.34	68.24	999.00	281.00	5.05	8.67	66.74	181.70	3.84	11.90	63.03	999.00	5.56	999.00	4.51	0.00
23	8	13	8	231.40	7.91	4.10	67.88	999.00	213.60	9.81	4.19	66.72	204.10	3.66	12.95	63.53	999.00	2.84	999.00	2.23	0.00
23	8	13	9	202.70	9.73	4.09	66.72	999.00	185.00	9.60	6.55	65.80	190.00	5.95	14.10	65.21	999.00	0.93	999.00	0.13	0.00
23	8	13	10	194.30	9.05	7.47	67.71	999.00	185.30	8.87	9.05	69.04	191.20	5.68	15.89	69.42	999.00	-1.84	999.00	-0.40	0.00
23	8	13	11	206.60	12.47	10.21	70.91	999.00	200.40	11.65	11.16	72.55	208.70	7.20	21.79	73.15	999.00	-2.31	999.00	-0.95	0.00
23	8	13	12	234.80	13.17	10.43	73.30	999.00	228.50	13.00	10.42	73.99	239.40	9.88	14.62	75.75	999.00	-2.35	999.00	-1.82	0.00
23	8	13	13	260.80	12.29	12.82	75.40	999.00	253.00	11.74	13.40	75.96	260.40	9.38	14.26	77.98	999.00	-2.56	999.00	-2.03	0.00
23	8	13	14	342.30	11.67	7.21	75.49	999.00	340.10	11.73	7.27	76.18	353.30	10.90	9.38	77.90	999.00	-1.79	999.00	-1.04	0.00
23	8	13	15	341.80	13.30	9.81	74.95	999.00	335.00	12.90	10.75	75.73	348.30	10.25	14.19	77.20	999.00	-2.33	999.00	-1.58	0.00
23	8	13	16	336.90	11.13	7.93	76.06	999.00	331.60	10.97	9.31	76.83	347.20	9.27	13.25	78.32	999.00	-2.12	999.00	-1.37	0.00
23	8	13	17	8.35	7.97	13.57	76.82	999.00	5.44	7.03	14.71	77.57	21.15	6.82	15.58	79.00	999.00	-1.39	999.00	-0.70	0.00
23	8	13	18	13.27	5.63	13.76	76.42	999.00	13.93	4.53	17.66	76.96	33.57	4.09	17.52	77.42	999.00	-1.00	999.00	-0.36	0.00
23	8	13	19	6.49	5.59	15.13	76.82	999.00	5.54	4.88	16.93	77.35	22.28	4.23	15.95	77.80	999.00	-0.89	999.00	-0.38	0.00
23	8	13	20	0.30	4.55	12.84	76.21	999.00	4.71	3.43	27.04	76.65	60.54	2.63	51.76	76.98	999.00	-0.81	999.00	-0.31	0.00
23	8	13	21	357.00	10.71	3.69	75.37	999.00	349.50	10.22	3.79	75.77	353.70	6.23	9.76	75.93	999.00	-0.85	999.00	-0.36	0.00
23	8	13	22	0.56	11.99	4.00	75.61	999.00	352.50	11.31	4.29	76.12	355.10	7.48	8.80	76.53	999.00	-0.88	999.00	-0.43	0.00
23	8	13	23	34.19	9.10	6.09	75.61	999.00	25.59	7.29	7.77	76.12	26.80	7.03	10.89	76.53	999.00	-1.25	999.00	-0.81	0.00
23	8	13	24	45.09	9.57	8.58	74.90	999.00	37.15	9.08	9.19	75.37	42.76	7.73	14.10	76.15	999.00	-1.29	999.00	-0.78	0.00
23	8	14	1	69.21	14.94	3.52	73.46	999.00	60.11	13.86	4.42	73.94	65.54	7.75	12.19	74.65	999.00	-1.10	999.00	-0.69	0.00
23	8	14	2	82.60	14.68	3.94	72.09	999.00	73.20	13.75	4.37	72.54	76.40	8.08	11.64	73.18	999.00	-0.99	999.00	-0.54	0.00
23	8	14	3	100.10	13.33	4.79	999.00	999.00	91.10	12.60	5.62	999.00	97.20	5.79	17.85	72.83	999.00	-0.90	999.00	-0.44	0.00
23	8	14	4	90.40	15.71	4.32	71.65	999.00	82.10	14.93	4.91	72.11	87.00	7.47	16.21	72.50	999.00	-0.94	999.00	-0.47	0.00
23	8	14	5	94.80	14.37	4.68	71.38	999.00	87.10	13.31	5.44	71.82	97.00	5.18	18.40	72.18	999.00	-0.59	999.00	-0.16	0.00
23	8	14	6	89.40	14.89	5.81	71.16	999.00	80.40	13.89	6.14	71.59	88.20	6.13	16.94	71.70	999.00	-0.49	999.00	-0.08	0.00

23	8	14	7	90.50	14.97	4.55	999.00	999.00	82.10	14.23	5.46	999.00	88.60	5.99	15.73	71.67	999.00	-0.47	999.00	-0.03	0.00
23	8	14	8	89.70	15.59	5.47	71.33	999.00	81.30	14.50	5.96	71.77	87.30	7.42	16.28	72.10	999.00	-1.04	999.00	-0.61	0.00
23	8	14	9	101.10	16.97	3.57	71.35	999.00	93.50	16.39	4.82	71.83	105.20	7.67	16.79	72.80	999.00	-1.56	999.00	-1.09	0.00
23	8	14	10	100.20	17.67	2.97	999.00	999.00	90.80	16.72	4.44	999.00	99.20	7.22	18.76	72.47	999.00	-1.12	999.00	-0.67	0.00
23	8	14	11	104.70	17.03	4.61	71.30	999.00	95.60	16.17	5.81	71.76	106.90	7.69	17.76	72.47	999.00	-1.21	999.00	-0.76	0.00
23	8	14	12	101.60	18.95	3.64	71.52	999.00	93.70	18.22	4.64	71.96	102.40	8.23	17.75	72.75	999.00	-1.14	999.00	-0.72	0.00
23	8	14	13	104.50	16.55	6.28	71.64	999.00	97.00	15.63	7.47	72.09	104.40	8.02	18.21	73.07	999.00	-1.54	999.00	-1.08	0.00
23	8	14	14	107.20	16.14	7.49	71.64	999.00	98.10	15.01	8.25	72.09	104.60	7.80	19.45	73.07	999.00	-2.42	999.00	-1.91	0.00
23	8	14	15	91.70	15.74	6.52	71.53	999.00	82.20	14.99	7.75	72.07	85.60	8.48	17.06	73.82	999.00	-2.32	999.00	-1.77	0.00
23	8	14	16	95.60	15.50	5.17	71.42	999.00	86.70	14.55	7.02	71.97	91.90	7.74	16.04	73.48	999.00	-1.90	999.00	-1.38	0.00
23	8	14	17	93.70	14.96	5.70	999.00	999.00	84.60	13.85	7.68	999.00	94.90	6.79	19.18	72.80	999.00	-1.40	999.00	-0.91	0.00
23	8	14	18	98.40	13.81	4.89	71.02	999.00	90.30	12.80	5.84	71.47	98.70	5.73	16.54	72.15	999.00	-1.01	999.00	-0.58	0.15
23	8	14	19	187.10	6.31	8.00	68.38	999.00	198.60	6.93	6.83	68.46	220.80	4.22	12.41	69.21	999.00	0.05	999.00	-0.58	0.00
23	8	14	20	151.70	12.22	11.90	68.27	999.00	143.00	10.46	12.67	67.74	122.50	3.31	35.93	67.14	999.00	1.32	999.00	1.19	0.00
23	8	14	21	168.60	10.12	4.65	68.02	999.00	165.70	7.89	6.19	67.99	183.80	2.58	29.32	67.92	999.00	-0.39	999.00	-0.38	0.00
23	8	14	22	142.70	14.17	3.79	67.53	999.00	129.50	11.71	5.29	67.77	123.50	5.10	15.99	68.18	999.00	-0.41	999.00	-0.29	0.00
23	8	14	23	109.90	12.20	7.62	68.04	999.00	98.90	10.83	8.28	68.31	92.70	5.07	14.10	68.57	999.00	-0.57	999.00	-0.24	0.01
23	8	14	24	118.20	12.93	10.79	69.10	999.00	110.50	11.94	12.35	69.51	123.20	6.02	19.89	69.70	999.00	0.02	999.00	0.37	0.45
23	8	15	1	128.50	12.44	5.81	68.35	999.00	121.30	10.91	7.24	68.71	132.50	4.62	20.89	68.45	999.00	-0.67	999.00	-0.29	0.10
23	8	15	2	130.40	10.27	9.01	67.54	999.00	121.60	9.49	9.81	67.52	129.70	4.34	22.04	67.82	999.00	-0.07	999.00	-0.15	0.08
23	8	15	3	167.90	9.73	5.72	67.02	999.00	160.70	8.26	6.66	67.27	169.00	2.88	27.27	67.79	999.00	-0.81	999.00	-0.63	0.01
23	8	15	4	199.60	12.34	6.09	67.21	999.00	186.10	9.96	6.73	67.26	187.40	4.25	18.42	67.81	999.00	-0.34	999.00	-0.42	0.00
23	8	15	5	231.90	15.24	6.08	67.53	999.00	222.50	13.93	6.88	67.49	226.20	8.11	13.50	67.97	999.00	-0.53	999.00	-0.53	0.00
23	8	15	6	232.90	15.59	4.43	66.48	999.00	224.00	14.28	5.61	66.53	230.10	8.56	12.10	66.89	999.00	-0.53	999.00	-0.41	0.00
23	8	15	7	223.50	16.48	4.76	65.08	999.00	214.80	14.70	5.81	65.02	222.50	7.73	13.48	65.40	999.00	-0.52	999.00	-0.14	0.00
23	8	15	8	234.60	11.14	6.26	63.33	999.00	227.80	10.36	6.01	63.76	235.60	7.19	13.26	64.07	999.00	-1.09	999.00	-0.59	0.00
23	8	15	9	233.50	10.98	7.88	63.12	999.00	223.80	10.21	8.60	63.58	229.50	6.55	16.62	63.85	999.00	-0.37	999.00	0.09	0.00
23	8	15	10	227.20	14.93	5.69	63.40	999.00	219.80	13.96	7.19	63.90	228.70	9.17	12.45	64.18	999.00	-1.20	999.00	-0.71	0.00
23	8	15	11	231.10	15.90	6.17	64.50	999.00	224.30	15.70	7.01	64.97	234.90	11.07	11.52	66.45	999.00	-1.94	999.00	-1.48	0.00
23	8	15	12	223.40	12.82	7.34	65.10	999.00	214.40	11.65	7.96	65.62	219.00	7.27	16.74	67.04	999.00	-2.00	999.00	-1.45	0.00
23	8	15	13	242.80	11.45	9.21	65.34	999.00	233.80	11.20	9.79	65.88	239.20	7.22	16.08	67.30	999.00	-1.66	999.00	-1.18	0.00
23	8	15	14	256.50	11.98	6.13	65.07	999.00	247.30	11.74	6.19	65.56	248.80	9.09	11.54	66.78	999.00	-1.93	999.00	-1.47	0.00
23	8	15	15	190.60	4.65	12.18	65.05	999.00	179.60	4.48	12.06	65.75	188.00	3.92	27.79	67.13	999.00	-2.38	999.00	-1.10	0.00
23	8	15	16	328.90	10.20	11.75	67.76	999.00	324.80	10.31	13.33	68.57	339.70	8.05	19.18	70.90	999.00	-3.19	999.00	-2.38	0.00
23	8	15	17	326.40	12.09	9.20	68.35	999.00	318.70	11.94	8.78	69.04	329.40	8.38	15.38	71.30	999.00	-3.22	999.00	-2.55	0.00
23	8	15	18	321.30	17.67	6.82	68.49	999.00	315.00	17.20	7.64	69.04	321.50	11.78	13.09	71.35	999.00	-2.51	999.00	-1.92	0.01
23	8	15	19	352.60	26.26	3.88	67.70	999.00	345.30	24.48	4.94	68.37	353.00	17.35	8.28	68.34	999.00	0.26	999.00	1.04	0.00
23	8	15	20	4.96	20.32	7.82	66.59	999.00	358.10	18.23	8.96	67.19	4.23	15.73	10.72	66.64	999.00	-0.43	999.00	0.08	0.00
23	8	15	21	0.81	20.88	6.57	65.82	999.00	353.30	19.09	7.28	66.35	357.80	15.83	8.12	66.38	999.00	-0.43	999.00	0.12	0.00
23	8	15	22	6.58	21.32	6.67	65.21	999.00	358.60	19.73	7.04	65.72	3.39	17.20	8.82	66.34	999.00	-1.65	999.00	-1.14	0.00
23	8	15	23	350.30	17.39	5.69	65.93	999.00	343.10	16.19	6.21	66.42	351.70	11.98	9.13	67.47	999.00	-1.51	999.00	-1.01	0.00
23	8	15	24	1.50	17.41	4.49	65.96	999.00	353.40	16.25	5.40	66.43	356.40	12.89	8.77	67.42	999.00	-1.48	999.00	-0.99	0.00
23	8	16	1	357.70	12.64	9.68	66.36	999.00	349.70	11.85	9.83	66.86	356.20	9.14	11.04	67.82	999.00	-1.42	999.00	-0.92	0.00
23	8	16	2	335.90	13.61	4.37	66.01	999.00	327.20	13.35	5.26	66.47	327.20	7.43	11.14	67.05	999.00	-0.81	999.00	-0.36	0.00
23	8	16	3	313.10	11.01	7.04	65.51	999.00	298.90	10.99	6.78	65.80	274.80	6.17	9.08	65.02	999.00	1.05	999.00	1.25	0.00
23	8	16	4	312.50	13.50	4.07	64.87	999.00	301.00	13.51	3.66	65.02	288.20	6.71	8.50	63.31	999.00	1.62	999.00	1.63	0.00
23	8	16	5	323.80	13.99	2.63	64.72	999.00	311.70	11.96	3.52	64.68	278.00	5.57	9.26	63.19	999.00	2.34	999.00	2.15	0.00
23	8	16	6	325.90	10.80	6.24	65.38	999.00	314.00	9.91	8.42	65.59	281.90	4.99	7.37	62.46	999.00	2.45	999.00	2.70	0.00
23	8	16	7	322.60	11.98	3.25	65.43	999.00	312.70	11.57	2.96	65.80	269.00	3.99	7.62	61.75	999.00	4.39	999.00	4.73	0.00
23	8	16	8	332.50	10.44	3.05	65.09	999.00	321.00	9.63	2.80	65.36	264.90	3.03	13.92	61.17	999.00	3.36	999.00	3.58	0.00
23	8	16	9	265.60	2.88	33.73	64.74	999.00	200.30	2.63	23.88	64.06	143.70	2.66	22.83	64.38	999.00	-1.57	999.00	-0.37	0.00
23	8	16	10	223.20	2.54	56.49	66.45	999.00	203.90	2.69	65.29	68.06	276.10	3.02	67.54	68.29	999.00	-2.48	999.00	-0.44	0.00
23	8	16	11	340.90	4.39	16.04	68.85	999.00	333.90	4.33	16.20	70.29	342.20	4.23	20.39	71.72	999.00	-3.42	999.00	-2.02	0.00

23	8	16	12	357.50	3.22	26.54	70.00	999.00	353.10	3.29	24.07	71.47	20.55	3.82	16.22	72.48	999.00	-1.64	999.00	-0.21	0.00
23	8	16	13	68.00	4.79	24.55	71.56	999.00	60.15	4.47	25.13	72.68	57.14	4.07	34.00	72.73	999.00	-1.33	999.00	-0.54	0.00
23	8	16	14	107.10	6.33	16.58	71.20	999.00	96.00	6.51	14.87	72.10	97.10	5.45	17.86	73.88	999.00	-2.95	999.00	-2.19	0.00
23	8	16	15	63.56	6.79	9.99	72.07	999.00	55.99	7.02	9.64	72.61	61.82	6.11	15.70	74.25	999.00	-1.55	999.00	-1.20	0.00
23	8	16	16	78.40	7.23	14.19	72.32	999.00	66.95	7.41	15.36	72.83	64.41	6.09	21.09	74.28	999.00	-2.05	999.00	-1.47	0.00
23	8	16	17	97.20	7.66	10.77	73.13	999.00	87.10	7.03	12.83	73.77	92.50	5.76	24.24	75.65	999.00	-2.58	999.00	-1.94	0.00
23	8	16	18	130.00	4.96	21.29	74.48	999.00	113.10	4.80	18.09	74.88	100.80	3.46	17.17	76.82	999.00	-1.98	999.00	-1.65	0.00
23	8	16	19	195.40	10.19	10.35	75.61	999.00	186.10	9.47	10.64	76.59	201.70	5.35	21.95	77.45	999.00	-1.56	999.00	-0.61	0.00
23	8	16	20	201.50	12.35	3.31	75.19	999.00	193.10	10.77	4.00	75.78	198.70	4.64	13.39	76.15	999.00	-0.46	999.00	0.04	0.00
23	8	16	21	210.90	14.34	1.54	74.27	999.00	203.40	12.45	2.77	74.42	202.50	4.29	11.91	73.60	999.00	1.30	999.00	1.29	0.00
23	8	16	22	217.70	13.40	2.36	73.87	999.00	202.20	13.19	2.32	73.53	186.90	3.10	13.12	71.47	999.00	2.99	999.00	2.55	0.00
23	8	16	23	221.10	14.94	2.30	73.28	999.00	202.90	14.20	1.42	72.73	194.20	4.22	10.59	69.82	999.00	3.71	999.00	2.85	0.00
23	8	16	24	216.10	15.83	1.39	73.03	999.00	201.10	14.79	2.11	72.00	188.70	3.99	10.48	68.47	999.00	4.60	999.00	3.21	0.00
23	8	17	1	215.40	18.03	1.61	72.29	999.00	199.60	15.88	2.53	69.98	195.50	4.60	12.07	67.40	999.00	4.96	999.00	2.52	0.00
23	8	17	2	217.40	19.35	2.29	72.29	999.00	203.30	15.51	2.83	69.98	199.70	5.70	13.91	67.40	999.00	2.25	999.00	1.41	0.00
23	8	17	3	228.30	18.62	1.87	68.32	999.00	216.60	13.90	3.31	67.02	210.60	4.12	12.36	65.45	999.00	2.53	999.00	1.43	0.00
23	8	17	4	213.90	16.89	3.70	66.30	999.00	195.20	14.33	4.07	65.39	190.20	4.59	16.08	64.26	999.00	2.65	999.00	1.41	0.00
23	8	17	5	212.10	17.75	2.53	65.26	999.00	198.10	13.96	2.63	64.11	203.50	4.78	15.76	63.30	999.00	1.60	999.00	0.52	0.00
23	8	17	6	203.40	19.10	2.72	64.66	999.00	189.60	15.57	2.72	63.57	190.50	6.11	13.71	62.78	999.00	1.36	999.00	0.54	0.00
23	8	17	7	200.00	20.32	3.42	63.69	999.00	188.70	16.62	4.28	63.05	192.60	6.44	18.07	62.71	999.00	0.59	999.00	0.09	0.00
23	8	17	8	201.90	19.63	4.09	63.42	999.00	192.00	16.26	5.24	63.23	197.80	7.58	15.74	63.36	999.00	-0.62	999.00	-0.43	0.00
23	8	17	9	200.70	19.24	6.59	64.63	999.00	192.40	16.48	7.96	65.23	197.20	7.84	19.61	65.89	999.00	-1.34	999.00	-0.69	0.00
23	8	17	10	203.90	18.19	5.01	66.89	999.00	196.10	17.39	5.66	67.81	203.60	9.14	15.82	68.61	999.00	-1.65	999.00	-0.79	0.00
23	8	17	11	220.50	18.93	6.64	69.06	999.00	213.30	17.46	7.51	69.93	224.50	11.62	15.65	71.25	999.00	-2.24	999.00	-1.68	0.00
23	8	17	12	219.00	23.00	10.50	71.46	999.00	211.50	21.31	9.80	72.08	223.30	13.08	16.31	73.80	999.00	-2.42	999.00	-1.78	0.00
23	8	17	13	220.70	25.53	4.73	72.97	999.00	213.30	23.68	5.48	73.46	221.10	14.42	15.90	75.05	999.00	-2.04	999.00	-1.58	0.00
23	8	17	14	212.10	24.96	6.53	72.97	999.00	204.00	23.51	7.22	73.46	213.10	12.61	16.36	75.05	999.00	-2.20	999.00	-1.52	0.00
23	8	17	15	210.10	18.98	5.19	73.93	999.00	202.60	17.38	5.76	74.47	211.30	8.62	16.42	75.35	999.00	-1.14	999.00	-0.63	0.00
23	8	17	16	190.10	25.62	7.60	70.40	999.00	181.90	22.65	8.67	70.75	194.20	9.99	21.08	70.82	999.00	0.11	999.00	0.26	0.12
23	8	17	17	216.50	20.73	4.22	65.65	999.00	208.30	18.12	6.01	64.75	214.90	8.82	14.86	65.43	999.00	-0.26	999.00	-0.70	0.02
23	8	17	18	232.00	22.67	10.94	64.82	999.00	225.00	20.47	11.71	64.69	234.00	12.56	15.47	65.51	999.00	-0.96	999.00	-0.84	0.08
23	8	17	19	221.20	17.76	5.95	65.34	999.00	213.20	16.10	6.37	65.69	222.20	9.15	15.46	66.42	999.00	-1.09	999.00	-0.40	0.00
23	8	17	20	221.80	16.80	4.31	65.90	999.00	211.60	14.34	5.46	66.40	213.90	6.78	15.73	66.47	999.00	-0.30	999.00	0.00	0.00
23	8	17	21	282.00	21.73	6.61	65.92	999.00	272.30	19.55	6.66	65.23	271.80	11.40	11.94	65.18	999.00	2.23	999.00	0.43	0.05
23	8	17	22	277.10	22.48	2.15	66.31	999.00	264.20	17.86	3.30	64.02	262.90	7.58	10.12	62.00	999.00	4.45	999.00	1.89	0.00
23	8	17	23	287.50	20.34	3.58	66.31	999.00	273.00	16.57	4.28	64.02	261.10	7.05	9.35	62.00	999.00	4.03	999.00	3.65	0.00
23	8	17	24	311.00	22.96	6.07	66.35	999.00	301.50	21.59	6.84	66.15	301.80	10.34	14.55	62.63	999.00	2.62	999.00	2.89	0.00
23	8	18	1	330.10	26.32	5.72	65.09	999.00	322.90	25.23	6.39	65.52	329.40	15.17	13.11	63.79	999.00	1.25	999.00	1.73	0.00
23	8	18	2	337.10	22.82	4.29	65.09	999.00	329.00	22.11	5.15	65.52	335.80	13.12	12.72	63.79	999.00	-0.78	999.00	-0.34	0.00
23	8	18	3	341.70	22.63	6.93	63.64	999.00	335.00	21.30	8.22	64.08	345.00	13.24	12.96	64.36	999.00	-0.87	999.00	-0.43	0.00
23	8	18	4	323.40	18.40	4.91	62.98	999.00	314.90	17.19	5.65	63.41	318.20	9.57	12.31	63.48	999.00	-0.23	999.00	0.19	0.00
23	8	18	5	295.60	17.17	1.72	61.38	999.00	276.60	15.63	3.24	61.45	265.50	6.89	9.22	60.56	999.00	1.50	999.00	1.05	0.00
23	8	18	6	299.90	18.15	2.01	59.64	999.00	278.40	15.98	3.42	58.90	263.50	6.89	9.08	57.99	999.00	2.85	999.00	1.38	0.00
23	8	18	7	292.20	19.23	1.26	59.83	999.00	273.20	16.92	3.12	58.55	265.10	7.06	9.98	56.98	999.00	2.94	999.00	1.89	0.00
23	8	18	8	280.60	17.50	4.47	58.84	999.00	265.30	14.07	6.03	57.87	260.50	6.43	11.16	57.06	999.00	0.60	999.00	0.05	0.00
23	8	18	9	287.00	15.15	5.84	58.25	999.00	274.90	12.16	8.71	58.09	273.90	6.77	13.86	58.88	999.00	-1.32	999.00	-1.26	0.00
23	8	18	10	298.50	13.36	7.38	60.38	999.00	288.50	12.55	7.99	60.85	287.50	9.73	14.04	62.66	999.00	-2.59	999.00	-2.01	0.00
23	8	18	11	302.90	16.37	7.00	62.63	999.00	295.90	16.31	9.41	63.23	305.10	11.67	18.11	65.53	999.00	-3.02	999.00	-2.47	0.00
23	8	18	12	307.80	17.95	6.51	63.96	999.00	299.70	17.86	7.35	64.52	307.70	11.88	16.35	66.91	999.00	-2.92	999.00	-2.35	0.00
23	8	18	13	308.70	22.56	7.28	65.35	999.00	300.30	21.77	8.27	65.90	306.40	14.14	14.99	68.23	999.00	-3.13	999.00	-2.57	0.00
23	8	18	14	312.30	20.83	6.55	66.39	999.00	304.40	20.44	7.12	66.99	311.40	13.83	15.86	69.52	999.00	-3.23	999.00	-2.62	0.00
23	8	18	15	315.90	21.42	5.20	66.92	999.00	308.60	21.12	6.35	67.54	319.30	14.29	13.18	70.07	999.00	-3.08	999.00	-2.44	0.00
23	8	18	16	311.00	17.17	6.83	67.62	999.00	302.90	17.06	7.71	68.19	309.80	11.50	16.89	70.75	999.00	-3.01	999.00	-2.47	0.00

23	8	18	17	310.90	17.01	7.20	68.38	999.00	302.60	16.58	7.61	68.96	311.00	11.71	15.14	71.32	999.00	-2.91	999.00	-2.38	0.00
23	8	18	18	318.00	16.10	6.15	69.08	999.00	311.00	15.83	8.30	69.57	317.40	10.51	15.36	72.00	999.00	-2.76	999.00	-2.27	0.00
23	8	18	19	317.40	13.35	6.98	69.36	999.00	309.30	12.91	8.61	69.87	315.10	7.75	15.20	71.80	999.00	-2.16	999.00	-1.77	0.00
23	8	18	20	313.90	12.57	5.64	69.38	999.00	305.40	12.04	6.03	69.75	300.30	5.92	14.45	70.61	999.00	-0.36	999.00	-0.04	0.00
23	8	18	21	312.30	12.61	8.13	68.98	999.00	301.90	11.63	9.42	69.28	277.80	5.00	14.02	67.95	999.00	1.87	999.00	2.08	0.00
23	8	18	22	300.40	11.33	2.36	68.89	999.00	289.80	10.67	1.84	69.23	259.80	4.32	7.01	66.76	999.00	2.52	999.00	2.89	0.00
23	8	18	23	289.60	9.01	2.70	68.56	999.00	274.00	8.66	2.84	68.79	205.10	2.46	11.33	64.29	999.00	5.10	999.00	5.26	0.00
23	8	18	24	288.60	8.82	3.33	68.08	999.00	271.40	8.76	2.39	68.22	180.90	2.04	30.32	62.21	999.00	6.01	999.00	6.17	0.00
23	8	19	1	283.00	9.05	5.72	67.62	999.00	264.50	9.51	2.16	67.42	209.60	2.34	16.49	60.97	999.00	6.27	999.00	5.91	0.00
23	8	19	2	296.90	15.40	5.56	66.70	999.00	277.90	13.96	6.62	66.04	251.60	4.97	10.25	59.75	999.00	5.78	999.00	4.56	0.00
23	8	19	3	331.20	13.18	2.03	65.18	999.00	316.20	10.93	3.13	64.63	247.80	3.45	10.22	59.34	999.00	6.24	999.00	5.65	0.00
23	8	19	4	327.00	11.58	3.50	65.51	999.00	306.60	9.72	3.90	64.51	209.20	2.13	40.68	58.69	999.00	7.57	999.00	6.76	0.00
23	8	19	5	326.60	10.52	2.50	65.56	999.00	306.70	8.95	3.11	64.59	222.30	3.32	11.44	57.82	999.00	7.97	999.00	7.20	0.00
23	8	19	6	327.50	8.54	4.89	64.91	999.00	299.00	9.14	3.75	64.12	214.40	2.71	13.99	56.32	999.00	999.00	999.00	7.57	0.00
23	8	19	7	320.40	6.23	3.41	63.26	999.00	276.90	8.61	3.04	61.25	194.70	4.05	8.51	55.37	999.00	7.97	999.00	6.12	0.00
23	8	19	8	317.70	3.47	6.43	62.35	999.00	269.10	6.42	4.23	61.46	223.10	4.19	10.74	54.82	999.00	999.00	999.00	5.67	0.00
23	8	19	9	297.10	5.51	3.75	63.03	999.00	261.20	7.18	5.32	60.08	235.70	5.08	12.67	56.86	999.00	4.53	999.00	1.59	0.00
23	8	19	10	250.20	5.66	8.08	61.63	999.00	232.70	5.87	8.71	59.69	234.40	5.21	14.44	60.42	999.00	-1.37	999.00	-1.11	0.00
23	8	19	11	216.20	5.59	16.78	62.57	999.00	219.80	5.53	17.09	63.52	247.10	5.29	15.35	64.46	999.00	-2.05	999.00	-1.12	0.00
23	8	19	12	235.00	6.52	12.01	66.10	999.00	228.40	6.53	12.58	66.75	241.10	5.50	19.19	68.32	999.00	-2.51	999.00	-1.77	0.00
23	8	19	13	235.40	6.29	14.45	68.16	999.00	227.90	6.01	15.64	68.96	231.70	5.13	25.55	70.63	999.00	-2.56	999.00	-1.73	0.00
23	8	19	14	239.60	6.43	21.07	69.35	999.00	231.80	6.20	20.34	70.25	243.80	5.10	26.60	71.90	999.00	-2.77	999.00	-1.78	0.00
23	8	19	15	213.60	7.52	16.61	70.32	999.00	206.60	7.26	16.36	71.17	209.20	5.01	29.50	72.75	999.00	-2.48	999.00	-1.51	0.00
23	8	19	16	199.60	10.50	10.27	71.60	999.00	192.10	9.90	11.19	72.69	200.60	6.79	20.39	74.20	999.00	-2.60	999.00	-1.46	0.00
23	8	19	17	212.30	9.73	11.07	999.00	999.00	207.00	8.77	14.10	999.00	217.40	5.88	26.35	74.80	999.00	-2.14	999.00	-1.32	0.00
23	8	19	18	224.50	8.01	8.94	73.17	999.00	216.80	7.58	12.31	73.81	229.20	6.20	15.18	75.30	999.00	-1.96	999.00	-1.30	0.00
23	8	19	19	217.40	10.29	2.02	73.53	999.00	209.80	9.82	2.67	74.23	216.70	4.80	13.40	75.03	999.00	-0.75	999.00	-0.31	0.00
23	8	19	20	195.20	10.37	2.37	73.28	999.00	182.40	9.06	2.87	73.82	190.10	2.64	18.60	73.55	999.00	0.25	999.00	0.73	0.00
23	8	19	21	196.80	12.92	2.06	72.56	999.00	183.30	10.92	2.96	72.56	169.60	2.43	13.25	71.13	999.00	2.31	999.00	2.04	0.00
23	8	19	22	203.60	13.49	1.91	72.38	999.00	190.90	12.18	1.89	72.02	182.40	2.14	11.89	69.01	999.00	3.88	999.00	3.50	0.00
23	8	19	23	199.90	14.87	1.83	72.54	999.00	187.20	15.03	1.75	72.04	178.70	3.39	14.85	67.86	999.00	4.86	999.00	4.34	0.00
23	8	19	24	202.30	15.02	1.22	72.54	999.00	190.30	15.00	1.04	72.04	180.90	2.97	9.84	67.86	999.00	6.04	999.00	5.02	0.00
23	8	20	1	208.30	18.41	2.38	72.37	999.00	196.70	16.06	1.32	70.88	199.50	3.57	12.52	65.87	999.00	6.75	999.00	4.82	0.00
23	8	20	2	209.70	20.96	1.30	71.48	999.00	193.70	15.67	1.73	68.98	183.80	3.38	15.83	64.95	999.00	5.32	999.00	3.11	0.00
23	8	20	3	208.00	20.78	1.84	68.64	999.00	193.50	16.11	1.87	67.04	194.10	4.64	14.49	64.54	999.00	3.55	999.00	2.01	0.00
23	8	20	4	209.30	20.16	1.68	67.14	999.00	194.10	15.54	2.36	65.44	188.60	5.03	13.94	63.72	999.00	3.17	999.00	1.56	0.00
23	8	20	5	215.90	17.54	1.62	65.52	999.00	200.80	13.21	1.95	64.39	203.20	3.84	13.43	63.22	999.00	2.36	999.00	1.08	0.00
23	8	20	6	218.00	20.34	1.83	65.52	999.00	201.70	14.92	2.19	64.39	203.20	4.46	12.45	63.22	999.00	3.86	999.00	1.61	0.00
23	8	20	7	220.10	21.45	1.81	67.03	999.00	202.80	15.93	1.81	64.82	206.10	4.77	14.89	62.88	999.00	4.28	999.00	1.77	0.00
23	8	20	8	215.30	18.60	2.36	67.25	999.00	200.90	14.27	3.41	65.24	206.20	4.67	16.58	63.67	999.00	2.10	999.00	0.87	0.00
23	8	20	9	217.50	15.48	4.59	66.02	999.00	206.20	12.39	6.28	65.58	216.90	6.47	14.87	66.03	999.00	-0.98	999.00	-0.99	0.00
23	8	20	10	215.70	11.63	6.50	68.38	999.00	206.90	9.94	7.69	69.00	219.70	6.82	16.27	70.14	999.00	-2.23	999.00	-1.32	0.00
23	8	20	11	221.00	12.38	6.78	71.51	999.00	212.90	11.83	6.55	72.27	219.90	8.08	16.82	73.95	999.00	-2.65	999.00	-1.96	0.00
23	8	20	12	226.30	10.28	7.48	71.51	999.00	218.20	9.78	8.20	72.27	230.40	7.05	19.59	73.95	999.00	-2.54	999.00	-1.96	0.00
23	8	20	13	227.90	8.89	12.01	76.48	999.00	221.60	8.36	13.16	77.33	235.30	6.96	16.00	79.08	999.00	-2.60	999.00	-1.81	0.00
23	8	20	14	238.40	8.87	10.60	78.21	999.00	230.60	8.68	10.54	78.86	240.70	7.26	14.16	80.70	999.00	-2.40	999.00	-1.74	0.00
23	8	20	15	225.50	12.67	7.84	78.21	999.00	216.40	11.86	8.02	78.86	223.60	7.92	16.68	80.70	999.00	-2.31	999.00	-1.75	0.00
23	8	20	16	230.70	12.46	6.34	80.46	999.00	223.50	12.03	7.66	80.98	233.90	8.81	16.10	82.63	999.00	-2.37	999.00	-1.86	0.00
23	8	20	17	231.40	12.46	7.64	81.26	999.00	223.60	11.78	8.37	81.76	229.20	7.64	15.63	83.32	999.00	-1.68	999.00	-1.20	0.00
23	8	20	18	253.50	11.20	6.63	81.63	999.00	245.20	10.92	6.92	82.08	249.50	8.20	9.81	83.45	999.00	-1.73	999.00	-1.26	0.00
23	8	20	19	241.70	10.11	4.07	81.52	999.00	234.00	9.77	4.36	82.06	237.20	5.76	10.97	82.98	999.00	-1.04	999.00	-0.60	0.00
23	8	20	20	241.90	8.06	1.75	81.36	999.00	232.70	7.60	1.67	81.72	236.60	3.17	8.12	82.05	999.00	-0.28	999.00	0.12	0.00
23	8	20	21	305.90	4.41	8.14	80.78	999.00	301.20	4.34	8.02	81.04	274.00	1.40	34.11	80.40	999.00	0.42	999.00	0.73	0.00

23	8	20	22	284.00	3.61	3.40	80.59	999.00	252.40	3.93	5.14	80.85	177.90	2.84	9.86	78.85	999.00	3.31	999.00	3.34	0.00
23	8	20	23	270.80	4.63	8.82	80.56	999.00	246.20	4.61	7.49	80.54	182.30	2.14	9.33	76.05	999.00	4.67	999.00	4.67	0.00
23	8	20	24	280.50	6.57	3.92	80.48	999.00	259.20	5.38	4.89	80.46	173.30	1.39	20.77	74.90	999.00	5.82	999.00	5.92	0.00
23	8	21	1	291.80	7.96	2.44	80.31	999.00	280.40	7.33	2.02	80.19	163.30	1.00	32.90	73.95	999.00	6.66	999.00	6.59	0.00
23	8	21	2	277.20	9.52	1.19	80.04	999.00	263.20	8.82	1.90	79.89	224.60	2.39	10.25	73.47	999.00	6.61	999.00	6.38	0.00
23	8	21	3	273.90	12.26	1.32	79.30	999.00	259.90	11.95	1.63	79.11	233.10	2.91	17.87	73.32	999.00	5.84	999.00	5.71	0.00
23	8	21	4	297.60	11.57	2.53	78.55	999.00	270.80	11.27	4.43	78.16	220.20	2.99	18.83	73.97	999.00	3.58	999.00	2.86	0.00
23	8	21	5	21.13	13.65	22.32	75.82	999.00	11.73	12.04	23.09	75.53	8.05	8.96	28.13	73.27	999.00	0.17	999.00	0.54	0.00
23	8	21	6	50.28	16.34	5.78	72.23	999.00	41.55	14.89	7.39	72.75	47.09	11.72	10.46	73.55	999.00	-1.33	999.00	-0.80	0.00
23	8	21	7	56.96	13.30	4.27	71.12	999.00	48.93	12.67	5.10	71.60	56.47	7.67	12.62	72.22	999.00	-1.13	999.00	-0.65	0.00
23	8	21	8	33.63	11.61	8.27	999.00	999.00	26.61	9.56	8.79	999.00	33.17	10.21	8.39	72.37	999.00	-1.43	999.00	-0.88	0.00
23	8	21	9	37.47	10.70	8.11	999.00	999.00	28.80	8.76	7.94	999.00	34.09	9.59	11.35	72.37	999.00	-1.49	999.00	-0.87	0.00
23	8	21	10	30.95	10.93	7.73	70.42	999.00	22.06	9.06	7.37	71.10	29.42	9.73	11.31	72.00	999.00	-1.55	999.00	-0.87	0.00
23	8	21	11	38.12	6.69	11.79	71.01	999.00	27.20	6.03	10.62	71.82	29.97	7.38	13.73	72.18	999.00	-0.91	999.00	-0.05	0.00
23	8	21	12	31.91	7.54	10.84	71.86	999.00	21.07	7.02	9.44	72.55	30.79	7.88	11.23	72.65	999.00	-0.66	999.00	-0.04	0.00
23	8	21	13	35.11	9.98	10.14	72.02	999.00	25.64	8.81	10.71	72.78	29.97	10.33	11.03	73.13	999.00	-0.99	999.00	-0.34	0.00
23	8	21	14	44.96	8.24	11.65	72.35	999.00	37.70	7.94	10.89	73.05	42.92	8.25	15.31	73.92	999.00	-1.72	999.00	-1.08	0.00
23	8	21	15	45.04	7.97	12.26	999.00	999.00	36.67	7.74	11.62	999.00	39.25	8.37	15.74	74.00	999.00	-1.73	999.00	-1.24	0.00
23	8	21	16	42.85	7.98	12.54	72.84	999.00	34.66	7.31	11.69	73.38	35.55	8.59	13.66	74.52	999.00	-1.57	999.00	-0.97	0.00
23	8	21	17	54.73	8.95	10.88	999.00	999.00	51.60	9.09	9.36	999.00	59.07	7.35	15.31	75.23	999.00	-1.58	999.00	-1.25	0.00
23	8	21	18	72.80	8.08	10.75	999.00	999.00	69.18	7.67	11.03	999.00	83.50	5.55	15.74	75.30	999.00	-1.56	999.00	-1.15	0.00
23	8	21	19	60.71	13.32	4.34	73.84	999.00	52.82	12.75	4.67	74.29	57.51	8.71	13.29	75.48	999.00	-1.66	999.00	-1.16	0.00
23	8	21	20	56.97	14.90	4.50	73.65	999.00	47.65	13.63	6.20	74.14	53.16	8.75	11.26	74.95	999.00	-1.25	999.00	-0.75	0.00
23	8	21	21	57.57	15.07	5.00	73.65	999.00	50.05	14.02	6.00	74.14	61.86	8.45	12.66	74.95	999.00	-1.04	999.00	-0.58	0.00
23	8	21	22	54.90	17.88	6.17	71.29	999.00	45.61	16.19	6.97	71.79	48.90	11.54	10.38	72.52	999.00	-1.33	999.00	-0.82	0.00
23	8	21	23	57.14	19.21	5.60	69.29	999.00	48.91	17.76	6.93	69.80	53.82	11.97	11.32	70.51	999.00	-1.31	999.00	-0.79	0.00
23	8	21	24	55.01	16.89	6.04	67.88	999.00	46.51	15.71	6.81	68.37	50.85	10.90	10.92	69.17	999.00	-1.20	999.00	-0.73	0.00
23	8	22	1	38.37	17.75	6.35	66.80	999.00	30.77	14.45	6.96	67.33	37.82	14.87	9.88	68.25	999.00	-1.59	999.00	-1.07	0.00
23	8	22	2	40.14	15.23	7.81	65.73	999.00	32.55	13.01	8.31	66.25	36.55	13.41	10.06	67.33	999.00	-1.62	999.00	-1.11	0.00
23	8	22	3	41.58	11.97	8.41	65.73	999.00	33.51	10.47	8.58	66.25	35.60	10.78	8.47	67.33	999.00	-1.48	999.00	-1.00	0.00
23	8	22	4	26.79	13.71	7.62	65.99	999.00	20.20	11.24	8.50	66.45	27.29	10.13	12.92	67.44	999.00	-1.45	999.00	-0.98	0.00
23	8	22	5	25.88	14.20	6.37	65.52	999.00	18.92	11.62	7.59	65.97	25.77	10.42	11.52	66.93	999.00	-1.44	999.00	-0.97	0.00
23	8	22	6	46.37	11.03	10.31	64.93	999.00	39.22	10.08	10.65	65.40	46.01	9.60	11.86	66.38	999.00	-1.43	999.00	-0.92	0.00
23	8	22	7	47.39	11.69	8.87	64.73	999.00	40.05	10.75	9.34	65.22	46.03	9.43	12.14	66.10	999.00	-1.36	999.00	-0.86	0.00
23	8	22	8	47.72	12.00	10.75	64.81	999.00	40.00	10.77	10.93	65.34	42.45	9.62	12.59	66.31	999.00	-1.47	999.00	-0.91	0.00
23	8	22	9	57.13	14.81	8.60	64.99	999.00	49.16	14.15	8.33	65.55	53.35	10.83	12.70	66.58	999.00	-1.70	999.00	-1.16	0.00
23	8	22	10	67.51	14.55	6.14	65.19	999.00	58.28	13.84	7.40	65.72	61.99	9.81	14.17	67.01	999.00	-1.89	999.00	-1.36	0.00
23	8	22	11	66.76	14.25	6.79	66.40	999.00	57.24	13.97	7.59	66.99	63.99	10.08	14.36	68.44	999.00	-2.03	999.00	-1.46	0.00
23	8	22	12	55.89	13.83	8.70	67.12	999.00	47.57	13.66	7.68	67.56	55.64	10.76	14.65	69.12	999.00	-1.83	999.00	-1.45	0.00
23	8	22	13	66.71	13.19	9.19	67.60	999.00	57.72	12.80	9.67	68.07	65.31	10.07	16.17	69.73	999.00	-2.27	999.00	-1.73	0.00
23	8	22	14	56.00	14.40	9.05	68.19	999.00	47.88	13.58	9.00	68.70	52.88	11.32	14.33	70.32	999.00	-2.22	999.00	-1.63	0.00
23	8	22	15	59.81	13.91	8.49	68.02	999.00	50.27	13.79	7.98	68.55	55.47	10.46	13.08	70.22	999.00	-2.05	999.00	-1.57	0.00
23	8	22	16	67.07	12.83	7.55	67.82	999.00	59.03	12.35	8.95	68.39	64.22	9.55	15.25	70.30	999.00	-2.47	999.00	-1.93	0.00
23	8	22	17	74.50	13.61	5.01	67.64	999.00	65.79	13.13	7.28	68.22	71.50	9.41	14.14	69.97	999.00	-2.56	999.00	-1.91	0.00
23	8	22	18	86.00	12.01	5.77	67.38	999.00	76.50	11.57	8.05	67.92	80.50	8.00	13.91	69.30	999.00	-1.71	999.00	-1.20	0.00
23	8	22	19	92.00	12.63	4.68	67.47	999.00	83.60	12.03	6.14	67.98	90.90	6.63	15.01	69.05	999.00	-1.39	999.00	-0.92	0.00
23	8	22	20	90.30	12.49	4.77	67.37	999.00	82.20	11.89	5.91	67.84	93.30	5.45	17.04	68.68	999.00	-1.03	999.00	-0.58	0.00
23	8	22	21	86.90	11.18	5.84	67.37	999.00	78.50	10.52	5.90	67.80	85.80	4.73	16.87	67.71	999.00	-0.25	999.00	0.17	0.00
23	8	22	22	85.70	11.03	4.62	67.60	999.00	77.30	10.60	4.47	68.04	82.50	4.57	13.71	67.74	999.00	-0.06	999.00	0.39	0.00
23	8	22	23	104.70	10.87	10.27	67.67	999.00	97.60	10.17	11.20	68.09	109.90	4.60	16.48	67.71	999.00	-0.32	999.00	0.09	0.00
23	8	22	24	119.30	9.52	6.15	67.65	999.00	112.40	8.62	6.84	68.08	114.60	3.45	16.93	68.22	999.00	-0.29	999.00	0.09	0.00
23	8	23	1	118.80	7.93	4.06	67.63	999.00	115.30	6.54	5.19	67.75	162.70	0.53	68.11	67.10	999.00	1.15	999.00	1.23	0.00
23	8	23	2	162.10	6.37	6.82	67.64	999.00	177.60	5.31	7.80	67.37	220.00	2.77	12.08	65.64	999.00	1.85	999.00	1.30	0.00

23	8	23	3	176.40	8.21	2.51	66.64	999.00	178.30	8.11	1.37	66.29	215.70	2.60	9.65	64.21	999.00	3.18	999.00	2.87	0.00
23	8	23	4	194.60	7.05	3.58	66.57	999.00	213.90	6.88	6.03	66.19	259.10	3.37	8.50	63.81	999.00	2.09	999.00	1.38	0.00
23	8	23	5	124.40	3.41	4.33	66.43	999.00	107.50	3.27	7.07	66.06	39.41	1.47	28.76	64.72	999.00	1.08	999.00	1.06	0.00
23	8	23	6	218.90	2.11	7.97	66.54	999.00	220.70	2.75	6.20	66.35	256.60	3.16	21.83	65.16	999.00	1.24	999.00	1.03	0.00
23	8	23	7	195.00	17.42	2.98	66.09	999.00	180.80	14.61	3.67	65.67	189.00	4.95	18.12	64.31	999.00	2.36	999.00	1.58	0.00
23	8	23	8	169.60	5.65	8.32	64.47	999.00	151.10	4.87	9.05	64.53	135.30	2.14	24.92	64.51	999.00	-0.45	999.00	-0.13	0.00
23	8	23	9	186.00	10.81	7.78	64.91	999.00	173.40	9.24	8.35	65.29	192.50	4.80	15.84	66.03	999.00	-1.12	999.00	-0.89	0.00
23	8	23	10	203.90	12.58	5.15	64.91	999.00	196.00	11.19	5.59	65.29	202.70	5.57	18.18	66.03	999.00	-1.61	999.00	-0.98	0.00
23	8	23	11	201.90	13.22	5.52	67.52	999.00	194.60	12.18	6.52	68.21	205.50	6.45	17.32	69.18	999.00	-1.74	999.00	-0.99	0.00
23	8	23	12	197.00	13.14	7.64	70.87	999.00	189.90	12.36	7.42	71.77	195.00	6.74	18.34	72.65	999.00	-1.65	999.00	-0.81	0.00
23	8	23	13	200.40	12.64	7.26	70.87	999.00	192.30	11.62	9.12	71.77	204.10	6.95	19.95	72.65	999.00	-1.92	999.00	-0.87	0.00
23	8	23	14	108.00	17.67	30.53	76.16	999.00	97.90	16.60	30.64	76.98	89.20	10.45	24.33	77.75	999.00	-1.60	999.00	-1.04	0.00
23	8	23	15	135.90	16.47	12.31	74.19	999.00	124.80	15.52	14.51	74.36	125.70	7.89	21.47	75.77	999.00	-1.96	999.00	-1.68	0.00
23	8	23	16	115.90	28.05	5.62	74.02	999.00	106.60	26.11	6.08	74.48	111.80	12.92	15.30	75.72	999.00	-1.50	999.00	-1.12	0.00
23	8	23	17	177.60	28.63	6.54	74.72	999.00	171.20	26.35	7.20	75.19	186.00	12.23	20.44	76.68	999.00	-2.10	999.00	-1.51	0.00
23	8	23	18	197.30	28.97	4.80	77.56	999.00	189.50	26.12	5.32	78.24	200.30	14.43	14.58	79.35	999.00	-1.62	999.00	-0.92	0.00
23	8	23	19	194.70	25.80	4.83	79.12	999.00	186.90	22.23	6.08	79.81	196.80	11.73	16.36	80.55	999.00	-1.18	999.00	-0.69	0.00
23	8	23	20	217.40	19.31	4.86	81.01	999.00	203.20	16.01	4.57	81.02	203.60	5.93	15.40	81.13	999.00	1.33	999.00	0.70	0.00
23	8	23	21	225.70	22.79	3.46	84.23	999.00	217.30	20.21	4.48	84.14	222.40	8.97	14.06	83.15	999.00	0.19	999.00	0.37	0.00
23	8	23	22	212.40	12.94	6.49	84.23	999.00	197.30	11.38	6.05	84.14	205.10	4.12	22.17	83.15	999.00	0.08	999.00	0.19	0.00
23	8	23	23	126.90	36.54	9.41	79.39	999.00	118.80	34.53	10.58	79.43	127.70	16.74	18.99	79.50	999.00	-0.32	999.00	-0.28	0.01
23	8	23	24	175.50	28.23	10.16	77.87	999.00	164.80	25.89	11.10	77.81	163.20	11.08	28.97	77.95	999.00	0.01	999.00	-0.02	2.07
23	8	24	1	93.10	26.22	17.23	72.32	999.00	86.70	24.11	17.30	72.75	97.10	12.76	20.23	73.42	999.00	-0.97	999.00	-0.55	0.86
23	8	24	2	147.70	25.56	4.58	67.54	999.00	144.10	23.58	4.81	68.02	153.70	10.69	19.09	68.70	999.00	-1.46	999.00	-1.00	0.90
23	8	24	3	127.00	25.83	10.43	67.24	999.00	119.60	24.22	12.09	67.60	133.50	12.36	18.76	68.46	999.00	-0.99	999.00	-0.56	0.88
23	8	24	4	158.20	12.90	26.85	67.39	999.00	156.30	12.29	25.56	67.81	186.00	6.65	22.14	68.39	999.00	-0.72	999.00	-0.35	0.05
23	8	24	5	202.60	16.29	3.52	68.00	999.00	193.80	17.32	2.47	68.12	209.20	7.88	13.82	68.17	999.00	0.25	999.00	0.26	0.01
23	8	24	6	205.70	17.55	9.81	68.79	999.00	197.00	17.89	10.05	69.53	200.30	8.22	14.75	68.51	999.00	0.23	999.00	1.50	0.03
23	8	24	7	202.70	22.45	5.57	68.79	999.00	194.80	19.59	7.17	69.53	205.00	9.70	15.28	68.51	999.00	-0.71	999.00	-0.48	0.00
23	8	24	8	198.00	25.09	5.94	67.10	999.00	192.40	21.84	6.81	67.21	205.70	9.75	16.74	67.75	999.00	-0.37	999.00	-0.51	0.03
23	8	24	9	175.00	11.49	16.54	68.15	999.00	164.50	9.57	20.54	68.10	153.70	4.17	57.41	68.26	999.00	-0.24	999.00	0.18	0.14
23	8	24	10	211.00	27.67	5.14	68.33	999.00	205.10	24.85	5.69	68.76	217.70	12.58	14.96	68.52	999.00	-0.58	999.00	-0.05	0.00
23	8	24	11	214.40	26.19	7.00	70.82	999.00	208.80	23.96	7.35	71.24	222.70	13.45	16.75	70.75	999.00	0.50	999.00	0.91	0.00
23	8	24	12	221.50	28.97	5.33	74.30	999.00	214.20	27.01	5.89	74.71	223.80	16.70	13.96	75.95	999.00	-1.95	999.00	-1.51	0.00
23	8	24	13	224.20	23.97	5.98	74.30	999.00	216.20	22.73	6.84	74.71	225.30	12.97	13.97	75.95	999.00	-1.91	999.00	-1.47	0.00
23	8	24	14	218.10	26.57	4.82	80.91	999.00	210.70	25.10	5.51	81.35	218.70	14.26	15.93	82.78	999.00	-1.83	999.00	-1.38	0.00
23	8	24	15	219.60	22.45	5.09	82.72	999.00	212.00	20.99	5.93	83.15	218.90	11.52	15.12	84.50	999.00	-1.89	999.00	-1.48	0.00
23	8	24	16	223.60	21.00	5.93	83.83	999.00	216.20	19.50	7.21	84.25	224.20	11.19	13.81	85.78	999.00	-1.69	999.00	-1.26	0.00
23	8	24	17	228.90	18.92	4.85	84.02	999.00	221.80	17.55	5.26	84.41	230.10	10.52	11.93	85.48	999.00	-1.44	999.00	-1.02	0.00
23	8	24	18	236.60	22.31	3.57	84.28	999.00	230.30	21.73	3.86	84.68	237.30	13.41	10.52	85.48	999.00	-0.95	999.00	-0.56	0.00
23	8	24	19	234.80	19.04	4.86	84.28	999.00	227.90	17.28	5.22	84.68	233.20	10.55	10.99	85.48	999.00	-0.95	999.00	-0.66	0.00
23	8	24	20	228.20	19.09	3.61	83.78	999.00	218.90	16.68	4.86	84.01	220.90	7.43	14.92	84.32	999.00	-0.19	999.00	0.03	0.00
23	8	24	21	219.90	20.64	2.72	83.09	999.00	209.70	17.90	3.17	83.15	207.70	6.59	14.82	82.60	999.00	0.67	999.00	0.68	0.00
23	8	24	22	221.90	20.06	5.00	83.09	999.00	212.20	17.41	5.46	83.15	219.70	7.93	14.85	82.60	999.00	-0.10	999.00	0.12	0.27
23	8	24	23	239.50	20.88	5.09	81.29	999.00	231.50	18.60	5.50	81.50	236.70	10.43	11.11	81.43	999.00	-0.19	999.00	0.03	0.02
23	8	24	24	39.11	24.07	12.38	72.15	999.00	34.23	21.81	14.01	73.35	41.68	18.48	14.25	73.39	999.00	-1.21	999.00	0.54	0.02
23	8	25	1	80.60	19.11	10.36	72.15	999.00	76.00	16.97	11.40	73.35	96.10	7.52	22.77	73.39	999.00	0.24	999.00	2.29	0.00
23	8	25	2	213.70	19.70	5.62	70.28	999.00	209.40	17.49	6.27	71.31	220.30	8.85	17.77	70.01	999.00	-0.09	999.00	0.64	0.00
23	8	25	3	200.80	19.94	8.70	70.65	999.00	190.00	16.83	7.40	70.87	200.50	5.99	17.24	69.46	999.00	3.43	999.00	3.50	0.00
23	8	25	4	237.20	10.36	7.51	71.27	999.00	236.20	8.76	10.47	71.08	247.30	4.34	21.09	69.43	999.00	1.58	999.00	1.35	0.00
23	8	25	5	303.50	12.31	4.54	70.15	999.00	298.90	10.80	4.52	70.18	300.20	3.62	15.69	69.17	999.00	0.50	999.00	0.65	0.00
23	8	25	6	305.50	10.79	1.52	70.81	999.00	286.90	8.96	2.57	70.67	261.70	4.23	8.24	69.78	999.00	1.18	999.00	0.98	0.00
23	8	25	7	319.90	11.99	7.59	70.37	999.00	303.10	10.65	9.34	70.23	281.70	5.22	11.96	69.39	999.00	0.60	999.00	0.62	0.00

23	8	25	8	347.40	15.97	4.05	70.64	999.00	339.70	14.93	4.77	71.02	346.60	9.80	9.87	70.54	999.00	-0.59	999.00	-0.11	0.00
23	8	25	9	7.91	13.22	12.01	69.76	999.00	0.94	11.73	12.23	70.21	2.54	10.49	13.02	70.80	999.00	-1.01	999.00	-0.62	0.00
23	8	25	10	39.42	14.35	6.06	69.76	999.00	33.42	12.82	7.27	70.21	40.44	12.72	8.52	70.80	999.00	-0.70	999.00	-0.21	0.00
23	8	25	11	40.55	12.01	9.66	68.01	999.00	33.52	10.37	9.75	68.49	37.22	10.86	9.91	68.87	999.00	-0.88	999.00	-0.41	0.00
23	8	25	12	12.22	11.72	11.48	66.98	999.00	6.17	10.47	11.83	67.37	7.45	10.48	10.97	68.05	999.00	-1.04	999.00	-0.68	0.00
23	8	25	13	356.90	10.34	5.95	67.21	999.00	349.10	9.46	7.40	67.68	358.30	7.60	11.07	67.98	999.00	-0.81	999.00	-0.28	0.00
23	8	25	14	353.30	12.14	4.94	68.26	999.00	346.40	12.01	5.59	68.78	355.50	11.01	7.57	69.46	999.00	-1.47	999.00	-0.93	0.00
23	8	25	15	358.20	9.31	4.70	68.59	999.00	351.10	9.08	4.78	69.13	359.60	7.70	9.46	69.34	999.00	-0.16	999.00	0.36	0.00
23	8	25	16	354.00	8.85	7.26	68.64	999.00	347.40	8.65	7.29	69.17	355.20	7.78	9.74	69.80	999.00	-1.62	999.00	-1.09	0.00
23	8	25	17	349.90	9.32	8.29	69.23	999.00	344.20	9.17	7.58	69.75	356.90	7.52	10.94	70.85	999.00	-1.68	999.00	-1.14	0.00
23	8	25	18	357.70	5.24	9.14	69.73	999.00	352.10	5.24	7.15	70.26	2.85	5.09	12.79	71.47	999.00	-1.61	999.00	-1.10	0.00
23	8	25	19	100.60	4.63	13.27	70.21	999.00	101.10	4.41	14.35	70.63	132.60	3.55	18.81	71.68	999.00	-1.98	999.00	-1.58	0.00
23	8	25	20	176.50	4.16	8.20	70.14	999.00	170.00	4.21	6.95	70.66	205.80	2.60	23.29	71.30	999.00	-0.87	999.00	-0.48	0.00
23	8	25	21	199.50	4.69	8.81	999.00	999.00	192.70	5.59	7.92	999.00	209.40	2.89	15.94	70.40	999.00	-0.07	999.00	0.11	0.00
23	8	25	22	189.60	2.28	37.91	69.91	999.00	182.80	2.87	29.79	70.08	174.70	1.72	81.10	69.96	999.00	0.09	999.00	0.09	0.00
23	8	25	23	294.10	2.83	12.29	70.20	999.00	260.40	3.81	11.98	70.12	290.10	2.26	11.99	69.71	999.00	1.09	999.00	0.93	0.00
23	8	25	24	315.00	4.34	5.53	70.36	999.00	283.70	4.32	7.41	70.49	208.30	1.04	62.39	68.67	999.00	1.92	999.00	1.84	0.00
23	8	26	1	20.14	2.14	19.86	70.64	999.00	358.60	1.66	37.04	70.72	181.10	1.87	26.90	68.77	999.00	2.36	999.00	2.29	0.00
23	8	26	2	355.70	3.18	11.12	70.06	999.00	308.80	2.08	31.89	69.80	270.50	1.95	22.26	67.18	999.00	2.99	999.00	2.87	0.00
23	8	26	3	210.30	3.94	3.35	69.56	999.00	209.30	4.84	1.97	69.80	211.10	3.25	13.10	66.58	999.00	3.40	999.00	3.62	0.00
23	8	26	4	184.10	3.90	2.19	69.72	999.00	195.60	4.25	3.88	69.60	226.20	2.60	14.81	65.79	999.00	4.03	999.00	3.83	0.00
23	8	26	5	257.80	2.28	13.76	69.56	999.00	250.30	4.56	3.79	69.00	281.90	2.56	14.84	65.69	999.00	3.73	999.00	2.85	0.00
23	8	26	6	225.90	5.23	11.39	68.68	999.00	225.70	6.18	9.88	68.14	211.70	3.08	22.91	65.39	999.00	3.46	999.00	3.12	0.00
23	8	26	7	221.20	5.59	5.87	68.73	999.00	221.60	7.14	4.72	68.25	216.40	2.72	18.37	64.73	999.00	3.83	999.00	3.18	0.00
23	8	26	8	334.20	4.92	5.20	68.41	999.00	314.40	5.31	5.94	68.05	333.20	2.29	15.58	64.69	999.00	3.45	999.00	3.19	0.00
23	8	26	9	291.40	4.78	10.45	68.55	999.00	259.40	4.29	15.41	68.27	222.80	3.08	14.60	67.25	999.00	-0.33	999.00	-0.30	0.00
23	8	26	10	250.00	5.60	4.81	67.89	999.00	236.50	5.31	6.09	68.18	241.00	2.80	36.39	68.47	999.00	-0.62	999.00	-0.21	0.00
23	8	26	11	342.30	3.36	74.80	68.10	999.00	350.70	2.71	77.80	68.71	55.91	2.27	39.28	69.83	999.00	-1.38	999.00	-0.82	0.00
23	8	26	12	5.40	9.55	11.74	70.45	999.00	357.00	9.19	11.65	71.02	3.28	8.72	13.83	72.05	999.00	-1.78	999.00	-1.18	0.00
23	8	26	13	32.27	9.60	8.56	72.16	999.00	24.16	8.05	8.86	72.77	35.26	8.79	14.16	73.57	999.00	-1.20	999.00	-0.64	0.00
23	8	26	14	95.00	6.80	14.47	72.40	999.00	87.80	6.70	17.04	72.92	90.70	5.63	31.80	74.35	999.00	-2.47	999.00	-1.88	0.00
23	8	26	15	60.13	7.49	11.45	72.64	999.00	48.74	7.11	12.80	73.17	42.48	6.54	14.37	75.02	999.00	-1.76	999.00	-1.36	0.00
23	8	26	16	50.46	7.77	8.73	73.06	999.00	42.23	7.49	9.49	73.41	43.54	7.41	17.00	74.60	999.00	-1.12	999.00	-0.81	0.00
23	8	26	17	42.80	13.31	9.87	72.13	999.00	36.17	12.38	10.37	72.66	37.37	13.66	9.09	73.68	999.00	-1.71	999.00	-1.12	0.00
23	8	26	18	39.65	14.34	6.70	70.61	999.00	33.56	12.50	6.78	71.16	39.96	13.61	8.31	72.45	999.00	-1.77	999.00	-1.22	0.00
23	8	26	19	35.23	12.57	6.38	70.73	999.00	28.15	9.95	7.40	71.27	39.65	10.13	10.11	72.35	999.00	-1.49	999.00	-0.98	0.00
23	8	26	20	51.75	12.95	7.77	71.25	999.00	44.04	12.17	8.52	71.71	52.26	8.76	12.51	72.57	999.00	-1.23	999.00	-0.73	0.00
23	8	26	21	50.99	20.13	6.69	69.80	999.00	44.38	19.05	6.97	70.34	46.25	15.02	10.44	71.38	999.00	-1.74	999.00	-1.16	0.00
23	8	26	22	43.48	20.03	6.78	67.45	999.00	36.57	17.87	7.89	67.99	42.75	16.73	9.16	69.10	999.00	-1.71	999.00	-1.15	0.00
23	8	26	23	43.14	19.58	7.37	65.43	999.00	36.89	17.87	7.15	65.97	41.40	16.66	8.40	67.18	999.00	-1.76	999.00	-1.23	0.00
23	8	26	24	34.27	19.05	6.36	63.20	999.00	28.24	14.51	7.91	63.75	35.40	15.08	10.20	64.99	999.00	-1.81	999.00	-1.29	0.00
23	8	27	1	36.32	17.65	6.74	63.20	999.00	30.86	14.61	7.30	63.75	40.98	14.82	10.67	64.99	999.00	-1.66	999.00	-1.17	0.00
23	8	27	2	31.37	18.07	6.94	62.43	999.00	24.48	14.83	8.83	62.93	34.08	15.39	11.17	64.09	999.00	-1.64	999.00	-1.12	0.00
23	8	27	3	31.48	17.74	6.15	62.14	999.00	25.83	13.58	7.36	62.64	36.05	14.17	9.78	63.81	999.00	-1.63	999.00	-1.13	0.00
23	8	27	4	40.86	15.54	7.99	62.40	999.00	33.60	13.49	8.17	62.91	39.12	13.30	10.81	63.95	999.00	-1.51	999.00	-0.99	0.00
23	8	27	5	49.58	12.57	11.29	62.78	999.00	42.05	11.07	12.27	63.30	44.34	9.36	16.68	64.20	999.00	-1.36	999.00	-0.86	0.00
23	8	27	6	52.74	13.23	6.55	62.55	999.00	46.18	12.53	8.05	63.04	56.89	8.89	11.54	63.70	999.00	-1.22	999.00	-0.73	0.00
23	8	27	7	58.89	11.75	5.19	61.70	999.00	51.77	11.49	5.96	62.19	61.08	7.38	11.82	62.85	999.00	-1.07	999.00	-0.59	0.00
23	8	27	8	62.48	10.82	5.66	61.72	999.00	53.89	10.24	6.13	62.18	66.58	6.35	13.83	62.86	999.00	-1.31	999.00	-0.84	0.00
23	8	27	9	55.59	10.68	8.80	62.50	999.00	46.93	10.17	9.44	62.97	54.43	7.83	16.93	64.00	999.00	-1.53	999.00	-1.06	0.00
23	8	27	10	50.25	10.25	10.73	63.06	999.00	42.77	9.32	10.26	63.55	41.09	10.09	12.16	64.74	999.00	-1.79	999.00	-1.25	0.00
23	8	27	11	50.38	11.88	9.97	63.70	999.00	41.53	10.45	10.32	64.19	45.55	9.22	13.37	65.51	999.00	-1.85	999.00	-1.36	0.00
23	8	27	12	48.19	13.09	9.72	64.67	999.00	39.24	12.19	9.09	65.14	40.81	12.03	9.97	66.54	999.00	-1.79	999.00	-1.31	0.00

23	8	27	13	46.75	13.32	8.09	65.12	999.00	39.84	12.10	8.87	65.65	41.94	11.57	12.24	66.85	999.00	-1.83	999.00	-1.29	0.00
23	8	27	14	51.64	13.81	9.45	66.03	999.00	43.54	12.47	9.83	66.51	44.05	11.85	11.77	67.81	999.00	-1.92	999.00	-1.45	0.00
23	8	27	15	55.45	14.70	10.29	66.47	999.00	46.70	13.78	9.96	66.90	48.55	12.01	11.94	68.58	999.00	-2.14	999.00	-1.76	0.00
23	8	27	16	61.78	15.07	8.05	66.62	999.00	53.78	14.61	8.59	67.08	59.50	11.19	14.31	69.04	999.00	-2.35	999.00	-1.88	0.00
23	8	27	17	70.70	14.19	7.89	66.84	999.00	63.06	13.41	9.92	67.32	72.50	9.79	17.38	69.17	999.00	-2.40	999.00	-1.91	0.00
23	8	27	18	79.50	12.91	5.58	66.74	999.00	71.40	12.69	6.95	67.24	76.20	8.20	13.84	69.10	999.00	-2.30	999.00	-1.80	0.00
23	8	27	19	78.50	12.11	7.04	66.42	999.00	70.70	11.11	8.56	66.91	75.00	7.45	12.21	68.46	999.00	-1.98	999.00	-1.55	0.00
23	8	27	20	71.20	11.90	5.74	66.34	999.00	63.67	11.37	5.77	66.78	73.10	7.25	11.63	67.68	999.00	-0.89	999.00	-0.44	0.00
23	8	27	21	59.17	11.80	6.71	66.05	999.00	51.25	11.63	6.39	66.54	62.06	7.67	12.40	66.81	999.00	-0.83	999.00	-0.32	0.00
23	8	27	22	51.05	12.17	8.53	66.01	999.00	45.58	11.49	8.90	66.49	58.03	7.89	12.37	66.71	999.00	-0.78	999.00	-0.29	0.00
23	8	27	23	67.97	13.08	8.08	66.06	999.00	61.95	12.95	6.22	66.54	72.80	7.55	11.81	66.78	999.00	-0.61	999.00	-0.14	0.00
23	8	27	24	63.44	13.10	5.59	65.90	999.00	56.56	12.40	4.85	66.37	66.05	7.97	10.33	66.50	999.00	-0.60	999.00	-0.14	0.00
23	8	28	1	53.31	13.84	7.27	65.06	999.00	46.29	12.97	7.47	65.54	53.06	9.06	11.70	66.00	999.00	-1.03	999.00	-0.55	0.00
23	8	28	2	58.72	14.73	4.94	64.33	999.00	52.77	14.14	5.05	64.81	63.42	8.55	11.96	65.36	999.00	-0.90	999.00	-0.43	0.00
23	8	28	3	58.91	14.05	4.70	64.08	999.00	52.33	13.51	5.83	64.55	65.56	7.90	11.22	64.98	999.00	-0.79	999.00	-0.32	0.00
23	8	28	4	55.37	10.86	7.23	64.44	999.00	49.22	10.60	7.52	64.92	60.36	6.60	13.70	65.13	999.00	-0.61	999.00	-0.14	0.00
23	8	28	5	46.02	9.36	9.76	64.63	999.00	39.07	8.56	9.15	65.13	52.21	6.94	13.92	65.31	999.00	-0.93	999.00	-0.43	0.00
23	8	28	6	39.87	8.74	11.27	64.43	999.00	33.96	7.53	10.85	64.92	44.68	6.56	15.27	65.54	999.00	-0.96	999.00	-0.45	0.00
23	8	28	7	29.63	9.38	7.55	64.04	999.00	23.09	7.78	7.37	64.52	24.88	7.53	10.74	65.30	999.00	-1.29	999.00	-0.81	0.00
23	8	28	8	18.65	7.76	14.11	64.13	999.00	10.81	6.92	14.68	64.70	13.38	6.96	15.41	65.50	999.00	-1.52	999.00	-0.82	0.00
23	8	28	9	4.02	10.99	8.21	64.13	999.00	357.90	10.48	8.39	64.90	3.74	9.65	9.00	65.90	999.00	-1.90	999.00	-1.17	0.00
23	8	28	10	357.60	11.12	6.30	63.98	999.00	350.80	10.69	6.46	64.70	357.80	9.64	9.29	66.06	999.00	-2.18	999.00	-1.33	0.00
23	8	28	11	2.15	10.92	7.46	63.93	999.00	354.60	10.47	6.97	64.71	2.63	9.99	11.08	65.88	999.00	-1.88	999.00	-1.11	0.00
23	8	28	12	19.07	8.18	16.42	64.92	999.00	9.88	7.63	15.09	65.65	8.73	8.38	18.53	66.57	999.00	-1.64	999.00	-0.86	0.00
23	8	28	13	39.40	8.09	12.34	66.02	999.00	28.05	7.23	12.71	66.56	30.70	7.06	19.25	67.43	999.00	-1.18	999.00	-0.73	0.00
23	8	28	14	62.85	8.02	9.54	66.57	999.00	54.19	7.93	9.25	66.98	63.47	6.29	17.18	68.17	999.00	-1.88	999.00	-1.55	0.00
23	8	28	15	46.06	7.50	14.03	66.86	999.00	37.81	7.03	15.01	67.23	35.92	7.02	20.59	68.44	999.00	-1.73	999.00	-1.42	0.00
23	8	28	16	35.59	6.12	17.35	67.16	999.00	30.50	5.69	16.39	67.66	27.77	5.79	19.90	68.74	999.00	-1.73	999.00	-1.16	0.00
23	8	28	17	40.54	5.04	26.04	67.74	999.00	27.67	4.82	23.49	68.17	28.90	999.00	23.42	69.33	999.00	-1.58	999.00	-1.14	0.00
23	8	28	18	92.80	5.40	11.30	67.65	999.00	86.00	5.18	12.98	68.08	95.80	4.17	21.37	69.79	999.00	-2.36	999.00	-1.88	0.00
23	8	28	19	87.70	4.03	13.03	67.53	999.00	84.00	3.81	13.21	68.07	96.70	2.77	24.15	69.58	999.00	-1.91	999.00	-1.59	0.00
23	8	28	20	102.80	4.14	9.69	67.38	999.00	97.50	3.96	10.13	67.84	121.10	2.06	20.11	68.67	999.00	-0.84	999.00	-0.34	0.00
23	8	28	21	157.20	5.47	2.68	66.86	999.00	158.40	5.45	2.26	67.19	210.20	1.37	16.92	66.78	999.00	0.99	999.00	1.26	0.00
23	8	28	22	164.50	6.84	4.60	66.83	999.00	160.10	6.76	4.27	67.06	237.60	0.40	36.43	64.70	999.00	3.02	999.00	3.22	0.00
23	8	28	23	181.10	5.44	0.99	66.29	999.00	182.10	5.58	2.10	66.27	231.70	2.33	6.92	63.46	999.00	3.18	999.00	3.10	0.00
23	8	28	24	203.60	3.83	3.36	66.13	999.00	191.80	4.37	1.53	65.96	214.20	1.64	14.12	62.91	999.00	3.05	999.00	2.91	0.00
23	8	29	1	208.60	5.16	1.35	66.13	999.00	202.40	6.33	4.29	65.96	218.00	3.01	11.27	62.91	999.00	4.15	999.00	4.07	0.00
23	8	29	2	242.30	5.58	2.13	65.27	999.00	237.90	7.28	2.10	64.82	249.80	4.42	9.82	60.56	999.00	4.46	999.00	4.11	0.00
23	8	29	3	274.70	6.21	7.85	65.13	999.00	263.60	8.42	3.85	64.82	284.90	2.84	21.44	59.96	999.00	6.27	999.00	5.98	0.00
23	8	29	4	318.00	3.82	12.10	65.89	999.00	290.10	4.62	7.87	65.64	234.90	2.51	29.14	58.80	999.00	6.45	999.00	6.41	0.00
23	8	29	5	275.80	5.13	13.24	65.53	999.00	268.10	7.48	5.82	65.10	212.00	3.16	20.62	59.49	999.00	6.50	999.00	5.89	0.00
23	8	29	6	248.10	5.47	3.63	64.91	999.00	256.40	8.18	2.83	64.43	203.10	3.61	10.49	57.59	999.00	7.70	999.00	7.02	0.00
23	8	29	7	262.10	9.48	2.66	63.88	999.00	261.80	11.25	1.15	63.28	226.90	3.28	15.27	56.30	999.00	7.32	999.00	6.73	0.00
23	8	29	8	257.10	6.67	3.47	64.25	999.00	263.40	9.12	2.19	63.92	242.70	3.01	15.28	57.31	999.00	6.91	999.00	6.66	0.00
23	8	29	9	264.70	10.53	3.57	63.74	999.00	252.30	7.46	7.71	62.17	250.40	3.91	15.51	60.38	999.00	0.78	999.00	-0.80	0.00
23	8	29	10	273.30	7.25	7.17	63.53	999.00	269.50	6.14	9.31	62.91	280.90	5.38	21.25	64.11	999.00	-2.39	999.00	-1.96	0.00
23	8	29	11	246.80	6.92	5.82	64.87	999.00	238.20	6.98	5.94	65.46	237.80	6.52	13.82	67.47	999.00	-2.44	999.00	-1.80	0.00
23	8	29	12	230.60	7.18	10.63	66.64	999.00	225.00	7.09	11.33	67.21	238.10	6.19	15.67	69.09	999.00	-2.63	999.00	-2.03	0.00
23	8	29	13	243.60	6.58	12.27	68.36	999.00	236.40	6.72	12.44	68.95	244.30	5.79	19.56	71.13	999.00	-3.02	999.00	-2.42	0.00
23	8	29	14	235.60	7.16	17.24	69.83	999.00	225.30	7.09	19.30	70.49	223.60	6.08	25.09	72.30	999.00	-2.56	999.00	-1.94	0.00
23	8	29	15	236.80	7.81	10.47	71.13	999.00	231.40	7.78	10.33	71.84	246.90	6.60	16.69	73.88	999.00	-2.70	999.00	-2.16	0.00
23	8	29	16	229.60	8.22	13.04	72.26	999.00	222.80	7.87	16.39	72.91	232.30	6.13	22.44	74.88	999.00	-2.36	999.00	-1.73	0.00
23	8	29	17	216.60	9.63	11.77	73.27	999.00	212.20	8.73	11.22	73.93	225.30	6.43	18.87	75.78	999.00	-2.46	999.00	-1.85	0.00

23	8	29	18	233.20	11.33	6.76	73.89	999.00	227.40	10.83	7.80	74.37	236.80	7.92	11.57	75.95	999.00	-1.82	999.00	-1.32	0.00
23	8	29	19	227.70	10.53	6.20	73.99	999.00	219.20	9.58	6.57	74.42	224.00	5.27	14.81	75.48	999.00	-1.29	999.00	-0.94	0.00
23	8	29	20	224.90	12.55	1.19	73.90	999.00	215.10	11.38	1.42	74.14	208.30	4.59	11.06	73.85	999.00	0.91	999.00	1.10	0.00
23	8	29	21	282.40	12.00	6.08	71.08	999.00	274.30	10.06	6.30	71.22	280.40	5.18	11.29	70.68	999.00	-0.57	999.00	-0.28	0.00
23	8	29	22	264.80	14.40	6.47	67.38	999.00	255.40	12.43	6.81	67.61	256.50	6.91	9.97	67.80	999.00	-0.58	999.00	-0.30	0.00
23	8	29	23	285.20	19.08	2.27	68.13	999.00	269.40	15.25	4.07	67.14	263.90	6.01	10.51	66.69	999.00	2.56	999.00	1.13	0.00
23	8	29	24	332.90	15.50	4.95	67.08	999.00	326.00	14.16	6.11	67.10	326.30	6.80	12.73	66.62	999.00	0.11	999.00	0.47	0.00
23	8	30	1	336.50	18.14	5.55	66.96	999.00	330.30	17.15	6.62	67.41	337.30	10.16	12.31	67.69	999.00	-0.89	999.00	-0.44	0.00
23	8	30	2	337.20	23.20	4.74	65.75	999.00	330.60	22.16	5.61	66.21	338.30	12.98	13.03	66.73	999.00	-1.13	999.00	-0.64	0.00
23	8	30	3	338.50	21.90	6.06	63.62	999.00	332.30	21.06	6.36	64.10	340.30	13.02	13.32	64.81	999.00	-1.31	999.00	-0.82	0.00
23	8	30	4	334.80	20.96	6.90	61.81	999.00	328.30	19.74	7.53	62.31	336.00	12.08	13.52	63.33	999.00	-1.49	999.00	-0.99	0.00
23	8	30	5	339.90	22.77	6.84	60.87	999.00	333.40	21.52	7.41	61.36	341.60	13.37	13.37	62.35	999.00	-1.52	999.00	-1.02	0.00
23	8	30	6	339.00	22.10	5.39	60.32	999.00	332.30	21.36	6.13	60.82	337.90	14.49	12.41	61.86	999.00	-1.50	999.00	-1.00	0.00
23	8	30	7	347.50	18.20	5.74	60.05	999.00	339.70	17.55	6.50	60.55	347.80	12.20	11.24	61.64	999.00	-1.60	999.00	-1.11	0.00
23	8	30	8	339.60	17.10	8.50	59.86	999.00	332.70	16.64	8.65	60.36	340.50	10.80	12.84	61.44	999.00	-1.55	999.00	-1.07	0.00
23	8	30	9	332.50	16.33	9.05	59.31	999.00	324.60	15.71	10.75	59.81	332.40	10.06	14.23	60.92	999.00	-1.60	999.00	-1.12	0.00
23	8	30	10	340.20	18.59	4.12	58.57	999.00	332.90	17.56	5.09	59.07	342.70	11.94	11.58	60.30	999.00	-1.83	999.00	-1.30	0.00
23	8	30	11	339.80	14.39	6.98	58.44	999.00	332.40	13.92	7.64	58.98	343.70	10.37	13.80	60.44	999.00	-2.10	999.00	-1.53	0.00
23	8	30	12	345.70	14.79	9.38	58.97	999.00	339.60	14.15	9.41	59.55	348.40	11.13	14.10	61.20	999.00	-2.19	999.00	-1.63	0.00
23	8	30	13	350.80	13.62	7.13	59.83	999.00	343.50	13.15	7.71	60.42	352.50	10.85	11.68	61.94	999.00	-2.04	999.00	-1.49	0.00
23	8	30	14	0.58	13.46	10.32	60.74	999.00	354.90	12.62	9.50	61.33	5.70	11.48	10.07	62.74	999.00	-1.86	999.00	-1.25	0.00
23	8	30	15	6.68	10.92	11.82	61.59	999.00	359.60	10.32	11.48	62.13	5.16	9.97	11.62	63.35	999.00	-1.81	999.00	-1.27	0.00
23	8	30	16	18.25	9.06	14.58	62.17	999.00	10.80	8.23	15.43	62.73	21.75	7.79	22.94	63.99	999.00	-1.60	999.00	-1.13	0.00
23	8	30	17	57.66	11.86	10.12	62.63	999.00	49.95	11.15	10.90	63.09	52.63	9.37	17.39	64.42	999.00	-1.98	999.00	-1.54	0.00
23	8	30	18	48.78	11.21	10.12	62.21	999.00	40.80	10.44	10.74	62.72	45.99	9.65	14.94	64.20	999.00	-2.02	999.00	-1.49	0.00
23	8	30	19	43.38	12.72	9.62	62.01	999.00	37.14	11.45	9.46	62.53	43.81	11.38	9.99	63.76	999.00	-1.75	999.00	-1.28	0.00
23	8	30	20	53.21	14.19	8.61	61.17	999.00	47.44	13.39	8.67	61.67	56.69	9.69	12.73	62.75	999.00	-1.45	999.00	-0.92	0.00
23	8	30	21	52.58	15.55	8.06	60.16	999.00	47.15	14.78	8.07	60.67	52.49	10.79	13.30	61.50	999.00	-1.37	999.00	-0.85	0.00
23	8	30	22	58.34	18.68	6.70	60.10	999.00	52.24	17.83	6.98	60.59	60.60	11.39	12.75	61.25	999.00	-1.11	999.00	-0.62	0.00
23	8	30	23	44.66	13.09	10.14	60.78	999.00	38.78	11.95	9.77	61.27	47.45	10.55	11.92	61.97	999.00	-1.29	999.00	-0.79	0.00
23	8	30	24	46.85	13.03	8.61	60.84	999.00	41.19	12.02	9.74	61.34	49.44	9.45	14.53	62.19	999.00	-1.35	999.00	-0.82	0.00
23	8	31	1	51.48	12.43	10.15	60.27	999.00	44.88	11.23	10.70	60.76	53.43	8.14	14.37	61.43	999.00	-1.16	999.00	-0.66	0.00
23	8	31	2	48.04	13.46	8.24	59.80	999.00	40.93	12.53	8.93	60.29	46.91	10.32	11.66	61.06	999.00	-1.35	999.00	-0.85	0.00
23	8	31	3	48.53	14.25	10.00	59.64	999.00	43.63	13.35	10.05	60.14	55.76	9.89	14.76	61.01	999.00	-1.33	999.00	-0.83	0.00
23	8	31	4	60.15	15.31	8.15	59.57	999.00	52.91	14.21	8.93	60.05	62.55	9.50	12.76	60.56	999.00	-0.92	999.00	-0.45	0.00
23	8	31	5	60.83	15.53	8.11	59.11	999.00	53.89	14.37	7.90	59.59	63.04	9.36	12.16	60.12	999.00	-1.05	999.00	-0.60	0.00
23	8	31	6	53.15	16.24	7.32	58.97	999.00	46.62	15.29	7.66	59.44	53.06	10.68	12.29	60.17	999.00	-1.17	999.00	-0.69	0.00
23	8	31	7	62.78	14.83	7.79	59.07	999.00	56.17	14.28	7.44	59.53	65.49	8.12	12.75	59.97	999.00	-0.90	999.00	-0.44	0.00
23	8	31	8	57.54	12.50	8.90	59.55	999.00	51.25	12.07	8.95	60.02	59.57	8.27	16.70	60.54	999.00	-1.22	999.00	-0.76	0.00
23	8	31	9	52.42	11.79	10.25	60.32	999.00	44.36	11.42	11.45	60.82	52.08	9.02	16.59	61.76	999.00	-1.48	999.00	-0.98	0.00
23	8	31	10	53.30	11.99	9.76	61.11	999.00	47.30	11.85	9.90	61.54	52.82	9.57	15.47	62.51	999.00	-1.48	999.00	-1.02	0.00
23	8	31	11	59.25	10.27	10.95	61.85	999.00	52.80	10.00	11.66	62.31	61.36	8.18	19.06	63.40	999.00	-1.57	999.00	-1.12	0.00
23	8	31	12	55.25	10.16	10.56	62.60	999.00	49.17	9.90	10.72	62.90	51.87	8.86	14.01	64.08	999.00	-1.42	999.00	-1.17	0.00
23	8	31	13	54.62	10.83	11.05	63.30	999.00	46.26	10.42	11.69	63.65	50.15	9.19	16.86	64.87	999.00	-1.49	999.00	-1.21	0.00
23	8	31	14	54.67	10.60	10.24	63.61	999.00	48.15	10.65	10.37	63.93	58.92	9.20	17.12	65.39	999.00	-1.67	999.00	-1.40	0.00
23	8	31	15	51.05	10.71	12.13	64.20	999.00	44.44	10.08	12.39	64.60	44.16	9.73	16.13	66.14	999.00	-1.93	999.00	-1.56	0.00
23	8	31	16	58.44	13.87	6.78	64.67	999.00	52.45	13.74	6.97	65.13	58.34	10.90	11.44	66.80	999.00	-2.20	999.00	-1.84	0.00
23	8	31	17	64.89	10.97	9.17	65.75	999.00	58.57	10.68	9.29	66.18	68.19	8.52	18.17	67.97	999.00	-2.24	999.00	-1.84	0.00
23	8	31	18	64.34	10.27	10.26	999.00	999.00	58.49	9.82	10.18	999.00	62.63	7.54	15.46	68.25	999.00	-1.87	999.00	-1.45	0.00
23	8	31	19	86.50	10.66	7.01	65.96	999.00	78.40	10.39	8.08	66.47	89.00	5.94	17.78	68.02	999.00	-1.85	999.00	-1.43	0.00
23	8	31	20	86.00	10.51	5.07	65.62	999.00	79.20	9.81	5.91	66.06	91.90	3.67	16.47	66.69	999.00	-0.44	999.00	-0.04	0.00
23	8	31	21	77.00	11.50	4.06	65.65	999.00	69.29	11.18	4.51	66.08	77.20	5.69	10.43	65.41	999.00	0.29	999.00	0.73	0.00
23	8	31	22	65.45	12.36	3.88	65.96	999.00	58.22	11.91	3.77	66.41	67.15	6.75	9.07	66.04	999.00	-0.30	999.00	0.17	0.00

23	8	31	23	74.90	13.93	3.80	66.17	999.00	67.51	13.47	3.96	66.62	74.20	7.56	10.14	66.32	999.00	-0.13	999.00	0.30	0.00
23	8	31	24	82.30	14.09	3.80	66.58	999.00	74.40	13.45	4.07	66.98	78.30	6.05	12.19	66.40	999.00	0.48	999.00	0.85	0.00
23	9	1	1	110.90	16.21	5.53	66.58	999.00	105.10	14.50	6.07	66.98	114.70	5.86	16.37	66.40	999.00	0.55	999.00	0.87	0.00
23	9	1	2	123.90	13.58	7.33	65.84	999.00	125.70	11.58	6.62	65.93	140.80	4.14	20.66	65.44	999.00	1.40	999.00	0.92	0.00
23	9	1	3	122.00	12.66	1.50	63.91	999.00	119.80	11.32	1.52	63.67	162.80	2.33	18.19	62.09	999.00	2.10	999.00	2.00	0.00
23	9	1	4	120.80	9.02	3.33	63.91	999.00	130.30	8.47	3.61	63.67	235.70	1.25	20.38	62.09	999.00	3.45	999.00	3.04	0.00
23	9	1	5	119.60	13.26	2.22	63.36	999.00	121.70	11.51	2.40	63.00	172.00	1.91	16.45	58.88	999.00	5.22	999.00	4.94	0.00
23	9	1	6	116.20	11.92	2.19	63.48	999.00	113.10	10.22	2.11	63.29	217.90	1.75	10.25	58.17	999.00	5.15	999.00	5.15	0.00
23	9	1	7	122.30	13.93	2.57	63.11	999.00	116.70	12.64	2.64	63.20	128.60	3.45	10.75	59.06	999.00	2.76	999.00	2.98	0.00
23	9	1	8	128.50	13.91	1.55	62.02	999.00	121.50	12.85	2.44	62.26	132.60	4.03	17.80	60.69	999.00	0.41	999.00	0.60	0.00
23	9	1	9	145.30	9.59	9.11	61.16	999.00	137.00	8.38	9.61	61.35	141.40	4.30	19.53	62.07	999.00	-1.76	999.00	-1.34	0.00
23	9	1	10	167.10	6.20	10.63	61.95	999.00	164.10	6.07	9.70	62.78	175.50	3.89	22.35	64.19	999.00	-2.42	999.00	-1.25	0.00
23	9	1	11	136.00	4.35	10.16	64.11	999.00	131.30	4.32	12.76	65.51	148.90	3.74	29.96	66.67	999.00	-2.46	999.00	-1.63	0.00
23	9	1	12	117.20	3.03	42.77	66.72	999.00	108.60	3.21	29.31	67.62	112.40	2.87	49.72	69.14	999.00	-2.54	999.00	-1.71	0.00
23	9	1	13	49.77	4.80	15.40	68.22	999.00	44.93	5.12	11.70	68.62	43.54	5.86	18.98	69.49	999.00	-0.85	999.00	-0.60	0.00
23	9	1	14	63.44	7.91	10.83	68.38	999.00	54.33	7.79	11.69	68.62	50.68	7.60	14.67	69.71	999.00	-1.68	999.00	-1.30	0.00
23	9	1	15	63.72	9.20	9.79	69.15	999.00	56.88	9.31	8.98	69.42	58.75	8.12	17.64	70.82	999.00	-2.09	999.00	-1.78	0.00
23	9	1	16	73.80	11.00	10.46	69.49	999.00	66.66	10.47	12.51	70.00	66.71	8.07	17.09	71.97	999.00	-2.76	999.00	-2.21	0.00
23	9	1	17	80.80	10.50	7.60	69.68	999.00	72.50	10.24	10.15	70.24	76.40	7.79	14.90	72.32	999.00	-2.57	999.00	-2.02	0.00
23	9	1	18	82.50	11.09	7.06	69.58	999.00	76.40	10.51	8.52	70.10	91.00	6.83	19.08	72.02	999.00	-2.35	999.00	-1.82	0.00
23	9	1	19	95.80	12.48	3.10	69.17	999.00	88.60	11.94	4.24	69.63	101.80	5.76	18.24	71.15	999.00	-1.54	999.00	-1.16	0.00
23	9	1	20	100.30	11.82	3.45	68.96	999.00	91.80	11.61	3.94	69.35	98.60	5.07	13.48	69.72	999.00	-0.31	999.00	0.12	0.00
23	9	1	21	113.00	11.20	2.28	68.69	999.00	106.10	10.93	2.90	69.15	109.90	4.03	11.88	68.58	999.00	0.32	999.00	0.79	0.00
23	9	1	22	121.40	13.17	1.55	68.51	999.00	114.90	12.45	1.94	68.92	122.50	3.84	9.70	67.45	999.00	1.64	999.00	2.01	0.00
23	9	1	23	125.10	11.81	1.31	68.21	999.00	119.20	10.74	1.68	68.52	136.40	3.39	9.37	66.81	999.00	1.27	999.00	1.58	0.00
23	9	1	24	142.60	14.18	0.48	67.95	999.00	144.20	11.25	1.52	67.82	204.20	1.29	27.40	65.76	999.00	3.35	999.00	2.62	0.00
23	9	2	1	151.70	13.64	0.87	68.42	999.00	142.60	11.38	1.31	67.46	135.20	1.84	19.46	63.76	999.00	4.65	999.00	3.32	0.00
23	9	2	2	167.10	11.47	2.05	69.61	999.00	155.50	12.62	1.24	67.38	172.70	2.10	12.04	63.77	999.00	6.82	999.00	4.08	0.00
23	9	2	3	205.70	6.63	3.06	70.28	999.00	188.20	7.91	1.66	68.64	196.10	2.79	5.22	62.38	999.00	999.00	999.00	7.52	0.00
23	9	2	4	217.20	10.23	1.28	999.00	999.00	204.80	10.14	0.88	69.88	197.50	4.52	7.32	61.67	999.00	999.00	999.00	7.97	0.00
23	9	2	5	218.70	15.27	1.05	999.00	999.00	205.80	14.78	1.03	999.00	194.90	3.90	8.93	59.76	999.00	999.00	999.00	7.97	0.00
23	9	2	6	225.10	15.32	2.03	999.00	999.00	214.50	15.39	1.66	999.00	193.90	4.20	10.01	59.08	999.00	999.00	999.00	7.97	0.00
23	9	2	7	238.20	16.59	1.39	999.00	999.00	224.80	16.85	1.46	999.00	199.70	5.01	8.95	59.21	999.00	999.00	999.00	7.97	0.00
23	9	2	8	250.70	21.49	2.32	66.84	999.00	234.50	16.53	3.04	64.81	223.10	4.63	12.48	59.05	999.00	7.97	999.00	4.95	0.00
23	9	2	9	265.40	17.65	4.44	67.40	999.00	244.20	13.83	4.82	64.33	231.50	6.89	12.03	61.51	999.00	3.48	999.00	0.88	0.00
23	9	2	10	235.50	12.09	5.38	65.55	999.00	223.90	9.96	7.03	64.69	229.60	7.09	13.38	65.68	999.00	-1.64	999.00	-1.39	0.00
23	9	2	11	228.10	13.06	6.98	68.55	999.00	220.10	11.74	8.46	69.04	234.30	9.46	12.48	70.66	999.00	-2.38	999.00	-1.72	0.00
23	9	2	12	249.70	17.18	6.09	72.22	999.00	242.30	16.75	6.01	72.73	245.10	12.41	9.91	74.60	999.00	-2.19	999.00	-1.73	0.00
23	9	2	13	259.50	17.19	8.91	74.84	999.00	251.80	16.09	10.20	75.37	257.40	11.99	13.80	77.32	999.00	-2.68	999.00	-2.13	0.00
23	9	2	14	268.30	14.01	8.60	76.11	999.00	260.30	13.42	8.85	76.64	266.60	9.71	14.17	78.78	999.00	-2.78	999.00	-2.25	0.00
23	9	2	15	244.30	14.29	7.46	999.00	999.00	237.50	13.94	7.73	999.00	244.90	10.31	10.63	79.70	999.00	-2.44	999.00	-1.98	0.00
23	9	2	16	242.10	12.82	8.16	78.06	999.00	235.60	12.42	7.94	78.53	244.80	8.61	12.46	80.40	999.00	-2.33	999.00	-1.85	0.00
23	9	2	17	229.30	15.99	5.52	79.19	999.00	222.50	15.01	6.90	79.60	231.40	9.48	14.98	81.33	999.00	-2.06	999.00	-1.67	0.00
23	9	2	18	227.00	17.41	6.82	80.10	999.00	219.10	16.17	7.47	80.52	225.70	9.76	15.09	82.07	999.00	-1.66	999.00	-1.26	0.00
23	9	2	19	226.80	16.55	4.36	80.14	999.00	218.70	14.88	5.36	80.51	218.70	6.95	14.37	81.18	999.00	-0.39	999.00	-0.16	0.00
23	9	2	20	239.30	15.60	2.54	79.33	999.00	230.50	13.58	2.35	79.52	228.60	5.13	11.09	79.07	999.00	1.04	999.00	1.13	0.00
23	9	2	21	236.90	13.46	1.94	78.70	999.00	228.30	10.50	3.26	78.43	277.20	2.80	18.47	75.95	999.00	2.94	999.00	2.32	0.00
23	9	2	22	237.70	21.48	2.61	77.94	999.00	224.70	18.59	3.82	77.33	216.50	6.08	16.55	74.18	999.00	3.77	999.00	3.06	0.00
23	9	2	23	240.40	16.78	6.37	76.36	999.00	225.20	13.23	8.07	75.48	238.30	3.69	27.02	73.28	999.00	3.35	999.00	2.16	0.00
23	9	2	24	239.60	16.04	1.04	75.66	999.00	224.60	13.45	1.53	74.75	205.00	4.36	9.41	72.40	999.00	3.28	999.00	2.39	0.00
23	9	3	1	236.80	16.55	1.79	74.96	999.00	221.50	14.35	2.06	74.21	197.20	4.46	9.15	71.13	999.00	4.28	999.00	3.71	0.00
23	9	3	2	233.50	16.34	1.83	75.02	999.00	218.10	14.74	1.75	74.41	195.20	4.85	7.98	70.04	999.00	5.26	999.00	4.76	0.00
23	9	3	3	233.30	17.67	2.12	74.80	999.00	214.70	15.67	2.31	73.98	200.70	5.25	9.92	69.58	999.00	4.97	999.00	3.76	0.00

23	9	3	4	236.20	19.86	1.63	74.61	999.00	218.10	17.32	2.46	72.85	215.90	5.86	11.97	69.18	999.00	5.23	999.00	3.16	0.00
23	9	3	5	235.30	20.74	2.08	73.43	999.00	220.00	16.57	2.75	71.31	213.40	5.63	12.02	68.83	999.00	4.15	999.00	2.16	0.00
23	9	3	6	235.10	20.40	1.49	71.50	999.00	222.50	16.74	2.23	70.26	209.60	5.29	12.00	68.21	999.00	2.84	999.00	1.85	0.00
23	9	3	7	236.50	20.30	1.58	70.65	999.00	224.20	17.08	2.20	69.82	217.70	5.89	12.06	68.07	999.00	2.29	999.00	1.53	0.00
23	9	3	8	238.10	18.70	2.27	70.22	999.00	226.60	15.40	2.98	69.58	222.10	6.70	12.00	68.82	999.00	0.66	999.00	0.08	0.00
23	9	3	9	238.10	15.80	3.24	70.73	999.00	226.80	13.01	3.67	70.46	223.00	6.87	11.22	70.97	999.00	-0.41	999.00	-0.57	0.00
23	9	3	10	245.80	17.99	5.05	72.49	999.00	238.30	17.36	4.66	72.72	245.10	12.22	9.74	73.88	999.00	-1.99	999.00	-1.51	0.00
23	9	3	11	243.90	16.31	4.43	74.76	999.00	236.90	16.20	4.43	75.30	245.60	11.44	11.08	76.93	999.00	-2.29	999.00	-1.76	0.00
23	9	3	12	240.00	18.62	4.96	76.54	999.00	234.00	18.17	5.08	77.02	243.90	12.21	11.33	78.85	999.00	-2.35	999.00	-1.87	0.00
23	9	3	13	255.80	20.65	5.99	78.45	999.00	248.60	19.88	6.68	78.93	256.50	13.23	12.16	80.70	999.00	-2.26	999.00	-1.79	0.00
23	9	3	14	244.40	22.76	6.56	79.74	999.00	236.20	22.35	7.03	80.20	243.30	14.82	10.98	81.97	999.00	-2.19	999.00	-1.73	0.00
23	9	3	15	238.00	21.05	7.81	80.81	999.00	231.10	20.83	8.01	81.26	237.50	14.09	12.35	83.07	999.00	-2.23	999.00	-1.78	0.00
23	9	3	16	237.90	21.27	6.40	81.62	999.00	230.90	20.67	6.69	82.05	238.90	13.55	13.07	83.78	999.00	-2.13	999.00	-1.70	0.00
23	9	3	17	235.10	19.90	5.15	82.51	999.00	228.20	19.19	5.84	82.92	237.40	12.97	11.38	84.38	999.00	-1.91	999.00	-1.54	0.00
23	9	3	18	239.60	20.25	4.14	83.29	999.00	232.40	19.43	4.33	83.66	239.70	12.54	10.62	84.75	999.00	-1.22	999.00	-0.81	0.00
23	9	3	19	238.20	19.41	3.22	83.53	999.00	231.20	17.75	3.64	83.89	236.30	10.07	10.09	84.40	999.00	-0.50	999.00	-0.20	0.00
23	9	3	20	235.50	19.01	2.19	82.69	999.00	226.70	16.60	2.53	82.77	225.30	6.78	12.52	82.15	999.00	1.16	999.00	1.14	0.00
23	9	3	21	239.20	21.64	2.58	81.34	999.00	230.60	18.06	3.35	81.02	232.00	7.64	10.87	79.60	999.00	1.72	999.00	1.33	0.00
23	9	3	22	247.60	21.04	2.67	79.81	999.00	238.20	17.47	3.05	79.45	238.20	7.90	8.51	77.95	999.00	1.76	999.00	1.36	0.00
23	9	3	23	252.30	21.22	3.15	79.01	999.00	243.20	16.81	3.89	78.36	242.00	7.98	7.48	77.00	999.00	1.93	999.00	1.36	0.00
23	9	3	24	254.80	18.00	4.16	78.25	999.00	245.40	14.02	5.29	77.81	233.90	5.99	7.83	76.40	999.00	1.81	999.00	1.47	0.00
23	9	4	1	240.90	15.90	2.15	77.18	999.00	228.70	13.66	2.50	76.90	221.10	5.52	13.30	75.60	999.00	1.30	999.00	1.12	0.00
23	9	4	2	237.60	17.31	2.53	75.68	999.00	220.60	15.17	3.12	75.30	213.60	5.65	13.15	73.65	999.00	2.24	999.00	1.52	0.00
23	9	4	3	236.70	16.66	2.27	74.29	999.00	222.10	13.83	2.76	73.63	210.70	4.72	12.34	72.75	999.00	1.51	999.00	0.90	0.00
23	9	4	4	240.80	16.41	1.56	74.00	999.00	225.70	14.01	1.47	73.43	210.90	4.63	12.14	72.25	999.00	2.01	999.00	1.40	0.00
23	9	4	5	240.10	18.18	2.84	73.92	999.00	227.10	15.53	3.12	73.21	210.90	5.40	13.38	71.48	999.00	2.17	999.00	1.68	0.00
23	9	4	6	242.50	17.26	3.53	73.17	999.00	230.90	14.29	4.24	72.79	217.50	5.70	14.39	72.00	999.00	0.92	999.00	0.62	0.00
23	9	4	7	252.20	18.35	2.41	999.00	999.00	238.80	15.11	2.99	999.00	232.60	7.59	10.16	71.90	999.00	1.31	999.00	0.72	0.00
23	9	4	8	246.50	16.99	2.77	72.54	999.00	233.20	13.73	4.06	72.10	222.30	5.53	12.55	71.57	999.00	0.72	999.00	0.29	0.00
23	9	4	9	245.60	14.37	5.30	71.94	999.00	229.80	12.58	5.62	71.79	231.00	7.33	11.54	72.38	999.00	-0.89	999.00	-1.01	0.00
23	9	4	10	255.30	13.83	6.64	73.94	999.00	245.00	12.42	6.20	74.18	242.80	8.19	11.54	75.47	999.00	-1.71	999.00	-1.31	0.00
23	9	4	11	253.80	14.17	5.59	76.46	999.00	246.10	13.86	6.24	77.01	247.10	10.05	11.97	78.55	999.00	-2.18	999.00	-1.62	0.00
23	9	4	12	254.00	13.82	6.54	77.99	999.00	246.70	13.04	7.42	78.51	251.70	9.32	12.99	80.30	999.00	-2.36	999.00	-1.84	0.00
23	9	4	13	246.60	13.29	12.64	79.37	999.00	240.10	12.97	12.55	79.89	246.60	9.60	16.58	81.90	999.00	-2.57	999.00	-2.07	0.00
23	9	4	14	245.80	16.05	4.77	80.70	999.00	239.60	15.80	4.63	81.16	250.80	10.90	10.52	83.03	999.00	-2.00	999.00	-1.55	0.00
23	9	4	15	238.60	18.94	6.57	81.79	999.00	232.00	18.66	6.82	82.27	241.90	12.67	12.94	84.30	999.00	-2.28	999.00	-1.85	0.00
23	9	4	16	235.90	16.20	8.52	81.79	999.00	229.40	15.63	9.22	82.27	241.30	11.10	10.63	84.30	999.00	-2.23	999.00	-1.75	0.00
23	9	4	17	234.60	13.98	6.06	83.67	999.00	227.10	13.20	6.82	84.09	237.30	9.27	11.73	85.85	999.00	-2.19	999.00	-1.79	0.00
23	9	4	18	238.40	16.76	4.43	84.33	999.00	231.50	16.04	4.30	84.73	239.60	10.11	11.41	85.98	999.00	-1.31	999.00	-0.88	0.00
23	9	4	19	226.30	12.23	4.29	84.26	999.00	217.80	10.89	5.14	84.64	222.90	5.40	13.43	85.53	999.00	-0.92	999.00	-0.63	0.00
23	9	4	20	199.30	12.54	1.91	83.51	999.00	190.20	11.16	2.26	83.93	190.90	3.54	15.67	83.45	999.00	0.64	999.00	0.99	0.00
23	9	4	21	197.40	15.41	1.74	82.68	999.00	187.00	13.19	2.96	82.31	182.50	3.02	17.79	80.47	999.00	3.10	999.00	2.52	0.00
23	9	4	22	198.00	17.88	1.22	81.70	999.00	184.40	13.82	1.87	81.10	181.40	3.18	17.08	78.35	999.00	3.45	999.00	2.39	0.00
23	9	4	23	200.00	19.77	1.00	80.91	999.00	187.70	15.20	1.42	79.42	186.10	3.19	15.45	76.97	999.00	4.13	999.00	2.42	0.00
23	9	4	24	203.40	20.30	1.22	79.63	999.00	193.50	15.37	1.94	78.37	198.30	4.37	13.03	75.93	999.00	3.42	999.00	2.11	0.00
23	9	5	1	206.60	20.26	1.68	79.63	999.00	196.40	15.32	2.74	78.37	201.40	4.10	14.01	75.93	999.00	3.26	999.00	2.01	0.00
23	9	5	2	211.30	20.01	2.14	77.29	999.00	199.20	15.74	2.40	75.92	198.90	5.02	13.54	74.20	999.00	3.51	999.00	1.83	0.00
23	9	5	3	219.60	21.31	1.46	77.43	999.00	207.00	15.63	2.31	75.76	207.70	4.02	15.15	73.63	999.00	4.09	999.00	2.30	0.00
23	9	5	4	221.60	19.09	1.77	76.15	999.00	209.30	14.05	3.14	74.84	208.80	3.82	12.15	72.82	999.00	2.89	999.00	1.69	0.00
23	9	5	5	229.00	18.27	1.46	75.13	999.00	216.90	13.99	1.66	73.94	207.30	4.95	9.87	72.18	999.00	3.27	999.00	1.92	0.00
23	9	5	6	238.20	17.56	1.76	76.40	999.00	218.20	14.56	1.32	74.53	196.30	5.59	8.61	71.47	999.00	5.25	999.00	3.20	0.00
23	9	5	7	239.30	15.65	1.54	76.40	999.00	213.20	14.26	2.44	74.53	187.10	5.89	7.19	71.47	999.00	7.34	999.00	4.42	0.00
23	9	5	8	239.70	17.05	1.55	76.99	999.00	214.80	15.25	2.26	73.61	206.30	4.66	11.63	70.07	999.00	6.58	999.00	3.08	0.00

23	9	5	9	233.60	13.65	1.56	78.00	999.00	214.00	12.32	3.83	74.14	202.50	5.19	14.38	71.88	999.00	5.05	999.00	1.21	0.00
23	9	5	10	216.00	8.47	6.60	76.24	999.00	205.20	6.36	9.97	75.12	217.60	4.83	14.93	75.78	999.00	-1.73	999.00	-0.79	0.00
23	9	5	11	210.80	9.39	6.80	77.76	999.00	202.70	8.93	6.65	78.99	210.40	6.03	19.52	80.03	999.00	-2.27	999.00	-0.88	0.00
23	9	5	12	215.10	8.98	11.81	80.51	999.00	208.40	8.80	13.10	81.76	222.00	6.65	20.06	82.93	999.00	-2.54	999.00	-1.38	0.00
23	9	5	13	219.00	10.59	8.96	82.36	999.00	214.30	10.39	9.37	83.14	232.10	8.43	14.18	84.85	999.00	-2.46	999.00	-1.75	0.00
23	9	5	14	216.30	10.84	8.50	83.60	999.00	211.60	9.88	10.49	84.54	227.10	7.13	15.19	85.88	999.00	-1.91	999.00	-1.25	0.00
23	9	5	15	195.50	11.45	11.95	84.42	999.00	190.00	10.67	12.04	85.46	203.60	7.42	22.33	86.88	999.00	-2.55	999.00	-1.44	0.00
23	9	5	16	195.00	14.00	6.01	85.12	999.00	188.90	13.48	6.75	86.05	195.40	7.74	18.11	87.42	999.00	-2.12	999.00	-1.23	0.00
23	9	5	17	192.80	12.10	8.88	85.41	999.00	186.40	11.13	10.33	86.21	198.20	6.24	21.09	87.38	999.00	-2.24	999.00	-1.33	0.00
23	9	5	18	182.50	11.31	7.51	85.60	999.00	174.10	10.48	7.37	86.47	188.00	4.58	22.60	87.55	999.00	-1.79	999.00	-0.88	0.00
23	9	5	19	180.30	11.36	4.46	85.40	999.00	173.10	10.29	5.76	86.26	177.10	3.39	21.63	86.65	999.00	-0.87	999.00	-0.22	0.00
23	9	5	20	179.30	15.14	1.30	84.48	999.00	169.90	12.93	1.76	84.74	169.00	3.07	19.59	83.82	999.00	1.56	999.00	1.54	0.00
23	9	5	21	182.20	16.97	1.44	83.98	999.00	169.10	13.99	1.99	83.52	167.00	2.73	19.38	81.43	999.00	2.98	999.00	2.34	0.00
23	9	5	22	200.50	10.66	5.75	82.36	999.00	201.50	8.59	8.82	81.91	226.30	3.32	17.49	80.43	999.00	1.43	999.00	1.25	0.00
23	9	5	23	192.10	14.13	1.86	80.93	999.00	181.10	10.91	1.48	80.58	177.30	2.49	13.62	78.80	999.00	2.94	999.00	2.34	0.00
23	9	5	24	196.10	20.79	1.15	81.22	999.00	182.50	15.60	2.45	79.89	182.30	3.98	15.09	77.53	999.00	3.63	999.00	2.06	0.00
23	9	6	1	199.40	20.61	2.71	79.97	999.00	190.80	16.72	3.65	79.04	193.70	5.45	15.52	77.32	999.00	1.73	999.00	1.31	0.00
23	9	6	2	208.10	18.80	2.90	77.59	999.00	198.70	15.69	3.30	77.29	201.00	5.77	13.97	76.57	999.00	0.74	999.00	0.47	0.00
23	9	6	3	218.60	19.95	2.15	76.42	999.00	209.50	15.16	2.74	75.83	205.10	4.99	13.98	75.00	999.00	2.20	999.00	1.35	0.00
23	9	6	4	218.30	18.81	1.83	76.38	999.00	204.80	14.18	2.80	75.49	195.70	3.81	15.15	73.88	999.00	2.64	999.00	1.68	0.00
23	9	6	5	215.20	16.95	2.31	75.67	999.00	202.90	13.19	3.02	74.93	196.80	4.11	15.58	73.57	999.00	1.63	999.00	1.10	0.00
23	9	6	6	219.20	15.12	1.88	74.24	999.00	205.60	11.74	2.02	73.62	199.90	3.42	12.91	72.65	999.00	2.06	999.00	1.25	0.00
23	9	6	7	202.00	15.99	1.89	74.48	999.00	184.20	13.24	2.43	73.67	177.00	4.15	16.52	72.15	999.00	1.89	999.00	1.04	0.00
23	9	6	8	186.50	17.01	3.11	999.00	999.00	176.10	13.73	4.01	999.00	180.50	4.50	20.17	72.13	999.00	-0.18	999.00	-0.11	0.00
23	9	6	9	208.20	16.14	5.74	72.52	999.00	200.20	13.96	7.27	73.09	209.30	6.72	16.41	73.70	999.00	-1.43	999.00	-0.80	0.00
23	9	6	10	219.30	12.67	6.77	73.78	999.00	211.40	11.78	8.15	74.35	220.90	7.64	16.22	75.93	999.00	-2.12	999.00	-1.51	0.00
23	9	6	11	212.60	20.31	9.65	74.71	999.00	205.90	18.75	9.06	75.66	214.60	10.35	17.88	76.88	999.00	-1.68	999.00	-1.02	0.00
23	9	6	12	220.80	16.60	8.37	69.64	999.00	212.30	14.81	8.33	69.92	211.70	7.78	20.82	70.68	999.00	-1.24	999.00	-0.96	0.00
23	9	6	13	198.90	13.11	6.53	69.17	999.00	188.10	10.98	7.34	69.50	192.20	5.28	18.52	70.32	999.00	-1.14	999.00	-0.90	0.00
23	9	6	14	211.80	14.68	5.02	70.58	999.00	205.50	12.85	5.82	70.98	216.40	5.66	16.95	70.85	999.00	-0.29	999.00	0.24	0.00
23	9	6	15	221.20	12.45	8.63	72.00	999.00	212.80	11.70	9.30	72.52	224.20	7.64	20.06	73.13	999.00	-2.29	999.00	-1.68	0.00
23	9	6	16	226.50	10.11	8.14	73.88	999.00	222.20	8.96	10.66	74.36	234.60	7.29	13.16	75.95	999.00	-2.70	999.00	-2.20	0.00
23	9	6	17	224.80	11.29	6.01	75.45	999.00	219.80	10.63	6.72	75.96	232.60	7.47	11.91	76.65	999.00	-1.59	999.00	-1.10	0.10
23	9	6	18	206.50	14.71	4.97	77.02	999.00	199.10	13.13	5.69	77.68	203.20	6.65	17.59	79.48	999.00	-2.35	999.00	-1.56	0.00
23	9	6	19	208.30	14.53	4.58	77.55	999.00	201.40	12.79	5.60	78.17	206.90	5.80	17.91	79.25	999.00	-1.16	999.00	-0.63	0.00
23	9	6	20	199.50	15.33	3.04	78.21	999.00	191.70	13.44	3.38	78.49	193.00	4.52	15.67	78.32	999.00	0.67	999.00	0.75	0.00
23	9	6	21	218.70	17.23	3.51	78.07	999.00	212.00	13.85	4.06	77.84	217.80	4.09	12.05	76.63	999.00	1.74	999.00	1.48	0.00
23	9	6	22	220.20	18.92	2.57	77.53	999.00	210.40	15.37	3.01	77.32	205.70	5.05	13.37	76.05	999.00	1.33	999.00	1.09	0.00
23	9	6	23	226.30	14.80	3.50	75.77	999.00	221.20	11.86	4.56	75.70	234.00	5.15	9.96	75.33	999.00	0.30	999.00	0.26	0.00
23	9	6	24	274.80	18.61	12.63	74.07	999.00	271.50	17.37	12.93	74.08	282.00	10.36	14.38	73.70	999.00	0.72	999.00	1.03	0.00
23	9	7	1	249.60	13.02	3.96	72.40	999.00	236.60	11.19	4.50	72.80	224.00	5.08	13.66	71.05	999.00	0.96	999.00	1.30	0.00
23	9	7	2	245.20	10.65	3.01	71.71	999.00	229.00	9.49	2.71	71.34	199.10	3.95	7.88	69.88	999.00	2.04	999.00	1.57	0.00
23	9	7	3	248.10	14.00	4.80	69.79	999.00	238.90	11.59	6.53	69.76	233.30	5.39	13.83	68.85	999.00	0.42	999.00	0.45	0.00
23	9	7	4	250.40	11.68	8.40	68.01	999.00	240.80	10.30	8.46	68.39	243.00	5.91	15.71	67.92	999.00	-0.06	999.00	0.35	0.00
23	9	7	5	249.20	12.91	5.84	66.30	999.00	239.90	11.54	6.20	66.67	241.40	7.83	11.48	66.77	999.00	-0.52	999.00	-0.15	0.00
23	9	7	6	239.90	12.00	5.45	65.11	999.00	232.10	10.19	6.29	65.45	229.20	5.77	15.01	65.51	999.00	-0.39	999.00	-0.07	0.00
23	9	7	7	245.10	9.30	6.00	64.17	999.00	232.70	8.04	6.14	64.40	210.70	4.23	12.92	64.34	999.00	-0.09	999.00	0.18	0.00
23	9	7	8	228.60	15.49	3.61	63.49	999.00	216.80	12.84	5.40	63.59	220.60	6.08	14.77	63.84	999.00	-0.31	999.00	-0.30	0.00
23	9	7	9	248.80	13.61	7.75	64.32	999.00	240.30	12.77	7.27	64.69	244.40	8.52	13.39	65.81	999.00	-1.62	999.00	-1.19	0.00
23	9	7	10	238.40	11.87	5.59	65.69	999.00	231.90	11.39	5.98	66.19	237.40	7.73	11.66	67.29	999.00	-1.30	999.00	-0.81	0.00
23	9	7	11	234.80	12.88	4.66	65.84	999.00	228.60	12.21	6.22	66.33	234.00	8.77	10.74	66.96	999.00	-1.10	999.00	-0.62	0.00
23	9	7	12	228.60	10.19	6.64	65.83	999.00	219.20	8.95	8.43	66.30	229.50	6.77	15.46	67.01	999.00	-1.37	999.00	-0.86	0.00
23	9	7	13	217.40	10.34	4.88	67.31	999.00	209.30	9.73	6.44	67.87	220.30	6.42	17.14	69.09	999.00	-1.96	999.00	-1.31	0.00

23	9	7	14	219.80	8.69	7.48	68.32	999.00	210.60	8.31	7.70	68.97	220.10	5.89	14.78	70.38	999.00	-1.80	999.00	-1.22	0.00
23	9	7	15	216.60	5.86	20.98	70.28	999.00	218.20	4.84	21.87	70.88	252.10	3.90	23.86	72.15	999.00	-2.15	999.00	-1.48	0.00
23	9	7	16	221.30	8.16	9.68	72.39	999.00	213.60	7.43	12.62	73.30	229.60	5.44	15.85	74.45	999.00	-1.89	999.00	-1.25	0.00
23	9	7	17	298.90	13.92	10.50	72.84	999.00	292.10	12.95	10.97	73.36	299.30	7.93	20.03	74.02	999.00	0.24	999.00	0.69	0.05
23	9	7	18	318.70	8.55	8.77	999.00	999.00	314.20	8.44	11.82	999.00	328.10	6.15	17.10	71.80	999.00	-2.23	999.00	-1.64	0.00
23	9	7	19	306.70	14.02	5.05	70.74	999.00	299.70	13.44	5.50	71.20	306.20	7.89	14.91	72.68	999.00	-1.44	999.00	-0.98	0.00
23	9	7	20	304.10	11.62	5.15	70.73	999.00	289.80	10.01	5.27	71.09	276.60	5.27	11.50	71.63	999.00	-0.33	999.00	-0.13	0.11
23	9	7	21	23.27	9.90	12.38	69.20	999.00	14.73	8.17	12.91	69.74	9.17	9.57	11.38	69.24	999.00	-0.37	999.00	0.19	0.08
23	9	7	22	57.02	12.94	8.53	67.28	999.00	51.01	12.04	9.17	67.69	68.12	7.50	14.88	67.69	999.00	-0.28	999.00	0.08	0.03
23	9	7	23	44.32	13.01	11.38	66.54	999.00	37.09	11.40	10.84	66.89	42.92	9.99	14.30	66.57	999.00	0.12	999.00	0.45	0.01
23	9	7	24	45.83	15.35	7.61	65.94	999.00	39.01	14.01	7.89	66.41	42.25	12.40	10.12	65.87	999.00	-0.25	999.00	0.36	0.00
23	9	8	1	45.82	13.78	9.11	65.27	999.00	39.59	12.53	9.35	66.00	43.89	12.24	10.47	65.40	999.00	-0.28	999.00	0.45	0.00
23	9	8	2	46.96	12.76	9.57	64.72	999.00	40.08	11.51	10.36	65.34	44.07	9.92	12.70	65.04	999.00	-0.05	999.00	0.50	0.00
23	9	8	3	45.82	11.77	8.35	63.99	999.00	38.73	10.76	8.74	64.49	46.07	8.94	14.35	64.10	999.00	-0.55	999.00	-0.06	0.00
23	9	8	4	43.92	8.73	9.99	63.52	999.00	36.14	7.84	9.56	64.00	40.53	7.74	11.67	64.52	999.00	-1.05	999.00	-0.58	0.00
23	9	8	5	34.28	12.36	8.41	63.06	999.00	27.40	9.85	8.68	63.53	34.23	10.70	9.81	64.53	999.00	-1.62	999.00	-1.14	0.00
23	9	8	6	26.02	9.22	11.28	62.56	999.00	20.19	7.59	11.50	63.03	24.78	8.34	12.88	64.20	999.00	-1.65	999.00	-1.18	0.00
23	9	8	7	27.76	9.10	10.65	62.51	999.00	21.28	7.38	10.17	62.99	23.95	7.35	11.74	64.13	999.00	-1.65	999.00	-1.17	0.00
23	9	8	8	22.84	7.64	11.91	62.37	999.00	17.36	6.45	11.03	62.86	17.49	6.41	15.89	64.01	999.00	-1.63	999.00	-1.15	0.00
23	9	8	9	35.94	8.70	11.11	62.47	999.00	27.20	7.40	10.44	62.96	29.11	8.15	11.14	64.06	999.00	-1.53	999.00	-1.06	0.01
23	9	8	10	34.70	10.17	7.97	62.59	999.00	27.63	8.24	7.95	63.08	36.05	8.61	10.76	64.22	999.00	-1.66	999.00	-1.15	0.00
23	9	8	11	49.41	7.17	9.86	62.08	999.00	45.29	6.81	9.66	62.53	52.98	5.54	20.48	63.54	999.00	-1.30	999.00	-0.85	0.00
23	9	8	12	33.05	7.95	10.32	62.08	999.00	25.75	6.49	10.83	62.53	29.90	6.54	14.58	63.54	999.00	-1.33	999.00	-0.87	0.00
23	9	8	13	39.65	7.13	13.29	63.51	999.00	31.02	6.17	14.04	64.00	34.35	6.46	11.74	64.97	999.00	-1.44	999.00	-0.95	0.00
23	9	8	14	29.81	5.52	15.59	63.65	999.00	24.08	5.12	15.13	64.10	29.61	5.24	21.95	64.92	999.00	-1.35	999.00	-0.91	0.00
23	9	8	15	39.75	6.86	12.58	63.65	999.00	29.68	5.92	11.93	64.10	31.27	6.68	12.58	64.92	999.00	-1.40	999.00	-0.90	0.00
23	9	8	16	47.81	6.32	13.23	65.33	999.00	43.40	6.67	14.12	65.76	52.17	5.70	21.50	66.74	999.00	-1.48	999.00	-1.08	0.00
23	9	8	17	42.87	6.16	12.91	65.41	999.00	29.50	5.53	12.89	65.90	28.48	5.73	16.04	66.87	999.00	-1.42	999.00	-0.95	0.00
23	9	8	18	45.80	7.59	11.87	65.72	999.00	39.40	7.29	11.66	66.20	49.23	6.69	15.91	67.16	999.00	-1.47	999.00	-1.00	0.00
23	9	8	19	25.52	6.83	14.62	66.02	999.00	18.50	6.08	15.16	66.51	22.22	6.09	17.51	67.52	999.00	-1.53	999.00	-1.03	0.00
23	9	8	20	39.51	7.27	12.94	66.12	999.00	29.18	6.36	12.24	66.62	30.61	7.08	11.20	67.59	999.00	-1.45	999.00	-0.95	0.00
23	9	8	21	39.71	8.52	10.52	66.21	999.00	33.16	7.19	10.55	66.70	35.54	7.70	12.07	67.63	999.00	-1.43	999.00	-0.94	0.00
23	9	8	22	44.57	10.52	9.69	66.42	999.00	37.21	9.71	10.15	66.92	41.12	9.18	10.09	67.85	999.00	-1.47	999.00	-0.94	0.00
23	9	8	23	62.66	13.96	5.74	66.26	999.00	56.69	13.23	6.93	66.74	67.92	8.31	12.24	67.53	999.00	-1.15	999.00	-0.69	0.00
23	9	8	24	49.58	14.87	8.14	66.26	999.00	42.60	13.95	8.55	66.74	50.18	11.31	12.40	67.53	999.00	-1.50	999.00	-0.99	0.00
23	9	9	1	58.38	17.34	5.65	65.02	999.00	50.79	16.36	7.07	65.53	55.47	11.19	11.94	66.47	999.00	-1.43	999.00	-0.92	0.00
23	9	9	2	65.70	16.97	5.03	64.28	999.00	58.88	16.15	5.88	64.77	68.32	9.61	12.26	65.65	999.00	-1.28	999.00	-0.81	0.00
23	9	9	3	56.62	14.71	7.58	63.65	999.00	48.59	13.76	7.46	64.14	54.44	8.88	13.41	65.03	999.00	-1.45	999.00	-0.94	0.00
23	9	9	4	61.98	14.03	6.85	63.07	999.00	54.94	13.04	6.50	63.55	65.67	8.23	12.29	64.40	999.00	-1.31	999.00	-0.84	0.00
23	9	9	5	45.57	13.94	9.40	63.16	999.00	40.32	13.16	9.65	63.65	41.31	11.93	9.91	64.57	999.00	-1.60	999.00	-1.06	0.00
23	9	9	6	47.65	12.90	9.43	63.16	999.00	41.37	11.79	9.60	63.65	45.84	10.21	11.24	64.57	999.00	-1.53	999.00	-1.01	0.00
23	9	9	7	49.84	13.07	9.12	62.72	999.00	45.13	12.49	9.00	63.23	54.03	8.78	11.82	64.20	999.00	-1.42	999.00	-0.93	0.00
23	9	9	8	39.62	14.31	7.52	62.55	999.00	32.98	12.06	8.30	63.06	40.84	11.95	9.83	64.08	999.00	-1.58	999.00	-1.09	0.00
23	9	9	9	46.43	12.76	8.37	62.57	999.00	40.16	11.46	8.59	63.09	44.82	10.42	11.51	64.15	999.00	-1.60	999.00	-1.08	0.00
23	9	9	10	48.38	15.22	6.73	62.48	999.00	41.76	14.57	7.64	63.00	47.25	12.19	11.30	64.15	999.00	-1.75	999.00	-1.22	0.00
23	9	9	11	48.43	10.43	12.75	62.85	999.00	40.65	9.85	12.02	63.36	43.10	9.76	14.66	64.62	999.00	-1.67	999.00	-1.15	0.00
23	9	9	12	27.84	7.95	17.45	62.71	999.00	19.64	7.58	19.13	63.21	22.76	7.57	17.41	64.18	999.00	-1.55	999.00	-1.06	0.00
23	9	9	13	4.66	8.50	12.73	62.59	999.00	355.80	8.19	13.84	63.12	6.82	7.21	13.52	64.22	999.00	-1.65	999.00	-1.14	0.00
23	9	9	14	358.00	11.67	8.68	62.72	999.00	350.30	11.05	7.84	63.25	355.00	9.61	11.11	64.42	999.00	-1.80	999.00	-1.28	0.00
23	9	9	15	355.00	11.98	5.76	63.13	999.00	348.40	11.36	6.95	63.65	358.60	9.79	9.80	64.94	999.00	-1.86	999.00	-1.32	0.00
23	9	9	16	356.30	10.53	9.01	63.70	999.00	351.80	10.35	8.24	64.25	1.78	8.97	11.10	65.47	999.00	-1.72	999.00	-1.16	0.00
23	9	9	17	354.70	9.80	6.68	63.82	999.00	349.20	9.01	8.62	64.39	2.98	7.56	16.13	65.68	999.00	-1.76	999.00	-1.19	0.00
23	9	9	18	24.20	5.72	11.64	63.82	999.00	14.16	4.72	12.93	64.39	14.64	4.92	16.03	65.68	999.00	-1.59	999.00	-1.00	0.00

23	9	9	19	62.05	5.00	11.21	64.82	999.00	53.57	4.80	11.84	65.25	57.23	3.76	13.02	66.30	999.00	-1.35	999.00	-0.94	0.00
23	9	9	20	63.71	6.13	6.47	64.40	999.00	58.68	5.89	4.87	64.83	77.80	3.22	16.85	65.36	999.00	-0.90	999.00	-0.43	0.00
23	9	9	21	50.29	8.88	10.57	64.90	999.00	42.61	8.24	11.09	65.38	44.91	7.55	14.54	66.00	999.00	-1.42	999.00	-0.93	0.00
23	9	9	22	61.88	13.41	5.97	64.78	999.00	55.60	12.81	6.46	65.27	70.80	8.27	12.23	66.08	999.00	-1.25	999.00	-0.76	0.00
23	9	9	23	65.21	10.97	6.37	64.46	999.00	58.34	9.98	7.83	64.92	69.23	6.22	11.40	65.64	999.00	-1.08	999.00	-0.63	0.00
23	9	9	24	52.71	10.54	8.78	64.50	999.00	47.41	10.39	7.89	64.98	57.10	7.08	13.65	65.82	999.00	-1.30	999.00	-0.83	0.00
23	9	10	1	42.40	7.37	11.49	64.31	999.00	35.90	6.81	11.16	64.78	39.01	6.57	13.56	65.72	999.00	-1.41	999.00	-0.93	0.00
23	9	10	2	26.95	8.54	10.72	63.95	999.00	21.60	7.24	10.02	64.43	21.88	6.85	13.32	65.42	999.00	-1.52	999.00	-1.04	0.00
23	9	10	3	10.56	6.84	13.98	63.71	999.00	3.98	6.04	14.58	64.20	7.69	5.26	17.20	65.23	999.00	-1.49	999.00	-1.01	0.00
23	9	10	4	12.43	6.92	13.74	63.12	999.00	3.54	6.60	12.49	63.61	3.61	6.11	11.43	64.57	999.00	-1.47	999.00	-0.96	0.00
23	9	10	5	359.30	7.85	7.52	62.53	999.00	352.20	7.50	7.84	63.03	353.80	4.61	12.79	63.82	999.00	-0.97	999.00	-0.46	0.00
23	9	10	6	9.40	6.72	12.81	62.57	999.00	1.16	5.95	10.61	63.05	352.60	3.92	12.64	63.56	999.00	-0.91	999.00	-0.42	0.00
23	9	10	7	11.07	7.87	15.43	62.45	999.00	1.90	7.20	13.80	62.94	2.76	6.24	12.90	63.83	999.00	-1.52	999.00	-1.03	0.00
23	9	10	8	359.10	8.77	6.10	62.25	999.00	353.50	8.20	7.03	62.75	359.50	6.44	12.16	63.68	999.00	-1.62	999.00	-1.07	0.00
23	9	10	9	341.30	7.57	10.32	62.35	999.00	334.90	7.05	12.61	62.99	340.20	5.59	19.15	64.44	999.00	-2.59	999.00	-1.78	0.00
23	9	10	10	345.90	9.17	8.55	62.64	999.00	338.30	8.96	9.70	63.25	350.20	6.94	15.91	65.07	999.00	-2.45	999.00	-1.75	0.00
23	9	10	11	351.90	7.75	11.32	62.79	999.00	345.10	7.25	11.52	63.40	357.60	6.42	19.44	64.69	999.00	-2.05	999.00	-1.31	0.00
23	9	10	12	357.80	5.57	19.50	63.97	999.00	352.70	5.28	18.49	64.79	9.20	4.99	31.02	66.14	999.00	-2.12	999.00	-1.26	0.00
23	9	10	13	0.42	5.09	25.01	64.43	999.00	358.00	5.01	23.47	65.20	23.69	5.37	20.99	66.78	999.00	-1.82	999.00	-1.07	0.00
23	9	10	14	330.90	6.44	26.26	63.73	999.00	319.40	6.23	29.58	64.28	330.30	5.26	29.47	66.03	999.00	-2.29	999.00	-1.83	0.00
23	9	10	15	2.76	5.44	12.90	64.67	999.00	354.20	5.58	11.23	65.23	3.11	4.70	28.78	66.89	999.00	-2.16	999.00	-1.68	0.00
23	9	10	16	1.04	6.60	15.53	65.84	999.00	353.60	6.86	12.62	66.40	6.60	6.30	19.88	67.62	999.00	-1.77	999.00	-1.25	0.00
23	9	10	17	5.08	8.13	14.80	65.71	999.00	357.60	7.67	15.57	66.23	9.19	6.72	23.76	67.65	999.00	-1.99	999.00	-1.51	0.00
23	9	10	18	2.87	7.35	10.61	66.59	999.00	355.00	7.22	10.11	67.21	2.24	6.90	10.14	68.37	999.00	-1.62	999.00	-0.96	0.00
23	9	10	19	62.79	6.66	14.42	67.23	999.00	53.14	6.43	17.68	67.74	51.61	5.96	28.94	68.69	999.00	-1.38	999.00	-0.97	0.00
23	9	10	20	68.38	6.89	5.69	66.94	999.00	61.62	6.84	5.14	67.35	85.60	3.73	16.20	68.07	999.00	-0.88	999.00	-0.41	0.00
23	9	10	21	103.20	8.14	4.99	66.74	999.00	96.40	7.85	5.73	67.19	116.20	3.31	14.39	67.01	999.00	-0.13	999.00	0.33	0.00
23	9	10	22	48.00	2.16	52.07	66.63	999.00	323.30	1.68	53.52	66.94	282.80	2.37	14.88	65.74	999.00	1.42	999.00	1.80	0.00
23	9	10	23	121.90	3.54	18.77	66.61	999.00	157.50	2.64	42.13	66.76	213.60	2.52	12.32	63.54	999.00	3.20	999.00	2.96	0.00
23	9	10	24	22.22	1.23	49.39	66.02	999.00	276.60	2.49	22.24	66.25	283.00	1.70	22.15	63.07	999.00	3.67	999.00	3.97	0.00
23	9	11	1	323.00	2.79	12.01	66.07	999.00	305.70	3.47	7.73	66.34	272.40	2.40	11.11	62.27	999.00	4.01	999.00	4.34	0.00
23	9	11	2	329.30	7.00	7.76	66.05	999.00	309.30	7.44	5.39	66.09	238.00	1.81	17.14	61.02	999.00	4.64	999.00	4.59	0.00
23	9	11	3	14.17	4.43	24.20	65.71	999.00	345.60	4.28	22.95	65.75	203.60	1.90	27.54	61.60	999.00	4.48	999.00	4.64	0.00
23	9	11	4	73.40	5.06	7.87	65.65	999.00	48.83	2.98	42.64	65.56	219.50	2.76	26.49	60.57	999.00	5.04	999.00	4.88	0.00
23	9	11	5	25.10	2.25	31.26	65.16	999.00	327.90	2.44	16.48	65.27	191.90	2.59	15.41	60.16	999.00	5.06	999.00	5.16	0.00
23	9	11	6	148.50	2.24	12.50	65.29	999.00	146.40	1.69	17.88	65.41	199.50	4.11	12.68	58.21	999.00	7.53	999.00	7.47	0.00
23	9	11	7	176.00	2.47	7.07	64.89	999.00	222.30	3.91	3.77	63.11	217.00	3.88	12.25	57.73	999.00	7.05	999.00	5.10	0.00
23	9	11	8	205.20	4.24	5.43	63.76	999.00	231.50	6.07	5.76	63.29	234.50	4.49	8.89	57.71	999.00	5.48	999.00	4.14	0.00
23	9	11	9	250.20	7.14	5.94	63.73	999.00	252.90	8.26	5.21	62.69	258.40	4.26	13.78	60.42	999.00	1.33	999.00	0.03	0.00
23	9	11	10	267.20	6.05	8.25	63.18	999.00	257.60	5.79	7.56	63.01	252.10	5.41	19.28	64.44	999.00	-1.93	999.00	-1.52	0.00
23	9	11	11	229.40	4.31	8.72	65.06	999.00	222.70	4.63	8.76	65.75	241.10	4.51	14.06	67.39	999.00	-2.04	999.00	-1.38	0.00
23	9	11	12	222.80	3.37	29.47	66.80	999.00	211.50	3.60	36.38	67.62	196.50	3.28	57.32	68.79	999.00	-2.04	999.00	-1.03	0.00
23	9	11	13	16.36	3.45	21.80	67.42	999.00	14.90	3.48	20.26	68.06	24.08	4.32	21.32	68.94	999.00	-1.20	999.00	-0.63	0.00
23	9	11	14	19.24	4.32	17.89	67.55	999.00	9.53	4.26	15.50	68.00	24.38	5.24	13.38	68.81	999.00	-1.11	999.00	-0.60	0.00
23	9	11	15	59.53	6.92	14.94	68.32	999.00	46.33	6.53	15.44	68.69	39.84	7.07	21.61	69.67	999.00	-1.65	999.00	-1.20	0.00
23	9	11	16	73.70	7.26	13.87	68.30	999.00	64.45	7.06	13.94	68.67	65.77	5.88	20.51	69.90	999.00	-1.93	999.00	-1.45	0.00
23	9	11	17	83.80	6.26	6.22	68.03	999.00	72.50	6.19	6.96	68.48	73.40	4.48	13.65	69.62	999.00	-1.59	999.00	-1.09	0.00
23	9	11	18	98.50	8.63	4.34	68.13	999.00	89.50	8.51	5.02	68.61	98.80	4.70	17.25	69.82	999.00	-1.48	999.00	-0.99	0.00
23	9	11	19	105.50	8.28	4.70	68.26	999.00	96.70	7.85	5.57	68.72	102.60	3.73	13.83	69.53	999.00	-1.09	999.00	-0.64	0.00
23	9	11	20	130.20	7.07	3.19	68.16	999.00	126.70	6.19	4.89	68.54	141.80	2.24	12.92	68.79	999.00	-0.41	999.00	-0.16	0.00
23	9	11	21	124.90	10.07	1.82	68.01	999.00	118.20	9.61	1.98	68.41	129.90	3.36	11.62	67.81	999.00	0.38	999.00	0.79	0.00
23	9	11	22	134.90	14.45	1.50	67.92	999.00	129.60	13.92	1.70	68.30	142.80	5.71	13.87	67.46	999.00	0.11	999.00	0.44	0.00
23	9	11	23	140.10	16.48	2.50	67.45	999.00	133.70	13.63	4.87	67.42	143.90	6.06	12.67	67.26	999.00	-0.22	999.00	-0.16	0.00

23	9	11	24	147.80	15.72	2.67	66.60	999.00	141.90	12.90	4.46	66.68	146.90	6.17	14.20	66.97	999.00	-0.46	999.00	-0.37	0.00
23	9	12	1	158.00	16.81	3.11	66.24	999.00	151.80	13.25	4.67	66.16	163.50	4.21	26.33	66.62	999.00	-0.25	999.00	-0.47	0.00
23	9	12	2	184.00	15.85	2.86	66.85	999.00	174.90	12.18	3.94	65.97	184.60	3.14	19.73	65.79	999.00	1.59	999.00	0.75	0.00
23	9	12	3	246.80	12.73	5.05	64.90	999.00	239.20	10.51	6.22	64.81	248.70	5.67	11.81	64.89	999.00	-0.42	999.00	-0.19	0.00
23	9	12	4	231.60	14.79	1.76	63.76	999.00	218.70	12.01	3.36	63.91	215.60	4.55	12.25	64.17	999.00	-0.04	999.00	-0.12	0.00
23	9	12	5	234.30	13.85	3.35	63.40	999.00	224.30	11.93	4.86	63.48	223.80	6.04	11.78	63.65	999.00	-0.58	999.00	-0.39	0.00
23	9	12	6	226.80	14.06	3.71	62.85	999.00	214.70	11.37	4.26	62.83	222.20	5.50	13.32	63.28	999.00	-0.44	999.00	-0.48	0.00
23	9	12	7	242.20	13.79	4.64	62.48	999.00	233.50	12.10	5.49	62.63	238.00	7.45	10.29	62.82	999.00	-0.57	999.00	-0.21	0.01
23	9	12	8	262.80	13.48	6.83	62.02	999.00	255.20	11.75	7.24	62.46	263.60	6.58	12.19	62.75	999.00	-0.67	999.00	-0.24	0.00
23	9	12	9	260.00	10.02	10.32	61.86	999.00	251.30	9.46	10.24	62.33	260.90	5.79	13.75	62.64	999.00	-0.88	999.00	-0.39	0.01
23	9	12	10	265.20	11.06	7.14	61.85	999.00	257.70	9.92	7.80	62.34	261.10	7.03	13.11	62.63	999.00	-0.66	999.00	-0.16	0.00
23	9	12	11	289.30	11.43	7.50	62.09	999.00	281.60	10.98	7.73	62.64	285.30	8.71	14.43	63.07	999.00	-1.09	999.00	-0.56	0.00
23	9	12	12	299.20	10.63	10.67	63.27	999.00	292.10	10.58	10.65	63.77	299.60	8.10	18.16	65.18	999.00	-3.05	999.00	-2.52	0.00
23	9	12	13	304.70	9.17	9.45	63.95	999.00	297.90	9.16	10.76	64.46	306.70	6.37	19.61	66.99	999.00	-3.04	999.00	-2.50	0.00
23	9	12	14	297.30	10.20	12.37	64.47	999.00	290.20	10.19	12.09	64.98	294.30	7.92	17.70	67.28	999.00	-2.80	999.00	-2.28	0.00
23	9	12	15	303.80	11.78	14.64	64.93	999.00	296.70	11.72	15.67	65.46	306.60	8.48	20.99	67.86	999.00	-3.22	999.00	-2.66	0.00
23	9	12	16	314.40	13.81	6.75	65.25	999.00	306.60	13.80	6.96	65.78	313.10	9.21	14.17	68.15	999.00	-2.83	999.00	-2.34	0.00
23	9	12	17	318.90	12.72	8.34	66.22	999.00	312.90	12.50	9.09	66.75	324.40	8.10	15.88	68.99	999.00	-2.67	999.00	-2.14	0.00
23	9	12	18	306.40	12.47	8.22	67.08	999.00	299.00	12.23	8.52	67.59	306.90	8.04	17.53	69.81	999.00	-2.71	999.00	-2.17	0.00
23	9	12	19	291.90	10.71	3.06	67.59	999.00	283.90	9.91	3.40	68.03	285.70	5.75	10.21	69.68	999.00	-1.65	999.00	-1.21	0.00
23	9	12	20	299.10	13.08	2.67	67.37	999.00	287.90	11.24	2.80	67.69	267.50	4.12	7.77	67.28	999.00	1.08	999.00	1.29	0.00
23	9	12	21	304.30	13.44	4.01	67.32	999.00	290.60	11.98	3.53	67.48	267.60	4.31	7.93	65.71	999.00	2.11	999.00	2.12	0.00
23	9	12	22	340.10	16.09	4.82	66.02	999.00	333.70	15.20	5.64	66.27	336.70	8.87	11.19	65.42	999.00	-0.49	999.00	-0.06	0.00
23	9	12	23	349.90	15.16	5.41	64.91	999.00	342.20	14.18	5.56	65.37	345.20	9.10	10.49	65.78	999.00	-0.87	999.00	-0.42	0.00
23	9	12	24	358.30	14.84	2.80	64.24	999.00	352.30	14.42	3.41	64.71	357.00	11.19	7.86	65.33	999.00	-1.29	999.00	-0.79	0.00
23	9	13	1	7.65	11.68	12.04	63.29	999.00	358.80	11.01	9.60	63.78	3.15	9.36	11.65	64.68	999.00	-1.45	999.00	-0.96	0.00
23	9	13	2	6.31	9.70	11.57	62.69	999.00	358.90	9.00	11.46	63.19	357.90	7.79	12.87	64.12	999.00	-1.36	999.00	-0.87	0.00
23	9	13	3	14.64	6.77	13.53	62.35	999.00	7.80	6.05	14.42	62.86	11.08	5.63	15.00	63.83	999.00	-1.48	999.00	-0.99	0.00
23	9	13	4	348.60	12.57	5.56	61.81	999.00	342.20	11.74	6.08	62.30	348.30	8.03	11.49	63.31	999.00	-1.55	999.00	-1.06	0.00
23	9	13	5	358.20	14.54	5.59	60.93	999.00	350.50	13.65	6.55	61.42	351.70	10.80	13.23	62.43	999.00	-1.53	999.00	-1.03	0.01
23	9	13	6	3.72	13.47	6.16	60.05	999.00	356.40	12.62	6.09	60.55	2.80	10.02	9.82	61.62	999.00	-1.55	999.00	-1.04	0.00
23	9	13	7	356.90	11.58	5.88	59.41	999.00	351.50	10.97	6.15	59.91	357.20	7.93	9.93	60.89	999.00	-1.40	999.00	-0.90	0.00
23	9	13	8	340.40	11.94	5.57	59.41	999.00	335.00	11.56	5.48	59.91	342.70	7.43	11.23	60.89	999.00	-1.42	999.00	-0.93	0.00
23	9	13	9	342.50	11.13	4.25	58.37	999.00	336.10	10.86	5.37	58.89	342.30	7.45	12.43	60.17	999.00	-2.09	999.00	-1.54	0.00
23	9	13	10	331.10	11.06	6.40	58.53	999.00	325.00	10.92	6.98	59.08	332.80	7.78	14.80	60.62	999.00	-2.40	999.00	-1.85	0.00
23	9	13	11	335.20	10.02	7.14	58.86	999.00	328.90	10.39	7.67	59.56	340.10	8.36	14.44	61.77	999.00	-2.99	999.00	-2.26	0.00
23	9	13	12	339.80	10.83	12.59	59.07	999.00	332.20	10.32	14.17	59.73	345.10	8.16	22.07	61.73	999.00	-2.80	999.00	-2.17	0.00
23	9	13	13	332.90	10.10	12.10	59.41	999.00	324.80	9.93	14.32	60.03	329.20	7.90	27.08	62.38	999.00	-3.07	999.00	-2.54	0.00
23	9	13	14	343.20	7.60	20.47	59.93	999.00	336.90	7.30	22.09	60.58	348.80	6.74	28.31	62.92	999.00	-2.82	999.00	-2.19	0.00
23	9	13	15	336.30	5.92	15.01	60.87	999.00	332.40	6.02	14.89	61.58	347.70	5.59	29.52	63.44	999.00	-3.00	999.00	-2.22	0.00
23	9	13	16	0.14	7.52	12.11	61.53	999.00	356.60	7.28	12.29	62.17	19.20	7.14	16.92	63.72	999.00	-1.63	999.00	-1.10	0.00
23	9	13	17	11.00	6.64	13.74	62.84	999.00	7.53	6.23	13.67	63.27	22.15	5.47	16.28	64.35	999.00	-1.56	999.00	-1.08	0.00
23	9	13	18	8.39	5.70	19.48	63.59	999.00	3.79	5.22	19.15	64.23	17.55	4.98	23.73	65.26	999.00	-1.66	999.00	-0.82	0.00
23	9	13	19	16.17	3.63	25.40	63.62	999.00	10.38	3.39	29.30	64.30	13.81	3.53	26.53	65.13	999.00	-1.56	999.00	-0.85	0.00
23	9	13	20	10.39	5.33	17.26	63.01	999.00	7.04	4.89	17.82	63.60	11.34	3.86	40.57	64.12	999.00	-1.18	999.00	-0.65	0.00
23	9	13	21	316.00	3.40	29.09	62.83	999.00	260.90	3.40	25.21	63.16	208.60	3.73	18.61	62.50	999.00	0.96	999.00	1.03	0.00
23	9	13	22	54.64	13.26	7.48	61.78	999.00	48.74	12.46	6.89	62.30	60.21	8.53	12.84	62.73	999.00	-0.85	999.00	-0.27	0.00
23	9	13	23	38.68	8.48	12.13	61.51	999.00	30.60	7.40	11.74	62.00	33.34	7.08	14.07	62.55	999.00	-1.34	999.00	-0.85	0.00
23	9	13	24	40.24	5.63	14.82	61.25	999.00	32.76	4.93	15.41	61.73	45.53	3.37	37.16	62.42	999.00	-0.93	999.00	-0.44	0.00
23	9	14	1	58.16	6.13	10.09	61.12	999.00	52.82	5.88	8.83	61.59	90.40	2.86	20.83	61.78	999.00	-0.51	999.00	-0.01	0.00
23	9	14	2	11.11	2.22	32.93	60.98	999.00	334.20	1.87	37.93	61.42	233.80	3.25	6.83	60.41	999.00	1.50	999.00	1.88	0.00
23	9	14	3	341.50	3.72	12.09	60.36	999.00	303.50	3.46	15.02	60.45	257.10	2.75	10.46	57.67	999.00	2.74	999.00	2.52	0.00
23	9	14	4	343.80	2.42	12.08	60.12	999.00	310.00	2.80	16.42	60.14	257.30	3.92	9.44	57.25	999.00	2.84	999.00	2.96	0.00

23	9	14	5	340.30	2.87	6.89	60.27	999.00	314.40	2.46	6.72	60.61	270.80	2.85	13.10	56.77	999.00	3.50	999.00	3.89	0.00
23	9	14	6	350.30	2.80	21.75	60.31	999.00	330.50	3.08	13.92	60.65	206.00	2.45	16.71	56.17	999.00	4.51	999.00	4.85	0.00
23	9	14	7	88.80	5.88	17.03	59.93	999.00	87.80	4.79	22.50	60.25	205.00	3.40	19.77	54.35	999.00	5.69	999.00	5.92	0.00
23	9	14	8	33.46	3.56	47.42	59.45	999.00	351.50	2.70	67.96	59.67	204.90	3.07	47.44	54.94	999.00	3.74	999.00	4.02	0.00
23	9	14	9	50.95	7.51	14.18	60.01	999.00	46.55	6.77	13.76	60.36	76.70	4.16	41.33	59.31	999.00	-0.84	999.00	-0.38	0.00
23	9	14	10	123.70	3.48	71.90	60.73	999.00	154.40	3.02	61.08	61.12	192.20	2.76	20.97	61.14	999.00	-0.60	999.00	-0.21	0.00
23	9	14	11	59.53	5.23	26.42	61.00	999.00	47.90	4.64	30.65	61.68	47.34	3.26	65.10	62.42	999.00	-1.55	999.00	-0.83	0.00
23	9	14	12	57.83	7.34	19.31	62.69	999.00	48.26	6.83	20.88	63.23	52.83	6.24	34.04	64.55	999.00	-1.74	999.00	-1.21	0.00
23	9	14	13	69.62	10.12	12.75	62.72	999.00	63.59	9.59	16.16	63.09	63.00	8.26	21.31	64.67	999.00	-2.25	999.00	-1.91	0.00
23	9	14	14	51.28	8.79	14.23	62.72	999.00	44.49	8.62	12.22	63.09	54.85	7.72	20.32	64.67	999.00	-1.42	999.00	-1.13	0.00
23	9	14	15	64.67	9.05	10.01	63.10	999.00	57.60	8.66	13.54	63.49	60.62	7.27	23.67	65.05	999.00	-2.07	999.00	-1.69	0.00
23	9	14	16	55.31	9.43	10.63	63.29	999.00	47.26	9.35	9.77	63.66	49.84	7.74	18.31	65.48	999.00	-2.15	999.00	-1.76	0.00
23	9	14	17	63.35	9.14	10.38	63.81	999.00	56.21	9.58	9.25	64.13	62.07	7.36	16.06	66.00	999.00	-2.10	999.00	-1.84	0.00
23	9	14	18	75.70	9.95	6.26	64.06	999.00	68.45	10.06	7.90	64.49	81.60	7.26	13.64	66.15	999.00	-2.19	999.00	-1.65	0.00
23	9	14	19	92.90	9.44	9.66	63.86	999.00	85.50	9.40	9.69	64.34	100.70	4.96	20.05	65.73	999.00	-1.49	999.00	-1.03	0.00
23	9	14	20	104.10	10.84	3.41	63.81	999.00	97.00	10.58	3.81	64.25	105.40	4.78	12.69	64.32	999.00	0.00	999.00	0.48	0.00
23	9	14	21	113.40	11.30	4.87	63.72	999.00	106.80	10.07	6.09	64.16	121.20	3.86	12.05	63.35	999.00	0.64	999.00	1.03	0.00
23	9	14	22	115.90	11.04	3.81	63.87	999.00	110.60	10.02	4.79	64.11	142.40	3.08	10.29	62.52	999.00	1.68	999.00	1.98	0.00
23	9	14	23	124.40	10.34	3.43	63.92	999.00	120.80	9.48	2.84	64.18	139.70	1.19	30.12	61.62	999.00	3.06	999.00	3.28	0.00
23	9	14	24	153.30	10.05	1.22	62.46	999.00	154.80	8.38	1.73	62.52	227.80	1.96	10.31	59.80	999.00	3.02	999.00	2.92	0.00
23	9	15	1	147.40	11.90	0.99	61.75	999.00	148.70	9.71	1.37	61.46	220.70	1.34	23.25	57.89	999.00	4.38	999.00	3.92	0.00
23	9	15	2	145.60	12.84	0.95	61.35	999.00	143.20	10.51	0.93	61.11	191.70	1.68	28.31	57.38	999.00	3.99	999.00	3.76	0.00
23	9	15	3	132.00	13.64	2.75	61.78	999.00	127.10	11.68	1.88	61.46	168.90	1.52	21.89	57.64	999.00	4.13	999.00	4.03	0.00
23	9	15	4	147.60	10.97	1.07	59.95	999.00	150.10	9.08	1.94	59.41	229.30	2.25	9.42	56.18	999.00	4.04	999.00	3.31	0.00
23	9	15	5	153.10	13.17	1.32	59.98	999.00	153.80	11.63	0.74	59.10	213.20	1.64	14.23	55.40	999.00	5.64	999.00	4.60	0.00
23	9	15	6	147.60	15.57	0.60	60.22	999.00	144.60	13.16	1.32	59.30	164.40	1.84	32.23	54.48	999.00	4.82	999.00	4.02	0.00
23	9	15	7	151.80	14.35	1.01	59.38	999.00	155.30	11.72	1.39	58.22	197.10	1.76	22.41	54.76	999.00	5.11	999.00	3.71	0.00
23	9	15	8	149.00	15.08	0.83	59.80	999.00	152.70	12.42	1.16	58.18	193.20	1.58	22.55	54.11	999.00	5.63	999.00	3.90	0.00
23	9	15	9	152.10	16.43	1.41	59.23	999.00	155.50	11.36	4.20	57.32	182.20	3.71	21.49	55.58	999.00	2.96	999.00	0.42	0.00
23	9	15	10	159.60	9.09	7.79	58.63	999.00	158.30	7.77	9.51	58.75	186.90	4.60	19.82	59.43	999.00	-1.81	999.00	-1.00	0.00
23	9	15	11	150.10	11.99	6.71	60.56	999.00	143.40	11.68	7.64	61.35	146.00	6.56	20.54	62.81	999.00	-2.40	999.00	-1.66	0.00
23	9	15	12	141.60	10.34	14.30	62.24	999.00	133.80	9.47	15.09	62.84	140.40	5.58	25.31	64.74	999.00	-2.67	999.00	-1.98	0.00
23	9	15	13	118.60	8.54	10.70	63.36	999.00	110.00	8.18	11.95	63.87	118.40	4.99	27.51	65.99	999.00	-2.61	999.00	-2.23	0.00
23	9	15	14	104.50	6.71	21.42	63.83	999.00	95.60	6.31	26.03	64.32	95.50	4.69	46.28	66.51	999.00	-2.72	999.00	-2.12	0.00
23	9	15	15	90.30	10.34	12.47	64.19	999.00	81.10	9.86	14.31	64.74	88.30	7.25	26.88	66.92	999.00	-2.69	999.00	-2.15	0.00
23	9	15	16	83.30	10.19	8.67	64.07	999.00	72.80	10.40	10.05	64.61	74.90	7.28	18.10	66.89	999.00	-2.65	999.00	-2.18	0.00
23	9	15	17	90.60	10.12	11.30	64.34	999.00	80.80	9.50	13.12	64.84	83.00	6.74	21.31	67.13	999.00	-2.81	999.00	-2.28	0.00
23	9	15	18	82.70	8.47	9.07	64.63	999.00	75.50	8.17	11.11	65.15	83.00	4.98	20.92	67.01	999.00	-2.32	999.00	-1.74	0.00
23	9	15	19	69.71	6.64	5.89	64.79	999.00	60.87	6.52	6.49	65.24	69.09	4.62	12.49	66.56	999.00	-1.39	999.00	-1.00	0.00
23	9	15	20	73.20	6.77	6.83	64.71	999.00	67.03	6.60	7.43	65.14	84.20	3.11	13.04	65.27	999.00	0.11	999.00	0.58	0.00
23	9	15	21	86.80	6.11	6.06	64.69	999.00	78.20	5.74	4.93	65.16	129.10	1.68	28.29	64.42	999.00	0.69	999.00	1.16	0.00
23	9	15	22	89.30	7.77	5.93	64.88	999.00	82.70	7.38	6.65	65.31	158.30	2.10	20.31	63.18	999.00	2.18	999.00	2.60	0.00
23	9	15	23	96.20	7.61	5.01	64.59	999.00	91.10	6.94	6.52	64.96	181.20	2.42	10.34	61.82	999.00	4.11	999.00	4.36	0.00
23	9	15	24	140.40	5.75	4.15	64.64	999.00	149.20	5.00	5.10	64.75	201.00	1.46	17.77	59.31	999.00	5.53	999.00	5.51	0.00
23	9	16	1	143.80	6.95	2.13	64.47	999.00	146.10	6.73	2.96	64.34	169.70	2.30	19.00	57.78	999.00	6.99	999.00	6.98	0.00
23	9	16	2	188.30	6.60	1.86	63.71	999.00	188.30	6.82	2.93	63.29	188.60	1.33	18.09	56.00	999.00	7.61	999.00	7.23	0.00
23	9	16	3	212.20	6.28	1.20	62.97	999.00	207.20	7.17	0.92	62.60	208.40	2.94	12.08	55.32	999.00	7.82	999.00	7.18	0.00
23	9	16	4	193.80	6.46	2.64	62.25	999.00	181.80	7.99	1.30	61.51	209.20	3.29	5.78	54.80	999.00	7.56	999.00	6.72	0.00
23	9	16	5	189.80	6.60	1.38	61.66	999.00	185.40	8.75	1.28	60.96	203.60	3.55	8.20	54.53	999.00	7.35	999.00	5.99	0.00
23	9	16	6	199.00	6.90	1.24	61.16	999.00	188.30	9.21	1.35	60.09	214.70	3.74	11.09	54.07	999.00	6.47	999.00	5.72	0.00
23	9	16	7	211.20	6.24	2.65	61.23	999.00	202.90	7.76	1.77	60.44	210.10	2.62	14.92	53.92	999.00	7.38	999.00	6.45	0.00
23	9	16	8	220.60	3.43	1.61	61.28	999.00	206.10	5.35	0.95	60.37	204.00	3.24	9.39	53.67	999.00	7.66	999.00	7.25	0.00
23	9	16	9	208.30	9.20	1.48	60.28	999.00	210.20	10.43	3.32	58.44	227.80	4.76	11.48	54.91	999.00	3.47	999.00	1.11	0.00

23	9	16	10	218.30	5.54	11.40	56.86	999.00	223.80	5.34	9.42	56.64	245.80	5.05	13.67	57.84	999.00	-1.84	999.00	-1.40	0.00
23	9	16	11	202.20	4.16	16.13	59.53	999.00	186.80	4.12	15.74	60.98	184.30	4.01	17.77	61.72	999.00	-2.04	999.00	-0.10	0.00
23	9	16	12	172.00	3.66	20.93	62.79	999.00	159.90	3.58	20.46	64.28	150.70	3.46	35.53	65.24	999.00	-2.38	999.00	-1.19	0.00
23	9	16	13	124.60	4.14	34.45	64.47	999.00	111.30	4.58	19.72	65.18	119.80	4.32	20.33	66.96	999.00	-2.24	999.00	-1.81	0.00
23	9	16	14	93.10	4.59	35.00	65.07	999.00	86.00	4.16	40.78	65.89	79.80	3.61	40.60	67.45	999.00	-2.29	999.00	-1.37	0.00
23	9	16	15	11.86	4.07	17.27	65.64	999.00	4.49	4.34	16.68	66.08	15.62	4.30	25.09	67.17	999.00	-1.32	999.00	-0.87	0.00
23	9	16	16	16.37	5.65	20.02	66.19	999.00	6.85	5.39	19.10	66.73	10.26	5.61	18.03	67.64	999.00	-1.41	999.00	-0.91	0.00
23	9	16	17	45.55	4.54	19.30	66.38	999.00	42.60	4.47	19.63	66.84	54.32	4.43	30.44	67.76	999.00	-1.29	999.00	-0.85	0.00
23	9	16	18	3.66	3.71	13.88	66.02	999.00	1.06	3.55	15.13	66.55	18.89	3.29	19.76	67.26	999.00	-1.19	999.00	-0.68	0.00
23	9	16	19	4.93	3.76	11.33	66.42	999.00	1.54	3.19	12.96	66.94	29.26	2.72	55.06	67.66	999.00	-1.07	999.00	-0.46	0.00
23	9	16	20	94.60	2.79	15.76	65.45	999.00	101.00	2.64	25.47	65.93	174.20	2.43	46.93	65.90	999.00	-0.12	999.00	0.25	0.00
23	9	16	21	118.40	5.06	10.44	65.36	999.00	120.50	4.60	22.14	65.73	171.50	2.76	43.89	65.36	999.00	0.54	999.00	0.85	0.00
23	9	16	22	150.20	3.27	14.75	65.10	999.00	158.60	3.38	8.71	65.21	169.50	2.47	22.36	62.44	999.00	2.78	999.00	2.84	0.00
23	9	16	23	243.00	2.41	22.46	64.80	999.00	249.60	2.88	14.32	64.93	191.10	2.46	33.84	62.96	999.00	0.82	999.00	1.29	0.00
23	9	16	24	161.60	3.98	38.94	64.60	999.00	179.00	3.35	21.26	64.86	184.60	2.83	31.90	63.00	999.00	1.22	999.00	1.29	0.00
23	9	17	1	140.00	11.20	10.65	63.59	999.00	140.50	10.94	11.53	63.29	151.20	3.48	61.42	61.10	999.00	2.74	999.00	2.14	0.00
23	9	17	2	143.70	5.87	7.58	63.88	999.00	152.50	7.16	6.63	63.01	216.10	3.23	19.00	60.51	999.00	3.59	999.00	3.29	0.00
23	9	17	3	195.70	7.51	5.79	63.21	999.00	214.70	6.32	15.27	61.97	310.70	2.40	24.18	59.76	999.00	3.54	999.00	1.94	0.00
23	9	17	4	238.20	5.61	3.35	62.36	999.00	254.80	7.96	3.13	61.19	262.00	3.18	13.84	58.90	999.00	3.83	999.00	2.52	0.00
23	9	17	5	249.60	2.54	21.09	62.76	999.00	244.10	3.26	12.50	62.27	208.70	2.50	44.70	59.08	999.00	3.99	999.00	3.60	0.00
23	9	17	6	150.90	2.71	8.55	62.57	999.00	165.30	3.17	5.04	62.36	247.70	1.18	29.46	59.04	999.00	4.11	999.00	4.17	0.00
23	9	17	7	158.10	4.45	4.94	62.67	999.00	163.60	3.13	6.41	62.43	203.40	1.32	24.89	59.15	999.00	3.83	999.00	3.51	0.00
23	9	17	8	196.30	2.59	20.96	62.08	999.00	196.10	2.67	18.56	62.04	189.70	2.08	19.74	58.41	999.00	3.09	999.00	2.96	0.00
23	9	17	9	355.60	1.57	26.48	63.63	999.00	330.30	1.55	34.48	64.05	300.30	3.21	24.30	61.15	999.00	1.21	999.00	1.22	0.00
23	9	17	10	316.10	5.88	7.05	63.73	999.00	306.10	5.78	9.43	63.66	306.80	4.85	15.42	64.98	999.00	-3.17	999.00	-2.72	0.00
23	9	17	11	300.40	4.80	19.19	63.47	999.00	290.50	4.65	21.68	63.95	287.20	3.68	36.86	65.79	999.00	-3.23	999.00	-2.59	0.00
23	9	17	12	325.40	5.99	18.39	64.53	999.00	317.00	6.16	17.14	65.09	325.90	5.01	21.77	67.59	999.00	-3.54	999.00	-2.95	0.00
23	9	17	13	358.50	6.79	14.94	64.53	999.00	353.10	6.65	14.87	65.09	4.60	6.03	18.05	67.59	999.00	-1.87	999.00	-1.15	0.00
23	9	17	14	354.70	6.55	18.09	66.91	999.00	348.60	6.36	17.77	67.59	355.70	5.10	23.48	68.90	999.00	-2.48	999.00	-1.74	0.00
23	9	17	15	57.25	7.04	15.05	66.84	999.00	48.03	6.83	13.35	67.44	51.15	5.96	17.24	68.82	999.00	-1.45	999.00	-1.14	0.00
23	9	17	16	70.80	5.23	18.17	66.99	999.00	64.35	5.49	19.92	67.48	68.88	4.79	23.00	69.26	999.00	-1.88	999.00	-1.51	0.00
23	9	17	17	81.00	4.38	25.60	67.64	999.00	71.40	4.30	26.74	68.01	66.55	3.52	45.86	69.24	999.00	-1.57	999.00	-1.12	0.00
23	9	17	18	68.50	4.51	7.11	67.37	999.00	62.74	4.82	6.25	67.83	67.20	4.20	13.72	68.99	999.00	-1.20	999.00	-0.89	0.00
23	9	17	19	42.36	1.68	30.74	67.25	999.00	52.65	1.83	21.42	67.60	89.80	1.73	21.64	68.25	999.00	-0.86	999.00	-0.50	0.00
23	9	17	20	5.51	19.56	6.63	66.62	999.00	358.50	18.01	6.89	67.10	5.81	14.25	9.59	67.48	999.00	-1.62	999.00	-1.08	0.00
23	9	17	21	55.52	16.10	5.56	63.19	999.00	48.66	15.14	5.99	63.65	60.87	9.87	12.63	63.95	999.00	1.05	999.00	1.61	0.00
23	9	17	22	66.47	10.61	4.59	62.73	999.00	61.85	9.97	5.13	63.19	79.10	5.05	12.98	62.93	999.00	-0.63	999.00	-0.23	0.00
23	9	17	23	53.97	8.74	10.46	63.35	999.00	49.81	8.48	10.02	63.80	63.92	5.53	15.50	64.14	999.00	-0.85	999.00	-0.39	0.00
23	9	17	24	11.48	7.89	17.18	63.84	999.00	2.19	7.25	17.40	64.31	357.40	6.42	13.42	64.90	999.00	-1.40	999.00	-0.91	0.00
23	9	18	1	355.10	10.34	4.57	63.84	999.00	347.60	9.61	5.92	64.31	348.50	6.12	10.39	64.90	999.00	-1.01	999.00	-0.52	0.00
23	9	18	2	357.80	9.76	4.13	63.27	999.00	350.80	9.56	3.58	63.79	350.30	5.53	11.60	64.28	999.00	-0.89	999.00	-0.37	0.00
23	9	18	3	356.20	8.05	4.22	63.17	999.00	349.60	7.06	4.89	63.65	267.30	3.15	47.40	63.96	999.00	0.26	999.00	0.73	0.00
23	9	18	4	347.00	8.50	13.62	62.00	999.00	326.30	7.19	16.89	61.89	261.50	3.64	12.41	60.48	999.00	1.06	999.00	1.19	0.01
23	9	18	5	277.10	6.91	25.26	60.89	999.00	240.10	6.05	22.35	60.71	206.90	3.62	23.06	60.35	999.00	0.04	999.00	-0.22	0.17
23	9	18	6	333.80	13.44	4.22	61.67	999.00	326.20	13.06	4.56	61.87	327.40	7.41	12.14	61.49	999.00	-0.72	999.00	-0.28	0.17
23	9	18	7	345.60	12.19	4.59	61.67	999.00	339.00	11.80	5.49	61.87	340.90	6.49	11.96	61.49	999.00	-0.64	999.00	-0.17	0.00
23	9	18	8	333.70	12.46	3.48	60.60	999.00	326.00	12.23	3.87	61.06	329.50	7.19	11.57	61.58	999.00	-1.09	999.00	-0.63	0.01
23	9	18	9	330.80	10.90	6.70	59.55	999.00	321.30	10.42	6.69	60.02	322.50	7.52	12.36	60.94	999.00	-1.60	999.00	-1.13	0.00
23	9	18	10	349.60	12.78	5.48	59.55	999.00	342.20	12.79	5.62	60.02	348.10	10.19	11.13	60.94	999.00	-2.24	999.00	-1.70	0.00
23	9	18	11	340.10	14.53	6.72	59.22	999.00	334.00	14.37	7.14	59.78	342.50	10.99	12.90	61.24	999.00	-1.99	999.00	-1.45	0.00
23	9	18	12	312.70	10.79	7.00	58.48	999.00	303.20	11.03	7.71	59.03	304.60	8.50	14.71	61.13	999.00	-2.80	999.00	-2.32	0.00
23	9	18	13	324.90	11.66	11.65	58.48	999.00	320.10	11.49	11.66	59.03	327.40	8.56	22.36	61.13	999.00	-3.13	999.00	-2.55	0.00
23	9	18	14	327.90	11.56	11.42	61.05	999.00	320.50	11.53	12.12	61.64	330.70	8.26	21.64	63.90	999.00	-2.85	999.00	-2.27	0.00

23	9	18	15	328.60	12.73	9.21	62.38	999.00	323.30	12.49	9.98	62.98	334.60	9.52	15.02	65.44	999.00	-2.91	999.00	-2.33	0.00
23	9	18	16	328.90	13.92	7.88	63.25	999.00	321.00	13.63	8.38	63.89	330.20	9.58	17.76	66.36	999.00	-3.25	999.00	-2.61	0.00
23	9	18	17	338.50	12.02	9.55	63.79	999.00	332.80	12.06	11.42	64.42	345.40	9.50	16.67	66.65	999.00	-2.42	999.00	-1.82	0.00
23	9	18	18	319.70	12.42	8.32	63.75	999.00	313.80	12.18	7.92	64.36	321.30	8.32	15.78	66.27	999.00	-2.79	999.00	-2.14	0.00
23	9	18	19	303.50	11.36	6.92	63.70	999.00	296.20	10.74	7.99	64.17	296.70	5.82	13.73	65.94	999.00	-1.65	999.00	-1.20	0.00
23	9	18	20	300.80	12.52	3.34	63.30	999.00	287.40	11.07	2.32	63.57	266.90	5.06	6.37	63.15	999.00	1.07	999.00	1.21	0.00
23	9	18	21	312.00	12.16	5.32	63.47	999.00	299.60	12.17	5.13	63.63	280.70	5.07	8.28	61.18	999.00	2.59	999.00	2.80	0.00
23	9	18	22	314.00	13.32	3.27	63.47	999.00	302.60	13.29	3.08	63.63	280.60	5.48	5.86	61.18	999.00	3.75	999.00	3.81	0.00
23	9	18	23	321.50	12.16	5.35	62.36	999.00	308.40	11.29	6.57	62.54	273.70	5.74	7.79	58.44	999.00	3.79	999.00	3.98	0.00
23	9	18	24	336.20	11.54	5.99	62.01	999.00	327.10	9.71	6.68	62.01	249.40	4.20	12.70	58.24	999.00	3.99	999.00	3.90	0.00
23	9	19	1	327.60	9.86	4.85	62.01	999.00	312.00	9.25	6.02	62.01	238.60	2.76	11.99	58.24	999.00	5.05	999.00	4.95	0.00
23	9	19	2	317.80	9.65	3.49	61.39	999.00	300.90	9.99	4.32	61.02	239.20	1.59	21.63	55.52	999.00	6.21	999.00	5.51	0.00
23	9	19	3	310.80	11.44	3.34	61.30	999.00	291.00	12.87	6.55	60.83	264.00	3.00	13.90	54.48	999.00	7.07	999.00	6.02	0.00
23	9	19	4	311.20	10.09	1.77	60.53	999.00	297.30	12.20	1.44	60.04	259.50	4.40	8.20	53.67	999.00	6.70	999.00	6.48	0.00
23	9	19	5	316.40	8.16	1.27	59.85	999.00	298.70	9.62	1.34	59.48	249.00	4.46	4.45	53.81	999.00	5.77	999.00	5.36	0.00
23	9	19	6	297.20	7.74	14.85	59.67	999.00	278.50	8.99	13.62	59.23	243.90	4.41	13.65	54.23	999.00	4.73	999.00	3.76	0.00
23	9	19	7	286.70	11.10	2.73	58.51	999.00	278.80	13.73	1.83	57.74	259.10	5.83	10.44	53.96	999.00	4.59	999.00	4.06	0.00
23	9	19	8	291.40	10.01	1.30	58.48	999.00	280.50	10.96	1.71	57.05	242.30	4.94	9.27	53.01	999.00	5.75	999.00	4.07	0.00
23	9	19	9	292.20	10.67	1.37	58.24	999.00	265.40	9.28	7.34	56.26	244.30	5.76	10.05	53.88	999.00	2.75	999.00	0.23	0.00
23	9	19	10	260.40	8.84	6.13	58.61	999.00	252.00	7.10	8.18	56.95	238.10	5.95	11.60	56.86	999.00	-0.62	999.00	-1.06	0.00
23	9	19	11	253.20	8.38	9.09	58.74	999.00	245.70	8.34	9.61	59.31	256.50	7.00	18.20	60.92	999.00	-2.62	999.00	-1.97	0.00
23	9	19	12	246.00	8.63	6.26	61.34	999.00	238.40	8.34	7.25	61.90	242.70	7.05	14.47	63.90	999.00	-2.53	999.00	-1.98	0.00
23	9	19	13	250.30	10.20	11.56	62.86	999.00	241.00	10.16	12.40	63.39	248.00	7.89	17.18	65.51	999.00	-2.68	999.00	-2.16	0.00
23	9	19	14	257.80	8.69	21.16	64.21	999.00	248.40	8.73	21.17	64.76	249.40	7.15	22.80	66.74	999.00	-2.49	999.00	-1.92	0.00
23	9	19	15	314.30	5.77	17.86	66.13	999.00	306.50	6.32	17.06	66.63	314.30	5.02	30.37	69.21	999.00	-3.59	999.00	-3.04	0.00
23	9	19	16	334.70	6.01	14.53	66.74	999.00	335.10	5.87	18.11	67.41	340.10	4.45	19.88	69.14	999.00	-2.20	999.00	-1.53	0.00
23	9	19	17	227.00	3.90	16.18	66.44	999.00	217.90	3.64	18.35	67.01	223.50	3.04	23.39	68.74	999.00	-1.78	999.00	-1.15	0.00
23	9	19	18	265.10	7.82	7.74	66.89	999.00	257.60	7.61	9.08	67.40	263.50	5.35	12.66	68.76	999.00	-1.43	999.00	-0.96	0.00
23	9	19	19	258.20	6.62	3.89	66.64	999.00	249.10	6.33	4.19	67.05	254.80	3.52	6.22	67.40	999.00	-0.54	999.00	-0.14	0.00
23	9	19	20	259.40	5.16	1.63	66.54	999.00	248.30	4.34	3.32	66.87	204.60	1.81	6.95	66.69	999.00	0.26	999.00	0.54	0.00
23	9	19	21	277.90	8.37	4.16	66.57	999.00	269.90	7.75	4.75	66.85	258.50	2.81	19.24	65.71	999.00	1.14	999.00	1.35	0.00
23	9	19	22	265.30	7.42	10.40	66.19	999.00	256.80	7.20	11.65	66.26	219.10	1.95	22.64	65.15	999.00	1.01	999.00	1.30	0.00
23	9	19	23	28.14	4.14	6.58	66.26	999.00	23.91	3.41	5.27	66.56	58.44	1.77	21.34	65.30	999.00	0.54	999.00	0.93	0.00
23	9	19	24	87.20	3.59	1.93	66.27	999.00	80.00	3.52	2.11	66.59	140.70	2.01	12.66	66.04	999.00	0.36	999.00	0.73	0.00
23	9	20	1	149.90	7.31	9.34	66.37	999.00	147.20	7.08	11.03	66.75	191.70	2.70	12.69	64.63	999.00	2.25	999.00	2.53	0.00
23	9	20	2	148.90	10.37	1.73	65.85	999.00	148.60	10.71	1.50	65.71	139.60	1.96	23.59	63.50	999.00	2.43	999.00	2.06	0.00
23	9	20	3	157.30	12.62	0.88	66.10	999.00	155.30	12.64	1.52	65.82	176.30	2.60	19.84	63.57	999.00	2.84	999.00	2.89	0.00
23	9	20	4	162.80	12.20	3.35	66.21	999.00	161.00	10.92	1.98	65.62	156.90	2.26	23.45	63.31	999.00	2.71	999.00	1.65	0.00
23	9	20	5	163.40	11.49	4.94	66.19	999.00	149.10	9.23	2.28	64.91	128.60	2.86	18.51	63.01	999.00	3.18	999.00	1.89	0.00
23	9	20	6	180.50	12.98	2.52	65.14	999.00	167.90	10.12	2.84	64.56	169.80	3.14	14.98	63.01	999.00	2.11	999.00	1.43	0.00
23	9	20	7	184.10	15.31	1.48	65.29	999.00	174.40	11.33	1.90	63.98	183.00	2.73	12.65	62.47	999.00	2.47	999.00	1.33	0.00
23	9	20	8	193.30	17.57	1.29	64.16	999.00	182.00	12.67	2.53	63.31	181.30	3.27	16.43	61.89	999.00	2.40	999.00	1.13	0.00
23	9	20	9	200.30	15.19	3.10	62.89	999.00	191.60	12.03	3.92	62.47	194.60	4.99	15.04	62.03	999.00	-0.31	999.00	-0.21	0.00
23	9	20	10	191.70	13.56	4.39	62.61	999.00	185.40	11.63	5.65	63.21	196.30	7.04	15.10	63.83	999.00	-1.24	999.00	-0.66	0.00
23	9	20	11	221.70	10.68	8.14	64.00	999.00	214.10	10.24	9.38	64.99	222.50	7.58	16.97	66.11	999.00	-2.51	999.00	-1.69	0.00
23	9	20	12	223.80	11.11	7.39	66.45	999.00	219.20	11.03	7.11	67.13	235.40	9.27	11.76	68.97	999.00	-2.29	999.00	-1.72	0.00
23	9	20	13	222.90	9.48	13.26	68.48	999.00	215.10	9.09	16.28	69.19	225.80	7.16	22.27	71.20	999.00	-2.79	999.00	-1.85	0.00
23	9	20	14	228.00	8.89	5.91	70.02	999.00	221.40	8.76	7.29	70.54	233.10	6.64	15.20	72.20	999.00	-2.35	999.00	-1.85	0.00
23	9	20	15	165.60	6.45	9.79	71.57	999.00	157.30	6.36	9.39	72.33	159.10	3.92	28.33	74.03	999.00	-2.63	999.00	-1.83	0.00
23	9	20	16	83.10	8.52	6.14	71.76	999.00	70.60	8.66	6.99	72.20	75.10	6.92	16.03	74.13	999.00	-2.24	999.00	-1.84	0.00
23	9	20	17	118.60	8.73	7.10	71.37	999.00	101.10	8.15	8.08	71.68	96.60	4.92	17.45	73.70	999.00	-1.87	999.00	-1.89	0.00
23	9	20	18	106.00	11.92	4.29	71.57	999.00	96.40	11.37	6.14	71.72	101.60	5.81	15.88	73.22	999.00	-1.78	999.00	-1.43	0.00
23	9	20	19	116.40	11.21	3.10	70.07	999.00	105.30	9.91	3.69	70.22	108.20	4.26	13.59	70.98	999.00	-0.08	999.00	-0.07	0.00

23	9	20	20	118.60	12.97	2.42	70.71	999.00	105.90	12.00	2.42	70.59	102.60	4.19	12.08	69.94	999.00	0.88	999.00	0.87	0.00
23	9	20	21	123.30	14.30	1.37	69.54	999.00	114.60	13.33	1.85	69.82	117.70	4.74	14.60	68.93	999.00	0.62	999.00	0.94	0.00
23	9	20	22	126.90	14.33	1.46	69.07	999.00	119.10	12.71	1.35	69.23	126.20	3.40	11.13	67.79	999.00	1.79	999.00	1.76	0.00
23	9	20	23	133.90	15.72	1.42	999.00	999.00	120.80	12.68	1.57	999.00	126.50	3.59	10.08	67.27	999.00	2.72	999.00	2.07	0.00
23	9	20	24	167.90	16.01	1.55	71.35	999.00	152.20	13.70	2.46	69.99	141.60	3.42	11.26	67.28	999.00	4.59	999.00	3.22	0.00
23	9	21	1	181.50	18.17	1.39	71.01	999.00	170.00	14.66	2.45	69.80	164.50	3.26	15.31	66.10	999.00	4.54	999.00	3.25	0.00
23	9	21	2	182.70	18.06	1.03	71.27	999.00	172.50	14.03	1.68	68.81	169.20	2.43	18.82	65.34	999.00	6.86	999.00	3.55	0.00
23	9	21	3	190.20	20.19	1.46	71.19	999.00	181.20	15.18	1.93	68.23	192.00	2.29	13.73	64.28	999.00	7.06	999.00	3.74	0.00
23	9	21	4	189.00	19.16	0.77	70.30	999.00	179.00	14.20	0.73	67.15	169.90	2.36	14.07	63.10	999.00	7.51	999.00	4.01	0.00
23	9	21	5	184.20	17.32	0.89	70.26	999.00	175.10	14.68	0.53	67.23	168.80	2.28	15.40	62.55	999.00	7.97	999.00	5.38	0.00
23	9	21	6	204.10	17.84	1.46	69.02	999.00	191.20	14.99	1.31	66.78	197.50	3.33	12.36	61.86	999.00	7.72	999.00	4.93	0.00
23	9	21	7	206.60	20.15	0.88	68.28	999.00	193.20	16.78	1.14	65.78	193.90	3.35	10.58	60.91	999.00	7.90	999.00	5.33	0.00
23	9	21	8	202.90	20.50	1.22	68.18	999.00	192.90	16.01	1.02	65.52	197.90	3.80	11.77	60.37	999.00	7.97	999.00	4.57	0.00
23	9	21	9	206.30	19.74	1.21	66.92	999.00	198.50	14.44	2.64	63.79	209.20	4.72	14.29	61.27	999.00	3.04	999.00	0.97	0.00
23	9	21	10	211.50	10.65	5.79	65.19	999.00	205.50	8.62	7.30	64.64	213.90	5.75	15.58	64.79	999.00	-1.64	999.00	-1.07	0.00
23	9	21	11	200.20	8.29	6.90	67.00	999.00	197.50	7.73	7.16	68.44	209.90	5.24	18.25	68.99	999.00	-2.05	999.00	-0.48	0.00
23	9	21	12	205.20	4.57	17.68	70.57	999.00	199.30	4.40	24.32	72.11	205.30	3.78	31.31	72.97	999.00	-2.24	999.00	-0.61	0.00
23	9	21	13	25.59	2.63	64.87	73.32	999.00	31.55	2.45	78.20	74.65	31.85	3.01	60.90	75.93	999.00	-2.44	999.00	-1.50	0.00
23	9	21	14	67.96	8.19	7.19	73.09	999.00	60.09	8.12	8.73	73.29	62.58	7.23	16.48	74.80	999.00	-1.69	999.00	-1.40	0.00
23	9	21	15	78.10	8.51	7.90	72.50	999.00	66.91	8.21	9.04	72.85	67.05	6.24	22.97	74.23	999.00	-2.43	999.00	-1.88	0.00
23	9	21	16	81.10	10.36	4.80	72.19	999.00	75.50	10.41	5.98	72.60	83.90	8.48	13.81	74.45	999.00	-1.98	999.00	-1.65	0.00
23	9	21	17	86.10	12.15	5.31	71.67	999.00	77.00	11.22	7.48	72.10	81.50	7.60	15.57	74.13	999.00	-2.52	999.00	-2.07	0.00
23	9	21	18	86.10	12.78	3.38	71.59	999.00	77.00	11.70	5.55	71.98	78.10	6.97	12.32	73.63	999.00	-1.71	999.00	-1.29	0.00
23	9	21	19	93.80	15.56	2.03	71.44	999.00	85.00	14.15	3.57	71.57	100.10	5.65	16.43	72.05	999.00	0.10	999.00	0.11	0.00
23	9	21	20	94.50	15.59	1.43	70.54	999.00	86.70	14.28	2.57	70.80	95.20	5.14	14.11	70.68	999.00	0.11	999.00	0.36	0.00
23	9	21	21	99.80	16.74	2.58	70.27	999.00	93.20	14.99	4.22	70.55	101.30	5.70	15.01	70.15	999.00	0.05	999.00	0.35	0.00
23	9	21	22	106.40	14.64	2.47	69.88	999.00	96.50	12.93	3.89	70.18	98.70	5.20	14.26	69.84	999.00	0.05	999.00	0.32	0.00
23	9	21	23	107.50	15.31	2.66	69.62	999.00	100.20	13.75	3.97	69.93	108.40	5.68	15.48	69.55	999.00	0.05	999.00	0.37	0.00
23	9	21	24	112.50	14.00	3.26	69.47	999.00	106.00	12.18	4.04	69.76	115.90	4.90	14.06	69.38	999.00	0.10	999.00	0.38	0.00
23	9	22	1	116.80	13.99	2.13	69.47	999.00	108.80	12.24	3.16	69.76	112.50	4.55	14.02	69.38	999.00	0.21	999.00	0.45	0.00
23	9	22	2	130.00	12.04	2.16	69.32	999.00	119.50	10.13	2.20	69.35	128.60	2.83	13.19	68.59	999.00	1.01	999.00	0.97	0.00
23	9	22	3	132.10	12.53	2.40	69.25	999.00	124.20	10.83	1.98	69.39	133.80	3.61	13.79	68.16	999.00	0.68	999.00	0.84	0.00
23	9	22	4	150.30	14.62	1.39	68.24	999.00	139.40	10.90	1.75	68.06	133.20	2.73	11.09	67.31	999.00	1.60	999.00	0.97	0.00
23	9	22	5	152.90	15.79	1.62	67.77	999.00	142.40	12.60	2.63	67.26	132.60	3.73	14.36	66.15	999.00	1.81	999.00	1.30	0.00
23	9	22	6	158.40	13.86	0.91	66.97	999.00	148.80	11.39	1.83	66.55	134.80	3.65	12.34	65.26	999.00	1.74	999.00	1.24	0.00
23	9	22	7	150.90	14.59	1.49	66.83	999.00	137.10	11.63	3.61	66.07	123.30	3.43	12.78	64.64	999.00	2.22	999.00	1.50	0.00
23	9	22	8	156.10	10.92	0.87	66.03	999.00	145.00	8.40	2.86	65.77	138.70	2.26	16.87	64.93	999.00	0.66	999.00	0.60	0.00
23	9	22	9	152.70	11.04	1.80	65.62	999.00	140.70	8.64	3.76	65.39	124.30	2.07	19.21	65.02	999.00	0.69	999.00	0.07	0.00
23	9	22	10	110.90	7.22	5.37	65.99	999.00	99.80	6.25	7.05	65.95	100.90	3.76	15.00	66.72	999.00	-1.58	999.00	-1.28	0.00
23	9	22	11	138.20	3.99	17.21	67.50	999.00	118.30	3.50	17.30	68.18	127.00	3.38	24.55	69.71	999.00	-2.17	999.00	-1.59	0.00
23	9	22	12	84.60	6.92	9.02	999.00	999.00	76.00	6.99	7.83	999.00	84.40	5.94	16.05	70.53	999.00	-2.42	999.00	-1.95	0.00
23	9	22	13	73.30	10.70	10.22	999.00	999.00	69.35	10.52	11.33	999.00	70.10	7.32	18.08	70.53	999.00	-2.62	999.00	-2.20	0.00
23	9	22	14	71.40	13.05	8.14	69.58	999.00	62.85	12.49	9.38	70.02	63.65	10.16	12.35	71.80	999.00	-2.64	999.00	-2.07	0.00
23	9	22	15	75.40	12.45	8.19	69.54	999.00	67.32	12.19	9.60	70.10	66.81	10.09	13.75	72.10	999.00	-2.60	999.00	-2.01	0.00
23	9	22	16	79.90	14.67	5.02	999.00	999.00	72.40	14.30	5.06	999.00	80.30	9.69	12.46	72.63	999.00	-2.33	999.00	-1.90	0.00
23	9	22	17	74.40	13.38	6.29	70.39	999.00	67.30	13.22	6.57	70.89	77.00	9.08	12.44	72.97	999.00	-2.37	999.00	-1.92	0.00
23	9	22	18	77.20	16.81	4.11	69.65	999.00	68.60	16.03	4.95	70.17	77.10	10.55	11.72	71.95	999.00	-2.12	999.00	-1.57	0.00
23	9	22	19	73.60	18.16	3.61	68.96	999.00	65.99	17.29	4.72	69.41	72.90	10.26	12.69	70.49	999.00	-1.14	999.00	-0.70	0.00
23	9	22	20	77.90	17.17	4.52	68.31	999.00	70.50	16.09	5.20	68.74	73.90	9.17	10.89	69.00	999.00	-0.54	999.00	-0.13	0.00
23	9	22	21	90.90	20.75	3.85	67.78	999.00	83.50	19.72	5.62	68.18	91.10	9.10	18.18	68.13	999.00	-0.32	999.00	0.10	0.00
23	9	22	22	94.40	23.59	3.47	67.72	999.00	86.80	22.40	4.64	68.15	92.30	9.83	16.38	68.18	999.00	-0.47	999.00	-0.04	0.00
23	9	22	23	95.70	20.94	3.65	67.56	999.00	88.40	19.75	4.62	67.98	93.60	8.59	17.78	67.96	999.00	-0.38	999.00	0.04	0.00
23	9	22	24	111.90	17.37	4.00	67.88	999.00	104.40	16.22	4.95	68.29	111.40	7.66	13.73	68.13	999.00	-0.27	999.00	0.15	0.00

23	9	23	1	126.30	17.37	4.18	67.88	999.00	121.00	15.37	5.06	68.29	130.10	5.91	18.42	68.13	999.00	0.21	999.00	0.47	0.00
23	9	23	2	132.30	16.81	2.52	64.82	999.00	125.90	14.76	3.84	65.00	137.50	5.68	15.78	64.80	999.00	0.06	999.00	0.25	0.00
23	9	23	3	134.70	14.38	1.49	63.25	999.00	126.80	12.38	2.87	63.44	131.90	3.85	14.60	62.77	999.00	0.78	999.00	0.90	0.00
23	9	23	4	129.70	16.07	3.58	63.25	999.00	121.80	15.00	2.91	63.44	129.90	5.20	17.16	62.77	999.00	0.82	999.00	1.07	0.00
23	9	23	5	126.60	8.34	2.57	62.42	999.00	120.70	7.70	2.82	62.72	155.90	1.62	18.67	61.10	999.00	1.66	999.00	2.02	0.00
23	9	23	6	113.90	11.06	2.81	62.40	999.00	109.40	10.42	2.28	62.80	126.40	3.61	9.05	60.65	999.00	1.96	999.00	2.35	0.00
23	9	23	7	109.40	12.36	3.31	62.40	999.00	103.50	11.37	3.72	62.80	126.20	4.45	9.44	60.65	999.00	1.24	999.00	1.61	0.00
23	9	23	8	105.00	15.16	4.39	62.22	999.00	97.20	14.14	5.90	62.62	104.10	5.92	18.14	62.00	999.00	-0.16	999.00	0.22	0.00
23	9	23	9	102.00	14.54	5.88	61.93	999.00	95.50	13.50	7.96	62.36	100.40	6.54	19.38	63.05	999.00	-1.54	999.00	-1.08	0.00
23	9	23	10	96.70	13.38	5.80	62.19	999.00	91.60	12.48	7.91	62.68	96.70	6.71	19.80	64.23	999.00	-2.24	999.00	-1.71	0.00
23	9	23	11	79.40	13.88	6.07	62.58	999.00	72.30	13.35	7.77	63.26	76.60	9.36	15.27	65.07	999.00	-2.40	999.00	-1.73	0.00
23	9	23	12	78.10	17.46	5.16	63.40	999.00	71.00	16.84	6.62	64.02	80.50	11.21	14.28	65.96	999.00	-2.62	999.00	-2.07	0.00
23	9	23	13	73.60	20.13	6.14	64.56	999.00	65.22	18.95	7.53	65.14	71.10	12.72	12.20	67.19	999.00	-2.70	999.00	-2.13	0.00
23	9	23	14	77.60	24.46	5.39	64.78	999.00	69.32	22.84	6.25	65.39	73.40	14.93	14.13	67.66	999.00	-3.01	999.00	-2.39	0.00
23	9	23	15	75.90	24.43	6.18	65.17	999.00	67.31	22.97	7.18	65.77	73.30	15.32	13.02	67.95	999.00	-2.59	999.00	-2.02	0.00
23	9	23	16	78.60	23.79	4.18	65.40	999.00	70.50	22.77	5.43	65.98	76.50	15.44	11.34	68.17	999.00	-2.77	999.00	-2.22	0.00
23	9	23	17	75.30	20.68	6.09	65.50	999.00	68.68	20.05	6.05	66.02	75.20	12.61	11.90	68.09	999.00	-2.45	999.00	-1.98	0.00
23	9	23	18	76.40	23.98	3.17	65.43	999.00	68.86	22.62	4.85	65.96	74.20	13.88	12.67	67.63	999.00	-2.14	999.00	-1.60	0.00
23	9	23	19	78.30	23.68	6.12	64.99	999.00	70.20	22.37	6.83	65.45	76.10	13.74	12.63	66.35	999.00	-1.19	999.00	-0.74	0.00
23	9	23	20	76.70	22.70	5.22	65.41	999.00	68.64	21.04	6.05	65.86	71.20	12.33	12.35	66.32	999.00	-0.74	999.00	-0.32	0.00
23	9	23	21	80.10	22.90	3.59	66.01	999.00	71.90	21.29	4.59	66.41	73.80	12.68	11.54	66.63	999.00	-0.54	999.00	-0.17	0.00
23	9	23	22	84.60	23.38	3.94	66.61	999.00	76.60	22.18	4.88	67.01	79.00	11.04	15.01	67.03	999.00	-0.47	999.00	-0.07	0.00
23	9	23	23	85.60	24.70	3.57	66.31	999.00	77.80	23.86	4.53	66.73	82.30	12.56	14.96	66.88	999.00	-0.63	999.00	-0.18	0.00
23	9	23	24	81.40	23.96	4.36	66.00	999.00	73.30	22.76	5.22	66.41	77.10	13.28	12.64	66.60	999.00	-0.73	999.00	-0.31	0.00
23	9	24	1	81.90	24.76	4.41	65.45	999.00	74.20	23.68	5.04	65.88	78.20	13.08	13.92	66.18	999.00	-0.71	999.00	-0.28	0.00
23	9	24	2	78.90	24.00	3.71	65.32	999.00	70.90	23.40	3.97	65.75	75.80	13.98	11.30	66.07	999.00	-0.75	999.00	-0.33	0.00
23	9	24	3	83.80	19.40	5.01	65.84	999.00	75.80	18.25	5.96	66.24	76.40	9.36	13.47	66.44	999.00	-0.35	999.00	0.02	0.00
23	9	24	4	78.90	19.94	3.72	65.84	999.00	71.10	19.38	4.45	66.25	75.60	11.06	12.83	66.29	999.00	-0.52	999.00	-0.10	0.00
23	9	24	5	71.10	20.27	4.98	65.32	999.00	63.11	19.33	5.59	65.75	69.15	11.37	10.60	65.93	999.00	-0.67	999.00	-0.23	0.00
23	9	24	6	77.50	21.68	3.79	65.21	999.00	69.12	20.76	4.30	65.61	72.90	12.01	10.83	65.83	999.00	-0.53	999.00	-0.11	0.00
23	9	24	7	76.80	17.06	4.66	65.44	999.00	68.64	16.19	5.06	65.84	73.20	8.82	11.11	65.96	999.00	-0.56	999.00	-0.17	0.00
23	9	24	8	68.78	18.84	5.14	65.48	999.00	60.81	17.35	5.96	65.88	65.48	10.45	11.71	66.09	999.00	-0.77	999.00	-0.34	0.00
23	9	24	9	25.84	15.40	4.79	63.86	999.00	18.17	13.27	5.45	64.44	21.92	12.42	9.91	65.17	999.00	-1.60	999.00	-0.91	0.00
23	9	24	10	30.36	15.70	4.86	62.92	999.00	23.39	12.29	6.47	63.56	28.22	13.28	10.06	64.48	999.00	-1.60	999.00	-0.89	0.00
23	9	24	11	29.89	15.40	4.71	62.75	999.00	21.70	12.48	7.07	63.50	26.33	13.17	9.98	64.41	999.00	-1.66	999.00	-0.87	0.00
23	9	24	12	43.60	13.49	9.93	63.73	999.00	35.05	11.85	9.06	64.40	38.05	12.38	8.71	65.40	999.00	-1.73	999.00	-1.17	0.00
23	9	24	13	38.39	14.68	8.38	64.13	999.00	31.47	12.57	9.43	64.70	35.99	12.56	10.72	65.94	999.00	-1.81	999.00	-1.27	0.00
23	9	24	14	56.43	18.19	6.59	64.82	999.00	49.02	17.42	6.32	65.31	51.81	12.30	11.93	66.88	999.00	-2.38	999.00	-1.93	0.00
23	9	24	15	57.96	15.56	6.57	65.55	999.00	48.64	14.84	7.61	65.96	57.88	10.81	14.20	67.80	999.00	-2.30	999.00	-1.86	0.00
23	9	24	16	80.40	17.43	5.27	65.35	999.00	72.80	16.99	6.57	65.89	81.60	11.60	13.37	68.12	999.00	-3.12	999.00	-2.56	0.00
23	9	24	17	86.90	14.29	5.39	65.25	999.00	79.80	13.82	6.79	65.81	84.80	7.26	18.31	67.60	999.00	-2.04	999.00	-1.51	0.00
23	9	24	18	81.80	15.05	4.43	65.35	999.00	73.40	14.40	5.53	65.87	80.10	8.36	16.59	67.12	999.00	-1.77	999.00	-1.26	0.00
23	9	24	19	77.50	17.72	4.93	65.30	999.00	69.50	16.65	5.82	65.79	73.30	10.64	13.46	66.82	999.00	-1.37	999.00	-0.89	0.00
23	9	24	20	75.40	16.77	4.71	65.50	999.00	67.59	15.82	5.37	65.96	76.30	9.31	13.21	66.76	999.00	-1.17	999.00	-0.73	0.00
23	9	24	21	58.13	18.64	7.41	64.36	999.00	51.15	17.40	7.69	64.68	59.96	11.03	13.54	64.83	999.00	0.73	999.00	1.02	0.00
23	9	24	22	60.43	21.87	7.82	64.03	999.00	53.02	20.19	8.30	64.37	58.90	12.52	14.97	63.54	999.00	0.58	999.00	1.01	0.00
23	9	24	23	56.70	19.23	6.11	64.60	999.00	48.04	17.50	7.82	65.05	55.90	10.75	12.35	63.78	999.00	0.94	999.00	1.41	0.00
23	9	24	24	72.20	19.65	4.63	64.40	999.00	64.33	18.56	5.69	64.84	72.50	10.06	12.21	64.28	999.00	0.32	999.00	0.73	0.00
23	9	25	1	65.11	16.28	6.25	65.00	999.00	56.34	15.36	6.34	65.46	65.47	9.91	12.25	65.71	999.00	-1.26	999.00	-0.77	0.04
23	9	25	2	47.67	15.30	7.32	63.35	999.00	38.97	13.20	8.35	63.80	42.48	12.26	10.68	64.54	999.00	-0.91	999.00	-0.45	0.00
23	9	25	3	25.26	16.63	5.72	62.34	999.00	17.38	14.43	7.06	62.73	22.79	12.62	10.93	63.08	999.00	-1.10	999.00	-0.81	0.01
23	9	25	4	39.36	12.75	7.01	61.56	999.00	29.43	10.88	7.63	61.88	31.45	11.55	11.11	62.54	999.00	-1.04	999.00	-0.70	0.00
23	9	25	5	60.31	10.40	24.92	61.08	999.00	48.14	9.89	23.32	61.31	46.63	9.18	21.62	61.93	999.00	-0.65	999.00	-0.45	0.00

23	9	25	6	61.54	14.00	8.22	61.93	999.00	51.63	12.88	9.71	62.25	58.26	9.05	14.64	62.68	999.00	-0.84	999.00	-0.52	0.00
23	9	25	7	53.42	6.87	11.48	61.73	999.00	46.00	6.94	9.72	62.02	55.51	5.03	13.58	62.09	999.00	-0.36	999.00	-0.09	0.00
23	9	25	8	54.71	18.74	6.26	62.09	999.00	47.22	17.20	7.20	62.45	51.81	11.81	12.43	62.77	999.00	-0.85	999.00	-0.44	0.00
23	9	25	9	57.22	17.38	5.21	61.71	999.00	48.63	15.53	6.54	62.07	52.28	10.08	11.46	62.39	999.00	-0.65	999.00	-0.29	0.00
23	9	25	10	59.21	18.36	4.15	61.99	999.00	50.19	16.32	6.45	62.34	57.82	9.07	12.67	62.80	999.00	-0.91	999.00	-0.55	0.01
23	9	25	11	57.71	19.94	5.39	62.19	999.00	48.20	17.96	6.46	62.55	52.99	12.12	11.71	63.07	999.00	-0.83	999.00	-0.47	0.00
23	9	25	12	57.82	19.98	5.09	62.08	999.00	49.24	18.33	6.53	62.42	54.52	11.96	12.12	62.74	999.00	-0.77	999.00	-0.39	0.00
23	9	25	13	54.56	15.69	7.28	62.17	999.00	46.12	13.73	8.03	62.59	51.68	11.02	10.63	62.94	999.00	-0.88	999.00	-0.43	0.00
23	9	25	14	49.11	12.56	8.66	62.78	999.00	40.53	10.68	9.94	63.18	42.99	9.33	11.55	63.63	999.00	-0.53	999.00	-0.12	0.00
23	9	25	15	57.13	14.38	8.19	63.26	999.00	46.17	13.24	8.53	63.70	49.75	10.34	11.52	63.87	999.00	-0.54	999.00	-0.15	0.00
23	9	25	16	64.91	14.07	4.08	63.35	999.00	56.31	13.32	4.91	63.75	63.58	8.73	12.14	63.85	999.00	-0.47	999.00	-0.03	0.00
23	9	25	17	66.57	10.82	5.61	64.16	999.00	56.86	9.97	6.19	64.60	62.59	6.28	12.32	64.60	999.00	-0.15	999.00	0.27	0.00
23	9	25	18	87.40	12.90	3.89	65.21	999.00	78.80	12.22	5.69	65.65	82.00	6.02	15.55	65.52	999.00	-0.73	999.00	-0.27	0.00
23	9	25	19	80.70	19.55	3.27	65.53	999.00	72.90	18.57	4.44	65.96	76.80	10.54	13.93	65.33	999.00	0.53	999.00	0.98	0.00
23	9	25	20	83.10	18.32	4.32	65.70	999.00	75.20	17.47	5.23	66.13	78.50	9.52	14.34	65.97	999.00	-0.75	999.00	-0.32	0.00
23	9	25	21	85.30	18.23	2.12	65.89	999.00	77.10	17.65	2.78	66.32	81.60	8.80	13.82	66.68	999.00	-0.82	999.00	-0.38	0.00
23	9	25	22	88.60	17.05	5.23	66.11	999.00	80.90	16.16	6.55	66.53	85.40	7.75	15.50	66.89	999.00	-0.73	999.00	-0.31	0.00
23	9	25	23	99.20	15.57	4.20	66.45	999.00	91.70	14.54	4.53	66.87	101.20	5.55	16.53	67.15	999.00	-0.67	999.00	-0.26	0.00
23	9	25	24	85.40	16.35	3.53	66.57	999.00	76.60	15.37	4.06	67.00	81.90	7.22	15.15	67.34	999.00	-0.88	999.00	-0.43	0.00
23	9	26	1	93.30	13.32	4.77	66.57	999.00	83.90	12.31	6.32	67.00	97.00	4.64	19.88	67.34	999.00	-0.71	999.00	-0.32	0.00
23	9	26	2	115.10	9.05	5.22	66.77	999.00	106.90	8.58	5.08	67.21	114.80	3.64	13.94	67.44	999.00	-0.69	999.00	-0.23	0.00
23	9	26	3	226.20	7.84	1.03	65.56	999.00	224.00	7.51	1.84	65.77	216.90	3.10	20.23	65.68	999.00	0.19	999.00	0.33	0.00
23	9	26	4	197.70	5.19	4.04	65.04	999.00	198.10	4.66	5.02	65.14	132.60	2.55	17.45	64.48	999.00	0.64	999.00	0.76	0.00
23	9	26	5	168.40	5.86	2.95	65.39	999.00	157.10	5.71	3.80	65.47	153.00	2.40	22.32	64.52	999.00	0.68	999.00	0.80	0.00
23	9	26	6	152.40	8.41	2.46	64.77	999.00	145.40	8.37	3.55	64.99	151.50	2.26	21.22	64.44	999.00	0.06	999.00	0.19	0.00
23	9	26	7	146.40	10.72	3.33	64.56	999.00	136.60	9.45	4.27	64.72	142.40	4.11	14.33	64.53	999.00	-0.70	999.00	-0.44	0.00
23	9	26	8	161.60	9.89	4.67	63.15	999.00	156.30	7.76	5.81	63.52	173.90	3.16	24.72	64.23	999.00	-1.05	999.00	-0.72	0.00
23	9	26	9	135.80	9.37	3.95	62.96	999.00	127.00	7.85	5.42	63.32	133.30	3.76	16.88	64.08	999.00	-1.26	999.00	-0.87	0.00
23	9	26	10	148.50	8.59	7.90	63.21	999.00	140.70	7.96	7.97	63.67	146.90	5.05	15.36	64.74	999.00	-1.70	999.00	-1.21	0.00
23	9	26	11	131.30	9.61	9.07	64.33	999.00	121.10	9.31	10.06	64.82	124.00	5.33	18.07	66.33	999.00	-2.11	999.00	-1.63	0.00
23	9	26	12	103.90	10.39	10.51	64.92	999.00	93.50	10.01	12.07	65.40	110.20	6.16	20.58	67.18	999.00	-2.57	999.00	-2.07	0.00
23	9	26	13	96.70	13.20	5.79	65.71	999.00	87.20	12.73	7.17	66.27	90.50	8.97	17.71	68.48	999.00	-2.69	999.00	-2.19	0.00
23	9	26	14	84.90	16.15	4.43	65.71	999.00	76.50	15.78	5.43	66.29	82.70	11.24	15.78	68.63	999.00	-2.94	999.00	-2.38	0.00
23	9	26	15	88.70	18.51	5.00	65.17	999.00	79.90	17.54	7.42	65.76	82.60	11.71	13.87	67.94	999.00	-2.96	999.00	-2.34	0.00
23	9	26	16	90.10	20.08	4.18	65.20	999.00	80.30	19.03	6.43	65.78	83.30	10.49	14.68	67.97	999.00	-2.64	999.00	-2.08	0.00
23	9	26	17	91.90	21.47	5.37	65.22	999.00	83.20	20.10	7.09	65.78	88.60	11.22	16.99	68.00	999.00	-2.38	999.00	-1.83	0.00
23	9	26	18	90.40	23.28	4.30	65.23	999.00	81.80	22.36	5.40	65.76	86.70	12.16	15.34	67.53	999.00	-2.42	999.00	-1.87	0.00
23	9	26	19	90.20	22.81	4.46	65.17	999.00	81.50	21.68	5.45	65.69	86.10	11.08	15.68	66.97	999.00	-1.48	999.00	-0.98	0.00
23	9	26	20	94.90	19.95	3.58	65.29	999.00	85.50	19.15	4.55	65.77	91.30	8.87	17.12	66.50	999.00	-1.15	999.00	-0.67	0.00
23	9	26	21	120.80	16.48	3.43	65.87	999.00	112.70	15.72	4.34	66.33	117.20	6.87	16.73	66.82	999.00	-0.88	999.00	-0.42	0.00
23	9	26	22	121.10	15.70	5.22	65.40	999.00	113.50	14.46	6.30	65.81	119.20	7.00	16.31	66.28	999.00	-0.82	999.00	-0.41	0.00
23	9	26	23	123.40	18.05	3.78	64.63	999.00	115.80	16.75	4.76	65.08	123.40	7.70	17.38	65.63	999.00	-0.96	999.00	-0.51	0.00
23	9	26	24	118.30	20.63	4.49	63.88	999.00	110.70	19.29	5.10	64.34	118.10	8.97	18.10	64.76	999.00	-0.84	999.00	-0.38	0.00
23	9	27	1	117.20	21.22	4.76	62.71	999.00	109.10	19.84	6.06	63.18	114.90	9.92	14.99	63.59	999.00	-0.88	999.00	-0.41	0.00
23	9	27	2	115.10	19.99	4.12	61.82	999.00	106.90	18.79	4.76	62.29	113.10	9.26	16.38	62.78	999.00	-1.08	999.00	-0.61	0.00
23	9	27	3	114.80	18.89	5.10	61.22	999.00	107.30	17.66	6.25	61.69	112.20	8.25	17.34	62.37	999.00	-1.17	999.00	-0.69	0.00
23	9	27	4	111.70	16.17	6.80	60.95	999.00	103.20	14.64	8.19	61.42	110.30	6.91	17.42	62.11	999.00	-1.14	999.00	-0.68	0.00
23	9	27	5	111.40	16.66	5.57	60.39	999.00	103.60	15.63	7.17	60.88	109.80	7.24	16.64	61.45	999.00	-0.99	999.00	-0.52	0.00
23	9	27	6	120.80	15.11	5.11	60.40	999.00	113.50	14.50	5.23	60.86	119.80	7.05	18.88	61.51	999.00	-1.22	999.00	-0.75	0.00
23	9	27	7	111.50	15.06	5.52	59.63	999.00	102.70	13.78	6.56	60.15	109.00	7.02	16.11	60.80	999.00	-0.87	999.00	-0.38	0.00
23	9	27	8	109.10	15.77	6.09	59.63	999.00	101.10	14.37	7.00	60.13	108.00	7.21	16.44	60.59	999.00	-1.01	999.00	-0.48	0.00
23	9	27	9	120.20	16.22	6.05	59.58	999.00	112.70	15.19	6.49	60.09	119.60	7.31	20.61	60.92	999.00	-1.45	999.00	-0.96	0.00
23	9	27	10	129.10	16.77	4.80	59.99	999.00	122.00	15.41	5.84	60.48	132.90	7.31	19.67	61.44	999.00	-1.60	999.00	-1.12	0.00

23	9	27	11	124.20	14.03	4.22	60.16	999.00	116.10	13.61	5.30	60.63	122.40	7.44	16.91	61.85	999.00	-1.71	999.00	-1.26	0.00
23	9	27	12	117.60	12.47	4.41	59.68	999.00	109.90	12.13	4.82	60.14	113.50	6.39	17.22	61.47	999.00	-1.73	999.00	-1.28	0.00
23	9	27	13	106.20	10.61	8.44	59.80	999.00	98.20	10.04	10.50	60.18	104.90	5.60	19.24	61.19	999.00	-1.86	999.00	-1.43	0.00
23	9	27	14	110.80	12.33	7.08	61.66	999.00	101.00	11.08	9.81	62.18	109.10	6.52	21.05	63.72	999.00	-2.06	999.00	-1.56	0.00
23	9	27	15	115.30	11.28	4.61	63.06	999.00	106.10	10.89	5.14	63.52	108.30	5.32	17.96	64.67	999.00	-1.25	999.00	-0.80	0.00
23	9	27	16	103.20	13.39	5.72	63.95	999.00	95.30	12.66	6.64	64.42	108.20	6.36	16.71	65.71	999.00	-1.52	999.00	-1.07	0.00
23	9	27	17	104.00	13.44	5.67	64.33	999.00	95.50	12.38	6.28	64.79	105.70	5.54	17.66	65.77	999.00	-1.29	999.00	-0.84	0.00
23	9	27	18	109.40	14.95	4.43	64.61	999.00	100.70	13.87	5.92	65.05	105.50	5.89	16.90	65.53	999.00	-0.79	999.00	-0.33	0.00
23	9	27	19	105.40	14.92	3.63	64.53	999.00	97.40	14.01	4.56	64.96	102.90	6.05	15.73	65.14	999.00	-0.50	999.00	-0.05	0.03
23	9	27	20	92.00	19.70	3.83	64.51	999.00	83.70	18.41	4.92	64.88	91.00	8.18	15.11	65.00	999.00	-0.51	999.00	-0.17	0.06
23	9	27	21	119.30	15.30	5.64	64.51	999.00	113.70	13.44	7.10	64.88	128.50	5.12	24.79	65.00	999.00	0.00	999.00	0.33	0.03
23	9	27	22	117.70	12.30	2.87	62.80	999.00	109.90	11.07	3.31	63.14	114.00	4.41	13.81	62.87	999.00	0.11	999.00	0.45	0.06
23	9	27	23	114.30	13.34	4.08	62.82	999.00	105.80	12.25	4.66	63.15	109.30	5.33	14.46	62.58	999.00	0.40	999.00	0.70	0.00
23	9	27	24	116.10	14.43	3.56	62.92	999.00	107.40	13.39	4.08	63.26	111.50	5.71	14.86	62.49	999.00	0.13	999.00	0.48	0.00
23	9	28	1	122.10	13.46	5.01	62.65	999.00	113.80	12.15	5.32	62.99	119.80	4.73	15.62	62.19	999.00	0.69	999.00	0.97	0.08
23	9	28	2	128.20	15.83	2.75	62.82	999.00	121.50	14.78	3.84	63.16	130.10	5.97	16.55	62.07	999.00	0.35	999.00	0.71	0.02
23	9	28	3	113.60	13.96	9.93	60.48	999.00	103.20	11.57	12.36	60.80	90.40	4.32	34.14	61.10	999.00	-0.75	999.00	-0.53	0.29
23	9	28	4	108.50	11.81	5.09	60.10	999.00	99.10	11.16	7.06	60.46	107.60	4.93	19.80	60.79	999.00	-0.66	999.00	-0.26	0.03
23	9	28	5	125.40	14.14	3.14	60.71	999.00	117.10	12.68	4.65	61.09	120.90	5.45	16.54	61.34	999.00	-0.75	999.00	-0.38	0.00
23	9	28	6	115.10	14.15	3.92	60.39	999.00	106.50	13.25	5.21	60.83	110.60	6.21	14.68	60.67	999.00	-0.13	999.00	0.37	0.00
23	9	28	7	116.90	13.35	4.53	60.19	999.00	107.30	12.72	5.37	60.81	114.00	6.14	14.87	60.17	999.00	-0.01	999.00	0.46	0.00
23	9	28	8	119.10	12.76	3.88	59.95	999.00	110.70	11.95	4.88	60.41	115.00	5.81	15.35	60.34	999.00	-0.54	999.00	-0.10	0.00
23	9	28	9	116.60	10.86	3.95	59.70	999.00	108.70	10.38	4.71	60.15	114.80	5.18	16.14	60.56	999.00	-1.08	999.00	-0.63	0.00
23	9	28	10	116.40	10.91	5.32	59.74	999.00	107.60	10.32	6.64	60.20	113.30	5.50	15.58	61.19	999.00	-1.49	999.00	-1.03	0.00
23	9	28	11	116.00	9.29	8.10	60.01	999.00	108.50	9.10	9.97	60.46	116.00	5.72	19.73	62.47	999.00	-3.27	999.00	-2.81	0.00
23	9	28	12	120.90	8.90	5.66	60.66	999.00	111.70	8.78	5.38	61.12	121.80	6.11	14.87	63.44	999.00	-1.84	999.00	-1.42	0.00
23	9	28	13	102.10	5.46	12.68	61.42	999.00	91.60	5.36	15.47	61.89	91.60	4.31	27.86	62.64	999.00	-1.21	999.00	-0.65	0.00
23	9	28	14	85.10	7.88	11.25	62.08	999.00	76.00	7.80	12.78	62.55	81.90	5.99	15.68	64.01	999.00	-1.91	999.00	-1.41	0.00
23	9	28	15	85.30	7.68	6.28	62.62	999.00	75.30	7.63	8.59	63.10	72.50	6.18	10.78	64.32	999.00	-1.73	999.00	-1.22	0.00
23	9	28	16	87.30	10.03	4.46	62.83	999.00	79.00	9.86	5.41	63.33	83.30	5.63	16.96	64.55	999.00	-1.72	999.00	-1.23	0.00
23	9	28	17	80.90	9.37	4.42	63.17	999.00	71.40	9.18	5.59	63.66	74.80	6.09	13.34	64.93	999.00	-1.79	999.00	-1.29	0.00
23	9	28	18	86.80	12.14	3.19	63.26	999.00	78.40	11.77	4.48	63.74	84.40	5.92	16.45	64.85	999.00	-1.48	999.00	-1.00	0.00
23	9	28	19	96.10	11.23	8.63	63.56	999.00	86.70	10.53	10.29	64.03	91.60	5.11	19.06	64.92	999.00	-1.26	999.00	-0.81	0.00
23	9	28	20	115.20	10.54	6.44	63.57	999.00	107.30	10.30	6.62	64.03	116.90	4.72	17.21	64.81	999.00	-1.12	999.00	-0.66	0.00
23	9	28	21	141.20	8.93	3.54	63.01	999.00	133.80	8.16	5.56	63.46	145.00	4.32	16.41	64.32	999.00	-1.30	999.00	-0.89	0.00
23	9	28	22	114.00	6.55	6.85	63.06	999.00	104.50	5.97	7.48	63.34	83.70	1.06	45.06	63.73	999.00	-0.34	999.00	0.03	0.00
23	9	28	23	120.50	9.23	4.51	63.61	999.00	113.80	8.86	6.43	63.98	122.40	3.41	18.35	64.20	999.00	-0.86	999.00	-0.49	0.00
23	9	28	24	123.60	8.37	3.47	63.12	999.00	115.80	7.97	3.60	63.56	123.00	3.59	13.34	64.10	999.00	-0.94	999.00	-0.50	0.00
23	9	29	1	124.80	7.41	3.34	62.82	999.00	115.90	6.85	4.09	63.23	124.90	2.59	14.47	63.75	999.00	-0.88	999.00	-0.46	0.00
23	9	29	2	113.10	5.69	3.45	62.83	999.00	106.10	5.36	4.80	63.26	110.50	2.11	12.22	63.65	999.00	-0.85	999.00	-0.39	0.00
23	9	29	3	126.20	5.63	3.96	62.94	999.00	121.50	5.43	4.53	63.38	140.80	2.30	15.98	63.88	999.00	-0.95	999.00	-0.53	0.00
23	9	29	4	131.20	6.28	4.72	62.61	999.00	125.40	5.70	5.84	62.96	135.40	2.62	16.27	63.61	999.00	-1.04	999.00	-0.70	0.00
23	9	29	5	124.70	4.66	5.97	62.43	999.00	118.70	4.69	5.47	62.81	132.10	2.84	12.75	63.29	999.00	-0.91	999.00	-0.47	0.00
23	9	29	6	120.90	4.90	2.29	62.37	999.00	120.10	5.01	4.74	62.69	154.00	2.13	18.73	63.10	999.00	-0.67	999.00	-0.40	0.00
23	9	29	7	88.00	4.32	5.50	62.34	999.00	89.10	3.91	3.51	62.64	291.50	0.18	51.40	62.70	999.00	-0.25	999.00	0.06	0.00
23	9	29	8	86.60	4.35	8.91	62.90	999.00	81.90	3.27	9.32	63.09	246.90	1.66	24.15	62.99	999.00	-0.26	999.00	0.03	0.00
23	9	29	9	233.40	2.58	13.53	62.73	999.00	236.30	2.37	23.17	62.99	297.70	2.83	18.28	63.41	999.00	-0.79	999.00	-0.40	0.00
23	9	29	10	114.00	1.04	44.66	62.99	999.00	144.60	0.68	26.62	63.49	42.49	1.05	70.90	63.96	999.00	-1.40	999.00	-0.71	0.00
23	9	29	11	101.40	3.97	12.60	64.18	999.00	92.00	4.16	12.16	64.83	93.00	3.43	16.61	66.12	999.00	-1.88	999.00	-1.38	0.00
23	9	29	12	55.65	5.30	12.39	64.81	999.00	50.15	5.44	10.93	65.14	56.49	4.68	19.74	66.13	999.00	-1.37	999.00	-1.08	0.00
23	9	29	13	75.60	10.35	10.60	65.23	999.00	68.11	10.00	11.14	65.71	74.60	8.18	19.32	67.43	999.00	-2.19	999.00	-1.66	0.00
23	9	29	14	58.66	8.00	8.31	65.54	999.00	48.08	8.12	7.27	66.01	50.20	7.11	11.13	67.51	999.00	-1.60	999.00	-1.29	0.00
23	9	29	15	59.47	10.87	6.55	65.41	999.00	51.52	10.54	6.19	65.79	58.40	8.51	12.30	67.04	999.00	-1.79	999.00	-1.34	0.00

23	9	29	16	75.90	9.52	10.13	65.41	999.00	66.28	9.32	9.28	65.79	72.50	7.03	20.98	67.04	999.00	-2.41	999.00	-1.92	0.00
23	9	29	17	66.36	8.12	8.27	65.72	999.00	56.55	8.35	9.42	66.15	56.80	7.04	16.10	67.95	999.00	-1.68	999.00	-1.26	0.00
23	9	29	18	57.02	8.64	4.66	65.77	999.00	49.94	8.50	4.62	66.18	64.49	6.10	11.89	67.36	999.00	-1.60	999.00	-1.14	0.00
23	9	29	19	49.14	6.50	9.71	65.77	999.00	44.65	6.83	8.65	66.18	48.14	5.65	15.21	67.36	999.00	-1.11	999.00	-0.70	0.00
23	9	29	20	57.42	9.99	3.10	64.94	999.00	49.22	9.80	3.47	65.42	60.24	5.24	10.14	65.86	999.00	-0.80	999.00	-0.31	0.00
23	9	29	21	80.00	9.82	2.56	64.58	999.00	70.50	9.64	2.87	65.05	78.90	5.29	10.47	65.31	999.00	-0.56	999.00	-0.11	0.00
23	9	29	22	77.00	8.29	2.54	64.38	999.00	68.81	8.12	2.93	64.83	83.60	3.92	8.79	64.75	999.00	-0.36	999.00	0.09	0.00
23	9	29	23	77.20	10.65	3.45	64.33	999.00	68.90	10.62	4.25	64.80	76.90	5.45	10.06	64.67	999.00	-0.25	999.00	0.21	0.00
23	9	29	24	79.10	8.51	4.13	64.30	999.00	70.10	8.09	4.65	64.72	75.60	3.06	10.35	64.49	999.00	-0.16	999.00	0.25	0.00
23	9	30	1	80.90	7.70	4.05	64.33	999.00	71.50	7.63	3.86	64.78	81.80	3.71	8.72	64.47	999.00	-0.07	999.00	0.40	0.00
23	9	30	2	94.50	8.72	4.87	64.47	999.00	85.20	8.35	5.66	64.91	141.80	2.53	8.91	63.67	999.00	2.28	999.00	2.69	0.00
23	9	30	3	91.00	6.69	2.38	64.64	999.00	83.60	6.41	2.88	65.03	267.50	2.12	10.51	61.67	999.00	3.57	999.00	3.99	0.00
23	9	30	4	82.20	7.28	3.15	64.55	999.00	72.90	7.19	3.26	64.98	165.90	1.40	38.91	61.41	999.00	2.41	999.00	2.86	0.00
23	9	30	5	77.50	7.04	4.15	64.55	999.00	68.63	6.80	3.94	64.98	276.30	1.23	33.70	61.41	999.00	2.90	999.00	3.35	0.00
23	9	30	6	69.74	7.53	2.71	64.35	999.00	60.83	7.18	3.03	64.83	265.90	1.72	19.61	61.28	999.00	3.19	999.00	3.65	0.00
23	9	30	7	58.64	8.12	5.89	64.41	999.00	50.14	7.85	5.97	64.91	65.38	2.80	23.44	62.74	999.00	0.39	999.00	0.88	0.00
23	9	30	8	59.32	6.85	4.33	64.37	999.00	50.59	6.76	4.62	64.84	80.30	1.71	26.66	63.92	999.00	0.43	999.00	0.89	0.00
23	9	30	9	52.98	7.21	6.38	64.66	999.00	46.23	7.32	5.02	65.07	59.67	4.55	10.84	64.50	999.00	-0.80	999.00	-0.43	0.00
23	9	30	10	59.65	10.67	7.29	65.23	999.00	52.87	9.98	8.24	65.62	61.08	7.53	15.06	66.42	999.00	-1.46	999.00	-1.11	0.00
23	9	30	11	71.00	11.74	7.21	65.72	999.00	62.33	11.49	8.19	66.28	68.12	8.72	12.57	67.62	999.00	-2.12	999.00	-1.50	0.00
23	9	30	12	86.70	11.42	6.22	65.46	999.00	77.70	11.25	5.95	66.11	87.90	7.92	16.54	67.87	999.00	-2.63	999.00	-2.01	0.00
23	9	30	13	92.20	9.95	12.12	65.87	999.00	83.50	9.65	14.41	66.48	82.50	7.30	17.85	68.67	999.00	-2.72	999.00	-2.09	0.00
23	9	30	14	82.80	10.32	5.34	66.45	999.00	72.80	10.33	6.04	66.98	85.00	7.61	15.22	69.14	999.00	-2.59	999.00	-2.10	0.00
23	9	30	15	69.29	7.76	14.63	67.22	999.00	58.42	7.98	12.99	67.66	61.78	6.71	21.34	69.24	999.00	-1.99	999.00	-1.56	0.00
23	9	30	16	98.40	6.84	16.39	67.13	999.00	87.80	6.56	20.86	67.58	85.30	5.14	33.45	69.52	999.00	-2.63	999.00	-2.11	0.00
23	9	30	17	98.40	7.22	8.87	67.29	999.00	89.50	7.13	10.45	67.73	98.90	5.20	21.05	69.93	999.00	-2.39	999.00	-1.95	0.00
23	9	30	18	93.00	7.02	8.74	67.38	999.00	84.20	7.11	9.90	67.85	94.40	5.14	20.22	69.55	999.00	-2.10	999.00	-1.61	0.00
23	9	30	19	79.20	6.76	3.24	67.08	999.00	66.87	6.63	3.33	67.51	74.60	3.84	11.43	68.63	999.00	-1.06	999.00	-0.69	0.00
23	9	30	20	94.40	7.01	2.78	66.76	999.00	83.90	6.65	3.38	67.06	81.30	2.98	13.21	67.07	999.00	-0.14	999.00	0.16	0.00
23	9	30	21	103.80	7.76	3.14	66.54	999.00	96.90	7.48	3.42	66.79	106.80	3.15	10.75	66.40	999.00	-0.07	999.00	0.35	0.00
23	9	30	22	108.60	6.93	3.48	66.15	999.00	100.90	6.46	3.40	66.53	151.70	1.75	12.00	65.93	999.00	0.68	999.00	1.06	0.00
23	9	30	23	101.70	8.16	3.06	66.04	999.00	91.10	7.54	2.94	66.41	75.60	2.67	18.16	65.08	999.00	0.82	999.00	1.14	0.00
23	9	30	24	91.00	8.03	2.99	66.17	999.00	82.70	7.65	3.58	66.55	91.40	2.42	13.28	65.70	999.00	0.44	999.00	0.82	0.00
23	10	1	1	94.80	7.54	2.21	66.34	999.00	86.10	7.14	3.06	66.76	168.20	1.69	9.04	65.01	999.00	2.22	999.00	2.64	0.00
23	10	1	2	91.70	5.71	3.56	66.04	999.00	93.30	4.48	4.30	66.22	239.70	2.53	9.22	62.31	999.00	3.94	999.00	3.85	0.00
23	10	1	3	66.01	6.15	3.18	65.36	999.00	61.62	4.94	3.73	65.59	248.10	1.21	20.99	61.86	999.00	3.38	999.00	3.66	0.00
23	10	1	4	90.40	7.95	2.49	65.09	999.00	84.40	7.35	2.17	65.39	179.40	2.24	14.78	61.50	999.00	3.93	999.00	4.30	0.00
23	10	1	5	103.10	6.68	2.12	64.72	999.00	101.70	5.74	1.94	64.92	183.00	1.52	22.66	58.91	999.00	6.11	999.00	6.30	0.00
23	10	1	6	75.20	7.26	4.33	64.49	999.00	64.12	6.28	4.88	64.75	286.90	1.76	27.80	58.67	999.00	5.09	999.00	5.42	0.00
23	10	1	7	69.35	8.14	2.92	64.81	999.00	59.94	7.75	2.89	65.09	236.50	1.98	13.79	60.05	999.00	4.90	999.00	5.32	0.00
23	10	1	8	84.40	9.85	4.19	65.00	999.00	76.20	9.69	3.88	65.42	205.90	2.37	29.26	59.29	999.00	6.28	999.00	6.72	0.00
23	10	1	9	106.20	6.45	5.64	64.65	999.00	101.90	5.08	4.33	64.79	238.40	2.66	14.32	57.71	999.00	6.55	999.00	6.49	0.00
23	10	1	10	78.70	7.39	4.78	64.98	999.00	74.10	5.86	5.09	64.90	228.90	2.36	15.01	60.65	999.00	3.77	999.00	3.67	0.00
23	10	1	11	110.80	6.33	14.53	65.25	999.00	106.90	6.02	15.25	65.52	116.70	4.20	26.62	65.34	999.00	-2.40	999.00	-1.75	0.00
23	10	1	12	89.50	7.07	20.48	66.11	999.00	80.10	6.71	20.34	66.83	66.63	5.72	13.83	68.53	999.00	-2.76	999.00	-1.98	0.00
23	10	1	13	89.10	8.71	11.29	66.40	999.00	78.90	8.61	13.01	66.97	76.10	6.84	17.55	68.93	999.00	-2.73	999.00	-2.08	0.00
23	10	1	14	70.10	8.57	11.90	66.83	999.00	60.85	8.70	13.26	67.29	64.99	7.06	19.98	69.07	999.00	-1.92	999.00	-1.55	0.00
23	10	1	15	72.80	6.95	16.03	67.36	999.00	60.12	7.08	15.76	67.76	58.32	6.68	20.46	69.10	999.00	-1.80	999.00	-1.39	0.00
23	10	1	16	90.80	8.41	8.90	67.02	999.00	80.30	8.22	9.82	67.51	87.20	6.59	20.19	69.73	999.00	-2.59	999.00	-2.13	0.00
23	10	1	17	68.25	7.34	10.58	68.01	999.00	61.08	7.53	8.33	68.37	73.60	6.75	14.87	70.13	999.00	-1.61	999.00	-1.34	0.00
23	10	1	18	82.20	6.42	8.25	68.29	999.00	72.10	6.20	9.93	68.69	78.20	4.51	18.97	70.06	999.00	-2.04	999.00	-1.50	0.00
23	10	1	19	84.30	7.41	3.02	68.06	999.00	76.00	7.04	3.76	68.48	78.00	4.54	11.73	69.57	999.00	-1.01	999.00	-0.61	0.00
23	10	1	20	89.20	9.54	4.30	67.80	999.00	81.70	8.65	4.74	68.09	98.00	3.32	11.34	67.94	999.00	0.14	999.00	0.37	0.00

23	10	1	21	91.90	8.58	3.00	68.72	999.00	91.20	7.39	3.01	68.21	91.80	2.52	9.57	67.67	999.00	1.67	999.00	0.72	0.00
23	10	1	22	86.30	9.63	1.50	69.66	999.00	84.40	8.51	1.73	68.35	100.50	3.28	8.07	67.65	999.00	2.52	999.00	0.89	0.00
23	10	1	23	80.60	7.74	1.51	68.50	999.00	71.70	7.05	1.63	68.11	83.50	3.53	8.40	67.02	999.00	0.38	999.00	0.53	0.00
23	10	1	24	120.30	8.66	2.47	67.83	999.00	111.70	7.45	2.91	67.78	164.30	2.63	9.23	65.95	999.00	2.87	999.00	3.02	0.00
23	10	2	1	125.20	7.22	1.39	67.21	999.00	116.20	6.43	1.10	67.43	234.30	2.31	3.29	64.48	999.00	2.83	999.00	3.10	0.00
23	10	2	2	95.80	4.27	5.82	66.63	999.00	85.70	3.17	6.39	66.80	302.50	1.00	28.13	63.51	999.00	3.45	999.00	3.59	0.00
23	10	2	3	111.10	5.40	3.68	66.56	999.00	96.60	3.69	5.99	66.49	233.20	1.18	18.68	62.97	999.00	3.93	999.00	3.51	0.00
23	10	2	4	101.20	5.01	2.84	66.65	999.00	87.20	3.74	3.99	66.49	198.20	0.93	16.94	62.05	999.00	4.51	999.00	4.51	0.00
23	10	2	5	142.70	8.45	1.49	66.86	999.00	142.60	6.36	2.67	66.51	181.70	2.96	6.91	62.20	999.00	5.20	999.00	4.72	0.00
23	10	2	6	161.00	7.99	3.74	66.99	999.00	148.60	7.26	1.73	66.95	231.30	2.25	6.87	61.65	999.00	5.60	999.00	5.84	0.00
23	10	2	7	200.90	7.91	3.57	65.49	999.00	188.50	4.92	4.96	64.94	348.30	0.72	55.95	59.55	999.00	5.66	999.00	4.81	0.00
23	10	2	8	125.90	2.40	10.34	64.83	999.00	85.70	3.65	11.83	64.20	108.00	1.82	12.22	60.27	999.00	2.58	999.00	2.78	0.00
23	10	2	9	158.50	1.97	12.81	64.83	999.00	131.90	2.64	9.44	64.20	187.50	1.53	29.06	60.27	999.00	1.70	999.00	2.21	0.00
23	10	2	10	224.60	2.70	31.68	65.82	999.00	191.40	2.12	37.60	66.39	133.20	1.51	40.16	66.81	999.00	-2.02	999.00	-0.41	0.00
23	10	2	11	91.00	3.79	22.39	66.89	999.00	82.30	3.81	18.43	67.88	81.00	3.16	31.17	69.24	999.00	-2.42	999.00	-1.60	0.00
23	10	2	12	109.80	4.17	25.81	67.80	999.00	95.50	4.24	19.25	68.33	83.40	4.14	22.15	69.80	999.00	-2.15	999.00	-1.62	0.00
23	10	2	13	77.20	3.79	16.36	69.32	999.00	74.50	4.22	14.81	69.67	79.60	4.51	17.86	71.13	999.00	-1.33	999.00	-1.34	0.00
23	10	2	14	82.00	5.78	14.59	70.54	999.00	66.07	6.10	11.19	71.04	55.40	5.86	16.50	72.68	999.00	-1.96	999.00	-1.50	0.00
23	10	2	15	70.60	6.54	8.50	71.04	999.00	59.54	6.76	9.32	71.33	57.07	6.37	14.15	72.28	999.00	-1.77	999.00	-1.37	0.00
23	10	2	16	74.00	7.05	6.92	71.21	999.00	63.39	7.01	8.85	71.51	60.03	6.21	16.78	73.00	999.00	-2.13	999.00	-1.65	0.00
23	10	2	17	80.00	7.35	5.84	71.40	999.00	72.90	7.04	8.74	71.71	83.90	5.44	17.51	73.57	999.00	-2.22	999.00	-1.83	0.00
23	10	2	18	68.64	7.07	3.46	71.74	999.00	64.84	6.09	5.96	71.91	77.30	3.88	16.63	73.38	999.00	-0.86	999.00	-1.08	0.00
23	10	2	19	72.80	10.01	3.32	72.27	999.00	66.09	9.25	3.58	71.66	75.40	4.31	11.39	72.22	999.00	0.67	999.00	-0.01	0.00
23	10	2	20	103.60	11.28	1.79	72.02	999.00	94.80	11.12	1.68	71.35	99.00	4.36	11.15	70.45	999.00	1.93	999.00	1.56	0.00
23	10	2	21	115.10	13.71	1.15	71.33	999.00	111.90	11.60	1.88	70.56	119.00	4.07	10.27	69.46	999.00	1.75	999.00	1.00	0.00
23	10	2	22	130.40	11.85	1.06	72.27	999.00	127.80	12.38	1.43	70.30	151.50	3.15	14.67	68.59	999.00	5.13	999.00	2.64	0.00
23	10	2	23	137.30	13.23	0.46	73.19	999.00	129.00	12.88	1.29	70.97	157.20	2.65	11.80	67.78	999.00	5.88	999.00	4.22	0.00
23	10	2	24	132.00	14.51	1.19	70.91	999.00	120.70	11.49	0.89	69.89	136.10	3.34	10.02	67.22	999.00	2.52	999.00	1.86	0.00
23	10	3	1	143.30	14.90	1.36	70.48	999.00	139.30	13.59	1.50	69.48	150.60	2.75	13.00	67.31	999.00	4.21	999.00	3.39	0.00
23	10	3	2	152.00	14.43	2.22	72.20	999.00	146.80	14.87	2.75	70.89	177.40	2.15	14.85	66.15	999.00	6.99	999.00	5.74	0.00
23	10	3	3	165.40	13.92	0.65	72.78	999.00	156.10	14.45	0.61	70.29	170.20	1.86	17.62	64.78	999.00	999.00	999.00	5.23	0.00
23	10	3	4	194.20	12.66	1.92	999.00	999.00	180.80	14.70	2.02	70.61	203.90	3.07	9.84	64.21	999.00	999.00	999.00	7.67	0.00
23	10	3	5	218.20	12.22	3.00	71.74	999.00	198.30	12.60	1.38	71.30	217.50	3.46	8.33	63.73	999.00	7.96	999.00	7.29	0.00
23	10	3	6	215.50	13.73	2.67	71.87	999.00	206.80	10.65	2.78	71.28	182.70	3.35	12.78	63.95	999.00	7.97	999.00	7.86	0.00
23	10	3	7	221.10	12.80	2.66	70.53	999.00	211.80	8.98	1.88	67.95	158.40	1.57	17.86	62.78	999.00	7.67	999.00	4.43	0.00
23	10	3	8	220.60	14.31	2.18	70.92	999.00	213.00	11.12	3.29	68.01	163.70	3.07	10.36	63.17	999.00	7.85	999.00	5.03	0.00
23	10	3	9	220.70	8.16	1.02	70.73	999.00	209.00	9.91	2.20	68.64	167.60	3.35	13.93	63.75	999.00	5.88	999.00	4.09	0.00
23	10	3	10	235.40	7.95	2.32	70.43	999.00	212.50	7.66	6.24	69.96	213.10	4.27	14.32	66.80	999.00	1.94	999.00	1.21	0.00
23	10	3	11	216.90	5.74	10.16	70.70	999.00	211.10	5.06	12.51	71.01	238.40	5.05	12.18	71.68	999.00	-2.13	999.00	-0.97	0.00
23	10	3	12	232.00	4.17	15.46	74.07	999.00	226.40	3.97	17.11	74.95	232.50	3.29	38.69	76.15	999.00	-2.18	999.00	-1.32	0.00
23	10	3	13	146.80	3.10	32.38	76.94	999.00	109.50	4.00	16.03	77.47	120.20	4.53	16.84	79.23	999.00	-1.73	999.00	-1.63	0.00
23	10	3	14	110.10	7.62	3.81	76.91	999.00	95.30	7.91	6.52	76.89	105.70	5.13	17.31	78.40	999.00	-1.00	999.00	-1.18	0.00
23	10	3	15	107.80	9.65	6.85	77.61	999.00	95.00	8.13	10.43	77.69	88.40	6.11	16.53	79.20	999.00	-2.22	999.00	-1.98	0.00
23	10	3	16	107.80	11.69	2.46	78.03	999.00	93.40	11.31	5.69	77.90	105.00	6.83	14.38	79.52	999.00	-1.03	999.00	-1.32	0.00
23	10	3	17	100.50	13.72	1.28	77.81	999.00	89.50	13.31	4.41	77.30	92.70	6.43	15.06	78.68	999.00	-0.35	999.00	-1.05	0.00
23	10	3	18	102.80	13.89	1.30	78.24	999.00	91.40	13.41	3.38	77.46	96.10	5.45	14.27	77.55	999.00	1.29	999.00	0.05	0.00
23	10	3	19	109.20	15.57	1.17	77.41	999.00	101.10	14.64	1.76	76.41	107.60	5.50	15.22	74.95	999.00	3.08	999.00	2.22	0.00
23	10	3	20	117.40	14.86	1.50	76.04	999.00	109.10	14.23	2.73	75.63	101.90	5.76	13.13	72.65	999.00	3.20	999.00	2.93	0.00
23	10	3	21	121.20	18.41	1.19	73.83	999.00	112.80	15.09	1.89	73.41	114.90	5.35	14.96	71.95	999.00	1.53	999.00	1.09	0.00
23	10	3	22	125.70	18.62	1.67	73.51	999.00	116.30	15.14	2.42	72.80	110.50	4.88	15.65	71.32	999.00	1.99	999.00	1.48	0.00
23	10	3	23	137.60	18.25	1.80	74.46	999.00	122.20	15.48	1.10	73.51	125.50	3.97	12.70	70.98	999.00	4.22	999.00	3.11	0.00
23	10	3	24	160.20	17.82	1.04	74.28	999.00	143.50	13.60	2.16	72.99	136.30	3.51	11.01	70.70	999.00	4.28	999.00	2.20	0.00
23	10	4	1	170.70	20.32	1.83	74.82	999.00	157.20	15.37	2.39	72.74	148.60	3.33	15.78	69.76	999.00	5.31	999.00	3.07	0.00

23	10	4	2	176.30	21.11	0.96	75.47	999.00	168.20	14.74	1.46	72.68	171.00	2.24	19.35	69.02	999.00	6.58	999.00	4.21	0.00
23	10	4	3	183.10	21.34	0.89	73.90	999.00	172.50	16.65	1.27	71.87	177.40	3.36	13.49	67.87	999.00	6.03	999.00	4.09	0.00
23	10	4	4	191.00	22.64	1.96	72.89	999.00	178.00	17.54	1.92	71.37	175.40	3.71	15.05	67.50	999.00	5.31	999.00	3.91	0.00
23	10	4	5	194.90	23.54	1.19	72.19	999.00	183.70	17.31	2.03	70.30	181.30	3.69	15.42	67.27	999.00	5.59	999.00	3.20	0.00
23	10	4	6	195.50	24.55	1.00	72.85	999.00	183.30	18.00	2.43	70.22	193.00	3.60	16.17	66.86	999.00	6.13	999.00	3.44	0.00
23	10	4	7	204.00	23.41	1.48	71.90	999.00	192.10	17.29	2.53	69.68	188.40	3.87	14.60	66.38	999.00	5.86	999.00	3.49	0.00
23	10	4	8	201.80	20.82	1.29	70.72	999.00	190.40	15.63	1.68	68.70	199.10	4.36	14.02	65.87	999.00	4.52	999.00	2.61	0.00
23	10	4	9	203.80	19.61	2.62	70.21	999.00	194.00	13.99	4.59	68.37	203.80	4.03	16.98	66.15	999.00	2.63	999.00	1.38	0.00
23	10	4	10	203.50	15.67	4.03	68.55	999.00	193.70	13.36	4.83	68.86	198.70	6.80	15.80	69.08	999.00	-0.60	999.00	-0.17	0.00
23	10	4	11	197.70	11.12	6.63	72.00	999.00	189.50	10.05	7.33	73.22	195.30	5.65	18.45	73.50	999.00	-1.85	999.00	-0.26	0.00
23	10	4	12	184.80	12.83	11.54	76.19	999.00	177.80	12.29	10.95	77.87	187.20	6.78	21.24	78.30	999.00	-2.10	999.00	-0.70	0.00
23	10	4	13	185.90	12.84	6.71	78.72	999.00	178.90	12.29	7.28	79.91	184.60	6.51	24.25	80.65	999.00	-1.65	999.00	-0.66	0.00
23	10	4	14	179.40	10.35	8.08	79.56	999.00	171.70	9.44	9.09	80.42	170.90	4.21	24.78	81.03	999.00	-1.66	999.00	-0.77	0.00
23	10	4	15	154.10	16.08	8.09	80.76	999.00	144.80	15.57	9.18	81.43	146.00	8.24	22.47	82.97	999.00	-1.91	999.00	-1.44	0.00
23	10	4	16	171.70	12.05	4.62	81.41	999.00	163.30	10.72	5.42	81.92	160.60	3.02	26.62	82.25	999.00	0.11	999.00	0.54	0.00
23	10	4	17	163.60	7.58	12.85	81.13	999.00	136.30	7.05	19.81	81.30	94.80	4.54	12.05	80.07	999.00	2.21	999.00	1.76	0.00
23	10	4	18	180.20	15.36	3.79	80.90	999.00	173.50	13.22	4.71	80.52	174.00	3.75	27.04	78.72	999.00	1.53	999.00	1.78	0.00
23	10	4	19	193.30	11.28	4.02	81.32	999.00	179.30	10.12	3.31	81.55	166.90	2.41	15.97	80.00	999.00	2.48	999.00	2.56	0.00
23	10	4	20	186.70	16.21	1.88	81.25	999.00	173.40	14.73	2.05	81.16	169.30	1.90	15.52	76.90	999.00	5.05	999.00	4.78	0.00
23	10	4	21	188.80	17.98	3.22	79.27	999.00	171.30	15.32	2.99	78.65	162.50	3.32	18.79	74.90	999.00	4.21	999.00	3.37	0.00
23	10	4	22	180.20	19.54	3.12	76.92	999.00	164.40	16.25	2.61	75.75	161.30	3.78	18.27	73.00	999.00	4.43	999.00	2.87	0.00
23	10	4	23	190.40	19.71	2.59	75.91	999.00	175.80	16.07	2.63	74.44	176.00	4.40	16.81	71.83	999.00	3.96	999.00	2.72	0.00
23	10	4	24	184.40	20.03	2.62	74.33	999.00	171.00	16.49	2.72	73.05	172.90	4.68	17.82	70.68	999.00	3.52	999.00	2.36	0.00
23	10	5	1	191.00	20.92	2.34	72.87	999.00	178.40	16.64	2.90	71.94	178.70	4.15	18.90	69.90	999.00	2.98	999.00	1.97	0.00
23	10	5	2	197.30	21.59	2.20	72.14	999.00	183.70	17.24	3.14	71.06	183.50	4.80	19.44	69.11	999.00	2.97	999.00	1.89	0.00
23	10	5	3	206.50	19.93	2.85	70.92	999.00	194.10	15.88	3.85	70.22	194.10	5.36	15.70	68.68	999.00	1.48	999.00	0.96	0.00
23	10	5	4	213.20	19.64	2.64	69.31	999.00	201.20	15.92	2.57	68.57	204.50	5.09	16.65	67.51	999.00	1.69	999.00	1.03	0.00
23	10	5	5	199.90	21.82	2.66	68.74	999.00	185.20	18.03	3.26	67.66	187.70	5.34	18.53	66.42	999.00	2.51	999.00	1.30	0.00
23	10	5	6	207.40	20.71	2.91	68.44	999.00	196.10	16.80	4.36	67.70	200.30	5.55	18.56	66.56	999.00	1.67	999.00	0.98	0.00
23	10	5	7	208.70	20.88	2.40	68.44	999.00	196.60	17.28	2.84	67.70	198.70	6.38	14.39	66.56	999.00	1.31	999.00	0.57	0.00
23	10	5	8	199.90	20.31	2.87	67.13	999.00	189.00	16.77	3.42	66.51	194.40	6.05	15.92	65.79	999.00	1.24	999.00	0.76	0.00
23	10	5	9	196.40	19.72	3.32	67.06	999.00	185.60	16.50	4.35	66.74	191.70	6.23	15.78	66.25	999.00	0.52	999.00	0.35	0.00
23	10	5	10	201.20	16.81	4.44	67.08	999.00	193.80	14.03	6.25	67.19	207.00	6.18	17.24	67.36	999.00	-0.51	999.00	-0.30	0.00
23	10	5	11	199.90	15.70	4.11	67.59	999.00	191.30	13.42	5.65	67.86	202.10	6.58	15.63	68.15	999.00	-0.72	999.00	-0.36	0.00
23	10	5	12	210.70	14.05	2.93	68.32	999.00	201.80	11.62	3.69	68.66	206.00	4.77	14.08	69.10	999.00	-0.44	999.00	-0.23	0.00
23	10	5	13	200.10	13.06	2.50	69.70	999.00	189.40	10.79	3.50	69.69	185.60	2.96	18.80	68.75	999.00	0.75	999.00	0.88	0.00
23	10	5	14	170.20	10.35	5.00	70.84	999.00	162.40	8.74	5.22	71.15	159.60	2.67	22.41	70.70	999.00	0.00	999.00	0.35	0.09
23	10	5	15	270.60	10.97	18.66	70.09	999.00	269.20	10.31	13.24	70.22	285.40	6.90	10.79	69.89	999.00	-0.13	999.00	0.05	0.00
23	10	5	16	222.10	13.68	7.28	66.90	999.00	212.40	11.86	8.23	67.06	209.70	5.35	16.56	65.68	999.00	0.91	999.00	1.36	0.24
23	10	5	17	216.60	16.21	4.18	63.39	999.00	207.10	13.59	5.30	63.87	210.70	6.05	15.05	63.03	999.00	-0.11	999.00	0.37	0.06
23	10	5	18	229.10	18.66	5.72	62.31	999.00	220.10	15.95	6.55	62.72	225.40	8.05	13.56	62.45	999.00	0.08	999.00	0.54	0.02
23	10	5	19	231.90	20.40	6.74	62.99	999.00	222.90	17.89	7.96	63.52	231.00	10.24	13.05	62.94	999.00	0.13	999.00	0.69	0.01
23	10	5	20	233.40	17.39	4.57	62.66	999.00	225.20	15.04	6.20	63.29	228.00	7.51	15.31	62.29	999.00	0.23	999.00	0.74	0.01
23	10	5	21	209.60	18.66	4.76	62.36	999.00	200.30	16.03	5.73	62.84	205.30	7.18	15.07	62.08	999.00	0.19	999.00	0.66	0.01
23	10	5	22	208.10	16.33	4.51	62.11	999.00	198.50	14.29	4.82	62.56	202.50	6.70	15.36	62.18	999.00	-0.21	999.00	0.25	0.02
23	10	5	23	192.50	12.26	4.18	61.74	999.00	185.60	10.30	5.51	62.15	195.50	4.22	16.88	62.11	999.00	-0.46	999.00	-0.08	0.00
23	10	5	24	192.90	15.74	7.71	61.48	999.00	186.50	13.38	9.17	61.85	201.50	5.97	20.84	62.01	999.00	-0.42	999.00	-0.10	0.00
23	10	6	1	246.40	14.79	4.76	60.71	999.00	239.00	13.31	5.34	61.09	247.60	9.11	9.57	61.31	999.00	-0.70	999.00	-0.27	0.00
23	10	6	2	245.40	17.47	6.11	60.75	999.00	237.00	16.06	6.55	61.28	243.50	11.08	11.73	61.50	999.00	-0.71	999.00	-0.11	0.00
23	10	6	3	245.30	16.70	5.00	60.19	999.00	237.50	15.07	5.04	60.86	244.30	9.77	10.57	60.81	999.00	-0.63	999.00	0.11	0.00
23	10	6	4	242.20	16.44	4.08	59.64	999.00	234.30	14.35	4.69	60.15	238.90	8.90	9.45	60.02	999.00	-0.23	999.00	0.07	0.00
23	10	6	5	232.10	16.64	3.55	58.86	999.00	222.50	14.48	4.69	59.07	223.00	7.03	12.37	58.86	999.00	-0.05	999.00	0.20	0.00
23	10	6	6	238.20	16.66	3.37	58.16	999.00	229.60	14.45	4.68	58.34	231.50	7.29	12.02	58.19	999.00	-0.02	999.00	0.17	0.00

23	10	6	7	240.70	14.56	3.83	57.96	999.00	232.30	12.56	4.68	58.12	230.80	6.27	11.82	57.94	999.00	-0.11	999.00	0.16	0.00
23	10	6	8	233.50	13.83	3.73	57.40	999.00	221.90	11.74	5.27	57.61	220.70	5.52	14.91	57.86	999.00	-0.56	999.00	-0.35	0.00
23	10	6	9	235.40	14.43	4.32	57.09	999.00	225.40	12.49	5.90	57.34	228.60	6.53	14.49	57.84	999.00	-1.03	999.00	-0.67	0.00
23	10	6	10	248.30	14.14	5.36	57.85	999.00	240.30	13.82	4.96	58.31	244.50	10.51	10.63	59.15	999.00	-1.19	999.00	-0.72	0.00
23	10	6	11	264.00	12.89	9.13	59.63	999.00	255.10	12.38	9.25	60.19	260.10	9.24	15.34	61.74	999.00	-2.46	999.00	-1.85	0.00
23	10	6	12	258.80	17.60	9.30	61.81	999.00	250.70	17.15	10.82	62.39	256.30	12.93	14.70	64.13	999.00	-2.23	999.00	-1.66	0.00
23	10	6	13	255.40	19.38	10.32	62.99	999.00	247.60	18.40	11.16	63.52	254.40	12.88	16.48	65.20	999.00	-2.32	999.00	-1.79	0.00
23	10	6	14	253.00	19.89	8.28	63.62	999.00	245.80	19.53	8.99	64.15	254.10	15.05	13.90	65.94	999.00	-2.23	999.00	-1.75	0.00
23	10	6	15	254.00	21.61	6.43	64.03	999.00	245.90	20.78	7.07	64.56	250.20	14.05	12.98	66.42	999.00	-2.37	999.00	-1.83	0.00
23	10	6	16	248.50	19.62	8.64	64.28	999.00	242.00	17.79	10.18	64.76	251.90	12.03	13.39	66.63	999.00	-2.49	999.00	-1.96	0.00
23	10	6	17	247.50	17.51	8.76	64.73	999.00	240.70	16.97	9.37	65.22	247.50	12.43	13.48	66.96	999.00	-1.97	999.00	-1.50	0.00
23	10	6	18	251.50	17.89	7.40	64.78	999.00	244.30	16.87	8.25	65.29	252.00	11.08	13.34	66.45	999.00	-1.45	999.00	-0.96	0.00
23	10	6	19	268.00	18.66	4.35	63.89	999.00	259.80	16.22	4.86	64.27	264.30	8.11	11.75	64.43	999.00	0.18	999.00	0.42	0.00
23	10	6	20	269.90	17.56	2.47	61.71	999.00	261.20	14.83	3.54	61.77	265.20	6.04	9.56	60.82	999.00	1.10	999.00	1.06	0.00
23	10	6	21	289.50	28.98	6.33	59.37	999.00	281.80	26.50	6.54	59.55	287.90	17.81	11.15	59.38	999.00	-1.45	999.00	-0.96	0.00
23	10	6	22	279.10	20.76	4.26	52.24	999.00	270.70	18.06	5.67	52.63	274.10	9.48	11.26	53.08	999.00	-0.34	999.00	-0.06	0.00
23	10	6	23	264.90	22.20	6.38	51.22	999.00	258.30	19.96	7.45	51.61	263.80	12.32	11.98	51.92	999.00	-0.88	999.00	-0.45	0.00
23	10	6	24	255.80	21.11	8.11	49.75	999.00	248.80	20.22	8.15	50.22	254.60	13.97	13.93	50.88	999.00	-1.27	999.00	-0.78	0.00
23	10	7	1	256.10	20.04	7.28	47.72	999.00	251.00	18.26	8.02	48.21	261.10	12.68	11.62	48.94	999.00	-1.04	999.00	-0.59	0.00
23	10	7	2	245.00	19.42	5.62	45.68	999.00	238.10	18.41	5.60	46.20	242.00	12.07	11.59	46.93	999.00	-1.27	999.00	-0.77	0.00
23	10	7	3	244.30	16.02	6.86	44.45	999.00	235.00	14.84	7.09	44.95	233.20	10.14	13.68	45.60	999.00	-1.09	999.00	-0.64	0.00
23	10	7	4	246.10	18.00	4.80	43.15	999.00	237.90	16.48	5.23	43.54	236.30	9.90	12.47	44.06	999.00	-0.97	999.00	-0.57	0.00
23	10	7	5	241.90	19.64	4.68	42.63	999.00	235.90	18.08	5.36	43.09	237.10	11.67	10.80	43.76	999.00	-1.13	999.00	-0.68	0.00
23	10	7	6	243.50	16.49	6.18	42.67	999.00	235.70	15.71	6.28	43.16	237.80	10.91	11.39	43.91	999.00	-1.26	999.00	-0.79	0.00
23	10	7	7	253.10	15.61	6.80	42.40	999.00	245.10	14.27	6.60	42.85	248.70	9.77	9.73	43.49	999.00	-1.15	999.00	-0.71	0.00
23	10	7	8	259.10	17.52	5.85	42.55	999.00	252.20	14.74	6.97	42.90	258.10	8.74	11.28	43.51	999.00	-0.72	999.00	-0.42	0.00
23	10	7	9	257.90	17.14	6.82	42.71	999.00	251.10	15.13	7.34	43.12	256.70	10.15	12.11	43.88	999.00	-1.34	999.00	-0.95	0.00
23	10	7	10	274.40	14.91	8.86	44.85	999.00	267.50	14.44	9.43	45.29	270.80	11.18	15.54	46.89	999.00	-2.24	999.00	-1.77	0.00
23	10	7	11	289.70	15.94	11.96	47.79	999.00	283.50	15.62	11.28	48.35	287.40	11.71	14.81	50.47	999.00	-2.81	999.00	-2.21	0.00
23	10	7	12	293.10	19.89	7.50	49.47	999.00	286.50	19.20	8.27	50.03	289.00	13.48	13.96	52.29	999.00	-2.89	999.00	-2.29	0.00
23	10	7	13	294.20	18.44	9.94	50.50	999.00	287.90	17.67	10.39	51.02	294.70	11.85	15.86	52.65	999.00	-1.91	999.00	-1.41	0.00
23	10	7	14	293.80	17.72	8.85	51.84	999.00	286.30	17.11	8.54	52.40	288.90	13.06	13.40	54.58	999.00	-2.71	999.00	-2.18	0.00
23	10	7	15	291.10	17.89	8.44	52.27	999.00	282.20	16.96	9.63	52.80	284.70	11.37	15.76	54.68	999.00	-2.51	999.00	-1.91	0.00
23	10	7	16	282.70	20.01	13.22	53.24	999.00	275.80	19.20	13.84	53.74	279.60	13.63	16.43	55.60	999.00	-2.42	999.00	-1.91	0.00
23	10	7	17	296.40	23.61	7.41	54.22	999.00	289.00	22.38	8.20	54.73	295.50	13.65	15.08	56.43	999.00	-2.11	999.00	-1.61	0.00
23	10	7	18	281.30	20.36	9.45	54.14	999.00	273.80	19.15	9.87	54.62	276.20	12.36	15.04	55.82	999.00	-1.74	999.00	-1.23	0.00
23	10	7	19	282.60	24.15	4.72	53.08	999.00	274.70	22.97	5.44	53.52	279.00	14.14	11.97	54.26	999.00	-0.99	999.00	-0.55	0.00
23	10	7	20	289.40	22.33	6.19	51.67	999.00	280.60	20.19	6.42	52.02	281.20	12.32	11.98	52.12	999.00	-0.59	999.00	-0.22	0.00
23	10	7	21	291.70	23.24	5.09	51.67	999.00	283.50	20.72	5.66	52.02	284.50	12.53	10.96	52.12	999.00	-0.54	999.00	-0.20	0.00
23	10	7	22	295.90	24.60	5.65	49.37	999.00	286.90	22.20	6.43	49.78	287.30	14.28	10.32	50.30	999.00	-0.89	999.00	-0.50	0.00
23	10	7	23	302.60	24.82	6.58	48.34	999.00	293.80	22.95	6.42	48.73	295.60	13.74	11.42	49.15	999.00	-0.83	999.00	-0.45	0.00
23	10	7	24	298.60	23.51	5.16	47.48	999.00	289.00	21.30	5.64	47.84	286.60	13.94	10.41	48.24	999.00	-0.66	999.00	-0.33	0.00
23	10	8	1	318.50	26.03	6.32	47.57	999.00	310.90	25.15	7.01	47.93	317.60	15.50	13.47	48.19	999.00	-0.94	999.00	-0.48	0.00
23	10	8	2	283.10	18.15	4.25	46.92	999.00	269.40	16.27	5.29	47.28	266.60	8.57	11.84	47.75	999.00	-0.40	999.00	-0.31	0.00
23	10	8	3	278.80	19.58	3.66	43.80	999.00	265.20	16.74	5.01	43.83	260.80	8.18	10.54	43.87	999.00	0.23	999.00	0.12	0.00
23	10	8	4	280.90	20.92	3.05	42.60	999.00	265.90	18.02	4.89	42.32	258.40	8.83	10.20	42.08	999.00	0.62	999.00	0.25	0.00
23	10	8	5	273.70	19.46	3.95	41.61	999.00	261.70	16.06	5.23	41.40	258.80	8.32	10.62	41.26	999.00	0.00	999.00	-0.03	0.00
23	10	8	6	278.10	21.32	3.67	40.63	999.00	267.10	17.88	4.57	40.57	262.90	9.30	10.64	40.43	999.00	0.26	999.00	0.19	0.00
23	10	8	7	273.00	22.39	3.72	40.69	999.00	260.90	19.12	5.01	40.54	255.30	9.91	9.87	40.27	999.00	0.25	999.00	0.12	0.00
23	10	8	8	273.40	22.03	3.49	40.06	999.00	262.40	18.26	4.90	39.95	261.00	9.00	11.14	39.79	999.00	0.29	999.00	0.12	0.00
23	10	8	9	274.00	18.86	5.98	40.32	999.00	266.70	16.80	6.77	40.42	271.90	10.39	12.01	40.95	999.00	-1.28	999.00	-0.97	0.00
23	10	8	10	285.20	19.05	6.95	42.49	999.00	278.40	18.45	8.05	42.94	283.90	13.12	13.38	44.57	999.00	-2.48	999.00	-1.95	0.00
23	10	8	11	288.00	19.90	7.74	44.68	999.00	280.00	19.69	8.16	45.25	283.30	14.52	12.46	47.41	999.00	-2.73	999.00	-2.17	0.00

23	10	8	12	293.20	21.74	8.13	46.30	999.00	285.00	21.46	8.80	46.87	289.60	15.45	14.26	49.21	999.00	-2.97	999.00	-2.43	0.00
23	10	8	13	290.00	22.37	8.50	48.00	999.00	282.40	21.88	9.35	48.59	285.70	16.03	14.75	51.20	999.00	-3.24	999.00	-2.68	0.00
23	10	8	14	294.30	22.11	11.32	50.18	999.00	285.80	21.38	12.26	50.78	288.40	15.95	16.31	53.46	999.00	-3.24	999.00	-2.65	0.00
23	10	8	15	301.40	19.88	9.82	51.65	999.00	294.50	19.29	10.58	52.24	304.40	13.61	14.88	54.86	999.00	-3.24	999.00	-2.62	0.00
23	10	8	16	290.40	21.60	7.35	52.60	999.00	282.70	20.62	7.80	53.13	288.10	15.52	11.70	55.78	999.00	-3.04	999.00	-2.52	0.00
23	10	8	17	304.10	19.34	7.61	53.10	999.00	297.50	19.03	9.20	53.63	307.30	12.71	15.87	55.99	999.00	-2.61	999.00	-2.11	0.00
23	10	8	18	290.00	20.38	6.12	53.58	999.00	281.90	19.19	7.12	54.07	284.60	12.58	12.14	55.47	999.00	-1.87	999.00	-1.38	0.00
23	10	8	19	273.00	19.25	6.05	52.99	999.00	264.90	17.84	6.56	53.39	270.10	11.41	11.29	53.63	999.00	-0.60	999.00	-0.19	0.00
23	10	8	20	272.70	20.53	3.24	50.99	999.00	263.30	17.71	5.01	51.30	266.00	9.10	10.53	51.32	999.00	0.13	999.00	0.29	0.00
23	10	8	21	264.30	20.58	4.12	49.41	999.00	255.30	18.00	5.38	49.63	258.10	9.91	11.35	49.56	999.00	-0.45	999.00	-0.21	0.00
23	10	8	22	267.90	18.47	5.72	47.43	999.00	258.90	15.56	6.03	47.57	258.10	7.79	11.05	47.46	999.00	0.17	999.00	0.27	0.00
23	10	8	23	279.80	20.13	4.70	46.71	999.00	270.70	17.44	5.74	46.84	271.10	9.97	11.13	46.78	999.00	-0.42	999.00	-0.19	0.00
23	10	8	24	281.60	19.82	2.68	45.87	999.00	271.50	16.85	4.05	45.90	271.70	7.94	9.87	45.56	999.00	0.64	999.00	0.56	0.00
23	10	9	1	281.10	18.06	2.88	45.87	999.00	267.50	15.46	4.14	45.90	262.50	6.98	10.72	45.56	999.00	0.37	999.00	0.24	0.00
23	10	9	2	274.30	14.14	4.40	44.42	999.00	257.70	12.40	3.93	44.19	255.00	6.91	8.86	44.14	999.00	0.03	999.00	-0.14	0.00
23	10	9	3	275.20	15.05	2.72	44.19	999.00	256.60	13.53	3.45	44.01	254.30	7.15	9.79	44.03	999.00	0.39	999.00	0.19	0.00
23	10	9	4	283.70	16.00	3.62	44.19	999.00	266.30	14.07	5.39	44.01	250.40	7.48	10.83	44.03	999.00	0.67	999.00	0.44	0.00
23	10	9	5	258.80	14.00	4.93	43.77	999.00	245.40	12.48	5.29	43.76	247.10	8.11	10.07	44.31	999.00	-0.73	999.00	-0.68	0.00
23	10	9	6	262.60	11.14	5.82	43.88	999.00	252.40	9.66	6.45	44.14	259.40	5.29	10.71	44.66	999.00	-0.58	999.00	-0.26	0.00
23	10	9	7	246.50	12.14	4.73	43.84	999.00	234.00	11.15	5.13	44.15	223.20	5.40	12.85	44.60	999.00	-0.76	999.00	-0.50	0.00
23	10	9	8	246.40	11.89	3.53	43.10	999.00	236.10	10.27	4.92	43.29	232.90	6.10	12.07	43.87	999.00	-0.80	999.00	-0.62	0.00
23	10	9	9	233.30	10.83	4.65	42.93	999.00	221.70	9.26	6.08	43.08	222.10	5.66	13.00	43.89	999.00	-1.26	999.00	-0.98	0.00
23	10	9	10	243.10	9.94	6.23	43.70	999.00	235.40	9.42	6.08	44.08	237.80	6.57	12.94	45.22	999.00	-1.64	999.00	-1.22	0.00
23	10	9	11	264.50	9.80	10.28	45.52	999.00	257.60	9.47	11.23	45.99	265.20	7.71	15.03	47.39	999.00	-2.15	999.00	-1.66	0.00
23	10	9	12	262.20	11.28	11.40	47.23	999.00	251.20	11.00	10.69	47.76	254.50	8.23	15.78	49.53	999.00	-2.63	999.00	-2.04	0.00
23	10	9	13	285.40	12.51	10.41	48.98	999.00	280.90	12.14	10.74	49.51	287.60	8.54	15.95	51.30	999.00	-1.95	999.00	-1.46	0.00
23	10	9	14	255.20	19.25	7.39	50.40	999.00	247.70	18.82	8.43	50.92	250.30	13.64	14.06	52.83	999.00	-2.87	999.00	-2.34	0.00
23	10	9	15	289.60	17.35	9.10	51.56	999.00	282.20	16.53	9.40	52.09	291.00	11.73	15.17	54.12	999.00	-2.34	999.00	-1.79	0.00
23	10	9	16	285.60	22.16	7.02	52.54	999.00	279.40	21.05	7.62	53.07	285.90	14.32	14.19	54.93	999.00	-2.41	999.00	-1.88	0.00
23	10	9	17	281.70	22.18	6.76	52.90	999.00	274.20	21.24	6.99	53.41	279.80	14.95	11.98	54.83	999.00	-1.80	999.00	-1.29	0.00
23	10	9	18	278.20	19.97	7.36	52.93	999.00	269.50	18.60	7.63	53.43	273.70	12.18	14.13	54.71	999.00	-1.67	999.00	-1.21	0.00
23	10	9	19	280.40	16.06	5.01	52.38	999.00	272.40	14.58	5.56	52.75	275.90	8.32	9.77	53.08	999.00	-0.39	999.00	-0.06	0.00
23	10	9	20	294.80	19.84	3.90	52.38	999.00	286.20	17.16	4.58	52.75	285.10	8.39	10.47	53.08	999.00	1.02	999.00	1.22	0.00
23	10	9	21	277.50	19.40	1.94	49.83	999.00	268.30	16.68	3.31	49.88	267.50	7.24	9.41	48.69	999.00	1.29	999.00	1.23	0.00
23	10	9	22	280.40	18.60	2.06	48.68	999.00	269.70	16.12	3.03	48.63	262.60	6.25	8.68	47.21	999.00	1.58	999.00	1.48	0.00
23	10	9	23	273.20	16.04	2.86	47.90	999.00	256.80	12.50	4.78	47.41	222.20	4.83	11.99	46.03	999.00	2.21	999.00	1.56	0.00
23	10	9	24	256.90	15.98	4.46	47.30	999.00	241.00	14.98	5.41	46.70	216.10	5.34	10.82	43.65	999.00	4.05	999.00	3.57	0.00
23	10	10	1	242.80	18.27	1.34	46.85	999.00	227.60	16.37	1.78	45.68	217.70	4.49	10.98	42.81	999.00	4.39	999.00	3.10	0.00
23	10	10	2	224.50	19.03	2.06	45.76	999.00	212.30	14.01	3.27	43.95	214.70	4.48	12.91	42.80	999.00	2.37	999.00	0.82	0.00
23	10	10	3	227.00	20.61	1.97	45.23	999.00	213.80	15.87	2.29	43.71	211.40	4.28	13.30	42.20	999.00	3.46	999.00	2.00	0.00
23	10	10	4	224.70	22.83	2.14	45.62	999.00	213.40	18.06	2.94	44.22	218.30	5.68	13.38	42.08	999.00	3.04	999.00	1.84	0.00
23	10	10	5	231.30	18.46	3.48	44.72	999.00	222.80	15.31	4.48	44.08	223.10	6.84	12.29	43.62	999.00	0.17	999.00	0.10	0.00
23	10	10	6	241.30	16.83	3.15	44.11	999.00	231.40	14.44	3.76	44.15	224.60	7.02	12.41	44.30	999.00	-0.21	999.00	-0.19	0.00
23	10	10	7	250.10	15.65	3.58	43.97	999.00	240.70	13.63	4.20	44.21	233.30	7.84	10.43	44.51	999.00	-0.50	999.00	-0.26	0.00
23	10	10	8	243.50	16.26	3.21	42.84	999.00	235.40	14.43	4.05	43.07	234.20	7.59	11.41	43.38	999.00	-0.83	999.00	-0.58	0.00
23	10	10	9	244.30	14.88	5.19	42.45	999.00	235.80	13.49	5.81	42.82	238.00	9.28	11.93	43.57	999.00	-1.37	999.00	-0.93	0.00
23	10	10	10	247.50	12.68	5.61	43.34	999.00	239.90	12.57	5.78	43.81	245.90	9.33	12.34	45.07	999.00	-1.93	999.00	-1.45	0.00
23	10	10	11	246.60	12.84	5.45	45.07	999.00	240.00	12.58	5.69	45.58	245.40	10.29	10.62	47.40	999.00	-2.43	999.00	-1.94	0.00
23	10	10	12	254.40	11.12	9.02	47.33	999.00	244.30	10.43	9.37	47.88	249.80	8.33	15.55	49.72	999.00	-2.40	999.00	-1.84	0.00
23	10	10	13	263.00	14.21	8.93	50.09	999.00	254.80	13.18	9.86	50.60	255.80	9.19	15.76	52.43	999.00	-2.34	999.00	-1.85	0.00
23	10	10	14	259.60	12.92	10.53	52.31	999.00	251.10	12.58	10.90	52.81	252.40	9.20	14.37	54.55	999.00	-2.01	999.00	-1.50	0.00
23	10	10	15	255.70	20.51	6.41	53.63	999.00	248.10	19.29	7.40	54.10	256.00	12.56	13.06	55.29	999.00	-1.73	999.00	-1.26	0.00
23	10	10	16	245.80	20.97	7.49	54.64	999.00	238.50	20.31	7.93	55.12	246.00	14.14	11.10	56.38	999.00	-1.73	999.00	-1.26	0.00

23	10	10	17	261.20	18.38	6.00	55.22	999.00	255.20	17.28	6.62	55.69	264.60	10.80	11.97	56.75	999.00	-1.49	999.00	-1.03	0.00
23	10	10	18	274.00	14.40	7.36	55.26	999.00	266.80	13.30	7.46	55.68	268.30	7.49	13.10	56.21	999.00	-0.78	999.00	-0.38	0.00
23	10	10	19	288.60	18.27	8.04	53.81	999.00	280.70	17.04	9.23	54.26	285.30	11.18	13.94	54.66	999.00	-0.96	999.00	-0.50	0.00
23	10	10	20	291.70	11.51	5.27	51.24	999.00	285.90	8.84	5.95	51.41	257.50	2.81	12.17	51.17	999.00	0.87	999.00	0.84	0.00
23	10	10	21	281.20	11.80	2.76	51.52	999.00	265.70	9.97	2.36	51.65	239.30	4.21	11.99	50.72	999.00	0.93	999.00	0.95	0.00
23	10	10	22	296.60	14.27	3.64	51.32	999.00	285.90	11.41	5.61	51.43	270.80	4.12	11.84	50.50	999.00	0.74	999.00	0.81	0.00
23	10	10	23	277.80	12.35	3.29	50.56	999.00	261.80	10.27	6.79	50.56	230.10	4.63	14.74	49.63	999.00	0.97	999.00	0.78	0.00
23	10	10	24	275.20	10.26	2.29	50.87	999.00	253.90	8.21	3.95	50.45	209.10	2.59	13.58	49.42	999.00	1.50	999.00	1.23	0.00
23	10	11	1	278.30	7.68	4.70	50.94	999.00	258.30	6.79	6.20	51.09	201.90	3.05	12.43	49.56	999.00	1.19	999.00	1.43	0.00
23	10	11	2	271.40	7.48	6.87	50.64	999.00	255.50	7.19	7.42	50.96	209.10	2.70	18.19	49.44	999.00	1.25	999.00	1.63	0.00
23	10	11	3	268.70	5.82	4.06	50.43	999.00	253.90	6.11	3.42	50.84	228.30	3.20	13.03	49.49	999.00	0.88	999.00	1.24	0.00
23	10	11	4	295.40	4.88	4.07	50.39	999.00	282.40	4.43	6.01	50.77	256.10	1.51	23.07	49.46	999.00	1.23	999.00	1.66	0.00
23	10	11	5	298.10	4.01	3.64	50.43	999.00	285.20	3.53	4.45	50.89	179.40	1.96	6.41	49.19	999.00	1.73	999.00	2.19	0.00
23	10	11	6	316.20	2.40	9.76	50.31	999.00	284.50	2.46	5.91	50.66	180.50	2.03	4.39	48.60	999.00	1.57	999.00	1.84	0.00
23	10	11	7	187.20	3.38	8.30	50.35	999.00	184.20	3.59	5.96	50.43	187.70	2.64	7.49	49.07	999.00	0.95	999.00	0.94	0.00
23	10	11	8	216.90	8.05	6.55	49.34	999.00	203.20	8.88	3.72	48.88	198.50	3.12	12.71	47.20	999.00	2.07	999.00	1.23	0.00
23	10	11	9	247.20	13.02	3.40	46.67	999.00	232.90	10.35	5.26	45.67	225.30	5.26	12.81	45.54	999.00	0.06	999.00	-0.54	0.00
23	10	11	10	228.90	12.59	4.76	46.67	999.00	220.20	12.08	5.46	45.67	226.50	7.75	15.19	45.54	999.00	-1.77	999.00	-1.34	0.00
23	10	11	11	234.70	11.06	6.55	48.77	999.00	227.80	10.50	7.29	49.31	235.40	8.52	12.37	50.92	999.00	-2.41	999.00	-1.72	0.00
23	10	11	12	251.20	14.64	8.58	52.63	999.00	243.30	14.17	9.27	53.26	248.30	10.52	12.97	55.09	999.00	-2.48	999.00	-1.85	0.00
23	10	11	13	257.70	14.72	9.79	56.48	999.00	250.00	14.12	10.36	57.06	254.50	10.61	15.44	59.03	999.00	-2.66	999.00	-2.11	0.00
23	10	11	14	249.60	17.04	10.63	58.25	999.00	243.10	15.73	11.41	58.80	252.60	11.08	15.79	60.90	999.00	-2.71	999.00	-2.14	0.00
23	10	11	15	256.20	15.36	11.23	59.56	999.00	247.60	14.48	10.35	60.07	250.00	10.21	14.35	62.14	999.00	-2.59	999.00	-2.02	0.00
23	10	11	16	258.80	15.97	10.02	61.18	999.00	250.50	15.44	10.19	61.63	252.90	11.09	18.14	63.71	999.00	-2.41	999.00	-1.96	0.00
23	10	11	17	254.30	12.54	9.27	62.42	999.00	247.10	11.85	8.82	62.89	254.10	8.09	16.18	64.52	999.00	-1.90	999.00	-1.43	0.00
23	10	11	18	270.90	10.46	8.84	62.87	999.00	262.70	9.84	8.53	63.34	264.90	6.13	12.57	64.54	999.00	-1.46	999.00	-1.01	0.00
23	10	11	19	352.40	3.84	19.46	61.76	999.00	15.90	2.95	23.75	62.04	98.50	2.97	13.26	61.88	999.00	1.35	999.00	1.37	0.00
23	10	11	20	98.90	3.61	11.74	59.81	999.00	97.60	5.91	4.63	59.91	117.10	2.56	8.22	57.62	999.00	2.40	999.00	2.42	0.00
23	10	11	21	112.70	8.63	5.66	59.54	999.00	112.30	9.27	4.73	59.30	126.10	3.00	14.07	56.97	999.00	2.53	999.00	1.91	0.00
23	10	11	22	130.70	10.48	1.29	59.11	999.00	124.30	10.31	0.82	58.30	199.40	1.90	25.25	55.40	999.00	3.86	999.00	3.11	0.00
23	10	11	23	126.20	13.39	0.91	59.00	999.00	119.60	11.83	1.15	58.55	133.30	1.46	25.25	54.80	999.00	4.00	999.00	3.59	0.00
23	10	11	24	129.80	12.71	0.45	57.62	999.00	125.50	10.40	1.86	57.15	163.70	2.13	26.71	55.48	999.00	1.44	999.00	1.12	0.00
23	10	12	1	133.90	13.57	1.68	57.70	999.00	128.40	10.36	3.24	56.87	180.50	1.90	22.71	55.38	999.00	2.83	999.00	1.86	0.00
23	10	12	2	144.30	15.18	1.01	57.18	999.00	142.20	11.34	2.23	56.29	162.30	2.30	16.48	54.58	999.00	3.42	999.00	2.18	0.00
23	10	12	3	149.00	11.82	3.60	58.02	999.00	140.10	12.04	3.38	56.58	128.30	2.13	35.71	53.81	999.00	4.56	999.00	3.92	0.00
23	10	12	4	127.40	2.87	49.42	58.96	999.00	132.30	3.42	47.11	58.07	20.04	2.23	86.50	54.09	999.00	4.62	999.00	3.19	0.00
23	10	12	5	129.00	5.29	8.13	57.50	999.00	125.70	5.01	10.92	56.35	198.70	3.13	11.80	53.98	999.00	2.97	999.00	3.08	0.00
23	10	12	6	16.18	4.90	21.81	56.03	999.00	354.20	4.41	20.33	55.80	245.90	1.92	44.87	52.94	999.00	2.53	999.00	2.63	0.00
23	10	12	7	60.41	7.49	9.98	56.00	999.00	58.82	4.39	19.76	56.02	202.90	2.27	28.35	52.62	999.00	2.89	999.00	2.88	0.00
23	10	12	8	57.91	13.78	4.99	55.86	999.00	50.16	11.77	7.48	56.08	154.70	3.95	96.10	53.74	999.00	2.28	999.00	2.58	0.00
23	10	12	9	68.40	15.27	3.89	55.97	999.00	60.31	13.88	5.26	56.37	67.71	7.76	11.57	56.88	999.00	-0.86	999.00	-0.48	0.00
23	10	12	10	58.79	14.95	4.90	55.84	999.00	51.13	13.61	6.39	56.29	55.53	8.58	11.89	56.97	999.00	-1.22	999.00	-0.76	0.00
23	10	12	11	66.42	13.86	5.10	55.65	999.00	57.19	12.69	6.16	56.08	63.23	7.40	12.51	56.91	999.00	-1.24	999.00	-0.80	0.00
23	10	12	12	57.32	14.26	4.96	56.03	999.00	47.97	12.83	6.47	56.46	51.65	9.03	10.76	57.16	999.00	-1.23	999.00	-0.78	0.00
23	10	12	13	60.85	14.70	4.47	56.44	999.00	51.74	13.86	5.30	56.88	56.24	8.78	11.78	57.78	999.00	-1.45	999.00	-1.01	0.00
23	10	12	14	50.43	13.99	6.23	56.76	999.00	42.08	12.90	7.54	57.14	42.32	10.84	9.19	58.11	999.00	-1.56	999.00	-1.07	0.00
23	10	12	15	48.52	14.94	7.70	56.57	999.00	39.53	13.17	8.57	57.08	40.78	11.47	9.70	58.19	999.00	-1.61	999.00	-1.09	0.00
23	10	12	16	71.50	17.31	4.70	57.58	999.00	62.96	15.74	5.79	58.09	65.98	10.44	10.78	59.48	999.00	-2.00	999.00	-1.45	0.00
23	10	12	17	74.10	16.76	3.77	58.13	999.00	65.27	15.81	5.57	58.65	72.80	9.80	12.91	59.90	999.00	-1.67	999.00	-1.16	0.00
23	10	12	18	73.60	15.25	3.54	57.68	999.00	65.48	14.55	5.58	58.17	73.70	8.16	12.50	59.25	999.00	-1.39	999.00	-0.93	0.00
23	10	12	19	82.00	13.63	2.83	57.67	999.00	74.40	12.69	3.84	58.11	77.60	6.63	11.32	58.79	999.00	-0.75	999.00	-0.33	0.00
23	10	12	20	87.70	12.00	2.42	57.52	999.00	80.20	11.31	3.27	57.93	93.60	4.04	12.44	57.71	999.00	0.12	999.00	0.50	0.00
23	10	12	21	84.70	12.73	2.45	57.70	999.00	77.80	11.94	2.72	58.09	84.70	4.66	11.71	57.54	999.00	0.28	999.00	0.66	0.00

23	10	12	22	51.07	20.59	6.29	57.34	999.00	42.99	18.55	7.13	57.78	43.27	15.11	9.12	57.78	999.00	-1.25	999.00	-0.77	0.00
23	10	12	23	56.98	25.45	3.83	55.35	999.00	49.68	23.39	5.21	55.82	54.18	13.91	11.63	56.54	999.00	-1.11	999.00	-0.65	0.00
23	10	12	24	49.85	21.11	7.96	54.41	999.00	42.51	19.15	8.12	54.89	43.64	16.63	9.33	55.64	999.00	-1.40	999.00	-0.90	0.00
23	10	13	1	59.78	24.11	4.07	54.20	999.00	52.52	23.02	4.83	54.67	57.61	14.49	11.72	55.43	999.00	-1.14	999.00	-0.69	0.00
23	10	13	2	63.55	19.75	4.65	54.36	999.00	55.61	18.83	5.09	54.82	62.93	11.68	11.21	55.50	999.00	-1.15	999.00	-0.68	0.00
23	10	13	3	61.63	20.44	5.14	54.30	999.00	53.02	18.76	6.46	54.77	57.59	11.52	13.04	55.48	999.00	-1.10	999.00	-0.65	0.00
23	10	13	4	62.76	19.53	4.37	54.19	999.00	54.91	18.47	4.86	54.66	59.00	11.26	12.61	55.41	999.00	-1.24	999.00	-0.76	0.00
23	10	13	5	62.15	20.37	5.13	54.40	999.00	53.33	19.05	5.97	54.85	58.98	11.37	12.02	55.58	999.00	-1.22	999.00	-0.76	0.00
23	10	13	6	76.00	20.35	4.13	55.22	999.00	68.11	18.87	5.47	55.64	72.50	11.24	12.28	56.26	999.00	-1.15	999.00	-0.70	0.00
23	10	13	7	78.00	21.07	3.79	55.59	999.00	69.80	19.94	4.70	56.04	74.30	12.26	11.13	56.69	999.00	-1.10	999.00	-0.65	0.00
23	10	13	8	126.30	11.23	5.97	55.78	999.00	123.70	10.20	7.05	56.17	140.80	4.44	17.78	56.66	999.00	-0.87	999.00	-0.54	0.00
23	10	13	9	106.00	14.78	3.89	55.45	999.00	97.60	13.55	6.26	55.81	104.50	6.15	16.79	56.06	999.00	-0.79	999.00	-0.38	0.00
23	10	13	10	104.40	15.79	4.61	55.66	999.00	96.10	15.05	5.31	56.09	105.00	7.07	15.69	56.61	999.00	-1.13	999.00	-0.70	0.00
23	10	13	11	107.90	18.46	3.91	55.49	999.00	99.80	17.22	5.80	55.93	108.70	8.24	19.21	57.10	999.00	-1.96	999.00	-1.50	0.00
23	10	13	12	104.20	16.73	6.88	55.53	999.00	96.10	15.77	7.52	56.01	105.60	8.16	17.64	57.64	999.00	-1.99	999.00	-1.51	0.00
23	10	13	13	104.90	19.04	5.86	55.40	999.00	96.40	17.60	8.04	55.88	108.80	9.49	15.42	57.43	999.00	-2.19	999.00	-1.69	0.00
23	10	13	14	92.60	20.12	5.41	55.34	999.00	84.40	19.18	6.47	55.86	89.50	10.73	15.55	57.65	999.00	-2.29	999.00	-1.77	0.00
23	10	13	15	89.90	23.59	4.12	55.05	999.00	80.90	23.02	4.76	55.57	86.00	13.97	15.33	57.59	999.00	-2.74	999.00	-2.22	0.00
23	10	13	16	82.40	25.90	3.90	54.77	999.00	74.20	24.91	4.66	55.32	78.00	13.85	14.63	57.57	999.00	-2.39	999.00	-1.84	0.00
23	10	13	17	81.30	27.18	4.18	54.71	999.00	74.00	25.66	5.53	55.25	77.90	15.12	13.61	56.93	999.00	-2.40	999.00	-1.86	0.00
23	10	13	18	80.00	27.74	4.31	55.12	999.00	71.80	26.54	5.34	55.61	74.20	15.41	11.43	56.81	999.00	-1.41	999.00	-0.93	0.00
23	10	13	19	85.30	30.12	3.33	55.44	999.00	77.40	28.47	4.48	55.91	83.10	14.47	14.25	56.69	999.00	-1.14	999.00	-0.68	0.00
23	10	13	20	87.30	28.06	3.96	55.92	999.00	79.50	26.87	4.72	56.39	83.70	14.51	14.69	56.94	999.00	-1.03	999.00	-0.57	0.00
23	10	13	21	89.00	28.82	3.66	56.41	999.00	80.80	27.22	4.52	56.88	84.40	13.59	14.53	57.48	999.00	-1.04	999.00	-0.58	0.00
23	10	13	22	100.60	28.87	3.53	56.81	999.00	92.30	27.15	4.83	57.26	101.80	11.82	16.82	57.76	999.00	-0.95	999.00	-0.47	0.00
23	10	13	23	85.90	25.15	3.56	56.93	999.00	78.50	23.60	4.72	57.37	82.40	12.38	13.68	57.59	999.00	-0.82	999.00	-0.41	0.00
23	10	13	24	62.65	23.63	4.10	56.93	999.00	54.37	21.95	4.98	57.37	62.16	12.69	10.77	57.59	999.00	-0.65	999.00	-0.22	0.05
23	10	14	1	75.40	30.05	3.61	55.89	999.00	67.31	28.12	4.66	56.34	73.00	16.77	11.42	54.61	999.00	1.31	999.00	1.84	0.09
23	10	14	2	91.10	28.72	3.79	55.35	999.00	83.60	27.44	4.60	55.67	91.80	13.56	16.42	53.58	999.00	1.56	999.00	1.96	0.13
23	10	14	3	99.60	26.86	3.15	52.85	999.00	92.40	25.54	4.58	53.87	102.10	10.65	17.48	52.06	999.00	-0.10	999.00	1.46	0.20
23	10	14	4	93.10	26.99	4.16	51.01	999.00	86.30	25.63	4.92	52.60	93.10	11.45	15.15	51.75	999.00	-0.71	999.00	0.57	0.10
23	10	14	5	93.50	26.82	4.42	51.99	999.00	86.10	25.35	5.34	53.04	93.50	12.04	16.34	52.67	999.00	-0.80	999.00	0.29	0.05
23	10	14	6	99.20	27.19	3.85	52.22	999.00	92.20	25.26	5.51	53.27	102.30	11.43	17.23	53.05	999.00	-0.85	999.00	0.09	0.04
23	10	14	7	91.40	25.52	4.15	51.98	999.00	84.10	23.87	5.77	52.80	90.40	11.79	16.11	52.85	999.00	-0.89	999.00	-0.10	0.04
23	10	14	8	91.00	24.42	4.99	51.86	999.00	83.30	22.85	6.08	52.69	89.00	10.31	16.91	52.73	999.00	-0.84	999.00	0.04	0.02
23	10	14	9	82.10	25.77	3.32	52.24	999.00	74.70	24.36	4.25	53.00	79.50	13.31	13.29	53.02	999.00	-0.75	999.00	0.04	0.00
23	10	14	10	76.60	26.95	3.69	52.47	999.00	68.74	24.79	4.96	53.42	74.60	13.72	12.24	53.34	999.00	-0.91	999.00	-0.04	0.00
23	10	14	11	77.30	23.99	5.82	52.51	999.00	69.68	22.38	6.80	53.28	74.00	12.87	13.38	53.40	999.00	-0.84	999.00	-0.14	0.00
23	10	14	12	68.74	31.53	3.48	52.37	999.00	60.56	29.45	4.80	53.21	66.77	18.01	10.79	53.31	999.00	-0.93	999.00	0.03	0.01
23	10	14	13	42.54	26.46	8.20	51.68	999.00	34.90	23.02	8.70	52.40	42.33	21.78	9.64	52.35	999.00	-1.06	999.00	-0.46	0.01
23	10	14	14	35.54	30.08	6.07	49.13	999.00	29.31	23.51	7.90	49.83	39.17	23.45	10.23	50.26	999.00	-1.23	999.00	-0.37	0.04
23	10	14	15	37.62	32.32	4.79	48.40	999.00	30.57	26.63	6.24	49.15	39.12	25.49	9.22	49.67	999.00	-1.04	999.00	-0.45	0.03
23	10	14	16	38.14	30.32	7.31	48.93	999.00	30.93	25.30	8.58	49.65	37.57	24.24	9.45	49.60	999.00	-0.53	999.00	0.31	0.00
23	10	14	17	33.55	31.91	5.86	48.73	999.00	27.13	24.89	7.95	49.46	34.73	23.81	10.21	50.02	999.00	-1.37	999.00	-0.49	0.02
23	10	14	18	32.08	32.70	5.37	48.65	999.00	25.69	24.87	7.37	50.12	31.46	24.10	9.04	50.37	999.00	-2.14	999.00	-0.24	0.02
23	10	14	19	35.48	32.50	5.79	49.77	999.00	29.14	25.55	7.73	51.48	37.96	24.95	10.37	51.98	999.00	-2.41	999.00	-0.91	0.00
23	10	14	20	30.34	26.83	4.21	51.14	999.00	23.99	20.60	6.45	52.64	31.33	18.95	10.21	53.58	999.00	-2.48	999.00	-0.89	0.00
23	10	14	21	9.02	22.19	7.03	52.19	999.00	2.18	20.02	7.43	53.00	9.54	17.06	9.24	53.92	999.00	-1.48	999.00	-0.96	0.00
23	10	14	22	10.23	24.05	7.19	52.25	999.00	3.92	21.10	8.29	52.72	11.48	18.34	8.61	53.68	999.00	-1.39	999.00	-0.94	0.00
23	10	14	23	10.51	22.20	8.97	52.32	999.00	3.30	19.45	8.03	52.78	9.72	16.10	8.52	53.71	999.00	-1.37	999.00	-0.91	0.00
23	10	14	24	6.86	27.43	5.82	51.97	999.00	359.90	24.03	6.20	52.44	7.83	18.78	9.02	53.39	999.00	-1.44	999.00	-0.96	0.00
23	10	15	1	6.20	27.36	4.77	51.70	999.00	359.20	24.27	5.97	52.19	5.42	19.94	8.52	53.11	999.00	-1.42	999.00	-0.93	0.00
23	10	15	2	359.30	27.20	3.48	50.83	999.00	352.90	25.32	4.59	51.32	357.00	20.14	6.97	52.25	999.00	-1.46	999.00	-0.94	0.00

23	10	15	3	357.40	25.66	3.62	50.07	999.00	350.60	24.31	4.15	50.56	356.40	18.16	6.65	51.44	999.00	-1.34	999.00	-0.85	0.00
23	10	15	4	356.80	26.92	4.23	49.55	999.00	350.80	24.91	4.98	50.04	356.70	19.08	7.45	50.90	999.00	-1.40	999.00	-0.90	0.00
23	10	15	5	353.30	25.61	4.39	49.17	999.00	346.80	23.96	5.55	49.67	353.70	17.38	8.88	50.64	999.00	-1.50	999.00	-1.00	0.00
23	10	15	6	355.90	25.40	4.62	49.17	999.00	348.60	23.85	5.23	49.67	355.20	17.74	7.96	50.64	999.00	0.05	999.00	0.64	0.00
23	10	15	7	350.80	22.85	5.44	48.56	999.00	343.90	21.65	6.04	49.17	350.50	15.57	8.41	48.45	999.00	0.33	999.00	0.92	0.00
23	10	15	8	344.80	22.38	4.76	48.71	999.00	337.20	21.16	5.49	49.25	346.30	13.37	10.60	48.44	999.00	0.07	999.00	0.57	0.00
23	10	15	9	338.50	21.65	5.28	48.13	999.00	330.90	20.71	5.84	48.61	337.70	12.87	11.72	48.73	999.00	-0.90	999.00	-0.40	0.00
23	10	15	10	337.10	19.50	5.11	47.83	999.00	329.60	19.02	6.03	48.36	337.90	13.16	12.87	48.72	999.00	-1.17	999.00	-0.58	0.00
23	10	15	11	317.90	14.89	7.61	47.68	999.00	309.20	14.54	8.43	48.23	313.90	9.51	16.14	49.51	999.00	-2.34	999.00	-1.82	0.00
23	10	15	12	326.40	18.61	6.54	48.43	999.00	318.60	18.03	7.61	49.00	328.60	12.63	13.79	50.93	999.00	-2.49	999.00	-1.92	0.00
23	10	15	13	328.10	18.14	7.75	49.22	999.00	320.80	18.13	7.90	49.86	330.90	13.45	14.20	52.23	999.00	-2.99	999.00	-2.36	0.00
23	10	15	14	331.40	17.15	6.24	50.40	999.00	325.50	17.21	7.16	51.02	333.20	12.47	13.54	53.56	999.00	-3.16	999.00	-2.57	0.00
23	10	15	15	314.40	18.05	8.07	51.17	999.00	306.00	18.19	8.39	51.76	310.80	12.67	14.36	54.04	999.00	-2.67	999.00	-2.15	0.00
23	10	15	16	320.90	20.97	6.07	50.77	999.00	313.30	20.17	6.94	51.29	321.10	12.52	13.84	52.73	999.00	-1.81	999.00	-1.29	0.00
23	10	15	17	326.90	17.65	5.94	50.32	999.00	320.30	17.01	6.74	50.85	325.40	10.71	12.04	52.10	999.00	-1.78	999.00	-1.26	0.00
23	10	15	18	336.00	16.83	5.00	50.24	999.00	328.80	16.11	5.63	50.73	332.10	9.86	11.91	51.88	999.00	-1.54	999.00	-1.06	0.00
23	10	15	19	333.10	14.45	4.69	50.05	999.00	326.80	13.89	5.61	50.56	329.00	7.80	14.62	51.14	999.00	-0.85	999.00	-0.30	0.01
23	10	15	20	346.30	17.28	5.66	49.05	999.00	339.70	16.29	6.91	49.55	344.40	8.70	14.06	49.51	999.00	-0.65	999.00	-0.08	0.02
23	10	15	21	354.00	20.25	4.98	49.37	999.00	347.70	19.19	5.96	49.83	355.00	13.22	8.58	48.48	999.00	0.60	999.00	1.05	0.02
23	10	15	22	342.70	22.91	4.42	48.92	999.00	336.40	21.80	5.31	49.45	343.70	13.80	11.89	50.22	999.00	-1.35	999.00	-0.81	0.00
23	10	15	23	348.40	21.28	5.03	47.89	999.00	341.20	20.33	6.20	48.38	348.60	13.01	10.23	49.22	999.00	-1.33	999.00	-0.85	0.00
23	10	15	24	347.20	20.54	5.80	47.91	999.00	340.90	19.33	6.43	48.38	350.00	13.02	11.02	49.26	999.00	-1.37	999.00	-0.91	0.00
23	10	16	1	352.50	22.40	5.36	47.74	999.00	345.80	20.64	6.27	48.22	353.00	14.71	9.24	49.18	999.00	-1.46	999.00	-0.96	0.00
23	10	16	2	356.70	23.02	5.46	47.50	999.00	350.40	21.24	6.06	48.01	356.70	16.85	7.48	48.99	999.00	-1.55	999.00	-1.03	0.01
23	10	16	3	352.80	20.99	4.70	47.06	999.00	345.20	19.72	5.78	47.56	351.60	14.28	9.21	48.50	999.00	-1.42	999.00	-0.92	0.00
23	10	16	4	0.80	18.38	7.98	47.65	999.00	353.00	17.09	7.34	48.14	359.40	13.36	9.19	49.14	999.00	-1.51	999.00	-1.01	0.00
23	10	16	5	351.40	22.34	3.56	46.95	999.00	344.20	21.18	4.49	47.51	352.10	14.86	9.38	47.58	999.00	-0.03	999.00	0.59	0.00
23	10	16	6	351.50	20.59	4.94	47.11	999.00	344.20	19.50	5.53	47.74	350.00	13.83	9.52	47.27	999.00	-0.39	999.00	0.24	0.00
23	10	16	7	353.20	18.86	4.24	47.10	999.00	346.30	17.72	4.89	47.73	354.70	12.49	8.88	47.45	999.00	-0.42	999.00	0.21	0.00
23	10	16	8	352.00	18.61	4.19	47.27	999.00	344.80	17.59	5.60	47.87	350.30	12.41	8.61	47.77	999.00	-0.54	999.00	0.01	0.00
23	10	16	9	350.10	21.36	4.05	47.16	999.00	342.90	20.30	4.83	47.66	349.90	12.93	9.70	47.85	999.00	-0.50	999.00	0.03	0.00
23	10	16	10	346.50	20.92	5.13	47.61	999.00	339.80	19.50	5.69	48.19	350.10	13.82	8.65	48.47	999.00	-1.00	999.00	-0.38	0.00
23	10	16	11	349.40	19.31	5.59	47.80	999.00	342.90	18.06	6.26	48.39	350.80	12.88	9.83	48.83	999.00	-0.89	999.00	-0.28	0.00
23	10	16	12	349.70	19.56	5.60	48.57	999.00	343.00	18.31	6.65	49.26	349.30	13.29	10.57	49.53	999.00	-0.94	999.00	-0.22	0.05
23	10	16	13	351.70	18.21	4.97	49.28	999.00	344.60	17.55	5.87	50.02	353.20	13.80	8.43	50.54	999.00	-1.59	999.00	-0.81	0.04
23	10	16	14	349.10	15.17	6.35	49.67	999.00	342.10	14.38	6.99	50.39	353.20	11.79	10.30	51.71	999.00	-2.07	999.00	-1.44	0.00
23	10	16	15	337.70	16.94	3.90	49.30	999.00	330.80	16.01	4.92	49.86	337.10	10.53	12.26	50.83	999.00	-0.95	999.00	-0.41	0.00
23	10	16	16	330.30	13.40	5.56	50.57	999.00	321.90	12.58	6.30	51.13	324.70	8.52	12.26	51.12	999.00	-0.35	999.00	0.15	0.00
23	10	16	17	335.10	19.50	5.15	51.37	999.00	328.90	18.22	6.48	51.87	335.40	12.00	11.81	51.83	999.00	-0.66	999.00	-0.15	0.01
23	10	16	18	337.90	18.12	6.92	51.43	999.00	331.30	16.76	8.49	51.93	338.40	9.91	13.22	52.17	999.00	-0.70	999.00	-0.23	0.00
23	10	16	19	340.90	18.22	5.19	51.45	999.00	333.80	16.88	6.20	51.92	343.90	11.07	10.59	51.62	999.00	0.29	999.00	0.76	0.00
23	10	16	20	350.00	17.00	6.17	51.27	999.00	342.80	15.62	7.14	51.74	349.00	10.59	10.04	51.67	999.00	-1.07	999.00	-0.60	0.00
23	10	16	21	347.30	21.65	3.94	50.73	999.00	341.20	20.56	5.22	51.21	350.90	13.47	9.78	52.04	999.00	-1.36	999.00	-0.88	0.00
23	10	16	22	341.80	18.14	3.56	50.02	999.00	335.00	17.46	4.49	50.50	344.90	11.02	10.35	51.38	999.00	-1.35	999.00	-0.88	0.00
23	10	16	23	347.50	15.55	3.81	49.50	999.00	340.90	14.95	4.57	49.97	351.00	9.93	8.65	50.85	999.00	-1.33	999.00	-0.87	0.00
23	10	16	24	357.00	16.99	5.48	48.89	999.00	350.50	15.50	6.83	49.37	356.00	11.79	9.41	50.32	999.00	-1.46	999.00	-0.96	0.00
23	10	17	1	353.50	17.12	5.77	48.65	999.00	347.30	16.16	6.82	49.13	355.50	11.27	9.24	50.05	999.00	-1.37	999.00	-0.89	0.00
23	10	17	2	1.81	14.46	6.03	48.85	999.00	354.60	13.32	6.35	49.32	1.65	9.41	9.84	50.22	999.00	-1.38	999.00	-0.90	0.00
23	10	17	3	2.97	11.04	7.82	48.97	999.00	355.70	10.55	6.97	49.44	3.03	8.62	11.86	50.28	999.00	-1.39	999.00	-0.92	0.00
23	10	17	4	332.20	8.77	11.29	48.82	999.00	313.40	7.91	17.82	49.23	299.10	5.22	22.94	50.03	999.00	-0.79	999.00	-0.57	0.00
23	10	17	5	309.10	9.12	9.01	48.15	999.00	290.80	9.20	5.64	48.36	278.20	5.54	9.55	48.58	999.00	-0.38	999.00	-0.19	0.00
23	10	17	6	302.70	10.94	3.17	48.36	999.00	291.40	10.90	3.26	48.66	274.00	6.20	8.41	48.49	999.00	0.07	999.00	0.40	0.00
23	10	17	7	308.40	12.66	1.95	48.27	999.00	296.40	12.57	3.80	48.41	284.40	7.19	8.83	48.22	999.00	0.09	999.00	0.26	0.00

23	10	17	8	292.20	10.76	2.88	47.75	999.00	277.00	10.48	2.96	47.90	263.50	5.00	9.49	47.93	999.00	-0.25	999.00	-0.01	0.00
23	10	17	9	293.50	11.05	1.71	47.45	999.00	277.70	10.38	3.57	47.65	266.70	5.74	10.09	47.96	999.00	-0.65	999.00	-0.53	0.00
23	10	17	10	280.80	6.59	8.93	47.27	999.00	271.70	5.93	9.96	47.65	266.80	4.05	13.00	48.67	999.00	-1.70	999.00	-1.23	0.00
23	10	17	11	275.90	6.26	11.31	48.23	999.00	265.60	6.10	13.18	48.71	276.10	4.61	18.18	50.13	999.00	-2.05	999.00	-1.56	0.00
23	10	17	12	295.10	7.26	7.54	49.05	999.00	289.60	7.11	8.12	49.52	298.10	5.25	19.00	51.18	999.00	-2.26	999.00	-1.77	0.00
23	10	17	13	255.70	6.96	13.55	49.49	999.00	248.00	6.70	11.93	49.98	248.90	5.09	22.73	51.45	999.00	-1.78	999.00	-1.29	0.00
23	10	17	14	251.60	9.21	6.17	50.34	999.00	244.60	9.12	6.21	50.84	248.60	6.83	13.64	52.19	999.00	-1.77	999.00	-1.28	0.00
23	10	17	15	253.80	7.61	8.28	50.82	999.00	244.90	7.35	8.20	51.31	250.50	4.96	14.69	52.67	999.00	-1.85	999.00	-1.34	0.00
23	10	17	16	240.80	7.40	13.99	51.30	999.00	234.50	6.88	12.95	51.79	244.00	5.33	14.01	53.07	999.00	-1.72	999.00	-1.23	0.00
23	10	17	17	242.00	9.17	13.17	51.99	999.00	236.60	8.92	11.33	52.48	245.20	6.64	14.47	53.80	999.00	-1.83	999.00	-1.35	0.00
23	10	17	18	222.50	10.87	6.51	52.27	999.00	215.60	10.14	6.91	52.77	224.60	6.22	12.67	53.82	999.00	-1.53	999.00	-1.04	0.00
23	10	17	19	208.70	8.22	4.54	52.09	999.00	198.70	7.36	5.05	52.57	184.40	2.60	13.08	52.84	999.00	-0.18	999.00	0.10	0.00
23	10	17	20	228.80	14.03	6.32	51.94	999.00	217.90	12.43	7.03	52.19	200.50	4.81	14.06	51.10	999.00	0.57	999.00	0.88	0.00
23	10	17	21	249.00	12.97	3.40	51.15	999.00	238.30	10.61	4.22	51.29	228.20	4.52	12.41	51.12	999.00	0.28	999.00	0.22	0.00
23	10	17	22	241.00	10.76	2.74	50.54	999.00	222.50	9.57	4.34	50.24	206.00	3.69	11.41	50.06	999.00	1.04	999.00	0.18	0.00
23	10	17	23	252.00	9.49	3.75	51.27	999.00	235.80	9.43	4.38	50.64	199.50	4.06	7.50	47.35	999.00	4.83	999.00	4.91	0.00
23	10	17	24	227.40	7.88	2.50	51.27	999.00	217.80	8.43	1.75	50.64	196.70	3.47	7.46	47.35	999.00	5.58	999.00	5.80	0.00
23	10	18	1	209.20	12.40	1.33	50.98	999.00	201.00	13.12	1.10	50.68	198.60	3.41	9.27	45.25	999.00	5.85	999.00	5.16	0.00
23	10	18	2	206.40	14.04	1.39	50.13	999.00	197.30	15.09	0.62	49.47	195.40	3.19	8.70	44.02	999.00	6.41	999.00	6.07	0.00
23	10	18	3	198.40	17.65	2.03	50.40	999.00	192.50	16.22	1.09	49.08	190.90	3.78	15.41	44.54	999.00	5.80	999.00	3.62	0.00
23	10	18	4	208.10	21.40	1.09	50.12	999.00	192.10	17.23	1.52	47.87	188.10	4.75	14.45	44.45	999.00	5.61	999.00	2.80	0.00
23	10	18	5	215.10	20.77	1.63	47.06	999.00	204.60	16.15	2.59	46.02	208.20	5.11	12.81	44.38	999.00	2.02	999.00	1.18	0.00
23	10	18	6	217.80	22.39	1.56	46.76	999.00	207.40	17.02	2.35	45.56	209.60	5.57	13.22	44.06	999.00	2.96	999.00	1.66	0.00
23	10	18	7	216.60	23.61	1.58	999.00	999.00	204.90	18.15	2.54	999.00	199.20	5.33	12.48	44.04	999.00	3.60	999.00	2.12	0.00
23	10	18	8	214.50	21.51	2.38	46.94	999.00	203.60	16.18	3.06	45.65	205.10	5.78	14.77	44.49	999.00	2.55	999.00	1.16	0.00
23	10	18	9	207.60	20.85	2.82	47.81	999.00	196.60	16.71	4.09	46.84	200.70	6.77	15.52	46.37	999.00	0.51	999.00	-0.07	0.00
23	10	18	10	202.50	17.37	3.97	48.34	999.00	193.10	14.53	5.20	48.25	194.60	6.86	15.60	48.49	999.00	-0.66	999.00	-0.44	0.00
23	10	18	11	204.60	16.14	6.73	51.03	999.00	196.00	15.13	7.07	51.99	203.70	7.89	18.42	52.84	999.00	-2.25	999.00	-0.99	0.00
23	10	18	12	208.60	15.64	9.01	53.05	999.00	200.70	14.98	9.66	54.02	208.00	7.84	20.73	55.61	999.00	-2.63	999.00	-1.49	0.00
23	10	18	13	204.00	15.46	9.43	55.39	999.00	196.40	14.65	9.81	56.46	206.60	8.95	19.94	58.00	999.00	-2.68	999.00	-1.56	0.00
23	10	18	14	203.00	18.65	9.87	57.11	999.00	195.90	18.10	10.07	58.08	204.70	9.94	19.02	59.64	999.00	-2.27	999.00	-1.41	0.00
23	10	18	15	193.50	17.14	7.00	58.23	999.00	186.10	16.18	7.06	59.14	193.20	9.40	18.18	60.49	999.00	-2.26	999.00	-1.36	0.00
23	10	18	16	183.40	15.61	6.39	58.90	999.00	176.20	14.83	7.09	59.63	185.80	7.59	20.63	60.94	999.00	-1.83	999.00	-1.20	0.00
23	10	18	17	194.20	16.96	7.59	59.31	999.00	187.40	15.89	8.15	59.94	201.30	8.33	19.66	60.86	999.00	-1.64	999.00	-0.96	0.00
23	10	18	18	184.90	14.73	6.07	59.44	999.00	177.70	13.43	6.88	59.99	189.20	5.96	17.87	60.51	999.00	-1.22	999.00	-0.62	0.00
23	10	18	19	175.30	16.74	1.85	59.14	999.00	166.50	14.38	2.79	59.42	167.70	4.08	18.91	59.10	999.00	0.98	999.00	1.08	0.00
23	10	18	20	169.20	18.48	3.10	57.98	999.00	160.70	15.03	4.19	57.85	157.80	4.15	20.28	56.54	999.00	1.33	999.00	1.13	0.00
23	10	18	21	172.20	19.19	2.52	56.41	999.00	162.60	15.94	3.11	56.19	160.10	4.43	21.41	55.00	999.00	1.54	999.00	1.36	0.00
23	10	18	22	171.90	19.90	3.81	55.27	999.00	163.60	16.22	5.06	55.07	167.60	5.30	21.11	54.17	999.00	0.70	999.00	0.55	0.00
23	10	18	23	177.30	20.19	2.66	54.48	999.00	169.20	16.55	3.11	54.26	175.80	4.68	19.74	53.51	999.00	1.25	999.00	1.05	0.00
23	10	18	24	183.80	21.43	3.48	53.34	999.00	175.00	18.35	4.06	53.11	177.20	6.01	19.32	52.62	999.00	0.48	999.00	0.34	0.00
23	10	19	1	189.40	18.60	3.62	53.11	999.00	181.70	15.63	4.30	53.11	189.60	5.75	17.61	53.01	999.00	0.05	999.00	0.08	0.00
23	10	19	2	185.40	18.97	2.75	52.54	999.00	176.30	16.05	3.62	52.47	179.60	4.59	22.02	52.12	999.00	0.79	999.00	0.65	0.00
23	10	19	3	182.00	20.55	2.29	51.71	999.00	172.00	16.85	3.26	51.51	175.10	5.01	20.01	50.72	999.00	1.17	999.00	0.87	0.00
23	10	19	4	181.40	21.53	2.13	51.35	999.00	171.90	17.78	3.09	50.91	175.50	5.15	18.00	49.97	999.00	1.42	999.00	1.01	0.00
23	10	19	5	178.30	21.18	2.64	50.97	999.00	169.40	16.59	4.21	50.54	173.40	5.42	18.34	49.81	999.00	0.90	999.00	0.49	0.00
23	10	19	6	177.90	22.17	3.21	51.03	999.00	169.90	18.10	4.39	50.74	179.40	5.95	23.78	50.41	999.00	0.38	999.00	0.21	0.00
23	10	19	7	176.90	22.47	3.22	51.44	999.00	168.90	18.74	4.28	51.32	176.60	6.68	20.31	51.18	999.00	0.20	999.00	0.12	0.00
23	10	19	8	181.20	21.17	4.08	51.84	999.00	174.60	17.86	4.87	51.82	181.60	7.23	18.04	51.69	999.00	0.02	999.00	0.06	0.00
23	10	19	9	194.40	18.43	4.16	52.09	999.00	187.80	15.67	5.78	52.24	197.40	7.06	18.18	52.34	999.00	-0.45	999.00	-0.22	0.00
23	10	19	10	190.70	18.75	5.01	52.71	999.00	183.90	16.84	5.76	53.18	193.20	8.43	18.52	53.68	999.00	-1.51	999.00	-0.80	0.00
23	10	19	11	196.10	17.30	6.06	54.33	999.00	189.40	15.86	6.81	55.17	200.20	8.67	17.32	56.04	999.00	-1.71	999.00	-0.90	0.00
23	10	19	12	203.10	19.20	5.14	56.41	999.00	195.60	18.14	5.29	57.19	200.90	9.74	15.07	58.12	999.00	-1.65	999.00	-0.94	0.00

23	10	19	13	206.30	19.80	5.81	58.01	999.00	199.60	18.88	6.85	58.70	205.70	10.16	16.62	59.99	999.00	-2.03	999.00	-1.32	0.00
23	10	19	14	202.60	16.40	6.46	58.77	999.00	196.90	15.59	6.40	59.33	208.20	8.81	16.68	60.46	999.00	-1.49	999.00	-0.91	0.00
23	10	19	15	203.50	13.07	3.76	57.39	999.00	196.50	11.41	4.18	57.84	209.10	4.75	13.93	58.12	999.00	-0.11	999.00	0.22	0.00
23	10	19	16	178.90	14.77	4.59	55.89	999.00	170.00	12.52	5.62	56.11	170.80	4.55	20.20	55.12	999.00	0.75	999.00	0.96	0.00
23	10	19	17	183.30	18.47	5.28	56.71	999.00	175.30	16.01	5.57	56.86	185.30	6.63	19.65	55.47	999.00	1.27	999.00	1.53	0.02
23	10	19	18	183.10	22.01	5.69	55.52	999.00	175.90	18.94	6.09	55.99	187.70	8.61	19.35	54.72	999.00	0.50	999.00	1.02	0.03
23	10	19	19	194.60	21.33	4.39	54.01	999.00	187.50	18.34	5.41	54.45	197.00	8.92	15.54	54.01	999.00	-0.04	999.00	0.32	0.00
23	10	19	20	198.10	22.09	4.76	54.01	999.00	190.80	19.19	5.78	54.37	198.00	9.08	16.25	54.01	999.00	0.12	999.00	0.44	0.01
23	10	19	21	200.00	20.14	4.88	54.07	999.00	191.80	17.57	5.69	54.43	201.60	8.21	17.47	54.08	999.00	-0.03	999.00	0.33	0.00
23	10	19	22	207.40	22.72	4.76	54.26	999.00	199.20	20.25	5.34	54.52	205.50	9.37	16.90	54.11	999.00	0.30	999.00	0.51	0.00
23	10	19	23	209.80	19.47	3.89	54.35	999.00	201.70	17.04	4.41	54.63	206.20	7.36	14.56	54.07	999.00	0.39	999.00	0.64	0.00
23	10	19	24	197.70	19.66	4.34	53.68	999.00	188.70	17.05	5.17	53.88	192.30	7.69	16.52	53.77	999.00	-0.16	999.00	0.03	0.00
23	10	20	1	219.90	18.11	5.29	54.02	999.00	211.60	16.13	5.87	54.32	211.90	7.80	16.27	54.31	999.00	-0.19	999.00	0.13	0.00
23	10	20	2	221.00	18.88	5.02	54.02	999.00	212.90	16.81	6.13	54.32	217.70	7.95	16.06	54.31	999.00	0.07	999.00	0.43	0.00
23	10	20	3	224.10	16.00	4.78	53.23	999.00	215.90	14.11	5.56	53.60	218.80	6.45	14.68	53.28	999.00	0.19	999.00	0.60	0.00
23	10	20	4	226.30	15.21	4.35	52.62	999.00	218.50	13.49	5.32	53.09	223.90	6.82	13.95	52.78	999.00	-0.46	999.00	0.01	0.00
23	10	20	5	224.10	13.45	4.28	51.85	999.00	215.00	11.64	5.05	52.27	217.70	5.83	14.46	52.55	999.00	-0.72	999.00	-0.34	0.00
23	10	20	6	224.40	13.64	4.09	51.86	999.00	216.20	11.91	4.70	52.28	219.90	5.72	15.61	52.60	999.00	-0.80	999.00	-0.34	0.00
23	10	20	7	228.10	12.35	4.87	51.50	999.00	219.20	11.09	5.63	51.90	222.10	5.25	13.55	52.24	999.00	-0.73	999.00	-0.32	0.00
23	10	20	8	243.80	12.75	4.75	51.48	999.00	235.60	11.60	4.81	51.88	237.70	7.15	10.98	52.12	999.00	-0.71	999.00	-0.26	0.00
23	10	20	9	234.20	13.74	3.98	51.28	999.00	225.50	12.32	4.60	51.70	226.00	5.97	13.29	51.98	999.00	-0.72	999.00	-0.30	0.00
23	10	20	10	242.40	12.40	5.09	51.35	999.00	234.70	11.30	4.91	51.82	240.60	7.49	10.91	52.35	999.00	-1.20	999.00	-0.70	0.00
23	10	20	11	258.90	14.39	6.35	51.35	999.00	250.90	13.36	7.30	51.82	256.00	9.81	11.46	52.35	999.00	-1.67	999.00	-1.16	0.00
23	10	20	12	256.80	11.78	7.87	53.10	999.00	248.10	11.11	8.46	53.59	249.70	7.87	11.84	54.65	999.00	-1.36	999.00	-0.87	0.00
23	10	20	13	257.80	13.88	7.61	54.47	999.00	249.00	13.11	9.56	55.00	251.50	9.34	14.37	55.73	999.00	-0.87	999.00	-0.26	0.00
23	10	20	14	257.70	13.27	7.94	55.89	999.00	248.70	12.16	8.92	56.44	253.00	9.90	14.58	57.49	999.00	-2.80	999.00	-2.19	0.00
23	10	20	15	271.40	11.23	9.07	56.26	999.00	264.20	10.64	10.65	56.78	269.10	7.91	17.96	58.26	999.00	-2.17	999.00	-1.65	0.00
23	10	20	16	295.30	10.85	5.98	55.11	999.00	289.20	9.54	6.93	55.52	298.10	5.42	14.13	56.67	999.00	-1.40	999.00	-1.00	0.00
23	10	20	17	309.10	13.92	8.25	55.11	999.00	300.60	13.26	10.12	55.52	304.30	8.69	15.34	56.67	999.00	-1.46	999.00	-0.98	0.00
23	10	20	18	299.70	17.07	6.23	52.92	999.00	291.80	15.42	5.92	53.40	291.80	9.25	11.96	53.92	999.00	-0.60	999.00	-0.17	0.00
23	10	20	19	306.50	23.16	5.45	52.50	999.00	298.30	21.75	6.80	52.98	302.30	11.80	13.88	52.78	999.00	-0.02	999.00	0.46	0.00
23	10	20	20	303.60	18.90	6.08	52.33	999.00	295.20	17.11	6.81	52.84	296.30	10.11	13.16	52.19	999.00	-0.05	999.00	0.42	0.00
23	10	20	21	304.90	19.61	5.49	52.22	999.00	296.40	18.54	6.38	52.64	299.80	10.96	12.93	52.55	999.00	-0.42	999.00	0.02	0.00
23	10	20	22	304.10	22.28	5.39	51.78	999.00	297.20	21.09	6.33	52.24	303.20	11.97	12.83	52.14	999.00	-0.26	999.00	0.22	0.00
23	10	20	23	310.30	26.29	4.71	51.05	999.00	302.70	25.81	5.47	51.53	308.40	14.04	13.55	51.34	999.00	-0.42	999.00	0.07	0.00
23	10	20	24	309.70	25.39	6.29	50.45	999.00	301.80	24.44	7.35	50.93	306.30	14.45	14.08	51.69	999.00	-1.25	999.00	-0.77	0.00
23	10	21	1	306.30	22.82	6.72	49.88	999.00	297.70	21.43	8.04	50.37	303.40	12.91	15.12	51.18	999.00	-1.34	999.00	-0.84	0.00
23	10	21	2	313.10	18.27	9.37	48.76	999.00	305.40	17.37	10.83	49.23	307.70	10.08	16.64	50.01	999.00	-1.27	999.00	-0.79	0.00
23	10	21	3	315.00	18.50	7.71	48.37	999.00	307.30	17.57	8.77	48.86	316.10	10.88	12.72	49.69	999.00	-1.36	999.00	-0.87	0.00
23	10	21	4	313.00	16.98	5.23	47.95	999.00	306.60	16.26	6.94	48.43	313.40	9.31	14.00	49.24	999.00	-1.28	999.00	-0.80	0.00
23	10	21	5	302.10	15.69	6.82	47.95	999.00	293.60	14.72	7.24	48.43	294.10	9.70	12.60	49.24	999.00	-1.30	999.00	-0.83	0.00
23	10	21	6	297.80	16.94	6.83	46.99	999.00	289.10	15.50	7.23	47.46	288.70	10.41	10.62	48.20	999.00	-1.23	999.00	-0.75	0.00
23	10	21	7	272.00	15.04	3.32	45.43	999.00	262.20	13.73	3.90	45.90	262.20	7.05	9.97	46.56	999.00	-0.69	999.00	-0.28	0.00
23	10	21	8	266.40	16.32	5.21	42.99	999.00	257.50	14.21	5.78	43.31	256.00	8.53	10.65	43.72	999.00	-0.81	999.00	-0.50	0.00
23	10	21	9	277.90	17.03	5.11	41.82	999.00	267.90	14.96	5.95	42.02	267.30	8.27	11.69	42.47	999.00	-1.11	999.00	-0.87	0.00
23	10	21	10	285.90	13.54	7.83	43.06	999.00	276.10	12.76	8.08	43.49	276.30	8.86	14.38	45.09	999.00	-2.34	999.00	-1.84	0.00
23	10	21	11	286.30	12.24	7.37	43.06	999.00	280.20	11.62	7.21	43.49	283.70	8.84	11.44	45.09	999.00	-1.83	999.00	-1.35	0.00
23	10	21	12	263.70	13.34	7.40	46.59	999.00	257.00	12.65	8.51	47.09	259.40	8.81	14.69	48.26	999.00	-1.60	999.00	-1.12	0.00
23	10	21	13	261.40	15.69	7.57	46.53	999.00	254.80	14.28	8.53	47.01	259.30	9.25	13.20	48.19	999.00	-1.63	999.00	-1.15	0.00
23	10	21	14	248.50	16.80	4.86	46.53	999.00	241.20	16.15	5.26	47.01	246.30	11.26	11.20	48.19	999.00	-1.52	999.00	-1.03	0.00
23	10	21	15	243.40	17.58	3.97	48.14	999.00	237.30	16.89	4.05	48.60	243.80	11.11	10.91	49.74	999.00	-1.54	999.00	-1.09	0.00
23	10	21	16	234.20	14.93	5.59	47.89	999.00	226.50	13.99	6.17	48.37	230.10	9.32	12.55	49.45	999.00	-1.49	999.00	-1.03	0.00
23	10	21	17	246.60	8.99	5.14	47.77	999.00	241.40	8.15	5.62	48.26	253.00	6.14	10.74	49.17	999.00	-1.36	999.00	-0.86	0.00

23	10	21	18	236.30	10.38	6.28	47.81	999.00	229.10	8.99	7.49	48.28	227.50	4.94	15.73	49.02	999.00	-1.13	999.00	-0.69	0.00
23	10	21	19	247.20	10.26	6.16	47.75	999.00	239.90	8.90	7.83	48.17	244.70	5.19	11.05	48.86	999.00	-1.05	999.00	-0.66	0.00
23	10	21	20	297.70	5.86	4.79	47.86	999.00	299.30	5.07	3.83	48.18	326.80	2.21	11.21	48.72	999.00	-0.58	999.00	-0.30	0.02
23	10	21	21	331.10	11.15	6.18	48.48	999.00	323.60	9.88	6.91	48.85	321.90	4.71	14.90	48.83	999.00	-0.47	999.00	-0.05	0.01
23	10	21	22	326.10	14.68	4.89	48.58	999.00	317.90	13.39	5.86	49.02	318.90	7.05	12.93	49.41	999.00	-0.55	999.00	-0.16	0.01
23	10	21	23	335.70	17.48	3.59	47.88	999.00	328.90	16.50	4.25	48.32	334.80	9.30	11.86	48.39	999.00	0.03	999.00	0.46	0.03
23	10	21	24	359.50	20.49	5.44	48.17	999.00	352.70	18.89	6.71	48.66	357.20	14.48	8.74	47.76	999.00	0.13	999.00	0.67	0.00
23	10	22	1	6.75	17.07	7.41	47.99	999.00	0.02	15.45	7.55	48.55	1.83	12.90	7.61	47.52	999.00	0.85	999.00	1.42	0.00
23	10	22	2	14.25	15.14	11.19	47.77	999.00	6.47	13.62	9.97	48.28	11.47	12.13	10.95	47.56	999.00	-0.15	999.00	0.32	0.00
23	10	22	3	351.40	17.63	4.61	47.59	999.00	345.60	16.33	5.59	48.06	349.60	11.19	9.07	47.51	999.00	0.15	999.00	0.62	0.00
23	10	22	4	353.00	22.19	5.33	46.66	999.00	346.40	20.46	6.40	47.14	352.50	14.98	9.00	47.08	999.00	-1.21	999.00	-0.73	0.00
23	10	22	5	336.40	20.79	5.00	46.48	999.00	329.70	19.96	5.78	46.92	337.10	11.51	11.19	47.44	999.00	-0.68	999.00	-0.25	0.00
23	10	22	6	348.30	23.54	5.38	45.45	999.00	341.90	22.00	6.89	45.91	350.60	14.13	9.79	46.46	999.00	-1.30	999.00	-0.83	0.00
23	10	22	7	336.80	21.97	5.68	44.22	999.00	330.60	20.93	6.02	44.70	335.60	13.08	12.11	45.46	999.00	-1.11	999.00	-0.65	0.00
23	10	22	8	333.10	20.71	5.18	43.48	999.00	325.70	19.59	6.24	43.93	330.00	11.80	12.61	44.38	999.00	-0.86	999.00	-0.43	0.00
23	10	22	9	332.50	20.18	4.95	43.33	999.00	325.60	19.09	6.01	43.81	329.90	11.97	11.96	44.70	999.00	-1.95	999.00	-1.40	0.00
23	10	22	10	336.70	18.36	6.18	43.02	999.00	330.40	17.59	7.37	43.59	335.30	11.04	12.09	45.41	999.00	-2.53	999.00	-1.93	0.00
23	10	22	11	329.90	18.50	5.18	42.86	999.00	323.20	18.12	6.28	43.42	331.50	12.52	14.06	44.89	999.00	-2.55	999.00	-1.92	0.00
23	10	22	12	322.20	16.16	10.70	43.25	999.00	315.60	16.05	11.96	43.87	325.40	11.21	18.09	46.13	999.00	-2.84	999.00	-2.27	0.00
23	10	22	13	318.20	14.03	9.34	43.66	999.00	310.10	13.64	10.10	44.24	319.50	9.66	16.65	46.66	999.00	-2.78	999.00	-2.26	0.00
23	10	22	14	319.80	13.71	10.55	43.67	999.00	313.30	13.54	11.92	44.22	323.10	9.52	21.21	46.60	999.00	-3.55	999.00	-2.99	0.00
23	10	22	15	320.10	14.40	7.94	43.84	999.00	313.00	14.30	8.34	44.44	324.60	10.28	16.38	47.25	999.00	-3.58	999.00	-2.98	0.00
23	10	22	16	328.90	10.97	11.46	45.09	999.00	323.40	11.12	12.86	45.62	330.90	8.45	19.04	48.46	999.00	-3.35	999.00	-2.80	0.00
23	10	22	17	330.20	10.73	9.32	46.65	999.00	325.00	10.67	10.30	47.26	337.40	8.20	13.70	49.38	999.00	-2.56	999.00	-1.92	0.00
23	10	22	18	324.00	13.22	6.70	47.70	999.00	318.10	12.88	6.91	48.28	325.20	8.99	12.68	50.13	999.00	-2.13	999.00	-1.65	0.00
23	10	22	19	316.20	13.63	3.21	47.66	999.00	309.90	13.02	4.28	48.09	314.40	6.25	12.42	48.71	999.00	-0.15	999.00	0.23	0.00
23	10	22	20	320.70	11.94	5.48	47.30	999.00	311.60	11.21	6.22	47.63	300.30	4.47	9.27	46.49	999.00	1.17	999.00	1.50	0.00
23	10	22	21	336.80	11.45	5.21	47.35	999.00	329.70	10.88	6.15	47.72	328.30	4.56	15.86	46.42	999.00	0.82	999.00	1.24	0.00
23	10	22	22	341.90	8.88	5.95	47.60	999.00	334.60	8.03	6.66	48.01	228.00	2.63	14.26	46.04	999.00	2.34	999.00	2.73	0.00
23	10	22	23	314.40	8.00	3.89	47.65	999.00	300.00	7.79	4.38	47.87	215.00	3.12	10.06	43.30	999.00	4.51	999.00	4.65	0.00
23	10	22	24	323.80	6.72	5.90	47.37	999.00	309.00	6.30	6.01	47.25	195.40	2.73	16.57	41.22	999.00	6.62	999.00	6.72	0.00
23	10	23	1	321.50	6.05	4.96	47.31	999.00	302.80	6.58	3.11	47.40	203.10	2.81	9.79	40.16	999.00	7.53	999.00	7.56	0.00
23	10	23	2	321.10	4.06	3.29	47.18	999.00	301.50	4.90	3.76	47.23	208.60	2.81	10.54	39.75	999.00	7.31	999.00	7.46	0.00
23	10	23	3	289.50	6.21	3.96	46.90	999.00	264.00	8.18	2.87	46.54	224.70	4.20	7.22	39.10	999.00	7.96	999.00	7.19	0.00
23	10	23	4	259.90	5.69	2.73	46.27	999.00	246.10	8.04	1.75	45.76	213.30	4.18	11.14	38.64	999.00	7.43	999.00	7.17	0.00
23	10	23	5	254.00	5.41	1.93	45.51	999.00	243.30	6.57	2.01	45.47	212.10	3.40	9.80	37.53	999.00	999.00	999.00	7.97	0.00
23	10	23	6	228.30	6.85	1.74	44.57	999.00	219.40	10.05	1.33	44.05	201.70	2.92	12.15	36.99	999.00	7.63	999.00	6.95	0.00
23	10	23	7	219.20	8.58	3.31	44.58	999.00	211.90	11.14	2.71	44.07	204.40	4.30	10.75	36.70	999.00	7.97	999.00	7.80	0.00
23	10	23	8	204.80	8.58	2.28	44.46	999.00	205.50	11.14	1.70	44.19	194.60	3.82	10.28	36.51	999.00	7.97	999.00	7.67	0.00
23	10	23	9	212.80	16.78	1.67	44.44	999.00	207.70	16.05	1.89	41.80	212.30	4.65	12.95	37.01	999.00	6.82	999.00	2.76	0.00
23	10	23	10	203.80	12.29	4.45	44.35	999.00	195.20	8.80	6.87	40.87	194.90	5.31	16.13	40.01	999.00	0.72	999.00	-0.16	0.00
23	10	23	11	203.20	8.80	6.91	42.93	999.00	198.00	8.21	8.46	44.20	215.30	5.83	17.09	44.74	999.00	-2.28	999.00	-0.90	0.00
23	10	23	12	203.60	8.46	7.74	46.90	999.00	196.50	7.90	9.20	48.53	208.90	5.54	21.63	49.38	999.00	-2.72	999.00	-1.01	0.00
23	10	23	13	222.20	10.29	12.16	50.15	999.00	214.20	9.69	12.31	51.15	224.10	6.86	16.13	52.65	999.00	-2.21	999.00	-1.56	0.00
23	10	23	14	204.60	7.80	19.74	52.02	999.00	196.50	7.41	19.67	52.85	211.40	5.47	25.39	54.57	999.00	-2.87	999.00	-1.51	0.00
23	10	23	15	198.30	7.20	14.26	53.10	999.00	190.80	7.07	14.41	54.13	186.10	4.81	23.55	55.48	999.00	-2.59	999.00	-1.49	0.00
23	10	23	16	171.30	6.13	12.69	54.27	999.00	162.30	5.64	12.38	55.11	164.40	3.46	26.74	56.38	999.00	-1.85	999.00	-1.08	0.00
23	10	23	17	144.50	7.08	9.15	54.27	999.00	134.80	6.32	8.77	55.11	143.40	3.64	20.80	56.38	999.00	-1.43	999.00	-0.98	0.00
23	10	23	18	117.50	14.00	4.20	53.60	999.00	106.30	13.41	4.56	53.77	114.30	6.62	15.04	54.58	999.00	-0.83	999.00	-0.81	0.00
23	10	23	19	116.90	13.67	2.09	52.32	999.00	106.10	12.11	3.41	52.36	106.20	4.44	12.14	52.46	999.00	0.07	999.00	0.17	0.00
23	10	23	20	119.10	17.52	1.63	52.28	999.00	110.40	15.51	2.95	52.53	114.40	6.74	12.99	52.37	999.00	-0.08	999.00	0.18	0.00
23	10	23	21	122.40	17.96	3.20	52.32	999.00	111.60	14.59	1.98	52.32	117.50	5.51	12.70	52.00	999.00	1.14	999.00	0.65	0.00
23	10	23	22	168.60	20.05	2.60	56.30	999.00	151.00	16.85	4.08	54.00	155.10	4.23	18.32	51.86	999.00	5.89	999.00	2.63	0.00

23	10	23	23	179.50	24.39	2.18	57.26	999.00	167.10	19.20	3.09	54.56	176.80	4.59	22.01	51.26	999.00	5.64	999.00	3.62	0.00
23	10	23	24	186.30	22.14	4.29	54.30	999.00	179.30	17.43	5.52	53.20	191.10	5.59	20.38	51.61	999.00	1.16	999.00	0.71	0.00
23	10	24	1	196.70	22.87	3.46	53.46	999.00	190.30	18.83	3.92	53.02	198.30	6.48	17.04	52.13	999.00	1.53	999.00	1.12	0.00
23	10	24	2	199.10	21.81	3.89	53.78	999.00	192.10	17.85	4.59	53.51	199.20	6.43	15.31	52.73	999.00	1.18	999.00	0.94	0.00
23	10	24	3	221.80	14.52	4.28	54.35	999.00	221.60	11.80	5.25	54.25	244.80	4.63	14.63	53.29	999.00	1.20	999.00	1.12	0.00
23	10	24	4	200.30	21.28	1.85	54.13	999.00	191.80	18.16	2.57	53.96	193.70	6.66	13.57	52.47	999.00	1.71	999.00	1.46	0.00
23	10	24	5	201.70	20.97	3.35	52.85	999.00	193.60	16.80	4.19	52.56	199.40	6.26	14.57	51.75	999.00	1.06	999.00	0.68	0.00
23	10	24	6	200.10	23.52	2.98	52.42	999.00	191.40	18.98	3.49	51.80	196.40	6.98	14.20	50.75	999.00	2.12	999.00	1.29	0.00
23	10	24	7	202.10	23.61	2.69	53.65	999.00	193.20	19.22	3.52	52.78	199.10	7.34	13.67	51.34	999.00	2.09	999.00	1.46	0.00
23	10	24	8	204.80	22.19	2.54	53.39	999.00	197.40	18.15	3.40	52.84	208.80	6.93	15.22	52.01	999.00	1.19	999.00	0.72	0.00
23	10	24	9	207.30	22.79	3.66	53.03	999.00	199.20	18.38	4.92	52.54	211.00	7.32	16.25	51.88	999.00	0.51	999.00	0.23	0.00
23	10	24	10	216.10	17.56	4.89	54.61	999.00	208.00	14.96	5.09	54.67	213.60	8.11	12.54	55.01	999.00	-0.97	999.00	-0.75	0.00
23	10	24	11	222.80	17.10	4.71	59.45	999.00	212.90	15.72	5.02	59.76	217.60	8.79	14.59	60.83	999.00	-1.59	999.00	-1.21	0.00
23	10	24	12	230.20	15.54	5.77	64.59	999.00	222.20	14.77	6.17	65.11	228.40	8.64	14.97	66.54	999.00	-2.08	999.00	-1.51	0.00
23	10	24	13	221.30	13.44	7.38	68.36	999.00	213.20	12.20	8.57	68.98	221.70	7.24	17.05	70.63	999.00	-2.51	999.00	-1.79	0.00
23	10	24	14	219.60	14.44	8.16	68.36	999.00	212.70	13.53	8.27	68.98	223.70	9.01	15.76	70.63	999.00	-2.34	999.00	-1.68	0.00
23	10	24	15	220.80	18.27	5.79	74.91	999.00	214.60	17.61	6.91	75.56	223.90	10.65	15.67	77.13	999.00	-2.18	999.00	-1.68	0.00
23	10	24	16	212.40	17.94	9.32	76.33	999.00	206.90	17.23	9.07	76.72	220.30	10.21	14.37	78.35	999.00	-1.89	999.00	-1.49	0.00
23	10	24	17	206.20	18.75	4.82	77.46	999.00	198.80	17.45	5.37	77.96	207.60	8.82	15.91	78.93	999.00	-1.20	999.00	-0.62	0.00
23	10	24	18	194.80	18.22	3.18	77.52	999.00	186.30	16.50	4.09	78.04	192.50	6.59	15.29	77.93	999.00	0.28	999.00	0.66	0.00
23	10	24	19	201.60	19.83	2.78	76.62	999.00	192.20	16.98	3.53	76.69	191.30	5.56	14.26	75.05	999.00	2.22	999.00	2.13	0.00
23	10	24	20	189.30	16.47	1.45	76.62	999.00	179.40	13.97	1.81	76.69	175.60	3.63	14.85	75.05	999.00	3.19	999.00	2.86	0.00
23	10	24	21	203.40	20.71	2.51	71.53	999.00	192.80	16.97	2.78	71.06	187.60	5.29	12.65	68.12	999.00	3.25	999.00	2.83	0.00
23	10	24	22	201.80	24.26	2.88	69.54	999.00	192.40	20.21	3.82	69.15	193.90	7.19	14.47	66.62	999.00	2.42	999.00	2.07	0.00
23	10	24	23	211.00	22.23	4.18	69.54	999.00	204.50	19.17	4.72	69.15	212.90	8.14	14.88	66.62	999.00	0.45	999.00	0.55	0.00
23	10	24	24	215.60	19.49	4.22	67.67	999.00	207.20	16.73	4.53	67.81	212.10	7.09	13.78	67.39	999.00	0.38	999.00	0.50	0.00
23	10	25	1	206.30	20.56	3.16	66.97	999.00	198.40	17.68	3.96	66.97	206.80	7.04	14.25	66.37	999.00	0.22	999.00	0.29	0.00
23	10	25	2	215.10	22.09	3.45	66.97	999.00	209.50	18.94	4.70	66.97	217.60	8.26	13.67	66.37	999.00	0.44	999.00	0.47	0.00
23	10	25	3	212.80	22.39	3.76	65.55	999.00	202.90	18.56	4.22	65.44	206.30	6.76	14.77	64.90	999.00	0.70	999.00	0.48	0.00
23	10	25	4	217.60	23.25	2.97	65.01	999.00	208.10	19.29	3.71	64.72	213.80	7.61	15.01	64.07	999.00	1.02	999.00	0.72	0.00
23	10	25	5	210.60	20.36	4.50	64.83	999.00	197.60	17.43	4.44	64.48	197.40	6.79	14.36	63.69	999.00	1.44	999.00	0.96	0.00
23	10	25	6	217.30	22.99	3.75	64.22	999.00	210.70	18.83	4.60	63.82	219.30	7.59	14.10	62.96	999.00	1.02	999.00	0.73	0.00
23	10	25	7	219.20	21.76	2.89	63.89	999.00	209.70	18.14	2.40	63.44	213.10	6.64	13.86	62.27	999.00	2.17	999.00	1.54	0.00
23	10	25	8	211.10	21.74	3.06	63.51	999.00	202.80	18.00	3.74	63.20	207.80	6.51	13.76	62.14	999.00	1.00	999.00	0.79	0.00
23	10	25	9	204.00	22.62	3.41	62.83	999.00	195.70	19.22	4.02	62.66	202.20	8.12	15.17	62.17	999.00	0.29	999.00	0.22	0.00
23	10	25	10	200.70	23.37	4.23	62.56	999.00	192.60	19.93	5.19	62.58	198.30	8.89	14.44	62.46	999.00	-0.12	999.00	-0.02	0.00
23	10	25	11	211.40	21.28	5.30	63.36	999.00	205.10	18.98	5.89	63.71	211.40	8.60	15.66	64.11	999.00	-0.90	999.00	-0.50	0.00
23	10	25	12	208.80	23.50	5.49	64.56	999.00	201.90	21.64	6.35	65.01	211.30	10.94	16.45	65.55	999.00	-1.14	999.00	-0.67	0.00
23	10	25	13	207.70	16.92	4.43	65.51	999.00	198.90	15.49	4.68	65.96	205.90	6.93	17.02	66.48	999.00	-0.82	999.00	-0.39	0.00
23	10	25	14	224.40	17.31	6.79	67.30	999.00	218.00	16.33	6.82	67.73	227.20	9.92	13.62	68.30	999.00	-1.19	999.00	-0.75	0.00
23	10	25	15	225.00	17.29	6.85	69.08	999.00	218.70	16.20	8.26	69.52	225.60	9.81	13.96	70.68	999.00	-1.71	999.00	-1.27	0.00
23	10	25	16	214.80	18.42	5.74	70.61	999.00	208.50	17.03	5.85	71.09	217.30	9.78	15.52	71.75	999.00	-0.88	999.00	-0.41	0.00
23	10	25	17	221.00	18.15	6.08	70.39	999.00	214.60	16.56	7.81	70.84	222.60	8.43	14.90	71.25	999.00	-0.86	999.00	-0.43	0.00
23	10	25	18	220.50	15.64	3.88	68.84	999.00	214.80	13.71	4.37	69.19	221.90	5.85	13.06	69.42	999.00	-0.26	999.00	0.02	0.00
23	10	25	19	212.30	16.37	2.27	67.54	999.00	203.80	14.23	2.68	67.89	203.50	4.63	13.13	67.00	999.00	1.22	999.00	1.34	0.00
23	10	25	20	207.20	22.39	3.88	66.51	999.00	199.30	19.28	4.63	66.57	205.30	8.26	15.51	65.79	999.00	0.20	999.00	0.31	0.00
23	10	25	21	201.80	19.53	3.28	65.85	999.00	194.90	16.69	3.59	65.90	204.70	6.67	13.79	65.54	999.00	0.51	999.00	0.51	0.00
23	10	25	22	205.30	21.07	2.20	65.04	999.00	197.90	17.74	2.73	65.02	204.00	6.56	14.36	64.35	999.00	0.80	999.00	0.72	0.00
23	10	25	23	205.00	21.33	1.99	64.66	999.00	195.50	17.76	2.52	64.49	199.30	6.49	14.26	63.56	999.00	1.29	999.00	1.00	0.00
23	10	25	24	205.00	21.39	2.90	64.68	999.00	195.80	17.66	3.75	64.48	201.90	7.13	13.49	64.05	999.00	0.52	999.00	0.35	0.00
23	10	26	1	208.90	19.83	3.50	64.60	999.00	200.40	16.55	3.93	64.54	205.00	6.07	15.58	64.29	999.00	0.42	999.00	0.33	0.00
23	10	26	2	211.40	20.11	2.53	64.69	999.00	201.70	16.67	2.93	64.51	210.00	5.50	14.89	64.11	999.00	0.90	999.00	0.57	0.00
23	10	26	3	208.80	20.74	2.57	64.64	999.00	200.10	17.55	3.42	64.31	207.10	6.60	15.51	63.85	999.00	0.48	999.00	0.26	0.00

23	10	26	4	209.70	20.64	2.72	64.48	999.00	199.60	16.93	2.85	63.99	201.20	6.36	14.01	63.20	999.00	1.43	999.00	0.81	0.00
23	10	26	5	212.70	20.34	3.89	64.60	999.00	203.90	16.38	4.39	64.21	205.40	5.45	14.90	63.49	999.00	1.03	999.00	0.77	0.00
23	10	26	6	216.30	19.95	3.65	64.80	999.00	206.30	16.33	4.19	64.55	203.70	6.07	13.68	63.88	999.00	0.97	999.00	0.70	0.00
23	10	26	7	210.60	15.20	3.20	64.73	999.00	199.30	12.86	3.35	64.58	198.70	4.66	14.04	64.03	999.00	0.42	999.00	0.39	0.00
23	10	26	8	202.50	18.37	3.89	63.28	999.00	193.40	14.86	4.57	63.16	199.90	5.45	16.17	62.90	999.00	0.51	999.00	0.36	0.00
23	10	26	9	200.90	19.70	3.79	62.71	999.00	192.60	16.57	4.38	62.67	199.40	6.76	15.51	62.44	999.00	-0.18	999.00	-0.10	0.00
23	10	26	10	200.80	18.71	5.72	62.82	999.00	192.90	16.69	6.73	63.29	200.80	8.80	14.85	63.74	999.00	-1.31	999.00	-0.61	0.00
23	10	26	11	209.40	18.55	6.41	64.55	999.00	203.20	17.10	7.47	65.25	212.20	8.98	17.84	66.12	999.00	-1.74	999.00	-1.10	0.00
23	10	26	12	209.70	18.32	5.90	65.26	999.00	203.40	17.39	6.05	65.88	214.40	9.93	17.74	66.95	999.00	-1.85	999.00	-1.22	0.00
23	10	26	13	205.20	18.50	5.72	67.47	999.00	197.40	17.51	5.95	68.24	202.60	8.85	17.12	69.26	999.00	-1.68	999.00	-0.92	0.00
23	10	26	14	212.80	22.51	6.67	71.43	999.00	207.00	21.09	6.65	72.14	215.60	12.40	16.11	73.45	999.00	-1.45	999.00	-0.96	0.00
23	10	26	15	223.20	23.82	7.95	71.70	999.00	216.70	22.21	9.45	72.17	227.20	13.40	13.46	73.28	999.00	-2.00	999.00	-1.55	0.00
23	10	26	16	212.60	24.73	8.60	72.07	999.00	205.50	22.94	8.94	72.58	214.50	12.77	17.65	73.60	999.00	-1.21	999.00	-0.71	0.00
23	10	26	17	210.10	22.42	5.15	71.69	999.00	202.60	20.42	6.62	72.16	212.60	10.23	16.14	72.65	999.00	-0.81	999.00	-0.39	0.00
23	10	26	18	211.30	23.27	4.66	71.69	999.00	204.10	21.15	5.59	72.08	210.90	9.52	16.27	72.32	999.00	-0.62	999.00	-0.23	0.00
23	10	26	19	197.00	20.70	4.20	70.93	999.00	188.50	18.32	4.31	71.18	192.10	8.45	13.84	71.07	999.00	0.17	999.00	0.36	0.00
23	10	26	20	195.10	22.10	3.59	70.05	999.00	187.20	19.22	4.37	70.17	192.10	8.38	13.37	69.88	999.00	0.20	999.00	0.33	0.00
23	10	26	21	197.20	20.02	4.21	69.37	999.00	189.10	16.82	4.93	69.44	196.30	7.14	14.48	69.00	999.00	0.32	999.00	0.36	0.00
23	10	26	22	201.70	23.35	4.30	69.16	999.00	194.30	20.26	5.18	69.34	201.70	8.84	16.29	69.30	999.00	-0.29	999.00	-0.08	0.00
23	10	26	23	211.90	23.74	4.36	69.28	999.00	205.30	20.95	5.35	69.55	214.40	9.82	15.41	69.62	999.00	-0.42	999.00	-0.12	0.00
23	10	26	24	199.60	19.80	4.67	68.59	999.00	191.70	17.10	5.71	68.84	198.20	7.64	15.06	68.93	999.00	-0.36	999.00	-0.13	0.00
23	10	27	1	201.20	23.03	4.54	67.98	999.00	194.20	20.09	5.20	68.20	202.50	9.18	15.42	68.33	999.00	-0.35	999.00	-0.13	0.00
23	10	27	2	207.70	22.49	4.94	67.75	999.00	200.00	19.39	5.31	67.94	207.80	8.68	15.90	68.06	999.00	-0.24	999.00	-0.05	0.00
23	10	27	3	207.50	22.25	3.51	66.66	999.00	200.20	19.20	3.92	66.84	207.20	7.32	16.81	66.90	999.00	-0.15	999.00	-0.02	0.00
23	10	27	4	203.20	23.53	3.64	65.70	999.00	195.50	19.64	4.12	65.63	203.90	8.00	14.90	65.46	999.00	0.31	999.00	0.22	0.00
23	10	27	5	209.00	24.07	3.36	65.31	999.00	201.00	20.50	4.15	65.11	209.70	8.24	14.68	64.79	999.00	0.45	999.00	0.29	0.00
23	10	27	6	214.60	21.89	3.27	64.99	999.00	207.00	18.57	3.72	64.95	213.80	7.65	14.37	64.61	999.00	0.29	999.00	0.30	0.00
23	10	27	7	211.80	18.95	3.55	64.36	999.00	202.70	15.88	4.56	64.38	209.20	6.14	15.28	64.11	999.00	-0.16	999.00	-0.05	0.00
23	10	27	8	211.20	21.08	4.18	64.36	999.00	203.00	17.71	4.61	64.38	210.00	6.97	15.00	64.11	999.00	0.13	999.00	0.17	0.00
23	10	27	9	209.20	19.66	3.70	65.61	999.00	199.80	16.85	4.01	65.70	202.70	6.55	14.42	65.42	999.00	-0.03	999.00	0.19	0.00
23	10	27	10	221.50	20.33	6.78	66.08	999.00	214.00	18.17	6.91	66.45	221.60	10.22	15.28	67.22	999.00	-1.59	999.00	-1.15	0.00
23	10	27	11	225.20	22.51	5.99	67.89	999.00	217.80	20.84	6.62	68.33	225.90	12.72	13.55	69.60	999.00	-1.67	999.00	-1.22	0.00
23	10	27	12	222.70	20.45	6.47	69.32	999.00	216.10	19.70	7.26	69.86	223.60	12.18	13.77	71.30	999.00	-2.22	999.00	-1.64	0.00
23	10	27	13	225.90	24.78	5.97	71.42	999.00	219.50	23.63	7.18	71.96	228.00	14.80	13.85	73.55	999.00	-2.18	999.00	-1.66	0.00
23	10	27	14	220.90	24.12	5.47	72.93	999.00	213.50	23.03	6.63	73.47	220.30	13.51	15.12	75.05	999.00	-2.20	999.00	-1.69	0.00
23	10	27	15	219.60	22.64	7.87	73.38	999.00	212.50	21.73	8.74	73.90	223.10	12.88	14.95	75.43	999.00	-2.16	999.00	-1.66	0.00
23	10	27	16	220.90	19.83	6.87	73.40	999.00	213.00	18.98	7.58	73.84	221.30	11.82	13.87	75.00	999.00	-1.85	999.00	-1.38	0.00
23	10	27	17	222.10	19.96	8.21	73.24	999.00	214.60	18.52	9.52	73.70	223.30	11.13	15.38	74.80	999.00	-1.52	999.00	-1.03	0.00
23	10	27	18	219.90	21.62	5.31	72.97	999.00	212.70	19.84	6.38	73.40	219.70	10.03	15.18	74.10	999.00	-0.77	999.00	-0.37	0.00
23	10	27	19	217.40	15.73	3.67	72.15	999.00	209.70	13.42	3.98	72.43	210.90	4.85	13.22	72.13	999.00	0.51	999.00	0.69	0.00
23	10	27	20	198.90	19.34	3.81	69.90	999.00	190.40	17.03	4.46	70.15	199.00	7.66	16.08	70.15	999.00	-0.05	999.00	0.11	0.00
23	10	27	21	211.60	20.94	3.77	68.72	999.00	201.00	18.34	3.51	68.75	202.70	7.38	14.45	68.66	999.00	0.38	999.00	0.34	0.00
23	10	27	22	217.60	17.93	3.30	68.51	999.00	207.00	15.12	3.26	68.42	206.70	5.28	13.03	67.64	999.00	0.96	999.00	0.90	0.00
23	10	27	23	208.50	20.37	3.18	66.70	999.00	200.00	17.62	3.46	66.60	202.80	6.82	15.80	66.27	999.00	0.11	999.00	0.14	0.00
23	10	27	24	210.40	23.01	4.07	65.98	999.00	202.40	19.90	4.69	66.09	209.70	8.48	15.10	66.08	999.00	-0.07	999.00	0.02	0.00
23	10	28	1	215.50	20.39	3.27	66.02	999.00	208.20	17.53	4.12	66.14	213.60	7.77	15.14	66.07	999.00	-0.10	999.00	0.07	0.00
23	10	28	2	220.80	21.87	4.19	65.21	999.00	212.50	18.55	5.12	65.30	217.60	7.66	14.10	65.29	999.00	0.07	999.00	0.12	0.00
23	10	28	3	238.10	19.29	3.85	66.20	999.00	230.00	17.11	4.47	66.43	234.50	9.20	10.94	66.55	999.00	-0.37	999.00	-0.10	0.00
23	10	28	4	274.90	16.60	4.91	66.30	999.00	265.60	15.53	5.69	66.70	269.70	9.68	10.54	67.16	999.00	-1.14	999.00	-0.69	0.02
23	10	28	5	313.60	17.88	6.33	66.30	999.00	309.10	17.34	5.70	66.70	320.10	10.28	11.14	67.16	999.00	-0.60	999.00	-0.29	0.04
23	10	28	6	329.00	23.22	5.18	55.92	999.00	322.00	21.73	5.65	56.34	329.60	13.54	11.59	56.58	999.00	-0.75	999.00	-0.28	0.00
23	10	28	7	317.30	21.95	4.82	53.18	999.00	310.70	21.15	6.08	53.73	318.60	12.87	12.32	53.14	999.00	0.24	999.00	0.84	0.00
23	10	28	8	317.10	20.75	5.30	51.72	999.00	310.10	20.04	6.15	52.20	315.50	12.87	12.51	51.29	999.00	0.34	999.00	0.79	0.00

23	10	28	9	322.90	19.24	5.15	50.10	999.00	316.70	18.09	6.11	50.56	323.60	11.11	11.55	50.30	999.00	-0.23	999.00	0.22	0.00
23	10	28	10	324.70	18.91	5.58	49.27	999.00	318.80	18.09	6.89	49.78	326.10	12.39	12.19	49.38	999.00	-0.08	999.00	0.45	0.00
23	10	28	11	316.20	15.02	6.44	49.27	999.00	308.40	15.05	7.44	49.78	315.80	10.27	13.97	49.38	999.00	-1.75	999.00	-1.27	0.00
23	10	28	12	326.80	13.61	7.45	49.80	999.00	318.90	13.33	8.42	50.32	324.00	9.05	14.21	51.89	999.00	-2.26	999.00	-1.72	0.00
23	10	28	13	342.10	14.03	6.52	51.00	999.00	335.90	13.91	7.72	51.55	341.70	11.21	12.76	53.03	999.00	-1.99	999.00	-1.42	0.00
23	10	28	14	5.64	10.71	9.42	51.77	999.00	357.40	10.09	8.49	52.32	3.97	9.51	9.08	53.49	999.00	-1.62	999.00	-1.09	0.00
23	10	28	15	16.39	9.03	13.86	53.00	999.00	12.13	7.66	14.19	53.56	16.23	8.36	15.65	54.70	999.00	-1.76	999.00	-1.19	0.00
23	10	28	16	62.82	15.78	4.38	52.58	999.00	55.19	15.75	3.95	53.08	62.13	11.76	10.35	54.32	999.00	-1.80	999.00	-1.34	0.00
23	10	28	17	62.96	18.35	5.31	51.18	999.00	56.25	17.60	6.08	51.70	63.65	11.63	11.43	53.05	999.00	-1.90	999.00	-1.38	0.00
23	10	28	18	62.77	15.51	6.19	50.87	999.00	55.37	14.69	6.30	51.38	62.00	9.55	12.40	52.56	999.00	-1.56	999.00	-1.05	0.00
23	10	28	19	73.40	17.24	3.89	50.92	999.00	66.38	16.73	4.65	51.42	74.50	10.44	11.21	52.34	999.00	-1.36	999.00	-0.88	0.00
23	10	28	20	73.80	18.17	5.31	50.59	999.00	66.17	17.64	6.23	51.08	71.80	11.00	12.16	51.98	999.00	-1.35	999.00	-0.87	0.00
23	10	28	21	69.25	20.48	4.02	50.11	999.00	61.93	19.16	5.14	50.61	69.05	12.16	11.67	51.58	999.00	-1.54	999.00	-1.03	0.00
23	10	28	22	76.00	19.44	3.90	49.46	999.00	68.69	18.88	4.85	49.94	75.30	11.30	11.76	50.88	999.00	-1.40	999.00	-0.93	0.00
23	10	28	23	70.60	18.73	5.04	49.46	999.00	62.57	17.45	5.55	49.94	68.13	10.59	11.68	50.88	999.00	-1.39	999.00	-0.91	0.00
23	10	28	24	64.56	20.39	5.38	49.62	999.00	57.67	19.53	5.86	50.10	64.00	12.40	11.00	50.91	999.00	-0.92	999.00	-0.51	0.06
23	10	29	1	38.36	19.95	5.42	47.03	999.00	32.48	16.59	5.86	47.48	39.93	17.55	8.91	46.85	999.00	0.02	999.00	0.45	0.06
23	10	29	2	50.77	21.80	6.97	47.03	999.00	43.54	19.65	7.83	47.48	42.96	17.56	9.47	46.85	999.00	-0.45	999.00	0.02	0.05
23	10	29	3	43.69	18.25	6.61	44.49	999.00	37.36	16.73	7.24	44.93	42.14	15.64	9.38	45.02	999.00	-0.48	999.00	-0.02	0.06
23	10	29	4	50.40	19.58	7.25	44.59	999.00	43.84	18.21	7.65	44.97	46.10	15.12	10.82	45.24	999.00	-0.72	999.00	-0.37	0.05
23	10	29	5	44.28	19.07	6.50	44.58	999.00	37.69	17.15	8.28	44.99	42.54	15.68	8.83	45.44	999.00	-0.95	999.00	-0.54	0.04
23	10	29	6	40.25	19.83	7.51	43.61	999.00	32.81	16.70	8.55	44.05	39.44	17.39	9.77	44.67	999.00	-0.98	999.00	-0.53	0.02
23	10	29	7	49.68	21.77	6.63	43.93	999.00	42.21	19.68	7.98	44.38	43.07	18.25	9.40	44.96	999.00	-0.94	999.00	-0.47	0.00
23	10	29	8	46.63	22.97	6.60	44.97	999.00	39.49	20.73	7.24	45.48	42.85	19.78	8.99	45.94	999.00	-0.89	999.00	-0.34	0.00
23	10	29	9	52.93	22.49	6.92	45.44	999.00	45.98	20.83	7.27	45.94	48.38	15.95	10.23	46.44	999.00	-0.94	999.00	-0.47	0.00
23	10	29	10	38.91	19.40	5.69	46.75	999.00	30.38	15.70	7.41	47.20	36.30	15.39	9.87	47.76	999.00	-1.19	999.00	-0.73	0.03
23	10	29	11	44.92	18.82	6.26	46.51	999.00	37.57	16.95	6.99	46.91	39.77	16.38	8.26	47.70	999.00	-1.11	999.00	-0.72	0.05
23	10	29	12	54.40	21.01	5.30	47.38	999.00	45.62	18.94	6.83	47.79	47.41	14.05	11.42	48.42	999.00	-1.08	999.00	-0.68	0.02
23	10	29	13	53.68	17.99	6.41	48.26	999.00	46.19	17.03	7.02	48.65	49.98	12.44	10.40	49.20	999.00	-0.70	999.00	-0.28	0.00
23	10	29	14	45.57	14.91	8.95	49.18	999.00	37.94	13.03	9.76	49.66	38.67	12.74	9.38	49.76	999.00	-0.63	999.00	-0.13	0.00
23	10	29	15	38.66	15.95	5.89	48.72	999.00	32.08	13.60	8.14	49.20	37.51	12.83	9.95	49.56	999.00	-0.85	999.00	-0.36	0.00
23	10	29	16	45.89	14.53	7.14	48.73	999.00	38.92	13.07	8.01	49.24	41.49	12.93	9.30	49.65	999.00	-1.02	999.00	-0.51	0.00
23	10	29	17	50.65	14.62	7.57	48.98	999.00	41.43	12.99	8.77	49.49	42.54	12.40	9.41	50.56	999.00	-1.60	999.00	-1.08	0.00
23	10	29	18	35.11	15.96	5.23	48.78	999.00	28.76	12.10	6.84	49.27	34.57	12.64	9.50	49.95	999.00	-0.65	999.00	-0.19	0.00
23	10	29	19	35.07	16.43	5.77	47.40	999.00	27.91	12.59	6.89	47.84	32.52	13.34	10.84	48.26	999.00	-0.89	999.00	-0.46	0.01
23	10	29	20	29.78	18.89	3.24	47.07	999.00	24.31	14.27	5.60	47.48	32.27	14.33	8.57	47.81	999.00	-0.75	999.00	-0.34	0.02
23	10	29	21	34.03	17.04	6.37	46.83	999.00	27.97	13.02	7.67	47.25	35.87	13.02	11.03	47.71	999.00	-0.96	999.00	-0.57	0.04
23	10	29	22	16.51	17.86	8.89	46.54	999.00	10.07	15.89	9.04	46.96	17.56	15.50	10.12	47.41	999.00	-0.95	999.00	-0.50	0.02
23	10	29	23	19.10	15.46	11.83	45.84	999.00	12.40	13.09	12.27	46.23	19.92	12.61	11.00	46.80	999.00	-0.93	999.00	-0.52	0.00
23	10	29	24	32.65	15.31	5.11	45.62	999.00	26.91	11.30	6.79	46.01	37.17	11.33	11.21	46.66	999.00	-0.98	999.00	-0.62	0.03
23	10	30	1	40.87	12.41	6.91	45.65	999.00	34.18	10.96	8.19	46.01	40.57	11.08	9.49	46.49	999.00	-0.70	999.00	-0.36	0.05
23	10	30	2	12.44	16.03	9.64	45.23	999.00	5.55	14.61	9.44	45.58	10.44	13.58	10.34	45.97	999.00	-0.79	999.00	-0.42	0.04
23	10	30	3	3.56	15.76	7.70	44.60	999.00	357.90	14.21	6.84	44.95	3.08	11.75	8.35	45.13	999.00	-0.46	999.00	-0.11	0.04
23	10	30	4	346.70	22.26	4.68	44.39	999.00	339.00	20.83	6.14	44.79	345.50	13.79	9.57	44.86	999.00	-0.68	999.00	-0.21	0.03
23	10	30	5	348.00	24.57	4.68	43.18	999.00	341.30	23.50	5.31	43.74	347.10	16.61	8.99	43.91	999.00	-0.58	999.00	0.02	0.01
23	10	30	6	347.40	20.02	3.89	42.05	999.00	341.20	19.44	4.82	42.66	348.90	13.38	9.10	42.69	999.00	-0.54	999.00	0.10	0.00
23	10	30	7	347.10	21.74	4.00	41.83	999.00	340.10	20.76	5.16	42.56	347.00	13.45	9.66	42.24	999.00	-0.47	999.00	0.30	0.00
23	10	30	8	341.30	17.82	5.23	41.68	999.00	335.20	16.85	6.03	42.34	341.80	12.28	10.86	41.98	999.00	-0.30	999.00	0.31	0.00
23	10	30	9	332.00	18.37	5.34	42.22	999.00	324.80	17.96	5.40	42.72	331.00	12.05	11.28	42.83	999.00	-0.63	999.00	-0.16	0.00
23	10	30	10	336.60	17.30	5.65	42.17	999.00	329.60	16.67	7.09	42.65	339.70	11.23	11.09	42.95	999.00	-0.70	999.00	-0.21	0.00
23	10	30	11	327.90	15.85	8.56	41.81	999.00	323.40	15.31	8.74	42.29	330.80	9.80	12.55	42.35	999.00	-0.46	999.00	0.01	0.00
23	10	30	12	319.30	20.85	5.39	41.50	999.00	312.80	20.30	5.99	41.98	319.30	13.97	11.39	42.23	999.00	-1.31	999.00	-0.82	0.00
23	10	30	13	304.50	19.74	4.86	40.86	999.00	297.90	19.75	4.45	41.36	306.00	13.15	12.83	42.67	999.00	-2.17	999.00	-1.67	0.00

23	10	30	14	305.20	17.24	8.83	41.02	999.00	298.20	17.42	9.96	41.53	302.10	11.66	15.13	43.46	999.00	-2.60	999.00	-2.09	0.00
23	10	30	15	308.30	21.16	7.07	41.56	999.00	300.20	20.37	7.69	42.07	304.30	13.53	14.17	44.12	999.00	-2.67	999.00	-2.15	0.00
23	10	30	16	305.60	23.09	5.34	41.77	999.00	299.60	22.29	6.10	42.25	304.40	13.42	13.90	43.92	999.00	-1.72	999.00	-1.23	0.00
23	10	30	17	302.80	18.05	5.25	41.86	999.00	295.30	17.26	5.12	42.34	298.50	10.22	12.84	43.69	999.00	-1.55	999.00	-1.10	0.00
23	10	30	18	297.80	16.83	8.80	41.56	999.00	290.10	15.62	9.68	42.00	290.30	9.62	13.49	42.82	999.00	-1.17	999.00	-0.76	0.00
23	10	30	19	303.20	18.62	3.58	41.04	999.00	295.90	17.59	4.22	41.46	297.10	9.52	10.89	41.80	999.00	-0.31	999.00	0.07	0.00
23	10	30	20	299.20	17.12	2.82	40.02	999.00	290.80	15.30	3.41	40.36	286.30	8.42	9.56	39.99	999.00	0.14	999.00	0.44	0.00
23	10	30	21	293.80	15.03	3.47	39.08	999.00	282.40	13.75	3.52	39.39	273.00	7.03	9.26	39.21	999.00	0.06	999.00	0.32	0.00
23	10	30	22	301.50	16.84	4.03	38.75	999.00	291.00	14.98	3.72	38.86	272.30	6.51	8.64	37.66	999.00	1.25	999.00	1.40	0.00
23	10	30	23	301.40	16.19	3.28	37.83	999.00	292.60	14.58	3.47	38.09	285.50	7.38	8.32	37.22	999.00	0.73	999.00	0.91	0.00
23	10	30	24	313.10	16.54	5.82	36.75	999.00	305.80	16.00	6.40	37.03	307.20	8.96	13.32	36.31	999.00	-0.21	999.00	0.19	0.00
23	10	31	1	303.80	14.52	5.32	36.16	999.00	294.80	13.58	5.52	36.55	286.70	7.47	10.35	36.28	999.00	0.30	999.00	0.64	0.00
23	10	31	2	295.60	10.87	4.53	35.70	999.00	285.40	10.37	4.39	35.94	265.20	4.41	13.50	34.56	999.00	1.35	999.00	1.64	0.00
23	10	31	3	278.40	7.88	1.99	35.48	999.00	266.00	8.15	1.56	35.63	224.30	3.99	9.50	33.31	999.00	3.14	999.00	3.49	0.00
23	10	31	4	258.60	7.27	4.04	35.08	999.00	240.00	7.64	3.07	35.23	203.20	3.83	10.00	31.67	999.00	3.73	999.00	3.77	0.00
23	10	31	5	228.60	6.55	1.46	34.79	999.00	211.00	8.25	1.50	34.62	222.90	4.59	7.18	30.49	999.00	4.57	999.00	4.07	0.00
23	10	31	6	217.70	8.65	3.07	34.31	999.00	212.00	10.59	3.03	33.75	225.30	5.67	9.06	30.46	999.00	3.72	999.00	3.44	0.00
23	10	31	7	202.30	12.14	1.35	34.18	999.00	199.40	14.10	2.86	33.75	216.30	4.48	11.32	30.01	999.00	3.93	999.00	3.19	0.00
23	10	31	8	210.10	13.51	13.77	33.58	999.00	213.30	12.72	12.16	32.58	220.10	4.42	16.86	29.50	999.00	3.44	999.00	2.24	0.00
23	10	31	9	239.00	14.87	2.29	31.39	999.00	234.90	13.07	2.55	30.62	219.10	4.52	12.67	29.39	999.00	2.17	999.00	1.59	0.00
23	10	31	10	221.70	14.72	3.94	32.34	999.00	212.30	11.93	4.85	31.45	212.40	6.39	13.93	31.69	999.00	-0.96	999.00	-1.06	0.00
23	10	31	11	215.30	13.69	8.36	33.43	999.00	207.40	12.59	9.10	34.14	214.90	7.40	18.08	35.57	999.00	-2.58	999.00	-1.67	0.00
23	10	31	12	213.90	14.19	9.02	35.13	999.00	206.30	13.65	8.79	35.94	220.60	9.34	16.43	37.81	999.00	-2.69	999.00	-1.94	0.00
23	10	31	13	225.20	14.49	8.36	36.21	999.00	218.10	13.64	8.31	36.76	224.90	9.50	15.26	38.33	999.00	-1.77	999.00	-1.28	0.00
23	10	31	14	229.20	15.38	8.70	36.56	999.00	223.60	14.70	8.61	37.04	229.10	10.80	13.60	38.56	999.00	-2.35	999.00	-1.87	0.00
23	10	31	15	222.20	16.34	9.05	37.11	999.00	216.80	15.86	10.42	37.61	224.20	11.09	16.42	39.68	999.00	-2.58	999.00	-2.11	0.00
23	10	31	16	240.60	17.54	6.14	37.31	999.00	235.10	17.07	6.06	37.76	240.50	12.18	13.64	39.50	999.00	-2.03	999.00	-1.57	0.00
23	10	31	17	254.70	18.10	6.30	37.34	999.00	248.40	17.46	6.04	37.82	256.00	11.99	11.62	39.01	999.00	-1.57	999.00	-1.08	0.00
23	10	31	18	254.60	17.92	7.42	36.47	999.00	246.70	17.28	8.21	36.95	250.20	11.74	13.73	38.02	999.00	-1.57	999.00	-1.07	0.00
23	10	31	19	270.40	14.03	6.34	33.59	999.00	264.90	13.40	6.25	34.06	271.00	9.31	12.74	35.13	999.00	-1.41	999.00	-0.95	0.00
23	10	31	20	283.30	18.38	9.84	31.69	999.00	274.90	17.15	11.09	32.13	275.40	10.27	13.92	32.91	999.00	-1.12	999.00	-0.73	0.00
23	10	31	21	281.30	14.85	3.89	30.24	999.00	273.00	13.13	4.67	30.65	271.10	7.08	11.03	31.03	999.00	-0.55	999.00	-0.23	0.00
23	10	31	22	275.30	15.10	4.70	29.76	999.00	265.50	13.18	5.93	30.13	266.20	7.89	11.18	30.65	999.00	-1.17	999.00	-0.80	0.00
23	10	31	23	277.40	16.36	6.00	999.00	999.00	268.40	14.83	6.99	999.00	266.30	9.31	11.17	30.84	999.00	-1.17	999.00	-0.79	0.00
23	10	31	24	276.40	17.24	6.15	30.17	999.00	265.40	15.70	6.50	30.54	266.00	9.74	10.56	31.31	999.00	-1.24	999.00	-0.84	0.00
23	11	1	1	275.70	17.97	5.76	30.17	999.00	264.60	15.93	6.28	30.54	260.60	10.16	11.30	31.31	999.00	-1.25	999.00	-0.88	0.00
23	11	1	2	297.30	13.96	7.68	30.63	999.00	286.60	13.03	7.08	30.82	281.70	8.64	10.80	31.49	999.00	-0.96	999.00	-0.65	0.00
23	11	1	3	316.70	17.95	8.15	31.43	999.00	307.40	17.03	10.65	31.72	303.70	10.31	18.52	32.32	999.00	-0.41	999.00	-0.14	0.00
23	11	1	4	324.30	21.62	5.63	33.27	999.00	317.60	20.45	6.69	33.74	322.20	13.54	10.49	34.50	999.00	-1.22	999.00	-0.76	0.00
23	11	1	5	319.80	19.48	5.74	33.40	999.00	312.50	18.96	6.16	33.86	317.60	11.24	13.02	34.37	999.00	-0.91	999.00	-0.46	0.00
23	11	1	6	323.10	21.34	6.44	32.97	999.00	316.60	20.03	7.71	33.42	322.90	12.41	11.23	33.85	999.00	-0.86	999.00	-0.42	0.00
23	11	1	7	331.80	22.58	6.29	32.47	999.00	326.20	21.52	7.01	32.91	330.80	13.03	10.99	33.35	999.00	-0.95	999.00	-0.50	0.00
23	11	1	8	326.00	21.16	6.27	32.20	999.00	319.80	20.40	6.71	32.65	325.50	13.84	11.70	33.10	999.00	-0.90	999.00	-0.44	0.00
23	11	1	9	301.90	13.41	10.51	31.12	999.00	283.70	12.61	8.88	31.07	273.20	7.19	11.03	30.52	999.00	0.44	999.00	0.13	0.00
23	11	1	10	299.50	15.46	7.15	30.38	999.00	284.40	14.16	7.05	30.19	271.80	8.63	10.79	30.36	999.00	-0.90	999.00	-1.01	0.00
23	11	1	11	294.80	13.36	10.60	31.69	999.00	287.00	13.02	10.48	32.12	284.20	9.38	16.62	33.78	999.00	-2.23	999.00	-1.71	0.00
23	11	1	12	308.50	14.20	10.41	33.60	999.00	302.30	13.80	9.24	34.13	307.50	10.65	15.92	36.61	999.00	-3.20	999.00	-2.65	0.00
23	11	1	13	305.20	12.42	9.71	34.42	999.00	297.30	12.00	11.13	35.00	297.10	8.68	19.50	37.81	999.00	-3.38	999.00	-2.78	0.00
23	11	1	14	306.40	15.87	9.54	35.25	999.00	298.40	15.53	9.85	35.79	304.60	11.26	15.36	38.81	999.00	-3.54	999.00	-2.97	0.00
23	11	1	15	297.70	14.14	8.07	35.78	999.00	290.20	13.40	9.18	36.30	289.90	9.57	15.72	38.88	999.00	-2.22	999.00	-1.74	0.00
23	11	1	16	277.30	14.65	9.77	35.78	999.00	269.90	14.57	9.75	36.30	279.10	11.24	14.43	38.88	999.00	-2.24	999.00	-1.76	0.00
23	11	1	17	284.40	12.28	7.89	37.80	999.00	276.10	11.87	8.02	38.28	280.50	7.99	11.37	39.87	999.00	-1.55	999.00	-1.06	0.00
23	11	1	18	266.70	12.67	6.02	38.29	999.00	258.60	11.90	5.62	38.75	262.30	7.92	11.01	39.71	999.00	-1.32	999.00	-0.85	0.00

23	11	1	19	236.90	10.33	2.05	38.14	999.00	226.60	9.85	2.17	38.58	221.00	4.45	10.49	39.00	999.00	-0.30	999.00	0.09	0.00
23	11	1	20	241.10	11.80	3.11	37.89	999.00	228.40	9.94	4.22	38.13	200.80	3.73	10.52	37.38	999.00	1.07	999.00	1.01	0.00
23	11	1	21	214.70	13.50	1.49	38.07	999.00	205.40	12.29	2.21	38.10	192.70	4.20	12.09	36.79	999.00	1.39	999.00	1.34	0.00
23	11	1	22	204.80	15.01	1.61	38.16	999.00	196.40	13.47	1.90	38.07	191.20	3.85	8.04	36.16	999.00	2.36	999.00	2.09	0.00
23	11	1	23	198.60	17.39	1.19	37.38	999.00	189.10	13.52	1.20	36.80	192.40	3.66	10.94	35.02	999.00	2.41	999.00	1.57	0.00
23	11	1	24	201.40	19.65	1.34	36.58	999.00	193.00	15.16	1.93	35.65	199.90	3.91	12.35	33.90	999.00	2.72	999.00	1.69	0.00
23	11	2	1	203.60	19.55	2.30	35.17	999.00	197.40	14.17	2.97	34.19	201.60	4.51	11.57	32.98	999.00	2.43	999.00	1.30	0.00
23	11	2	2	203.30	19.79	2.26	34.60	999.00	196.10	15.10	3.03	33.69	204.00	5.26	13.26	32.66	999.00	1.36	999.00	0.63	0.00
23	11	2	3	201.70	20.38	3.19	33.76	999.00	194.30	16.49	3.73	33.29	199.00	7.18	13.76	32.94	999.00	0.38	999.00	0.05	0.00
23	11	2	4	198.20	19.87	2.89	33.65	999.00	190.40	15.91	3.75	33.43	193.30	6.60	13.11	33.53	999.00	0.22	999.00	-0.05	0.00
23	11	2	5	196.70	19.64	3.52	33.70	999.00	188.60	16.36	3.95	33.57	195.50	7.05	16.26	33.77	999.00	-0.25	999.00	-0.32	0.00
23	11	2	6	202.80	17.80	3.34	33.99	999.00	195.70	15.11	3.74	34.07	206.50	6.22	15.37	34.52	999.00	-0.67	999.00	-0.52	0.00
23	11	2	7	207.70	15.77	2.84	34.24	999.00	199.50	13.78	4.07	34.46	207.80	5.59	14.40	35.01	999.00	-0.83	999.00	-0.58	0.00
23	11	2	8	207.00	17.02	3.06	999.00	999.00	199.00	14.86	3.82	999.00	202.70	7.00	14.58	35.06	999.00	-0.79	999.00	-0.60	0.00
23	11	2	9	201.00	15.97	4.48	34.33	999.00	192.20	13.34	5.67	34.54	197.20	6.78	13.80	35.18	999.00	-0.89	999.00	-0.67	0.00
23	11	2	10	205.40	17.41	3.93	34.86	999.00	197.60	15.50	4.49	35.21	203.00	7.43	15.24	36.05	999.00	-1.36	999.00	-0.95	0.00
23	11	2	11	208.80	17.14	5.26	36.38	999.00	201.10	15.90	5.83	36.84	206.80	7.85	17.60	37.86	999.00	-1.58	999.00	-1.09	0.00
23	11	2	12	210.20	18.56	6.50	38.49	999.00	203.10	17.22	7.85	39.08	211.70	11.03	15.80	40.35	999.00	-2.07	999.00	-1.47	0.00
23	11	2	13	214.10	19.28	7.15	41.08	999.00	207.30	18.19	8.00	41.65	217.70	10.18	15.31	43.12	999.00	-2.14	999.00	-1.58	0.00
23	11	2	14	227.10	24.80	5.39	44.32	999.00	221.20	23.50	6.19	44.88	229.60	15.28	12.95	46.84	999.00	-2.55	999.00	-2.04	0.00
23	11	2	15	228.20	21.95	9.04	44.32	999.00	221.80	20.83	10.22	44.88	229.50	14.26	13.92	46.84	999.00	-2.59	999.00	-2.17	0.00
23	11	2	16	225.40	19.64	7.47	47.55	999.00	219.60	18.52	8.42	47.92	226.30	11.85	13.39	49.84	999.00	-1.71	999.00	-1.25	0.00
23	11	2	17	226.10	22.43	5.24	48.20	999.00	220.70	20.93	6.22	48.66	229.30	14.91	11.88	49.74	999.00	-1.43	999.00	-0.99	0.00
23	11	2	18	225.50	17.75	4.43	48.60	999.00	218.90	16.26	5.07	49.04	221.70	8.89	12.87	49.75	999.00	-0.95	999.00	-0.53	0.00
23	11	2	19	210.10	14.67	3.28	48.35	999.00	202.60	12.32	3.68	48.64	202.90	4.43	13.48	48.72	999.00	0.03	999.00	0.23	0.00
23	11	2	20	205.80	20.03	2.72	47.71	999.00	198.00	17.39	3.06	47.74	199.60	6.96	12.89	46.79	999.00	0.81	999.00	0.79	0.00
23	11	2	21	200.90	21.98	2.63	47.71	999.00	192.40	18.38	3.29	47.74	196.00	6.96	12.65	46.79	999.00	1.34	999.00	1.02	0.00
23	11	2	22	199.10	22.43	3.36	44.88	999.00	191.30	18.60	3.80	44.61	194.70	7.38	12.28	43.63	999.00	1.00	999.00	0.78	0.00
23	11	2	23	202.40	21.39	3.32	43.50	999.00	195.20	17.58	3.81	43.22	200.60	6.44	13.58	42.56	999.00	0.96	999.00	0.69	0.00
23	11	2	24	205.70	24.35	2.44	43.50	999.00	198.50	20.08	3.31	43.22	202.70	7.86	13.61	42.56	999.00	1.02	999.00	0.71	0.00
23	11	3	1	207.40	21.41	2.98	42.66	999.00	199.90	18.66	3.10	42.44	203.90	7.16	14.78	42.03	999.00	0.37	999.00	0.27	0.00
23	11	3	2	211.90	19.98	3.66	42.19	999.00	204.90	16.97	4.27	42.18	207.60	6.65	13.82	42.02	999.00	0.05	999.00	0.09	0.00
23	11	3	3	212.30	20.64	3.26	42.17	999.00	203.60	17.14	3.95	42.05	203.80	6.53	14.03	41.82	999.00	0.63	999.00	0.42	0.00
23	11	3	4	207.80	22.03	2.81	42.64	999.00	198.90	18.64	3.76	42.46	203.20	7.61	14.32	42.05	999.00	0.44	999.00	0.19	0.00
23	11	3	5	210.90	23.31	3.19	42.80	999.00	202.00	19.86	3.73	42.52	205.00	8.27	15.34	42.25	999.00	0.71	999.00	0.39	0.00
23	11	3	6	211.80	23.52	3.27	43.24	999.00	201.30	20.22	3.52	42.91	201.20	8.46	14.10	42.31	999.00	1.06	999.00	0.63	0.00
23	11	3	7	210.70	23.78	2.59	43.10	999.00	199.90	20.22	2.91	42.61	201.60	7.95	13.54	42.06	999.00	1.57	999.00	0.93	0.00
23	11	3	8	204.60	26.40	3.52	43.08	999.00	194.30	21.96	3.95	42.39	196.70	8.68	15.55	41.34	999.00	1.79	999.00	1.05	0.00
23	11	3	9	209.90	21.83	3.14	43.08	999.00	201.70	18.90	3.51	42.39	204.60	7.61	15.25	41.34	999.00	0.27	999.00	0.22	0.00
23	11	3	10	210.80	20.23	5.04	42.49	999.00	203.10	17.35	5.51	42.87	210.40	8.29	14.60	43.38	999.00	-1.46	999.00	-0.93	0.00
23	11	3	11	218.40	20.62	6.07	45.83	999.00	211.10	19.40	6.43	46.34	214.30	11.47	14.95	47.66	999.00	-2.03	999.00	-1.54	0.00
23	11	3	12	223.80	20.75	6.44	45.83	999.00	217.50	19.49	7.25	46.34	225.00	12.59	14.17	47.66	999.00	-2.25	999.00	-1.65	0.00
23	11	3	13	226.30	29.39	5.59	53.88	999.00	219.40	28.05	6.82	54.42	227.50	18.25	13.43	55.99	999.00	-2.08	999.00	-1.53	0.00
23	11	3	14	226.60	26.20	6.98	56.05	999.00	220.30	25.28	7.87	56.55	230.00	16.48	12.51	58.21	999.00	-2.12	999.00	-1.67	0.00
23	11	3	15	214.90	28.71	3.65	57.20	999.00	208.60	26.95	4.53	57.66	216.40	15.17	13.57	58.96	999.00	-1.90	999.00	-1.43	0.00
23	11	3	16	209.70	23.71	4.97	57.56	999.00	203.10	21.71	5.83	58.03	210.30	11.33	15.33	58.90	999.00	-1.10	999.00	-0.63	0.00
23	11	3	17	207.00	23.32	5.18	57.74	999.00	201.10	21.16	5.70	58.16	208.20	10.06	14.35	58.64	999.00	-0.89	999.00	-0.48	0.00
23	11	3	18	211.80	25.46	4.62	57.20	999.00	205.30	22.78	5.19	57.56	212.60	11.18	13.87	57.84	999.00	-0.42	999.00	-0.11	0.00
23	11	3	19	209.70	23.03	4.22	56.54	999.00	203.40	20.47	4.90	56.78	210.60	9.39	14.40	56.73	999.00	-0.19	999.00	0.05	0.00
23	11	3	20	211.10	22.65	4.14	55.65	999.00	204.70	19.70	5.08	55.87	213.20	9.27	13.91	55.72	999.00	-0.09	999.00	0.11	0.00
23	11	3	21	210.50	23.27	4.21	55.48	999.00	203.60	20.26	4.90	55.70	211.60	9.42	14.12	55.70	999.00	-0.27	999.00	-0.04	0.00
23	11	3	22	209.60	20.18	4.56	54.64	999.00	203.40	17.21	5.61	54.85	210.60	7.56	14.51	54.81	999.00	-0.07	999.00	0.15	0.00
23	11	3	23	210.10	16.77	3.27	53.98	999.00	203.30	14.43	3.71	54.12	211.80	5.77	13.21	53.86	999.00	0.24	999.00	0.38	0.00

23	11	3	24	213.10	17.01	2.96	53.44	999.00	204.70	14.32	3.37	53.57	199.80	5.26	11.65	52.83	999.00	0.80	999.00	0.91	0.00
23	11	4	1	211.50	16.80	2.16	52.85	999.00	200.00	14.11	2.63	52.78	198.80	5.05	12.03	52.01	999.00	0.89	999.00	0.73	0.00
23	11	4	2	201.40	16.70	1.89	52.27	999.00	192.00	13.81	2.52	51.88	192.70	5.05	11.11	50.85	999.00	1.15	999.00	0.90	0.00
23	11	4	3	202.90	17.42	2.43	51.52	999.00	192.50	14.24	2.74	51.26	195.30	4.99	12.15	50.39	999.00	1.46	999.00	1.11	0.00
23	11	4	4	212.00	17.50	2.19	51.35	999.00	202.60	14.41	2.81	51.09	209.70	5.22	13.52	50.31	999.00	0.82	999.00	0.54	0.00
23	11	4	5	227.50	15.59	3.55	51.01	999.00	212.90	12.63	2.57	50.45	219.80	4.63	10.44	49.54	999.00	1.99	999.00	1.13	0.00
23	11	4	6	229.70	13.68	5.78	51.20	999.00	212.80	11.05	5.72	50.51	206.20	2.88	12.44	49.11	999.00	2.33	999.00	1.52	0.00
23	11	4	7	232.20	8.44	3.11	50.45	999.00	215.30	8.51	2.76	50.23	179.80	1.85	12.07	48.46	999.00	1.97	999.00	2.03	0.00
23	11	4	8	220.10	10.02	2.49	49.34	999.00	213.30	10.71	2.41	49.55	192.10	3.87	9.17	47.10	999.00	2.50	999.00	2.63	0.01
23	11	4	9	202.70	8.75	4.42	49.34	999.00	199.30	9.54	2.97	49.55	173.70	2.71	11.68	47.10	999.00	2.84	999.00	2.88	0.00
23	11	4	10	203.70	10.36	3.47	49.23	999.00	201.50	10.84	2.72	49.41	194.20	3.72	12.77	46.19	999.00	3.22	999.00	3.39	0.00
23	11	4	11	207.70	13.25	2.18	49.23	999.00	195.60	10.29	3.38	48.86	190.40	4.43	10.48	47.00	999.00	1.16	999.00	0.57	0.01
23	11	4	12	196.50	10.68	3.66	49.23	999.00	183.90	8.46	5.32	48.86	191.00	4.28	16.01	47.00	999.00	-0.33	999.00	-0.39	0.00
23	11	4	13	170.70	5.85	8.29	49.78	999.00	153.50	4.85	9.41	49.84	149.10	2.79	18.39	50.51	999.00	-1.07	999.00	-0.80	0.00
23	11	4	14	173.80	6.68	5.08	50.82	999.00	167.20	6.57	5.87	51.50	171.70	4.23	22.80	52.76	999.00	-2.06	999.00	-1.23	0.00
23	11	4	15	156.30	4.35	17.88	51.94	999.00	153.30	4.04	16.05	52.63	159.30	3.32	20.27	53.94	999.00	-2.22	999.00	-1.57	0.00
23	11	4	16	79.70	4.58	6.00	52.83	999.00	71.10	5.48	6.36	53.04	74.70	4.67	18.26	53.99	999.00	-0.90	999.00	-1.01	0.00
23	11	4	17	72.00	11.64	2.88	51.93	999.00	64.52	11.12	5.68	51.45	61.30	7.48	9.55	52.23	999.00	-1.02	999.00	-1.24	0.00
23	11	4	18	78.20	11.48	4.52	51.93	999.00	71.00	11.89	2.62	51.45	71.30	6.35	10.24	52.23	999.00	0.81	999.00	0.53	0.00
23	11	4	19	85.00	9.89	3.88	51.99	999.00	82.80	11.31	2.95	51.87	85.70	4.01	14.43	50.31	999.00	2.59	999.00	2.17	0.00
23	11	4	20	91.80	9.38	1.45	52.23	999.00	88.50	12.40	1.81	51.60	93.90	4.57	8.30	49.32	999.00	3.53	999.00	2.87	0.00
23	11	4	21	72.90	9.55	2.82	51.50	999.00	55.04	9.26	5.63	51.06	30.68	6.53	8.21	49.59	999.00	1.13	999.00	0.57	0.00
23	11	4	22	97.20	10.08	1.41	51.57	999.00	88.00	9.68	1.91	51.02	78.40	5.57	8.51	49.71	999.00	2.69	999.00	2.07	0.00
23	11	4	23	59.21	8.02	4.98	51.10	999.00	36.21	6.57	6.82	50.65	22.88	5.38	12.47	49.12	999.00	0.50	999.00	0.17	0.00
23	11	4	24	61.52	7.31	4.46	50.75	999.00	50.48	7.88	7.22	50.41	29.38	4.31	12.39	49.34	999.00	1.43	999.00	1.16	0.00
23	11	5	1	352.00	6.86	1.95	48.96	999.00	335.70	7.88	2.52	48.84	298.70	1.58	17.61	47.46	999.00	2.15	999.00	1.93	0.00
23	11	5	2	349.30	6.60	1.83	48.40	999.00	341.30	6.32	4.21	48.31	267.40	2.65	11.31	46.41	999.00	2.02	999.00	2.25	0.00
23	11	5	3	322.40	4.57	1.34	48.63	999.00	332.40	4.73	2.51	48.07	265.60	3.22	12.17	43.89	999.00	5.60	999.00	4.74	0.00
23	11	5	4	327.40	12.46	1.82	47.63	999.00	315.90	13.54	3.78	47.48	298.80	4.94	8.44	42.44	999.00	4.64	999.00	4.17	0.00
23	11	5	5	326.60	12.59	1.90	46.30	999.00	318.00	11.49	2.70	46.10	294.60	4.07	10.65	44.14	999.00	1.33	999.00	1.44	0.00
23	11	5	6	326.60	13.97	2.55	45.32	999.00	318.10	13.00	3.39	45.53	314.10	5.75	10.60	44.35	999.00	0.56	999.00	0.86	0.00
23	11	5	7	336.60	11.44	4.15	44.53	999.00	328.10	10.93	4.11	44.89	311.80	3.86	13.47	44.04	999.00	1.04	999.00	1.41	0.00
23	11	5	8	337.30	9.65	3.05	44.27	999.00	329.40	9.15	3.59	44.69	313.20	3.49	14.76	44.26	999.00	-0.33	999.00	0.08	0.00
23	11	5	9	338.10	9.45	3.69	44.28	999.00	332.40	8.87	5.25	44.70	333.80	4.82	15.12	45.89	999.00	-2.43	999.00	-1.96	0.00
23	11	5	10	350.40	5.26	9.53	44.60	999.00	343.60	5.38	10.27	45.10	350.60	5.08	14.85	46.88	999.00	-2.24	999.00	-1.79	0.00
23	11	5	11	350.30	7.37	8.69	44.60	999.00	347.00	7.60	10.12	45.30	3.51	7.48	10.19	46.80	999.00	-1.63	999.00	-1.00	0.00
23	11	5	12	338.80	8.48	8.20	42.18	999.00	331.30	8.55	9.36	42.58	341.50	7.34	17.22	43.73	999.00	-1.39	999.00	-1.07	0.00
23	11	5	13	343.40	3.02	42.70	41.46	999.00	338.40	2.86	41.67	41.77	352.90	2.51	51.18	42.72	999.00	-1.25	999.00	-0.92	0.00
23	11	5	14	48.72	4.42	11.22	42.53	999.00	40.61	4.21	10.68	42.61	36.04	5.07	18.27	43.65	999.00	-0.96	999.00	-1.14	0.00
23	11	5	15	78.20	3.09	16.20	43.83	999.00	83.70	3.61	16.93	43.81	78.60	4.03	13.59	45.56	999.00	-1.74	999.00	-1.78	0.00
23	11	5	16	70.60	2.78	12.31	44.25	999.00	80.00	5.20	7.46	43.05	85.80	4.71	15.75	44.40	999.00	2.17	999.00	-1.07	0.00
23	11	5	17	105.10	3.77	10.39	47.74	999.00	79.20	3.41	12.15	46.88	115.80	3.38	12.67	42.53	999.00	5.81	999.00	6.03	0.00
23	11	5	18	151.60	7.57	2.49	47.98	999.00	136.10	6.45	3.90	47.97	107.80	2.14	9.47	42.07	999.00	6.16	999.00	6.07	0.00
23	11	5	19	164.60	10.25	2.49	47.98	999.00	146.80	9.44	2.76	47.97	141.50	3.35	8.05	42.07	999.00	6.63	999.00	5.61	0.00
23	11	5	20	179.80	10.51	2.17	50.37	999.00	157.10	11.49	1.83	48.81	143.90	2.26	13.50	43.94	999.00	6.42	999.00	5.13	0.00
23	11	5	21	191.00	9.30	3.13	51.22	999.00	171.70	10.70	2.69	50.30	141.30	3.19	11.13	44.56	999.00	6.98	999.00	6.36	0.00
23	11	5	22	190.80	9.14	3.71	51.22	999.00	172.60	10.32	2.51	50.30	148.10	2.47	12.33	44.56	999.00	7.87	999.00	7.02	0.00
23	11	5	23	196.80	8.32	2.37	52.31	999.00	186.00	8.97	5.75	51.36	167.40	2.28	11.06	44.65	999.00	7.92	999.00	6.72	0.00
23	11	5	24	195.20	11.22	1.60	51.78	999.00	188.90	11.35	1.45	51.22	169.70	2.16	12.85	43.81	999.00	7.97	999.00	7.97	0.00
23	11	6	1	193.50	14.55	1.12	51.78	999.00	187.20	14.49	0.98	51.22	176.00	3.20	9.39	43.81	999.00	7.01	999.00	6.69	0.00
23	11	6	2	199.50	19.50	1.39	51.55	999.00	184.10	16.03	1.09	50.34	181.00	3.14	10.70	44.47	999.00	6.76	999.00	4.30	0.00
23	11	6	3	198.00	20.52	1.70	51.01	999.00	183.70	16.02	1.90	47.97	175.90	3.03	12.05	44.09	999.00	6.64	999.00	3.56	0.00
23	11	6	4	196.20	23.06	0.94	51.23	999.00	183.40	16.98	2.32	47.71	176.30	3.96	14.52	43.86	999.00	6.07	999.00	3.22	0.00

23	11	6	5	191.80	21.37	1.56	47.72	999.00	180.70	16.11	2.58	46.24	178.30	4.67	15.92	44.37	999.00	3.01	999.00	1.70	0.00
23	11	6	6	192.10	20.53	2.60	46.86	999.00	184.80	16.73	3.10	46.18	191.60	6.44	12.84	44.89	999.00	1.36	999.00	0.93	0.00
23	11	6	7	187.90	24.29	2.79	46.70	999.00	180.20	19.69	3.74	46.17	188.30	7.09	15.78	44.70	999.00	1.42	999.00	0.91	0.00
23	11	6	8	196.50	22.99	3.58	46.43	999.00	189.90	18.61	4.70	46.04	195.20	9.24	12.53	45.43	999.00	0.62	999.00	0.40	0.00
23	11	6	9	189.40	22.58	4.17	47.23	999.00	181.70	19.32	5.32	47.34	188.50	9.04	14.75	47.40	999.00	-0.50	999.00	-0.24	0.00
23	11	6	10	181.20	26.03	5.34	50.38	999.00	173.90	23.66	5.30	51.00	182.60	11.41	16.08	51.72	999.00	-1.43	999.00	-0.91	0.00
23	11	6	11	198.00	23.39	5.90	53.91	999.00	191.20	21.51	6.50	54.74	200.00	12.52	14.70	55.63	999.00	-1.78	999.00	-0.93	0.00
23	11	6	12	198.50	26.69	5.08	57.05	999.00	191.30	25.02	6.40	57.65	199.00	13.92	14.77	58.42	999.00	-1.40	999.00	-0.80	0.00
23	11	6	13	197.00	28.55	5.27	57.05	999.00	189.30	26.47	5.62	57.65	197.60	14.93	14.26	58.42	999.00	-1.08	999.00	-0.55	0.00
23	11	6	14	212.60	32.80	6.24	62.38	999.00	204.90	29.57	6.95	62.88	215.00	16.95	14.57	63.63	999.00	-1.11	999.00	-0.68	0.00
23	11	6	15	216.40	26.73	5.64	63.10	999.00	208.50	24.17	6.57	63.54	217.30	13.93	14.30	64.33	999.00	-1.11	999.00	-0.66	0.00
23	11	6	16	221.80	29.41	5.00	64.20	999.00	214.30	27.22	5.62	64.62	219.50	15.52	12.82	65.13	999.00	-0.88	999.00	-0.46	0.00
23	11	6	17	220.30	23.73	3.78	65.02	999.00	212.30	21.69	4.20	65.39	218.90	11.17	12.94	65.65	999.00	-0.43	999.00	-0.08	0.00
23	11	6	18	229.20	21.06	3.85	64.60	999.00	222.60	18.53	4.69	64.85	228.70	9.60	10.21	64.48	999.00	0.39	999.00	0.59	0.00
23	11	6	19	227.00	20.12	2.06	64.60	999.00	218.60	17.97	2.95	64.85	223.60	7.58	11.50	64.48	999.00	0.81	999.00	0.92	0.00
23	11	6	20	224.30	22.88	3.15	64.12	999.00	213.00	19.72	3.17	64.12	213.00	8.20	12.54	63.01	999.00	1.46	999.00	1.38	0.00
23	11	6	21	236.50	22.69	3.73	63.32	999.00	226.10	19.95	4.20	63.22	226.80	8.49	10.68	61.68	999.00	1.43	999.00	1.36	0.00
23	11	6	22	249.00	21.33	3.01	63.32	999.00	239.40	18.34	3.13	63.22	238.90	8.46	5.49	61.68	999.00	2.76	999.00	2.70	0.00
23	11	6	23	251.50	20.91	3.30	60.55	999.00	242.10	18.56	3.10	60.58	240.90	9.41	6.24	58.38	999.00	2.18	999.00	2.24	0.00
23	11	6	24	252.30	20.29	3.80	59.12	999.00	242.10	17.88	3.32	59.16	239.40	9.44	6.86	57.22	999.00	1.73	999.00	1.76	0.00
23	11	7	1	255.70	21.66	4.30	58.01	999.00	246.10	18.62	4.52	58.00	244.90	9.21	8.96	56.25	999.00	1.31	999.00	1.33	0.00
23	11	7	2	258.90	23.71	3.45	57.39	999.00	250.20	20.03	4.67	57.42	254.10	9.89	9.96	56.70	999.00	0.51	999.00	0.46	0.00
23	11	7	3	259.40	21.76	2.91	56.63	999.00	249.10	19.13	3.38	56.57	247.40	10.23	8.60	56.11	999.00	0.61	999.00	0.53	0.00
23	11	7	4	254.60	18.06	4.05	55.60	999.00	244.70	15.77	3.99	55.67	239.60	8.25	7.00	54.64	999.00	1.22	999.00	1.30	0.00
23	11	7	5	271.50	19.51	3.48	55.22	999.00	258.70	16.99	3.58	55.21	251.50	7.71	9.60	54.29	999.00	1.11	999.00	1.01	0.00
23	11	7	6	288.20	17.94	5.15	54.65	999.00	277.10	15.20	5.54	54.58	272.70	6.26	9.74	53.39	999.00	1.19	999.00	1.12	0.00
23	11	7	7	315.70	24.15	4.61	52.54	999.00	308.50	22.32	5.88	52.85	314.60	11.27	13.18	52.52	999.00	-0.49	999.00	-0.16	0.00
23	11	7	8	310.80	17.62	3.35	50.96	999.00	301.50	15.94	4.32	51.17	307.60	6.74	13.51	50.87	999.00	0.41	999.00	0.63	0.00
23	11	7	9	319.70	13.20	3.85	50.75	999.00	313.00	11.91	5.37	51.08	323.40	7.02	10.84	51.62	999.00	-1.25	999.00	-0.87	0.00
23	11	7	10	317.70	13.12	6.98	50.96	999.00	309.60	12.49	7.25	51.42	317.70	8.37	15.07	52.75	999.00	-1.95	999.00	-1.44	0.00
23	11	7	11	308.20	10.82	7.09	51.23	999.00	300.10	10.89	6.39	51.73	307.10	8.23	14.24	53.38	999.00	-2.38	999.00	-1.92	0.00
23	11	7	12	336.40	11.19	6.21	50.81	999.00	330.40	10.56	6.85	51.34	345.30	8.22	11.45	52.78	999.00	-1.88	999.00	-1.33	0.00
23	11	7	13	344.60	14.79	4.42	50.64	999.00	337.70	14.65	5.09	51.23	346.30	11.52	9.11	52.77	999.00	-2.31	999.00	-1.66	0.00
23	11	7	14	338.10	12.91	6.07	50.69	999.00	334.30	12.47	6.67	51.25	350.00	10.15	9.17	52.77	999.00	-2.13	999.00	-1.59	0.00
23	11	7	15	351.60	15.57	5.04	50.43	999.00	346.20	14.46	6.40	50.95	357.40	12.20	7.16	52.27	999.00	-1.88	999.00	-1.36	0.00
23	11	7	16	350.40	14.45	5.23	49.70	999.00	344.60	13.37	6.19	50.27	358.60	11.09	6.48	51.52	999.00	-1.80	999.00	-1.21	0.00
23	11	7	17	356.40	18.79	2.10	49.28	999.00	350.10	17.37	3.40	49.80	357.50	11.81	6.54	50.83	999.00	-1.31	999.00	-0.83	0.00
23	11	7	18	2.66	14.06	4.22	48.90	999.00	356.60	12.98	3.13	49.35	2.97	7.90	7.83	49.75	999.00	-0.74	999.00	-0.27	0.00
23	11	7	19	30.82	12.73	3.99	48.71	999.00	23.63	10.05	5.79	49.09	23.81	7.41	13.39	49.50	999.00	-0.62	999.00	-0.26	0.00
23	11	7	20	60.40	19.80	3.31	47.03	999.00	53.76	18.41	4.49	47.49	58.10	11.18	11.97	48.11	999.00	-1.10	999.00	-0.63	0.00
23	11	7	21	66.23	19.24	2.74	47.03	999.00	59.03	17.92	3.79	47.49	66.49	10.95	10.89	48.11	999.00	-1.03	999.00	-0.55	0.00
23	11	7	22	68.86	15.32	4.21	44.61	999.00	61.61	14.36	5.05	45.09	70.30	8.77	11.81	45.72	999.00	-1.04	999.00	-0.59	0.00
23	11	7	23	71.00	17.97	4.42	44.16	999.00	63.31	17.10	5.52	44.62	69.48	10.39	10.28	45.18	999.00	-1.06	999.00	-0.59	0.00
23	11	7	24	73.10	19.44	3.74	44.16	999.00	66.03	18.55	4.62	44.62	72.90	10.87	10.17	45.18	999.00	-0.98	999.00	-0.53	0.00
23	11	8	1	73.90	17.36	4.13	43.44	999.00	66.12	16.70	5.15	43.90	72.70	10.11	10.98	44.42	999.00	-0.95	999.00	-0.50	0.00
23	11	8	2	71.70	19.03	3.32	43.11	999.00	64.53	18.24	4.12	43.57	70.90	10.65	10.05	44.26	999.00	-1.29	999.00	-0.82	0.00
23	11	8	3	75.60	18.27	4.16	43.11	999.00	68.55	17.39	5.93	43.57	74.30	11.03	11.01	44.26	999.00	-1.38	999.00	-0.90	0.00
23	11	8	4	82.10	19.20	3.73	42.01	999.00	74.80	18.72	4.70	42.48	78.50	11.16	11.64	43.31	999.00	-1.31	999.00	-0.84	0.00
23	11	8	5	87.00	19.32	3.94	42.45	999.00	79.20	18.44	4.66	42.92	85.10	9.71	12.28	43.72	999.00	-1.34	999.00	-0.86	0.00
23	11	8	6	96.40	19.61	3.38	42.84	999.00	88.60	18.90	4.05	43.31	95.00	9.60	14.07	44.03	999.00	-1.10	999.00	-0.64	0.00
23	11	8	7	102.90	19.56	4.37	43.53	999.00	95.40	18.23	5.04	44.00	104.00	8.14	16.84	44.62	999.00	-1.15	999.00	-0.68	0.00
23	11	8	8	110.30	28.89	3.04	43.80	999.00	102.60	27.58	3.90	44.29	109.10	13.81	13.84	45.12	999.00	-1.39	999.00	-0.88	0.00
23	11	8	9	126.60	20.46	4.64	43.34	999.00	119.60	19.46	5.13	43.82	126.40	10.26	14.37	44.82	999.00	-1.48	999.00	-1.00	0.00

23	11	8	10	128.10	14.83	5.99	42.58	999.00	121.00	13.83	7.01	43.07	133.30	7.35	16.17	44.08	999.00	-1.50	999.00	-1.01	0.00
23	11	8	11	112.00	19.51	4.85	42.36	999.00	104.70	18.56	6.07	42.84	115.20	9.70	14.04	43.97	999.00	-1.67	999.00	-1.19	0.00
23	11	8	12	109.90	20.52	4.13	42.48	999.00	102.60	19.52	4.83	42.97	108.20	9.69	14.19	43.81	999.00	-1.33	999.00	-0.81	0.00
23	11	8	13	104.50	22.88	4.07	43.22	999.00	97.50	21.17	5.20	43.71	105.40	9.93	15.15	44.82	999.00	-1.94	999.00	-1.46	0.00
23	11	8	14	106.00	22.60	3.53	44.72	999.00	98.40	21.28	4.89	45.21	105.00	10.65	16.22	46.71	999.00	-1.85	999.00	-1.38	0.00
23	11	8	15	112.50	23.93	2.99	46.66	999.00	104.20	22.03	4.71	47.13	112.60	11.21	14.71	48.37	999.00	-1.58	999.00	-1.12	0.00
23	11	8	16	112.30	12.85	6.72	48.23	999.00	102.50	11.08	8.89	48.65	100.00	5.16	18.56	49.78	999.00	-1.60	999.00	-1.18	0.00
23	11	8	17	110.70	17.23	0.94	49.80	999.00	95.00	16.89	2.77	49.76	95.70	7.56	13.70	50.28	999.00	0.44	999.00	0.03	0.00
23	11	8	18	116.50	18.77	1.49	53.37	999.00	95.30	17.43	2.92	51.99	86.20	8.99	10.91	50.62	999.00	3.73	999.00	2.01	0.00
23	11	8	19	115.10	24.29	1.48	56.64	999.00	102.20	22.16	3.19	55.24	100.90	7.14	13.33	51.97	999.00	3.65	999.00	2.97	0.00
23	11	8	20	99.70	25.55	2.63	56.09	999.00	87.40	23.86	3.14	55.47	90.40	10.63	12.37	53.73	999.00	1.70	999.00	1.15	0.00
23	11	8	21	131.70	24.81	4.40	56.72	999.00	118.40	24.23	3.73	55.76	130.30	10.33	15.29	54.17	999.00	2.80	999.00	1.66	0.00
23	11	8	22	172.90	24.27	4.44	59.30	999.00	159.10	19.49	5.00	57.63	157.60	6.54	16.76	55.38	999.00	2.97	999.00	1.58	0.00
23	11	8	23	205.90	30.17	3.07	63.49	999.00	196.80	24.44	3.90	61.54	202.70	8.57	13.02	58.35	999.00	4.44	999.00	3.14	0.00
23	11	8	24	242.80	32.36	5.15	66.20	999.00	235.70	30.06	5.07	66.05	242.90	19.02	9.08	64.79	999.00	0.55	999.00	0.77	0.00
23	11	9	1	277.30	20.38	5.03	60.29	999.00	273.00	18.57	6.77	60.29	286.00	10.31	15.09	60.16	999.00	0.63	999.00	0.39	0.00
23	11	9	2	277.60	22.91	5.63	55.05	999.00	270.00	20.36	6.17	55.38	274.60	12.06	11.70	56.01	999.00	-1.00	999.00	-0.65	0.00
23	11	9	3	303.70	22.94	4.49	53.24	999.00	296.10	21.63	5.22	53.66	303.20	12.84	13.11	54.27	999.00	-1.27	999.00	-0.80	0.00
23	11	9	4	314.90	26.74	4.75	49.75	999.00	308.00	25.74	5.45	50.22	316.60	15.85	11.66	51.20	999.00	-1.58	999.00	-1.07	0.00
23	11	9	5	311.60	23.91	3.99	46.36	999.00	304.90	22.78	5.15	46.85	311.00	13.34	12.79	47.81	999.00	-1.25	999.00	-0.78	0.00
23	11	9	6	308.30	24.88	4.66	44.89	999.00	300.80	23.76	6.06	45.35	306.10	13.96	13.08	45.98	999.00	-1.39	999.00	-0.90	0.00
23	11	9	7	305.20	18.42	5.69	43.97	999.00	297.30	18.01	5.68	44.46	297.50	11.43	12.32	45.36	999.00	-1.40	999.00	-0.90	0.00
23	11	9	8	294.70	15.94	6.25	43.82	999.00	286.00	14.99	6.33	44.28	287.40	10.57	10.40	45.16	999.00	-1.30	999.00	-0.84	0.00
23	11	9	9	279.20	11.39	6.11	43.78	999.00	269.80	10.15	7.45	44.20	270.80	6.21	11.97	45.14	999.00	-1.40	999.00	-0.98	0.00
23	11	9	10	240.60	12.01	4.56	44.46	999.00	232.50	11.47	4.47	44.90	234.20	8.68	8.63	46.03	999.00	-1.69	999.00	-1.25	0.00
23	11	9	11	270.40	14.88	12.98	47.07	999.00	260.30	14.28	13.63	47.51	264.70	11.23	15.64	49.25	999.00	-2.76	999.00	-2.25	0.00
23	11	9	12	294.60	18.66	9.06	49.93	999.00	286.60	17.69	10.50	50.50	292.80	13.12	15.39	52.83	999.00	-2.99	999.00	-2.40	0.00
23	11	9	13	299.40	20.29	7.40	51.97	999.00	292.80	20.09	8.82	52.55	300.80	14.05	13.50	55.26	999.00	-3.34	999.00	-2.77	0.00
23	11	9	14	311.20	17.22	10.24	53.01	999.00	305.80	17.00	10.77	53.52	319.10	12.09	14.73	56.25	999.00	-3.32	999.00	-2.85	0.00
23	11	9	15	281.30	17.76	7.85	53.84	999.00	272.50	16.67	8.85	54.26	281.60	12.21	13.15	56.87	999.00	-2.81	999.00	-2.30	0.00
23	11	9	16	280.00	16.88	8.13	54.16	999.00	271.70	16.19	7.91	54.66	275.40	11.62	13.24	56.56	999.00	-2.06	999.00	-1.56	0.00
23	11	9	17	269.60	19.84	4.44	53.74	999.00	260.80	17.42	4.94	54.15	263.00	10.36	10.75	54.94	999.00	-0.66	999.00	-0.30	0.00
23	11	9	18	257.40	18.58	2.60	53.74	999.00	248.70	16.25	3.09	54.15	251.20	8.16	8.12	54.94	999.00	0.46	999.00	0.57	0.00
23	11	9	19	252.50	20.25	2.99	51.21	999.00	242.80	17.25	3.03	51.01	236.80	8.91	6.50	49.85	999.00	1.63	999.00	1.46	0.00
23	11	9	20	260.80	23.13	2.81	50.21	999.00	252.00	19.46	4.07	49.92	252.50	8.97	10.46	48.97	999.00	0.96	999.00	0.70	0.00
23	11	9	21	258.20	19.74	3.85	50.21	999.00	248.60	16.44	4.94	49.92	250.90	8.51	9.17	48.97	999.00	0.35	999.00	0.22	0.00
23	11	9	22	254.40	18.98	4.36	48.42	999.00	245.50	15.75	4.24	48.29	236.70	7.77	7.53	47.38	999.00	1.15	999.00	1.05	0.00
23	11	9	23	259.30	19.18	3.98	48.47	999.00	250.20	15.57	5.07	48.36	250.50	8.15	10.13	47.68	999.00	0.23	999.00	0.22	0.00
23	11	9	24	253.30	16.23	4.77	48.47	999.00	245.00	13.42	4.87	48.36	234.30	6.83	7.88	47.68	999.00	0.74	999.00	0.71	0.00
23	11	10	1	256.20	18.36	2.85	47.11	999.00	244.40	15.39	2.92	46.89	232.30	7.23	8.31	45.70	999.00	1.68	999.00	1.28	0.00
23	11	10	2	263.40	19.23	2.39	47.18	999.00	246.80	15.60	2.38	46.38	231.60	7.18	7.57	44.98	999.00	2.89	999.00	1.76	0.00
23	11	10	3	244.80	16.63	2.22	46.86	999.00	231.30	14.07	2.28	46.06	214.20	4.83	12.13	44.45	999.00	2.22	999.00	1.73	0.00
23	11	10	4	246.80	18.13	2.42	46.23	999.00	232.50	14.88	2.69	45.58	213.00	4.80	11.79	43.68	999.00	2.96	999.00	2.13	0.00
23	11	10	5	247.90	20.78	1.97	46.84	999.00	234.90	16.70	2.24	45.95	215.40	6.08	10.49	43.65	999.00	3.33	999.00	2.39	0.00
23	11	10	6	239.00	18.23	1.53	46.84	999.00	227.60	15.33	1.97	45.95	226.70	5.94	8.96	43.65	999.00	2.15	999.00	1.56	0.00
23	11	10	7	241.90	20.22	2.47	45.32	999.00	229.30	17.07	2.12	44.69	207.70	5.98	9.77	42.39	999.00	3.71	999.00	2.90	0.00
23	11	10	8	234.70	24.08	3.26	45.41	999.00	222.90	20.68	3.79	44.70	218.40	8.02	12.58	42.15	999.00	2.69	999.00	2.01	0.00
23	11	10	9	253.40	18.33	5.89	45.41	999.00	245.40	15.63	6.05	44.70	250.10	8.73	12.20	42.15	999.00	-0.98	999.00	-0.87	0.00
23	11	10	10	266.80	15.06	7.23	45.39	999.00	258.90	14.16	7.72	45.80	263.20	10.78	11.97	47.36	999.00	-2.29	999.00	-1.83	0.00
23	11	10	11	267.80	13.08	7.38	46.57	999.00	261.10	13.11	8.51	47.04	261.80	10.19	14.45	49.19	999.00	-2.63	999.00	-2.18	0.00
23	11	10	12	302.90	10.32	11.35	46.57	999.00	298.60	10.08	12.13	47.04	316.20	7.85	14.80	49.19	999.00	-3.42	999.00	-2.82	0.00
23	11	10	13	308.40	13.85	12.15	49.54	999.00	302.70	13.28	14.21	50.14	312.80	10.01	18.91	52.93	999.00	-3.29	999.00	-2.69	0.00
23	11	10	14	284.60	13.26	10.33	51.12	999.00	276.40	12.75	11.41	51.62	282.10	10.34	17.77	54.21	999.00	-2.99	999.00	-2.59	0.00

23	11	10	15	290.40	16.71	10.85	51.50	999.00	282.70	16.00	11.78	51.94	288.20	10.89	17.63	53.86	999.00	-2.42	999.00	-1.92	0.00
23	11	10	16	296.70	16.02	13.66	51.81	999.00	290.40	15.47	13.95	52.28	300.20	10.04	17.88	53.88	999.00	-1.78	999.00	-1.32	0.00
23	11	10	17	287.30	13.19	8.77	51.48	999.00	280.10	12.18	7.87	51.90	287.70	7.32	10.49	53.04	999.00	-0.90	999.00	-0.52	0.00
23	11	10	18	288.40	16.23	2.68	51.48	999.00	280.10	14.42	3.04	51.90	271.40	5.81	7.47	53.04	999.00	1.15	999.00	1.34	0.00
23	11	10	19	298.10	18.09	2.71	49.24	999.00	289.70	15.16	3.35	49.45	288.00	6.40	7.45	47.37	999.00	2.12	999.00	2.15	0.00
23	11	10	20	304.70	20.18	4.38	47.84	999.00	295.00	17.75	4.96	47.96	287.40	7.89	8.48	45.77	999.00	1.90	999.00	2.04	0.00
23	11	10	21	321.50	22.90	3.87	46.03	999.00	314.10	21.16	5.11	46.38	319.80	13.07	10.37	45.94	999.00	-0.57	999.00	-0.16	0.00
23	11	10	22	324.30	17.84	5.55	44.61	999.00	317.50	16.82	5.44	45.04	321.70	10.18	9.96	45.13	999.00	-0.43	999.00	0.00	0.00
23	11	10	23	331.30	16.64	5.49	43.93	999.00	324.50	15.71	6.10	44.36	330.00	9.35	11.97	44.58	999.00	-1.00	999.00	-0.55	0.00
23	11	10	24	313.10	13.00	5.42	43.93	999.00	304.30	12.86	6.30	44.36	304.20	7.11	12.68	44.58	999.00	-0.92	999.00	-0.47	0.00
23	11	11	1	319.60	15.35	4.95	42.71	999.00	312.10	14.70	5.61	43.17	316.60	9.18	11.54	43.74	999.00	-1.11	999.00	-0.64	0.00
23	11	11	2	322.50	15.54	5.69	42.02	999.00	315.00	14.75	5.50	42.48	316.80	9.16	12.35	43.15	999.00	-1.09	999.00	-0.63	0.00
23	11	11	3	338.00	16.36	4.83	42.07	999.00	331.20	15.78	5.32	42.53	337.30	9.74	10.86	43.24	999.00	-1.21	999.00	-0.74	0.00
23	11	11	4	342.00	14.14	6.47	42.01	999.00	335.80	13.33	6.57	42.48	338.60	8.70	10.22	43.22	999.00	-1.19	999.00	-0.73	0.00
23	11	11	5	346.80	16.55	4.64	41.65	999.00	340.30	16.20	5.18	42.13	346.60	10.89	9.06	42.97	999.00	-1.35	999.00	-0.87	0.00
23	11	11	6	350.20	14.11	5.49	41.65	999.00	342.80	13.86	5.50	42.13	348.90	9.58	9.97	42.97	999.00	-1.34	999.00	-0.86	0.00
23	11	11	7	347.60	14.10	5.06	40.58	999.00	340.20	13.50	5.98	41.06	344.20	9.10	8.99	41.98	999.00	-1.34	999.00	-0.87	0.00
23	11	11	8	4.51	9.65	10.34	39.84	999.00	358.30	8.66	10.15	40.31	358.00	6.83	8.47	40.97	999.00	-1.10	999.00	-0.60	0.00
23	11	11	9	6.42	9.56	11.96	40.58	999.00	359.50	8.72	11.92	41.25	4.22	8.26	9.61	42.17	999.00	-1.78	999.00	-1.06	0.00
23	11	11	10	2.36	11.73	8.95	40.84	999.00	355.10	11.22	8.67	41.49	0.17	10.25	10.69	42.81	999.00	-2.04	999.00	-1.41	0.00
23	11	11	11	3.86	12.24	8.85	40.36	999.00	357.90	11.79	7.42	41.01	3.55	11.33	10.73	42.35	999.00	-1.89	999.00	-1.32	0.00
23	11	11	12	22.60	7.02	14.78	40.36	999.00	16.22	6.27	15.14	41.01	22.62	6.24	23.49	42.35	999.00	-1.65	999.00	-0.74	0.00
23	11	11	13	17.30	5.25	16.55	42.47	999.00	10.85	4.72	15.21	43.30	20.16	5.58	18.67	44.10	999.00	-1.64	999.00	-0.74	0.00
23	11	11	14	24.56	3.82	24.10	43.40	999.00	3.41	3.59	21.26	43.89	341.90	3.52	25.45	45.42	999.00	-2.58	999.00	-2.33	0.00
23	11	11	15	59.52	4.22	14.08	44.29	999.00	54.79	4.38	13.18	44.48	63.31	4.25	19.19	46.06	999.00	-1.52	999.00	-1.35	0.00
23	11	11	16	63.00	3.94	13.10	44.06	999.00	60.90	3.86	17.43	44.39	54.56	3.09	29.14	45.72	999.00	-1.62	999.00	-1.37	0.00
23	11	11	17	143.80	3.13	11.28	43.76	999.00	134.80	3.02	11.23	44.34	142.00	2.77	16.62	45.53	999.00	-1.58	999.00	-0.96	0.00
23	11	11	18	171.50	2.50	14.28	43.19	999.00	167.40	2.49	16.51	43.63	183.60	1.39	27.22	44.24	999.00	-0.82	999.00	-0.60	0.00
23	11	11	19	147.20	2.92	12.19	42.91	999.00	155.80	2.49	11.74	43.20	191.90	0.62	44.94	43.10	999.00	0.02	999.00	0.28	0.00
23	11	11	20	101.10	5.10	4.11	42.76	999.00	110.70	2.70	15.08	42.76	166.10	1.10	10.66	43.05	999.00	0.00	999.00	0.01	0.00
23	11	11	21	121.70	6.95	2.77	43.16	999.00	124.30	5.62	2.89	43.31	206.10	1.91	10.79	42.42	999.00	1.01	999.00	1.20	0.00
23	11	11	22	120.50	6.31	2.32	43.03	999.00	129.90	5.93	4.60	43.14	258.10	1.48	54.94	40.60	999.00	2.58	999.00	2.64	0.00
23	11	11	23	101.60	5.49	4.19	43.05	999.00	115.10	3.89	9.57	42.91	230.00	1.84	10.36	41.30	999.00	1.45	999.00	1.27	0.00
23	11	11	24	91.90	6.23	7.50	43.03	999.00	92.20	4.52	7.56	42.96	204.70	2.05	19.48	40.25	999.00	3.58	999.00	3.57	0.00
23	11	12	1	70.70	11.02	4.03	43.16	999.00	62.94	10.19	4.18	43.40	163.10	2.08	33.09	40.09	999.00	2.57	999.00	2.94	0.00
23	11	12	2	78.70	12.57	4.33	43.11	999.00	71.00	11.91	4.50	43.52	82.40	5.07	13.31	41.85	999.00	0.98	999.00	1.39	0.00
23	11	12	3	90.40	11.49	4.14	43.18	999.00	82.20	10.99	4.39	43.62	88.30	4.71	12.24	43.06	999.00	0.13	999.00	0.58	0.00
23	11	12	4	95.70	9.94	3.54	43.24	999.00	90.20	8.89	5.30	43.63	187.00	3.36	16.19	42.36	999.00	2.69	999.00	2.96	0.00
23	11	12	5	97.40	8.22	6.28	42.80	999.00	94.20	7.56	5.75	42.97	180.00	2.14	9.68	36.63	999.00	6.51	999.00	6.84	0.00
23	11	12	6	93.20	6.99	4.42	42.82	999.00	89.00	6.49	3.10	42.99	250.00	2.84	9.15	35.79	999.00	7.81	999.00	7.90	0.00
23	11	12	7	95.30	6.70	3.58	42.79	999.00	94.70	5.76	3.33	42.92	211.70	2.80	15.63	35.19	999.00	7.91	999.00	7.95	0.00
23	11	12	8	108.30	7.05	2.80	42.38	999.00	106.00	6.27	3.50	42.18	199.20	2.73	19.32	34.35	999.00	999.00	999.00	7.97	0.00
23	11	12	9	110.90	10.22	2.40	42.87	999.00	114.10	7.11	4.27	42.01	172.70	2.19	18.04	35.23	999.00	5.70	999.00	4.87	0.00
23	11	12	10	113.70	7.38	5.85	42.66	999.00	114.10	5.49	8.78	42.08	139.50	3.51	23.56	41.66	999.00	-1.51	999.00	-1.46	0.00
23	11	12	11	124.80	6.39	12.65	43.22	999.00	116.20	6.09	16.46	43.82	144.30	4.12	33.38	45.78	999.00	-2.73	999.00	-2.16	0.00
23	11	12	12	135.40	8.56	16.16	44.18	999.00	128.00	8.19	17.73	44.94	136.60	5.95	21.11	46.98	999.00	-2.92	999.00	-2.21	0.00
23	11	12	13	110.60	10.05	11.19	44.75	999.00	101.70	9.23	11.05	45.41	102.40	6.70	21.78	47.98	999.00	-3.35	999.00	-2.65	0.00
23	11	12	14	99.10	8.92	7.45	44.88	999.00	88.30	9.02	7.61	45.33	96.70	6.61	16.25	47.67	999.00	-2.82	999.00	-2.44	0.00
23	11	12	15	83.80	8.25	8.01	45.12	999.00	76.80	8.32	7.37	45.48	84.80	6.43	14.07	47.75	999.00	-2.61	999.00	-2.25	0.00
23	11	12	16	92.50	8.03	4.97	45.03	999.00	82.20	8.16	4.43	45.44	89.30	6.41	11.37	47.24	999.00	-2.07	999.00	-1.63	0.00
23	11	12	17	93.10	8.80	4.04	44.94	999.00	84.40	8.43	5.30	45.40	91.90	4.28	12.47	46.76	999.00	-1.43	999.00	-0.98	0.00
23	11	12	18	114.90	12.15	2.58	44.84	999.00	105.90	11.48	3.11	45.28	109.40	5.09	11.42	45.35	999.00	-0.36	999.00	0.10	0.00
23	11	12	19	120.30	10.39	1.56	44.79	999.00	112.70	10.01	1.88	45.25	121.40	4.34	8.05	44.95	999.00	0.02	999.00	0.51	0.00

23	11	12	20	131.60	13.12	1.16	44.79	999.00	124.20	11.54	1.09	45.25	140.00	4.17	9.12	44.95	999.00	0.99	999.00	1.24	0.00
23	11	12	21	145.40	18.01	2.85	45.89	999.00	133.60	16.98	2.41	45.52	149.10	5.31	11.19	43.58	999.00	3.25	999.00	2.44	0.00
23	11	12	22	174.10	20.10	1.10	46.71	999.00	160.20	15.96	2.85	45.58	162.00	4.49	12.08	42.40	999.00	4.78	999.00	3.05	0.00
23	11	12	23	182.50	21.10	1.13	46.29	999.00	176.40	15.26	2.50	44.31	178.10	2.88	10.25	41.15	999.00	5.07	999.00	3.20	0.00
23	11	12	24	195.80	21.71	0.62	46.57	999.00	187.70	16.32	0.84	44.24	188.40	3.66	8.79	41.05	999.00	5.55	999.00	3.37	0.00
23	11	13	1	208.90	24.70	1.50	45.96	999.00	195.00	20.49	1.39	43.52	193.10	6.57	9.98	40.01	999.00	7.00	999.00	4.22	0.00
23	11	13	2	205.80	24.99	1.30	46.23	999.00	195.80	18.39	1.94	43.19	194.20	6.08	11.37	39.30	999.00	5.99	999.00	3.39	0.00
23	11	13	3	213.70	24.71	1.40	44.44	999.00	199.50	19.24	2.43	41.73	194.60	6.10	9.64	39.05	999.00	5.48	999.00	2.56	0.00
23	11	13	4	212.00	25.27	1.32	43.50	999.00	199.70	19.97	2.20	41.05	200.30	6.87	12.00	38.69	999.00	3.91	999.00	1.80	0.00
23	11	13	5	213.00	26.49	2.08	43.50	999.00	203.10	21.74	2.47	41.05	205.00	8.11	13.15	38.69	999.00	2.90	999.00	1.67	0.00
23	11	13	6	223.80	25.52	2.76	41.24	999.00	213.20	21.13	2.90	40.37	215.00	8.30	12.52	39.03	999.00	2.47	999.00	1.57	0.00
23	11	13	7	232.00	22.65	2.65	41.74	999.00	222.40	18.94	3.25	40.91	223.60	8.37	11.93	39.46	999.00	2.01	999.00	1.28	0.00
23	11	13	8	247.80	23.99	4.15	42.01	999.00	240.00	21.51	4.37	41.71	241.20	13.16	9.08	40.57	999.00	0.02	999.00	0.14	0.00
23	11	13	9	254.70	18.75	5.74	41.38	999.00	246.40	16.56	6.66	41.67	248.30	10.59	11.66	42.42	999.00	-1.50	999.00	-1.16	0.00
23	11	13	10	273.70	17.87	7.81	42.15	999.00	264.80	15.26	8.20	42.49	269.40	10.99	11.84	44.07	999.00	-2.22	999.00	-1.83	0.00
23	11	13	11	284.30	16.31	7.99	46.69	999.00	275.60	15.56	8.39	47.15	279.20	11.45	12.48	49.23	999.00	-2.83	999.00	-2.28	0.00
23	11	13	12	282.10	16.57	7.29	51.21	999.00	274.30	16.09	8.37	51.79	281.60	12.30	14.04	54.32	999.00	-3.38	999.00	-2.75	0.00
23	11	13	13	283.30	18.45	6.26	53.78	999.00	273.80	18.01	6.37	54.39	279.30	13.83	12.69	56.73	999.00	-2.92	999.00	-2.32	0.00
23	11	13	14	292.80	17.96	9.60	56.22	999.00	283.30	17.55	10.37	56.67	291.20	13.54	14.86	58.99	999.00	-2.88	999.00	-2.46	0.00
23	11	13	15	282.70	20.47	10.31	57.13	999.00	273.30	19.22	10.93	57.57	277.00	13.99	15.05	59.98	999.00	-2.43	999.00	-1.96	0.00
23	11	13	16	280.40	21.84	6.73	57.84	999.00	271.40	21.04	6.95	58.33	270.90	13.42	13.11	60.02	999.00	-1.85	999.00	-1.36	0.00
23	11	13	17	273.00	20.13	5.12	57.73	999.00	262.70	17.77	6.22	58.12	265.40	10.18	10.78	58.92	999.00	-0.72	999.00	-0.40	0.00
23	11	13	18	278.60	21.68	2.38	56.82	999.00	266.80	18.73	3.02	56.89	266.10	8.24	9.28	56.13	999.00	1.47	999.00	1.34	0.00
23	11	13	19	294.90	23.58	3.26	55.30	999.00	284.90	20.69	3.44	55.14	277.80	8.91	7.11	52.58	999.00	3.41	999.00	3.34	0.00
23	11	13	20	299.80	24.51	3.17	53.25	999.00	290.50	20.43	3.95	53.16	287.80	8.69	9.58	49.97	999.00	3.13	999.00	3.06	0.00
23	11	13	21	305.40	24.56	3.16	50.96	999.00	295.20	20.55	3.53	50.89	292.80	9.58	8.74	48.81	999.00	2.17	999.00	2.14	0.00
23	11	13	22	305.90	23.35	2.90	49.48	999.00	295.30	19.38	3.76	49.47	291.50	8.67	8.35	47.59	999.00	2.33	999.00	2.21	0.00
23	11	13	23	311.50	22.68	3.69	48.42	999.00	299.40	20.44	3.86	48.17	291.40	9.22	8.97	46.08	999.00	2.41	999.00	2.17	0.00
23	11	13	24	294.90	21.02	2.62	48.54	999.00	277.20	17.52	5.09	47.74	262.40	6.50	8.43	44.86	999.00	3.89	999.00	2.85	0.00
23	11	14	1	298.30	21.08	1.24	48.20	999.00	279.70	16.75	2.51	46.68	254.80	5.47	5.85	43.53	999.00	5.42	999.00	3.69	0.00
23	11	14	2	308.50	19.11	2.42	47.86	999.00	291.00	14.34	2.77	46.43	269.30	2.59	10.59	42.10	999.00	5.97	999.00	4.72	0.00
23	11	14	3	326.60	19.57	2.24	46.27	999.00	316.20	16.36	2.92	45.66	266.50	3.42	13.26	40.46	999.00	5.77	999.00	5.36	0.00
23	11	14	4	339.90	16.52	2.94	45.31	999.00	331.10	15.70	3.33	45.53	332.70	8.05	8.33	42.24	999.00	0.51	999.00	0.90	0.00
23	11	14	5	7.97	13.51	8.68	44.29	999.00	0.68	11.58	10.02	44.74	2.54	8.95	10.62	44.64	999.00	-0.72	999.00	-0.25	0.00
23	11	14	6	25.46	8.54	8.74	43.94	999.00	18.58	7.29	8.13	44.38	19.02	5.24	14.68	44.94	999.00	-0.95	999.00	-0.51	0.00
23	11	14	7	41.19	8.46	5.61	43.63	999.00	32.01	7.26	6.21	44.09	34.91	6.36	9.14	44.52	999.00	-0.86	999.00	-0.42	0.00
23	11	14	8	52.94	9.02	5.47	43.76	999.00	45.44	9.11	5.12	44.24	62.61	5.62	8.82	44.29	999.00	-0.36	999.00	0.11	0.00
23	11	14	9	68.51	7.96	6.48	44.57	999.00	60.46	7.77	8.00	44.96	63.46	6.18	9.82	45.17	999.00	-0.87	999.00	-0.60	0.00
23	11	14	10	93.20	4.02	20.92	44.59	999.00	84.00	4.20	19.40	45.08	88.10	3.32	29.38	46.47	999.00	-2.34	999.00	-1.78	0.00
23	11	14	11	235.00	4.56	24.22	45.04	999.00	229.00	4.43	19.04	45.87	233.70	3.88	23.27	47.67	999.00	-2.60	999.00	-1.66	0.00
23	11	14	12	245.80	4.91	14.15	45.73	999.00	239.60	4.56	15.54	46.43	245.40	3.90	24.65	48.55	999.00	-2.93	999.00	-2.19	0.00
23	11	14	13	202.30	5.10	15.77	47.24	999.00	196.90	4.71	21.47	48.48	204.20	3.51	34.70	50.03	999.00	-2.79	999.00	-1.19	0.00
23	11	14	14	148.00	4.51	29.98	48.22	999.00	121.20	4.60	32.44	48.99	85.30	5.02	28.30	50.56	999.00	-2.03	999.00	-1.89	0.00
23	11	14	15	104.20	6.61	9.92	48.14	999.00	83.10	6.84	8.99	48.02	80.50	5.88	14.76	50.00	999.00	-1.93	999.00	-1.91	0.00
23	11	14	16	174.50	5.32	23.31	49.94	999.00	144.20	5.03	21.52	50.02	109.30	3.78	22.95	51.23	999.00	-1.04	999.00	-0.78	0.00
23	11	14	17	187.00	8.22	6.45	52.26	999.00	156.80	6.20	12.35	52.26	104.70	4.28	12.17	50.46	999.00	3.24	999.00	2.65	0.00
23	11	14	18	168.50	10.18	2.51	51.49	999.00	138.10	10.79	3.73	50.27	122.40	5.42	7.83	47.10	999.00	5.18	999.00	3.57	0.00
23	11	14	19	165.90	11.28	2.88	51.48	999.00	140.70	12.25	2.88	50.21	118.90	5.29	7.28	45.72	999.00	6.74	999.00	5.32	0.00
23	11	14	20	165.80	12.65	0.88	51.85	999.00	145.10	12.34	2.78	50.30	129.90	3.97	8.11	44.46	999.00	7.74	999.00	6.15	0.00
23	11	14	21	177.30	14.19	2.79	52.19	999.00	159.70	13.39	2.54	51.12	138.30	3.50	9.20	44.29	999.00	7.97	999.00	7.46	0.00
23	11	14	22	195.90	21.83	1.05	52.19	999.00	182.40	18.47	0.81	51.12	173.90	3.91	6.19	44.29	999.00	999.00	999.00	7.89	0.00
23	11	14	23	200.80	25.06	0.94	50.59	999.00	186.90	19.64	1.79	49.50	175.70	4.59	7.89	42.70	999.00	7.43	999.00	5.05	0.00
23	11	14	24	200.10	27.98	0.76	50.72	999.00	188.70	21.43	1.47	47.74	182.80	5.67	10.23	42.85	999.00	999.00	999.00	4.68	0.00

23	11	15	1	197.60	24.74	1.37	49.90	999.00	188.20	18.72	1.39	47.06	183.60	4.80	9.49	42.65	999.00	6.49	999.00	4.28	0.00
23	11	15	2	199.50	27.82	0.63	49.42	999.00	188.50	21.05	1.02	46.68	188.30	5.97	8.65	41.73	999.00	7.97	999.00	5.76	0.00
23	11	15	3	198.60	23.24	1.69	48.02	999.00	189.00	17.40	2.88	45.64	185.00	3.43	14.69	40.95	999.00	7.24	999.00	4.53	0.00
23	11	15	4	201.60	18.66	1.58	45.57	999.00	196.10	13.42	2.54	43.56	211.30	3.21	9.71	40.14	999.00	4.83	999.00	3.33	0.00
23	11	15	5	218.10	18.63	1.24	43.77	999.00	211.70	14.54	1.40	42.40	220.10	4.14	7.55	39.17	999.00	4.63	999.00	3.39	0.00
23	11	15	6	218.20	17.54	3.23	43.77	999.00	217.60	13.08	6.06	42.40	234.20	3.48	14.94	39.17	999.00	4.28	999.00	3.22	0.00
23	11	15	7	220.20	20.73	2.46	42.55	999.00	215.00	16.30	2.01	41.52	207.60	5.17	10.98	38.77	999.00	3.72	999.00	2.61	0.00
23	11	15	8	235.40	16.25	2.90	41.77	999.00	227.60	11.49	5.53	40.77	223.20	3.51	23.34	38.11	999.00	3.02	999.00	2.09	0.00
23	11	15	9	213.80	19.24	1.65	42.40	999.00	177.10	15.40	2.24	40.94	191.60	5.69	12.15	38.76	999.00	2.58	999.00	1.64	0.00
23	11	15	10	213.40	15.70	5.92	42.03	999.00	181.30	13.24	6.18	41.13	212.00	8.79	18.66	41.94	999.00	-2.12	999.00	-1.12	0.00
23	11	15	11	234.60	15.77	5.53	45.12	999.00	203.20	14.67	5.73	45.49	239.60	9.96	22.16	47.37	999.00	-2.12	999.00	999.00	0.00
23	11	15	12	243.30	16.51	5.02	50.20	999.00	213.10	16.73	5.39	50.61	264.50	11.65	20.80	52.50	999.00	-2.32	999.00	999.00	0.00
23	11	15	13	250.70	15.84	6.74	53.41	999.00	220.00	14.88	7.36	53.83	270.60	10.32	20.57	55.82	999.00	-2.60	999.00	999.00	0.00
23	11	15	14	230.30	15.61	6.99	55.94	999.00	198.40	15.08	7.66	56.44	215.60	10.43	28.92	58.56	999.00	-2.59	999.00	999.00	0.00
23	11	15	15	230.70	17.11	6.05	58.21	999.00	199.60	16.77	6.50	58.74	202.80	10.82	12.11	60.65	999.00	-2.08	999.00	999.00	0.00
23	11	15	16	230.70	16.17	5.25	59.32	999.00	201.80	15.37	5.41	59.80	202.80	9.82	10.86	61.25	999.00	-1.55	999.00	999.00	0.00
23	11	15	17	223.10	17.28	2.29	59.74	999.00	191.70	15.82	2.67	60.12	191.10	7.14	10.23	60.62	999.00	0.17	999.00	999.00	0.00
23	11	15	18	220.80	19.77	1.46	59.52	999.00	185.90	16.92	1.70	59.51	173.10	5.34	7.39	57.76	999.00	3.22	999.00	999.00	0.00
23	11	15	19	218.50	20.93	1.53	59.08	999.00	180.70	16.81	1.86	58.41	174.20	5.60	7.88	55.07	999.00	4.47	999.00	999.00	0.00
23	11	15	20	223.40	27.13	1.81	58.86	999.00	185.40	22.05	2.38	57.32	182.20	6.20	10.51	53.48	999.00	5.72	999.00	999.00	0.00
23	11	15	21	234.30	22.62	2.22	57.70	999.00	200.00	18.11	3.36	56.11	196.10	5.84	10.16	53.00	999.00	4.33	999.00	999.00	0.00
23	11	15	22	241.50	20.62	1.02	55.91	999.00	204.90	16.74	0.98	54.67	192.50	5.68	6.34	51.17	999.00	4.82	999.00	999.00	0.00
23	11	15	23	242.50	21.38	1.06	55.11	999.00	205.70	17.25	1.03	53.76	184.20	5.24	7.53	50.01	999.00	5.43	999.00	999.00	0.00
23	11	15	24	247.10	22.87	1.16	54.82	999.00	209.30	18.03	1.40	53.27	185.20	5.39	7.18	48.94	999.00	6.06	999.00	999.00	0.00
23	11	16	1	253.10	23.21	1.94	54.90	999.00	214.10	18.38	1.81	53.15	193.90	5.49	8.03	48.40	999.00	6.54	999.00	999.00	0.00
23	11	16	2	244.10	17.62	1.74	52.71	999.00	203.30	14.91	2.13	51.34	187.00	5.34	7.16	47.53	999.00	4.91	999.00	999.00	0.00
23	11	16	3	256.40	18.00	1.82	52.03	999.00	215.20	15.47	1.65	50.62	191.20	3.18	6.21	45.84	999.00	7.22	999.00	999.00	0.00
23	11	16	4	262.50	18.71	0.84	52.89	999.00	221.90	14.74	1.22	50.72	196.70	3.75	4.95	45.47	999.00	7.96	999.00	999.00	0.00
23	11	16	5	263.70	18.82	1.32	52.47	999.00	216.60	14.47	1.02	50.06	178.10	3.63	7.39	44.56	999.00	7.99	999.00	999.00	0.00
23	11	16	6	261.70	17.04	2.63	52.24	999.00	211.70	15.39	1.74	50.28	173.90	4.96	7.12	44.29	999.00	999.00	999.00	999.00	0.00
23	11	16	7	255.40	16.44	5.89	999.00	999.00	210.20	15.26	5.14	49.97	178.60	4.20	9.10	43.67	999.00	999.00	999.00	999.00	0.00
23	11	16	8	257.40	15.60	3.64	999.00	999.00	207.50	14.92	2.95	49.30	168.90	6.27	6.49	42.46	999.00	999.00	999.00	999.00	0.00
23	11	16	9	240.40	16.08	2.53	52.16	999.00	194.20	16.14	4.03	49.83	172.60	5.95	9.70	42.92	999.00	999.00	999.00	999.00	0.00
23	11	16	10	223.80	14.27	6.44	53.17	999.00	175.00	11.82	5.10	48.27	175.60	6.90	11.56	47.02	999.00	999.00	999.00	999.00	0.00
23	11	16	11	198.20	12.58	4.82	51.56	999.00	172.80	12.32	4.35	50.92	184.70	7.89	13.74	52.56	999.00	-2.52	999.00	-1.10	0.00
23	11	16	12	198.00	12.97	5.07	55.38	999.00	169.20	12.95	4.92	55.84	174.10	8.93	12.29	57.89	999.00	-2.69	999.00	-1.11	0.00
23	11	16	13	199.30	12.89	7.30	59.60	999.00	173.90	12.70	7.99	60.13	184.50	8.81	13.69	62.26	999.00	-2.55	999.00	-1.43	0.00
23	11	16	14	202.30	17.59	8.66	62.12	999.00	175.60	16.92	8.60	62.64	185.30	10.31	14.36	64.80	999.00	-2.53	999.00	-1.76	0.00
23	11	16	15	204.10	16.43	6.36	63.73	999.00	177.20	15.59	7.20	64.26	182.60	9.03	14.62	66.01	999.00	-2.11	999.00	-1.44	0.00
23	11	16	16	208.10	19.21	6.08	65.01	999.00	180.70	17.76	6.08	65.52	187.90	9.03	13.98	66.98	999.00	-1.63	999.00	-0.90	0.00
23	11	16	17	199.70	15.74	2.63	64.55	999.00	170.70	13.89	3.72	64.92	172.70	5.87	8.94	65.14	999.00	0.62	999.00	0.77	0.00
23	11	16	18	186.20	14.98	5.53	63.78	999.00	151.00	12.99	7.12	63.81	142.80	3.87	9.55	61.64	999.00	2.63	999.00	2.69	0.00
23	11	16	19	186.40	20.79	2.11	62.34	999.00	154.30	17.41	2.81	62.01	159.40	5.58	9.96	59.10	999.00	2.44	999.00	2.43	0.00
23	11	16	20	187.50	22.25	2.79	60.42	999.00	156.90	18.53	3.36	60.03	164.60	5.98	11.43	57.92	999.00	2.02	999.00	1.81	0.00
23	11	16	21	203.30	24.19	2.15	59.44	999.00	173.00	19.79	2.86	58.94	173.40	7.70	9.88	56.97	999.00	2.06	999.00	2.11	0.00
23	11	16	22	208.20	22.86	2.09	58.98	999.00	177.50	19.35	2.52	58.66	179.90	7.57	11.89	57.83	999.00	1.05	999.00	0.98	0.00
23	11	16	23	208.20	21.00	2.50	58.45	999.00	177.20	18.00	3.27	58.25	177.30	7.06	10.36	57.29	999.00	1.12	999.00	1.09	0.00
23	11	16	24	207.10	22.72	3.77	57.75	999.00	174.60	19.10	4.79	57.54	175.40	8.91	11.46	57.03	999.00	0.30	999.00	0.39	0.00
23	11	17	1	204.80	21.95	3.63	57.16	999.00	175.90	17.83	4.18	57.00	183.50	7.08	11.26	56.74	999.00	0.53	999.00	0.45	0.00
23	11	17	2	200.90	23.58	4.23	58.09	999.00	173.30	19.95	4.56	58.00	180.80	8.62	11.66	57.55	999.00	0.35	999.00	0.47	0.00
23	11	17	3	210.30	26.61	4.88	59.63	999.00	179.30	22.80	4.80	59.69	185.20	10.79	12.23	59.59	999.00	0.09	999.00	0.35	0.00
23	11	17	4	211.80	24.42	4.51	59.78	999.00	181.60	20.33	4.81	59.91	185.40	9.85	12.01	60.01	999.00	-0.03	999.00	0.14	0.00
23	11	17	5	210.50	25.55	4.00	58.88	999.00	179.70	22.04	4.42	58.92	182.30	9.62	11.90	58.94	999.00	-0.12	999.00	0.17	0.00

23	11	17	6	213.90	23.72	4.23	56.30	999.00	181.70	20.67	4.47	56.42	185.80	9.07	12.22	56.58	999.00	-0.48	999.00	-0.14	0.08
23	11	17	7	209.90	23.45	4.18	55.15	999.00	176.20	20.28	4.66	55.14	179.20	9.58	11.93	55.12	999.00	0.08	999.00	0.49	0.03
23	11	17	8	217.70	22.65	4.53	54.82	999.00	186.90	20.24	5.19	55.14	195.60	10.35	11.58	55.63	999.00	-0.94	999.00	-0.35	0.00
23	11	17	9	219.40	20.77	3.23	54.82	999.00	187.50	19.00	3.75	55.14	230.00	9.47	18.97	55.63	999.00	-0.86	999.00	-0.28	0.01
23	11	17	10	213.60	19.28	4.49	55.12	999.00	182.20	16.35	5.39	55.42	217.90	8.37	14.99	56.13	999.00	-1.06	999.00	-2.46	0.00
23	11	17	11	219.40	18.40	4.18	55.13	999.00	188.50	16.27	4.64	55.49	224.60	8.89	13.43	56.11	999.00	-0.98	999.00	-0.45	0.00
23	11	17	12	227.70	18.28	4.75	55.26	999.00	195.90	16.64	4.70	55.61	231.20	9.17	11.89	55.97	999.00	-0.67	999.00	-0.06	0.02
23	11	17	13	287.50	15.33	5.97	55.61	999.00	254.90	13.52	5.44	56.05	293.20	7.39	10.09	56.31	999.00	-0.96	999.00	-0.18	0.05
23	11	17	14	30.54	25.95	4.17	48.67	999.00	357.50	21.70	6.53	49.31	34.79	16.76	13.78	49.89	999.00	-1.40	999.00	-0.78	0.01
23	11	17	15	26.19	16.99	9.49	48.67	999.00	350.50	15.10	9.79	49.31	23.12	14.09	11.24	49.89	999.00	-1.30	999.00	-0.67	0.00
23	11	17	16	17.00	17.60	10.67	44.10	999.00	341.50	16.55	10.55	44.72	18.66	13.42	11.30	45.66	999.00	-1.70	999.00	-0.74	0.00
23	11	17	17	18.56	15.89	9.61	43.90	999.00	343.70	15.48	9.02	44.47	20.51	13.45	9.48	45.24	999.00	-1.24	999.00	-0.64	0.00
23	11	17	18	34.79	17.28	8.42	43.35	999.00	0.37	14.43	8.69	43.87	40.99	11.75	14.94	44.27	999.00	-1.14	999.00	0.03	0.00
23	11	17	19	39.57	17.15	5.04	41.91	999.00	5.49	14.18	6.67	42.43	52.16	13.15	12.87	43.55	999.00	-1.72	999.00	-0.20	0.00
23	11	17	20	30.59	18.60	7.15	41.51	999.00	356.20	16.24	8.55	42.03	39.56	13.05	15.23	43.20	999.00	-1.69	999.00	-1.07	0.00
23	11	17	21	24.84	15.08	10.88	40.82	999.00	350.20	13.54	10.24	41.31	33.35	10.31	15.12	42.35	999.00	-1.48	999.00	-0.97	0.00
23	11	17	22	48.95	9.64	7.00	40.39	999.00	15.95	7.85	7.76	40.86	77.20	7.21	15.25	41.72	999.00	-1.07	999.00	-0.71	0.00
23	11	17	23	23.73	10.61	14.88	40.55	999.00	349.70	9.67	12.98	41.01	27.51	7.49	21.71	41.75	999.00	-1.29	999.00	-0.88	0.00
23	11	17	24	5.62	11.91	8.25	40.47	999.00	332.10	11.42	7.81	40.93	4.93	6.99	13.76	41.63	999.00	-1.14	999.00	-0.84	0.00
23	11	18	1	22.53	9.28	13.19	40.25	999.00	346.50	8.41	13.60	40.72	16.69	6.28	17.60	41.49	999.00	-1.22	999.00	-0.84	0.00
23	11	18	2	6.04	8.31	8.19	40.17	999.00	333.10	8.05	8.88	40.61	2.90	5.05	13.23	41.18	999.00	-0.85	999.00	-0.68	0.00
23	11	18	3	353.90	11.08	5.28	40.15	999.00	320.10	11.08	4.86	40.61	351.80	6.75	6.91	40.63	999.00	-0.57	999.00	-0.17	0.00
23	11	18	4	347.90	10.98	7.44	39.72	999.00	315.60	10.75	6.62	40.18	333.80	5.86	22.59	40.14	999.00	-0.08	999.00	0.10	0.00
23	11	18	5	324.90	10.40	4.63	38.79	999.00	284.20	10.51	4.36	38.95	292.70	2.10	19.53	35.27	999.00	4.36	999.00	4.23	0.00
23	11	18	6	311.10	12.31	1.40	37.96	999.00	266.70	12.16	3.10	37.31	216.70	0.83	88.50	33.91	999.00	4.01	999.00	3.37	0.00
23	11	18	7	307.60	11.31	1.36	37.54	999.00	268.90	11.26	3.00	35.70	207.30	0.55	47.81	33.80	999.00	4.42	999.00	3.47	0.00
23	11	18	8	298.40	8.46	1.99	37.77	999.00	259.00	8.89	1.33	37.40	245.60	3.53	7.25	33.03	999.00	5.08	999.00	4.14	0.00
23	11	18	9	281.30	8.46	2.07	37.77	999.00	246.40	9.59	2.57	37.40	266.10	4.73	8.35	33.03	999.00	3.12	999.00	3.20	0.00
23	11	18	10	249.50	7.82	10.78	36.47	999.00	212.50	5.68	13.61	35.61	243.10	4.91	17.82	36.21	999.00	-0.97	999.00	-1.17	0.00
23	11	18	11	252.10	8.69	7.97	36.92	999.00	214.70	8.43	7.41	37.33	262.50	7.10	12.73	39.54	999.00	-2.56	999.00	-1.93	0.00
23	11	18	12	238.90	14.89	5.59	39.52	999.00	207.20	14.95	6.34	40.05	257.10	11.24	13.28	42.34	999.00	-2.87	999.00	-2.27	0.00
23	11	18	13	240.70	18.38	6.33	40.79	999.00	208.60	18.06	7.41	41.31	255.10	13.46	14.46	43.63	999.00	-2.78	999.00	-2.25	0.00
23	11	18	14	236.90	16.85	4.84	42.11	999.00	204.50	16.75	4.83	42.64	251.60	12.78	13.06	44.96	999.00	-2.80	999.00	-2.33	0.00
23	11	18	15	239.40	18.47	5.06	42.11	999.00	208.30	18.21	5.35	42.64	258.50	13.99	12.01	44.96	999.00	-2.26	999.00	-1.81	0.00
23	11	18	16	237.00	16.89	5.84	44.64	999.00	205.20	16.44	6.69	45.13	257.10	11.26	13.83	46.86	999.00	-2.06	999.00	-1.42	0.00
23	11	18	17	238.60	17.27	3.12	45.04	999.00	205.40	16.21	3.50	45.52	251.90	10.35	10.16	46.54	999.00	-1.09	999.00	-0.64	0.00
23	11	18	18	230.40	18.36	2.19	44.63	999.00	193.90	16.78	2.64	44.80	229.50	6.71	11.16	44.20	999.00	1.46	999.00	1.48	0.00
23	11	18	19	232.70	19.21	1.77	43.60	999.00	197.40	16.39	1.77	43.43	242.90	6.55	9.36	42.13	999.00	1.53	999.00	1.53	0.00
23	11	18	20	244.40	20.80	1.59	42.81	999.00	205.90	17.70	1.87	42.24	243.70	8.22	8.47	40.72	999.00	2.68	999.00	1.87	0.00
23	11	18	21	255.00	20.22	2.90	42.11	999.00	216.80	16.17	3.23	41.44	248.00	7.49	8.66	40.05	999.00	1.77	999.00	1.38	0.00
23	11	18	22	257.80	19.26	2.42	41.65	999.00	220.70	14.64	3.20	40.74	248.80	7.49	7.55	39.33	999.00	2.00	999.00	1.51	0.00
23	11	18	23	254.40	20.30	1.58	40.92	999.00	215.70	16.51	2.63	40.04	259.40	7.89	9.27	38.65	999.00	1.88	999.00	1.25	0.00
23	11	18	24	262.40	21.11	1.20	40.60	999.00	226.40	16.52	2.55	39.82	265.30	6.43	7.75	38.78	999.00	2.12	999.00	1.50	0.00
23	11	19	1	258.40	20.55	1.81	39.89	999.00	219.30	15.96	2.49	38.99	244.10	6.35	8.66	37.38	999.00	2.92	999.00	2.01	0.00
23	11	19	2	256.00	21.59	2.10	39.98	999.00	216.50	17.01	1.91	38.61	248.00	7.43	8.99	36.65	999.00	3.41	999.00	2.22	0.00
23	11	19	3	254.50	20.94	1.84	39.19	999.00	213.20	16.72	2.68	37.87	242.30	7.26	9.96	36.33	999.00	2.98	999.00	1.67	0.00
23	11	19	4	256.00	20.88	1.98	39.01	999.00	215.20	16.61	2.76	37.50	249.40	8.54	8.94	36.10	999.00	2.59	999.00	1.33	0.00
23	11	19	5	256.70	21.19	2.94	38.38	999.00	216.60	17.07	2.87	37.31	240.70	7.39	11.02	35.92	999.00	2.86	999.00	1.88	0.00
23	11	19	6	259.20	20.10	3.46	37.60	999.00	220.10	16.03	3.76	36.79	251.70	8.89	9.01	35.63	999.00	1.41	999.00	0.93	0.00
23	11	19	7	267.60	19.84	3.59	37.00	999.00	224.90	14.66	5.75	35.96	248.00	7.39	9.13	35.21	999.00	2.24	999.00	1.17	0.00
23	11	19	8	285.60	18.56	3.78	36.93	999.00	239.90	14.90	4.11	35.60	273.70	6.70	10.25	34.56	999.00	2.87	999.00	1.56	0.00
23	11	19	9	296.30	16.87	5.58	36.93	999.00	246.40	13.50	5.76	35.60	283.50	6.21	11.20	34.56	999.00	1.77	999.00	-0.51	0.00
23	11	19	10	308.50	12.04	6.48	38.88	999.00	269.90	10.24	9.17	38.03	302.50	6.18	11.23	39.20	999.00	-1.81	999.00	-1.95	0.00

23	11	19	11	329.40	11.00	7.74	41.03	999.00	296.60	10.98	8.99	41.48	333.20	8.80	12.30	43.45	999.00	-2.46	999.00	-2.35	0.00
23	11	19	12	341.30	6.50	13.51	42.59	999.00	308.70	6.38	12.90	43.02	346.00	5.48	20.59	45.34	999.00	-3.08	999.00	-1.89	0.00
23	11	19	13	355.10	6.03	12.82	43.73	999.00	326.20	5.92	15.03	44.28	13.03	5.62	20.54	47.16	999.00	-3.39	999.00	-0.85	0.00
23	11	19	14	22.53	4.68	15.94	43.99	999.00	350.80	4.87	12.73	44.53	43.93	4.67	22.38	47.35	999.00	-3.06	999.00	-1.00	0.00
23	11	19	15	66.35	3.08	22.77	45.22	999.00	33.16	3.40	13.41	45.99	79.10	3.60	25.27	47.95	999.00	-2.63	999.00	-0.87	0.00
23	11	19	16	78.50	2.67	14.86	46.46	999.00	51.27	3.33	14.13	47.13	103.10	3.02	18.99	48.61	999.00	-1.83	999.00	-0.97	0.00
23	11	19	17	67.08	5.59	4.81	46.78	999.00	37.57	5.20	4.43	47.20	113.10	4.62	4.44	47.27	999.00	0.24	999.00	0.97	0.00
23	11	19	18	61.86	4.61	14.85	46.58	999.00	52.86	5.12	17.99	46.21	137.30	1.11	25.88	44.61	999.00	3.36	999.00	2.60	0.00
23	11	19	19	116.70	7.97	3.43	46.04	999.00	85.20	9.06	4.27	45.97	132.70	5.91	3.86	44.22	999.00	-0.23	999.00	0.33	0.00
23	11	19	20	102.50	11.03	2.26	44.32	999.00	70.40	10.48	2.37	44.54	131.20	3.44	6.13	44.03	999.00	0.14	999.00	0.88	0.00
23	11	19	21	73.30	13.45	2.11	44.12	999.00	38.38	13.62	2.56	44.53	100.70	7.13	9.28	44.08	999.00	-0.28	999.00	0.20	0.00
23	11	19	22	68.47	16.16	4.98	43.70	999.00	33.25	16.24	5.58	44.12	91.60	10.72	11.07	44.36	999.00	-0.88	999.00	-0.31	0.00
23	11	19	23	71.60	18.55	5.44	42.53	999.00	37.19	18.42	6.39	42.97	98.20	12.06	11.54	43.49	999.00	-1.03	999.00	-0.43	0.00
23	11	19	24	80.10	17.73	4.66	41.60	999.00	46.31	17.70	5.59	42.05	105.00	10.65	11.68	42.59	999.00	-0.98	999.00	-0.42	0.00
23	11	20	1	86.50	18.55	4.04	41.39	999.00	52.54	17.99	5.50	41.84	109.20	10.51	11.85	42.29	999.00	-0.90	999.00	-0.34	0.00
23	11	20	2	85.10	19.04	3.88	41.47	999.00	51.33	18.56	4.82	41.93	107.20	10.68	11.27	42.36	999.00	-0.92	999.00	-0.34	0.00
23	11	20	3	89.50	22.32	3.89	41.56	999.00	56.58	21.30	4.73	42.03	112.10	11.53	10.63	42.48	999.00	-0.94	999.00	-0.37	0.00
23	11	20	4	94.80	23.82	3.54	41.30	999.00	61.97	22.35	4.62	41.77	120.20	11.53	11.08	42.33	999.00	-1.01	999.00	-0.41	0.00
23	11	20	5	90.40	24.66	4.48	40.97	999.00	56.73	23.44	5.54	41.44	114.30	13.30	12.37	42.09	999.00	-1.17	999.00	-0.53	0.00
23	11	20	6	94.20	26.73	3.45	40.93	999.00	61.27	25.53	4.60	41.40	119.50	13.46	10.52	42.06	999.00	-1.04	999.00	-0.49	0.00
23	11	20	7	92.20	22.10	5.59	40.99	999.00	58.80	20.56	5.96	41.46	115.10	12.03	11.54	42.19	999.00	-1.21	999.00	-0.62	0.00
23	11	20	8	92.20	22.09	5.03	41.18	999.00	59.34	20.87	5.53	41.64	115.80	11.56	11.36	42.25	999.00	-1.08	999.00	-0.48	0.00
23	11	20	9	105.40	20.63	4.56	41.35	999.00	73.00	19.95	5.51	41.82	129.30	9.26	11.08	42.64	999.00	-1.60	999.00	-0.87	0.00
23	11	20	10	109.20	19.39	6.77	40.84	999.00	78.30	18.56	7.52	41.34	131.90	10.05	10.64	42.65	999.00	-2.14	999.00	-1.40	0.00
23	11	20	11	100.60	24.09	4.49	40.23	999.00	68.29	23.22	5.34	40.76	125.50	11.24	11.56	42.41	999.00	-1.93	999.00	-1.29	0.00
23	11	20	12	93.90	25.76	3.86	40.14	999.00	61.02	24.42	4.95	40.67	118.90	13.57	12.03	42.29	999.00	-2.12	999.00	-1.45	0.00
23	11	20	13	83.50	28.37	4.78	40.37	999.00	50.34	27.98	5.49	40.88	108.90	17.72	11.31	42.39	999.00	-2.03	999.00	-1.33	0.00
23	11	20	14	86.30	27.66	3.54	40.37	999.00	52.15	26.97	4.96	40.88	109.90	15.36	12.29	42.39	999.00	-2.08	999.00	-1.40	0.00
23	11	20	15	87.50	29.89	4.76	40.73	999.00	53.58	28.61	5.91	41.25	111.10	16.90	12.13	42.69	999.00	-1.89	999.00	-1.22	0.00
23	11	20	16	87.20	29.93	4.07	41.16	999.00	53.32	28.79	4.97	41.67	112.20	17.09	11.04	42.90	999.00	-1.65	999.00	-1.03	0.00
23	11	20	17	82.00	29.48	3.77	41.67	999.00	46.76	28.66	4.88	42.18	104.80	18.38	10.77	43.24	999.00	-1.51	999.00	-0.88	0.00
23	11	20	18	84.10	29.73	4.37	42.06	999.00	49.56	28.36	5.72	42.55	107.20	17.50	10.99	43.43	999.00	-1.30	999.00	-0.73	0.00
23	11	20	19	90.30	29.89	4.11	42.62	999.00	56.94	28.22	4.72	43.10	114.90	15.24	12.15	43.82	999.00	-1.19	999.00	-0.62	0.00
23	11	20	20	98.00	26.21	3.80	42.84	999.00	64.42	24.33	4.99	43.30	121.70	12.11	10.33	43.97	999.00	-1.08	999.00	-0.52	0.00
23	11	20	21	104.90	24.17	4.50	42.67	999.00	72.30	23.42	5.63	43.12	127.90	11.06	10.22	43.82	999.00	-1.20	999.00	-0.61	0.00
23	11	20	22	100.40	23.65	3.02	43.19	999.00	67.82	23.54	3.52	43.64	124.40	10.51	11.59	44.32	999.00	-1.03	999.00	-0.66	0.00
23	11	20	23	96.30	24.87	3.04	42.80	999.00	63.75	23.61	3.94	43.21	120.70	11.59	10.26	43.66	999.00	-1.07	999.00	-0.49	0.00
23	11	20	24	103.90	22.75	5.03	42.61	999.00	71.70	21.83	6.18	43.06	127.50	10.59	11.75	43.77	999.00	-1.17	999.00	-0.57	0.00
23	11	21	1	107.40	21.29	3.31	42.81	999.00	74.50	21.12	4.14	43.26	129.90	10.35	9.75	44.01	999.00	-1.22	999.00	-0.64	0.00
23	11	21	2	105.60	18.99	3.44	42.75	999.00	72.80	18.42	4.40	43.20	127.70	8.16	11.34	43.83	999.00	-0.85	999.00	-0.61	0.00
23	11	21	3	117.70	20.80	3.05	41.77	999.00	85.90	19.08	3.73	42.25	135.80	9.70	7.98	42.15	999.00	0.67	999.00	-0.60	0.01
23	11	21	4	108.90	21.55	3.71	40.56	999.00	75.40	20.59	4.52	41.07	130.20	9.43	9.93	39.74	999.00	0.65	999.00	-0.46	0.02
23	11	21	5	124.60	20.19	3.46	40.43	999.00	92.20	17.40	4.25	40.90	140.00	8.00	9.30	40.15	999.00	-0.18	999.00	0.26	0.04
23	11	21	6	126.20	18.71	3.34	39.51	999.00	93.30	16.02	3.85	40.50	140.10	8.25	7.85	40.46	999.00	-1.02	999.00	0.03	0.04
23	11	21	7	130.70	23.82	3.03	39.85	999.00	97.90	21.61	4.08	40.50	144.00	10.28	8.70	40.86	999.00	-0.98	999.00	-0.14	0.06
23	11	21	8	141.90	26.47	6.46	40.87	999.00	111.00	24.07	7.22	41.38	154.80	12.65	11.21	41.73	999.00	-0.87	999.00	0.00	0.05
23	11	21	9	152.70	22.51	6.17	41.16	999.00	122.20	20.17	6.25	41.68	160.30	10.48	11.79	42.11	999.00	-0.97	999.00	-0.16	0.05
23	11	21	10	153.70	17.40	5.38	41.49	999.00	120.70	14.96	6.35	41.87	158.30	7.79	10.96	42.50	999.00	-1.03	999.00	-0.32	0.02
23	11	21	11	162.50	17.60	5.74	42.70	999.00	129.90	14.76	5.87	42.99	170.50	6.07	17.56	43.77	999.00	-1.03	999.00	-0.49	0.00
23	11	21	12	178.40	19.91	4.98	45.29	999.00	145.80	17.18	6.24	45.64	188.60	7.62	17.56	46.01	999.00	-0.79	999.00	-0.05	0.00
23	11	21	13	179.40	21.55	4.84	47.09	999.00	147.30	20.09	5.40	47.62	188.10	10.27	15.21	47.87	999.00	-0.79	999.00	-0.20	0.00
23	11	21	14	181.00	19.78	4.87	48.09	999.00	149.40	18.16	5.71	48.66	190.50	9.26	15.41	49.01	999.00	-1.00	999.00	-0.31	0.00
23	11	21	15	185.50	18.12	4.66	48.63	999.00	154.60	16.67	5.19	49.07	198.30	9.51	15.02	49.78	999.00	-1.34	999.00	-0.54	0.00

23	11	21	16	191.10	16.85	4.55	48.83	999.00	158.90	15.43	5.24	49.27	202.30	8.49	13.92	49.90	999.00	-0.69	999.00	-0.36	0.00
23	11	21	17	193.00	17.29	4.35	49.02	999.00	160.40	15.62	4.52	49.35	197.90	8.60	13.23	49.73	999.00	-0.77	999.00	-0.14	0.00
23	11	21	18	207.40	13.54	5.87	49.09	999.00	177.70	11.37	6.18	49.42	229.90	4.93	16.79	49.85	999.00	-0.72	999.00	-0.10	0.00
23	11	21	19	247.40	18.69	7.04	48.37	999.00	215.00	17.66	6.77	48.84	264.40	10.29	11.40	48.95	999.00	-0.42	999.00	0.68	0.02
23	11	21	20	253.30	18.46	4.66	46.37	999.00	219.10	17.28	5.23	46.98	268.80	10.60	10.56	46.79	999.00	-0.25	999.00	0.61	0.00
23	11	21	21	257.10	19.01	4.46	44.91	999.00	223.60	17.10	5.61	45.42	274.60	10.66	11.09	45.42	999.00	-0.69	999.00	-0.11	0.00
23	11	21	22	259.50	19.58	4.28	44.91	999.00	226.70	17.85	5.26	45.42	278.00	10.95	9.85	45.42	999.00	-1.15	999.00	-0.40	0.00
23	11	21	23	258.90	17.47	4.96	43.06	999.00	225.50	15.84	5.77	43.55	273.10	9.48	11.67	44.22	999.00	-1.04	999.00	-0.38	0.00
23	11	21	24	272.90	17.40	5.02	42.67	999.00	239.20	16.12	5.54	43.05	288.00	10.10	9.53	43.75	999.00	-0.99	999.00	-0.50	0.00
23	11	22	1	277.20	16.76	5.76	41.79	999.00	241.70	15.60	6.38	41.96	290.50	10.04	9.91	42.60	999.00	-0.92	999.00	-0.55	0.00
23	11	22	2	281.40	15.15	6.17	40.79	999.00	246.30	14.12	6.26	41.03	293.80	8.84	9.49	42.03	999.00	-1.42	999.00	0.05	0.00
23	11	22	3	289.30	14.07	5.20	40.30	999.00	254.20	13.21	5.88	40.76	299.60	8.29	7.65	41.69	999.00	-1.37	999.00	0.00	0.00
23	11	22	4	289.20	16.83	4.11	39.95	999.00	254.70	15.98	4.87	40.43	301.70	10.74	6.44	41.39	999.00	-1.47	999.00	-0.81	0.00
23	11	22	5	297.50	16.88	5.50	39.39	999.00	262.20	15.49	5.89	39.85	303.70	10.70	6.71	40.83	999.00	-1.40	999.00	-0.81	0.00
23	11	22	6	291.60	16.15	4.49	39.20	999.00	256.10	15.51	5.66	39.68	301.50	10.45	8.34	40.61	999.00	-1.41	999.00	-0.80	0.00
23	11	22	7	301.90	15.71	4.69	38.95	999.00	267.70	15.09	5.05	39.42	309.60	9.49	6.79	40.35	999.00	-1.36	999.00	-0.74	0.00
23	11	22	8	315.40	17.86	5.98	38.92	999.00	282.20	16.66	7.18	39.41	321.60	10.04	9.38	40.40	999.00	-1.50	999.00	-0.88	0.00
23	11	22	9	317.10	16.50	6.62	38.92	999.00	284.90	15.77	7.85	39.42	325.00	10.71	9.60	40.49	999.00	-1.59	999.00	-0.95	0.00
23	11	22	10	319.60	19.30	4.84	38.09	999.00	285.90	18.57	5.51	38.59	326.00	12.32	7.78	39.49	999.00	-1.31	999.00	-0.91	0.00
23	11	22	11	310.50	15.08	5.11	38.02	999.00	276.80	14.70	6.24	38.58	318.60	9.55	9.02	39.87	999.00	-2.02	999.00	-1.13	0.00
23	11	22	12	305.50	17.26	4.81	37.74	999.00	271.60	16.76	6.14	38.32	314.20	11.40	9.04	39.78	999.00	-2.08	999.00	-1.37	0.00
23	11	22	13	309.50	17.73	7.55	37.49	999.00	276.30	17.26	8.05	37.95	318.30	12.06	9.52	39.47	999.00	-1.97	999.00	-1.39	0.00
23	11	22	14	328.20	16.41	5.68	37.76	999.00	296.60	16.04	6.17	38.28	334.50	11.95	9.99	39.78	999.00	-2.10	999.00	-1.48	0.00
23	11	22	15	330.70	12.09	6.66	38.33	999.00	300.70	11.79	6.73	38.82	337.70	9.37	10.48	40.72	999.00	-2.57	999.00	-1.89	0.00
23	11	22	16	321.90	5.13	17.45	38.88	999.00	295.90	5.08	14.24	39.37	339.20	3.85	19.58	41.53	999.00	-2.84	999.00	-1.75	0.00
23	11	22	17	308.50	6.25	6.40	39.79	999.00	275.30	4.87	8.49	40.22	318.50	2.32	10.02	41.57	999.00	-1.11	999.00	-0.90	0.00
23	11	22	18	281.70	8.19	5.78	40.59	999.00	234.20	6.52	6.88	40.76	205.50	3.09	7.99	41.10	999.00	0.18	999.00	0.13	0.00
23	11	22	19	287.10	6.53	10.29	41.53	999.00	236.30	5.30	12.02	41.49	208.60	1.16	29.93	40.34	999.00	1.38	999.00	1.54	0.00
23	11	22	20	247.20	5.18	6.10	41.61	999.00	195.80	5.49	6.33	41.64	203.10	4.13	11.37	40.28	999.00	1.25	999.00	1.38	0.00
23	11	22	21	229.90	8.93	1.92	41.54	999.00	186.70	9.54	1.56	41.55	206.70	4.40	10.45	40.28	999.00	1.39	999.00	1.40	0.00
23	11	22	22	242.70	11.07	3.16	41.78	999.00	202.60	10.31	2.82	41.87	211.50	3.96	13.23	40.59	999.00	0.48	999.00	0.88	0.00
23	11	22	23	252.00	12.86	3.94	41.52	999.00	215.40	11.13	3.53	41.61	247.40	6.03	10.77	41.43	999.00	-0.32	999.00	0.14	0.00
23	11	22	24	240.00	15.32	4.06	41.47	999.00	205.80	13.91	4.47	41.70	253.10	7.88	11.07	42.02	999.00	-0.92	999.00	-0.35	0.00
23	11	23	1	248.30	16.32	3.30	40.36	999.00	214.00	14.79	3.60	40.74	260.40	8.45	10.27	41.16	999.00	-0.64	999.00	-0.24	0.00
23	11	23	2	244.40	20.51	3.63	38.14	999.00	210.30	19.11	3.58	38.42	257.40	11.59	10.24	38.83	999.00	-0.80	999.00	-0.34	0.00
23	11	23	3	231.50	18.95	3.76	36.99	999.00	195.90	16.95	4.77	37.15	242.20	8.95	13.08	37.47	999.00	-0.48	999.00	-0.10	0.00
23	11	23	4	247.60	16.56	4.92	37.22	999.00	212.40	14.81	5.36	37.54	259.60	9.84	10.78	38.30	999.00	-1.27	999.00	-0.73	0.00
23	11	23	5	243.40	17.74	5.37	38.12	999.00	209.40	17.02	5.50	38.55	257.50	11.46	10.33	39.42	999.00	-1.32	999.00	-0.75	0.00
23	11	23	6	236.40	18.69	3.61	38.20	999.00	202.60	16.75	4.40	38.60	248.80	9.76	11.24	39.19	999.00	-0.68	999.00	-0.25	0.00
23	11	23	7	227.00	20.62	4.26	37.16	999.00	192.60	18.43	4.31	37.42	239.30	9.87	13.17	37.67	999.00	-0.51	999.00	-0.08	0.00
23	11	23	8	232.50	22.38	4.47	36.33	999.00	197.70	19.54	5.34	36.63	246.00	10.96	12.98	36.99	999.00	-0.62	999.00	-0.15	0.00
23	11	23	9	232.60	24.50	5.25	36.53	999.00	199.60	22.57	5.54	36.89	249.80	14.45	12.78	37.74	999.00	-1.49	999.00	-0.97	0.00
23	11	23	10	246.90	21.14	5.88	37.70	999.00	214.00	20.43	6.14	38.16	268.60	13.73	12.63	39.64	999.00	-2.24	999.00	-1.60	0.00
23	11	23	11	254.10	22.27	4.19	38.68	999.00	220.20	21.36	4.93	39.15	273.80	15.26	12.15	40.97	999.00	-2.31	999.00	-1.81	0.00
23	11	23	12	255.00	18.40	6.15	39.84	999.00	220.90	17.61	6.05	40.34	269.60	13.08	11.91	42.45	999.00	-2.63	999.00	-2.19	0.00
23	11	23	13	258.70	12.45	8.25	41.28	999.00	224.10	12.50	7.62	41.80	274.60	9.95	14.69	44.07	999.00	-2.84	999.00	-2.40	0.00
23	11	23	14	255.10	11.41	6.57	42.72	999.00	221.40	11.26	6.72	43.26	271.70	8.41	15.09	45.51	999.00	-2.56	999.00	-2.18	0.00
23	11	23	15	257.10	11.84	7.63	43.78	999.00	225.10	11.11	8.31	44.34	278.30	8.34	15.02	46.33	999.00	-2.53	999.00	-2.00	0.00
23	11	23	16	264.60	9.84	7.80	44.36	999.00	232.70	9.26	7.99	44.89	283.50	6.64	13.59	46.50	999.00	-1.98	999.00	-1.31	0.00
23	11	23	17	263.80	9.59	6.66	44.67	999.00	229.10	9.13	6.52	45.16	280.40	5.82	10.59	46.19	999.00	-1.33	999.00	-0.77	0.00
23	11	23	18	293.70	7.17	4.47	44.60	999.00	256.10	6.73	4.43	45.01	285.10	3.54	9.95	45.57	999.00	-0.72	999.00	-0.14	0.00
23	11	23	19	297.70	10.22	2.61	44.84	999.00	260.70	8.85	2.90	45.16	283.60	3.59	5.42	45.30	999.00	-0.35	999.00	0.15	0.00
23	11	23	20	324.20	11.93	5.14	44.66	999.00	291.60	10.53	5.93	44.96	320.70	4.22	7.91	45.05	999.00	-0.42	999.00	0.05	0.00

23	11	23	21	334.60	13.36	2.82	44.80	999.00	298.50	12.02	4.08	45.05	315.90	4.63	5.76	44.74	999.00	0.58	999.00	0.88	0.00
23	11	23	22	338.10	13.65	5.44	44.66	999.00	305.20	12.45	5.74	44.95	335.70	6.73	9.87	44.54	999.00	-0.67	999.00	0.12	0.00
23	11	23	23	38.07	18.79	3.04	42.00	999.00	4.28	15.79	4.84	42.50	59.51	12.06	13.41	43.55	999.00	-1.58	999.00	-0.99	0.00
23	11	23	24	32.84	17.34	7.17	40.35	999.00	358.40	14.51	8.00	40.85	41.47	11.23	16.03	41.91	999.00	-1.58	999.00	-0.99	0.00
23	11	24	1	35.52	20.80	4.32	38.79	999.00	3.21	17.11	6.76	39.32	52.11	13.13	15.47	40.49	999.00	-1.79	999.00	-1.14	0.00
23	11	24	2	26.89	18.52	10.31	36.22	999.00	354.40	16.77	10.93	36.76	25.65	14.27	14.31	38.01	999.00	-1.77	999.00	-1.13	0.00
23	11	24	3	9.98	18.96	8.93	34.26	999.00	336.40	18.81	8.04	34.77	14.74	14.77	13.73	35.99	999.00	-1.67	999.00	-1.10	0.00
23	11	24	4	7.75	16.25	6.39	32.76	999.00	333.40	16.26	6.03	33.27	10.62	12.33	10.71	34.44	999.00	-1.65	999.00	-1.06	0.00
23	11	24	5	6.70	15.15	6.95	31.89	999.00	333.00	15.11	6.74	32.37	14.31	11.95	10.84	33.55	999.00	-1.66	999.00	-1.08	0.00
23	11	24	6	357.70	16.75	6.47	31.00	999.00	324.00	16.68	6.22	31.49	356.60	12.43	8.42	32.71	999.00	-1.68	999.00	-1.06	0.00
23	11	24	7	6.01	14.24	7.70	30.28	999.00	334.30	13.84	7.61	30.77	10.17	10.91	11.38	31.96	999.00	-1.71	999.00	-1.15	0.00
23	11	24	8	8.08	16.65	8.26	29.80	999.00	333.20	16.51	7.73	30.30	7.57	12.94	9.98	31.51	999.00	-1.75	999.00	-1.14	0.00
23	11	24	9	11.27	15.26	11.14	29.50	999.00	337.50	15.06	9.97	29.99	14.15	12.72	12.99	31.57	999.00	-2.26	999.00	-1.26	0.00
23	11	24	10	5.66	16.10	7.91	29.48	999.00	333.60	15.85	7.56	29.93	11.06	12.95	10.41	31.87	999.00	-2.40	999.00	-1.31	0.00
23	11	24	11	355.60	16.85	6.47	29.18	999.00	323.40	16.84	7.13	29.66	357.90	13.33	10.77	31.53	999.00	-2.49	999.00	-1.53	0.00
23	11	24	12	356.70	13.99	9.34	29.13	999.00	326.00	13.83	9.34	29.61	5.70	11.31	13.29	31.50	999.00	-2.68	999.00	-1.26	0.00
23	11	24	13	349.60	13.21	8.30	29.77	999.00	316.70	12.99	8.23	30.24	353.30	10.71	13.74	32.47	999.00	-2.76	999.00	-1.67	0.00
23	11	24	14	347.50	12.00	7.94	30.42	999.00	315.40	11.96	8.57	30.92	347.10	9.76	14.43	33.36	999.00	-3.04	999.00	-1.95	0.00
23	11	24	15	7.32	10.57	12.83	30.87	999.00	336.20	10.37	12.33	31.37	16.32	9.19	19.82	33.60	999.00	-2.47	999.00	-1.25	0.00
23	11	24	16	2.93	9.85	10.78	31.22	999.00	330.10	9.67	10.33	31.73	11.02	7.96	16.69	33.63	999.00	-2.10	999.00	-1.07	0.00
23	11	24	17	6.43	10.79	10.80	31.58	999.00	335.80	10.51	10.94	32.11	16.90	8.07	18.96	33.51	999.00	-1.76	999.00	-1.07	0.00
23	11	24	18	28.08	11.18	17.00	31.88	999.00	355.70	9.83	15.59	32.36	37.65	7.33	20.72	33.39	999.00	-1.49	999.00	-1.06	0.00
23	11	24	19	34.12	11.62	15.53	31.88	999.00	1.96	10.42	16.09	32.35	47.03	8.48	23.02	33.33	999.00	-1.50	999.00	-1.04	0.00
23	11	24	20	33.47	9.87	13.79	31.88	999.00	359.30	8.66	15.41	32.35	38.59	7.36	21.26	33.33	999.00	-1.42	999.00	-0.98	0.00
23	11	24	21	40.39	9.93	9.92	31.34	999.00	8.80	8.28	9.68	31.82	61.00	7.38	16.56	32.67	999.00	-1.43	999.00	-0.97	0.00
23	11	24	22	47.08	6.28	13.05	31.05	999.00	15.22	5.24	11.47	31.52	68.08	4.48	21.53	32.37	999.00	-1.29	999.00	-0.97	0.00
23	11	24	23	37.40	6.58	11.88	30.98	999.00	2.97	5.63	12.13	31.44	39.19	4.34	25.51	32.28	999.00	-1.26	999.00	-0.90	0.00
23	11	24	24	42.56	6.34	10.88	30.89	999.00	8.90	5.22	11.53	31.34	65.91	4.14	23.10	32.07	999.00	-1.03	999.00	-0.76	0.00
23	11	25	1	67.92	7.16	10.40	30.87	999.00	36.37	7.28	9.19	31.31	99.70	4.97	8.82	31.83	999.00	-0.88	999.00	-0.42	0.00
23	11	25	2	55.88	6.71	9.05	30.73	999.00	22.06	5.99	9.35	31.18	79.70	4.99	19.64	31.73	999.00	-1.04	999.00	-0.63	0.00
23	11	25	3	51.24	8.91	11.75	30.57	999.00	17.74	7.53	11.68	31.03	68.97	7.39	16.89	31.76	999.00	-1.34	999.00	-0.82	0.00
23	11	25	4	71.50	6.43	10.50	30.53	999.00	38.47	6.33	10.42	30.99	103.40	3.93	13.71	31.72	999.00	-1.12	999.00	-0.60	0.00
23	11	25	5	93.30	6.52	9.03	30.54	999.00	59.73	6.34	10.42	30.98	127.10	2.84	7.79	31.41	999.00	-0.90	999.00	-0.25	0.00
23	11	25	6	121.20	3.91	10.15	30.55	999.00	105.50	3.50	8.35	30.98	246.90	2.80	12.43	29.53	999.00	2.42	999.00	2.82	0.00
23	11	25	7	203.10	2.28	7.78	30.49	999.00	192.30	2.59	8.55	30.75	294.80	0.64	15.46	28.00	999.00	3.27	999.00	3.40	0.00
23	11	25	8	185.10	2.74	10.56	30.25	999.00	194.00	2.45	9.03	30.51	301.50	0.82	7.68	26.79	999.00	3.23	999.00	4.13	0.00
23	11	25	9	189.70	5.03	5.36	30.19	999.00	173.30	3.80	6.77	30.47	210.10	2.38	12.72	27.37	999.00	2.53	999.00	3.74	0.00
23	11	25	10	198.30	3.78	5.93	30.69	999.00	191.30	3.32	9.64	30.64	263.70	2.85	25.64	30.53	999.00	-1.57	999.00	-0.93	0.00
23	11	25	11	163.40	5.95	13.39	31.56	999.00	134.10	5.60	14.01	32.06	161.90	3.44	26.21	34.07	999.00	-2.78	999.00	-0.66	0.00
23	11	25	12	175.60	6.45	16.29	32.12	999.00	146.80	6.72	14.72	32.68	189.90	4.96	24.14	34.98	999.00	-3.13	999.00	-1.53	0.00
23	11	25	13	140.80	4.84	29.37	32.12	999.00	110.10	4.86	23.49	32.68	151.50	3.20	26.10	34.98	999.00	-3.02	999.00	-1.78	0.00
23	11	25	14	109.90	5.78	15.70	33.29	999.00	77.60	5.70	13.40	33.95	123.00	4.46	24.30	35.74	999.00	-2.25	999.00	-1.50	0.00
23	11	25	15	80.40	4.30	12.26	33.12	999.00	48.88	4.53	15.97	33.69	99.20	3.60	25.07	35.30	999.00	-2.12	999.00	-1.39	0.00
23	11	25	16	65.20	5.85	7.40	33.10	999.00	32.72	5.91	5.18	33.62	86.40	5.31	11.35	35.08	999.00	-1.83	999.00	-1.10	0.00
23	11	25	17	89.10	4.69	9.10	33.10	999.00	54.40	4.55	10.07	33.57	105.20	2.20	13.20	34.75	999.00	-1.53	999.00	-0.97	0.00
23	11	25	18	100.00	6.65	9.21	33.30	999.00	66.24	6.32	10.64	33.75	121.40	2.19	11.77	34.51	999.00	-1.06	999.00	-0.49	0.00
23	11	25	19	109.00	6.15	4.08	33.68	999.00	76.80	5.93	4.22	34.12	131.10	1.34	6.86	34.52	999.00	-0.76	999.00	-0.11	0.00
23	11	25	20	122.20	6.70	4.36	33.98	999.00	72.80	5.66	4.32	34.41	196.90	0.32	20.96	34.08	999.00	0.16	999.00	0.57	0.00
23	11	25	21	108.00	6.51	2.74	34.36	999.00	75.90	6.15	4.03	34.71	278.20	0.11	18.37	32.79	999.00	1.86	999.00	2.41	0.00
23	11	25	22	116.10	7.33	4.12	34.97	999.00	84.20	5.99	3.88	35.23	301.70	1.81	4.04	32.24	999.00	3.22	999.00	3.52	0.00
23	11	25	23	139.50	6.70	2.70	35.37	999.00	116.90	7.81	3.34	35.52	214.00	1.06	11.85	31.86	999.00	4.14	999.00	4.07	0.00
23	11	25	24	147.50	8.66	3.16	35.25	999.00	131.50	7.05	4.20	35.29	231.50	2.30	9.57	30.74	999.00	4.28	999.00	3.97	0.00
23	11	26	1	149.50	11.13	0.94	35.38	999.00	125.50	9.65	1.79	34.68	230.50	1.03	17.58	30.15	999.00	5.28	999.00	4.48	0.00

23	11	26	2	146.10	11.40	0.82	35.39	999.00	119.00	11.59	1.53	34.57	160.30	2.42	3.95	30.09	999.00	4.65	999.00	4.57	0.00
23	11	26	3	173.20	12.69	3.27	35.49	999.00	131.30	12.02	1.16	35.24	170.20	0.98	9.89	30.58	999.00	5.61	999.00	4.87	0.00
23	11	26	4	193.10	6.82	0.83	36.53	999.00	162.60	8.90	3.75	35.99	164.70	0.84	4.06	31.08	999.00	5.21	999.00	4.57	0.00
23	11	26	5	196.90	6.51	2.45	36.60	999.00	165.60	8.29	2.18	36.43	165.30	2.51	4.89	31.24	999.00	5.65	999.00	5.22	0.00
23	11	26	6	182.90	9.96	2.69	36.64	999.00	147.60	11.14	3.41	35.89	169.80	2.66	10.41	31.01	999.00	5.30	999.00	4.31	0.00
23	11	26	7	166.80	11.84	2.99	36.64	999.00	125.10	11.38	2.21	35.89	140.10	4.04	4.43	31.01	999.00	5.14	999.00	5.55	0.00
23	11	26	8	185.70	17.46	1.72	35.71	999.00	137.80	13.91	2.10	33.65	155.40	3.92	7.48	31.45	999.00	5.40	999.00	2.31	0.00
23	11	26	9	179.70	18.89	1.92	38.20	999.00	137.00	15.17	1.79	34.78	165.20	4.17	12.84	31.85	999.00	4.86	999.00	3.26	0.00
23	11	26	10	191.10	15.75	3.47	38.20	999.00	158.10	12.11	4.48	34.78	201.60	4.74	13.04	31.85	999.00	0.87	999.00	0.43	0.00
23	11	26	11	190.70	16.82	4.67	35.97	999.00	154.20	14.26	5.73	35.64	189.70	5.97	15.89	36.00	999.00	-0.66	999.00	-0.34	0.00
23	11	26	12	186.60	14.02	4.62	36.45	999.00	154.30	12.54	5.12	36.73	198.40	7.14	14.55	37.95	999.00	-1.55	999.00	-0.95	0.00
23	11	26	13	185.70	14.67	4.17	36.45	999.00	152.30	12.72	5.34	36.73	192.80	5.55	13.41	37.95	999.00	-1.09	999.00	-0.66	0.00
23	11	26	14	203.60	13.58	4.29	37.41	999.00	172.40	11.94	5.47	37.79	219.90	5.67	15.70	38.15	999.00	-0.60	999.00	-0.07	0.05
23	11	26	15	218.80	13.31	4.95	36.86	999.00	187.60	12.05	5.70	37.25	241.80	6.28	14.38	37.81	999.00	-1.08	999.00	-0.43	0.03
23	11	26	16	228.90	12.06	3.91	37.02	999.00	195.80	10.53	5.22	37.42	248.70	6.07	12.32	38.11	999.00	-1.02	999.00	-0.48	0.00
23	11	26	17	261.80	15.79	6.58	37.08	999.00	230.80	14.41	7.87	37.47	288.20	8.85	11.27	38.07	999.00	-1.08	999.00	-0.47	0.00
23	11	26	18	251.70	17.24	5.75	36.20	999.00	219.00	15.53	6.03	36.61	275.50	9.85	10.83	36.86	999.00	-0.67	999.00	-0.09	0.01
23	11	26	19	249.10	19.62	5.57	35.47	999.00	217.10	18.21	5.69	35.90	274.50	11.04	11.50	36.11	999.00	-0.59	999.00	-0.06	0.00
23	11	26	20	251.40	18.95	5.59	35.30	999.00	217.20	17.82	5.43	35.72	272.60	11.38	11.79	36.03	999.00	-0.73	999.00	-0.22	0.00
23	11	26	21	257.00	20.02	4.80	34.89	999.00	223.50	18.20	6.33	35.42	280.70	11.21	11.22	35.60	999.00	-0.81	999.00	-0.27	0.00
23	11	26	22	259.90	19.39	5.52	34.39	999.00	226.40	17.79	6.28	34.93	283.80	11.57	10.52	35.21	999.00	-0.76	999.00	-0.26	0.00
23	11	26	23	258.10	20.56	5.61	33.43	999.00	224.60	19.09	5.93	33.92	280.70	12.23	10.59	34.28	999.00	-0.91	999.00	-0.38	0.00
23	11	26	24	259.00	20.98	4.96	33.08	999.00	225.40	19.21	5.80	33.50	280.40	12.26	10.64	33.84	999.00	-0.61	999.00	-0.22	0.00
23	11	27	1	264.00	23.26	6.29	33.13	999.00	229.10	21.06	6.72	33.59	283.40	13.70	11.73	33.77	999.00	-0.58	999.00	-0.33	0.00
23	11	27	2	254.00	22.19	6.95	32.60	999.00	219.70	21.47	6.76	33.09	275.60	14.80	12.03	33.18	999.00	-0.64	999.00	-0.46	0.00
23	11	27	3	252.40	25.90	6.51	31.77	999.00	218.00	24.55	6.35	32.29	275.60	16.80	11.76	32.69	999.00	-0.92	999.00	-0.61	0.00
23	11	27	4	253.20	25.07	5.54	30.60	999.00	218.30	23.91	5.61	31.13	274.00	15.41	11.09	31.75	999.00	-1.33	999.00	-0.74	0.00
23	11	27	5	245.40	24.54	4.68	29.99	999.00	210.70	23.81	4.23	30.54	263.90	17.13	10.37	31.45	999.00	-1.59	999.00	-0.94	0.00
23	11	27	6	250.00	23.86	5.21	29.39	999.00	215.50	22.99	5.12	29.93	271.90	15.67	10.92	30.93	999.00	-1.50	999.00	-0.86	0.00
23	11	27	7	250.80	24.75	4.84	29.42	999.00	216.60	23.87	5.21	29.95	270.80	16.30	10.78	30.89	999.00	-1.43	999.00	-0.74	0.00
23	11	27	8	248.90	23.19	4.66	29.37	999.00	215.20	22.37	5.01	29.89	272.40	15.99	10.53	30.89	999.00	-1.53	999.00	-0.65	0.00
23	11	27	9	245.50	26.86	4.74	28.27	999.00	212.10	25.96	4.64	28.80	268.00	19.11	10.53	29.97	999.00	-1.80	999.00	-0.97	0.00
23	11	27	10	999.00	27.94	4.53	27.69	999.00	213.30	27.24	4.32	28.22	269.20	19.16	12.05	29.44	999.00	-1.66	999.00	-1.02	0.00
23	11	27	11	241.70	26.63	4.41	27.82	999.00	208.00	25.86	4.76	28.35	260.00	17.82	11.63	29.43	999.00	-1.59	999.00	-1.08	0.00
23	11	27	12	245.70	27.34	4.92	27.45	999.00	212.40	26.83	5.12	27.98	268.00	19.15	11.26	29.24	999.00	-1.88	999.00	-1.28	0.00
23	11	27	13	255.00	27.20	5.32	26.98	999.00	221.20	26.08	6.09	27.50	277.90	19.16	11.07	28.88	999.00	-1.88	999.00	-1.17	0.00
23	11	27	14	250.40	26.62	6.13	26.83	999.00	216.40	26.04	6.29	27.37	270.10	17.71	12.67	28.77	999.00	-1.90	999.00	-1.27	0.00
23	11	27	15	256.00	27.30	6.82	26.66	999.00	221.00	26.01	6.95	27.20	277.40	18.80	10.90	28.60	999.00	-1.80	999.00	-1.15	0.00
23	11	27	16	262.90	26.78	5.74	26.34	999.00	227.80	25.10	6.05	26.88	285.50	17.06	10.48	28.13	999.00	-1.74	999.00	-1.08	0.00
23	11	27	17	273.10	27.50	6.37	26.27	999.00	237.40	25.92	6.79	26.77	292.00	16.62	10.35	27.87	999.00	-1.55	999.00	-0.90	0.00
23	11	27	18	271.20	19.07	6.12	26.17	999.00	236.30	17.93	6.80	26.67	289.40	11.60	11.07	27.68	999.00	-1.51	999.00	-0.87	0.00
23	11	27	19	264.80	14.92	5.62	25.86	999.00	229.90	14.01	6.22	26.35	287.70	9.60	11.19	27.38	999.00	-1.52	999.00	-0.90	0.00
23	11	27	20	264.70	17.71	5.91	25.59	999.00	228.80	16.48	6.43	26.08	282.30	10.28	10.82	27.12	999.00	-1.49	999.00	-0.90	0.00
23	11	27	21	261.60	19.17	5.73	25.52	999.00	226.80	17.68	5.93	26.02	282.80	11.21	11.25	27.04	999.00	-1.52	999.00	-0.88	0.00
23	11	27	22	255.30	25.29	4.64	25.31	999.00	219.60	23.58	5.65	25.82	275.10	16.82	11.50	26.87	999.00	-1.64	999.00	-0.95	0.00
23	11	27	23	261.20	24.86	4.21	24.20	999.00	226.30	24.01	4.35	24.73	281.00	16.13	10.90	25.83	999.00	-1.59	999.00	-0.96	0.00
23	11	27	24	254.50	22.67	4.92	23.35	999.00	219.20	22.21	5.30	23.88	274.30	16.29	11.38	25.01	999.00	-1.67	999.00	-1.01	0.00
23	11	28	1	262.60	22.01	5.57	22.55	999.00	226.80	20.74	6.33	23.09	285.10	14.43	10.38	24.24	999.00	-1.67	999.00	-1.04	0.00
23	11	28	2	259.00	20.10	5.90	21.53	999.00	224.00	19.06	6.14	22.05	279.90	13.82	11.49	23.17	999.00	-1.66	999.00	-0.95	0.00
23	11	28	3	264.30	19.82	6.72	21.09	999.00	229.80	18.33	7.88	21.62	284.60	12.35	11.54	22.78	999.00	-1.68	999.00	-1.03	0.00
23	11	28	4	270.10	17.05	5.79	19.97	999.00	234.20	15.96	6.05	20.47	288.40	10.55	9.63	21.59	999.00	-1.58	999.00	-0.94	0.00
23	11	28	5	276.20	17.18	4.96	20.05	999.00	240.90	15.74	5.35	20.54	293.70	10.16	9.09	21.59	999.00	-1.55	999.00	-0.93	0.00
23	11	28	6	278.10	16.69	5.72	19.91	999.00	242.10	15.35	6.04	20.39	291.70	10.32	8.98	21.44	999.00	-1.52	999.00	-0.91	0.00

23	11	28	7	277.90	16.83	5.36	20.08	999.00	242.70	15.59	6.30	20.56	295.10	10.07	9.28	21.57	999.00	-1.50	999.00	-0.89	0.00
23	11	28	8	283.90	17.74	4.80	20.17	999.00	247.80	16.09	5.88	20.66	298.80	10.18	8.30	21.64	999.00	-1.39	999.00	-0.80	0.00
23	11	28	9	287.10	18.89	5.87	20.36	999.00	251.30	18.08	6.27	20.84	300.90	12.86	7.83	21.87	999.00	-1.61	999.00	-1.00	0.00
23	11	28	10	297.70	20.04	7.43	20.87	999.00	262.40	19.25	7.43	21.31	308.90	14.23	6.81	22.75	999.00	-2.00	999.00	-1.99	0.00
23	11	28	11	296.60	20.82	5.16	21.59	999.00	262.40	20.56	5.64	22.03	310.10	15.69	6.27	23.70	999.00	-2.16	999.00	-2.27	0.00
23	11	28	12	295.10	22.34	6.11	22.37	999.00	260.60	21.89	7.20	22.86	308.30	16.56	7.29	24.86	999.00	-2.50	999.00	-2.73	0.00
23	11	28	13	289.90	19.83	6.22	23.31	999.00	255.70	19.23	7.32	23.77	306.90	15.30	6.49	25.89	999.00	-2.56	999.00	-2.75	0.00
23	11	28	14	275.70	16.87	11.89	23.95	999.00	241.60	16.25	12.95	24.45	295.20	12.08	13.44	26.55	999.00	-2.82	999.00	-2.50	0.00
23	11	28	15	273.50	19.02	6.80	24.84	999.00	240.00	17.94	8.13	25.38	292.30	12.69	12.46	27.36	999.00	-2.20	999.00	-1.98	0.00
23	11	28	16	272.60	19.72	7.08	25.25	999.00	239.10	18.77	7.15	25.73	290.20	12.22	10.20	27.26	999.00	-1.89	999.00	-1.32	0.00
23	11	28	17	264.80	19.22	4.73	24.94	999.00	230.60	18.29	5.40	25.44	284.60	12.03	10.64	26.57	999.00	-1.50	999.00	-0.91	0.00
23	11	28	18	258.50	19.00	4.81	23.93	999.00	225.10	17.56	5.53	24.43	278.70	11.29	10.88	25.30	999.00	-1.45	999.00	-0.78	0.00
23	11	28	19	254.40	16.99	4.78	22.70	999.00	220.70	16.12	5.08	23.22	272.30	11.23	11.26	24.17	999.00	-1.51	999.00	-0.85	0.00
23	11	28	20	258.00	16.78	5.32	22.22	999.00	223.40	15.12	5.99	22.72	276.10	9.77	10.27	23.65	999.00	-1.29	999.00	-0.67	0.00
23	11	28	21	254.40	20.93	4.91	21.87	999.00	220.40	19.62	5.30	22.38	275.00	13.42	11.35	23.24	999.00	-1.41	999.00	-0.72	0.00
23	11	28	22	248.90	18.17	4.09	21.28	999.00	214.50	16.50	4.21	21.74	264.80	11.64	10.01	22.61	999.00	-1.33	999.00	-0.74	0.00
23	11	28	23	250.10	18.43	5.04	20.25	999.00	215.60	16.45	4.80	20.72	264.20	11.14	10.81	21.58	999.00	-1.31	999.00	-0.73	0.00
23	11	28	24	246.60	17.93	3.71	19.78	999.00	211.20	16.08	4.52	20.15	258.50	10.69	11.33	20.89	999.00	-1.09	999.00	-0.60	0.00
23	11	29	1	233.80	18.05	2.55	18.89	999.00	197.20	16.12	3.15	19.08	239.30	7.96	13.37	19.53	999.00	-0.44	999.00	-0.18	0.00
23	11	29	2	224.50	18.15	3.28	18.05	999.00	188.40	15.90	3.83	18.19	224.70	6.73	15.00	18.51	999.00	-0.29	999.00	-0.03	0.00
23	11	29	3	222.70	19.08	4.11	17.84	999.00	189.10	16.87	4.65	18.02	234.10	8.56	14.74	18.61	999.00	-1.03	999.00	-0.61	0.00
23	11	29	4	215.80	17.64	5.32	17.90	999.00	180.80	15.17	5.41	18.26	222.50	7.83	15.66	19.14	999.00	-1.20	999.00	-0.72	0.00
23	11	29	5	217.10	17.91	5.20	18.37	999.00	183.00	15.59	5.47	18.73	227.00	7.76	15.30	19.56	999.00	-1.18	999.00	-0.65	0.00
23	11	29	6	211.00	20.18	4.40	18.65	999.00	177.50	17.84	5.43	19.03	225.00	9.85	17.02	20.07	999.00	-1.40	999.00	-0.93	0.00
23	11	29	7	212.00	14.51	5.35	19.24	999.00	178.70	12.66	6.75	19.64	228.00	7.16	17.62	20.62	999.00	-1.60	999.00	-0.99	0.00
23	11	29	8	202.40	21.80	4.97	20.19	999.00	169.50	20.29	5.59	20.65	214.20	11.76	15.39	21.80	999.00	-1.59	999.00	-1.04	0.00
23	11	29	9	200.50	21.42	4.38	21.39	999.00	167.80	19.87	5.25	21.84	215.00	11.78	16.05	23.01	999.00	-1.66	999.00	-1.05	0.00
23	11	29	10	206.40	21.31	5.43	22.77	999.00	174.70	19.47	6.36	23.25	224.40	12.21	16.50	24.56	999.00	-1.85	999.00	-1.15	0.00
23	11	29	11	211.10	20.27	6.18	24.49	999.00	178.80	17.96	7.06	24.99	229.90	11.13	17.97	26.54	999.00	-2.15	999.00	-1.39	0.00
23	11	29	12	221.60	20.51	7.16	27.53	999.00	188.80	19.57	6.97	27.97	236.20	12.26	16.83	29.83	999.00	-2.36	999.00	-1.76	0.00
23	11	29	13	233.80	23.32	5.24	31.55	999.00	202.20	22.82	6.00	31.94	256.00	17.82	11.17	33.98	999.00	-2.40	999.00	-2.12	0.00
23	11	29	14	234.80	22.51	7.60	33.56	999.00	203.00	22.01	8.35	33.97	255.50	15.37	12.47	36.08	999.00	-2.46	999.00	-1.98	0.00
23	11	29	15	239.70	22.14	5.80	35.40	999.00	207.80	21.73	5.37	35.78	259.50	15.68	10.86	37.55	999.00	-1.93	999.00	-1.51	0.00
23	11	29	16	245.40	22.37	3.88	36.78	999.00	213.20	21.58	3.99	37.11	265.40	14.93	10.94	38.35	999.00	-1.38	999.00	-0.93	0.00
23	11	29	17	238.00	20.91	3.65	36.85	999.00	205.70	19.42	3.63	37.18	253.80	11.51	10.64	37.77	999.00	-0.62	999.00	-0.21	0.00
23	11	29	18	231.00	21.18	2.22	36.56	999.00	196.20	18.98	2.95	36.70	236.90	7.87	13.89	36.06	999.00	0.99	999.00	1.21	0.00
23	11	29	19	237.50	17.50	1.82	36.09	999.00	201.40	14.98	2.13	36.01	234.40	4.32	11.24	34.43	999.00	1.94	999.00	2.11	0.00
23	11	29	20	237.70	20.39	1.75	35.71	999.00	200.60	17.31	1.98	35.39	234.60	5.32	12.87	33.22	999.00	2.53	999.00	2.39	0.00
23	11	29	21	236.70	20.50	1.75	35.41	999.00	200.20	17.11	1.92	35.00	229.80	4.89	11.89	32.62	999.00	3.13	999.00	2.82	0.00
23	11	29	22	232.60	19.39	1.93	34.71	999.00	193.70	16.33	2.45	34.33	211.60	5.71	9.33	31.68	999.00	3.04	999.00	2.72	0.00
23	11	29	23	235.80	21.01	1.84	34.12	999.00	199.70	18.15	2.03	33.77	233.90	6.49	11.70	31.42	999.00	2.32	999.00	2.28	0.00
23	11	29	24	242.40	20.07	2.94	34.46	999.00	204.60	17.12	2.45	34.05	232.50	6.31	11.57	32.09	999.00	2.52	999.00	2.29	0.00
23	11	30	1	238.30	22.53	1.63	34.84	999.00	201.10	19.68	2.12	34.44	243.40	8.19	11.42	32.65	999.00	2.12	999.00	1.85	0.00
23	11	30	2	236.10	21.08	2.90	35.05	999.00	200.80	18.63	2.75	34.84	241.50	7.77	11.64	33.43	999.00	1.61	999.00	1.64	0.00
23	11	30	3	231.70	20.63	1.88	35.55	999.00	193.80	17.69	2.65	35.28	228.30	6.31	12.00	33.64	999.00	2.19	999.00	1.92	0.00
23	11	30	4	231.10	19.93	2.98	36.05	999.00	188.00	17.26	4.53	35.19	213.90	5.76	12.10	32.00	999.00	4.59	999.00	3.55	0.00
23	11	30	5	218.10	21.33	1.76	35.16	999.00	177.10	19.28	2.15	33.76	212.20	6.78	12.15	31.39	999.00	3.27	999.00	2.40	0.00
23	11	30	6	220.30	23.97	2.49	34.47	999.00	180.10	19.61	2.03	33.25	220.00	7.62	14.60	31.82	999.00	2.98	999.00	1.62	0.00
23	11	30	7	217.90	22.82	1.99	35.50	999.00	181.40	18.74	2.32	34.47	220.50	7.22	15.23	32.95	999.00	2.15	999.00	1.60	0.00
23	11	30	8	214.30	23.79	2.79	35.85	999.00	180.20	19.85	2.74	35.22	216.40	7.83	14.24	33.96	999.00	2.05	999.00	1.54	0.00
23	11	30	9	207.00	24.41	3.47	36.01	999.00	174.20	20.35	3.65	35.40	219.60	8.31	16.62	35.08	999.00	0.14	999.00	0.11	0.00
23	11	30	10	211.10	21.29	4.09	36.77	999.00	178.00	18.78	4.81	36.67	222.60	9.20	17.90	37.32	999.00	-1.11	999.00	-0.77	0.00
23	11	30	11	210.90	21.97	5.25	40.21	999.00	181.10	19.93	5.62	40.45	228.70	12.09	15.80	42.05	999.00	-2.14	999.00	-1.67	0.00

23	11	30	12	209.10	22.02	5.10	43.20	999.00	179.40	20.57	4.80	43.56	223.50	12.21	17.30	45.38	999.00	-2.20	999.00	-1.59	0.00
23	11	30	13	212.20	21.30	6.34	47.18	999.00	182.10	20.05	6.40	47.57	231.20	13.24	16.96	49.57	999.00	-2.57	999.00	-2.05	0.00
23	11	30	14	208.90	21.23	5.67	49.97	999.00	179.90	19.88	6.25	50.38	223.80	11.03	17.74	52.14	999.00	-1.80	999.00	-1.12	0.00
23	11	30	15	214.00	23.58	5.24	51.07	999.00	185.40	22.17	5.36	51.45	234.10	13.58	15.94	52.88	999.00	-1.71	999.00	-1.31	0.00
23	11	30	16	210.40	25.44	5.29	52.51	999.00	179.90	23.38	5.47	52.82	227.30	12.36	15.98	53.87	999.00	-1.31	999.00	-0.83	0.00
23	11	30	17	210.50	25.31	3.94	52.02	999.00	180.20	22.13	4.39	52.25	222.00	9.75	16.94	52.47	999.00	0.28	999.00	0.53	0.00
23	11	30	18	217.50	27.26	3.74	50.76	999.00	186.10	24.33	4.39	50.90	234.10	11.99	14.63	50.35	999.00	0.53	999.00	0.70	0.00
23	11	30	19	213.70	24.01	3.73	49.40	999.00	183.00	20.24	3.95	49.43	223.10	7.83	14.56	48.39	999.00	1.42	999.00	1.39	0.00
23	11	30	20	211.40	26.93	2.42	48.44	999.00	177.10	23.19	2.72	48.19	213.50	9.22	14.07	46.78	999.00	1.98	999.00	1.77	0.00
23	11	30	21	212.20	26.58	3.03	48.02	999.00	179.20	22.69	3.30	47.74	219.80	8.87	15.21	46.34	999.00	1.65	999.00	1.64	0.00
23	11	30	22	219.10	25.72	2.66	48.32	999.00	187.70	22.61	3.00	48.21	230.70	8.42	15.60	46.97	999.00	1.63	999.00	1.83	0.00
23	11	30	23	236.20	26.60	3.92	48.32	999.00	202.70	24.02	4.40	48.21	252.50	13.64	11.32	46.97	999.00	0.24	999.00	0.61	0.00
23	11	30	24	232.70	21.31	3.46	50.23	999.00	201.10	18.92	3.63	50.43	248.20	9.41	11.17	50.09	999.00	0.23	999.00	0.59	0.00
23	12	1	1	237.20	20.56	3.58	50.20	999.00	205.00	18.60	3.71	50.49	251.00	10.18	11.28	50.44	999.00	-0.21	999.00	0.19	0.00
23	12	1	2	240.10	21.26	3.87	49.55	999.00	207.50	18.88	3.84	49.81	254.50	10.56	10.61	49.67	999.00	-0.03	999.00	0.40	0.00
23	12	1	3	235.70	18.00	3.08	49.18	999.00	203.40	16.20	3.47	49.48	247.50	7.76	12.21	49.39	999.00	-0.16	999.00	0.26	0.00
23	12	1	4	225.40	13.78	3.90	48.83	999.00	192.20	11.93	4.48	49.03	226.70	3.57	17.38	48.63	999.00	0.65	999.00	0.80	0.00
23	12	1	5	242.30	15.68	3.30	48.88	999.00	208.40	13.12	3.82	49.07	248.40	4.72	12.86	48.10	999.00	1.35	999.00	1.50	0.00
23	12	1	6	200.70	10.26	8.81	48.72	999.00	161.80	9.65	7.86	48.74	173.10	2.63	13.29	47.42	999.00	1.84	999.00	1.86	0.00
23	12	1	7	204.00	19.98	4.47	47.80	999.00	166.50	16.89	3.99	47.84	191.80	5.95	12.09	46.81	999.00	1.36	999.00	0.96	0.00
23	12	1	8	225.40	13.28	4.98	46.24	999.00	189.40	11.04	5.78	46.37	216.00	3.77	15.15	45.99	999.00	0.82	999.00	0.74	0.00
23	12	1	9	219.40	17.48	6.60	45.67	999.00	187.90	15.77	6.49	46.80	234.50	6.25	14.66	45.73	999.00	-1.47	999.00	0.81	0.02
23	12	1	10	175.80	10.50	4.37	42.13	999.00	142.50	8.94	5.39	44.03	173.80	2.96	11.83	43.10	999.00	-0.44	999.00	1.03	0.03
23	12	1	11	172.00	10.80	5.43	41.11	999.00	137.40	9.18	6.83	42.28	172.10	3.98	16.91	41.97	999.00	-1.01	999.00	0.09	0.04
23	12	1	12	157.80	9.62	6.98	40.84	999.00	122.80	8.95	7.01	41.55	161.10	5.34	11.46	42.19	999.00	-1.40	999.00	-0.48	0.02
23	12	1	13	135.80	10.39	3.00	40.63	999.00	100.90	11.03	1.98	41.04	137.00	4.20	8.79	41.56	999.00	-0.60	999.00	0.10	0.05
23	12	1	14	124.10	13.82	1.56	40.58	999.00	89.60	11.14	3.23	40.72	140.80	4.62	9.50	41.53	999.00	-0.91	999.00	-0.57	0.02
23	12	1	15	120.40	15.13	1.32	40.72	999.00	87.70	12.67	2.77	40.79	135.50	5.25	8.39	41.43	999.00	-0.59	999.00	-0.24	0.01
23	12	1	16	131.80	13.03	2.29	41.01	999.00	93.50	12.04	2.23	41.05	141.00	4.40	8.56	41.31	999.00	-0.02	999.00	0.10	0.00
23	12	1	17	162.00	9.75	4.11	41.82	999.00	118.20	8.41	4.20	41.95	135.70	3.27	8.81	41.26	999.00	0.75	999.00	1.13	0.00
23	12	1	18	189.30	10.66	4.45	42.48	999.00	146.70	8.96	4.42	42.60	140.60	2.98	6.14	41.29	999.00	1.64	999.00	1.80	0.00
23	12	1	19	214.60	11.81	4.71	43.42	999.00	178.30	9.75	4.62	43.33	169.20	2.53	12.13	41.91	999.00	1.14	999.00	1.38	0.00
23	12	1	20	202.90	12.86	2.37	43.57	999.00	167.40	10.54	3.30	43.68	201.00	3.82	10.45	43.24	999.00	-0.18	999.00	0.42	0.00
23	12	1	21	215.70	11.33	2.40	43.56	999.00	183.40	9.29	2.86	43.78	218.00	2.60	12.81	43.79	999.00	-0.24	999.00	0.31	0.00
23	12	1	22	212.00	11.29	1.46	43.82	999.00	174.30	9.55	1.55	43.96	192.00	2.93	10.80	43.83	999.00	0.07	999.00	0.48	0.00
23	12	1	23	227.60	11.32	2.00	44.22	999.00	186.10	9.76	2.38	44.20	210.20	2.83	11.78	43.97	999.00	0.40	999.00	0.57	0.00
23	12	1	24	231.10	8.68	2.78	44.42	999.00	190.30	7.82	1.70	44.50	203.10	2.07	8.18	44.18	999.00	0.04	999.00	0.57	0.00
23	12	2	1	240.40	5.32	4.63	44.08	999.00	197.40	4.48	4.53	44.42	144.00	1.56	2.34	44.24	999.00	0.04	999.00	0.45	0.00
23	12	2	2	244.00	4.81	2.14	44.10	999.00	202.30	4.26	3.51	44.45	141.20	2.32	3.01	43.74	999.00	0.65	999.00	1.16	0.01
23	12	2	3	214.70	4.72	2.50	44.14	999.00	181.60	4.33	3.41	44.49	174.30	2.23	7.57	43.33	999.00	0.63	999.00	1.25	0.01
23	12	2	4	229.30	3.68	7.54	44.42	999.00	179.40	3.46	9.34	44.67	349.50	0.98	8.58	43.84	999.00	0.57	999.00	1.01	0.01
23	12	2	5	315.70	4.51	10.99	44.32	999.00	288.90	3.81	10.75	44.51	3.44	2.11	13.24	44.17	999.00	0.15	999.00	0.50	0.00
23	12	2	6	349.80	2.88	7.98	44.15	999.00	332.60	4.00	8.46	44.33	14.51	1.75	21.97	44.04	999.00	-0.05	999.00	0.33	0.00
23	12	2	7	15.24	7.72	5.33	43.39	999.00	340.00	8.70	4.29	43.61	17.46	5.77	7.90	43.18	999.00	-0.12	999.00	0.63	0.00
23	12	2	8	31.28	9.04	4.29	43.39	999.00	360.00	9.24	2.95	43.61	40.59	7.20	10.67	43.18	999.00	1.16	999.00	1.39	0.02
23	12	2	9	39.57	14.02	3.41	40.94	999.00	2.14	11.98	3.91	41.00	52.81	8.27	14.52	40.90	999.00	-0.13	999.00	-0.19	0.03
23	12	2	10	42.80	11.84	6.08	39.60	999.00	9.07	9.08	8.52	39.97	47.40	8.18	12.56	40.49	999.00	-1.01	999.00	-0.39	0.01
23	12	2	11	30.76	11.54	5.36	39.15	999.00	354.70	10.26	8.88	39.66	30.23	7.11	16.12	40.31	999.00	-1.39	999.00	-0.56	0.00
23	12	2	12	48.51	8.99	7.50	38.79	999.00	15.81	6.83	8.60	39.40	61.14	5.85	21.77	40.29	999.00	-1.57	999.00	-0.91	0.00
23	12	2	13	43.07	7.88	7.58	38.49	999.00	10.08	6.65	11.47	39.15	62.57	5.31	27.29	40.11	999.00	-1.44	999.00	-0.79	0.00
23	12	2	14	39.96	10.01	6.07	38.51	999.00	3.11	8.04	6.40	39.11	41.74	5.12	17.89	39.94	999.00	-1.44	999.00	-0.68	0.00
23	12	2	15	33.47	8.38	6.59	38.65	999.00	356.50	7.40	8.22	39.25	28.97	4.14	22.81	40.06	999.00	-1.37	999.00	-0.59	0.00
23	12	2	16	31.26	10.46	2.92	38.55	999.00	356.10	9.65	3.42	39.45	38.90	6.72	15.11	40.15	999.00	-2.42	999.00	-0.55	0.00

23	12	2	17	42.39	14.89	6.28	38.25	999.00	9.66	11.88	8.25	39.38	63.26	9.22	13.17	40.06	999.00	-1.74	999.00	-0.52	0.00
23	12	2	18	44.83	11.20	8.06	38.29	999.00	12.85	7.77	9.94	39.31	62.15	9.06	11.38	39.97	999.00	-1.74	999.00	-0.59	0.00
23	12	2	19	48.68	13.95	4.59	38.06	999.00	16.50	10.72	6.36	39.17	77.70	7.96	12.34	39.88	999.00	-1.82	999.00	-0.53	0.00
23	12	2	20	57.72	12.97	2.42	38.22	999.00	23.04	11.04	2.11	39.25	84.80	6.83	11.89	39.82	999.00	-1.46	999.00	-0.35	0.00
23	12	2	21	59.06	13.43	2.84	38.49	999.00	24.09	11.58	3.63	39.18	84.00	7.19	13.02	39.65	999.00	-1.08	999.00	-0.28	0.00
23	12	2	22	52.35	13.52	2.07	38.56	999.00	19.34	10.95	2.65	39.03	76.10	9.13	11.37	39.50	999.00	-0.95	999.00	-0.32	0.00
23	12	2	23	61.27	12.94	2.22	38.53	999.00	25.50	12.84	2.90	39.02	85.10	7.66	11.18	39.57	999.00	-0.93	999.00	-0.38	0.00
23	12	2	24	56.25	14.99	2.61	38.32	999.00	20.86	11.81	3.61	38.90	76.70	9.07	10.02	39.34	999.00	-1.17	999.00	-0.41	0.00
23	12	3	1	56.17	14.14	2.71	37.96	999.00	21.59	11.02	4.55	38.70	74.80	8.89	11.60	39.34	999.00	-1.28	999.00	-0.52	0.00
23	12	3	2	59.12	15.93	3.20	37.96	999.00	24.55	13.87	5.24	38.70	77.70	9.92	13.16	39.34	999.00	-1.87	999.00	-0.42	0.00
23	12	3	3	50.01	11.66	3.98	38.58	999.00	5.37	10.77	4.15	39.52	39.53	8.45	13.50	39.92	999.00	-0.96	999.00	-0.06	0.00
23	12	3	4	87.60	16.58	5.18	40.72	999.00	48.42	15.29	4.61	41.44	95.50	7.33	13.23	40.88	999.00	-0.08	999.00	1.13	0.00
23	12	3	5	99.20	12.07	5.24	41.81	999.00	66.19	11.23	3.53	42.54	109.50	3.86	11.85	41.33	999.00	0.56	999.00	1.58	0.00
23	12	3	6	85.90	14.34	1.51	41.84	999.00	49.32	13.69	1.86	42.81	96.40	6.12	10.59	41.88	999.00	-0.18	999.00	0.84	0.00
23	12	3	7	97.70	14.60	0.92	42.04	999.00	62.67	13.92	2.65	42.69	107.40	4.43	11.09	41.82	999.00	0.35	999.00	1.08	0.00
23	12	3	8	96.10	12.84	1.84	41.98	999.00	61.58	12.11	2.12	42.52	115.00	4.29	8.52	41.73	999.00	0.62	999.00	1.35	0.00
23	12	3	9	103.40	11.67	1.92	42.13	999.00	68.02	11.63	1.49	42.72	116.70	4.42	10.80	41.90	999.00	-0.06	999.00	0.75	0.00
23	12	3	10	121.20	13.57	1.74	42.35	999.00	90.70	10.64	2.75	42.63	143.00	4.68	10.31	42.64	999.00	-0.48	999.00	-0.18	0.00
23	12	3	11	164.60	12.75	6.81	42.38	999.00	132.10	12.55	7.02	42.73	173.10	7.14	16.51	43.33	999.00	-1.44	999.00	-0.62	0.00
23	12	3	12	199.00	11.59	5.50	42.52	999.00	166.80	11.29	5.87	43.02	208.00	6.94	15.14	44.03	999.00	-1.61	999.00	-0.98	0.01
23	12	3	13	207.30	13.61	5.53	44.38	999.00	176.60	13.20	5.78	44.24	220.90	8.17	17.33	45.68	999.00	-1.06	999.00	-1.13	0.00
23	12	3	14	231.00	15.17	3.97	44.86	999.00	201.10	14.46	4.75	44.71	251.60	9.68	10.42	45.70	999.00	-0.80	999.00	-0.78	0.00
23	12	3	15	271.30	15.94	7.95	44.34	999.00	239.70	14.52	8.89	44.89	294.70	9.05	10.15	45.35	999.00	-1.54	999.00	-0.44	0.00
23	12	3	16	271.40	18.98	7.64	42.64	999.00	238.90	17.70	8.40	43.32	290.60	10.79	10.63	43.81	999.00	-1.25	999.00	-0.24	0.02
23	12	3	17	250.90	20.80	4.36	41.58	999.00	217.30	19.82	4.35	42.37	270.80	12.56	10.54	42.57	999.00	-0.74	999.00	-0.08	0.03
23	12	3	18	254.90	21.12	5.01	42.16	999.00	221.50	19.26	5.78	42.36	275.00	12.38	10.88	42.35	999.00	-0.35	999.00	0.10	0.01
23	12	3	19	259.50	23.31	4.98	41.47	999.00	225.00	21.31	5.63	42.08	278.50	12.73	11.00	42.23	999.00	-0.69	999.00	-0.02	0.00
23	12	3	20	258.80	22.39	4.67	40.63	999.00	223.20	20.85	5.13	41.31	276.10	12.40	10.68	41.51	999.00	-1.01	999.00	-0.15	0.00
23	12	3	21	264.90	20.65	6.41	39.80	999.00	229.70	18.90	6.51	40.45	282.80	12.06	10.30	40.59	999.00	-1.04	999.00	-0.20	0.01
23	12	3	22	254.00	19.94	4.33	38.97	999.00	218.60	18.38	4.11	39.20	269.50	11.56	9.88	39.29	999.00	-0.27	999.00	0.23	0.00
23	12	3	23	257.80	19.85	5.01	37.93	999.00	223.40	18.03	6.33	38.13	275.90	11.40	10.96	38.54	999.00	-0.89	999.00	-0.50	0.00
23	12	3	24	248.10	18.39	4.69	37.50	999.00	213.40	17.40	4.39	37.77	264.90	11.35	10.33	38.48	999.00	-0.91	999.00	-0.03	0.00
23	12	4	1	242.90	22.13	4.38	37.47	999.00	208.80	20.91	3.98	37.66	260.20	14.69	9.28	38.22	999.00	-0.76	999.00	-0.12	0.00
23	12	4	2	245.40	21.83	4.10	37.55	999.00	211.40	20.90	4.02	38.02	261.90	14.21	10.22	38.89	999.00	-1.40	999.00	-0.78	0.00
23	12	4	3	256.20	20.87	5.11	999.00	999.00	221.00	18.94	6.00	999.00	274.40	12.06	11.73	38.83	999.00	-1.42	999.00	-0.84	0.00
23	12	4	4	257.20	16.11	5.43	37.19	999.00	222.80	14.65	5.69	37.67	272.90	9.18	9.97	38.59	999.00	-1.38	999.00	-0.85	0.00
23	12	4	5	253.90	13.19	4.77	36.86	999.00	219.00	12.38	5.03	37.36	268.00	8.24	10.08	38.29	999.00	-1.47	999.00	-0.89	0.00
23	12	4	6	257.30	13.93	4.08	36.63	999.00	223.40	12.52	5.31	37.12	272.80	7.44	10.56	38.01	999.00	-1.31	999.00	-0.80	0.00
23	12	4	7	245.80	16.84	3.23	36.18	999.00	211.30	15.88	3.70	36.65	260.50	10.83	10.16	37.51	999.00	-1.48	999.00	-0.89	0.00
23	12	4	8	249.20	16.22	4.14	35.83	999.00	213.90	15.44	4.11	36.32	262.40	10.30	10.22	37.26	999.00	-1.42	999.00	-0.87	0.00
23	12	4	9	253.40	13.36	5.40	35.74	999.00	218.80	12.54	5.22	36.15	269.00	8.35	10.84	37.21	999.00	-1.53	999.00	-1.05	0.00
23	12	4	10	258.80	10.57	7.50	36.00	999.00	224.10	9.45	7.30	36.35	274.00	6.26	13.43	37.53	999.00	-1.58	999.00	-1.14	0.00
23	12	4	11	267.10	10.24	7.21	36.85	999.00	231.60	9.89	7.00	36.75	280.00	7.81	13.02	38.16	999.00	-1.11	999.00	-1.37	0.00
23	12	4	12	277.90	11.30	5.56	37.80	999.00	243.20	11.25	5.49	37.56	288.30	8.31	9.86	39.08	999.00	-1.55	999.00	-1.40	0.00
23	12	4	13	316.60	10.62	6.69	37.12	999.00	282.50	10.43	6.94	37.43	321.00	7.59	8.59	38.76	999.00	-1.62	999.00	-1.31	0.00
23	12	4	14	302.60	11.25	5.50	37.00	999.00	270.10	10.68	5.72	37.21	318.40	7.27	9.63	38.52	999.00	-1.54	999.00	-1.39	0.00
23	12	4	15	305.00	12.36	4.38	37.04	999.00	273.40	12.28	5.32	37.42	318.70	7.68	9.73	38.65	999.00	-1.57	999.00	-1.13	0.00
23	12	4	16	295.20	13.12	3.48	36.91	999.00	260.90	13.04	3.87	37.32	305.70	8.96	7.62	38.39	999.00	-1.45	999.00	-1.01	0.00
23	12	4	17	316.00	11.96	7.91	36.76	999.00	281.20	11.16	8.02	37.20	319.80	6.52	9.19	38.13	999.00	-1.36	999.00	-0.82	0.00
23	12	4	18	321.30	13.62	4.68	36.35	999.00	290.00	13.04	5.03	36.84	328.00	8.07	8.92	37.77	999.00	-1.32	999.00	-0.78	0.00
23	12	4	19	300.60	11.08	3.84	36.60	999.00	262.80	9.95	3.93	37.00	295.70	4.80	7.02	37.60	999.00	-0.60	999.00	-0.28	0.00
23	12	4	20	284.20	9.05	6.46	36.83	999.00	245.70	7.85	7.99	37.10	280.50	3.58	9.29	37.36	999.00	-0.65	999.00	-0.31	0.00
23	12	4	21	310.80	8.48	4.02	37.19	999.00	276.30	7.88	5.62	37.55	308.80	3.74	7.67	37.84	999.00	-0.77	999.00	-0.28	0.00

23	12	4	22	280.20	9.19	4.99	37.13	999.00	239.90	8.76	7.12	37.51	277.50	4.45	7.83	37.80	999.00	-0.65	999.00	-0.40	0.00
23	12	4	23	290.90	10.45	3.54	37.13	999.00	251.90	9.16	5.32	37.51	277.80	3.87	9.05	37.80	999.00	-0.49	999.00	-0.22	0.00
23	12	4	24	290.00	7.64	7.18	37.37	999.00	249.60	6.99	7.56	37.70	267.60	3.51	6.53	38.00	999.00	-0.69	999.00	-0.30	0.00
23	12	5	1	269.40	7.53	3.66	37.06	999.00	229.10	7.04	4.01	37.39	239.80	3.80	8.12	37.69	999.00	-0.66	999.00	-0.17	0.00
23	12	5	2	271.30	9.12	12.78	37.13	999.00	229.70	7.78	13.75	37.40	268.30	3.82	13.67	37.72	999.00	-0.60	999.00	-0.45	0.00
23	12	5	3	249.60	8.90	4.79	36.28	999.00	209.40	7.67	3.05	36.59	234.70	3.03	11.27	37.14	999.00	-0.66	999.00	-0.29	0.00
23	12	5	4	277.70	7.57	1.55	35.96	999.00	245.90	7.22	3.49	36.33	293.90	2.72	7.84	36.93	999.00	-0.80	999.00	-0.46	0.00
23	12	5	5	303.20	8.13	11.43	35.96	999.00	269.80	7.43	14.47	36.33	316.30	3.31	24.68	36.93	999.00	-0.79	999.00	-0.60	0.00
23	12	5	6	238.60	5.13	28.52	35.98	999.00	194.00	5.50	17.96	36.32	225.20	3.10	13.28	36.62	999.00	-1.04	999.00	-0.51	0.00
23	12	5	7	222.00	7.46	3.38	35.48	999.00	189.30	7.91	2.83	36.10	225.30	3.41	12.34	36.56	999.00	-1.38	999.00	-0.24	0.00
23	12	5	8	239.60	6.82	5.47	34.83	999.00	205.30	6.64	6.74	35.94	242.60	3.25	9.48	36.34	999.00	-1.47	999.00	-0.43	0.00
23	12	5	9	213.10	5.89	5.08	34.13	999.00	177.40	5.10	6.51	35.03	208.60	2.44	22.28	35.93	999.00	-1.78	999.00	-0.86	0.00
23	12	5	10	155.20	4.86	7.47	34.20	999.00	120.20	4.31	7.20	34.94	158.70	3.03	12.21	35.95	999.00	-1.83	999.00	-1.03	0.00
23	12	5	11	164.20	5.89	5.69	34.20	999.00	134.20	5.74	6.97	34.94	181.60	3.71	20.99	35.95	999.00	-1.88	999.00	-1.18	0.00
23	12	5	12	158.60	6.25	7.80	34.08	999.00	126.10	6.33	9.78	34.60	171.30	4.26	17.81	35.79	999.00	-1.51	999.00	-1.14	0.01
23	12	5	13	159.30	4.70	9.05	34.61	999.00	128.80	4.62	8.66	34.98	170.80	3.08	17.16	35.99	999.00	-1.28	999.00	-1.14	0.00
23	12	5	14	118.70	3.22	11.69	34.61	999.00	82.50	3.36	13.72	34.98	136.60	2.68	16.34	35.99	999.00	-0.97	999.00	-1.13	0.01
23	12	5	15	97.20	4.18	6.95	35.64	999.00	63.68	4.60	6.91	35.72	119.50	3.30	12.11	36.69	999.00	-1.12	999.00	-1.12	0.00
23	12	5	16	53.33	4.57	9.19	35.15	999.00	28.88	4.67	6.76	35.56	92.70	3.22	14.54	36.20	999.00	-0.97	999.00	-0.85	0.00
23	12	5	17	56.37	3.97	11.48	35.25	999.00	25.76	3.47	15.24	35.78	87.10	2.39	22.68	36.37	999.00	-1.23	999.00	-0.91	0.00
23	12	5	18	48.31	7.35	12.11	35.43	999.00	11.77	6.46	10.71	36.04	53.77	6.32	23.26	36.59	999.00	-1.17	999.00	-0.95	0.00
23	12	5	19	24.34	11.46	12.98	35.54	999.00	349.10	9.88	13.73	36.13	30.69	7.17	18.07	36.76	999.00	-1.26	999.00	-0.96	0.00
23	12	5	20	45.56	11.34	5.41	35.79	999.00	13.34	8.85	6.96	36.39	66.90	7.88	13.34	36.95	999.00	-1.13	999.00	-0.89	0.00
23	12	5	21	29.44	14.44	8.91	35.66	999.00	353.50	12.57	10.25	36.23	28.19	10.22	13.27	37.15	999.00	-1.59	999.00	-0.98	0.00
23	12	5	22	15.23	15.70	10.87	999.00	999.00	339.20	15.15	9.32	999.00	16.29	11.54	12.29	37.02	999.00	-1.66	999.00	-0.95	0.00
23	12	5	23	10.21	15.52	9.90	999.00	999.00	335.10	15.37	8.80	999.00	10.65	12.22	11.43	37.02	999.00	-1.65	999.00	-0.96	0.00
23	12	5	24	350.90	17.65	6.51	34.99	999.00	317.60	17.05	6.99	35.50	355.60	11.90	9.78	36.46	999.00	-1.43	999.00	-0.79	0.00
23	12	6	1	341.00	17.59	5.01	34.55	999.00	308.00	16.83	5.92	35.05	343.50	10.67	9.38	35.69	999.00	-0.95	999.00	-0.37	0.00
23	12	6	2	328.80	17.22	5.91	34.55	999.00	295.30	16.49	7.37	35.05	331.30	9.82	8.30	35.69	999.00	-0.85	999.00	-0.17	0.00
23	12	6	3	314.40	17.04	5.49	33.93	999.00	279.80	15.90	5.70	34.40	319.90	8.59	8.63	34.80	999.00	-0.76	999.00	-0.15	0.00
23	12	6	4	324.70	16.51	5.82	33.05	999.00	292.10	15.58	6.65	33.51	326.10	9.66	7.96	33.75	999.00	-0.90	999.00	-0.17	0.00
23	12	6	5	333.30	20.58	4.15	32.44	999.00	299.60	19.78	5.39	32.92	334.10	13.09	8.88	33.40	999.00	-1.06	999.00	-0.33	0.00
23	12	6	6	329.10	18.21	4.24	32.00	999.00	296.30	17.70	4.94	32.49	331.00	11.29	8.07	33.04	999.00	-1.12	999.00	-0.39	0.00
23	12	6	7	318.70	11.63	6.44	31.53	999.00	279.80	10.14	11.32	32.00	302.20	5.64	19.07	32.33	999.00	-0.18	999.00	0.12	0.00
23	12	6	8	310.10	12.86	3.02	31.01	999.00	263.70	12.81	3.23	30.99	295.20	5.62	7.15	29.63	999.00	1.62	999.00	1.51	0.00
23	12	6	9	320.00	12.44	3.02	32.10	999.00	275.80	11.27	3.79	30.98	301.20	5.45	6.78	29.76	999.00	1.86	999.00	0.56	0.00
23	12	6	10	294.30	12.11	3.71	31.47	999.00	255.20	11.06	4.28	31.20	297.60	6.89	7.79	31.95	999.00	-0.90	999.00	-0.97	0.00
23	12	6	11	278.50	11.88	5.98	32.06	999.00	240.40	10.72	6.33	31.99	289.40	6.93	9.41	33.24	999.00	-1.24	999.00	-1.12	0.00
23	12	6	12	270.10	10.04	6.91	32.52	999.00	233.10	9.54	7.18	32.54	283.70	6.89	13.05	33.92	999.00	-1.36	999.00	-1.27	0.00
23	12	6	13	263.10	8.70	10.74	35.29	999.00	225.50	8.40	10.66	34.04	269.30	6.91	16.67	35.81	999.00	-0.10	999.00	-1.90	0.00
23	12	6	14	250.70	11.00	6.88	36.50	999.00	216.30	11.11	7.32	35.76	266.80	8.33	13.28	37.47	999.00	-0.98	999.00	-1.39	0.00
23	12	6	15	246.20	10.85	6.08	38.01	999.00	212.20	10.70	4.85	36.98	263.90	8.60	10.26	38.85	999.00	-0.54	999.00	-1.65	0.00
23	12	6	16	246.70	13.44	4.87	37.35	999.00	213.00	13.40	5.13	37.44	263.30	8.88	12.64	38.66	999.00	-1.29	999.00	-0.86	0.00
23	12	6	17	253.50	10.91	4.57	37.18	999.00	217.70	10.16	5.63	37.57	266.60	6.23	13.12	38.45	999.00	-1.20	999.00	-0.67	0.00
23	12	6	18	244.70	12.00	3.37	36.81	999.00	206.60	10.60	2.95	37.19	235.80	4.76	13.16	37.40	999.00	-0.48	999.00	-0.05	0.00
23	12	6	19	253.50	13.96	3.03	36.90	999.00	215.50	12.39	2.85	37.09	254.40	6.58	9.96	37.28	999.00	-0.37	999.00	-0.14	0.00
23	12	6	20	243.40	15.44	3.24	37.09	999.00	207.10	13.70	3.36	37.27	251.90	7.05	9.43	37.19	999.00	-0.16	999.00	0.30	0.00
23	12	6	21	234.70	17.01	4.92	36.37	999.00	200.50	15.60	5.32	36.69	245.60	9.45	11.96	36.86	999.00	-0.79	999.00	-0.15	0.00
23	12	6	22	246.10	19.69	4.91	34.92	999.00	213.00	18.76	4.64	35.40	264.80	13.03	9.93	36.24	999.00	-1.43	999.00	-0.77	0.00
23	12	6	23	245.10	16.76	5.10	33.89	999.00	211.20	15.15	4.76	34.36	256.60	9.85	12.62	35.29	999.00	-1.37	999.00	-0.76	0.00
23	12	6	24	999.00	18.28	5.13	33.21	999.00	202.90	16.64	4.89	33.69	253.10	11.21	11.78	34.58	999.00	-1.34	999.00	-0.75	0.00
23	12	7	1	230.10	20.40	4.41	32.96	999.00	195.40	18.68	4.84	33.39	243.30	11.57	12.96	34.32	999.00	-1.35	999.00	-0.77	0.00
23	12	7	2	227.60	20.53	5.22	33.34	999.00	194.20	18.74	5.65	33.78	242.70	11.14	13.00	34.71	999.00	-1.34	999.00	-0.77	0.00

23	12	7	3	227.40	23.81	4.47	34.05	999.00	193.20	21.83	5.03	34.47	240.00	12.90	12.83	35.32	999.00	-1.25	999.00	-0.68	0.00
23	12	7	4	228.20	22.74	4.73	34.65	999.00	195.20	21.40	4.99	35.09	244.10	13.72	12.17	35.96	999.00	-1.34	999.00	-0.73	0.00
23	12	7	5	220.70	21.06	5.01	35.11	999.00	188.30	19.49	5.15	35.53	233.70	11.16	14.57	36.38	999.00	-1.26	999.00	-0.69	0.00
23	12	7	6	223.20	20.98	4.25	35.74	999.00	190.30	19.45	4.28	36.10	234.00	10.49	15.36	36.82	999.00	-1.07	999.00	-0.51	0.00
23	12	7	7	231.80	20.62	4.92	36.21	999.00	197.70	19.00	5.09	36.52	242.10	10.68	13.71	37.05	999.00	-0.91	999.00	-0.43	0.00
23	12	7	8	239.70	26.38	3.94	36.31	999.00	205.00	24.95	4.73	36.68	255.30	16.52	9.90	37.38	999.00	-1.28	999.00	-0.64	0.00
23	12	7	9	237.00	23.78	5.14	36.16	999.00	203.40	22.37	5.19	36.59	252.20	15.54	10.71	37.48	999.00	-1.34	999.00	-0.77	0.00
23	12	7	10	243.00	19.52	4.71	36.17	999.00	210.00	18.59	4.64	36.52	260.10	13.28	10.33	37.51	999.00	-1.31	999.00	-0.87	0.00
23	12	7	11	242.40	21.02	4.29	37.52	999.00	209.70	20.77	4.18	37.20	260.40	15.83	9.96	38.64	999.00	-0.85	999.00	-1.65	0.00
23	12	7	12	244.20	19.83	6.19	40.71	999.00	212.10	19.75	5.60	38.77	261.80	15.11	11.81	40.92	999.00	-0.08	999.00	-1.98	0.00
23	12	7	13	244.90	16.15	6.60	42.35	999.00	213.50	15.99	7.15	40.43	261.90	11.82	11.72	42.50	999.00	-0.06	999.00	-2.16	0.00
23	12	7	14	247.20	15.41	4.61	44.10	999.00	216.40	15.01	5.64	42.65	267.00	10.71	13.85	44.81	999.00	-1.20	999.00	-2.09	0.00
23	12	7	15	241.90	15.13	6.04	45.78	999.00	211.60	14.90	5.80	44.05	262.90	10.36	12.43	45.99	999.00	0.10	999.00	-1.66	0.00
23	12	7	16	238.40	12.78	3.24	46.98	999.00	208.00	12.63	3.06	45.17	258.60	9.15	10.07	46.68	999.00	0.31	999.00	-1.21	0.00
23	12	7	17	234.30	12.11	3.60	46.62	999.00	204.60	10.93	3.95	45.69	252.50	5.47	9.67	46.33	999.00	0.03	999.00	-0.22	0.00
23	12	7	18	227.60	11.99	1.13	45.41	999.00	193.70	10.40	1.26	45.64	207.90	3.90	8.98	44.79	999.00	1.13	999.00	1.63	0.00
23	12	7	19	221.80	11.71	3.17	45.77	999.00	186.50	10.46	5.27	45.91	184.70	3.30	8.26	43.79	999.00	2.65	999.00	3.05	0.00
23	12	7	20	214.20	13.15	2.83	45.95	999.00	177.50	12.81	2.55	45.97	194.60	3.55	6.02	42.86	999.00	3.42	999.00	3.51	0.00
23	12	7	21	220.40	20.22	2.11	46.79	999.00	181.30	18.05	2.30	46.24	210.80	6.07	8.82	42.02	999.00	5.25	999.00	4.89	0.00
23	12	7	22	218.70	21.14	3.30	47.57	999.00	176.90	17.71	3.18	45.81	207.90	6.52	8.20	41.65	999.00	5.94	999.00	4.07	0.00
23	12	7	23	201.70	21.12	1.86	46.15	999.00	163.70	15.63	2.52	44.19	188.30	4.25	8.40	41.12	999.00	3.80	999.00	2.49	0.00
23	12	7	24	203.80	20.94	3.87	45.43	999.00	167.20	16.06	3.03	43.64	196.60	4.56	11.76	40.75	999.00	4.55	999.00	2.53	0.00
23	12	8	1	197.10	18.49	1.97	46.18	999.00	156.60	15.68	2.57	44.83	182.40	3.94	10.27	41.13	999.00	3.49	999.00	3.01	0.00
23	12	8	2	192.80	17.46	2.61	44.18	999.00	153.80	15.21	2.97	43.72	175.80	4.24	10.91	41.52	999.00	1.99	999.00	1.88	0.00
23	12	8	3	197.30	20.92	2.40	44.18	999.00	159.70	17.43	3.20	43.72	189.70	5.55	11.78	41.52	999.00	2.52	999.00	2.07	0.00
23	12	8	4	197.00	22.17	1.74	44.52	999.00	162.30	18.80	2.29	43.60	188.30	4.99	11.06	41.26	999.00	3.56	999.00	2.59	0.00
23	12	8	5	193.80	22.06	2.50	44.43	999.00	161.30	18.40	3.05	43.69	193.00	6.16	12.23	42.08	999.00	1.97	999.00	1.59	0.00
23	12	8	6	194.60	22.98	3.36	44.43	999.00	160.60	19.86	4.18	43.69	198.60	7.84	12.16	42.08	999.00	1.70	999.00	1.36	0.00
23	12	8	7	193.60	23.48	3.08	43.60	999.00	160.40	19.99	3.99	43.09	197.40	8.02	12.82	42.07	999.00	1.25	999.00	0.82	0.00
23	12	8	8	192.10	24.27	3.05	43.50	999.00	159.20	20.70	3.78	43.11	198.20	8.43	13.11	42.13	999.00	1.33	999.00	1.05	0.00
23	12	8	9	193.00	23.71	3.57	44.15	999.00	161.30	20.86	4.13	43.30	200.30	10.23	12.58	42.84	999.00	1.27	999.00	0.56	0.00
23	12	8	10	201.60	23.47	5.01	46.26	999.00	171.10	21.90	4.83	44.76	212.60	12.80	15.66	45.55	999.00	0.42	999.00	-0.53	0.00
23	12	8	11	202.80	20.09	5.00	46.56	999.00	173.40	18.04	5.64	46.30	217.70	10.26	15.55	47.39	999.00	-1.13	999.00	-0.76	0.00
23	12	8	12	205.00	21.31	4.31	47.83	999.00	174.70	19.81	4.53	47.80	214.50	11.58	15.81	48.92	999.00	-1.13	999.00	-0.83	0.00
23	12	8	13	205.30	20.52	5.47	50.11	999.00	176.30	18.97	6.15	50.17	219.90	11.06	15.86	51.21	999.00	-1.26	999.00	-0.91	0.00
23	12	8	14	204.90	21.15	5.69	51.60	999.00	176.50	19.54	6.16	51.47	217.70	11.05	17.78	52.72	999.00	-1.12	999.00	-1.10	0.00
23	12	8	15	204.40	20.62	5.19	53.02	999.00	176.20	19.00	5.58	52.88	220.00	10.47	16.20	54.11	999.00	-1.06	999.00	-0.69	0.00
23	12	8	16	197.30	17.85	4.63	53.64	999.00	168.70	16.40	5.47	53.86	211.30	8.38	15.58	54.59	999.00	-0.77	999.00	-0.38	0.00
23	12	8	17	198.00	18.05	3.58	53.93	999.00	169.00	15.92	4.31	54.19	208.90	8.01	13.40	54.41	999.00	-0.22	999.00	0.08	0.00
23	12	8	18	205.60	23.66	4.82	53.97	999.00	176.00	21.33	4.89	54.19	217.60	10.42	16.49	54.00	999.00	-0.43	999.00	0.13	0.00
23	12	8	19	199.90	22.29	4.36	53.66	999.00	171.10	19.16	5.24	53.92	212.30	9.15	15.85	54.03	999.00	-0.25	999.00	0.07	0.00
23	12	8	20	202.40	22.39	4.44	53.53	999.00	174.00	19.13	5.10	53.65	220.80	8.14	17.21	53.25	999.00	0.16	999.00	0.50	0.00
23	12	8	21	203.20	22.93	4.25	54.03	999.00	174.80	19.48	4.91	54.10	221.90	8.34	16.23	54.02	999.00	0.11	999.00	0.26	0.00
23	12	8	22	205.80	25.88	4.16	55.44	999.00	176.40	22.87	4.46	55.63	222.10	11.15	15.91	55.69	999.00	-0.48	999.00	-0.09	0.00
23	12	8	23	208.20	26.87	4.83	55.78	999.00	177.00	24.11	5.18	56.07	221.20	12.25	16.61	56.33	999.00	-0.53	999.00	-0.10	0.00
23	12	8	24	212.60	24.70	4.84	55.29	999.00	182.60	21.88	5.30	55.60	227.20	11.68	14.89	55.92	999.00	-0.72	999.00	-0.21	0.00
23	12	9	1	198.80	19.60	4.43	55.39	999.00	171.20	17.41	5.21	55.69	215.30	8.56	15.14	55.91	999.00	-0.39	999.00	-0.07	0.00
23	12	9	2	187.90	22.90	3.88	55.39	999.00	158.40	20.73	4.69	55.69	200.90	9.77	12.30	55.91	999.00	-0.25	999.00	0.19	0.00
23	12	9	3	195.70	26.08	5.38	55.24	999.00	165.00	25.26	5.66	55.54	208.20	13.81	14.98	55.60	999.00	-0.88	999.00	-0.05	0.00
23	12	9	4	192.10	19.81	3.28	52.31	999.00	160.30	17.32	3.71	52.76	200.80	7.07	12.64	52.74	999.00	0.92	999.00	0.61	0.00
23	12	9	5	185.00	24.16	5.15	52.31	999.00	153.80	22.03	5.60	52.76	196.00	12.36	14.70	52.74	999.00	-1.46	999.00	-0.59	0.01
23	12	9	6	184.60	22.97	5.38	50.42	999.00	153.90	20.29	5.84	50.79	196.60	10.40	15.41	51.39	999.00	-0.78	999.00	-0.35	0.00
23	12	9	7	193.10	25.50	5.12	51.11	999.00	162.30	24.36	5.73	51.63	207.60	14.39	12.97	52.05	999.00	-0.73	999.00	-0.27	0.00

23	12	9	8	196.10	25.86	4.95	51.11	999.00	166.10	24.10	5.73	51.63	208.60	14.00	14.28	52.05	999.00	-0.78	999.00	-0.30	0.00
23	12	9	9	193.10	29.18	4.68	52.21	999.00	162.60	28.07	5.46	52.49	206.10	15.59	14.51	53.03	999.00	-0.78	999.00	-0.48	0.00
23	12	9	10	197.70	29.95	5.03	52.94	999.00	166.90	28.46	5.10	53.08	211.00	16.85	14.13	53.82	999.00	-0.98	999.00	-0.54	0.00
23	12	9	11	206.10	32.03	5.46	55.66	999.00	175.10	29.71	6.23	55.30	221.50	16.39	16.75	56.47	999.00	-0.81	999.00	-1.18	0.00
23	12	9	12	204.60	32.36	5.11	56.79	999.00	174.80	30.45	5.07	56.33	218.90	17.35	15.11	57.69	999.00	-1.11	999.00	-1.29	0.00
23	12	9	13	207.20	27.99	5.52	58.64	999.00	178.60	25.82	5.49	57.84	218.40	14.89	16.44	59.36	999.00	-0.62	999.00	-1.57	0.00
23	12	9	14	200.70	24.51	5.70	59.48	999.00	172.10	22.93	5.66	59.45	213.50	13.47	14.78	60.65	999.00	-1.22	999.00	-0.75	0.00
23	12	9	15	196.30	25.38	4.30	59.54	999.00	167.50	24.25	4.55	59.73	208.20	14.73	14.07	60.65	999.00	-1.21	999.00	-0.82	0.00
23	12	9	16	197.00	24.39	4.78	59.83	999.00	168.20	23.30	4.69	59.92	208.50	13.98	13.27	60.78	999.00	-1.03	999.00	-0.55	0.00
23	12	9	17	204.30	23.15	4.61	57.48	999.00	173.10	20.80	4.92	58.34	216.80	10.71	15.74	58.43	999.00	-0.74	999.00	-0.17	0.02
23	12	9	18	223.00	18.82	2.80	53.95	999.00	191.60	16.83	3.89	54.84	235.50	8.28	13.48	55.36	999.00	-1.84	999.00	-0.24	0.06
23	12	9	19	242.20	14.20	2.76	52.77	999.00	207.90	12.23	2.92	53.40	240.60	5.63	10.78	53.33	999.00	-0.43	999.00	0.17	0.03
23	12	9	20	259.90	14.80	4.35	52.49	999.00	222.80	13.34	3.77	52.76	266.10	6.55	9.16	52.56	999.00	0.26	999.00	0.58	0.02
23	12	9	21	270.60	16.29	3.75	51.73	999.00	235.40	13.95	4.85	52.07	281.30	6.86	11.65	52.09	999.00	-0.49	999.00	0.01	0.00
23	12	9	22	253.50	15.82	2.75	50.54	999.00	219.90	14.05	3.30	50.81	269.80	6.95	8.90	50.84	999.00	-0.25	999.00	0.09	0.00
23	12	9	23	263.80	23.36	4.07	47.96	999.00	230.20	21.00	5.11	48.24	280.70	11.32	11.08	48.12	999.00	-0.58	999.00	0.08	0.00
23	12	9	24	267.00	20.30	4.39	45.31	999.00	233.40	17.81	5.38	45.68	282.70	10.53	10.50	46.01	999.00	-0.66	999.00	-0.14	0.00
23	12	10	1	279.10	18.82	2.90	43.71	999.00	242.20	16.22	4.27	43.93	287.90	7.61	9.77	43.98	999.00	-0.07	999.00	0.26	0.00
23	12	10	2	256.70	14.62	3.91	42.10	999.00	219.60	12.62	5.00	42.38	259.30	6.14	13.26	42.35	999.00	-0.07	999.00	-0.02	0.00
23	12	10	3	261.60	19.53	4.20	40.80	999.00	227.80	17.21	4.55	41.06	280.70	9.46	11.37	41.23	999.00	-0.75	999.00	-0.30	0.00
23	12	10	4	258.60	22.39	6.78	40.14	999.00	225.40	20.62	7.26	40.54	278.30	13.21	11.35	41.05	999.00	-1.20	999.00	-0.58	0.00
23	12	10	5	257.10	19.99	5.62	38.76	999.00	223.20	18.56	6.11	39.29	271.30	12.28	11.14	40.15	999.00	-1.48	999.00	-0.81	0.00
23	12	10	6	260.40	19.37	5.25	37.08	999.00	226.20	17.47	5.94	37.62	274.40	10.96	11.39	38.50	999.00	-1.37	999.00	-0.75	0.00
23	12	10	7	260.60	17.54	6.63	36.53	999.00	227.40	16.11	6.62	37.00	278.40	9.79	11.38	37.90	999.00	-1.41	999.00	-0.76	0.00
23	12	10	8	251.50	14.59	6.61	36.37	999.00	217.50	13.84	6.57	36.89	266.80	9.65	11.29	37.87	999.00	-1.54	999.00	-0.86	0.00
23	12	10	9	245.50	16.25	4.28	35.99	999.00	213.10	15.53	4.46	36.48	262.50	11.02	10.63	37.55	999.00	-1.63	999.00	-1.01	0.00
23	12	10	10	263.20	15.61	7.90	37.01	999.00	229.60	15.28	7.26	36.07	276.10	10.72	13.42	37.48	999.00	0.13	999.00	-1.65	0.00
23	12	10	11	274.10	13.92	7.57	36.11	999.00	241.20	13.17	8.27	36.39	289.20	9.00	11.91	37.76	999.00	-1.62	999.00	-1.14	0.00
23	12	10	12	258.90	12.81	5.90	36.18	999.00	225.90	12.28	6.00	36.38	273.60	9.13	12.34	37.78	999.00	-1.55	999.00	-1.32	0.00
23	12	10	13	264.60	13.55	6.15	36.71	999.00	232.60	12.91	6.65	36.88	286.20	9.18	9.94	38.36	999.00	-1.70	999.00	-1.20	0.00
23	12	10	14	238.70	13.68	4.36	37.18	999.00	206.80	13.62	4.46	37.12	253.50	10.53	10.72	38.74	999.00	-1.67	999.00	-1.48	0.00
23	12	10	15	245.60	15.45	5.99	37.07	999.00	212.60	14.92	6.89	37.38	264.10	10.84	12.04	38.77	999.00	-1.75	999.00	-1.09	0.00
23	12	10	16	255.10	14.96	5.28	37.02	999.00	222.10	13.84	6.31	37.49	274.10	10.38	11.80	38.65	999.00	-1.63	999.00	-1.00	0.00
23	12	10	17	266.50	16.48	6.55	37.07	999.00	233.10	15.31	6.70	37.56	282.10	9.58	11.87	38.65	999.00	-1.57	999.00	-0.90	0.00
23	12	10	18	257.70	15.47	5.20	37.07	999.00	223.80	14.54	5.32	37.56	272.60	10.05	10.37	38.65	999.00	-1.59	999.00	-0.92	0.00
23	12	10	19	276.10	13.07	4.79	36.56	999.00	242.00	11.97	5.40	37.05	287.90	7.31	10.09	38.00	999.00	-1.38	999.00	-0.76	0.00
23	12	10	20	269.70	15.52	5.89	36.30	999.00	236.30	14.26	6.48	36.79	286.40	9.71	10.69	37.73	999.00	-1.49	999.00	-0.82	0.00
23	12	10	21	280.10	16.35	4.02	35.83	999.00	245.90	15.09	5.07	36.34	292.90	9.55	8.84	37.35	999.00	-1.57	999.00	-0.87	0.00
23	12	10	22	295.20	16.24	4.88	35.16	999.00	259.80	15.03	5.18	36.08	303.00	9.45	6.76	36.84	999.00	-1.59	999.00	-0.52	0.00
23	12	10	23	309.80	22.00	3.52	35.67	999.00	276.20	21.11	4.95	36.24	318.70	12.51	9.15	37.03	999.00	-1.32	999.00	-0.62	0.00
23	12	10	24	310.20	22.27	5.00	35.00	999.00	276.50	21.24	5.29	35.52	319.50	13.52	8.50	36.40	999.00	-1.40	999.00	-0.75	0.00
23	12	11	1	311.60	22.21	4.78	33.47	999.00	277.80	21.22	5.66	33.98	320.70	12.30	9.85	34.68	999.00	-1.17	999.00	-0.49	0.00
23	12	11	2	310.60	23.18	5.57	33.29	999.00	275.80	22.40	6.55	33.78	317.10	13.57	9.21	34.63	999.00	-1.40	999.00	-0.70	0.00
23	12	11	3	317.80	20.89	6.37	33.29	999.00	284.20	20.12	7.55	33.78	325.80	12.75	8.52	34.63	999.00	-1.50	999.00	-0.84	0.00
23	12	11	4	329.50	18.35	11.92	32.59	999.00	295.10	17.48	12.96	33.11	331.40	11.79	12.78	34.10	999.00	-1.55	999.00	-0.87	0.00
23	12	11	5	313.60	16.43	11.18	32.05	999.00	279.30	15.70	10.59	32.58	318.60	10.02	11.20	33.64	999.00	-1.51	999.00	-0.89	0.00
23	12	11	6	324.90	20.29	6.45	32.05	999.00	291.20	19.48	7.05	32.58	329.60	14.28	9.11	33.64	999.00	-1.62	999.00	-0.98	0.00
23	12	11	7	317.20	14.80	8.53	30.91	999.00	283.50	14.52	8.03	31.43	325.30	9.45	9.41	32.49	999.00	-1.53	999.00	-0.91	0.00
23	12	11	8	288.10	14.59	6.80	30.98	999.00	252.90	13.88	7.71	31.46	297.20	8.68	9.65	32.39	999.00	-1.38	999.00	-0.79	0.00
23	12	11	9	291.10	19.53	2.99	30.66	999.00	256.50	18.96	4.25	31.14	303.30	13.05	7.02	32.17	999.00	-1.56	999.00	-0.99	0.00
23	12	11	10	298.40	16.33	6.32	30.34	999.00	263.70	15.69	6.78	30.72	308.50	11.20	8.31	31.92	999.00	-1.60	999.00	-1.11	0.00
23	12	11	11	299.80	16.27	5.03	30.89	999.00	265.80	16.02	5.20	31.21	310.50	11.98	8.31	32.55	999.00	-1.63	999.00	-1.25	0.00
23	12	11	12	299.20	12.97	6.95	31.58	999.00	266.20	12.39	7.38	31.83	309.10	8.88	8.70	33.24	999.00	-1.75	999.00	-1.41	0.00

23	12	11	13	282.80	13.61	7.19	32.48	999.00	248.20	13.24	7.02	32.72	300.70	10.02	7.90	34.17	999.00	-1.64	999.00	-1.32	0.00
23	12	11	14	282.80	16.49	6.26	33.19	999.00	248.50	15.86	6.47	33.40	297.10	11.75	10.00	34.79	999.00	-1.66	999.00	-1.32	0.00
23	12	11	15	275.60	13.74	9.55	33.66	999.00	241.90	13.23	9.82	33.97	293.30	9.66	11.05	35.36	999.00	-1.63	999.00	-1.21	0.00
23	12	11	16	268.10	13.42	6.76	33.55	999.00	235.30	12.42	7.71	33.94	284.30	7.90	12.04	35.16	999.00	-1.58	999.00	-1.04	0.00
23	12	11	17	270.20	14.44	5.73	33.06	999.00	236.20	13.50	6.62	33.53	288.40	8.68	10.61	34.65	999.00	-1.50	999.00	-0.89	0.00
23	12	11	18	242.40	17.07	3.60	32.41	999.00	208.70	16.53	4.10	32.94	255.70	11.87	10.18	34.01	999.00	-1.67	999.00	-1.00	0.00
23	12	11	19	238.00	15.07	4.60	31.66	999.00	203.10	14.70	4.57	32.19	251.60	10.66	9.55	33.27	999.00	-1.60	999.00	-0.96	0.00
23	12	11	20	245.10	19.33	5.81	30.79	999.00	210.80	18.56	5.29	31.33	258.90	13.13	13.10	32.39	999.00	-1.62	999.00	-0.94	0.00
23	12	11	21	232.80	15.96	3.21	30.34	999.00	198.90	14.95	3.63	30.85	243.30	8.32	12.21	31.73	999.00	-1.00	999.00	-0.51	0.00
23	12	11	22	235.50	17.99	2.41	29.51	999.00	198.30	16.10	2.67	29.79	238.90	8.08	11.40	29.90	999.00	-0.34	999.00	0.07	0.00
23	12	11	23	233.00	17.94	2.46	28.05	999.00	195.50	16.14	3.20	28.28	236.80	7.46	12.23	28.41	999.00	-0.25	999.00	0.07	0.00
23	12	11	24	226.10	17.85	2.20	27.81	999.00	186.80	15.39	2.43	27.70	224.40	6.21	12.29	27.48	999.00	0.45	999.00	0.48	0.00
23	12	12	1	215.20	18.85	2.18	27.75	999.00	177.80	16.09	2.43	27.56	212.30	6.46	12.42	27.21	999.00	0.61	999.00	0.59	0.00
23	12	12	2	215.10	20.04	2.62	27.63	999.00	180.10	16.73	2.55	27.45	216.80	6.80	14.63	27.24	999.00	0.51	999.00	0.43	0.00
23	12	12	3	215.20	21.37	3.11	28.50	999.00	180.40	17.57	3.44	28.20	218.80	7.35	13.85	27.88	999.00	0.36	999.00	0.37	0.00
23	12	12	4	212.00	23.30	3.01	29.21	999.00	177.00	20.19	2.93	29.09	217.50	9.41	14.40	28.89	999.00	0.26	999.00	0.20	0.00
23	12	12	5	211.50	24.63	2.64	29.90	999.00	176.50	21.55	3.09	29.77	221.00	9.52	14.82	29.61	999.00	0.29	999.00	0.42	0.00
23	12	12	6	213.70	22.85	3.60	30.21	999.00	180.50	19.53	4.16	30.23	223.30	8.65	14.71	30.22	999.00	-0.17	999.00	0.23	0.00
23	12	12	7	214.40	24.34	3.93	30.44	999.00	180.30	20.78	4.59	30.54	225.20	9.84	14.91	30.60	999.00	-0.14	999.00	0.10	0.00
23	12	12	8	219.50	24.60	4.47	31.38	999.00	185.40	20.78	4.77	31.34	227.20	9.46	14.80	31.17	999.00	0.23	999.00	0.47	0.00
23	12	12	9	224.40	25.33	4.21	33.04	999.00	189.20	22.77	4.34	32.36	232.60	11.96	14.34	32.66	999.00	0.51	999.00	-0.40	0.00
23	12	12	10	232.90	25.87	4.74	35.50	999.00	199.10	24.45	5.39	34.15	247.40	16.49	10.92	35.13	999.00	0.23	999.00	-1.11	0.00
23	12	12	11	233.30	24.46	4.90	37.92	999.00	199.80	23.59	5.22	36.22	248.40	17.02	10.21	37.71	999.00	0.09	999.00	-1.59	0.00
23	12	12	12	235.60	24.95	5.37	40.20	999.00	203.10	24.55	5.34	38.51	251.90	17.73	11.44	40.25	999.00	-0.15	999.00	-1.79	0.00
23	12	12	13	245.20	25.04	8.09	41.63	999.00	212.40	24.15	8.08	40.14	262.90	16.82	12.66	41.84	999.00	-0.31	999.00	-1.73	0.00
23	12	12	14	254.50	25.18	5.26	41.93	999.00	220.40	24.27	5.28	41.05	270.00	16.02	11.28	42.93	999.00	-1.86	999.00	-1.87	0.00
23	12	12	15	260.40	23.03	6.55	43.41	999.00	227.10	22.17	7.23	42.21	279.00	14.91	13.54	44.05	999.00	-0.34	999.00	-1.81	0.00
23	12	12	16	260.80	22.14	5.37	43.27	999.00	228.00	20.71	6.92	42.10	276.90	13.81	11.09	43.53	999.00	-0.21	999.00	-1.29	0.00
23	12	12	17	271.60	18.53	4.82	41.76	999.00	238.90	17.00	5.70	41.18	286.60	9.68	10.35	42.05	999.00	-0.33	999.00	-0.57	0.00
23	12	12	18	273.40	18.26	3.87	39.33	999.00	237.40	15.76	4.42	39.57	280.90	7.51	9.86	39.41	999.00	0.32	999.00	0.63	0.00
23	12	12	19	280.40	20.80	1.57	38.00	999.00	243.50	18.01	3.18	38.13	286.30	8.13	8.99	37.33	999.00	0.68	999.00	0.81	0.00
23	12	12	20	297.10	17.49	3.66	36.04	999.00	262.80	15.62	4.64	36.18	298.80	6.67	6.53	34.98	999.00	1.25	999.00	1.79	0.00
23	12	12	21	294.50	15.91	2.96	33.71	999.00	259.40	14.07	2.79	34.01	296.80	6.17	4.85	32.93	999.00	0.79	999.00	1.30	0.00
23	12	12	22	295.70	18.52	2.19	32.59	999.00	259.50	16.36	2.42	32.83	297.30	6.73	6.02	31.67	999.00	1.13	999.00	1.48	0.00
23	12	12	23	296.00	17.52	2.45	31.58	999.00	260.10	15.40	2.76	31.74	292.90	6.58	6.30	30.37	999.00	1.13	999.00	1.65	0.00
23	12	12	24	286.70	16.65	1.36	31.36	999.00	245.50	14.01	1.94	31.32	276.80	6.37	5.28	29.97	999.00	1.43	999.00	1.49	0.00
23	12	13	1	286.70	19.33	1.09	31.75	999.00	244.00	15.97	2.53	31.12	278.20	6.20	6.38	29.82	999.00	2.57	999.00	1.74	0.00
23	12	13	2	270.00	20.90	1.70	31.72	999.00	226.80	16.78	4.33	30.77	264.40	8.12	10.73	29.50	999.00	1.72	999.00	1.13	0.00
23	12	13	3	268.80	19.86	2.68	29.59	999.00	228.10	15.80	3.77	28.88	272.40	7.25	9.27	28.22	999.00	0.90	999.00	0.56	0.00
23	12	13	4	277.00	18.35	1.56	29.88	999.00	229.00	15.72	2.87	28.52	267.70	8.22	8.54	27.83	999.00	2.05	999.00	0.56	0.00
23	12	13	5	275.20	18.87	2.59	29.51	999.00	228.40	16.20	3.88	28.04	269.60	7.43	9.46	27.48	999.00	1.76	999.00	0.67	0.00
23	12	13	6	276.20	18.76	2.20	28.46	999.00	231.40	15.79	2.89	27.35	276.90	7.46	9.52	26.93	999.00	1.24	999.00	0.41	0.00
23	12	13	7	283.90	18.21	2.45	28.00	999.00	234.70	16.33	3.57	26.81	277.10	7.33	9.39	26.29	999.00	2.35	999.00	0.91	0.00
23	12	13	8	292.10	17.65	1.07	29.30	999.00	249.00	17.61	2.60	27.27	287.00	6.47	9.32	25.84	999.00	4.24	999.00	2.36	0.00
23	12	13	9	288.40	15.66	2.21	31.02	999.00	238.50	14.21	5.53	28.20	269.00	7.11	11.68	26.06	999.00	5.08	999.00	1.07	0.00
23	12	13	10	278.30	11.35	6.32	29.69	999.00	236.60	9.81	7.20	26.62	273.10	6.41	12.67	27.41	999.00	1.85	999.00	-1.29	0.00
23	12	13	11	265.80	8.46	9.24	33.06	999.00	225.40	8.67	8.55	29.38	260.10	7.23	12.80	31.14	999.00	1.77	999.00	-1.88	0.00
23	12	13	12	271.20	9.70	10.27	35.24	999.00	238.50	9.36	9.09	31.99	289.20	7.77	13.58	34.11	999.00	0.91	999.00	-2.56	0.00
23	12	13	13	247.90	9.96	8.72	36.81	999.00	216.20	9.68	8.58	33.84	264.30	7.68	13.85	36.19	999.00	0.65	999.00	-2.30	0.00
23	12	13	14	251.10	10.61	7.96	37.91	999.00	217.90	10.34	7.12	35.94	259.40	8.56	12.72	38.25	999.00	-1.98	999.00	-2.40	0.00
23	12	13	15	265.30	10.31	9.27	39.54	999.00	232.80	10.17	9.23	37.27	279.00	8.20	14.84	39.37	999.00	0.70	999.00	-1.94	0.00
23	12	13	16	258.20	12.30	5.32	39.54	999.00	225.80	11.50	6.23	37.27	269.10	7.89	11.03	39.37	999.00	-0.54	999.00	-1.44	0.00
23	12	13	17	246.40	12.83	4.16	38.95	999.00	214.10	11.86	3.80	38.32	255.50	6.61	10.38	38.85	999.00	0.17	999.00	-0.26	0.00

23	12	13	18	255.30	11.74	2.31	37.73	999.00	220.50	9.94	2.79	38.01	254.30	4.34	6.05	37.88	999.00	0.33	999.00	0.66	0.00
23	12	13	19	256.30	14.27	1.82	37.30	999.00	219.30	12.06	2.77	37.49	250.50	5.13	8.87	36.14	999.00	1.51	999.00	1.83	0.00
23	12	13	20	252.30	16.43	1.98	36.62	999.00	212.50	13.79	1.80	36.37	234.50	4.93	8.98	34.40	999.00	2.65	999.00	2.44	0.00
23	12	13	21	253.80	19.34	1.82	35.76	999.00	215.80	15.02	2.08	35.03	236.90	4.86	9.51	32.76	999.00	3.32	999.00	2.46	0.00
23	12	13	22	260.20	18.99	1.19	35.20	999.00	218.50	14.78	1.94	34.21	238.20	3.63	11.27	31.83	999.00	3.69	999.00	2.51	0.00
23	12	13	23	263.90	18.70	1.32	34.70	999.00	223.10	14.59	2.09	33.61	248.90	5.11	6.40	31.35	999.00	3.45	999.00	2.51	0.00
23	12	13	24	270.10	17.99	1.04	34.93	999.00	224.10	14.99	2.05	33.44	235.60	5.14	8.36	30.78	999.00	4.60	999.00	3.07	0.00
23	12	14	1	265.20	18.75	1.73	34.18	999.00	221.60	14.53	2.28	32.96	239.10	4.45	9.40	30.33	999.00	3.95	999.00	2.73	0.00
23	12	14	2	266.90	19.94	1.87	33.81	999.00	223.00	15.30	2.76	32.64	241.30	5.12	8.84	29.85	999.00	4.13	999.00	2.89	0.00
23	12	14	3	260.90	18.47	1.96	33.42	999.00	216.60	15.96	2.15	32.17	239.00	6.34	9.70	29.29	999.00	3.71	999.00	2.95	0.00
23	12	14	4	270.60	18.61	2.12	32.08	999.00	224.90	14.47	3.42	30.94	254.00	6.20	7.15	28.93	999.00	3.17	999.00	2.07	0.00
23	12	14	5	271.70	16.79	4.21	31.47	999.00	223.20	14.27	4.68	30.26	239.50	5.88	12.17	28.26	999.00	3.39	999.00	2.30	0.00
23	12	14	6	274.20	16.29	1.88	31.71	999.00	222.80	14.80	2.21	29.85	246.00	5.66	8.73	27.49	999.00	4.40	999.00	2.60	0.00
23	12	14	7	260.60	17.05	2.30	31.58	999.00	211.20	14.51	2.07	29.51	224.80	5.85	11.90	27.00	999.00	4.30	999.00	2.56	0.00
23	12	14	8	267.40	19.19	1.15	31.75	999.00	218.80	17.50	1.52	29.75	243.20	7.34	8.87	26.74	999.00	5.39	999.00	3.34	0.00
23	12	14	9	260.20	18.22	4.22	33.87	999.00	209.40	16.63	2.11	30.22	231.40	7.03	11.17	27.31	999.00	6.18	999.00	2.82	0.00
23	12	14	10	246.70	16.22	2.85	32.47	999.00	208.30	13.38	3.56	29.50	251.50	7.96	11.32	29.13	999.00	2.23	999.00	-0.53	0.00
23	12	14	11	242.20	16.48	3.55	34.78	999.00	209.40	16.25	3.09	32.01	259.90	11.86	10.31	33.59	999.00	0.63	999.00	-1.66	0.00
23	12	14	12	244.90	15.46	3.78	38.49	999.00	213.80	15.53	3.23	35.96	262.20	11.59	10.64	37.87	999.00	0.60	999.00	-1.90	0.00
23	12	14	13	242.10	17.67	3.54	41.74	999.00	211.70	17.58	3.48	39.53	263.70	12.67	10.52	41.37	999.00	0.35	999.00	-1.92	0.00
23	12	14	14	240.30	19.58	3.20	43.71	999.00	209.50	19.46	3.46	42.33	260.40	14.11	10.46	44.02	999.00	-1.32	999.00	-1.65	0.00
23	12	14	15	239.80	20.26	4.42	45.92	999.00	209.30	20.12	4.00	44.33	258.60	13.51	10.95	46.11	999.00	0.27	999.00	-1.39	0.00
23	12	14	16	236.20	20.42	4.13	47.20	999.00	207.00	20.11	3.95	45.65	256.10	14.05	11.00	47.04	999.00	-0.13	999.00	-1.03	0.00
23	12	14	17	235.40	19.13	4.21	46.52	999.00	204.90	17.56	4.36	45.75	251.10	10.12	10.73	46.26	999.00	0.30	999.00	0.10	0.00
23	12	14	18	230.20	21.34	1.38	44.58	999.00	196.50	19.07	1.64	44.61	233.20	6.97	12.26	43.10	999.00	2.24	999.00	2.30	0.00
23	12	14	19	230.40	20.98	1.30	43.50	999.00	191.30	18.56	2.07	43.26	232.20	6.75	11.77	41.01	999.00	2.94	999.00	2.60	0.00
23	12	14	20	242.10	21.80	1.80	42.08	999.00	206.50	18.28	1.79	41.49	241.90	7.47	9.20	38.94	999.00	3.07	999.00	2.51	0.00
23	12	14	21	247.30	23.48	2.44	41.48	999.00	211.80	19.36	2.42	40.65	248.00	7.45	6.94	38.12	999.00	3.53	999.00	2.91	0.00
23	12	14	22	249.80	25.43	2.30	40.66	999.00	213.90	21.18	2.46	40.01	250.10	9.15	8.49	37.77	999.00	2.97	999.00	2.33	0.00
23	12	14	23	251.00	22.61	2.01	40.58	999.00	212.10	19.42	1.94	39.65	248.50	9.26	8.42	37.75	999.00	2.40	999.00	1.75	0.00
23	12	14	24	248.20	22.29	2.78	40.11	999.00	211.80	17.25	3.12	39.14	233.90	5.84	10.52	36.78	999.00	3.98	999.00	3.15	0.00
23	12	15	1	248.30	23.79	2.47	40.32	999.00	210.00	19.32	2.22	39.00	243.20	7.98	8.20	35.87	999.00	4.83	999.00	3.36	0.00
23	12	15	2	248.10	23.94	2.57	40.32	999.00	209.50	19.35	2.02	38.69	243.90	8.34	8.75	35.87	999.00	4.46	999.00	3.10	0.00
23	12	15	3	249.50	23.64	2.06	39.59	999.00	211.60	18.88	1.86	37.95	246.80	7.42	8.20	35.40	999.00	4.40	999.00	3.04	0.00
23	12	15	4	254.50	23.74	2.31	38.36	999.00	214.70	19.71	2.28	37.14	252.30	8.30	8.74	34.94	999.00	3.47	999.00	2.25	0.00
23	12	15	5	257.90	23.11	2.69	38.40	999.00	219.10	17.69	2.92	36.81	254.60	8.25	9.41	34.73	999.00	3.16	999.00	2.18	0.00
23	12	15	6	258.00	23.70	2.17	38.47	999.00	216.90	19.05	1.91	36.89	251.70	8.94	8.61	34.40	999.00	4.49	999.00	2.79	0.00
23	12	15	7	255.50	21.72	2.20	37.83	999.00	214.50	16.85	2.16	35.95	243.70	5.52	10.02	33.36	999.00	4.74	999.00	3.01	0.00
23	12	15	8	253.10	23.23	2.82	37.39	999.00	212.50	18.47	2.55	35.62	245.60	7.08	9.76	33.06	999.00	3.94	999.00	2.57	0.00
23	12	15	9	249.80	21.94	1.96	38.60	999.00	209.00	16.72	2.00	35.57	245.80	6.73	10.56	33.47	999.00	5.26	999.00	1.94	0.00
23	12	15	10	248.70	16.57	2.92	41.02	999.00	211.50	13.06	3.95	36.97	254.70	6.38	12.12	36.50	999.00	3.13	999.00	-0.24	0.00
23	12	15	11	246.40	13.77	4.15	43.60	999.00	211.40	12.87	3.05	40.33	258.90	9.47	9.08	41.44	999.00	1.68	999.00	-1.29	0.00
23	12	15	12	238.40	15.49	3.18	47.36	999.00	209.30	14.99	3.06	44.57	266.70	10.02	11.02	46.02	999.00	1.38	999.00	-1.21	0.00
23	12	15	13	242.60	13.95	3.15	51.24	999.00	212.00	14.13	3.02	48.70	263.80	9.67	10.60	50.12	999.00	1.00	999.00	-1.43	0.00
23	12	15	14	237.50	13.29	4.31	53.22	999.00	206.60	13.42	4.04	51.49	258.80	8.96	12.26	53.05	999.00	-1.47	999.00	-1.52	0.00
23	12	15	15	237.00	13.00	4.81	54.78	999.00	208.10	12.91	4.49	52.86	257.90	8.25	11.71	54.33	999.00	1.04	999.00	-0.99	0.00
23	12	15	16	232.70	9.19	6.06	55.83	999.00	203.40	8.75	5.69	53.82	263.00	5.94	8.66	54.07	999.00	2.08	999.00	0.16	0.00
23	12	15	17	248.10	7.13	4.44	54.54	999.00	214.20	6.57	3.84	53.82	250.70	3.12	5.67	53.54	999.00	0.25	999.00	0.64	0.00
23	12	15	18	238.70	6.26	2.21	52.96	999.00	200.90	5.68	9.01	53.22	194.00	3.13	6.70	51.75	999.00	2.17	999.00	2.38	0.00
23	12	15	19	211.20	7.12	1.55	52.42	999.00	177.90	8.19	1.54	52.65	200.40	2.56	4.65	50.33	999.00	3.16	999.00	3.35	0.00
23	12	15	20	201.50	13.61	1.07	51.90	999.00	172.90	13.75	1.35	51.98	196.40	2.94	6.01	47.96	999.00	4.55	999.00	4.44	0.00
23	12	15	21	211.10	15.83	0.67	51.70	999.00	177.80	15.06	0.72	51.43	216.40	3.19	7.98	46.46	999.00	5.27	999.00	5.16	0.00
23	12	15	22	206.30	17.03	0.97	51.05	999.00	175.00	15.47	1.90	50.01	209.40	3.62	9.04	45.05	999.00	6.07	999.00	5.25	0.00

23	12	15	23	219.40	16.99	0.90	50.19	999.00	182.30	13.62	0.86	48.96	194.70	2.95	5.44	43.89	999.00	6.47	999.00	4.86	0.00
23	12	15	24	209.80	13.57	1.80	49.99	999.00	175.20	13.74	1.19	48.11	170.10	2.83	6.39	43.12	999.00	7.10	999.00	5.08	0.00
23	12	16	1	205.50	15.36	0.69	49.60	999.00	177.70	13.91	0.91	48.09	208.80	4.13	6.35	42.81	999.00	7.08	999.00	5.51	0.00
23	12	16	2	197.00	13.57	0.97	49.71	999.00	168.30	14.97	1.58	48.71	198.80	2.91	6.66	41.85	999.00	7.87	999.00	7.10	0.00
23	12	16	3	188.00	15.30	1.91	49.76	999.00	159.60	15.43	1.25	49.29	187.40	2.96	7.43	41.78	999.00	7.99	999.00	7.47	0.00
23	12	16	4	175.20	13.60	2.12	49.11	999.00	148.40	13.84	1.61	48.94	167.60	2.61	12.07	40.83	999.00	999.00	999.00	7.97	0.00
23	12	16	5	173.00	14.93	1.00	999.00	999.00	143.30	17.65	0.90	999.00	191.90	3.82	7.66	40.16	999.00	999.00	999.00	7.97	0.00
23	12	16	6	162.20	16.43	1.36	999.00	999.00	132.30	16.98	1.10	47.35	141.30	4.27	3.27	40.15	999.00	999.00	999.00	7.32	0.00
23	12	16	7	144.20	19.72	0.72	999.00	999.00	109.50	16.71	2.26	46.13	132.30	4.22	5.99	39.35	999.00	999.00	999.00	6.51	0.00
23	12	16	8	137.40	13.20	4.86	45.28	999.00	88.90	10.97	5.16	43.80	119.70	4.80	10.80	39.17	999.00	5.15	999.00	3.80	0.00
23	12	16	9	138.80	14.19	1.85	45.28	999.00	96.90	13.76	1.66	43.80	140.70	4.75	9.35	39.17	999.00	3.65	999.00	2.46	0.00
23	12	16	10	130.80	17.42	7.74	44.99	999.00	88.80	14.56	7.87	42.15	128.70	5.84	11.70	40.46	999.00	4.74	999.00	1.11	0.00
23	12	16	11	122.00	14.58	2.27	44.65	999.00	82.70	13.28	4.41	41.62	127.80	6.06	9.81	42.51	999.00	0.96	999.00	-0.59	0.00
23	12	16	12	117.90	14.40	1.55	44.65	999.00	81.10	12.29	4.39	41.62	117.70	6.24	11.17	42.51	999.00	2.30	999.00	-0.57	0.00
23	12	16	13	113.00	12.83	1.76	46.15	999.00	76.20	12.39	5.17	43.64	123.30	5.48	11.79	43.65	999.00	1.25	999.00	-0.15	0.00
23	12	16	14	121.80	15.08	1.46	46.68	999.00	83.60	13.54	5.55	44.09	135.90	6.06	10.65	44.96	999.00	2.31	999.00	-0.50	0.00
23	12	16	15	121.20	13.78	3.90	46.68	999.00	81.70	14.90	3.39	44.09	127.60	6.27	12.06	44.96	999.00	2.78	999.00	1.80	0.00
23	12	16	16	139.20	11.28	2.11	48.37	999.00	95.70	10.97	2.21	47.07	131.90	5.05	8.59	44.17	999.00	5.04	999.00	3.60	0.00
23	12	16	17	138.70	15.95	1.76	49.61	999.00	102.70	15.17	1.58	48.68	129.50	5.02	7.03	43.83	999.00	6.47	999.00	5.58	0.00
23	12	16	18	141.20	19.30	3.41	49.61	999.00	108.20	16.67	3.96	48.68	131.10	5.00	6.69	43.83	999.00	7.43	999.00	6.87	0.00
23	12	16	19	151.40	24.00	1.51	50.15	999.00	115.10	19.93	3.29	49.41	146.10	6.03	7.15	43.65	999.00	5.50	999.00	4.91	0.00
23	12	16	20	150.40	26.17	2.72	49.76	999.00	117.30	21.22	4.27	49.00	159.70	8.30	11.81	47.96	999.00	1.34	999.00	0.88	0.00
23	12	16	21	157.90	23.47	3.17	49.21	999.00	126.50	18.91	4.18	48.56	999.00	7.06	12.30	47.89	999.00	1.20	999.00	0.79	0.00
23	12	16	22	159.70	22.85	3.33	49.47	999.00	127.80	18.03	4.94	48.93	169.80	6.78	14.31	48.18	999.00	1.03	999.00	0.65	0.00
23	12	16	23	154.50	24.04	3.34	49.75	999.00	122.00	20.19	4.24	49.04	162.20	9.05	11.78	48.33	999.00	0.75	999.00	0.62	0.00
23	12	16	24	158.40	23.47	3.41	49.47	999.00	125.90	19.49	4.68	49.04	162.10	8.67	10.98	48.60	999.00	0.73	999.00	0.58	0.00
23	12	17	1	162.30	22.43	2.95	49.55	999.00	129.90	18.06	4.31	49.24	171.50	6.43	15.00	48.72	999.00	0.83	999.00	0.63	0.00
23	12	17	2	173.10	21.94	2.51	49.75	999.00	141.00	17.99	3.08	49.38	175.40	6.26	13.03	48.18	999.00	1.84	999.00	1.60	0.00
23	12	17	3	180.90	19.51	5.59	49.39	999.00	150.00	16.56	6.74	49.94	192.10	6.13	15.85	48.87	999.00	-0.29	999.00	1.02	0.00
23	12	17	4	187.90	21.03	3.67	46.41	999.00	156.50	18.58	4.01	48.55	200.70	7.85	12.36	47.38	999.00	-0.22	999.00	1.13	0.00
23	12	17	5	173.50	21.74	4.66	43.74	999.00	141.30	18.95	4.94	45.33	183.80	8.11	14.12	43.61	999.00	-0.23	999.00	0.70	0.00
23	12	17	6	174.60	21.15	4.85	43.88	999.00	141.80	18.87	5.36	44.53	182.20	9.04	13.78	44.06	999.00	-0.78	999.00	0.24	0.00
23	12	17	7	175.10	18.23	4.07	43.27	999.00	141.10	15.84	4.74	43.77	180.00	6.82	14.42	43.82	999.00	-0.32	999.00	0.26	0.00
23	12	17	8	174.40	19.73	4.53	43.00	999.00	141.70	17.18	4.47	43.89	181.90	7.56	14.33	43.66	999.00	-0.78	999.00	0.53	0.00
23	12	17	9	179.50	20.47	4.47	42.87	999.00	146.90	18.31	5.42	43.88	189.90	8.36	16.89	43.69	999.00	-0.89	999.00	0.22	0.03
23	12	17	10	176.50	21.80	4.47	42.99	999.00	144.30	19.56	4.92	43.81	186.90	8.80	14.93	43.92	999.00	-1.01	999.00	0.07	0.03
23	12	17	11	181.60	21.43	4.29	43.35	999.00	148.90	19.46	4.65	44.25	192.00	8.64	15.22	44.42	999.00	-1.00	999.00	0.04	0.00
23	12	17	12	189.00	22.33	4.60	44.55	999.00	156.90	20.68	5.65	45.14	201.50	11.72	15.34	45.24	999.00	-0.66	999.00	-0.15	0.00
23	12	17	13	195.10	21.08	4.61	45.17	999.00	163.80	20.88	4.54	45.52	207.90	12.17	14.67	45.79	999.00	-0.52	999.00	-0.28	0.00
23	12	17	14	196.90	19.29	5.75	46.10	999.00	164.80	17.89	6.34	46.21	212.00	11.15	15.73	46.79	999.00	-0.82	999.00	-0.50	0.00
23	12	17	15	212.30	20.88	6.57	46.28	999.00	180.80	18.99	6.72	46.86	228.50	9.57	18.61	47.65	999.00	-1.26	999.00	-0.18	0.00
23	12	17	16	258.10	19.92	6.83	46.79	999.00	225.50	18.67	7.32	47.16	277.00	11.80	11.76	47.31	999.00	-0.37	999.00	0.27	0.00
23	12	17	17	251.30	13.59	4.27	46.03	999.00	217.20	12.66	3.99	46.28	267.70	7.24	10.00	46.48	999.00	-0.37	999.00	0.13	0.00
23	12	17	18	249.00	14.48	3.50	45.71	999.00	214.90	13.31	3.51	45.88	263.40	7.20	9.05	45.78	999.00	0.05	999.00	0.54	0.00
23	12	17	19	252.40	16.09	3.98	45.06	999.00	218.90	14.64	4.65	45.22	270.40	8.16	10.65	44.96	999.00	-0.10	999.00	0.22	0.00
23	12	17	20	249.80	14.88	4.40	43.78	999.00	216.00	13.88	4.22	43.94	264.20	8.14	10.60	44.42	999.00	-0.74	999.00	0.65	0.00
23	12	17	21	247.60	14.01	3.81	42.83	999.00	215.10	13.25	3.76	43.25	261.20	8.03	8.86	43.79	999.00	-0.94	999.00	0.61	0.00
23	12	17	22	244.60	15.73	3.68	41.98	999.00	211.80	14.74	3.51	42.42	259.20	9.21	8.96	43.02	999.00	-1.06	999.00	-0.41	0.00
23	12	17	23	248.80	14.21	3.91	41.45	999.00	215.30	13.40	3.19	41.90	264.30	8.36	9.47	42.63	999.00	-1.15	999.00	-0.56	0.00
23	12	17	24	257.60	14.78	4.64	41.07	999.00	223.60	13.51	4.97	41.52	272.90	7.84	10.74	42.29	999.00	-1.24	999.00	-0.62	0.00
23	12	18	1	260.50	14.14	3.76	40.73	999.00	227.00	12.51	4.61	41.14	276.60	7.29	11.43	41.92	999.00	-1.20	999.00	-0.58	0.00
23	12	18	2	257.20	16.07	3.54	40.03	999.00	222.60	14.70	4.32	40.65	273.40	8.59	9.94	41.47	999.00	-1.84	999.00	-0.70	0.00
23	12	18	3	271.00	14.92	4.47	38.70	999.00	236.80	13.25	5.95	39.78	287.10	7.51	10.16	40.41	999.00	-1.58	999.00	-0.54	0.00

23	12	18	4	269.40	15.31	6.48	38.49	999.00	236.60	13.73	7.07	39.37	285.20	7.77	11.16	39.36	999.00	-1.50	999.00	-0.56	0.00
23	12	18	5	285.70	17.28	5.71	36.40	999.00	251.50	16.32	6.60	37.68	298.00	11.18	9.00	38.04	999.00	-2.09	999.00	-0.70	0.00
23	12	18	6	261.00	18.24	5.20	34.60	999.00	226.90	16.57	5.82	36.40	279.20	10.11	10.82	36.66	999.00	-2.15	999.00	-0.73	0.00
23	12	18	7	256.40	18.58	5.66	33.66	999.00	221.50	17.34	6.26	35.35	274.10	11.67	11.20	35.98	999.00	-2.24	999.00	-0.84	0.00
23	12	18	8	254.70	21.73	5.40	33.47	999.00	220.10	20.40	5.67	34.99	270.10	13.80	10.72	35.64	999.00	-2.11	999.00	-0.87	0.00
23	12	18	9	273.20	23.67	9.46	33.26	999.00	237.60	22.10	9.83	34.88	287.30	14.17	11.68	35.36	999.00	-2.26	999.00	-1.00	0.00
23	12	18	10	270.70	20.01	6.11	32.28	999.00	235.60	18.44	6.48	33.96	285.60	11.51	10.68	34.36	999.00	-2.18	999.00	-0.95	0.00
23	12	18	11	281.40	23.10	6.71	33.25	999.00	246.40	21.76	6.43	34.20	296.10	14.55	10.22	34.67	999.00	-1.15	999.00	-1.11	0.00
23	12	18	12	293.20	26.15	5.89	34.00	999.00	257.80	24.65	6.49	33.88	305.10	18.09	7.00	34.31	999.00	-0.29	999.00	-1.34	0.00
23	12	18	13	292.00	24.89	7.25	33.60	999.00	257.30	24.09	7.99	33.39	304.00	16.55	8.58	34.35	999.00	-0.77	999.00	-1.20	0.00
23	12	18	14	294.40	23.05	6.40	34.17	999.00	259.30	21.98	7.05	34.10	303.90	15.24	9.25	34.88	999.00	-0.59	999.00	-1.25	0.00
23	12	18	15	313.50	27.50	5.69	34.04	999.00	280.10	25.80	6.97	34.50	323.90	16.58	8.95	35.42	999.00	-1.69	999.00	-1.15	0.00
23	12	18	16	323.10	36.03	5.76	32.44	999.00	288.50	33.67	6.83	32.77	328.90	23.95	8.30	32.90	999.00	0.39	999.00	0.37	0.03
23	12	18	17	314.20	36.93	5.45	32.25	999.00	279.70	35.00	6.31	32.70	323.50	23.19	8.28	33.04	999.00	-1.26	999.00	-0.52	0.00
23	12	18	18	299.90	31.56	5.80	30.99	999.00	265.60	30.18	6.85	31.50	311.90	20.22	8.75	32.46	999.00	-1.55	999.00	-0.89	0.00
23	12	18	19	298.10	29.95	5.93	30.43	999.00	262.90	28.30	5.86	30.91	308.60	20.07	7.55	31.84	999.00	-1.43	999.00	-0.85	0.00
23	12	18	20	298.60	31.98	5.52	29.90	999.00	263.00	29.84	6.14	30.41	308.70	20.22	7.00	31.36	999.00	-1.44	999.00	-0.89	0.00
23	12	18	21	298.80	30.83	5.20	30.11	999.00	263.70	28.53	5.92	30.58	308.10	19.75	6.55	31.48	999.00	-1.37	999.00	-0.87	0.00
23	12	18	22	304.00	28.36	6.24	30.15	999.00	269.20	26.97	6.95	30.63	312.80	17.92	7.64	31.50	999.00	-1.36	999.00	-0.83	0.00
23	12	18	23	304.50	24.73	6.60	30.42	999.00	269.90	23.14	6.41	30.90	313.50	14.56	8.00	31.81	999.00	-1.38	999.00	-0.90	0.00
23	12	18	24	314.80	30.05	5.36	31.00	999.00	282.30	28.54	6.11	31.48	324.40	18.12	9.11	32.43	999.00	-1.44	999.00	-0.92	0.00
23	12	19	1	321.00	29.73	5.16	30.63	999.00	288.60	28.26	5.67	31.17	328.50	19.84	8.07	32.13	999.00	-1.52	999.00	-0.99	0.00
23	12	19	2	341.30	32.65	4.77	30.63	999.00	308.70	31.40	5.16	31.17	344.60	21.76	9.58	32.13	999.00	-1.59	999.00	-1.06	0.00
23	12	19	3	316.50	23.78	6.66	30.03	999.00	285.00	22.97	7.20	30.53	325.20	14.66	9.62	31.51	999.00	-1.44	999.00	-0.93	0.00
23	12	19	4	325.00	28.71	5.81	29.64	999.00	292.60	27.36	6.19	30.17	329.10	18.75	8.14	31.12	999.00	-1.51	999.00	-0.78	0.00
23	12	19	5	314.80	24.90	6.59	29.64	999.00	282.90	23.72	7.73	30.17	322.90	15.25	9.03	31.12	999.00	-1.51	999.00	-0.81	0.00
23	12	19	6	300.60	20.17	5.37	28.84	999.00	267.70	19.16	6.19	29.35	311.70	13.23	7.14	30.35	999.00	-1.49	999.00	-0.87	0.00
23	12	19	7	309.60	19.70	10.98	28.15	999.00	276.60	18.78	12.24	28.67	316.80	12.38	11.30	29.66	999.00	-1.51	999.00	-0.87	0.00
23	12	19	8	293.50	22.43	4.93	28.15	999.00	260.10	21.61	5.61	28.67	305.00	14.36	7.53	29.66	999.00	-1.51	999.00	-0.86	0.00
23	12	19	9	314.70	18.52	11.46	27.49	999.00	280.70	17.94	10.90	27.95	319.10	11.67	9.79	28.95	999.00	-1.45	999.00	-0.89	0.00
23	12	19	10	299.30	12.55	7.23	28.13	999.00	266.70	12.31	8.01	28.46	309.90	8.35	8.62	29.65	999.00	-1.53	999.00	-1.18	0.00
23	12	19	11	284.60	14.89	7.02	28.62	999.00	250.90	14.68	7.88	28.55	297.40	11.21	10.28	30.00	999.00	-1.15	999.00	-1.60	0.00
23	12	19	12	274.60	14.81	13.44	29.84	999.00	240.90	14.53	14.14	28.86	288.60	10.78	17.26	30.57	999.00	-0.28	999.00	-1.74	0.00
23	12	19	13	278.60	15.58	13.12	30.89	999.00	243.60	14.96	13.71	29.62	291.10	11.73	14.84	31.43	999.00	0.27	999.00	-2.33	0.00
23	12	19	14	279.00	11.39	12.05	32.50	999.00	248.00	10.67	12.21	31.02	302.90	8.35	11.37	32.98	999.00	-1.42	999.00	-2.61	0.00
23	12	19	15	245.60	15.47	6.79	33.56	999.00	212.80	15.36	7.27	32.01	263.20	11.39	13.87	34.03	999.00	0.11	999.00	-1.76	0.00
23	12	19	16	248.00	15.88	8.48	33.88	999.00	214.50	15.32	9.13	32.31	264.20	10.70	13.39	33.95	999.00	0.12	999.00	-1.45	0.00
23	12	19	17	238.60	15.86	3.35	33.18	999.00	205.20	15.30	3.34	32.38	250.80	10.18	9.26	33.45	999.00	-1.05	999.00	-0.73	0.00
23	12	19	18	235.70	18.04	2.76	31.07	999.00	200.80	16.15	3.09	31.45	243.80	7.94	10.79	31.76	999.00	-0.43	999.00	0.02	0.00
23	12	19	19	223.60	16.62	2.18	30.28	999.00	187.00	14.62	2.42	30.51	226.70	5.86	13.42	30.37	999.00	0.20	999.00	0.43	0.00
23	12	19	20	215.30	19.33	2.38	29.85	999.00	180.00	16.61	2.55	29.91	220.10	6.72	13.94	29.54	999.00	0.34	999.00	0.54	0.00
23	12	19	21	220.80	18.35	2.50	29.65	999.00	185.00	15.55	2.97	29.55	227.60	5.99	13.48	29.10	999.00	0.58	999.00	0.71	0.00
23	12	19	22	227.20	18.23	2.04	29.65	999.00	188.60	15.71	2.40	29.49	229.00	5.58	13.39	28.69	999.00	0.97	999.00	0.99	0.00
23	12	19	23	219.40	15.94	1.73	29.07	999.00	181.00	12.83	1.99	28.96	201.50	5.05	8.83	28.18	999.00	1.13	999.00	1.08	0.00
23	12	19	24	208.00	18.22	2.02	28.86	999.00	170.70	15.07	2.29	28.61	208.60	6.19	11.38	27.70	999.00	0.79	999.00	0.58	0.00
23	12	20	1	206.00	20.81	2.50	28.71	999.00	169.90	17.28	3.06	28.51	213.30	7.27	13.80	28.20	999.00	0.45	999.00	0.22	0.00
23	12	20	2	205.20	22.16	2.96	28.74	999.00	170.60	18.84	4.24	28.70	214.20	8.76	14.24	28.70	999.00	-0.12	999.00	0.06	0.00
23	12	20	3	202.10	20.54	3.51	28.96	999.00	168.20	17.93	4.02	29.05	211.60	8.84	13.57	29.23	999.00	-0.44	999.00	-0.18	0.00
23	12	20	4	207.10	20.32	3.67	28.85	999.00	174.40	17.97	4.32	29.09	221.20	8.36	13.72	29.50	999.00	-0.78	999.00	-0.38	0.00
23	12	20	5	211.40	19.93	2.74	28.54	999.00	178.70	17.15	3.51	28.80	225.40	8.09	15.71	29.22	999.00	-0.61	999.00	-0.27	0.00
23	12	20	6	216.20	18.44	2.91	28.15	999.00	184.80	15.80	3.63	28.30	230.30	6.44	14.84	28.29	999.00	-0.01	999.00	0.29	0.00
23	12	20	7	215.20	14.96	2.86	28.07	999.00	180.50	12.14	2.75	28.13	208.70	4.59	10.25	27.68	999.00	0.68	999.00	0.90	0.00
23	12	20	8	210.10	15.82	1.41	27.75	999.00	174.00	13.33	1.86	27.73	211.60	4.78	9.58	27.04	999.00	0.74	999.00	0.74	0.00

23	12	20	9	202.40	20.62	2.10	28.73	999.00	166.90	17.16	3.02	27.69	209.70	7.58	12.44	27.40	999.00	1.57	999.00	0.54	0.00
23	12	20	10	207.40	17.96	4.18	30.68	999.00	173.50	16.12	4.84	28.77	220.60	9.60	15.19	29.84	999.00	0.58	999.00	-0.94	0.00
23	12	20	11	211.80	13.96	6.26	33.74	999.00	180.70	12.74	6.24	31.41	224.90	8.96	15.76	33.17	999.00	0.55	999.00	-1.85	0.00
23	12	20	12	220.40	12.86	5.20	36.64	999.00	188.50	12.54	5.48	34.28	237.50	9.04	15.90	36.44	999.00	-0.50	999.00	-2.09	0.00
23	12	20	13	214.00	9.60	8.43	38.40	999.00	181.80	9.05	9.90	36.25	221.80	7.17	21.35	38.26	999.00	0.83	999.00	-2.22	0.00
23	12	20	14	211.90	8.11	12.35	40.68	999.00	179.10	7.74	13.10	38.31	230.60	6.92	28.13	40.51	999.00	-1.19	999.00	-2.15	0.00
23	12	20	15	202.30	9.80	6.93	40.68	999.00	171.20	9.40	8.46	38.31	219.10	7.04	18.13	40.51	999.00	0.77	999.00	-1.50	0.00
23	12	20	16	191.70	12.15	4.97	43.08	999.00	161.80	12.10	5.78	40.82	205.70	8.21	10.90	42.54	999.00	0.49	999.00	-0.95	0.00
23	12	20	17	185.70	12.78	2.32	41.63	999.00	155.00	11.80	2.37	40.62	192.70	4.32	10.75	41.35	999.00	0.01	999.00	0.02	0.00
23	12	20	18	177.50	13.72	1.94	41.63	999.00	143.00	11.70	1.60	40.62	164.10	3.70	6.07	41.35	999.00	0.82	999.00	1.00	0.00
23	12	20	19	173.40	11.99	2.37	39.93	999.00	137.20	10.65	2.09	39.85	156.10	2.91	13.37	38.79	999.00	1.24	999.00	1.25	0.00
23	12	20	20	179.20	9.13	1.88	40.00	999.00	133.90	7.37	3.51	39.40	122.00	2.49	6.48	38.62	999.00	1.16	999.00	1.00	0.00
23	12	20	21	202.10	7.11	3.06	40.08	999.00	153.10	5.61	4.53	40.08	122.10	2.65	5.47	38.78	999.00	1.60	999.00	1.56	0.00
23	12	20	22	194.90	6.45	4.00	40.07	999.00	141.60	5.78	5.18	39.90	145.90	3.17	5.73	38.04	999.00	2.13	999.00	2.18	0.00
23	12	20	23	184.20	11.30	2.62	39.70	999.00	138.80	10.62	1.71	39.58	159.40	3.73	9.99	38.15	999.00	1.34	999.00	1.13	0.00
23	12	20	24	177.70	10.05	1.85	39.49	999.00	131.30	10.21	2.90	38.68	148.50	2.81	6.09	37.87	999.00	2.02	999.00	1.10	0.00
23	12	21	1	193.30	8.63	2.17	39.52	999.00	149.20	10.04	2.75	38.98	145.20	1.98	7.09	37.12	999.00	2.42	999.00	1.92	0.00
23	12	21	2	203.90	9.77	2.16	39.51	999.00	155.90	9.45	2.35	38.82	144.60	2.37	9.61	36.81	999.00	2.75	999.00	2.09	0.00
23	12	21	3	200.10	9.49	1.76	38.62	999.00	151.00	7.51	2.59	38.09	137.20	2.07	6.75	36.64	999.00	1.73	999.00	1.10	0.00
23	12	21	4	210.30	10.25	1.52	38.44	999.00	168.20	7.56	3.52	37.95	138.40	1.84	5.13	36.65	999.00	1.85	999.00	1.08	0.00
23	12	21	5	217.40	9.29	2.50	38.44	999.00	178.70	5.98	2.43	37.95	134.30	1.79	4.08	36.65	999.00	2.06	999.00	1.69	0.00
23	12	21	6	240.90	2.80	14.24	37.88	999.00	200.20	1.15	82.70	37.75	71.80	2.36	19.61	36.82	999.00	0.38	999.00	0.72	0.00
23	12	21	7	49.94	4.00	6.31	37.34	999.00	29.03	4.47	4.39	37.58	105.40	3.38	8.42	37.18	999.00	-0.04	999.00	0.39	0.00
23	12	21	8	107.30	4.24	2.01	37.57	999.00	82.90	5.41	1.75	37.83	145.70	2.87	5.33	37.38	999.00	0.24	999.00	0.73	0.00
23	12	21	9	117.80	6.23	2.26	37.73	999.00	100.80	6.88	2.76	37.96	165.80	1.95	10.22	37.36	999.00	0.40	999.00	0.70	0.00
23	12	21	10	109.10	7.02	2.80	38.11	999.00	82.60	6.85	4.07	38.20	129.30	2.34	12.34	38.10	999.00	-0.25	999.00	0.00	0.00
23	12	21	11	110.60	6.78	6.58	38.11	999.00	74.80	4.82	10.36	38.20	125.20	3.21	17.13	38.10	999.00	-0.97	999.00	-1.28	0.00
23	12	21	12	84.80	10.70	5.63	39.26	999.00	52.69	9.40	8.03	38.63	116.70	6.20	10.09	39.84	999.00	-0.83	999.00	-1.13	0.00
23	12	21	13	92.00	11.61	1.96	38.89	999.00	54.88	11.11	4.10	38.58	111.70	7.00	11.53	40.06	999.00	-0.76	999.00	-1.10	0.00
23	12	21	14	101.20	12.74	1.47	39.27	999.00	64.48	11.59	2.65	38.70	114.40	6.77	10.54	39.73	999.00	-0.41	999.00	-0.84	0.00
23	12	21	15	99.70	12.89	1.42	39.25	999.00	66.12	11.89	2.58	39.00	116.80	6.06	9.07	39.74	999.00	-0.46	999.00	-0.59	0.00
23	12	21	16	97.40	9.90	3.34	39.02	999.00	61.28	9.86	2.61	38.80	113.10	5.30	10.41	39.53	999.00	-0.82	999.00	-0.79	0.00
23	12	21	17	98.20	11.62	2.00	38.65	999.00	64.16	11.51	2.03	38.63	107.00	5.72	10.50	39.24	999.00	-0.36	999.00	-0.43	0.00
23	12	21	18	105.50	13.80	1.01	38.54	999.00	70.20	12.93	2.76	38.68	120.90	4.05	12.45	38.73	999.00	-0.17	999.00	0.09	0.00
23	12	21	19	99.90	14.92	1.80	38.58	999.00	66.16	13.97	1.76	38.86	118.90	5.00	11.30	38.75	999.00	-0.21	999.00	0.26	0.00
23	12	21	20	100.80	15.09	2.25	38.58	999.00	66.87	13.96	2.99	38.86	123.80	5.15	13.89	38.75	999.00	-0.22	999.00	0.16	0.00
23	12	21	21	102.00	15.61	0.49	38.69	999.00	66.87	15.15	1.50	38.84	117.50	6.31	8.39	38.80	999.00	-0.18	999.00	0.21	0.00
23	12	21	22	101.00	15.64	0.91	38.64	999.00	66.29	13.78	2.15	38.73	118.00	5.22	9.58	38.76	999.00	-0.07	999.00	0.11	0.00
23	12	21	23	114.40	11.24	2.54	38.78	999.00	75.20	11.76	2.38	38.71	121.00	4.17	11.59	38.76	999.00	0.26	999.00	0.12	0.00
23	12	21	24	109.30	9.62	1.31	38.90	999.00	72.10	10.59	1.49	38.87	115.60	4.21	9.35	38.56	999.00	0.29	999.00	0.59	0.00
23	12	22	1	95.60	10.23	2.01	38.46	999.00	61.42	11.74	2.36	38.63	107.70	5.30	11.73	38.62	999.00	-0.46	999.00	-0.12	0.00
23	12	22	2	110.10	11.03	1.13	38.46	999.00	73.10	10.83	1.52	38.63	118.60	4.56	9.91	38.62	999.00	-0.26	999.00	-0.05	0.00
23	12	22	3	102.50	12.30	1.50	38.09	999.00	66.05	11.20	2.58	38.28	107.40	5.27	12.21	38.41	999.00	-0.40	999.00	0.01	0.00
23	12	22	4	118.70	12.88	1.56	38.04	999.00	84.50	12.49	2.20	38.24	133.80	4.69	8.22	38.38	999.00	-0.31	999.00	0.02	0.00
23	12	22	5	119.70	8.65	1.55	38.02	999.00	86.40	7.61	2.09	38.30	128.80	2.55	10.80	38.47	999.00	-0.46	999.00	0.03	0.00
23	12	22	6	113.00	9.69	1.68	37.99	999.00	79.40	9.21	1.84	38.36	125.00	3.27	7.83	38.28	999.00	-0.20	999.00	0.27	0.00
23	12	22	7	128.80	8.82	0.71	38.15	999.00	88.10	8.98	1.69	38.30	130.50	3.42	7.10	38.31	999.00	0.29	999.00	0.22	0.00
23	12	22	8	127.20	6.26	3.86	38.92	999.00	91.90	6.75	1.51	38.57	132.10	3.53	6.79	38.28	999.00	1.37	999.00	0.88	0.00
23	12	22	9	147.10	7.48	1.36	39.90	999.00	106.80	6.96	2.52	39.08	123.30	2.01	10.07	38.48	999.00	1.07	999.00	0.12	0.00
23	12	22	10	180.40	7.74	3.43	39.49	999.00	146.00	5.17	5.05	38.88	176.90	1.45	16.36	38.95	999.00	0.06	999.00	-0.27	0.00
23	12	22	11	180.00	6.63	5.02	38.87	999.00	136.70	5.84	6.62	39.00	161.60	2.72	15.48	39.81	999.00	-1.08	999.00	-0.75	0.00
23	12	22	12	177.50	4.60	8.14	38.31	999.00	148.60	4.05	6.85	38.85	178.80	1.80	22.69	39.93	999.00	-0.87	999.00	-0.95	0.00
23	12	22	13	168.90	3.51	15.42	40.58	999.00	125.20	2.67	19.01	40.27	152.20	2.04	19.23	41.63	999.00	-1.01	999.00	-1.00	0.00

23	12	22	14	121.30	6.54	2.54	40.98	999.00	85.00	6.75	4.98	40.41	122.60	4.16	12.77	41.01	999.00	0.12	999.00	-0.30	0.00
23	12	22	15	142.00	8.77	3.33	40.84	999.00	99.40	9.26	5.55	40.56	137.00	4.64	8.27	40.39	999.00	0.55	999.00	0.43	0.00
23	12	22	16	132.60	9.46	2.81	41.58	999.00	91.90	8.76	2.13	40.69	125.60	4.25	10.18	39.99	999.00	2.02	999.00	1.01	0.00
23	12	22	17	129.20	12.08	1.11	41.85	999.00	89.40	10.29	1.81	40.60	126.50	4.67	9.84	39.83	999.00	2.30	999.00	1.02	0.00
23	12	22	18	142.90	12.50	1.07	43.05	999.00	96.70	13.00	1.07	40.88	134.80	5.06	6.47	39.52	999.00	3.57	999.00	1.61	0.00
23	12	22	19	173.00	14.20	1.88	44.16	999.00	125.60	13.41	2.61	42.50	140.50	4.08	8.02	39.86	999.00	5.19	999.00	3.49	0.00
23	12	22	20	196.50	16.17	1.70	45.25	999.00	157.60	14.08	2.34	44.26	185.30	3.95	9.48	41.51	999.00	2.28	999.00	1.95	0.00
23	12	22	21	202.40	14.74	3.30	43.85	999.00	172.20	12.54	4.40	43.93	227.20	5.05	18.26	43.23	999.00	-0.36	999.00	0.13	0.00
23	12	22	22	196.60	12.26	8.25	42.59	999.00	167.10	9.46	10.13	43.23	218.50	2.69	51.49	43.06	999.00	0.39	999.00	0.61	0.00
23	12	22	23	195.90	11.54	2.57	42.96	999.00	163.30	9.40	3.02	43.10	197.70	2.51	12.25	42.26	999.00	0.81	999.00	1.10	0.00
23	12	22	24	210.10	14.74	3.04	42.96	999.00	176.60	11.95	3.24	43.10	211.90	3.77	11.85	42.26	999.00	-2.03	999.00	0.92	0.01
23	12	23	1	200.50	13.04	2.93	39.23	999.00	162.10	11.35	2.97	41.13	186.40	4.21	13.42	40.75	999.00	-0.82	999.00	0.69	0.02
23	12	23	2	203.00	12.86	3.18	39.15	999.00	161.50	10.42	3.88	40.19	184.00	3.67	12.59	39.68	999.00	-0.42	999.00	0.49	0.03
23	12	23	3	191.10	14.15	2.84	39.23	999.00	153.60	12.37	3.39	40.23	181.90	4.55	12.91	39.87	999.00	-0.92	999.00	0.22	0.03
23	12	23	4	180.30	14.43	4.20	38.19	999.00	142.90	12.10	4.39	39.73	175.30	4.95	12.48	39.50	999.00	-1.70	999.00	0.26	0.12
23	12	23	5	180.60	16.33	3.89	38.23	999.00	143.90	13.99	4.26	39.54	174.50	5.61	14.85	39.36	999.00	-0.86	999.00	0.43	0.06
23	12	23	6	173.80	16.07	3.65	38.58	999.00	137.00	13.48	4.85	39.67	169.60	5.01	15.36	39.57	999.00	-0.91	999.00	0.22	0.03
23	12	23	7	179.70	16.24	4.18	39.26	999.00	142.00	13.15	5.00	40.11	174.90	4.45	17.02	39.93	999.00	-0.35	999.00	0.62	0.02
23	12	23	8	196.90	15.97	3.71	40.18	999.00	162.90	13.93	4.52	40.98	202.10	6.28	13.10	40.58	999.00	-0.84	999.00	0.47	0.03
23	12	23	9	203.70	16.03	4.05	39.87	999.00	171.40	13.92	4.64	40.87	217.50	6.85	17.08	41.14	999.00	-1.37	999.00	-0.21	0.01
23	12	23	10	209.80	16.04	4.00	40.06	999.00	177.30	13.37	5.29	40.89	221.10	6.76	17.42	41.43	999.00	-1.31	999.00	-0.44	0.01
23	12	23	11	214.50	14.72	4.22	40.58	999.00	182.00	13.12	5.00	41.37	228.70	6.77	15.51	42.10	999.00	-1.56	999.00	-0.62	0.00
23	12	23	12	222.40	14.46	5.14	41.48	999.00	190.10	13.50	5.33	42.19	238.40	7.75	15.94	43.06	999.00	-1.60	999.00	-0.75	0.00
23	12	23	13	227.10	14.21	4.42	42.50	999.00	195.20	13.28	4.67	43.11	244.30	7.91	13.06	43.92	999.00	-1.32	999.00	-0.69	0.00
23	12	23	14	234.80	13.06	4.39	43.38	999.00	203.20	12.45	4.98	43.93	254.40	7.98	12.46	44.67	999.00	-1.32	999.00	-0.61	0.00
23	12	23	15	242.40	12.17	4.03	44.13	999.00	210.70	11.47	3.72	44.72	263.40	6.77	11.77	45.33	999.00	-1.02	999.00	-0.39	0.00
23	12	23	16	246.20	12.71	4.19	44.66	999.00	212.90	11.69	4.32	45.33	261.60	6.84	9.85	45.46	999.00	-0.80	999.00	0.16	0.00
23	12	23	17	245.60	10.24	3.65	45.00	999.00	211.60	9.02	3.68	45.74	252.90	4.35	12.36	45.80	999.00	-0.51	999.00	0.26	0.00
23	12	23	18	252.60	10.04	8.38	45.26	999.00	216.40	8.78	7.40	45.99	246.70	4.11	12.25	46.06	999.00	-0.79	999.00	0.17	0.00
23	12	23	19	265.60	9.91	7.84	45.32	999.00	227.80	9.16	9.04	46.05	245.10	3.54	12.02	46.08	999.00	-0.63	999.00	0.30	0.00
23	12	23	20	236.80	7.79	6.88	45.16	999.00	199.50	7.15	7.18	46.06	208.00	3.87	9.22	46.01	999.00	-0.92	999.00	0.10	0.01
23	12	23	21	260.20	6.33	3.98	45.14	999.00	219.80	5.21	4.96	46.07	225.90	2.28	12.74	46.06	999.00	-1.00	999.00	0.09	0.00
23	12	23	22	218.40	4.96	2.72	45.24	999.00	180.80	4.00	2.78	46.02	190.50	1.93	6.15	46.17	999.00	-0.88	999.00	-0.09	0.00
23	12	23	23	190.80	3.78	11.07	45.38	999.00	135.10	3.35	4.05	45.91	123.20	2.27	13.61	45.84	999.00	-0.20	999.00	0.36	0.00
23	12	23	24	207.00	9.62	2.56	44.99	999.00	172.50	8.30	3.10	45.58	194.20	3.00	10.57	45.01	999.00	-0.42	999.00	0.35	0.00
23	12	24	1	214.90	9.96	2.51	44.92	999.00	178.50	8.68	2.46	45.50	215.40	3.52	17.33	45.74	999.00	-0.88	999.00	-0.18	0.00
23	12	24	2	218.50	8.78	4.55	44.72	999.00	179.50	6.67	3.73	45.40	205.60	2.38	12.72	45.63	999.00	-0.75	999.00	-0.08	0.00
23	12	24	3	201.30	10.13	2.51	44.87	999.00	166.00	8.52	3.24	45.41	199.40	3.60	11.12	45.57	999.00	-0.88	999.00	-0.07	0.00
23	12	24	4	205.00	9.50	2.16	44.59	999.00	171.70	7.83	3.24	45.37	207.20	3.34	12.53	45.66	999.00	-1.04	999.00	-0.17	0.00
23	12	24	5	201.90	7.09	3.65	44.60	999.00	163.10	5.92	4.09	45.32	173.30	1.96	17.43	45.60	999.00	-0.93	999.00	-0.13	0.00
23	12	24	6	200.70	8.02	2.54	44.84	999.00	160.90	7.01	2.81	45.38	189.30	2.69	11.55	45.56	999.00	-0.73	999.00	0.04	0.00
23	12	24	7	185.50	7.88	1.96	44.75	999.00	141.10	7.81	2.54	45.37	144.90	2.73	10.23	45.55	999.00	-0.65	999.00	-0.08	0.00
23	12	24	8	185.70	9.84	3.67	45.29	999.00	146.10	8.75	2.45	45.40	163.00	2.41	16.95	45.37	999.00	-0.01	999.00	0.28	0.00
23	12	24	9	181.90	7.91	7.67	45.64	999.00	141.00	8.32	2.46	45.36	136.10	2.95	11.07	45.08	999.00	1.24	999.00	0.71	0.00
23	12	24	10	182.60	10.80	1.95	45.65	999.00	140.90	8.95	3.08	45.36	151.50	2.45	13.91	44.62	999.00	0.74	999.00	0.94	0.00
23	12	24	11	193.20	9.18	3.66	45.73	999.00	146.40	7.40	4.39	45.40	155.00	2.73	14.35	45.66	999.00	0.02	999.00	-0.29	0.00
23	12	24	12	186.20	8.19	6.70	46.21	999.00	153.70	7.42	7.83	46.07	184.80	4.02	15.40	47.02	999.00	-1.09	999.00	-0.75	0.00
23	12	24	13	167.80	5.72	10.11	47.34	999.00	133.80	5.37	11.17	47.21	166.80	3.62	19.02	48.52	999.00	-1.55	999.00	-1.20	0.00
23	12	24	14	182.10	6.95	6.86	48.11	999.00	148.10	7.08	6.62	48.14	177.70	3.93	16.31	49.43	999.00	-1.53	999.00	-1.00	0.00
23	12	24	15	196.00	6.10	7.35	49.18	999.00	164.00	5.83	6.70	49.21	200.70	3.08	16.08	50.63	999.00	-1.34	999.00	-0.77	0.00
23	12	24	16	161.70	5.41	4.59	49.18	999.00	126.90	4.93	5.26	49.21	123.50	2.83	7.61	50.63	999.00	2.43	999.00	2.66	0.00
23	12	24	17	143.80	7.07	2.11	49.82	999.00	107.50	7.14	2.68	49.94	110.70	3.73	9.11	46.36	999.00	4.97	999.00	4.88	0.00
23	12	24	18	149.20	8.25	1.93	49.92	999.00	106.10	8.17	2.09	49.57	130.70	3.62	7.05	44.14	999.00	6.37	999.00	5.99	0.00

23	12	24	19	149.80	11.05	2.01	50.35	999.00	108.90	10.74	3.36	49.87	128.60	4.41	6.42	43.74	999.00	6.73	999.00	6.58	0.00
23	12	24	20	149.00	13.95	2.57	50.58	999.00	109.70	14.16	2.65	49.83	132.40	4.70	6.11	44.26	999.00	5.51	999.00	5.77	0.00
23	12	24	21	141.90	13.60	1.47	50.39	999.00	105.90	14.24	1.40	50.18	130.40	5.37	6.78	46.18	999.00	3.88	999.00	3.99	0.00
23	12	24	22	136.40	11.73	1.92	50.22	999.00	103.90	13.30	1.64	50.15	125.10	4.13	6.91	45.69	999.00	5.59	999.00	5.80	0.00
23	12	24	23	155.10	17.17	3.30	51.45	999.00	115.40	15.75	1.93	50.73	131.30	5.32	5.94	44.52	999.00	7.35	999.00	6.51	0.00
23	12	24	24	136.70	14.34	0.64	51.31	999.00	100.30	15.34	1.16	50.16	128.40	4.89	6.68	44.79	999.00	5.54	999.00	5.24	0.00
23	12	25	1	131.10	15.43	2.05	49.94	999.00	95.00	13.97	1.66	49.37	127.60	4.71	5.62	45.56	999.00	4.04	999.00	3.82	0.00
23	12	25	2	143.10	16.51	0.82	49.94	999.00	102.40	15.39	1.18	49.37	129.10	4.78	4.49	45.56	999.00	5.14	999.00	4.75	0.00
23	12	25	3	153.80	15.94	1.51	49.76	999.00	114.80	14.03	1.61	48.88	130.70	4.85	4.31	44.44	999.00	5.33	999.00	4.95	0.00
23	12	25	4	161.90	17.99	1.00	49.84	999.00	123.60	14.16	1.24	48.73	126.70	3.37	4.48	42.52	999.00	7.99	999.00	7.36	0.00
23	12	25	5	158.00	19.30	0.63	49.38	999.00	118.80	15.43	0.93	48.68	125.50	3.89	4.86	41.29	999.00	999.00	999.00	7.97	0.00
23	12	25	6	139.90	18.56	1.84	999.00	999.00	96.60	15.06	2.41	48.66	118.10	6.33	6.13	40.83	999.00	999.00	999.00	7.80	0.00
23	12	25	7	143.60	19.17	1.40	999.00	999.00	99.60	16.36	1.50	48.29	118.20	5.68	5.43	41.15	999.00	999.00	999.00	7.83	0.00
23	12	25	8	148.70	18.43	1.42	49.19	999.00	109.70	14.71	1.34	48.11	121.70	4.31	4.06	41.28	999.00	7.81	999.00	6.94	0.00
23	12	25	9	144.00	19.40	1.07	48.97	999.00	101.90	15.58	1.78	48.14	118.90	6.24	5.79	41.13	999.00	999.00	999.00	6.86	0.00
23	12	25	10	140.50	16.03	1.11	50.26	999.00	93.10	12.31	3.22	46.89	118.00	4.48	10.16	43.15	999.00	6.05	999.00	2.31	0.00
23	12	25	11	148.10	14.19	1.70	51.18	999.00	111.00	11.51	2.48	47.04	130.60	5.04	8.51	45.47	999.00	5.45	999.00	3.49	0.00
23	12	25	12	138.40	9.90	3.14	53.44	999.00	93.00	9.37	5.54	49.29	112.20	5.79	8.47	47.99	999.00	6.56	999.00	2.72	0.00
23	12	25	13	124.10	10.41	1.97	55.22	999.00	82.30	10.36	1.72	51.31	115.80	6.97	8.48	47.53	999.00	7.99	999.00	4.88	0.00
23	12	25	14	111.30	13.40	1.45	55.50	999.00	69.71	14.15	1.85	52.97	115.30	8.45	7.98	46.88	999.00	7.76	999.00	5.40	0.00
23	12	25	15	115.60	16.88	3.93	55.87	999.00	74.20	17.62	2.50	52.36	122.00	6.38	10.11	48.40	999.00	7.10	999.00	4.68	0.00
23	12	25	16	119.70	15.65	1.24	54.00	999.00	83.50	16.07	1.37	52.81	115.20	7.19	7.46	46.21	999.00	7.99	999.00	7.97	0.00
23	12	25	17	116.70	21.28	1.56	999.00	999.00	76.90	20.57	2.63	52.30	113.00	7.10	9.69	45.17	999.00	999.00	999.00	7.97	0.00
23	12	25	18	121.80	24.68	0.61	999.00	999.00	85.50	20.92	2.13	53.39	122.40	7.85	8.71	45.58	999.00	999.00	999.00	7.82	0.00
23	12	25	19	127.90	24.19	1.08	999.00	999.00	92.30	18.32	1.27	54.27	127.70	6.59	8.35	46.47	999.00	999.00	999.00	7.97	0.00
23	12	25	20	144.60	25.44	1.86	54.33	999.00	112.00	21.16	1.87	55.49	136.40	6.04	4.86	46.83	999.00	6.08	999.00	7.94	0.00
23	12	25	21	142.90	24.98	4.09	54.21	999.00	110.70	22.32	4.22	55.21	140.00	6.86	5.74	48.20	999.00	5.29	999.00	6.61	0.01
23	12	25	22	141.10	21.90	3.48	54.27	999.00	110.30	19.26	4.47	54.45	147.60	7.76	10.46	52.38	999.00	0.45	999.00	0.84	0.00
23	12	25	23	142.10	20.90	3.21	54.35	999.00	110.80	18.03	4.51	54.41	141.30	6.98	6.76	52.63	999.00	1.24	999.00	2.03	0.01
23	12	25	24	132.70	20.77	1.68	53.33	999.00	96.70	19.98	1.44	53.72	131.60	6.21	7.07	49.94	999.00	4.11	999.00	4.62	0.00
23	12	26	1	146.20	19.80	5.06	53.33	999.00	115.30	16.36	5.76	53.72	139.40	6.05	7.13	49.94	999.00	2.16	999.00	2.80	0.01
23	12	26	2	145.80	21.02	4.40	52.33	999.00	114.40	17.91	5.50	52.49	150.90	8.19	11.57	52.35	999.00	-0.23	999.00	0.11	0.00
23	12	26	3	152.90	19.00	3.86	52.75	999.00	122.40	16.44	4.55	52.97	159.20	7.92	11.99	53.18	999.00	-0.49	999.00	-0.09	0.00
23	12	26	4	155.50	17.60	3.92	52.23	999.00	123.60	14.80	4.36	52.45	158.50	6.55	12.64	52.62	999.00	-0.36	999.00	-0.02	0.00
23	12	26	5	165.50	18.23	3.77	51.92	999.00	134.70	15.56	4.54	52.13	170.30	5.86	15.18	52.07	999.00	-0.48	999.00	0.24	0.00
23	12	26	6	173.50	17.21	3.89	51.37	999.00	141.70	15.00	4.13	51.95	177.10	5.43	15.06	51.84	999.00	-0.26	999.00	0.46	0.00
23	12	26	7	167.00	16.79	4.53	51.37	999.00	135.70	14.31	6.06	51.94	172.00	5.65	16.90	51.98	999.00	-0.15	999.00	0.14	0.00
23	12	26	8	172.60	16.03	2.69	51.81	999.00	140.70	13.49	3.55	51.97	170.50	4.34	15.11	51.93	999.00	0.09	999.00	0.22	0.00
23	12	26	9	170.90	13.36	2.81	51.60	999.00	139.30	10.85	4.27	51.95	169.40	3.94	14.97	51.92	999.00	-0.11	999.00	0.14	0.00
23	12	26	10	172.20	13.18	3.17	52.06	999.00	139.30	10.73	4.60	51.95	171.00	4.21	15.75	52.13	999.00	-0.22	999.00	-0.15	0.00
23	12	26	11	176.10	12.50	4.72	52.52	999.00	147.20	11.18	5.89	52.58	188.30	5.62	17.32	53.55	999.00	-1.40	999.00	-0.77	0.00
23	12	26	12	182.90	10.76	3.99	52.52	999.00	153.10	10.70	4.89	52.58	192.60	5.61	16.22	53.55	999.00	-1.25	999.00	-0.81	0.00
23	12	26	13	178.30	8.79	7.90	54.38	999.00	147.10	8.69	7.38	53.99	186.90	5.27	16.81	55.44	999.00	-1.21	999.00	-0.98	0.00
23	12	26	14	176.60	8.33	8.76	54.91	999.00	145.80	7.99	8.49	54.75	185.40	4.45	17.24	56.11	999.00	-0.98	999.00	-0.82	0.00
23	12	26	15	187.40	8.35	5.03	56.22	999.00	157.00	7.88	8.31	55.61	135.80	2.70	22.64	56.74	999.00	0.35	999.00	0.29	0.00
23	12	26	16	191.00	4.71	6.31	56.22	999.00	158.60	4.36	6.89	55.61	82.60	3.07	18.19	56.74	999.00	3.17	999.00	3.45	0.00
23	12	26	17	152.60	2.51	17.45	54.35	999.00	98.10	3.65	15.31	55.00	117.40	3.67	9.95	49.04	999.00	6.05	999.00	6.28	0.00
23	12	26	18	136.90	5.21	16.90	53.05	999.00	86.70	6.57	14.07	53.27	130.10	5.14	5.85	48.10	999.00	4.03	999.00	4.52	0.00
23	12	26	19	104.90	13.51	3.51	53.05	999.00	65.75	15.59	2.81	52.91	120.80	7.35	9.35	49.08	999.00	3.80	999.00	3.59	0.00
23	12	26	20	91.90	14.42	1.44	52.72	999.00	64.32	14.93	2.06	51.99	130.10	4.13	9.15	49.01	999.00	3.52	999.00	3.02	0.00
23	12	26	21	95.30	14.35	3.48	51.11	999.00	64.02	12.23	5.68	50.38	137.40	4.64	9.92	48.65	999.00	1.45	999.00	0.95	0.10
23	12	26	22	121.10	11.76	4.34	51.19	999.00	99.10	12.57	3.57	49.69	144.90	5.22	11.00	47.22	999.00	5.58	999.00	3.83	0.02
23	12	26	23	133.60	4.44	6.47	51.35	999.00	111.10	4.90	21.83	49.54	298.80	2.04	16.89	46.32	999.00	5.01	999.00	4.38	0.01

23	12	26	24	263.30	5.20	26.69	50.59	999.00	249.10	3.81	28.46	49.76	344.00	3.09	49.85	46.20	999.00	3.85	999.00	3.47	0.01
23	12	27	1	298.70	15.28	3.49	49.00	999.00	266.30	12.86	4.89	48.29	329.60	3.10	11.19	44.31	999.00	4.19	999.00	4.14	0.04
23	12	27	2	318.90	9.63	4.51	45.21	999.00	289.10	7.85	7.35	45.30	326.00	4.40	16.62	44.05	999.00	-0.57	999.00	-0.49	0.05
23	12	27	3	321.50	23.62	2.53	45.17	999.00	288.80	20.17	4.26	44.91	323.90	10.26	8.60	44.51	999.00	0.73	999.00	0.33	0.01
23	12	27	4	309.60	20.84	3.21	45.99	999.00	273.60	18.38	4.56	46.02	306.50	9.40	10.32	45.65	999.00	-0.45	999.00	-0.22	0.00
23	12	27	5	304.00	18.20	3.12	45.99	999.00	269.60	15.99	4.41	46.02	308.30	8.44	10.52	45.65	999.00	-1.06	999.00	-0.60	0.01
23	12	27	6	304.50	19.59	4.97	44.24	999.00	270.10	17.50	5.69	45.36	302.70	10.55	10.57	45.38	999.00	-1.24	999.00	-0.77	0.00
23	12	27	7	307.70	20.06	4.33	43.59	999.00	273.40	17.86	5.11	44.01	310.10	10.60	11.53	44.41	999.00	-0.80	999.00	-0.84	0.00
23	12	27	8	299.10	17.16	4.68	43.21	999.00	264.60	16.16	4.61	43.74	296.60	10.21	9.07	44.03	999.00	-0.90	999.00	-0.92	0.00
23	12	27	9	305.70	19.80	5.09	42.53	999.00	271.30	18.67	5.59	43.12	307.10	11.92	10.95	43.65	999.00	-1.29	999.00	-0.96	0.00
23	12	27	10	313.00	22.68	4.73	42.26	999.00	278.40	20.77	5.85	42.77	315.20	12.12	12.19	43.53	999.00	-1.18	999.00	-0.93	0.00
23	12	27	11	317.80	18.66	4.51	42.24	999.00	282.10	16.56	6.09	42.42	318.10	8.89	12.06	43.06	999.00	-0.59	999.00	-0.85	0.00
23	12	27	12	325.90	16.16	3.90	42.10	999.00	290.30	14.73	5.47	42.48	325.60	9.80	8.56	43.21	999.00	-1.48	999.00	-1.20	0.00
23	12	27	13	326.30	14.74	4.79	42.60	999.00	289.30	13.31	5.79	42.80	319.50	7.73	11.37	43.84	999.00	-1.28	999.00	-1.05	0.00
23	12	27	14	308.10	12.55	5.08	43.63	999.00	269.50	11.52	5.57	43.69	297.70	7.21	10.22	44.70	999.00	-1.40	999.00	-1.08	0.00
23	12	27	15	301.20	11.84	5.41	44.71	999.00	266.40	10.92	5.68	45.05	300.30	7.33	9.74	46.20	999.00	-1.46	999.00	-1.00	0.00
23	12	27	16	298.10	14.63	4.28	45.11	999.00	263.90	13.62	4.85	45.59	297.60	8.69	9.89	46.68	999.00	-1.69	999.00	-0.89	0.00
23	12	27	17	314.00	12.77	2.97	44.10	999.00	280.60	11.62	4.49	45.14	317.90	6.60	11.09	46.18	999.00	-1.75	999.00	-1.00	0.00
23	12	27	18	323.30	14.74	3.24	43.64	999.00	288.40	13.80	4.34	44.05	321.40	8.46	8.81	44.52	999.00	-1.01	999.00	-0.23	0.00
23	12	27	19	324.60	15.32	2.37	43.10	999.00	288.40	14.58	3.51	43.58	321.90	8.46	9.99	44.11	999.00	-0.99	999.00	-0.39	0.00
23	12	27	20	313.80	15.45	2.74	42.88	999.00	275.80	14.88	3.66	43.38	311.40	8.41	11.16	43.89	999.00	-1.18	999.00	-0.48	0.00
23	12	27	21	312.50	15.24	3.15	42.55	999.00	276.10	14.30	4.20	43.23	311.90	8.30	11.11	43.93	999.00	-1.39	999.00	-0.63	0.00
23	12	27	22	324.80	14.87	3.70	42.55	999.00	289.50	13.11	4.89	43.23	324.00	7.09	13.20	43.93	999.00	-1.20	999.00	-0.55	0.00
23	12	27	23	343.20	17.81	1.80	42.75	999.00	306.00	15.98	3.53	42.98	337.60	9.11	10.96	43.38	999.00	-0.46	999.00	-0.10	0.00
23	12	27	24	2.01	17.33	3.63	43.25	999.00	321.40	15.70	5.93	43.23	355.00	8.69	9.33	43.24	999.00	-0.01	999.00	0.22	0.00
23	12	28	1	29.71	12.92	9.21	43.01	999.00	352.30	10.98	9.86	43.35	19.50	7.34	14.83	43.53	999.00	-0.69	999.00	-0.11	0.00
23	12	28	2	34.30	15.21	2.19	42.68	999.00	0.35	12.90	2.46	43.03	52.13	9.10	10.02	42.96	999.00	-0.54	999.00	0.10	0.00
23	12	28	3	38.79	14.03	2.74	42.15	999.00	2.25	9.83	7.50	42.53	29.10	4.73	19.37	42.61	999.00	-0.49	999.00	-0.08	0.00
23	12	28	4	43.00	7.19	7.73	41.36	999.00	2.88	4.98	15.18	41.54	353.90	2.92	25.75	41.78	999.00	-0.61	999.00	-0.25	0.00
23	12	28	5	22.90	8.27	13.19	40.84	999.00	346.10	6.88	14.57	41.31	341.10	2.95	23.69	41.76	999.00	-1.13	999.00	-0.44	0.00
23	12	28	6	0.75	6.09	10.88	40.62	999.00	317.80	5.28	12.72	41.15	340.00	3.58	11.54	41.73	999.00	-1.16	999.00	-0.48	0.01
23	12	28	7	16.16	8.29	12.92	40.43	999.00	339.70	7.65	12.37	40.96	356.00	4.40	19.91	41.59	999.00	-1.07	999.00	-0.43	0.01
23	12	28	8	23.34	6.86	11.12	40.58	999.00	341.60	6.41	11.52	41.10	348.30	5.38	8.01	41.63	999.00	-1.00	999.00	-0.35	0.01
23	12	28	9	22.11	5.96	10.93	40.62	999.00	339.20	5.77	10.82	41.07	8.09	4.70	13.05	41.63	999.00	-1.04	999.00	-0.44	0.00
23	12	28	10	7.06	5.94	5.05	40.78	999.00	328.10	6.26	3.96	41.19	1.61	5.09	7.16	41.84	999.00	-1.00	999.00	-0.46	0.01
23	12	28	11	342.70	3.98	8.42	40.85	999.00	306.70	3.79	8.75	41.24	330.10	3.36	8.99	41.99	999.00	-1.29	999.00	-0.87	0.02
23	12	28	12	332.20	3.94	7.17	41.08	999.00	295.50	4.32	7.66	41.54	341.40	3.92	10.73	42.49	999.00	-1.41	999.00	-0.96	0.01
23	12	28	13	257.30	3.18	24.59	41.08	999.00	229.90	3.09	21.12	41.54	293.40	2.56	25.98	42.49	999.00	-1.94	999.00	-1.89	0.00
23	12	28	14	232.90	5.73	10.15	41.63	999.00	204.50	5.50	9.04	42.39	243.80	4.16	10.85	43.37	999.00	-1.68	999.00	-0.94	0.00
23	12	28	15	247.10	3.41	26.27	41.99	999.00	242.90	2.79	30.04	42.68	0.80	2.68	10.59	43.54	999.00	-1.20	999.00	-0.69	0.00
23	12	28	16	234.60	9.25	8.84	42.36	999.00	209.40	8.40	11.77	43.04	269.70	5.11	22.62	43.54	999.00	-1.42	999.00	-0.43	0.00
23	12	28	17	216.60	10.69	3.60	42.33	999.00	183.90	9.57	4.38	42.80	218.10	4.47	12.50	43.58	999.00	-0.68	999.00	-0.25	0.00
23	12	28	18	209.30	15.35	3.72	43.34	999.00	176.60	13.92	4.48	43.11	211.80	6.91	14.05	43.59	999.00	-0.18	999.00	-0.19	0.00
23	12	28	19	213.40	15.28	4.22	42.12	999.00	181.40	13.76	4.95	42.50	219.60	6.22	14.39	42.74	999.00	0.12	999.00	0.48	0.00
23	12	28	20	216.30	18.14	3.81	41.42	999.00	184.70	16.84	4.33	41.49	220.10	8.81	12.67	41.34	999.00	-0.14	999.00	0.23	0.00
23	12	28	21	222.70	15.19	4.99	40.26	999.00	190.70	14.53	4.96	40.45	231.00	9.02	10.42	40.69	999.00	-0.63	999.00	-0.34	0.00
23	12	28	22	226.50	17.92	3.77	39.32	999.00	194.10	17.17	4.38	39.62	231.50	11.05	11.33	40.23	999.00	-1.03	999.00	-0.57	0.00
23	12	28	23	225.20	14.35	5.48	38.24	999.00	192.20	13.69	5.77	38.54	226.00	8.16	13.03	39.32	999.00	-1.08	999.00	-0.51	0.00
23	12	28	24	232.80	13.58	4.27	37.42	999.00	200.60	12.89	4.98	37.70	240.50	9.09	8.56	38.28	999.00	-0.67	999.00	-0.50	0.00
23	12	29	1	229.60	10.37	4.28	36.83	999.00	196.30	9.47	4.70	37.12	231.30	6.20	9.56	37.69	999.00	-1.02	999.00	-0.44	0.00
23	12	29	2	206.70	11.33	6.18	36.42	999.00	174.30	10.55	6.82	36.57	209.30	6.11	14.41	37.88	999.00	-1.58	999.00	-0.43	0.00
23	12	29	3	213.10	11.15	7.78	35.86	999.00	181.00	10.40	7.64	36.23	215.20	5.89	15.03	37.45	999.00	-1.58	999.00	0.03	0.00
23	12	29	4	194.00	9.44	3.36	35.66	999.00	161.10	9.23	3.61	36.14	197.10	5.41	10.72	37.22	999.00	-1.59	999.00	-0.20	0.00

23	12	29	5	186.20	8.93	3.85	35.00	999.00	153.90	8.52	4.39	35.47	192.50	4.73	12.90	36.54	999.00	-1.58	999.00	-0.86	0.00
23	12	29	6	201.10	8.24	2.43	34.28	999.00	166.20	7.44	3.03	34.73	202.30	4.90	9.73	35.80	999.00	-1.48	999.00	-0.95	0.00
23	12	29	7	237.00	10.05	3.06	34.44	999.00	206.30	8.72	4.86	34.74	228.80	4.58	10.53	35.42	999.00	-0.74	999.00	-0.27	0.00
23	12	29	8	225.30	10.45	2.06	34.43	999.00	190.80	9.61	2.11	34.91	224.40	4.30	11.91	35.57	999.00	-0.90	999.00	-0.41	0.00
23	12	29	9	228.10	10.55	3.75	34.69	999.00	195.20	9.90	3.23	34.82	230.90	4.25	12.26	34.98	999.00	-0.32	999.00	-0.17	0.00
23	12	29	10	235.70	11.39	5.76	37.37	999.00	203.90	10.25	5.93	35.34	251.80	8.03	13.02	36.51	999.00	0.98	999.00	-1.46	0.00
23	12	29	11	253.50	12.76	5.99	38.26	999.00	222.50	12.58	6.30	37.02	274.00	10.05	11.46	38.79	999.00	-1.26	999.00	-1.65	0.00
23	12	29	12	257.90	13.76	5.39	37.38	999.00	224.70	13.05	6.36	37.45	275.50	9.72	12.39	38.94	999.00	-1.73	999.00	-1.35	0.00
23	12	29	13	241.00	16.18	8.93	37.06	999.00	209.90	15.69	9.62	37.17	255.90	11.53	16.71	38.71	999.00	-1.77	999.00	-1.33	0.00
23	12	29	14	233.60	14.00	5.82	36.37	999.00	201.20	13.43	6.27	36.72	245.40	9.37	14.70	38.08	999.00	-1.61	999.00	-1.19	0.00
23	12	29	15	230.40	13.80	5.03	36.80	999.00	197.80	13.37	4.59	37.17	238.20	9.13	12.36	38.48	999.00	-1.67	999.00	-1.13	0.00
23	12	29	16	239.80	14.08	4.59	36.90	999.00	207.80	13.56	4.61	37.36	252.00	10.05	10.01	38.55	999.00	-1.62	999.00	-0.99	0.00
23	12	29	17	240.70	16.43	4.29	36.40	999.00	208.40	15.67	4.83	37.39	257.70	11.00	10.86	38.42	999.00	-2.28	999.00	-0.82	0.00
23	12	29	18	247.00	16.13	5.02	35.58	999.00	214.50	15.44	5.78	36.81	269.30	11.33	11.28	37.45	999.00	-1.63	999.00	-0.83	0.00
23	12	29	19	236.00	15.36	4.72	34.83	999.00	202.00	14.04	5.62	35.70	246.20	9.07	12.31	36.33	999.00	-1.33	999.00	-0.81	0.00
23	12	29	20	246.70	16.62	4.97	35.46	999.00	213.00	15.36	5.03	35.97	265.10	10.76	11.12	36.65	999.00	-1.16	999.00	-0.94	0.00
23	12	29	21	254.80	16.40	5.95	35.87	999.00	220.40	15.15	6.06	36.31	270.40	10.70	11.27	37.06	999.00	-1.22	999.00	-0.93	0.00
23	12	29	22	259.30	15.97	5.22	35.72	999.00	224.30	14.69	6.05	36.34	274.70	9.41	10.50	37.14	999.00	-1.36	999.00	-0.91	0.00
23	12	29	23	257.30	15.22	5.53	35.71	999.00	223.70	13.75	5.77	36.41	274.20	9.56	11.08	37.23	999.00	-1.72	999.00	-0.85	0.00
23	12	29	24	257.00	15.44	4.63	35.59	999.00	224.10	14.01	6.00	36.26	271.20	8.61	10.72	37.12	999.00	-1.46	999.00	-0.79	0.00
23	12	30	1	257.70	15.06	5.23	35.62	999.00	224.10	13.40	6.21	36.35	272.80	8.11	11.64	37.08	999.00	-1.40	999.00	-0.75	0.01
23	12	30	2	258.90	15.89	4.48	35.73	999.00	225.10	14.49	5.77	36.39	277.20	9.60	9.77	37.08	999.00	-1.34	999.00	-0.64	0.00
23	12	30	3	263.00	14.45	5.25	35.73	999.00	228.70	13.29	5.32	36.39	279.10	8.58	10.67	37.08	999.00	-1.27	999.00	-0.62	0.00
23	12	30	4	272.00	14.03	4.42	36.13	999.00	236.10	12.53	5.52	36.62	282.70	7.32	10.35	37.35	999.00	-1.14	999.00	-0.59	0.00
23	12	30	5	347.60	13.74	26.45	36.80	999.00	312.20	13.13	29.86	37.20	345.00	10.20	34.94	37.81	999.00	-1.19	999.00	-0.49	0.00
23	12	30	6	336.30	10.73	5.50	35.62	999.00	304.20	9.72	6.18	36.15	339.40	6.10	10.23	36.89	999.00	-1.12	999.00	-0.66	0.00
23	12	30	7	330.00	15.75	4.91	35.96	999.00	297.00	15.19	5.96	36.17	334.80	10.84	8.79	36.40	999.00	-0.48	999.00	-0.54	0.00
23	12	30	8	332.40	16.18	4.06	33.68	999.00	299.10	15.77	5.37	33.99	335.20	10.55	9.44	34.44	999.00	-0.91	999.00	-0.80	0.00
23	12	30	9	333.90	13.11	5.95	33.41	999.00	300.10	12.45	6.82	32.97	332.80	7.82	10.48	33.76	999.00	-0.35	999.00	-1.20	0.00
23	12	30	10	332.30	12.27	7.10	35.01	999.00	298.80	12.04	8.18	33.68	338.50	9.40	10.49	35.41	999.00	-0.78	999.00	-2.45	0.00
23	12	30	11	295.40	10.77	14.47	34.67	999.00	261.50	10.32	15.23	34.34	306.30	7.73	16.52	35.65	999.00	-0.19	999.00	-3.01	0.00
23	12	30	12	321.80	12.93	7.97	33.78	999.00	290.20	12.51	7.73	33.80	330.50	10.25	7.62	34.78	999.00	-1.41	999.00	-1.27	0.00
23	12	30	13	288.20	8.55	11.39	34.34	999.00	255.80	7.83	10.55	34.30	303.90	5.98	10.21	35.77	999.00	-1.29	999.00	-1.07	0.00
23	12	30	14	271.20	11.68	7.35	36.53	999.00	239.70	11.42	8.16	36.02	293.90	8.53	10.15	37.92	999.00	-1.53	999.00	-0.34	0.00
23	12	30	15	260.30	13.78	7.08	37.26	999.00	226.60	13.28	7.76	37.36	275.20	8.92	12.31	38.76	999.00	-1.51	999.00	-0.90	0.00
23	12	30	16	257.40	10.72	5.07	38.20	999.00	225.50	10.17	6.10	38.35	275.30	7.37	11.14	39.63	999.00	-1.34	999.00	-0.62	0.00
23	12	30	17	249.50	12.99	3.55	39.02	999.00	216.00	12.25	3.94	39.22	266.10	8.15	11.09	40.23	999.00	-1.24	999.00	-0.22	0.00
23	12	30	18	248.50	12.44	4.36	38.86	999.00	216.00	11.46	4.82	39.31	268.80	6.84	9.99	40.00	999.00	-1.05	999.00	0.08	0.00
23	12	30	19	246.40	17.07	4.81	37.66	999.00	213.30	16.31	4.69	38.17	263.80	11.57	9.95	38.97	999.00	-1.46	999.00	0.43	0.00
23	12	30	20	254.30	13.34	5.08	36.54	999.00	221.10	11.67	6.43	36.97	268.90	7.06	11.60	37.81	999.00	-1.23	999.00	-0.56	0.00
23	12	30	21	243.50	18.97	3.15	36.45	999.00	210.50	18.47	3.52	36.91	259.80	12.91	10.16	37.79	999.00	-1.53	999.00	-0.84	0.00
23	12	30	22	245.80	18.29	5.75	35.01	999.00	212.80	17.68	5.65	35.54	264.50	12.60	11.40	36.60	999.00	-1.60	999.00	-0.93	0.00
23	12	30	23	247.40	18.19	6.63	34.57	999.00	214.00	17.37	6.87	35.10	268.70	12.84	10.45	36.16	999.00	-1.59	999.00	-0.91	0.00
23	12	30	24	248.40	21.67	5.72	34.37	999.00	214.10	20.65	6.06	34.89	267.00	13.55	12.34	35.96	999.00	-1.57	999.00	-0.90	0.00
23	12	31	1	251.90	16.68	6.47	33.90	999.00	218.30	15.60	6.96	34.43	272.40	11.44	12.80	35.49	999.00	-1.55	999.00	-0.90	0.00
23	12	31	2	231.90	8.21	5.16	33.71	999.00	195.30	7.15	5.97	34.19	236.20	4.33	15.89	35.16	999.00	-1.30	999.00	-0.82	0.00
23	12	31	3	197.80	11.85	4.05	33.76	999.00	163.30	10.80	4.20	34.16	197.80	5.80	12.13	35.05	999.00	-1.35	999.00	-0.82	0.00
23	12	31	4	181.80	14.28	4.66	33.92	999.00	146.80	12.64	5.21	34.28	156.00	5.59	12.00	35.24	999.00	-1.30	999.00	-0.81	0.00
23	12	31	5	191.00	13.58	4.83	34.52	999.00	156.20	12.16	4.95	34.90	161.50	6.47	9.60	35.82	999.00	-1.27	999.00	-0.80	0.00
23	12	31	6	199.50	13.70	4.60	34.52	999.00	166.10	12.31	5.16	34.90	168.10	7.00	10.78	35.82	999.00	-1.37	999.00	-0.76	0.00
23	12	31	7	200.40	15.21	4.40	35.41	999.00	168.20	13.84	4.75	35.87	171.70	7.51	11.23	36.83	999.00	-1.40	999.00	-0.83	0.00
23	12	31	8	199.10	16.46	3.92	999.00	999.00	166.60	14.79	4.54	999.00	170.90	8.43	11.28	36.92	999.00	-1.34	999.00	-0.81	0.00
23	12	31	9	197.40	15.15	4.41	35.65	999.00	166.00	14.34	5.12	36.30	170.10	8.29	9.86	37.25	999.00	-2.08	999.00	-0.81	0.00

[illegible]

L-24-072
Enclosure C

**Contract Laboratory Monthly Progress Report for January through December
2023 which contains the 2023 Radiological Environmental Monitoring Program
Sample Analysis Results**

(1 Report follows)



MONTHLY
PROGRESS REPORT

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

DAVIS-BESSE NUCLEAR POWER STATION
OAK HARBOR, OHIO

Reporting Period: January-December, 2023

Prepared and Submitted by
MICROBAC LABORATORIES, INC.

Project Number: 8003

Reviewed and
Approved

A handwritten signature in black ink, appearing to read "A. Banavali", is written over a horizontal line.

A. Banavali, PhD.
Laboratory Director

Date

2/15/24

Distribution: B. Muller, Davis-Besse (1 copy, calculation sheet and Original Raw Data)
P. Hintz, Ohio Department of Health

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1.0 INTRODUCTION

The following constitutes the current 2023 Monthly Progress Report for the Radiological Environmental Monitoring Program conducted at the Davis-Besse Nuclear Power Station in Oak Harbor, Ohio. Results of completed analyses are presented in the attached tables.

All activities, except gross alpha and gross beta, are decay corrected to the time of collection.

All samples were collected within the scheduled period unless noted otherwise in the Listing of Missed Samples.

2.0 LISTING OF MISSED SAMPLES

Sample Type	Location	Expected Collection Date	Reason
TLD	T-54	1st Qtr. '23	Sample lost in field.

3.0 DATA TABULATIONS

Table 1. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131^a.

Location: T-1

Units: pCi/m³

Collection: Continuous, weekly exchange.

Date Collected	Volume (m³)	Gross Beta		Date Collected	Volume (m³)	Gross Beta	
<u>Required LLD</u>		<u>0.010</u>		<u>Required LLD</u>		<u>0.010</u>	
01-10-23	570	0.018 ± 0.002	< 0.002	07-05-23	652	0.031 ± 0.002	< 0.002
01-17-23	572	0.025 ± 0.002	< 0.002	07-11-23	489	0.028 ± 0.003	< 0.002
01-24-23	572	0.017 ± 0.002	< 0.002	07-18-23	572	0.028 ± 0.003	< 0.002
01-31-23	570	0.031 ± 0.003	< 0.002	07-25-23	570	0.022 ± 0.002	< 0.002
				08-01-23	570	0.027 ± 0.003	< 0.002
02-07-23	571	0.029 ± 0.003	< 0.002				
02-14-23	570	0.026 ± 0.003	< 0.002	08-08-23	571	0.029 ± 0.003	< 0.002
02-21-23	570	0.038 ± 0.003	< 0.002	08-15-23	572	0.031 ± 0.003	< 0.002
02-28-23 ^b	572	0.029 ± 0.003	< 0.002	08-22-23	570	0.024 ± 0.002	< 0.002
				08-29-23	572	0.024 ± 0.002	< 0.002
03-07-23 ^c	572	0.021 ± 0.002	< 0.002				
03-14-23	567	0.021 ± 0.002	< 0.002	09-05-23	571	0.032 ± 0.003	< 0.002
03-21-23	570	0.033 ± 0.003	< 0.002	09-12-23	570	0.022 ± 0.002	< 0.002
03-27-23	490	0.032 ± 0.003	< 0.003	09-19-23	572	0.024 ± 0.002	< 0.002
				09-26-23	570	0.031 ± 0.003	< 0.002
				10-03-23	573	0.026 ± 0.003	< 0.002
1st Quarter Mean ± s.d.		0.027 ± 0.006		3rd Quarter Mean ± s.d.		0.027 ± 0.003	
04-04-23	654	0.034 ± 0.003	< 0.002	10-10-23	570	0.034 ± 0.003	< 0.002
04-11-23	568	0.033 ± 0.003	< 0.002	10-17-23	569	0.019 ± 0.002	< 0.002
04-18-23	572	0.025 ± 0.003	< 0.002	10-24-23	572	0.026 ± 0.003	< 0.002
04-25-23	571	0.018 ± 0.002	< 0.002	10-31-23	572	0.028 ± 0.003	< 0.002
05-02-23	571	0.014 ± 0.002	< 0.002				
				11-07-23	574	0.044 ± 0.003	< 0.002
05-09-23	573	0.012 ± 0.002	< 0.002	11-14-23	572	0.018 ± 0.002	< 0.002
05-16-23	568	0.025 ± 0.003	< 0.003	11-21-23	568	0.030 ± 0.003	< 0.002
05-22-23	490	0.022 ± 0.003	< 0.003	11-28-23	572	0.034 ± 0.003	< 0.002
05-30-23	653	0.020 ± 0.002	< 0.002				
				12-05-23	572	0.032 ± 0.003	< 0.002
06-06-23	571	0.026 ± 0.002	< 0.002	12-12-23	569	0.029 ± 0.003	< 0.002
06-13-23	570	0.019 ± 0.002	< 0.002	12-19-23	572	0.037 ± 0.003	< 0.002
06-20-23	572	0.022 ± 0.002	< 0.002	12-26-23	570	0.044 ± 0.003	< 0.002
06-27-23	572	0.019 ± 0.002	< 0.002	01-02-24	571	0.019 ± 0.002	< 0.002
2nd Quarter Mean ± s.d.		0.022 ± 0.006		4th Quarter Mean ± s.d.		0.030 ± 0.009	
				Cumulative Average			
				0.027			

^a Iodine-131 concentrations are < 0.07 pCi/m³ unless noted otherwise.

^b Timer problem at the station. Run time calculated.

Result using the value found on timer: 0.064 ± 0.006 pCi/m³, MDA < 0.005 pCi/m³.

^c Timer problem at the station. Run time calculated.

Result using the value found on timer: 0.046 ± 0.005 pCi/m³, MDA < 0.005 pCi/m³.

Table 2. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131^a.

Location: T-2

Units: pCi/m³

Collection: Continuous, weekly exchange.

Date Collected	Volume (m ³)	Gross Beta		Date Collected	Volume (m ³)	Gross Beta	
<u>Required LLD</u>		<u>0.010</u>				<u>0.010</u>	
01-10-23	569	0.023 ± 0.002	< 0.002	07-05-23	650	0.022 ± 0.002	< 0.002
01-17-23	572	0.030 ± 0.003	< 0.002	07-11-23	488	0.022 ± 0.003	< 0.002
01-24-23	572	0.021 ± 0.002	< 0.002	07-18-23	575	0.025 ± 0.002	< 0.002
01-31-23	571	0.034 ± 0.003	< 0.002	07-25-23	569	0.019 ± 0.002	< 0.002
				08-01-23	569	0.018 ± 0.002	< 0.002
02-07-23	570	0.033 ± 0.003	< 0.002				
02-14-23	571	0.034 ± 0.003	< 0.002	08-08-23	572	0.023 ± 0.002	< 0.002
02-21-23	570	0.032 ± 0.003	< 0.002	08-15-23	572	0.026 ± 0.002	< 0.002
02-28-23	572	0.022 ± 0.002	< 0.002	08-22-23	571	0.022 ± 0.002	< 0.002
				08-29-23	571	0.023 ± 0.002	< 0.002
03-07-23	573	0.025 ± 0.003	< 0.002				
03-14-23	566	0.021 ± 0.002	< 0.002	09-05-23	571	0.028 ± 0.003	< 0.002
03-21-23	570	0.032 ± 0.003	< 0.002	09-12-23	570	0.020 ± 0.002	< 0.002
03-27-23	490	0.027 ± 0.003	< 0.003	09-19-23	572	0.018 ± 0.002	< 0.002
				09-26-23	571	0.028 ± 0.003	< 0.002
				10-03-23	571	0.023 ± 0.002	< 0.002
1st Quarter Mean ± s.d.		0.028 ± 0.005		3rd Quarter Mean ± s.d.		0.023 ± 0.003	
04-04-23	654	0.033 ± 0.003	< 0.002	10-10-23	571	0.037 ± 0.003	< 0.002
04-11-23	568	0.027 ± 0.003	< 0.002	10-17-23	573	0.019 ± 0.002	< 0.002
04-18-23	572	0.023 ± 0.002	< 0.002	10-24-23	570	0.022 ± 0.002	< 0.002
04-25-23	572	0.015 ± 0.002	< 0.002	10-31-23	571	0.027 ± 0.003	< 0.002
05-02-23	570	0.015 ± 0.002	< 0.002				
				11-07-23	574	0.042 ± 0.003	< 0.002
05-09-23	572	0.012 ± 0.002	< 0.002	11-14-23	572	0.016 ± 0.002	< 0.002
05-16-23	571	0.021 ± 0.002	< 0.002	11-21-23	570	0.029 ± 0.003	< 0.002
05-22-23	487	0.018 ± 0.002	< 0.002	11-28-23	571	0.029 ± 0.003	< 0.002
05-30-23	653	0.019 ± 0.002	< 0.002				
				12-05-23	573	0.033 ± 0.003	< 0.002
06-06-23	571	0.026 ± 0.002	< 0.002	12-12-23	567	0.027 ± 0.003	< 0.002
06-13-23	571	0.017 ± 0.002	< 0.002	12-19-23	572	0.037 ± 0.003	< 0.002
06-20-23	572	0.019 ± 0.002	< 0.002	12-26-23	570	0.044 ± 0.003	< 0.002
06-27-23	574	0.015 ± 0.002	< 0.002	01-02-24	571	0.020 ± 0.002	< 0.002
2nd Quarter Mean ± s.d.		0.020 ± 0.006		4th Quarter Mean ± s.d.		0.029 ± 0.009	
				Cumulative Average			
				0.025			

^a Iodine-131 concentrations are < 0.07 pCi/m³ unless noted otherwise.

Table 3. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131^a.

Location: T-3

Units: pCi/m³

Collection: Continuous, weekly exchange.

Date Collected	Volume (m³)	Gross Beta		Date Collected	Volume (m³)	Gross Beta	
<u>Required LLD</u>		<u>0.010</u>				<u>0.010</u>	
01-10-23	569	0.020 ± 0.002	< 0.002	07-05-23	651	0.021 ± 0.002	< 0.002
01-17-23	572	0.029 ± 0.003	< 0.002	07-11-23	487	0.031 ± 0.003	< 0.002
01-24-23	572	0.018 ± 0.002	< 0.002	07-18-23	575	0.029 ± 0.003	< 0.002
01-31-23	571	0.029 ± 0.003	< 0.002	07-25-23	569	0.023 ± 0.002	< 0.002
				08-01-23	569	0.026 ± 0.003	< 0.002
02-07-23	570	0.030 ± 0.003	< 0.002				
02-14-23	570	0.026 ± 0.003	< 0.002	08-08-23	572	0.027 ± 0.003	< 0.002
02-21-23	570	0.027 ± 0.003	< 0.002	08-15-23	572	0.029 ± 0.003	< 0.002
02-28-23	572	0.020 ± 0.002	< 0.002	08-22-23	571	0.026 ± 0.002	< 0.002
				08-29-23	570	0.021 ± 0.002	< 0.002
03-07-23	574	0.021 ± 0.002	< 0.002				
03-14-23	565	0.019 ± 0.002	< 0.002	09-05-23	572	0.027 ± 0.002	< 0.002
03-21-23	570	0.029 ± 0.003	< 0.002	09-12-23	569	0.024 ± 0.002	< 0.002
03-27-23	491	0.028 ± 0.003	< 0.003	09-19-23	572	0.022 ± 0.002	< 0.002
				09-26-23	571	0.031 ± 0.003	< 0.002
				10-03-23	571	0.025 ± 0.002	< 0.002
1st Quarter Mean ± s.d.		0.025 ± 0.005		3rd Quarter Mean ± s.d.		0.026 ± 0.003	
04-04-23	654	0.031 ± 0.002	< 0.002	10-10-23	571	0.029 ± 0.003	< 0.002
04-11-23	568	0.026 ± 0.003	< 0.002	10-17-23	573	0.021 ± 0.002	< 0.002
04-18-23	572	0.022 ± 0.002	< 0.002	10-24-23	569	0.023 ± 0.002	< 0.002
04-25-23	572	0.014 ± 0.002	< 0.002	10-31-23	574	0.030 ± 0.003	< 0.002
05-02-23	570	0.013 ± 0.002	< 0.002				
				11-07-23	571	0.048 ± 0.003	< 0.002
05-09-23	572	0.012 ± 0.002	< 0.002	11-14-23	572	0.021 ± 0.002	< 0.002
05-16-23	571	0.018 ± 0.002	< 0.002	11-21-23	570	0.037 ± 0.003	< 0.002
05-22-23	487	0.017 ± 0.002	< 0.002	11-28-23	571	0.033 ± 0.003	< 0.002
05-30-23	654	0.019 ± 0.002	< 0.002				
				12-05-23	573	0.038 ± 0.003	< 0.002
06-06-23	570	0.021 ± 0.002	< 0.002	12-12-23	568	0.032 ± 0.003	< 0.002
06-13-23	570	0.016 ± 0.002	< 0.002	12-19-23	572	0.042 ± 0.003	< 0.002
06-20-23	571	0.018 ± 0.002	< 0.002	12-26-23	570	0.044 ± 0.003	< 0.002
06-27-23	574	0.014 ± 0.002	< 0.002	01-02-24	571	0.020 ± 0.002	< 0.002
2nd Quarter Mean ± s.d.		0.019 ± 0.005		4th Quarter Mean ± s.d.		0.032 ± 0.009	
				Cumulative Average		0.025	

^a Iodine-131 concentrations are < 0.07 pCi/m³ unless noted otherwise.

Table 4. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131^a.

Location: T-4

Units: pCi/m³

Collection: Continuous, weekly exchange.

Date Collected	Volume (m ³)	Gross Beta		Date Collected	Volume (m ³)	Gross Beta	
<u>Required LLD</u>		<u>0.010</u>				<u>0.010</u>	
01-10-23	569	0.019 ± 0.002	< 0.002	07-05-23	650	0.025 ± 0.002	< 0.002
01-17-23	572	0.032 ± 0.003	< 0.002	07-11-23	493	0.025 ± 0.003	< 0.002
01-24-23	572	0.021 ± 0.002	< 0.002	07-18-23	569	0.024 ± 0.002	< 0.002
01-31-23	571	0.034 ± 0.003	< 0.002	07-25-23	567	0.024 ± 0.002	< 0.002
				08-01-23	568	0.024 ± 0.003	< 0.002
02-07-23	570	0.034 ± 0.003	< 0.002				
02-14-23	586	0.031 ± 0.003	< 0.002	08-08-23	570	0.030 ± 0.003	< 0.002
02-21-23	554	0.028 ± 0.003	< 0.002	08-15-23	569	0.030 ± 0.003	< 0.002
02-28-23	572	0.019 ± 0.002	< 0.002	08-22-23	570	0.027 ± 0.003	< 0.002
				08-29-23	570	0.023 ± 0.002	< 0.002
03-07-23 ^b	269	0.021 ± 0.004	< 0.005				
03-14-23	547	0.019 ± 0.002	< 0.002	09-05-23	572	0.034 ± 0.003	< 0.002
03-21-23	583	0.032 ± 0.003	< 0.002	09-12-23	569	0.023 ± 0.002	< 0.002
03-27-23	479	0.027 ± 0.003	< 0.003	09-19-23	572	0.024 ± 0.002	< 0.002
				09-26-23	573	0.032 ± 0.003	< 0.002
				10-03-23	571	0.023 ± 0.002	< 0.002
1st Quarter Mean ± s.d.		0.026 ± 0.006		3rd Quarter Mean ± s.d.		0.026 ± 0.004	
04-04-23	655	0.032 ± 0.003	< 0.002	10-10-23	570	0.032 ± 0.003	< 0.002
04-11-23	567	0.030 ± 0.003	< 0.002	10-17-23	573	0.020 ± 0.002	< 0.002
04-18-23	572	0.025 ± 0.003	< 0.002	10-24-23	567	0.027 ± 0.003	< 0.002
04-25-23	572	0.015 ± 0.002	< 0.002	10-31-23	575	0.026 ± 0.003	< 0.002
05-02-23	572	0.015 ± 0.002	< 0.002				
				11-07-23	572	0.039 ± 0.003	< 0.002
05-09-23	571	0.014 ± 0.002	< 0.002	11-14-23	572	0.017 ± 0.002	< 0.002
05-16-23	571	0.025 ± 0.003	< 0.003	11-21-23	570	0.032 ± 0.003	< 0.002
05-22-23	487	0.021 ± 0.002	< 0.002	11-28-23	571	0.029 ± 0.003	< 0.002
05-30-23	654	0.022 ± 0.002	< 0.002				
				12-05-23	573	0.033 ± 0.003	< 0.002
06-06-23	570	0.028 ± 0.003	< 0.002	12-12-23	567	0.032 ± 0.003	< 0.002
06-13-23	571	0.018 ± 0.002	< 0.002	12-19-23	572	0.034 ± 0.003	< 0.002
06-20-23	570	0.019 ± 0.002	< 0.002	12-26-23	570	0.040 ± 0.003	< 0.002
06-27-23	575	0.019 ± 0.002	< 0.002	01-02-24	571	0.018 ± 0.002	< 0.002
2nd Quarter Mean ± s.d.		0.022 ± 0.006		4th Quarter Mean ± s.d.		0.029 ± 0.007	
				Cumulative Average			
				0.026			

^a Iodine-131 concentrations are < 0.07 pCi/m³ unless noted otherwise.^b Pump found not running.

Table 5. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131^a.

Location: T-7

Units: pCi/m³

Collection: Continuous, weekly exchange.

Date Collected	Volume (m ³)	Gross Beta		Date Collected	Volume (m ³)	Gross Beta	
<u>Required LLD</u>		<u>0.010</u>				<u>0.010</u>	
01-10-23	571	0.027 ± 0.003	< 0.002	07-05-23	652	0.027 ± 0.002	< 0.002
01-17-23	569	0.029 ± 0.003	< 0.002	07-11-23	489	0.026 ± 0.003	< 0.002
01-24-23	573	0.019 ± 0.002	< 0.002	07-18-23	571	0.028 ± 0.003	< 0.002
01-31-23	580	0.032 ± 0.003	< 0.002	07-25-23	572	0.021 ± 0.002	< 0.002
				08-01-23	570	0.024 ± 0.002	< 0.002
02-07-23	561	0.036 ± 0.003	< 0.002				
02-14-23	570	0.032 ± 0.003	< 0.002	08-08-23	571	0.025 ± 0.002	< 0.002
02-21-23	580	0.028 ± 0.003	< 0.002	08-15-23	571	0.030 ± 0.003	< 0.002
02-28-23	563	0.022 ± 0.002	< 0.002	08-22-23	570	0.023 ± 0.002	< 0.002
				08-29-23	571	0.026 ± 0.002	< 0.002
03-07-23	571	0.023 ± 0.002	< 0.002				
03-14-23	568	0.020 ± 0.002	< 0.002	09-05-23	571	0.032 ± 0.003	< 0.002
03-21-23	571	0.030 ± 0.003	< 0.002	09-12-23	570	0.024 ± 0.002	< 0.002
03-27-23	500	0.029 ± 0.003	< 0.002	09-19-23	581	0.028 ± 0.003	< 0.002
				09-26-23	561	0.040 ± 0.003	< 0.002
				10-03-23	572	0.023 ± 0.002	< 0.002
1st Quarter Mean ± s.d.		0.027 ± 0.005		3rd Quarter Mean ± s.d.		0.027 ± 0.005	
04-04-23	629	0.032 ± 0.003	< 0.002	10-10-23	571	0.034 ± 0.003	< 0.002
04-11-23	579	0.030 ± 0.003	< 0.002	10-17-23	569	0.019 ± 0.002	< 0.002
04-18-23	572	0.028 ± 0.003	< 0.002	10-24-23	571	0.027 ± 0.003	< 0.002
04-25-23	561	0.015 ± 0.002	< 0.002	10-31-23	584	0.030 ± 0.003	< 0.002
05-02-23	571	0.015 ± 0.002	< 0.002				
				11-07-23	561	0.048 ± 0.003	< 0.002
05-09-23	571	0.011 ± 0.002	< 0.002	11-14-23	576	0.022 ± 0.002	< 0.002
05-16-23	582	0.023 ± 0.003	< 0.003	11-21-23	566	0.033 ± 0.003	< 0.002
05-22-23	478	0.023 ± 0.003	< 0.003	11-28-23	571	0.034 ± 0.003	< 0.002
05-30-23	663	0.022 ± 0.002	< 0.002				
				12-05-23	571	0.033 ± 0.003	< 0.002
06-06-23	560	0.025 ± 0.002	< 0.002	12-12-23	570	0.034 ± 0.003	< 0.002
06-13-23	571	0.018 ± 0.002	< 0.002	12-19-23	571	0.041 ± 0.003	< 0.002
06-20-23	556	0.022 ± 0.002	< 0.002	12-26-23	571	0.045 ± 0.003	< 0.002
06-27-23	572	0.018 ± 0.002	< 0.002	01-02-24	580	0.021 ± 0.002	< 0.002
2nd Quarter Mean ± s.d.		0.022 ± 0.006		4th Quarter Mean ± s.d.		0.032 ± 0.009	
				Cumulative Average		0.027	

^a Iodine-131 concentrations are < 0.07 pCi/m³ unless noted otherwise.

Table 6. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131^a.

Location: T-9

Units: pCi/m³

Collection: Continuous, weekly exchange.

Date Collected	Volume (m ³)	Gross Beta		Date Collected	Volume (m ³)	Gross Beta	
<u>Required LLD</u>		<u>0.010</u>				<u>0.010</u>	
01-10-23	572	0.020 ± 0.002	< 0.002	07-05-23	672	0.022 ± 0.002	< 0.002
01-17-23	552	0.029 ± 0.003	< 0.002	07-11-23	489	0.021 ± 0.002	< 0.002
01-24-23	591	0.018 ± 0.002	< 0.002	07-18-23	574	0.023 ± 0.002	< 0.002
01-31-23	561	0.029 ± 0.003	< 0.002	07-25-23	568	0.023 ± 0.002	< 0.002
				08-01-23	569	0.020 ± 0.002	< 0.002
02-07-23	581	0.033 ± 0.003	< 0.002				
02-14-23	560	0.029 ± 0.003	< 0.002	08-08-23	571	0.024 ± 0.002	< 0.002
02-21-23	575	0.028 ± 0.003	< 0.002	08-15-23	564	0.028 ± 0.003	< 0.002
02-28-23	572	0.018 ± 0.002	< 0.002	08-22-23	579	0.024 ± 0.002	< 0.002
				08-29-23	569	0.021 ± 0.002	< 0.002
03-07-23	578	0.021 ± 0.002	< 0.002				
03-14-23	561	0.018 ± 0.002	< 0.002	09-05-23	572	0.031 ± 0.003	< 0.002
03-21-23	572	0.032 ± 0.003	< 0.002	09-12-23	573	0.021 ± 0.002	< 0.002
03-27-23	486	0.026 ± 0.003	< 0.003	09-19-23	569	0.023 ± 0.002	< 0.002
				09-26-23	574	0.030 ± 0.003	< 0.002
				10-03-23	572	0.027 ± 0.003	< 0.002
1st Quarter Mean ± s.d.		0.025 ± 0.006		3rd Quarter Mean ± s.d.		0.024 ± 0.004	
04-04-23	661	0.030 ± 0.002	< 0.002	10-10-23	569	0.031 ± 0.003	< 0.002
04-11-23	567	0.031 ± 0.003	< 0.002	10-17-23	572	0.020 ± 0.002	< 0.002
04-18-23	571	0.022 ± 0.002	< 0.002	10-24-23	546	0.028 ± 0.003	< 0.002
04-25-23	572	0.016 ± 0.002	< 0.002	10-31-23	576	0.028 ± 0.003	< 0.002
05-02-23	568	0.012 ± 0.002	< 0.002				
				11-07-23	573	0.044 ± 0.003	< 0.002
05-09-23	571	0.012 ± 0.002	< 0.002	11-14-23	569	0.022 ± 0.002	< 0.002
05-16-23	572	0.021 ± 0.002	< 0.002	11-21-23	573	0.032 ± 0.003	< 0.002
05-22-23	483	0.021 ± 0.002	< 0.002	11-28-23	571	0.031 ± 0.003	< 0.002
05-30-23	659	0.022 ± 0.002	< 0.002				
				12-05-23	572	0.034 ± 0.003	< 0.002
06-06-23	570	0.027 ± 0.002	< 0.002	12-12-23	569	0.033 ± 0.003	< 0.002
06-13-23	573	0.018 ± 0.002	< 0.002	12-19-23	572	0.039 ± 0.003	< 0.002
06-20-23	548	0.018 ± 0.002	< 0.002	12-26-23	568	0.050 ± 0.003	< 0.002
06-27-23	571	0.014 ± 0.002	< 0.002	01-02-24	572	0.021 ± 0.002	< 0.002
2nd Quarter Mean ± s.d.		0.020 ± 0.006		4th Quarter Mean ± s.d.		0.032 ± 0.009	
				Cumulative Average			
				0.025			

^a Iodine-131 concentrations are < 0.07 pCi/m³ unless noted otherwise.

Table 7. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131^a.

Location: T-11 (C)

Units: pCi/m³

Collection: Continuous, weekly exchange.

Date Collected	Volume (m ³)	Gross Beta		Date Collected	Volume (m ³)	Gross Beta	
<u>Required LLD</u>		<u>0.010</u>				<u>0.010</u>	
01-10-23	570	0.021 ± 0.002	< 0.002	07-05-23	652	0.026 ± 0.002	< 0.002
01-17-23	571	0.031 ± 0.003	< 0.002	07-11-23	489	0.027 ± 0.003	< 0.002
01-24-23	571	0.021 ± 0.002	< 0.002	07-18-23	572	0.027 ± 0.003	< 0.002
01-31-23	555	0.029 ± 0.003	< 0.002	07-25-23	571	0.023 ± 0.002	< 0.002
				08-01-23	570	0.030 ± 0.003	< 0.002
02-07-23	571	0.035 ± 0.003	< 0.002				
02-14-23	571	0.035 ± 0.003	< 0.002	08-08-23	571	0.029 ± 0.003	< 0.002
02-21-23	570	0.030 ± 0.003	< 0.002	08-15-23	572	0.033 ± 0.003	< 0.002
02-28-23	572	0.026 ± 0.002	< 0.002	08-22-23	570	0.026 ± 0.002	< 0.002
				08-29-23	571	0.021 ± 0.002	< 0.002
03-07-23 ^b	571	0.025 ± 0.003	< 0.002				
03-14-23	567	0.022 ± 0.002	< 0.002	09-05-23	571	0.029 ± 0.003	< 0.002
03-21-23	571	0.029 ± 0.003	< 0.002	09-12-23	570	0.023 ± 0.002	< 0.002
03-27-23	490	0.029 ± 0.003	< 0.003	09-19-23	571	0.024 ± 0.002	< 0.002
				09-26-23	571	0.030 ± 0.003	< 0.002
				10-03-23	571	0.024 ± 0.002	< 0.002
1st Quarter Mean ± s.d.		0.028 ± 0.005		3rd Quarter Mean ± s.d.		0.027 ± 0.003	
04-04-23	652	0.034 ± 0.003	< 0.002	10-10-23	572	0.033 ± 0.003	< 0.002
04-11-23	570	0.031 ± 0.003	< 0.002	10-17-23	569	0.021 ± 0.002	< 0.002
04-18-23	572	0.028 ± 0.003	< 0.002	10-24-23	572	0.025 ± 0.002	< 0.002
04-25-23	563	0.019 ± 0.002	< 0.002	10-31-23	570	0.028 ± 0.003	< 0.002
05-02-23	571	0.014 ± 0.002	< 0.002				
				11-07-23	574	0.044 ± 0.003	< 0.002
05-09-23	572	0.012 ± 0.002	< 0.002	11-14-23	571	0.021 ± 0.002	< 0.002
05-16-23	570	0.022 ± 0.002	< 0.002	11-21-23	570	0.035 ± 0.003	< 0.002
05-22-23	490	0.020 ± 0.002	< 0.002	11-28-23	572	0.030 ± 0.003	< 0.002
05-30-23	653	0.022 ± 0.002	< 0.002				
				12-05-23	571	0.033 ± 0.003	< 0.002
06-06-23	570	0.025 ± 0.002	< 0.002	12-12-23	570	0.032 ± 0.003	< 0.002
06-13-23	570	0.019 ± 0.002	< 0.002	12-19-23	571	0.042 ± 0.003	< 0.002
06-20-23	572	0.021 ± 0.002	< 0.002	12-26-23	571	0.045 ± 0.003	< 0.002
06-27-23	571	0.019 ± 0.002	< 0.002	01-02-24	571	0.022 ± 0.002	< 0.002
2nd Quarter Mean ± s.d.		0.022 ± 0.006		4th Quarter Mean ± s.d.		0.032 ± 0.008	
				Cumulative Average			
				0.027			

^a Iodine-131 concentrations are < 0.07 pCi/m³ unless noted otherwise.

^b Timer problem at the station. Run time calculated.

Result using the value found on timer: 0.045 ± 0.005 pCi/m³, MDA < 0.005 pCi/m³.

Table 8. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131^a.

Location: T-27

Units: pCi/m³

Collection: Continuous, weekly exchange.

Date Collected	Volume (m³)	Gross Beta		Date Collected	Volume (m³)	Gross Beta	
<u>Required LLD</u>		<u>0.010</u>				<u>0.010</u>	
01-10-23	569	0.020 ± 0.002	< 0.002	07-05-23	654	0.026 ± 0.002	< 0.002
01-17-23	561	0.032 ± 0.003	< 0.002	07-11-23	489	0.026 ± 0.003	< 0.002
01-24-23	584	0.021 ± 0.002	< 0.002	07-18-23	574	0.026 ± 0.002	< 0.002
01-31-23	569	0.034 ± 0.003	< 0.002	07-25-23	567	0.025 ± 0.002	< 0.002
				08-01-23	571	0.024 ± 0.002	< 0.002
02-07-23	574	0.035 ± 0.003	< 0.002				
02-14-23	558	0.030 ± 0.003	< 0.002	08-08-23	570	0.028 ± 0.003	< 0.002
02-21-23	580	0.028 ± 0.003	< 0.002	08-15-23	572	0.028 ± 0.003	< 0.002
02-28-23	571	0.019 ± 0.002	< 0.002	08-22-23	568	0.026 ± 0.002	< 0.002
				08-29-23	572	0.022 ± 0.002	< 0.002
03-07-23	575	0.022 ± 0.002	< 0.002				
03-14-23	564	0.018 ± 0.002	< 0.002	09-05-23	573	0.029 ± 0.003	< 0.002
03-21-23	570	0.031 ± 0.003	< 0.002	09-12-23	573	0.022 ± 0.002	< 0.002
03-27-23	492	0.027 ± 0.003	< 0.003	09-19-23	567	0.024 ± 0.002	< 0.002
				09-26-23	573	0.036 ± 0.003	< 0.002
				10-03-23	574	0.024 ± 0.002	< 0.002
1st Quarter Mean ± s.d.		0.026 ± 0.006		3rd Quarter Mean ± s.d.		0.026 ± 0.004	
04-04-23	655	0.031 ± 0.002	< 0.002	10-10-23	565	0.030 ± 0.003	< 0.002
04-11-23	567	0.027 ± 0.003	< 0.002	10-17-23	575	0.017 ± 0.002	< 0.002
04-18-23	572	0.024 ± 0.002	< 0.002	10-24-23	569	0.025 ± 0.003	< 0.002
04-25-23	571	0.023 ± 0.002	< 0.002	10-31-23	572	0.024 ± 0.002	< 0.002
05-02-23	572	0.014 ± 0.002	< 0.002				
				11-07-23	574	0.044 ± 0.003	< 0.002
05-09-23	571	0.013 ± 0.002	< 0.002	11-14-23	569	0.022 ± 0.002	< 0.002
05-16-23	572	0.024 ± 0.003	< 0.003	11-21-23	569	0.035 ± 0.003	< 0.002
05-22-23	487	0.018 ± 0.002	< 0.002	11-28-23	571	0.032 ± 0.003	< 0.002
05-30-23	657	0.019 ± 0.002	< 0.002				
				12-05-23	576	0.033 ± 0.003	< 0.002
06-06-23	570	0.029 ± 0.003	< 0.002	12-12-23	567	0.030 ± 0.003	< 0.002
06-13-23	570	0.016 ± 0.002	< 0.002	12-19-23	569	0.046 ± 0.003	< 0.002
06-20-23	547	0.019 ± 0.002	< 0.002	12-26-23	572	0.046 ± 0.003	< 0.002
06-27-23	584	0.019 ± 0.002	< 0.002	01-02-24	572	0.021 ± 0.002	< 0.002
2nd Quarter Mean ± s.d.		0.021 ± 0.006		4th Quarter Mean ± s.d.		0.031 ± 0.010	
				Cumulative Average		0.026	

^a Iodine-131 concentrations are < 0.07 pCi/m³ unless noted otherwise.

Table 9. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131^a.

Location: T-32 (C) New Location

Units: pCi/m³

Collection: Continuous, weekly exchange.

Date Collected	Volume (m ³)	Gross Beta		Date Collected	Volume (m ³)	Gross Beta	
<u>Required LLD</u>		<u>0.010</u>				<u>0.010</u>	
01-10-23	572	0.019 ± 0.002	< 0.002	07-05-23	658	0.029 ± 0.002	< 0.002
01-17-23	563	0.029 ± 0.003	< 0.002	07-11-23	490	0.029 ± 0.003	< 0.002
01-24-23	580	0.021 ± 0.002	< 0.002	07-18-23	574	0.030 ± 0.003	< 0.002
01-31-23	564	0.033 ± 0.003	< 0.002	07-25-23	568	0.025 ± 0.002	< 0.002
				08-01-23	569	0.028 ± 0.003	< 0.002
02-07-23	579	0.035 ± 0.003	< 0.002				
02-14-23	562	0.028 ± 0.003	< 0.002	08-08-23	571	0.028 ± 0.003	< 0.002
02-21-23	573	0.028 ± 0.003	< 0.002	08-15-23	568	0.034 ± 0.003	< 0.002
02-28-23	572	0.022 ± 0.002	< 0.002	08-22-23	575	0.026 ± 0.002	< 0.002
				08-29-23	566	0.022 ± 0.002	< 0.002
03-07-23	579	0.025 ± 0.002	< 0.002				
03-14-23	557	0.021 ± 0.002	< 0.002	09-05-23	572	0.030 ± 0.003	< 0.002
03-21-23	570	0.034 ± 0.003	< 0.002	09-12-23	576	0.021 ± 0.002	< 0.002
03-27-23	492	0.027 ± 0.003	< 0.003	09-19-23	569	0.025 ± 0.002	< 0.002
				09-26-23	574	0.031 ± 0.003	< 0.002
				10-03-23	572	0.028 ± 0.003	< 0.002
1st Quarter Mean ± s.d.		0.027 ± 0.005		3rd Quarter Mean ± s.d.		0.028 ± 0.004	
04-04-23	661	0.029 ± 0.002	< 0.002	10-10-23	562	0.031 ± 0.003	< 0.002
04-11-23	567	0.034 ± 0.003	< 0.002	10-17-23	579	0.021 ± 0.002	< 0.002
04-18-23	571	0.023 ± 0.002	< 0.002	10-24-23	565	0.027 ± 0.003	< 0.002
04-25-23	573	0.020 ± 0.002	< 0.002	10-31-23	572	0.027 ± 0.003	< 0.002
05-02-23	564	0.013 ± 0.002	< 0.002				
				11-07-23	577	0.047 ± 0.003	< 0.002
05-09-23	571	0.013 ± 0.002	< 0.002	11-14-23	566	0.021 ± 0.002	< 0.002
05-16-23	576	0.022 ± 0.002	< 0.002	11-21-23	576	0.031 ± 0.003	< 0.002
05-22-23	483	0.021 ± 0.002	< 0.002	11-28-23	571	0.033 ± 0.003	< 0.002
05-30-23	658	0.023 ± 0.002	< 0.002				
				12-05-23	572	0.034 ± 0.003	< 0.002
06-06-23	571	0.025 ± 0.002	< 0.002	12-12-23	568	0.031 ± 0.003	< 0.002
06-13-23	573	0.020 ± 0.002	< 0.002	12-19-23	573	0.038 ± 0.003	< 0.002
06-20-23	561	0.021 ± 0.002	< 0.002	12-26-23	568	0.042 ± 0.003	< 0.002
06-27-23	575	0.020 ± 0.002	< 0.002	01-02-24	571	0.019 ± 0.002	< 0.002
2nd Quarter Mean ± s.d.		0.022 ± 0.006		4th Quarter Mean ± s.d.		0.031 ± 0.008	
				Cumulative Average			
				0.027			

^a Iodine-131 concentrations are < 0.07 pCi/m³ unless noted otherwise.

Table 10-1. Airborne particulate data, gross beta analyses, monthly averages, minima and maxima.

January			
Location	Average	Minima	Maxima
T-11	0.026	0.021	0.031
T-32	0.026	0.019	0.033
Controls	0.026	0.019	0.033
T-1	0.023	0.017	0.031
T-2	0.027	0.021	0.034
T-3	0.024	0.018	0.029
T-4	0.027	0.019	0.034
T-7	0.027	0.019	0.032
T-9	0.027	0.016	0.037
T-27	0.025	0.014	0.033
Indicators	0.026	0.014	0.037

April			
Location	Average	Minima	Maxima
T-11	0.025	0.014	0.034
T-32	0.024	0.013	0.034
Controls	0.025	0.013	0.034
T-1	0.025	0.014	0.034
T-2	0.023	0.015	0.033
T-3	0.021	0.013	0.031
T-4	0.023	0.015	0.032
T-7	0.024	0.015	0.032
T-9	0.022	0.012	0.031
T-27	0.024	0.014	0.031
Indicators	0.023	0.012	0.034

February			
Location	Average	Minima	Maxima
T-11	0.032	0.026	0.035
T-32	0.026	0.022	0.028
Controls	0.029	0.022	0.035
T-1	0.031	0.026	0.038
T-2	0.030	0.022	0.034
T-3	0.026	0.020	0.030
T-4	0.028	0.019	0.034
T-7	0.030	0.022	0.036
T-9	0.024	0.018	0.029
T-27	0.025	0.019	0.030
Indicators	0.028	0.018	0.038

May			
Location	Average	Minima	Maxima
T-11	0.019	0.012	0.022
T-32	0.020	0.013	0.023
Controls	0.020	0.012	0.023
T-1	0.020	0.012	0.025
T-2	0.018	0.012	0.021
T-3	0.017	0.012	0.019
T-4	0.021	0.014	0.025
T-7	0.020	0.011	0.023
T-9	0.019	0.012	0.022
T-27	0.019	0.013	0.024
Indicators	0.019	0.011	0.025

March			
Location	Average	Minima	Maxima
T-11	0.026	0.022	0.029
T-32	0.027	0.021	0.034
Controls	0.027	0.021	0.034
T-1	0.027	0.021	0.033
T-2	0.026	0.021	0.032
T-3	0.024	0.019	0.029
T-4	0.025	0.019	0.032
T-7	0.026	0.020	0.030
T-9	0.025	0.018	0.032
T-27	0.025	0.018	0.031
Indicators	0.025	0.018	0.033

June			
Location	Average	Minima	Maxima
T-11	0.021	0.019	0.025
T-32	0.022	0.020	0.025
Controls	0.022	0.019	0.025
T-1	0.022	0.019	0.026
T-2	0.019	0.015	0.026
T-3	0.017	0.014	0.021
T-4	0.021	0.018	0.028
T-7	0.021	0.018	0.025
T-9	0.019	0.014	0.027
T-27	0.021	0.016	0.029
Indicators	0.020	0.014	0.029

Note: Unless otherwise specified, samples collected on the first, second or third day of the month are grouped with data from the previous month.

Table 10-1. Airborne particulate data, gross beta analyses, monthly averages, minima and maxima.

July			
Location	Average	Minima	Maxima
T-11	0.027	0.023	0.030
T-32	0.028	0.025	0.030
Controls	0.028	0.023	0.030
T-1	0.027	0.022	0.031
T-2	0.021	0.018	0.025
T-3	0.026	0.021	0.031
T-4	0.024	0.024	0.025
T-7	0.025	0.021	0.028
T-9	0.022	0.020	0.023
T-27	0.025	0.024	0.026
Indicators	0.024	0.018	0.031

October			
Location	Average	Minima	Maxima
T-11	0.027	0.021	0.033
T-32	0.027	0.021	0.031
Controls	0.027	0.021	0.033
T-1	0.027	0.019	0.034
T-2	0.026	0.019	0.037
T-3	0.026	0.021	0.030
T-4	0.026	0.020	0.032
T-7	0.028	0.019	0.034
T-9	0.027	0.020	0.031
T-27	0.024	0.017	0.030
Indicators	0.026	0.017	0.037

August			
Location	Average	Minima	Maxima
T-11	0.027	0.021	0.033
T-32	0.028	0.022	0.034
Controls	0.028	0.021	0.034
T-1	0.027	0.024	0.031
T-2	0.024	0.022	0.026
T-3	0.026	0.021	0.029
T-4	0.028	0.023	0.030
T-7	0.026	0.023	0.030
T-9	0.024	0.021	0.028
T-27	0.026	0.022	0.028
Indicators	0.026	0.021	0.031

November			
Location	Average	Minima	Maxima
T-11	0.033	0.021	0.044
T-32	0.030	0.021	0.034
Controls	0.032	0.021	0.044
T-1	0.032	0.018	0.044
T-2	0.029	0.016	0.042
T-3	0.035	0.021	0.048
T-4	0.029	0.017	0.039
T-7	0.034	0.022	0.048
T-9	0.030	0.022	0.034
T-27	0.031	0.022	0.035
Indicators	0.031	0.016	0.048

September			
Location	Average	Minima	Maxima
T-11	0.026	0.023	0.030
T-32	0.027	0.021	0.031
Controls	0.027	0.021	0.031
T-1	0.027	0.022	0.032
T-2	0.023	0.018	0.028
T-3	0.026	0.022	0.031
T-4	0.027	0.023	0.034
T-7	0.029	0.023	0.040
T-9	0.026	0.021	0.031
T-27	0.027	0.022	0.036
Indicators	0.026	0.018	0.040

December			
Location	Average	Minima	Maxima
T-11	0.035	0.022	0.045
T-32	0.033	0.019	0.042
Controls	0.034	0.019	0.045
T-1	0.032	0.019	0.044
T-2	0.032	0.020	0.044
T-3	0.035	0.020	0.044
T-4	0.031	0.018	0.040
T-7	0.035	0.021	0.045
T-9	0.036	0.021	0.050
T-27	0.036	0.021	0.046
Indicators	0.034	0.018	0.050

Note: Unless otherwise specified, samples collected on the first, second or third day of the month are grouped with data from the previous month.

Table 11. Airborne particulates, analyses for strontium-89, strontium-90 and gamma-emitting isotopes.

Collection: Quarterly Composite

Units: pCi/m³

Location		T-1			
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	
Lab Code	TAP- 809	TAP- 2030	TAP- 3160	TAP- 4074	
Volume (m ³)	6766	7505	7994	7423	
Sr-89	< 0.0002	< 0.0004	< 0.0003	< 0.0003	
Sr-90	< 0.0002	< 0.0002	< 0.0002	< 0.0002	
Be-7	0.073 ± 0.008	0.079 ± 0.010	0.074 ± 0.010	0.053 ± 0.008	
K-40	< 0.010	0.019 ± 0.006	< 0.010	< 0.012	
Nb-95	< 0.0003	< 0.0006	< 0.0003	< 0.0004	
Zr-95	< 0.0007	< 0.0007	< 0.0005	< 0.0007	
Ru-103	< 0.0004	< 0.0005	< 0.0004	< 0.0005	
Ru-106	< 0.0030	< 0.0037	< 0.0022	< 0.0025	
Cs-134	< 0.0004	< 0.0005	< 0.0005	< 0.0006	
Cs-137	< 0.0004	< 0.0003	< 0.0003	< 0.0004	
Ce-141	< 0.0004	< 0.0008	< 0.0008	< 0.0005	
Ce-144	< 0.0022	< 0.0019	< 0.0022	< 0.0018	

Location		T-2			
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	
Lab Code	TAP- 810	TAP- 2031	TAP- 3161	TAP- 4075	
Volume (m ³)	6766	7507	7992	7425	
Sr-89	< 0.0003	< 0.0007	< 0.0003	< 0.0003	
Sr-90	< 0.0002	< 0.0004	< 0.0002	< 0.0002	
Be-7	0.077 ± 0.008	0.066 ± 0.009	0.059 ± 0.008	0.060 ± 0.008	
K-40	< 0.008	0.010 ± 0.004	0.013 ± 0.008	< 0.010	
Nb-95	< 0.0004	< 0.0007	< 0.0008	< 0.0004	
Zr-95	< 0.0005	< 0.0007	< 0.0008	< 0.0007	
Ru-103	< 0.0005	< 0.0006	< 0.0005	< 0.0005	
Ru-106	< 0.0020	< 0.0034	< 0.0042	< 0.0023	
Cs-134	< 0.0004	< 0.0005	< 0.0005	< 0.0004	
Cs-137	< 0.0003	< 0.0004	< 0.0008	< 0.0003	
Ce-141	< 0.0008	< 0.0007	< 0.0007	< 0.0004	
Ce-144	< 0.0025	< 0.0018	< 0.0019	< 0.0022	

Table 11. Airborne particulates, analyses for strontium-89, strontium-90 and gamma-emitting isotopes.

Collection: Quarterly Composite

Units: pCi/m³

Location		T-3			
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	
Lab Code	TAP- 811	TAP- 2033	TAP- 3162	TAP- 4076	
Volume (m ³)	6766	7505	7991	7425	
Sr-89	< 0.0003	< 0.0003	< 0.0002	< 0.0002	
Sr-90	< 0.0002	< 0.0002	< 0.0002	< 0.0002	
Be-7	0.067 ± 0.007	0.062 ± 0.008	0.069 ± 0.008	0.074 ± 0.009	
K-40	< 0.009	0.015 ± 0.005	< 0.009	< 0.013	
Nb-95	< 0.0007	< 0.0004	< 0.0003	< 0.0010	
Zr-95	< 0.0009	< 0.0007	< 0.0005	< 0.0005	
Ru-103	< 0.0005	< 0.0006	< 0.0004	< 0.0005	
Ru-106	< 0.0027	< 0.0036	< 0.0030	< 0.0050	
Cs-134	< 0.0004	< 0.0005	< 0.0005	< 0.0005	
Cs-137	< 0.0004	< 0.0003	< 0.0003	< 0.0005	
Ce-141	< 0.0008	< 0.0007	< 0.0007	< 0.0009	
Ce-144	< 0.0015	< 0.0018	< 0.0025	< 0.0027	

Location		T-4			
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	
Lab Code	TAP- 812	TAP- 2034	TAP- 3163	TAP- 4077	
Volume (m ³)	6444	7507	7983	7423	
Sr-89	< 0.0003	< 0.0003	< 0.0002	< 0.0002	
Sr-90	< 0.0002	< 0.0002	< 0.0002	< 0.0002	
Be-7	0.072 ± 0.008	0.078 ± 0.010	0.074 ± 0.006	0.069 ± 0.008	
K-40	< 0.009	0.014 ± 0.005	< 0.008	< 0.011	
Nb-95	< 0.0004	< 0.0006	< 0.0003	< 0.0005	
Zr-95	< 0.0009	< 0.0009	< 0.0006	< 0.0006	
Ru-103	< 0.0004	< 0.0006	< 0.0004	< 0.0006	
Ru-106	< 0.0036	< 0.0041	< 0.0019	< 0.0035	
Cs-134	< 0.0004	< 0.0005	< 0.0003	< 0.0005	
Cs-137	< 0.0003	< 0.0004	< 0.0005	< 0.0005	
Ce-141	< 0.0008	< 0.0008	< 0.0004	< 0.0007	
Ce-144	< 0.0016	< 0.0018	< 0.0015	< 0.0026	

Table 11. Airborne particulates, analyses for strontium-89, strontium-90 and gamma-emitting isotopes.

Collection: Quarterly Composite

Units: pCi/m³

Location T-7				
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Lab Code	TAP- 813	TAP- 2035	TAP- 3164	TAP- 4078
Volume (m ³)	6777	7465	7992	7432
Sr-89	< 0.0003	< 0.0004	< 0.0002	< 0.0005
Sr-90	< 0.0002	< 0.0002	< 0.0002	< 0.0004
Be-7	0.084 ± 0.010	0.070 ± 0.010	0.068 ± 0.007	0.072 ± 0.009
K-40	< 0.011	0.014 ± 0.006	< 0.008	< 0.010
Nb-95	< 0.0004	< 0.0008	< 0.0004	< 0.0003
Zr-95	< 0.0010	< 0.0008	< 0.0004	< 0.0005
Ru-103	< 0.0006	< 0.0006	< 0.0002	< 0.0003
Ru-106	< 0.0047	< 0.0034	< 0.0030	< 0.0037
Cs-134	< 0.0005	< 0.0003	< 0.0004	< 0.0005
Cs-137	< 0.0004	< 0.0004	< 0.0003	< 0.0003
Ce-141	< 0.0011	< 0.0008	< 0.0005	< 0.0005
Ce-144	< 0.0026	< 0.0021	< 0.0014	< 0.0017

Location T-9				
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Lab Code	TAP- 814	TAP- 2036	TAP- 3165	TAP- 4080
Volume (m ³)	6761	7486	8015	7402
Sr-89	< 0.0003	< 0.0004	< 0.0003	< 0.0003
Sr-90	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Be-7	0.070 ± 0.010	0.070 ± 0.010	0.065 ± 0.008	0.070 ± 0.009
K-40	< 0.011	0.019 ± 0.006	< 0.010	0.012 ± 0.007
Nb-95	< 0.0009	< 0.0007	< 0.0003	< 0.0007
Zr-95	< 0.0009	< 0.0008	< 0.0006	< 0.0009
Ru-103	< 0.0007	< 0.0007	< 0.0003	< 0.0005
Ru-106	< 0.0045	< 0.0030	< 0.0022	< 0.0020
Cs-134	< 0.0006	< 0.0006	< 0.0004	< 0.0005
Cs-137	< 0.0006	< 0.0003	< 0.0007	< 0.0008
Ce-141	< 0.0011	< 0.0009	< 0.0008	< 0.0006
Ce-144	< 0.0026	< 0.0020	< 0.0015	< 0.0026

Table 11. Airborne particulates, analyses for strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly Composite
Units: pCi/m³

Location		T-11 (C)			
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	
Lab Code	TAP- 815	TAP- 2037	TAP- 3166	TAP- 4081	
Volume (m ³)	6750	7496	7992	7424	
Sr-89	< 0.0003	< 0.0003	< 0.0003	< 0.0002	
Sr-90	< 0.0002	< 0.0002	< 0.0002	< 0.0002	
Be-7	0.072 ± 0.011	0.084 ± 0.012	0.074 ± 0.010	0.066 ± 0.007	
K-40	< 0.012	< 0.010	< 0.010	< 0.008	
Nb-95	< 0.0006	< 0.0008	< 0.0005	< 0.0005	
Zr-95	< 0.0008	< 0.0006	< 0.0004	< 0.0003	
Ru-103	< 0.0006	< 0.0008	< 0.0005	< 0.0004	
Ru-106	< 0.0033	< 0.0021	< 0.0022	< 0.0040	
Cs-134	< 0.0006	< 0.0005	< 0.0005	< 0.0003	
Cs-137	< 0.0006	< 0.0005	< 0.0004	< 0.0004	
Ce-141	< 0.0012	< 0.0013	< 0.0005	< 0.0006	
Ce-144	< 0.0029	< 0.0024	< 0.0019	< 0.0022	

Table 11. Airborne particulates, analyses for strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly Composite
Units: pCi/m³

Location T-27				
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Lab Code	TAP- 816	TAP- 2038	TAP- 3167	TAP- 4082
Volume (m ³)	6767	7495	7997	7420
Sr-89	< 0.0003	< 0.0003	< 0.0003	< 0.0002
Sr-90	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Be-7	0.072 ± 0.010	0.073 ± 0.010	0.068 ± 0.008	0.060 ± 0.007
K-40	< 0.012	0.015 ± 0.006	< 0.009	< 0.011
Nb-95	< 0.0004	< 0.0009	< 0.0004	< 0.0007
Zr-95	< 0.0007	< 0.0007	< 0.0005	< 0.0005
Ru-103	< 0.0005	< 0.0006	< 0.0003	< 0.0004
Ru-106	< 0.0038	< 0.0036	< 0.0019	< 0.0023
Cs-134	< 0.0005	< 0.0005	< 0.0004	< 0.0005
Cs-137	< 0.0009	< 0.0002	< 0.0006	< 0.0007
Ce-141	< 0.0009	< 0.0010	< 0.0006	< 0.0008
Ce-144	< 0.0018	< 0.0023	< 0.0022	< 0.0025

Location T-32 (C)				
Quarter	1st Quarter	2nd Quarter		4th Quarter
Lab Code	TAP- 817	TAP- 2039	TAP- 3168	TAP- 4083
Volume (m ³)	6763	7504	8002	7420
Sr-89	< 0.0002	< 0.0003	< 0.0002	< 0.0002
Sr-90	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Be-7	0.080 ± 0.010	0.077 ± 0.010	0.065 ± 0.008	0.064 ± 0.008
K-40	< 0.011	0.014 ± 0.005	< 0.008	< 0.010
Nb-95	< 0.0006	< 0.0006	< 0.0005	< 0.0005
Zr-95	< 0.0011	< 0.0008	< 0.0005	< 0.0007
Ru-103	< 0.0008	< 0.0006	< 0.0003	< 0.0004
Ru-106	< 0.0032	< 0.0030	< 0.0031	< 0.0038
Cs-134	< 0.0005	< 0.0004	< 0.0004	< 0.0004
Cs-137	< 0.0002	< 0.0004	< 0.0003	< 0.0003
Ce-141	< 0.0010	< 0.0008	< 0.0004	< 0.0007
Ce-144	< 0.0018	< 0.0018	< 0.0017	< 0.0018

Table 12. Area monitors (TLD), Quarterly.

Units: mR/91 days

<u>Indicator</u>	<u>1st Qtr.</u>	<u>2nd Qtr.</u>	<u>3rd Qtr.</u>	<u>4th Qtr.</u>
T-1	11.8 ± 0.7	11.4 ± 0.6	10.3 ± 0.6	11.5 ± 0.8
T-2	11.5 ± 0.7	11.7 ± 0.5	11.7 ± 0.5	11.7 ± 0.6
T-3	9.3 ± 1.3	11.4 ± 0.7	8.4 ± 1.1	13.3 ± 0.7
T-4	10.5 ± 0.7	12.0 ± 0.7	9.7 ± 0.6	12.4 ± 0.6
T-5	13.4 ± 0.7	14.6 ± 0.5	13.7 ± 0.6	15.3 ± 0.5
T-6	9.5 ± 0.9	9.8 ± 0.6	8.3 ± 0.8	9.8 ± 0.5
T-10	13.6 ± 0.8	13.9 ± 0.5	12.7 ± 0.7	14.2 ± 0.6
T-38	9.0 ± 0.7	11.5 ± 1.2	8.2 ± 0.5	11.9 ± 1.2
T-40	10.6 ± 0.8	11.3 ± 0.7	10.4 ± 0.5	13.0 ± 0.7
T-41	9.4 ± 0.8	9.3 ± 0.5	9.0 ± 0.7	9.5 ± 0.5
T-42	10.8 ± 1.1	11.0 ± 0.7	10.1 ± 0.9	11.3 ± 0.7
T-43	11.1 ± 0.9	13.4 ± 0.6	10.0 ± 0.8	14.0 ± 0.6
T-44	19.7 ± 1.1	21.6 ± 0.8	18.8 ± 1.0	21.6 ± 0.8
T-45	18.0 ± 0.8	18.4 ± 1.1	17.2 ± 0.6	18.6 ± 1.0
T-46	10.7 ± 0.9	11.6 ± 0.7	9.7 ± 0.6	13.4 ± 0.6
T-47	10.3 ± 1.0	9.3 ± 0.7	9.0 ± 1.3	9.3 ± 0.8
T-48	10.6 ± 0.7	11.3 ± 0.7	9.4 ± 0.5	11.4 ± 0.7
T-49	8.7 ± 0.7	10.5 ± 1.3	8.2 ± 0.9	10.3 ± 1.1
T-51	15.8 ± 0.7	17.8 ± 1.2	15.5 ± 0.6	18.2 ± 1.4
T-52	16.5 ± 1.1	16.7 ± 0.7	16.0 ± 0.9	16.8 ± 0.7
T-54	ND ^a	17.6 ± 0.7	19.8 ± 1.6	17.8 ± 0.8
T-55	11.2 ± 0.8	10.3 ± 0.7	11.0 ± 1.0	11.4 ± 0.9
T-60	14.4 ± 1.1	16.7 ± 1.5	13.9 ± 1.2	14.9 ± 1.5
T-62	11.0 ± 0.4	10.8 ± 0.7	11.2 ± 0.7	9.8 ± 0.9
T-67	17.7 ± 0.6	16.7 ± 1.1	18.9 ± 1.1	15.3 ± 0.9
T-68	14.2 ± 1.4	13.4 ± 0.7	13.1 ± 1.7	11.5 ± 1.0
T-69	17.5 ± 0.9	16.0 ± 0.8	18.8 ± 1.5	14.6 ± 1.0
T-71	10.6 ± 0.9	10.6 ± 0.9	9.8 ± 0.8	9.7 ± 1.1
T-73	17.6 ± 0.5	17.7 ± 1.0	17.3 ± 0.8	16.4 ± 1.0
T-74	16.7 ± 0.5	15.3 ± 0.9	17.1 ± 0.7	14.0 ± 1.0

^a ND = No Data, TLD lost in the field.

Table 12. Area monitors (TLD), Quarterly.
Units: mR/91 days

<u>Indicator</u>	<u>1st Qtr.</u>	<u>2nd Qtr.</u>	<u>3rd Qtr.</u>	<u>4th Qtr.</u>
T-125	14.8 ± 0.6	15.9 ± 0.9	14.8 ± 0.9	14.5 ± 1.1
T-126	19.5 ± 0.8	17.8 ± 1.0	19.9 ± 0.8	15.8 ± 1.1
T-127	17.4 ± 0.6	18.7 ± 1.1	18.1 ± 0.8	17.0 ± 1.2
T-128	17.6 ± 0.6	17.3 ± 0.7	18.7 ± 0.8	15.9 ± 1.0
T-142	10.4 ± 0.4	11.5 ± 0.7	11.0 ± 0.7	10.4 ± 1.0
T-154	21.5 ± 1.1	20.5 ± 0.8	21.5 ± 1.2	18.5 ± 1.1
T-203	14.3 ± 0.8	14.0 ± 1.1	16.9 ± 0.7	13.3 ± 0.9
T-206	9.2 ± 0.6	9.5 ± 0.7	9.6 ± 0.5	10.6 ± 0.4
T-208	12.1 ± 1.1	10.6 ± 1.1	12.3 ± 1.5	9.8 ± 0.7
T-211	11.8 ± 0.9	9.1 ± 0.6	11.2 ± 0.8	8.4 ± 1.4
T-212	10.9 ± 0.8	8.9 ± 0.5	10.4 ± 0.7	8.2 ± 0.8
T-217	20.4 ± 0.9	16.9 ± 1.0	19.5 ± 0.9	14.8 ± 1.2
T-218	20.6 ± 1.1	17.8 ± 1.0	20.9 ± 2.1	15.4 ± 1.1
T-219	16.0 ± 1.1	14.2 ± 1.1	17.5 ± 1.5	12.5 ± 1.2
T-220	15.0 ± 0.9	14.3 ± 0.6	14.6 ± 1.1	12.3 ± 0.9
T-221	15.3 ± 0.8	16.8 ± 1.7	14.7 ± 0.7	16.3 ± 1.7
T-222	15.0 ± 1.1	12.6 ± 1.1	14.8 ± 0.9	11.9 ± 1.2
T-224	14.2 ± 1.1	11.5 ± 0.6	13.3 ± 0.7	9.9 ± 0.9
Mean ± s.d.	13.8 ± 3.6	13.8 ± 3.4	13.7 ± 4.0	13.3 ± 3.1

Table 12. Area monitors (TLD), Quarterly.
Units: mR/91 days

	<u>1st Qtr.</u>	<u>2nd Qtr.</u>	<u>3rd Qtr.</u>	<u>4th Qtr.</u>
<u>Control</u>				
T-9	11.2 ± 0.8	12.7 ± 0.5	10.1 ± 0.5	13.3 ± 0.6
T-11	10.4 ± 0.7	12.8 ± 0.6	9.3 ± 0.5	13.5 ± 0.6
T-12	15.0 ± 1.6	14.2 ± 0.7	13.0 ± 0.6	14.9 ± 0.7
T-27	17.5 ± 1.0	18.9 ± 0.6	17.0 ± 1.0	19.5 ± 0.6
T-100	14.0 ± 0.5	15.4 ± 1.0	13.2 ± 0.7	14.0 ± 1.2
Mean ± s.d.	13.6 ± 2.9	14.8 ± 2.5	12.5 ± 3.0	15.0 ± 2.6
<u>Special Interest</u>				
T-7	14.1 ± 0.8	15.3 ± 0.9	13.4 ± 0.5	15.4 ± 1.0
T-124	18.0 ± 0.7	18.8 ± 0.9	18.5 ± 0.8	16.8 ± 1.2
T-150	12.5 ± 0.8	13.0 ± 0.8	12.2 ± 0.9	11.9 ± 1.0
T-155	15.8 ± 0.7	20.7 ± 1.5	16.6 ± 1.0	15.1 ± 1.2
T-201	13.5 ± 0.6	13.6 ± 0.6	16.4 ± 0.5	13.2 ± 0.3
Mean ± s.d.	14.8 ± 2.2	16.3 ± 3.3	15.4 ± 2.6	14.5 ± 1.9
<u>QC</u>				
T-80	9.7 ± 0.7	10.0 ± 0.7	10.6 ± 0.9	8.8 ± 0.9
T-83	8.8 ± 0.6	8.7 ± 1.0	8.5 ± 0.7	7.8 ± 1.1
T-84	10.0 ± 0.5	12.2 ± 0.7	9.6 ± 0.7	11.1 ± 1.0
T-113	17.3 ± 0.4	17.9 ± 0.8	18.1 ± 0.6	17.5 ± 1.1
T-200	12.7 ± 0.6	9.6 ± 0.7	12.0 ± 0.5	8.7 ± 0.4
Mean ± s.d.	11.7 ± 3.5	11.7 ± 3.7	11.8 ± 3.8	10.8 ± 3.9
<u>Shield</u>				
T-87	5.6 ± 0.4	6.2 ± 0.8	5.3 ± 0.6	5.6 ± 1.0

Table 13. Milk, analyses for strontium-89, strontium-90, iodine-131, gamma emitting isotopes, calcium and stable potassium.

Location T-24

Units: pCi/L

Date Collected	05-03-23		10-03-23	
Lab Code	TMI- 1065		TMI- 3012	
I-131	0.03 ± 0.1	< 0.2	0.13 ± 0.2	< 0.3
Sr-89	-0.6 ± 0.6	< 0.6	0.4 ± 1.0	< 1.1
Sr-90	0.7 ± 0.3	< 0.5	0.4 ± 0.4	< 0.7
K-40	1272 ± 97		1398 ± 181	
Cs-134	< 3.3		< 7.4	
Cs-137	< 4.0		< 9.9	
Ba-La-140	< 3.1		< 3.7	
Ca (g/L)	1.21		1.05	
Sr-90/g Ca	0.58		0.38	
K (g/L)	1.55 ± 0.12		1.70 ± 0.22	
Cs-137/g K	< 2.58		< 5.82	

Table 14. Ground water samples, analyses for gross beta, tritium, strontium-89, strontium-90 and gamma-emitting isotopes.

Collection: Quarterly

Units: pCi/L

Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Location	T-27A (C)			
Lab Code	TWW- 173			Req. LLD
Date Collected	01-24-23			
Gross beta	3.2 ± 1.3	< 2.1		4.0
H-3	96 ± 85	< 160		330
Sr-89	-0.06 ± 0.4	< 0.5		
Sr-90	0.10 ± 0.2	< 0.5		
Mn-54	< 1.3			15
Fe-59	< 1.8			30
Co-58	< 1.3			15
Co-60	< 2.8			15
Zn-65	< 2.3			30
Zr-Nb-95	< 1.7			15
Cs-134	< 1.3			15
Cs-137	< 2.1			18
Ba-La-140	< 1.4			15

Table 15. Green leafy vegetables, analyses for strontium-89, strontium-90, iodine-131 and other gamma-emitting isotopes.

Collection: Monthly, in season

Units: pCi/g wet

Location	T-17 (I)			
Lab Code	TVE- 2205	TVE- 2206	TVE- 2585	TVE- 2586
Date Collected	07-26-23	07-26-23	08-30-23	08-30-23
Sample Type	Cabbage	Kale	Cabbage	Kale
Sr-89	< 0.004	< 0.016	< 0.016	< 0.009
Sr-90	< 0.003	< 0.011	< 0.013	< 0.008
I-131	< 0.021	< 0.025	< 0.011	< 0.018
K-40	2.14 ± 0.25	3.59 ± 0.49	2.52 ± 0.36	3.82 ± 0.36
Nb-95	< 0.007	< 0.017	< 0.010	< 0.006
Zr-95	< 0.020	< 0.025	< 0.016	< 0.022
Cs-134	< 0.011	< 0.019	< 0.012	< 0.010
Cs-137	< 0.015	< 0.014	< 0.019	< 0.016
Ce-141	< 0.022	< 0.042	< 0.023	< 0.016
Ce-144	< 0.084	< 0.138	< 0.095	< 0.086

Location	T-19 (I)			
	19C			
Lab Code	TVE- 2207	TVE- 2587	TVE- 2894	TVE- 3396
Date Collected	07-26-23	08-30-23	09-27-23	11-01-23
Sample Type	Cabbage	Cabbage	Cabbage	Cabbage
Sr-89	< 0.004	< 0.003	< 0.005	< 0.004
Sr-90	< 0.003	< 0.002	< 0.004	< 0.003
I-131	< 0.014	< 0.024	< 0.030	< 0.007
K-40	2.16 ± 0.33	1.97 ± 0.32	1.53 ± 0.28	2.66 ± 0.27
Nb-95	< 0.013	< 0.009	< 0.008	< 0.014
Zr-95	< 0.030	< 0.015	< 0.020	< 0.016
Cs-134	< 0.016	< 0.010	< 0.014	< 0.008
Cs-137	< 0.010	< 0.021	< 0.018	< 0.011
Ce-141	< 0.034	< 0.019	< 0.021	< 0.016
Ce-144	< 0.163	< 0.087	< 0.104	< 0.063

Table 15. Green leafy vegetables, analyses for strontium-89, strontium-90, iodine-131 and other gamma-emitting isotopes.

Collection: Monthly, in season

Units: pCi/g wet

Location		T-19 (I)			
Lab Code	TVE- 2208	TVE- 2588	19K TVE- 2895	TVE- 3397	
Date Collected	07-26-23	08-30-23	09-27-23	11-01-23	
Sample Type	Kale	Kale	Kale	Kale	
Sr-89	< 0.010	< 0.012	< 0.017	< 0.014	
Sr-90	< 0.007	< 0.009	< 0.021	< 0.012	
I-131	< 0.013	< 0.021	< 0.036	< 0.014	
K-40	2.50 ± 0.37	3.65 ± 0.76	3.59 ± 0.83	3.94 ± 0.38	
Nb-95	< 0.015	< 0.020	< 0.043	< 0.015	
Zr-95	< 0.040	< 0.037	< 0.040	< 0.017	
Cs-134	< 0.019	< 0.030	< 0.031	< 0.013	
Cs-137	< 0.013	< 0.022	< 0.027	< 0.019	
Ce-141	< 0.050	< 0.070	< 0.069	< 0.033	
Ce-144	< 0.147	< 0.163	< 0.236	< 0.089	

Location		T-30		
Lab Code	TVE- 2209	TVE- 2896	TVE- 3398	
Date Collected	07-26-23	09-27-23	01-11-23	
Sample Type	Kale	Kale	Kale	
Sr-89	< 0.012	< 0.021	< 0.014	
Sr-90	< 0.009	< 0.019	< 0.013	
I-131	< 0.021	< 0.026	< 0.012	
K-40	4.26 ± 0.37	4.54 ± 0.64	5.05 ± 0.50	
Nb-95	< 0.009	< 0.026	< 0.018	
Zr-95	< 0.012	< 0.029	< 0.014	
Cs-134	< 0.012	< 0.025	< 0.014	
Cs-137	< 0.019	< 0.013	< 0.017	
Ce-141	< 0.018	< 0.048	< 0.019	
Ce-144	< 0.086	< 0.121	< 0.085	

Location		T-37 (C)			
Lab Code	TVE- 2210	TVE- 2211	TVE- 2589	TVE- 2590	TVE- 2897
Date Collected	07-26-23	07-26-23	08-30-23	08-30-23	09-27-23
Sample Type	Cabbage	Kale	Cabbage	Kale	Cabbage
Sr-89	< 0.004	< 0.013	< 0.003	< 0.008	< 0.005
Sr-90	< 0.003	< 0.009	< 0.002	< 0.007	< 0.004
I-131	< 0.013	< 0.024	< 0.023	< 0.024	< 0.020
K-40	1.85 ± 0.22	4.52 ± 0.61	1.82 ± 0.42	4.04 ± 0.46	2.13 ± 0.59
Nb-95	< 0.009	< 0.018	< 0.024	< 0.012	< 0.021
Zr-95	< 0.018	< 0.029	< 0.035	< 0.018	< 0.034
Cs-134	< 0.009	< 0.022	< 0.023	< 0.016	< 0.026
Cs-137	< 0.014	< 0.012	< 0.021	< 0.027	< 0.016
Ce-141	< 0.017	< 0.047	< 0.028	< 0.030	< 0.062
Ce-144	< 0.071	< 0.202	< 0.166	< 0.134	< 0.187

Table 15. Green leafy vegetables, analyses for strontium-89, strontium-90, iodine-131 and other gamma-emitting isotopes.

Collection: Monthly, in season

Units: pCi/g wet

Location		T-37 (C)
Lab Code	TVE- 3399	
Date Collected	11-01-23	
Sample Type	Cabbage	
Sr-89	< 0.004	
Sr-90	< 0.004	
I-131	< 0.010	
K-40	2.08 ± 0.38	
Nb-95	< 0.017	
Zr-95	< 0.024	
Cs-134	< 0.019	
Cs-137	< 0.010	
Ce-141	< 0.038	
Ce-144	< 0.129	

Table 16. Treated surface water samples, analyses for gross beta.
Collection: Monthly composites of weekly grab samples
Units: pCi/L

T-11 (C)				T-22			
Lab Code	Date Collected	Gross Beta		Lab Code	Date Collected	Gross Beta	
TSWT- 203	01-31-23	0.6 ± 0.5	< 0.9	TSWT- 204	01-31-23	1.2 ± 0.5	< 0.8
TSWT- 421	02-28-23	1.3 ± 0.6	< 0.9	TSWT- 422	02-28-23	1.5 ± 0.6	< 0.9
TSWT- 644	03-27-23	2.4 ± 0.7	< 0.9	TSWT- 645	03-27-23	1.9 ± 0.6	< 0.9
TSWT- 1084	05-02-23	0.7 ± 0.5	< 1.0	TSWT- 1085	05-02-23	1.0 ± 0.5	< 0.9
TSWT- 1489	05-30-23	1.5 ± 0.6	< 0.9	TSWT- 1490	05-30-23	1.3 ± 0.6	< 0.9
TSWT- 1740	06-27-23	0.9 ± 0.5	< 0.9	TSWT- 1741	06-27-23	0.8 ± 0.5	< 0.8
TSWT- 2212	07-25-23	0.6 ± 0.5	< 0.9	TSWT- 2213	07-25-23	1.4 ± 0.5	< 0.8
TSWT- 2592	08-29-23	1.1 ± 0.5	< 0.8	TSWT- 2593	08-29-23	0.9 ± 0.5	< 0.9
TSWT- 2898	09-26-23	1.2 ± 0.5	< 0.9	TSWT- 2899	09-26-23	1.3 ± 0.6	< 0.9
TSWT- 3388	10-31-23	1.3 ± 0.6	< 0.9	TSWT- 3390	10-31-23	1.2 ± 0.6	< 0.9
TSWT- 3702	11-28-23	1.1 ± 0.6	< 1.0	TSWT- 3703	11-28-23	0.5 ± 0.5	< 0.8
TSWT- 3990	01-02-24	1.3 ± 0.6	< 1.0	TSWT- 3991	01-02-24	0.7 ± 0.5	< 0.9

T-143 (QC)			
Lab Code	Date Collected	Gross Beta	
TSWT- 205	01-31-23	0.9 ± 0.5	< 0.9
TSWT- 423	02-28-23	1.3 ± 0.6	< 0.9
TSWT- 646	03-27-23	2.0 ± 0.6	< 0.9
TSWT- 1086	05-02-23	0.9 ± 0.5	< 0.9
TSWT- 1491	05-30-23	1.0 ± 0.5	< 0.9
TSWT- 1742	06-27-23	1.7 ± 0.6	< 0.9
TSWT- 2214	07-25-23	0.6 ± 0.5	< 0.9
TSWT- 2594	08-29-23	1.1 ± 0.6	< 1.0
TSWT- 2900	09-26-23	0.9 ± 0.5	< 0.8
TSWT- 3391	10-31-23	0.6 ± 0.5	< 0.8
TSWT- 3704	11-28-23	0.7 ± 0.5	< 0.9
TSWT- 3992	01-02-24	1.1 ± 0.6	< 1.0

Table 17. Treated surface water samples, analyses for tritium, strontium-89, strontium-90 and gamma-emitting isotopes.

Collection: Quarterly composites of weekly grab samples

Units: pCi/L

T-11 (C)									
Location									
Period	1st Qtr.		2nd Qtr.		3rd Qtr.		4th Qtr.		Reg. LLD
Lab Code	TSWT- 734		TSWT- 1784		TSWT- 2946		TSWT- 4017		
H-3	152 ± 90	< 174	235 ± 87	< 158	149 ± 86	< 167	101 ± 85	< 170	330
Sr-89	0.10 ± 0.5	< 0.6	0.08 ± 0.6	< 0.8	-0.05 ± 0.6	< 0.9	0.23 ± 0.7	< 0.8	
Sr-90	0.04 ± 0.2	< 0.5	0.11 ± 0.2	< 0.4	-0.35 ± 0.3	< 0.7	0.18 ± 0.3	< 0.6	
Mn-54	< 3.5		< 1.9		< 6.1		< 2.7		15
Fe-59	< 5.4		< 6.9		< 4.9		< 5.2		30
Co-58	< 3.0		< 2.0		< 4.6		< 2.4		15
Co-60	< 7.5		< 6.1		< 6.1		< 3.3		15
Zn-65	< 6.5		< 4.9		< 7.2		< 4.4		30
Zr-Nb-95	< 4.2		< 3.1		< 5.0		< 2.3		15
Cs-134	< 3.8		< 3.2		< 6.3		< 3.1		10
Cs-137	< 6.2		< 5.8		< 5.7		< 3.6		18
Ba-La-140	< 2.9		< 5.1		< 4.6		< 4.1		15

T-22									
Location									
Period	1st Qtr.		2nd Qtr.		3rd Qtr.		4th Qtr.		Reg. LLD
Lab Code	TSWT- 735		TSWT- 1785		TSWT- 2947		TSWT- 4018		
H-3	175 ± 92	< 174	390 ± 95	< 158	145 ± 85	< 167	150 ± 88	< 170	330
Sr-89	-0.10 ± 0.6	< 0.7	0.80 ± 0.8	< 1.2	0.60 ± 0.7	< 0.9	-0.04 ± 0.6	< 0.9	
Sr-90	0.36 ± 0.3	< 0.5	-0.07 ± 0.2	< 0.5	-0.60 ± 0.4	< 1.0	0.03 ± 0.3	< 0.6	
Mn-54	< 2.4		< 1.6		< 5.7		< 2.8		15
Fe-59	< 5.8		< 3.3		< 5.1		< 5.6		30
Co-58	< 2.7		< 1.4		< 3.5		< 2.1		15
Co-60	< 2.7		< 5.9		< 4.9		< 3.0		15
Zn-65	< 6.8		< 6.6		< 6.6		< 3.1		30
Zr-Nb-95	< 2.3		< 2.3		< 8.2		< 2.3		15
Cs-134	< 3.1		< 2.9		< 6.0		< 2.6		10
Cs-137	< 4.3		< 4.9		< 5.0		< 2.0		18
Ba-La-140	< 3.2		< 4.7		< 5.5		< 3.7		15

Table 18. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.

Location: T-3

Collection: Monthly composites of weekly grab samples

Units: pCi/L

Lab Code	TSWU- 198		TSWU- 424		TSWU- 647 ^a		TSWU- 1087		Req. LLD
Date Collected	01-31-23		02-28-23		03-27-23		05-02-23		
Gross beta	2.8 ± 1.1	< 1.6	2.2 ± 0.6	< 0.9	6.2 ± 0.9	< 0.9	1.7 ± 0.6	< 0.9	4.0
H-3	239 ± 92	< 160	104 ± 82	< 163	324 ± 100	< 174	116 ± 83	< 162	330
Mn-54	< 1.9		< 3.3		< 2.6		< 2.7		15
Fe-59	< 2.7		< 4.7		< 5.1		< 4.2		30
Co-58	< 1.4		< 2.4		< 2.5		< 2.8		15
Co-60	< 4.7		< 1.7		< 2.2		< 1.8		15
Zn-65	< 4.8		< 3.6		< 6.5		< 3.2		30
Zr-Nb-95	< 1.9		< 3.7		< 1.8		< 2.8		15
Cs-134	< 2.4		< 3.2		< 2.9		< 2.3		10
Cs-137	< 3.9		< 2.8		< 2.2		< 2.4		18
Ba-La-140	< 2.2		< 5.5		< 3.6		< 7.0		15

Lab Code	TSWU- 1485		TSWU- 1743		TSWU- 2215		TSWU- 2595		Req. LLD
Date Collected	05-30-23		06-27-23		07-25-23		08-29-23		
Gross beta	1.2 ± 0.5	< 0.9	1.5 ± 0.6	< 0.9	1.7 ± 0.6	< 0.9	1.6 ± 0.6	< 0.9	4.0
H-3	366 ± 94	< 157 ^b	223 ± 86	< 158	312 ± 93	< 161	221 ± 88	< 160	330
Mn-54	< 1.9		< 2.5		< 3.1		< 3.4		15
Fe-59	< 4.1		< 6.3		< 4.7		< 2.2		30
Co-58	< 2.6		< 2.2		< 3.1		< 2.0		15
Co-60	< 4.2		< 8.3		< 6.5		< 8.1		15
Zn-65	< 4.2		< 5.9		< 1.6		< 4.6		30
Zr-Nb-95	< 2.4		< 4.0		< 3.2		< 3.3		15
Cs-134	< 2.0		< 4.3		< 3.7		< 4.9		10
Cs-137	< 3.4		< 7.1		< 6.3		< 6.1		18
Ba-La-140	< 2.7		< 3.9		< 4.6		< 4.0		15

Lab Code	TSWU- 2901		TSWU- 3392		TSWU- 3705		TSWU- 3994		Req. LLD
Date Collected	09-26-23		10-31-23		11-28-23		01-02-24		
Gross beta	2.1 ± 0.6	< 0.9	2.5 ± 0.6	< 0.9	1.0 ± 0.6	< 1.0	2.8 ± 0.7	< 0.9	4.0
H-3	142 ± 85	< 167	129 ± 86	< 171	413 ± 102	< 173	176 ± 89	< 170	330
Mn-54	< 3.1		< 5.1		< 2.2		< 2.6		15
Fe-59	< 6.9		< 9.1		< 5.7		< 3.0		30
Co-58	< 3.4		< 5.4		< 2.1		< 1.6		15
Co-60	< 7.0		< 5.7		< 6.6		< 5.3		15
Zn-65	< 1.9		< 9.5		< 4.9		< 4.8		30
Zr-Nb-95	< 3.9		< 5.8		< 2.7		< 3.2		15
Cs-134	< 3.9		< 6.2		< 4.1		< 3.4		10
Cs-137	< 6.4		< 5.3		< 6.1		< 5.2		18
Ba-La-140	< 2.0		< 3.9		< 2.4		< 3.8		15

^a Sample very clouded. Reanalyzed per station request. Reanalysis result = 2.95 ± 0.7 pCi/L, MDA < 0.9 pCi/L.^b Sample recount = 355 ± 118, MDA < 167 pCi/L.

Table 18. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.
Location: T-11 (C)
Collection: Monthly composites of weekly grab samples
Units: pCi/L

Lab Code	TSWU- 199		TSWU- 425		TSWU- 648 ^a		TSWU- 1088		Req. LLD
Date Collected	01-31-23		02-28-23		03-27-23		05-02-23		
Gross beta	1.7 ± 0.6	< 0.9	2.2 ± 0.6	< 0.9	7.8 ± 1.0	< 0.9	1.5 ± 0.6	< 0.9	4.0
H-3	248 ± 93	< 160	228 ± 89	< 163	65 ± 86	< 174	234 ± 90	< 162	330
Mn-54	< 1.0		< 5.3		< 4.6		< 1.1		15
Fe-59	< 2.8		< 2.4		< 7.2		< 2.2		30
Co-58	< 1.6		< 3.3		< 3.7		< 0.8		15
Co-60	< 1.9		< 3.9		< 7.2		< 1.0		15
Zn-65	< 3.6		< 4.5		< 6.2		< 2.5		30
Zr-Nb-95	< 2.1		< 6.6		< 3.4		< 1.7		15
Cs-134	< 1.6		< 5.9		< 6.1		< 1.0		10
Cs-137	< 2.3		< 3.3		< 6.6		< 1.2		18
Ba-La-140	< 1.6		< 4.0		< 4.1		< 2.5		15

Lab Code	TSWU- 1486		TSWU- 1744		TSWU- 2216		TSWU- 2596		Req. LLD
Date Collected	05-30-23		06-27-23		07-25-23		08-29-23		
Gross beta	1.3 ± 0.6	< 0.9	0.3 ± 0.5	< 0.9	1.4 ± 0.6	< 0.9	1.0 ± 0.5	< 0.8	4.0
H-3	181 ± 85	< 157	124 ± 81	< 158	226 ± 89	< 161	230 ± 89	< 160	330
Mn-54	< 4.3		< 7.1		< 6.3		< 1.7		15
Fe-59	< 4.4		< 7.2		< 6.3		< 3.9		30
Co-58	< 3.9		< 4.1		< 5.9		< 1.9		15
Co-60	< 2.7		< 4.1		< 5.0		< 8.5		15
Zn-65	< 5.3		< 9.2		< 3.6		< 6.9		30
Zr-Nb-95	< 3.7		< 6.3		< 4.6		< 2.7		15
Cs-134	< 3.2		< 7.3		< 6.5		< 4.9		10
Cs-137	< 3.0		< 5.0		< 5.2		< 7.8		18
Ba-La-140	< 3.6		< 4.5		< 5.7		< 5.2		15

Lab Code	TSWU- 2904		TSWU- 3393		TSWU- 3706		TSWU- 3995		Req. LLD
Date Collected	09-26-23		10-31-23		11-28-23		01-02-24		
Gross beta	0.9 ± 1.0	< 1.7	0.9 ± 0.5	< 0.9	1.3 ± 0.5	< 0.8	0.5 ± 0.5	< 0.9	4.0
H-3	142 ± 85	< 167	91 ± 84	< 171	123 ± 87	< 173	110 ± 85	< 170	330
Mn-54	< 6.4		< 2.4		< 2.4		< 1.5		15
Fe-59	< 4.3		< 3.1		< 7.6		< 6.2		30
Co-58	< 8.0		< 2.3		< 2.4		< 2.4		15
Co-60	< 4.7		< 2.6		< 2.2		< 1.4		15
Zn-65	< 6.2		< 3.5		< 6.2		< 5.5		30
Zr-Nb-95	< 5.1		< 3.3		< 3.3		< 2.4		15
Cs-134	< 6.7		< 3.4		< 2.5		< 2.7		10
Cs-137	< 8.0		< 3.5		< 2.4		< 2.6		18
Ba-La-140	< 4.2		< 2.6		< 3.0		< 2.8		15

^a Sample very cloudy. Reanalyzed per station request. Reanalysis result = 1.54 ± 0.6 pCi/L, MDA < 0.9 pCi/L.

Table 18. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.

Location: T-22

Collection: Monthly composites of weekly grab samples

Units: pCi/L

Lab Code	TSWU- 200		TSWU- 426		TSWU- 649 ^a		TSWU- 1089		Req. LLD
Date Collected	01-31-23		02-28-23		03-27-23		05-02-23		
Gross beta	2.6 ± 0.7	< 0.9	1.8 ± 0.6	< 0.9	5.3 ± 0.8	< 0.9	2.6 ± 0.7	< 0.9	4.0
H-3	229 ± 92	< 160	178 ± 86	< 163	334 ± 100	< 174	314 ± 94	< 162	330
Mn-54	< 2.2		< 2.3		< 3.1		< 1.1		15
Fe-59	< 4.0		< 3.6		< 5.8		< 2.2		30
Co-58	< 2.3		< 3.2		< 1.8		< 1.3		15
Co-60	< 2.1		< 1.9		< 7.1		< 2.7		15
Zn-65	< 2.6		< 9.5		< 5.5		< 2.3		30
Zr-Nb-95	< 3.2		< 2.2		< 4.2		< 1.2		15
Cs-134	< 2.6		< 3.5		< 3.3		< 1.3		10
Cs-137	< 2.9		< 3.5		< 5.5		< 2.4		18
Ba-La-140	< 1.7		< 4.2		< 3.6		< 4.0		15
Lab Code	TSWU- 1487		TSWU- 1745		TSWU- 2217		TSWU- 2597		Req. LLD
Date Collected	05-30-23		06-27-23		07-25-23		08-29-23		
Gross beta	1.8 ± 0.6	< 0.8	1.5 ± 0.6	< 0.9	1.2 ± 0.5	< 0.8	1.0 ± 0.5	< 0.9	4.0
H-3	385 ± 95	< 157 ^b	121 ± 81	< 158	221 ± 89	< 161	305 ± 93	< 160	330
Mn-54	< 3.7		< 4.8		< 7.7		< 3.6		15
Fe-59	< 7.7		< 11.5		< 11.5		< 3.0		30
Co-58	< 2.8		< 6.1		< 5.4		< 3.3		15
Co-60	< 1.4		< 4.2		< 4.9		< 7.4		15
Zn-65	< 3.6		< 4.8		< 18.4		< 4.9		30
Zr-Nb-95	< 2.1		< 8.6		< 9.3		< 5.1		15
Cs-134	< 3.2		< 6.8		< 8.4		< 4.5		10
Cs-137	< 1.9		< 5.5		< 5.8		< 6.1		18
Ba-La-140	< 4.5		< 5.3		< 7.3		< 4.0		15
Lab Code	TSWU- 2906		TSWU- 3394		TSWU- 3707		TSWU- 3996		Req. LLD
Date Collected	09-26-23		10-31-23		11-28-23		01-02-24		
Gross beta	1.8 ± 1.2	< 2.0	1.2 ± 0.5	< 0.8	1.1 ± 0.6	< 0.9	0.7 ± 0.5	< 0.9	4.0
H-3	161 ± 86	< 167	244 ± 93	< 171	17 ± 81	< 173	103 ± 85	< 170	330
Mn-54	< 2.6		< 1.5		< 2.7		< 2.0		15
Fe-59	< 4.1		< 4.5		< 5.5		< 5.3		30
Co-58	< 2.8		< 2.6		< 3.4		< 2.2		15
Co-60	< 1.6		< 2.1		< 2.2		< 1.4		15
Zn-65	< 3.0		< 4.0		< 5.8		< 4.1		30
Zr-Nb-95	< 2.6		< 2.8		< 2.4		< 1.6		15
Cs-134	< 2.2		< 2.7		< 2.4		< 2.7		10
Cs-137	< 2.5		< 2.1		< 2.4		< 2.6		18
Ba-La-140	< 1.6		< 2.0		< 5.1		< 2.9		15

^a Sample very cloudy. Reanalyzed per station request. Reanalysis result = 1.80 ± 0.6 pCi/L, MDA < 0.9 pCi/L.^b Sample recount = 300 ± 115, MDA < 167 pCi/L.

Table 18. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.

Location: T-145 (QC)

Collection: Monthly composites of weekly grab samples

Units: pCi/L

Lab Code	TSWU- 201		TSWU- 427		TSWU- 650		TSWU- 1090		Req. LLD
Date Collected	01-31-23		02-28-23		03-27-23		05-02-23		
Gross beta	3.8 ± 1.2	< 1.8	1.4 ± 0.6	< 0.9	4.9 ± 0.8	< 0.9	1.1 ± 0.5	< 0.9	4.0
H-3	171 ± 89	< 160	178 ± 86	< 163	122 ± 89	< 174	217 ± 89	< 162	330
Mn-54	< 2.4		< 2.6		< 1.0		< 3.0		15
Fe-59	< 3.1		< 3.3		< 2.2		< 5.6		30
Co-58	< 2.8		< 1.6		< 1.2		< 2.4		15
Co-60	< 2.1		< 2.4		< 1.1		< 2.4		15
Zn-65	< 4.6		< 2.4		< 2.4		< 4.4		30
Zr-Nb-95	< 1.6		< 1.9		< 1.4		< 3.6		15
Cs-134	< 2.6		< 2.3		< 1.0		< 2.4		10
Cs-137	< 2.1		< 2.4		< 1.2		< 2.1		18
Ba-La-140	< 2.2		< 2.9		< 0.9		< 9.6		15

Lab Code	TSWU- 1488		TSWU- 1746		TSWU- 2218		TSWU- 2599		Req. LLD
Date Collected	05-30-23		06-27-23		07-25-23		08-29-23		
Gross beta	1.6 ± 0.6	< 0.9	0.7 ± 0.5	< 0.9	1.4 ± 0.6	< 0.9	1.3 ± 0.6	< 0.9	4.0
H-3	164 ± 84	< 157	112 ± 80	< 158	150 ± 85	< 161	238 ± 89	< 160	330
Mn-54	< 1.3		< 5.0		< 5.2		< 3.0		15
Fe-59	< 2.1		< 6.8		< 10.4		< 5.2		30
Co-58	< 1.4		< 3.8		< 6.7		< 2.7		15
Co-60	< 2.7		< 4.4		< 4.3		< 8.8		15
Zn-65	< 2.6		< 3.8		< 14.0		< 3.4		30
Zr-Nb-95	< 1.1		< 3.6		< 3.5		< 5.1		15
Cs-134	< 1.3		< 5.8		< 6.2		< 4.5		10
Cs-137	< 2.4		< 4.9		< 6.8		< 7.3		18
Ba-La-140	< 1.4		< 2.9		< 4.1		< 4.8		15

Lab Code	TSWU- 2907		TSWU- 3395		TSWU- 3708		TSWU- 3997		Req. LLD
Date Collected	09-26-23		10-31-23		11-28-23		01-02-24		
Gross beta	1.0 ± 1.0	< 1.8	1.1 ± 0.6	< 0.9	0.6 ± 0.5	< 0.9	1.2 ± 0.5	< 0.9	4.0
H-3	147 ± 86	< 167	101 ± 85	< 171	111 ± 87	< 173	68 ± 83	< 170	330
Mn-54	< 6.7		< 2.1		< 2.4		< 1.9		15
Fe-59	< 6.5		< 5.1		< 9.5		< 3.8		30
Co-58	< 4.0		< 3.7		< 3.0		< 1.6		15
Co-60	< 6.7		< 5.7		< 3.6		< 2.7		15
Zn-65	< 4.5		< 5.2		< 8.2		< 4.9		30
Zr-Nb-95	< 4.1		< 3.0		< 2.7		< 2.2		15
Cs-134	< 8.2		< 3.5		< 3.2		< 2.3		10
Cs-137	< 5.4		< 6.1		< 3.1		< 3.5		18
Ba-La-140	< 4.4		< 2.3		< 4.2		< 4.2		15

Table 19. Untreated surface water samples, analyses for strontium-89 and strontium-90.
Collection: Quarterly composites of weekly grab samples
Units: pCi/L

Location T-3							
Period	1st Qtr.		2nd Qtr.		3rd Qtr.		4th Qtr.
Lab Code	TSWU- 736		TSWU- 1878		TSWU- 2966		TSWU- 4096
Sr-89	0.10 ± 0.5	< 0.6	0.28 ± 0.7	< 0.8	0.28 ± 0.6	< 0.8	-0.05 ± 0.5
Sr-90	0.08 ± 0.2	< 0.5	0.16 ± 0.2	< 0.5	-0.28 ± 0.3	< 0.7	0.10 ± 0.2

Location T-11 (C)							
Period	1st Qtr.		2nd Qtr.		3rd Qtr.		4th Qtr.
Lab Code	TSWU- 737		TSWU- 1879		TSWU- 2967		TSWU- 4097
Sr-89	-0.13 ± 0.5	< 0.6	-0.15 ± 0.7	< 1.0	0.07 ± 0.6	< 0.7	0.16 ± 0.5
Sr-90	0.17 ± 0.2	< 0.5	0.14 ± 0.3	< 0.5	-0.11 ± 0.3	< 0.7	0.04 ± 0.2

Location T-22							
Period	1st Qtr.		2nd Qtr.		3rd Qtr.		4th Qtr.
Lab Code	TSWU- 738		TSWU- 1880		TSWU- 2968		TSWU- 4098
Sr-89	0.05 ± 0.5	< 0.6	-0.43 ± 0.6	< 0.7	0.08 ± 0.6	< 0.9	0.47 ± 0.6
Sr-90	0.25 ± 0.3	< 0.5	0.32 ± 0.2	< 0.4	-0.36 ± 0.3	< 0.7	0.30 ± 0.3

Table 20. Fish samples, analyses for gross beta and gamma-emitting isotopes.
Collection: Annually
Units: pCi/g wet

Location		T-33 (Lake Erie, 1.5 mi. NE of Station)	
Lab Code	TF- 2400	TF- 2401	
Date Collected	08-02-23	08-02-23	
Sample Type	Walleye	White Perch/ White Bass	
Gross Beta	4.56 ± 0.20	4.05 ± 0.29	
K-40	3.89 ± 0.45	3.62 ± 0.41	
Mn-54	< 0.011	< 0.016	
Fe-59	< 0.046	< 0.054	
Co-58	< 0.016	< 0.016	
Co-60	< 0.014	< 0.012	
Zn-65	< 0.027	< 0.021	
Cs-134	< 0.017	< 0.017	
Cs-137	< 0.013	< 0.011	
Location		T-35	
Lab Code	TF- 2402		
Date Collected	08-02-23	08-02-23	
Sample Type	Walleye	White Perch/ White Bass	
Gross Beta	4.49 ± 0.26	2.90 ± 0.16	
K-40	3.32 ± 0.55	2.63 ± 0.59	
Mn-54	< 0.014	< 0.020	
Fe-59	< 0.037	< 0.087	
Co-58	< 0.017	< 0.011	
Co-60	< 0.032	< 0.015	
Zn-65	< 0.024	< 0.034	
Cs-134	< 0.017	< 0.029	
Cs-137	< 0.028	< 0.022	

Table 21. Shoreline sediment samples, analyses for gamma-emitting isotopes.
Collection: Semiannually
Units: pCi/g dry

Location		T-3		T-11	
Lab Code		TSS- 787	TSS- 3013	TSS- 788	TSS- 3014
Date Collected		04-04-23	10-03-23	04-04-23	10-03-23
K-40		5.92 ± 0.39	10.55 ± 0.35	9.68 ± 0.47	12.38 ± 0.39
Mn-54		< 0.020	< 0.011	< 0.021	< 0.014
Co-58		< 0.034	< 0.017	< 0.028	< 0.014
Co-60		< 0.018	< 0.008	< 0.012	< 0.009
Cs-134		< 0.014	< 0.007	< 0.018	< 0.008
Cs-137		< 0.022	< 0.006	< 0.013	< 0.008



700 Landwehr Road • Northbrook, IL 60062-2310
phone (847) 564-0700 • fax (847) 564-4517

APPENDIX A

INTERLABORATORY AND INTRALABORATORY COMPARISON PROGRAM RESULTS

NOTE: Appendix A is updated four times a year. The complete appendix is included in March, June, September and December monthly progress reports only.

January, 2023 through December, 2023

Appendix A

Interlaboratory/ Intralaboratory Comparison Program Results

Microbac Laboratories Inc. has participated in interlaboratory comparison (crosscheck) programs since the formulation of its quality control program in December 1971. These programs are operated by agencies which supply environmental type samples containing concentrations of radionuclides known to the issuing agency but not to participant laboratories. The purpose of such a program is to provide an independent check on a laboratory's analytical procedures and to alert it of any possible problems.

Participant laboratories measure the concentration of specified radionuclides and report them to the issuing agency. Several months later, the agency reports the known values to the participant laboratories and specifies control limits. Results consistently higher or lower than the known values or outside the control limits indicate a need to check the instruments or procedures used.

Results in Table A-1 were obtained through participation in the RAD PT Study Proficiency Testing Program administered by Environmental Resource Associates, serving as a replacement for studies conducted previously by the U.S. EPA Environmental Monitoring Systems Laboratory, Las Vegas, Nevada.

Table A-2 lists results for thermoluminescent dosimeters (TLDs), via irradiation and evaluation by the University of Wisconsin-Madison Radiation Calibration Laboratory at the University of Wisconsin Medical Radiation Research Center.

Table A-3 lists results of the analyses on intralaboratory "spiked" samples for the past twelve months. All samples are prepared using NIST traceable sources. Data for previous years available upon request.

Table A-4 lists results of the analyses on intralaboratory "blank" samples for the past twelve months. Data for previous years available upon request.

Table A-5 lists analytical results from the intralaboratory "duplicate" program for the past twelve months. Acceptance is based on each result being within 25% of the mean of the two results or the two sigma uncertainties of each result overlap.

The results in Table A-6 were obtained through participation in the Mixed Analyte Performance Evaluation Program.

Results in Table A-7 were obtained through participation in the MRAD PT Study Proficiency Testing Program administered by Environmental Resource Associates, serving as a replacement for studies conducted previously by the Environmental Measurement Laboratory Quality Assessment Program (EML).

Attachment A lists the laboratory acceptance criteria for various analyses.

Out-of-limit results are explained directly below the result.

Attachment A

ACCEPTANCE CRITERIA FOR INTRALABORATORY "SPIKED" SAMPLES

Analysis	Ratio of lab result to known value.
Gamma Emitters	0.8 to 1.2
Strontium-89, Strontium-90	0.8 to 1.2
Potassium-40	0.8 to 1.2
Gross alpha	0.5 to 1.5
Gross beta	0.8 to 1.2
Tritium	0.8 to 1.2
Radium-226, Radium-228	0.7 to 1.3
Plutonium	0.8 to 1.2
Iodine-129, Iodine-131	0.8 to 1.2
Nickel-63, Technetium-99, Uranium-238	0.7 to 1.3
Iron-55	0.8 to 1.2
Other Analyses	0.8 to 1.2

TABLE A-1. Interlaboratory Comparison Crosscheck program, Environmental Resource Associates (ERA)^a.
RAD study

Lab Code	Date	Analysis	Concentration (pCi/L)			
			Laboratory Result	ERA Value	Acceptance Limits	Acceptance
RAD-132 Study						
ERDW-162	2/23/2023	Ba-133	33.0 ± 3.5	30.5	24.2 - 34.6	Pass
ERDW-162	2/23/2023	Cs-134	30.7 ± 3.0	28.2	21.9 - 31.1	Pass
ERDW-162	2/23/2023	Cs-137	191 ± 7	190	171 - 211	Pass
ERDW-162	2/23/2023	Co-60	110 ± 4	110	99.0 - 123	Pass
ERDW-162	2/23/2023	Zn-65	109 ± 8	105	94.5 - 125	Pass
ERDW-162	2/23/2023	Gr. Alpha	25.3 ± 0.2	30.0	15.3 - 39.2	Pass
ERDW-162	2/23/2023	G. Beta	15.0 ± 0.1	16.5	9.25 - 24.8	Pass
ERDW-162	2/23/2023	Ra-226	7.58 ± 0.52	8.26	6.21 - 9.71	Pass
ERDW-162	2/23/2023	Ra-228	7.44 ± 1.53	7.17	4.51 - 9.20	Pass
ERDW-162	2/23/2023	H-3	22,600 ± 467	21,600	18,900 - 23,800	Pass
RAD-134 Study						
ERDW-1956	7/10/2023	Ba-133	64.1 ± 4.7	66.5	55.4 - 73.2	Pass
ERDW-1956	7/10/2023	Cs-134	97.0 ± 4.8	90.8	74.5 - 99.9	Pass
ERDW-1956	7/10/2023	Cs-137	179 ± 8	163	147 - 181	Pass
ERDW-1956	7/10/2023	Co-60	26.6 ± 2.9	20.7	17.5 - 25.6	Fail ^b
ERDW-1956	7/10/2023	Zn-65	318 ± 12	290	261 - 339	Pass
ERDW-50167	7/10/2023	Gr. Alpha	34.3 ± 1.9	47.9	24.9 - 60.3	Pass
ERDW-50167	7/10/2023	G. Beta	27.4 ± 1.2	28.6	18.2 - 36.4	Pass
ERDW-50171	7/10/2023	Ra-226	19.3 ± 0.9	17.4	12.9 - 19.9	Pass
ERDW-50171	7/10/2023	Ra-228	7.11 ± 1.59	7.16	4.50 - 9.18	Pass
ERDW-50173	7/10/2023	H-3	10,500 ± 326	9,860	8,570 - 10,800	Pass
ERDW-50169	7/10/2023	I-131	23.9 ± 1.2	24.4	20.2 - 28.9	Pass

^a Results obtained by Microbac Laboratories Inc. - Northbrook as a participant in the crosscheck program for proficiency testing in drinking water conducted by Environmental Resource Associates (ERA).

^b The Cobalt-60 result did not meet ERA acceptance criteria. The sample was reanalyzed and passed for all analytes. (Co-60 reanalysis result was 21.2 ± 3.0 pCi/L). No cause for the earlier failure could be determined.

TABLE A-2. Thermoluminescent Dosimetry, (TLD, CaSO₄: Dy Cards).^a

				mrem		
Lab Code	Irradiation		Delivered	Reported ^b	Performance ^c	
	Date	Description	Dose	Dose	Quotient (P)	
<u>Microbac Laboratories, Inc.</u>		Group 1				
2022-23-3	11/29/2023	Spike 1	93.0	90.0	-0.03	
2022-23-3	11/29/2023	Spike 2	93.0	88.5	-0.05	
2022-23-3	11/29/2023	Spike 3	93.0	89.0	-0.04	
2022-23-3	11/29/2023	Spike 4	93.0	89.5	-0.04	
2022-23-3	11/29/2023	Spike 5	93.0	88.1	-0.05	
2022-23-3	11/29/2023	Spike 6	93.0	95.1	0.02	
2022-23-3	11/29/2023	Spike 7	93.0	90.8	-0.02	
2022-23-3	11/29/2023	Spike 8	93.0	90.8	-0.02	
2022-23-3	11/29/2023	Spike 9	93.0	92.3	-0.01	
2022-23-3	11/29/2023	Spike 10	93.0	89.0	-0.04	
2022-23-3	11/29/2023	Spike 11	93.0	84.9	-0.09	
2022-23-3	11/29/2023	Spike 12	93.0	90.8	-0.02	
2022-23-3	11/29/2023	Spike 13	93.0	92.0	-0.01	
2022-23-3	11/29/2023	Spike 14	93.0	87.7	-0.06	
2022-23-3	11/29/2023	Spike 15	93.0	88.8	-0.05	
2022-23-3	11/29/2023	Spike 16	93.0	88.6	-0.05	
2022-23-3	11/29/2023	Spike 17	93.0	84.2	-0.09	
2022-23-3	11/29/2023	Spike 18	93.0	88.6	-0.05	
2022-23-3	11/29/2023	Spike 19	93.0	86.4	-0.07	
2022-23-3	11/29/2023	Spike 20	93.0	88.3	-0.05	
Mean (Spike 1-20)				89.2	-0.04	Pass ^d
Standard Deviation (Spike 1-20)				2.5	0.03	Pass ^d

a TLD's were irradiated by the University of Wisconsin-Madison Radiation Calibration Laboratory following ANSI N13.37 protocol from a known air kerma rate. TLD's were read and the results were submitted by Microbac Laboratories, Inc. to the University of Wisconsin-Madison Radiation Calibration Laboratory for comparison to the delivered dose.

b Reported dose was converted from exposure (R) to Air Kerma (cGy) using a conversion of 0.876. Conversion from air kerma to ambient dose equivalent for Cs-137 at the reference dose point $H^*(10)K_a = 1.20$. mrem/cGy = 1000.

c Performance Quotient (P) is calculated as ((reported dose - conventionally true value) ÷ conventionally true value) where the conventionally true value is the delivered dose.

d Acceptance is achieved when neither the absolute value of the mean of the P values, nor the standard deviation of the P values exceed 0.15.

TABLE A-2. Thermoluminescent Dosimetry, (TLD, CaSO₄: Dy Cards).^a

				mrem		
Lab Code	Irradiation Date	Description	Delivered Dose	Reported ^b Dose	Performance ^c Quotient (P)	
<u>Microbac Laboratories, Inc.</u>		Group 2				
2022-23-4	11/29/2023	Spike 21	176.0	170.1	-0.03	
2022-23-4	11/29/2023	Spike 22	176.0	166.8	-0.05	
2022-23-4	11/29/2023	Spike 23	176.0	156.3	-0.11	
2022-23-4	11/29/2023	Spike 24	176.0	163.1	-0.07	
2022-23-4	11/29/2023	Spike 25	176.0	166.8	-0.05	
2022-23-4	11/29/2023	Spike 26	176.0	168.0	-0.05	
2022-23-4	11/29/2023	Spike 27	176.0	159.8	-0.09	
2022-23-4	11/29/2023	Spike 28	176.0	160.4	-0.09	
2022-23-4	11/29/2023	Spike 29	176.0	165.4	-0.06	
2022-23-4	11/29/2023	Spike 30	176.0	166.2	-0.06	
2022-23-4	11/29/2023	Spike 31	176.0	159.9	-0.09	
2022-23-4	11/29/2023	Spike 32	176.0	161.4	-0.08	
2022-23-4	11/29/2023	Spike 33	176.0	165.8	-0.06	
2022-23-4	11/29/2023	Spike 34	176.0	163.9	-0.07	
2022-23-4	11/29/2023	Spike 35	176.0	167.9	-0.05	
2022-23-4	11/29/2023	Spike 36	176.0	157.4	-0.11	
2022-23-4	11/29/2023	Spike 37	176.0	165.6	-0.06	
2022-23-4	11/29/2023	Spike 38	176.0	161.3	-0.08	
2022-23-4	11/29/2023	Spike 39	176.0	165.9	-0.06	
2022-23-4	11/29/2023	Spike 40	176.0	159.4	-0.09	
Mean (Spike 21-40)				163.6	-0.07	Pass ^d
Standard Deviation (Spike 21-40)				3.9	0.02	Pass ^d

a TLD's were irradiated by the University of Wisconsin-Madison Radiation Calibration Laboratory following ANSI N13.37 protocol from a known air kerma rate. TLD's were read and the results were submitted by Microbac Laboratories, Inc. to the University of Wisconsin-Madison Radiation Calibration Laboratory for comparison to the delivered dose.

b Reported dose was converted from exposure (R) to Air Kerma (cGy) using a conversion of 0.876. Conversion from air kerma to ambient dose equivalent for Cs-137 at the reference dose point $H^*(10)K_a = 1.20$. mrem/cGy = 1000.

c Performance Quotient (P) is calculated as ((reported dose - conventionally true value) ÷ conventionally true value) where the conventionally true value is the delivered dose.

d Acceptance is achieved when neither the absolute value of the mean of the P values, nor the standard deviation of the P values exceed 0.15.

TABLE A-3. Intralaboratory "Spiked" Samples

Lab Code ^b	Date	Analysis	Concentration ^a				Ratio Lab/Known
			Laboratory results 2s, n=1 ^c	Known Activity	Control Limits ^d	Acceptance	
SPDW-26	1/5/2023	Ra-228	11.8 ± 1.9	13.4	9.4 - 17.4	Pass	0.88
SPDW-50002	1/11/2023	H-3	21,747 ± 452	22,100	17,680 - 26,520	Pass	0.98
SPDW-50004	1/20/2023	H-3	21,861 ± 458	22,100	17,680 - 26,520	Pass	0.99
SPDW-50006	1/5/2023	Ra-226	11.3 ± 0.3	12.3	8.6 - 16.0	Pass	0.92
SPDW-50034	1/27/2023	Ra-226	12.6 ± 0.4	12.3	8.6 - 16.0	Pass	1.02
LCS-SO-012723	8/1/2020	Cs-134	17.1 ± 0.2	19.2	15.4 - 23.0	Pass	0.89
LCS-SO-012723	8/1/2020	Zn-65	13.8 ± 1.7	14.1	11.3 - 16.9	Pass	0.98
LCS-SO-012723	8/1/2020	Co-60	26.4 ± 0.2	27.0	21.6 - 32.4	Pass	0.98
LCS-SO-012723	8/1/2020	Co-57	30.7 ± 0.1	30.9	24.7 - 37.1	Pass	0.99
LCS-SO-012723	8/1/2020	Mn-54	17.7 ± 0.8	16.5	13.2 - 19.8	Pass	1.07
LCS-SO-012723	8/1/2020	K-40	18.4 ± 0.7	16.8	13.4 - 20.2	Pass	1.10
SPDW-50010	1/31/2023	Ra-228	9.7 ± 1.3	13.4	9.4 - 17.4	Pass	0.72
SPDW-50008	2/3/2023	H-3	21,961 ± 459	22,100	17,680 - 26,520	Pass	0.99
SPDW-50016	2/10/2023	H-3	22,137 ± 462	22,100	17,680 - 26,520	Pass	1.00
SPDW-50012	2/24/2023	Sr-90	18.6 ± 1.2	17.1	13.7 - 20.5	Pass	1.09
SPDW-50032	2/16/2023	Ra-228	13.1 ± 1.9	13.4	9.4 - 17.4	Pass	0.98
SPDW-50018	2/16/2023	Gr. Alpha	19.1 ± 1.3	23.5	11.8 - 28.2	Pass	0.81
SPDW-50018	2/16/2023	Gr. Beta	133 ± 2	141	112 - 169	Pass	0.94
SPDW-50021	2/17/2023	H-3	21,843 ± 459	22,100	17,680 - 26,520	Pass	0.99
SPDW-50047	2/24/2023	Ra-226	12.8 ± 0.4	12.3	8.6 - 16.0	Pass	1.04
SPDW-50049	3/17/2023	H-3	22,120 ± 465	22,100	17,680 - 26,520	Pass	1.00
SPDW-50056	3/24/2023	H-3	21,911 ± 463	22,100	17,680 - 26,520	Pass	0.99
SPDW-50060	3/16/2023	Ra-226	12.9 ± 0.4	12.3	8.6 - 16.0	Pass	1.05
SPDW-50097	4/13/2023	Ra-226	11.7 ± 0.5	12.3	8.6 - 16.0	Pass	0.95
SPDW-50068	4/14/2023	H-3	22,656 ± 482	22,100	17,680 - 26,520	Pass	1.03
SPDW-50081	4/25/2023	H-3	21,594 ± 461	22,100	17,680 - 26,520	Pass	0.98
SPDW-50131	5/3/2023	Ra-226	11.4 ± 0.3	12.3	8.6 - 16.0	Pass	0.93
SPDW-50104	5/12/2023	H-3	21,513 462	22,100	17,680 - 26,520	Pass	0.97
SPDW-50117	5/26/2023	H-3	22,069 468	22,100	17,680 - 26,520	Pass	1.00
SPDW-50182	6/8/2023	Ra-226	10.4 ± 0.3	12.3	8.6 - 16.0	Pass	0.85
SPDW-50137	6/12/2023	H-3	21,898 ± 456	22,100	17,680 - 26,520	Pass	0.99
SPDW-50138	6/12/2023	H-3	21,898 ± 456	22,100	17,680 - 26,520	Pass	0.99
SPDW-50153	6/26/2023	H-3	21,672 ± 456	22,100	17,680 - 26,520	Pass	0.98
SPDW-50153	6/26/2023	H-3	21,672 ± 456	22,100	17,680 - 26,520	Pass	0.98
SPDW-50259	7/19/2023	Ra-226	10.5 ± 0.3	12.3	8.6 - 16.0	Pass	0.85
SPDW-50219	8/15/2023	Sr-90	17.5 ± 1.1	17.1	13.7 - 20.5	Pass	1.02
SPDW-50291	8/28/2023	Ra-226	11.0 ± 0.3	12.3	8.6 - 16.0	Pass	0.89
SPDW-50249	8/22/2023	Gr. Alpha	16.7 ± 1.4	23.5	11.8 - 28.2	Pass	0.71
SPDW-50249	8/22/2023	Gr. Beta	128 ± 2	141	112 - 169	Pass	0.91
SPDW-50252	8/18/2023	H-3	21,628 ± 459	22,100	17,680 - 26,520	Pass	0.98
SPDW-50257	8/25/2023	H-3	22,152 ± 469	22,100	17,680 - 26,520	Pass	1.00

^a Liquid sample results are reported in pCi/Liter, air filters (pCi/m3), charcoal (pCi/charcoal canister), and solid samples (pCi/kg).

^b Laboratory codes : W & SPW (Water), MI (milk), AP (air filter), SO (soil), VE (vegetation), CH (charcoal canister), F (fish), U (urine).

^c Results are based on single determinations.

^d Acceptance criteria are listed in Attachment A of this report. A-6

TABLE A-3. Intralaboratory "Spiked" Samples

Lab Code ^b	Date	Analysis	Concentration ^a		Control Limits ^d	Acceptance	Ratio Lab/Known
			Laboratory results 2s, n=1 ^c	Known Activity			
LCS-09/12/23	8/1/2020	Cs-134	17,533 ± 346	19,170	15,336 - 23,004	Pass	0.91
LCS-09/12/23	8/1/2020	Co-60	27,480 ± 347	26,055	20,844 - 31,266	Pass	1.05
LCS-09/12/23	8/1/2020	K-40	20,183 1268	18,468	14,774 - 22,162	Pass	1.09
SPDW-50270	9/6/2023	H-3	22,287 ± 469	22,100	17,680 - 26,520	Pass	1.01
SPDW-50283	9/25/2023	H-3	21,062 ± 444	22,100	17,680 - 26,520	Pass	0.95
SPDW-50291	8/28/2023	Ra-226	11.0 ± 0	12.3	8.6 - 16.0	Pass	0.89
SPDW-50316	10/3/2023	H-3	21,406 ± 454	22,100	17,680 - 26,520	Pass	0.97
SPW-50330	11/17/2023	H-3	21,143 ± 543	22,100	17,680 - 26,520	Pass	0.96
LCS-SO-112823	8/1/2020	Cs-134	17.2 ± 0.2	19.2	15.4 - 23.0	Pass	0.90
LCS-SO-112823	8/1/2020	Zn-65	14.9 ± 3.1	14.1	11.3 - 16.9	Pass	1.06
LCS-SO-112823	8/1/2020	Co-60	26.0 ± 0.3	27.0	21.6 - 32.4	Pass	0.96
LCS-SO-112823	8/1/2020	Co-57	29.3 ± 0.9	30.9	24.7 - 37.1	Pass	0.95
LCS-SO-112823	8/1/2020	Mn-54	17.5 ± 1.3	16.5	13.2 - 19.8	Pass	1.06
LCS-SO-112823	8/1/2020	K-40	18.0 ± 0.7	16.8	13.4 - 20.2	Pass	1.07
SPW-3908	12/18/2023	NI-63	2,032 ± 27	1,788	1,430 - 2,146	Pass	1.14
SPW-3910	12/18/2023	Fe-55	269 ± 24	232	186 - 0,278	Pass	1.16
SPDW-50378	12/19/2023	H-3	21,102 ± 452	22,100	17,680 - 26,520	Pass	0.95
SPDW-50388	12/28/2023	H-3	20,540 ± 445	22,100	17,680 - 26,520	Pass	0.93
SPDW-50393	12/19/2023	Ra-226	11.6 ± 0.3	12.3	8.6 - 16.0	Pass	0.94

^a Liquid sample results are reported in pCi/Liter, air filters (pCi/m3), charcoal (pCi/charcoal canister), and solid samples (pCi/kg).

^b Laboratory codes : W & SPW (Water), MI (milk), AP (air filter), SO (soil), VE (vegetation), CH (charcoal canister), F (fish), U (urine).

^c Results are based on single determinations.

^d Acceptance criteria are listed in Attachment A of this report.

TABLE A-4. Intralaboratory "Blank" Samples

Lab Code ^b	Sample Type	Date	Analysis ^c	Concentration ^a		Acceptance Criteria (4.66 σ)
				Laboratory results (4.66σ)		
				LLD	Activity ^d	
SPW-25	Water	1/5/2023	Ra-228	0.98	0.74 ± 0.54	2
SPDW-50000	Water	1/6/2023	I-131	0.36	-0.10 ± 0.16	1
SPDW-50001	Water	1/11/2023	H-3	157	13 ± 74	200
SPDW-50003	Water	1/20/2023	H-3	161	98 ± 85	200
SPDW-50005	Water	1/5/2023	Ra-226	0.02	0.00 ± 0.03	2
SPDW-50033	Water	1/27/2023	Ra-226	0.03	-0.01 ± 0.03	2
SPDW-50009	Water	1/31/2023	Ra-228	1.40	0.69 ± 0.75	2
SPDW-50007	Water	2/3/2023	H-3	160	17 ± 80	200
SPDW-50015	Water	2/10/2023	H-3	159	91 ± 84	200
SPDW-50011	Water	2/9/2023	Sr-89	0.62	0.24 ± 0.49	5
SPDW-50011	Water	2/9/2023	Sr-90	0.66	-0.02 ± 0.30	1
SPDW-50018	Water	2/16/2023	Gr. Alpha	0.62	0.01 ± 0.44	2
SPDW-50018	Water	2/16/2023	Gr. Beta	0.78	-0.10 ± 0.54	4
SPDW-50020	Water	2/17/2023	H-3	154	122 ± 80	200
SPDW-50031	Water	2/16/2023	Ra-228	0.82	0.42 ± 0.43	2
SPDW-50046	Water	2/24/2023	Ra-226	0.03	0.05 ± 0.04	2
SPDW-50044	Water	3/13/2023	I-131	0.15	-0.06 ± 0.08	1
SPDW-50048	Water	3/17/2023	H-3	163	80 ± 80	200
SPDW-50055	Water	3/24/2023	H-3	169	63 ± 82	200
SPDW-50059	Water	3/16/2023	Ra-226	0.04	-0.02 ± 0.03	2
SPDW-50063	Water	3/28/2023	Ra-226	0.06	-0.01 ± 0.05	2
SPDW-50067	Water	4/14/2023	H-3	173	92 ± 87	200
SPDW-50069	Water	4/17/2023	I-131	0.11	-0.05 ± 0.08	1
SPDW-50102	Water	5/15/2023	I-131	0.15	-0.01 ± 0.08	1
SPDW-50103	Water	5/12/2023	H-3	161	67 ± 80	200
SPDW-50116	Water	5/26/2023	H-3	161	122 ± 87	200
SPDW-50137	Water	6/12/2023	H-3	157	125 ± 80	200
SPDW-50154	Water	6/26/2023	H-3	157	105 ± 80	200
SPDW-50181	Water	6/8/2023	Ra-226	0.04	-0.07 ± 0.03	2
SPDW-50218	Water	8/15/2023	Sr-89	0.66	-0.07 ± 0.48	5
SPDW-50218	Water	8/15/2023	Sr-90	0.55	0.02 ± 0.26	1
SPDW-50248	Water	8/22/2024	Gr. Alpha	0.57	-0.03 ± 0.40	2
SPDW-50248	Water	8/22/2024	Gr. Beta	0.70	0.28 ± 0.50	4
SPDW-50256	Water	8/25/2023	H-3	161	75 ± 84	200
SPDW-50258	Water	7/19/2023	Ra-226	0.06	-0.25 ± 0.04	2
SPDW-50270	Water	9/6/2023	H-3	160	90 ± 81	200
SPDW-50282	Water	9/25/2023	H-3	163	53 ± 79	200
SPDW-50290	Water	8/28/2023	Ra-226	0.05	0.00 ± 0.04	2

^a Liquid sample results are reported in pCi/Liter, air filters (pCi/m³), charcoal (pCi/charcoal canister), and solid samples (pCi/g).

^b Laboratory codes : W & SPW (Water), MI (milk), AP (air filter), SO (soil), VE (vegetation), CH (charcoal canister), F (fish), U (urine).

^c I-131(G); iodine-131 as analyzed by gamma spectroscopy.

^d Activity reported is a net activity result.

TABLE A-4. Intralaboratory "Blank" Samples

Lab Code ^b	Sample Type	Date	Analysis ^c	Concentration ^a		
				Laboratory results (4.66σ)		Acceptance Criteria (4.66 σ)
				LLD	Activity ^d	
SPDW-50311	Water	10/16/2023	I-131	0.25	0.06 ± 0.14	1
SPDW-50312	Water	10/3/2023	Ra-226	0.04	0.06 ± 0.09	2
SPDW-50315	Water	10/27/2023	H-3	169	5 ± 79	200
SPDW-50329	Water	11/17/2023	H-3	170	51 ± 82	200
SPDW-50379	Water	11/17/2023	Ra-226	0.05	0.09 ± 0.04	2
SPDW-50346	Water	12/5/2023	H-3	0.10	-0.12 ± 0.07	1
SPDW-50347	Water	12/5/2023	Ra-228	1.27	-0.07 ± 0.62	2
SPW-3907	Water	12/18/2023	Ni-63	149	0 ± 91	200
SPW-3909	Water	12/18/2023	Fe-55	435	7 ± 265	2000
SPDW-50377	Water	12/19/2023	H-3	173	-42 ± 78	200
SPDW-50387	Water	12/28/2023	H-3	171	-21 ± 79	200

^a Liquid sample results are reported in pCi/Liter, air filters (pCi/m³), charcoal (pCi/charcoal canister), and solid samples (pCi/g).

^b Laboratory codes : W & SPW (Water), MI (milk), AP (air filter), SO (soil), VE (vegetation), CH (charcoal canister), F (fish), U (urine).

^c I-131(G); iodine-131 as analyzed by gamma spectroscopy.

^d Activity reported is a net activity result.

TABLE A-5. Intralaboratory "Duplicate" Samples

Lab Code ^b	Date	Analysis	Concentration ^a		Averaged Result	Acceptance
			First Result	Second Result		
WW-65,66	1/10/2023	Gr. Beta	15.4 ± 2.0	17.2 ± 2.1	16.3 ± 1.5	Pass
WW-107,108	1/18/2023	H-3	153 ± 88	132 ± 87	143 ± 62	Pass
SG-187,188	1/30/2023	Gr. Alpha	28.1 ± 3.9	22.0 ± 3.5	25.1 ± 2.6	Pass
SG-187,188	1/30/2023	Gr. Beta	22.3 ± 1.8	22.2 ± 1.8	22.3 ± 1.3	Pass
SG-187,188	1/30/2023	Pb-214	4.08 ± 0.16	3.38 ± 0.09	3.73 ± 0.09	Pass
SG-187,188	1/30/2023	Ac-228	3.88 ± 0.28	3.98 ± 0.14	3.93 ± 0.16	Pass
SWU-201,202	1/31/2023	H-3	171 ± 89	234 ± 92	203 ± 64	Pass
SW-243,244	2/7/2023	H-3	358 ± 98	262 ± 93	310 ± 68	Pass
PW-266,267	2/6/2023	Ra-226	0.61 ± 0.18	0.37 ± 0.20	0.49 ± 0.13	Pass
DW-50028,50029	2/27/2023	Ra-226	0.68 ± 0.13	0.76 ± 0.13	0.72 ± 0.09	Pass
DW-50028,50029	2/27/2023	Ra-228	2.26 ± 0.65	1.20 ± 0.65	1.73 ± 0.46	Pass
DW-50052,50053	2/27/2023	Ra-228	0.48 ± 0.57	1.19 ± 0.65	0.84 ± 0.43	Pass
DW-50035,50036	2/28/2023	Gr. Alpha	3.68 ± 1.42	4.00 ± 1.29	3.84 ± 0.96	Pass
DW-50035,50036	2/28/2023	Gr. Beta	2.50 ± 0.64	1.99 ± 0.64	2.25 ± 0.45	Pass
LW-518,519	3/8/2023	Gr. Beta	1.71 ± 0.64	1.38 ± 0.64	1.55 ± 0.45	Pass
SG-571,572	3/8/2023	Pb-214	7.80 ± 0.46	8.20 ± 0.35	8.00 ± 0.29	Pass
SG-571,572	3/8/2023	Ac-228	11.9 ± 0.8	11.4 ± 0.6	11.7 ± 0.5	Pass
SG-571,572	3/8/2023	Gr. Alpha	86.5 ± 10.6	89.6 ± 11.0	88.1 ± 7.6	Pass
DW-50052,50053	3/17/2023	Gr. Alpha	9.16 ± 1.02	14.7 ± 1.2	11.9 ± 0.8	Pass
DW-50052,50053	3/17/2023	Gr. Beta	6.03 ± 0.71	7.58 ± 0.75	6.81 ± 0.52	Pass
CF-700,701	3/22/2023	K-40	2.91 ± 0.32	3.30 ± 0.36	3.11 ± 0.24	Pass
SW-679,680	3/27/2023	H-3	14,480 ± 389	14,487 ± 389	14,484 ± 275	Pass
SG-974,975	4/4/2023	Gr. Alpha	12.0 ± 2.1	12.1 ± 2.1	12.1 ± 1.5	Pass
DW-50074,50075	4/21/2023	Ra-226	1.63 ± 0.22	1.56 ± 0.28	1.60 ± 0.18	Pass
DW-50074,50075	4/21/2023	Ra-228	3.41 ± 0.98	2.14 ± 0.80	2.78 ± 0.63	Pass
U-1038,1039	4/20/2023	Gr. Beta	6.14 ± 1.71	6.46 ± 2.19	6.30 ± 1.39	Pass
WW-1101,1102	4/25/2023	H-3	358 ± 96	334 ± 95	346 ± 68	Pass
DW-50092,50093	5/1/2023	Ra-226	1.00 ± 0.22	1.46 ± 0.19	1.23 ± 0.15	Pass
DW-50092,50093	5/1/2023	Ra-228	1.11 ± 0.73	1.57 ± 0.82	1.34 ± 0.55	Pass
WW-1122,1123	5/2/2023	H-3	307 ± 93	229 ± 89	268 ± 64	Pass
WW-1269,1270	5/17/2023	H-3	366 ± 100	214 ± 92	290 ± 68	Pass
DW-50110,50111	5/29/2023	Ra-226	6.27 ± 0.40	4.77 ± 0.26	5.52 ± 0.24	Pass
DW-50110,50111	5/29/2023	Ra-228	2.81 ± 0.97	3.53 ± 0.98	3.17 ± 0.69	Pass
SW-1356,1357	5/30/2023	H-3	380 ± 94	257 ± 88	319 ± 64	Pass
WW-1398,1399	5/24/2023	H-3	571 ± 103	613 ± 105	592 ± 74	Pass
SG-1377,1378	5/30/2023	Pb-214	1.07 ± 0.14	1.19 ± 0.15	1.13 ± 0.10	Pass
SG-1377,1378	5/30/2023	Ac-228	1.23 ± 0.28	1.11 ± 0.23	1.17 ± 0.18	Pass

TABLE A-5. Intralaboratory "Duplicate" Samples

Lab Code b	Date	Analysis	Concentration ^a		Averaged Result	Acceptance
			First Result	Second Result		
DW-50124,50125	6/5/2023	Ra-226	0.25 ± 0.08	0.24 ± 0.09	0.25 ± 0.06	Pass
AP-060523A/B	6/5/2023	Gr. Beta	0.023 ± 0.003	0.0236 ± 0.003	0.023 ± 0.002	Pass
DW-50126,50127	6/5/2023	Gr. Alpha	2.50 ± 1.17	3.87 ± 1.39	3.19 ± 0.91	Pass
WW-1441,1442	6/6/2023	Gr. Beta	2.55 ± 0.64	1.91 ± 0.67	2.23 ± 0.46	Pass
SW-1483,1484	6/8/2023	H-3	281 ± 90	281 ± 90	281 ± 64	Pass
CF-1546,1547	6/12/2023	K-40	7.77 ± 0.34	7.48 ± 0.48	7.63 ± 0.29	Pass
AP-061223A/B	6/12/2023	Gr. Beta	0.031 ± 0.005	0.030 ± 0.005	0.031 ± 0.004	Pass
S-1567,1568	6/14/2023	K-40	9.75 ± 0.71	9.80 ± 0.77	9.78 ± 0.52	Pass
WW-1630,1631	6/6/2023	H-3	319 ± 93	236 ± 89	278 ± 64	Pass
F-1945,1946	6/26/2023	K-40	3.81 ± 0.34	3.22 ± 0.54	3.52 ± 0.32	Pass
DW-50157,50158	6/26/2023	Gr. Beta	0.93 ± 0.59	1.09 ± 0.06	1.01 ± 0.30	Pass
AP-062823A/B	6/28/2023	Gr. Beta	0.026 ± 0.004	0.021 ± 0.003	0.024 ± 0.003	Pass
AP-070323A/B	7/3/2023	Gr. Beta	0.028 ± 0.003	0.026 ± 0.003	0.027 ± 0.002	Pass
DW-50160,50161	7/5/2023	Ra-226	2.63 ± 0.32	2.77 ± 0.27	2.70 ± 0.21	Pass
DW-50160,50161	7/5/2023	Ra-228	2.46 ± 0.78	2.51 ± 0.81	2.49 ± 0.56	Pass
AP-071123A/B	7/11/2023	Gr. Beta	0.025 ± 0.003	0.027 ± 0.003	0.026 ± 0.002	Pass
DW-50188,50189	7/21/2023	Ra-226	3.07 ± 0.30	2.63 ± 0.20	2.85 ± 0.18	Pass
DW-50188,50189	7/21/2023	Ra-228	5.28 ± 0.92	5.08 ± 0.90	5.18 ± 0.64	Pass
DW-50197,50198	7/24/2023	Gr. Alpha	5.82 ± 1.50	5.78 ± 1.30	5.80 ± 0.99	Pass
DW-50200,50201	7/24/2023	Ra-226	2.51 ± 0.24	4.07 ± 0.29	3.29 ± 0.19	Pass
DW-50200,50201	7/24/2023	Ra-228	7.04 ± 1.13	6.55 ± 1.09	6.80 ± 0.79	Pass
SG-2199,2200	7/25/2023	Pb-214	1.18 ± 0.22	1.03 ± 0.19	1.11 ± 0.15	Pass
SG-2199,2200	7/25/2023	Ac-228	1.74 ± 0.32	1.86 ± 0.42	1.80 ± 0.26	Pass
AP-072623A/B	7/26/2023	Gr. Beta	0.021 ± 0.003	0.021 ± 0.003	0.021 ± 0.002	Pass
AP-080223A/B	8/2/2023	Gr. Beta	0.015 ± 0.003	0.016 ± 0.003	0.016 ± 0.002	Pass
SG-2315,2316	8/3/2023	Gr. Alpha	59.5 ± 6.7	48.2 ± 6.1	53.9 ± 4.5	Pass
SG-2315,2316	8/3/2023	Gr. Beta	39.8 ± 2.9	34.4 ± 2.6	37.1 ± 1.9	Pass
AP-080723A/B	8/7/2024	Gr. Beta	0.025 ± 0.005	0.025 ± 0.005	0.025 ± 0.004	Pass
DW-50200,50201	8/9/2023	Ra-228	1.88 ± 0.71	1.29 ± 0.70	1.59 ± 0.50	Pass
AP-081423A/B	8/14/2023	Gr. Beta	0.030 ± 0.003	0.028 ± 0.003	0.029 ± 0.002	Pass
AP-082123A/B	8/21/2023	Gr. Beta	0.020 ± 0.003	0.022 ± 0.003	0.021 ± 0.002	Pass
DW-50262,50263	8/24/2023	Ra-228	2.62 ± 0.87	1.46 ± 0.52	2.04 ± 0.51	Pass
DW-50262,50263	8/24/2023	Ra-228	2.62 ± 0.87	2.80 ± 0.67	2.71 ± 0.55	Pass
AP-082823A/B	8/28/2023	Gr. Beta	0.023 ± 0.003	0.028 ± 0.003	0.026 ± 0.002	Pass
DW-50268,50269	8/29/2023	Gr. Alpha	0.87 ± 0.69	0.97 ± 0.81	0.92 ± 0.53	Pass
SG-2660,2661	9/4/2023	Gr. Alpha	68.5 ± 7.1	51.0 ± 6.3	59.8 ± 4.7	Pass
SG-2660,2661	9/4/2023	Pb-214	13.7 ± 0.5	14.2 ± 0.5	14.0 ± 0.4	Pass
SG-2660,2661	9/4/2023	Ac-228	14.4 ± 0.8	14.3 ± 0.9	14.4 ± 0.6	Pass
AP-090523A/B	9/5/2023	Gr. Beta	0.023 ± 0.003	0.023 ± 0.003	0.023 ± 0.002	Pass
AP-091223A/B	9/12/2023	Gr. Beta	0.024 ± 0.002	0.025 ± 0.002	0.025 ± 0.001	Pass

TABLE A-5. Intralaboratory "Duplicate" Samples

Lab Code ^b	Date	Analysis	Concentration ^a		Averaged Result	Acceptance
			First Result	Second Result		
W-2776,2777	9/18/2023	Gr. Alpha	1.86 ± 1.73	0.99 ± 1.64	1.43 ± 1.19	Pass
W-2776,2777	9/18/2023	Ra-226	0.43 ± 0.10	0.55 ± 0.27	0.49 ± 0.14	Pass
W-2776,2777	9/18/2023	Ra-228	1.71 ± 1.07	3.33 ± 1.12	2.52 ± 0.77	Pass
AP-092023A/B	9/20/2023	Gr. Beta	0.039 ± 0.004	0.042 ± 0.004	0.041 ± 0.003	Pass
DW-50296,50297	9/27/2023	Ra-226	0.51 ± 0.09	0.54 ± 0.20	0.53 ± 0.11	Pass
AP-092823A/B	9/28/2023	Gr. Beta	0.030 ± 0.004	0.034 ± 0.004	0.032 ± 0.003	Pass
S-3136,3137	10/11/2023	Pb-214	1.93 ± 0.06	1.84 ± 0.08	1.89 ± 0.05	Pass
S-3135,3136	10/11/2023	Ac-228	4.06 ± 0.17	3.84 ± 0.19	3.95 ± 0.13	Pass
SG-3511,3512	10/10/2023	Gr. Alpha	59.0 ± 6.2	68.5 ± 6.6	63.8 ± 4.5	Pass
SG-3511,3512	10/10/2023	Gr. Beta	52.1 ± 2.9	54.6 ± 3.0	53.4 ± 2.1	Pass
SG-3511,3512	10/10/2023	Pb-214	9.67 ± 0.25	9.57 ± 0.29	9.62 ± 0.19	Pass
SG-3511,3512	10/10/2023	Ac-228	8.99 ± 0.43	8.79 ± 0.53	8.89 ± 0.34	Pass
SG-3521,3522	11/8/2023	Gr. Alpha	57.3 ± 7.3	70.9 ± 7.6	64.1 ± 5.3	Pass
SG-3521,3522	11/8/2023	Pb-214	11.2 ± 0.2	11.7 ± 0.2	11.5 ± 0.1	Pass
SG-3521,3522	11/8/2023	Ac-228	13.0 ± 0.4	13.4 ± 0.5	13.2 ± 0.3	Pass
DW-50335,50336	11/17/2023	Gr. Alpha	3.70 ± 1.00	3.46 ± 0.90	3.58 ± 0.67	Pass
DW-50335,50336	11/17/2023	Gr. Beta	1.73 ± 0.63	2.07 ± 0.06	1.90 ± 0.32	Pass
W-3647,3648	11/20/2023	H-3	2,815 ± 181	2,829 ± 182	2,822 ± 128	Pass
DW-50358,50359	12/4/2023	Gr. Beta	2.53 ± 0.61	1.66 ± 0.62	2.10 ± 0.43	Pass
DW-50349,50350	12/4/2023	Ra-226	0.04 ± 0.11	0.32 ± 0.10	0.18 ± 0.07	Pass
DW-50349,50350	12/4/2023	Ra-228	1.37 ± 0.48	1.57 ± 0.47	1.47 ± 0.34	Pass
DW-50365,50366	12/11/2023	Gr. Alpha	1.4 ± 0.79	1.95 ± 0.91	1.675 ± 0.60	Pass
DW-50365,50366	12/11/2023	Gr. Beta	3.18 ± 0.62	3.18 ± 0.66	3.18 ± 0.45	Pass
DW-50374,50375	12/13/2023	Gr. Alpha	0.89 ± 0.60	0.54 ± 0.67	0.715 ± 0.45	Pass
W-4035.4036	12/31/2023	H-3	157,638 ± 1,218	159,848 ± 1,227	158,743 ± 864	Pass
W-4035.4036	12/31/2023	Ni-63	2,410 ± 78	2,337 ± 78	2,373 ± 55	Pass
W-4035.4036	12/31/2023	Sr-90	49.8 ± 5.2	42.7 ± 4.8	46.3 ± 3.5	Pass

TABLE A-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP).

Lab Code ^b	Reference Date	Analysis	Laboratory result	Concentration ^a		
				Known Activity	Acceptance Range ^c	Acceptance
MAAP-544	2/1/2023	Gross Alpha	1.23 ± 0.10	0.97	0.29 - 1.65	Pass
MAAP-544	2/1/2023	Gross Beta	1.67 ± 0.06	1.49	0.75 - 2.24	Pass
MADW-543	2/1/2023	Gross Alpha	0.843 ± 0.074	1.19	0.36 - 2.02	Pass
MADW-543	2/1/2023	Gross Beta	0.578 ± 0.093	5.94	2.97 - 8.91	Fail ^d
MASO-540	2/1/2023	Cs-134	2.33 ± 2.77	0	NA ^c	Pass
MASO-540	2/1/2023	Cs-137	1.22 ± 2.41	0	NA ^c	Pass
MASO-540	2/1/2023	Co-57	585 ± 4	698	489 - 907	Pass
MASO-540	2/1/2023	Co-60	727 ± 8	795	557 - 1034	Pass
MASO-540	2/1/2023	Mn-54	1180 ± 10	1230	861 - 1599	Pass
MASO-540	2/1/2023	Zn-65	846 ± 11	990	693 - 1287	Pass
MASO-540	2/1/2023	K-40	526 ± 23	574	402 - 746	Pass
MADW-545	2/1/2023	Cs-134	9.17 ± 0.17	9.6	6.7 - 12.5	Pass
MADW-545	2/1/2023	Cs-137	9.38 ± 0.29	8.7	6.1 - 11.3	Pass
MADW-545	2/1/2023	Co-57	-0.01 ± 0.08	0.0	NA ^c	Pass
MADW-545	2/1/2023	Co-60	7.47 ± 0.18	7.24	5.07 - 9.41	Pass
MADW-545	2/1/2023	Mn-54	12.3 ± 0.3	11.3	7.9 - 14.7	Pass
MADW-545	2/1/2023	Zn-65	15.7 ± 0.5	15.3	10.7 - 19.9	Pass
MADW-545	2/1/2023	K-40	1.23 ± 1.52	0	NA ^c	Pass
MADW-545	2/1/2023	Sr-90	-0.0035 ± 0.0172	0	NA ^c	Pass
MAAP-538	2/1/2023	Cs-134	1.12 ± 0.04	1.52	1.06 - 1.98	Pass
MAAP-538	2/1/2023	Cs-137	0.56 ± 0.07	0.630	0.441 - 0.819	Pass
MAAP-538	2/1/2023	Co-57	0.62 ± 0.30	0.661	0.463 - 0.859	Pass
MAAP-538	2/1/2023	Co-60	0.89 ± 0.07	1.05	0.74 - 1.37	Pass
MAAP-538	2/1/2023	Mn-54	2.02 ± 0.09	2.14	1.50 - 2.78	Pass
MAAP-538	2/1/2023	Zn-65	2.13 ± 0.14	2.25	1.58 - 2.93	Pass
MAAP-538	2/1/2023	Sr-90	0.004 ± 0.061	0	NA ^c	Pass
MASO-540	2/1/2023	Cs-134	2.33 ± 2.77	0	NA ^c	Pass
MASO-540	2/1/2023	Cs-137	1.22 ± 2.41	0	NA ^c	Pass
MASO-540	2/1/2023	Co-57	585 ± 4	698	489 - 907	Pass
MASO-540	2/1/2023	Co-60	727 ± 8	795	557 - 1034	Pass
MASO-540	2/1/2023	Mn-54	1180 ± 10	1230	861 - 1599	Pass
MASO-540	2/1/2023	Zn-65	846 ± 11	990	693 - 1287	Pass
MASO-540	2/1/2023	K-40	526 ± 23	574	402 - 746	Pass

TABLE A-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP).

Lab Code ^b	Reference Date	Analysis	Laboratory result	Concentration ^a		
				Known Activity	Acceptance Range ^c	Acceptance
MADW-545	2/1/2023	Cs-134	9.17 ± 0.17	9.6	6.7 - 12.5	Pass
MADW-545	2/1/2023	Cs-137	9.38 ± 0.29	8.7	6.1 - 11.3	Pass
MADW-545	2/1/2023	Co-57	-0.01 ± 0.08	0.0	NA ^c	Pass
MADW-545	2/1/2023	Co-60	7.47 ± 0.18	7.24	5.07 - 9.41	Pass
MADW-545	2/1/2023	Mn-54	12.3 ± 0.3	11.3	7.9 - 14.7	Pass
MADW-545	2/1/2023	Zn-65	15.7 ± 0.5	15.3	10.7 - 19.9	Pass
MADW-545	2/1/2023	K-40	1.23 ± 1.52	0	NA ^c	Pass
MADW-545	2/1/2023	Sr-90	-0.0035 ± 0.0172	0	NA ^c	Pass
MAAP-538	2/1/2023	Cs-134	1.12 ± 0.04	1.52	1.06 - 1.98	Pass
MAAP-538	2/1/2023	Cs-137	0.56 ± 0.07	0.630	0.441 - 0.819	Pass
MAAP-538	2/1/2023	Co-57	0.62 ± 0.30	0.661	0.463 - 0.859	Pass
MAAP-538	2/1/2023	Co-60	0.89 ± 0.07	1.05	0.74 - 1.37	Pass
MAAP-538	2/1/2023	Mn-54	2.02 ± 0.09	2.14	1.50 - 2.78	Pass
MAAP-538	2/1/2023	Zn-65	2.13 ± 0.14	2.25	1.58 - 2.93	Pass
MAAP-538	2/1/2023	Sr-90	0.004 ± 0.061	0	NA ^c	Pass
MAVE-545	2/1/2023	Cs-134	7.45 ± 0.39	7.60	5.32 - 9.88	Pass
MAVE-545	2/1/2023	Cs-137	0.010 ± 0.084	0	NA ^c	Pass
MAVE-545	2/1/2023	Co-57	6.83 ± 0.17	6.93	4.85 - 9.01	Pass
MAVE-545	2/1/2023	Co-60	6.89 ± 0.17	6.51	4.56 - 8.46	Pass
MAVE-545	2/1/2023	Mn-54	9.08 ± 0.28	8.03	5.62 - 10.44	Pass
MAVE-545	2/1/2023	Zn-65	7.83 ± 0.39	7.43	5.20 - 9.66	Pass
MAAP-2761	8/1/2023	Gross Alpha	0.16 ± 0.04	0.255	0.077 - 0.434	Pass
MAAP-2761	8/1/2023	Gross Beta	1.16 ± 0.07	0.927	0.464 - 1.391	Pass
MADW-2753	8/1/2023	Gross Alpha	1.20 ± 0.06	1.59	0.48 - 2.70	Pass
MADW-2753	8/1/2023	Gross Beta	14.7 ± 0.1	16.27	8.14 - 24.41	Pass
MASO-2757	8/1/2023	Cs-134	612 ± 8	693	485 - 901	Pass
MASO-2757	8/1/2023	Cs-137	1900 ± 20	1810	1267 - 2353	Pass
MASO-2757	8/1/2023	Co-57	1020 ± 20	1060	742 - 1378	Pass
MASO-2757	8/1/2023	Co-60	901 ± 10	898	629 - 1167	Pass
MASO-2757	8/1/2023	Mn-54	6.53 ± 3.22	0	NA ^c	Pass
MASO-2757	8/1/2023	Zn-65	1270 ± 30	1160	812 - 1508	Pass
MASO-2757	8/1/2023	K-40	702 ± 54	574	402 - 746	Pass

TABLE A-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP).

Lab Code ^b	Reference Date	Analysis	Laboratory result	Concentration ^a		
				Known Activity	Acceptance Range ^c	Acceptance
MADW-2751	8/1/2023	Cs-134	8.88 ± 0.18	11.3	7.9 - 14.7	Pass
MADW-2751	8/1/2023	Cs-137	7.95 ± 0.30	8.7	6.1 - 11.3	Pass
MADW-2751	8/1/2023	Co-57	16.5 ± 0.3	19.3	13.5 - 25.1	Pass
MADW-2751	8/1/2023	Co-60	0.09 ± 0.06	0	NA ^c	Pass
MADW-2751	8/1/2023	Mn-54	11.6 ± 0.3	12.7	8.9 - 16.5	Pass
MADW-2751	8/1/2023	Zn-65	17.9 ± 0.6	19.1	13.4 - 24.8	Pass
MADW-2751	8/1/2023	K-40	1.56 ± 1.60	0	NA ^c	Pass
MAAP-2755	8/1/2023	Cs-134	1.30 ± 0.10	1.60	1.12 - 2.08	Pass
MAAP-2755	8/1/2023	Cs-137	0.04 ± 0.03	0	NA ^c	Pass
MAAP-2755	8/1/2023	Co-57	1.47 ± 0.05	1.63	1.14 - 2.12	Pass
MAAP-2755	8/1/2023	Co-60	0.04 ± 0.09	0	NA ^c	Pass
MAAP-2755	8/1/2023	Mn-54	1.59 ± 0.09	1.57	1.10 - 2.04	Pass
MAAP-2755	8/1/2023	Zn-65	1.71 ± 0.14	1.89	1.32 - 2.46	Pass
MAAP-2755	8/1/2023	Sr-90	0.533 ± 0.040	0.614	0.430 - 0.796	Pass
MAVE-2759	8/1/2023	Cs-134	4.25 ± 0.14	4.96	3.49 - 6.47	Pass
MAVE-2759	8/1/2023	Cs-137	0.025 ± 0.050	0	NA ^c	Pass
MAVE-2759	8/1/2023	Co-57	4.28 ± 0.13	4.24	2.97 - 5.51	Pass
MAVE-2759	8/1/2023	Co-60	2.49 ± 0.11	2.79	1.95 - 3.63	Pass
MAVE-2759	8/1/2023	Mn-54	2.45 ± 0.16	2.6	1.8 - 3.3	Pass
MAVE-2759	8/1/2023	Zn-65	0.058 - 0.107	0	NA ^c	Pass

^a Results are reported in units of Bq/kg (soil), Bq/L (water) or Bq/total sample (filters, vegetation).

^b Laboratory codes as follows: MAW (water), MADW (water), MAAP (air filter), MASO (soil) and MAVE (vegetation).

^c MAPEP results are presented as the known values and expected laboratory precision (1 sigma, 1 determination) and control limits as defined by the MAPEP. A known value of "zero" indicates an analysis was included in the testing series as a "false positive". MAPEP does not provide an acceptance range.

^d A decimal point was misplaced in a unit conversion. If the conversion was done properly the result: 5.78 ± 0.93 Bq/L would have been within MAPEP's acceptance range.

TABLE A-7. Interlaboratory Comparison Crosscheck Program, Environmental Resource Associates (ERA)^a.

MRAD-38 Study						
Lab Code ^b	Date	Analysis	Concentration ^a		Acceptance Limits ^d	Acceptance
			Laboratory Result	ERA Value ^c		
ERAP-599	3/20/2023	Cs-134	139	153	99 - 188	Pass
ERAP-599	3/20/2023	Cs-137	970	892	733 - 1170	Pass
ERAP-599	3/20/2023	Co-60	474	467	397 - 593	Pass
ERAP-599	3/20/2023	Mn-54	< 3.3	< 35.0	0.00 - 35.0	Pass
ERAP-599	3/20/2023	Zn-65	1280	1110	910 - 1700	Pass
ERAP-599	3/20/2023	Sr-90	143	137	87 - 187	Pass
ERAP-598	3/20/2023	Gross Alpha	72.7	76.8	40.1 - 127	Pass
ERAP-598	3/20/2023	Gross Beta	35.0	32.8	19.9 - 49.6	Pass

^a Results obtained by Microbac Laboratories, Inc. as a participant in the crosscheck program for proficiency testing administered by Environmental Resource Associates, serving as a replacement for studies conducted previously by the Environmental Measurements Laboratory Quality Assessment Program (EML).

^b Laboratory code ERAP (air filter). Results are reported in units of (pCi/Filter).

^c The ERA Assigned values for the air filter standards are equal to 100% of the parameter present in the standard as determined by the gravimetric and/or volumetric measurements made during standard preparation as applicable.

^d The acceptance limits are established per the guidelines contained in the Department of Energy (DOE) report EML-564, Analysis of Environmental Measurements Laboratory (EML) Quality Assessment Program (QAP) Data Determination of Operational Criteria and Control Limits for Performance Evaluation Purposes or ERA's SOP for the generation of Performance Acceptance Limits.



Appendix B

Data Reporting Conventions

APPENDIX B. DATA REPORTING CONVENTIONS

Data Reporting Conventions

- 1.0. All activities, except gross alpha and gross beta, are decay corrected to collection time or the end of the collection period.

2.0. Single Measurements

Each single measurement is reported as follows: $x \pm s$
where: x = value of the measurement;
 $s = 2\sigma$ counting uncertainty (corresponding to the 95% confidence level).

In cases where the activity is less than the lower limit of detection L , it is reported as: $< L$, where L = the lower limit of detection based on 4.66σ uncertainty for a background sample.

3.0. Duplicate analyses

If duplicate analyses are reported, the convention is as follows. :

- 3.1 Individual results: For two analysis results; $x_1 \pm s_1$ and $x_2 \pm s_2$
Reported result: $x \pm s$; where $x = (1/2)(x_1 + x_2)$ and $s = (1/2)\sqrt{s_1^2 + s_2^2}$
- 3.2. Individual results: $< L_1, < L_2$ Reported result: $< L$, where L = lower of L_1 and L_2
- 3.3. Individual results: $x \pm s, < L$ Reported result: $x \pm s$ if $x \geq L$; $< L$ otherwise.

4.0. Computation of Averages and Standard Deviations

- 4.1 Averages and standard deviations listed in the tables are computed from all of the individual measurements over the period averaged; for example, an annual standard deviation would not be the average of quarterly standard deviations. The average \bar{x} and standard deviation "s" of a set of n numbers x_1, x_2, \dots, x_n are defined as follows:

$$\bar{x} = \frac{1}{n} \sum x \qquad s = \sqrt{\frac{\sum (x - \bar{x})^2}{n-1}}$$

- 4.2 Values below the highest lower limit of detection are not included in the average.
- 4.3 If all values in the averaging group are less than the highest LLD, the highest LLD is reported.
- 4.4 If all but one of the values are less than the highest LLD, the single value x and associated two sigma error is reported.
- 4.5 In rounding off, the following rules are followed:
- 4.5.1. If the number following those to be retained is less than 5, the number is dropped, and the retained numbers are kept unchanged. As an example, 11.443 is rounded off to 11.44.
- 4.5.2. If the number following those to be retained is equal to or greater than 5, the number is dropped and the last retained number is raised by 1. As an example, 11.445 is rounded off to 11.45.



Mr. Barry Muller
Energy Harbor Corporation
Mail Stop 1041
5501 North State Route 2
Oak Harbor, Ohio 43449

LABORATORY REPORT NO.: 8003-100-697
DATE: 02-15-24
SAMPLES RECEIVED: 12-07-23
PURCHASE ORDER NO.: 55103447

Below are results of the analyses for gross beta, tritium and gamma emitting isotopes on two untreated water samples.

Location	T-4P		T-14	
Lab Code	TSWU- 3805		TSWU- 3806	
Date Collected	12-05-23		12-05-23	
Concentration (pCi/L)				
Gross beta	5.4 ± 0.9	< 1.0	1.6 ± 0.7	< 1.1
H-3	52 ± 83	< 171	82 ± 85	< 171
Mn-54	< 2.6		< 1.3	
Fe-59	< 4.7		< 5.7	
Co-58	< 1.9		< 3.4	
Co-60	< 7.0		< 3.4	
Zn-65	< 4.3		< 2.6	
Zr-Nb-95	< 3.4		< 2.7	
Cs-134	< 3.9		< 3.5	
Cs-137	< 6.2		< 2.3	
Ba-La-140	< 2.2		< 2.6	

The error given is the probable counting error at the 95% confidence level.

A. Szal 2-15-24

A. Szal
Program Coordinator

APPROVED BY

A. Banavali 2/15/24

A. Banavali, PhD.
Laboratory Director



Mr. Barry Muller
Energy Harbor Corporation
Mail Stop 1041
5501 North State Route 2
Oak Harbor, Ohio 43449

LABORATORY REPORT NO.: 8003-100-698
DATE: 2/15/2024
SAMPLES RECEIVED: 1/17/2024
PURCHASE ORDER NO.: 55117515

Enclosed are the exposure results from thermoluminescent dosimeters (TLDs) posted inside the protected area of the Davis-Besse Nuclear Power Station for the fourth quarter, 2023.

A. Szal 2-15-2024

A. Szal

Program Coordinator

APPROVED BY

A. Banavali 2/15/24

A. Banavali, PhD.

Laboratory Director

Table 1. Area monitors (TLDs), Davis-Besse Nuclear Power Station. Quarterly.

Location	mR/91 days			
	<u>1st Qtr.</u>	<u>2nd Qtr.</u>	<u>3rd Qtr.</u>	<u>4th Qtr.</u>
<u>Dry Fuel Storage Area</u>				
T-101	151.3 \pm 10.1	158.0 \pm 5.2	163.0 \pm 3.7	170.4 \pm 6.8
T-102	295.8 \pm 18.9	310.2 \pm 26.9	281.0 \pm 19.8	299.4 \pm 14.9
T-103	33.0 \pm 1.8	36.5 \pm 1.5	32.3 \pm 1.3	36.6 \pm 2.1
T-104	66.9 \pm 4.2	59.5 \pm 3.4	62.1 \pm 3.6	60.6 \pm 4.7
T-105	63.5 \pm 2.8	66.8 \pm 4.3	60.8 \pm 3.2	69.5 \pm 2.2
T-109	42.1 \pm 1.1	46.0 \pm 2.0	43.4 \pm 1.2	42.8 \pm 3.1
T-110	58.0 \pm 0.9	54.7 \pm 3.2	60.2 \pm 2.5	49.8 \pm 1.8
<u>Protected Area Fence</u>				
T-174	32.4 \pm 1.6	29.7 \pm 1.4	31.5 \pm 1.2	27.6 \pm 1.7
T-175	134.2 \pm 5.3	124.3 \pm 6.0	135.5 \pm 3.2	122.5 \pm 4.8
T-176	20.0 \pm 0.7	24.6 \pm 0.9	19.7 \pm 0.5	25.6 \pm 1.4
T-178	15.1 \pm 0.5	17.6 \pm 0.8	14.9 \pm 0.5	14.6 \pm 1.1
T-180	7.8 \pm 0.6	10.7 \pm 0.5	7.2 \pm 0.6	8.8 \pm 1.0
T-181	9.4 \pm 0.8	10.5 \pm 0.5	10.8 \pm 0.6	8.7 \pm 1.0
T-184	13.3 \pm 0.4	13.6 \pm 0.7	13.5 \pm 0.5	11.8 \pm 1.0
T-186	14.4 \pm 1.0	17.8 \pm 1.1	14.8 \pm 0.7	17.1 \pm 1.1
T-187	21.7 \pm 0.6	25.9 \pm 1.5	22.9 \pm 0.8	25.6 \pm 1.5
T-189	36.9 \pm 1.0	37.1 \pm 0.7	36.6 \pm 0.8	33.4 \pm 1.2

L-24-072
Enclosure D

Davis-Besse Offsite Dose Calculation Manual, Revision 40

(1 Report follows)

DAVIS-BESSE

OFFSITE DOSE CALCULATION MANUAL

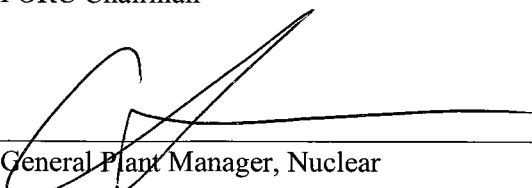
Revision 40

Approval:



PORC Chairman

8/29/23
Date



General Plant Manager, Nuclear

8/30/23
Date

ODCM REVISION 40 - LIST OF CHANGES

Page No.	Change
20	Revised Table 2-1 Action C to make the requirement when RE4686 is out of service, or in high alarm, to sample AND analyze grab samples within a interval not to exceed 12-hours. (ATL-2022-0261-ATA-22)
25	Revised Table 2-3 Table Notation “e.” to direct to guidance in Table 2-1 Action C. (ATL-2022-0261-ATA-22) Revised Table 2-3 Table Notation “S” to Continuous. Analysis is continuous because the storm sewer is monitored using RE4686. . (ATL-2022-0261-ATA-22)
44	Revised Step 3.5.2 based on 2022 updated XOQ/DOQ values based on Davis-Besse Nuclear Power Station Meteorological and Atmospheric Dispersion Report, May, 2022
63	Revised Table 3-4 with updated XOQ/DOQ values based on Davis-Besse Nuclear Power Station Meteorological and Atmospheric Dispersion Report, May, 2022
65	Revised Table 3-6 with updated XOQ/DOQ values location based on Davis-Besse Nuclear Power Station Meteorological and Atmospheric Dispersion Report, May, 2022 Revised Table 3-6 with new unrestricted area Noble Gas location based on Davis-Besse Nuclear Power Station Meteorological and Atmospheric Dispersion Report, May, 2022 Revised Table 3-6 with new unrestricted area inhalation location based on Davis-Besse Nuclear Power Station Meteorological and Atmospheric Dispersion Report, May, 2022 Revised Table 3-6 with new critical receptor location based on Davis-Besse Nuclear Power Station Meteorological and Atmospheric Dispersion Report, May, 2022
125	Revised Table 6-2 Location T-27 removed ground-water well (WW) because well was abandoned by owner and casing removed. This was a control location for ground-water monitoring. (ATL-2022-0261-ATA-29)

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1.0 INTRODUCTION

The Davis-Besse Offsite Dose Calculation Manual (ODCM) describes the methodology and parameters used in:

- 1) determining the radioactive material release rates and cumulative releases;
- 2) calculating the radioactive liquid and gaseous effluent monitoring instrumentation alarm/trip setpoints; and
- 3) calculating the corresponding dose rates and cumulative quarterly and yearly doses.

The ODCM also describes and provides requirements for the Radiological Environmental Monitoring Program. Sampling locations, media and collection frequencies, and analytical requirements are specified. The methodology provided in this manual is acceptable for use in demonstrating compliance with concentration limits of 10 CFR 20.1302; the cumulative dose criteria of 10 CFR 50, Appendix I; 40 CFR 190; and the Davis-Besse Technical Specifications (TS) 5.5.3.

The exposure pathway and dose modeling presented provides estimates (e.g., calculational results) that are conservative (i.e., higher than actual exposures in the environment). This conservatism does not invalidate the modeling since the main purpose of these calculations is for demonstrating "As Low As is Reasonably Achievable" (ALARA) for radioactive effluents. In using these models for evaluation and controlling actual effluents, further simplification and conservatism may be applied. For purposes of demonstrating compliance with the EPA environmental dose standard for the Uranium Fuel Cycle (40 CFR 190), more realistic dose assessment modeling may be used. Other approved methodologies (LADTAP, GASPAR, XOQDOQ) also may be used to assess dose from radioactive effluents.

The ODCM will be maintained for use as a reference guide and training document of accepted methodologies and calculations. Changes to the ODCM calculational methodologies and parameters will be made as necessary to ensure reasonable conservatism in keeping with the principles of 10 CFR 50, Appendix I, Section III and IV. Questions about the ODCM should be directed to the Manager, Site Chemistry.

Changes to the ODCM shall be in accordance with TS 5.5.1.

NOTE: Throughout this document, words appearing all capitalized denote definitions specified in Section 7.5 of this manual, or common acronyms.

Section 2.0 describes equipment for monitoring and controlling liquid effluents, sampling requirements, and dose evaluation methods. Section 3.0 provides similar information on gaseous effluent controls, sampling, and dose evaluation. Section 4.0 describes special dose analyses required for Regulatory Guide 1.21, Annual Effluent Reporting and EPA Environmental Dose Standard of 40 CFR 190. Section 5.0 describes the role of the annual land use census in identifying the controlling pathways and locations of exposure for assessing the potential offsite doses. Section 6.0 describes the Radiological Environmental Monitoring Program. Section 7.0 describes the environmental, effluent and reporting requirements, procedural requirements for major changes to liquid and gaseous radwaste systems, and definitions.

2.0 LIQUID EFFLUENTS

2.1 RADIATION MONITORING INSTRUMENTATION AND CONTROLS

This section summarizes information on the liquid effluent radiation monitoring instrumentation and controls. More detailed information is provided in the Davis-Besse USAR, Section 11.2, Liquid Waste Systems, and associated design drawings from which this summary was derived. Location and control function of the monitors are displayed in Figure 2-1.

The radioactive liquid effluent instrumentation is provided to monitor and control, as applicable, releases of radioactivity in liquid effluents during actual or potential releases. The radioactive liquid effluent monitoring instrumentation channels listed in Table 2-1 shall be FUNCTIONAL with their alarm/trip setpoints set to ensure the limits specified in Section 2.3.1 are not exceeded.

Each radioactive liquid effluent monitoring instrumentation channel shall be demonstrated FUNCTIONAL by the performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION, and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 2-2. Each of these operations shall be performed within the specified time interval with a maximum allowable extension not to exceed 25 percent of the specified interval.

NOTE: The monitors indicated in 2.1.1 a), b), and c) are nonfunctional if verifications are not performed or setpoints are less conservative than required.

With a radioactive liquid effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required, without delay suspend the release of radioactive liquid effluents monitored by the affected channel, or declare the channel nonfunctional, or change the setpoint so it is acceptably conservative.

With less than the required number of radioactive liquid effluent monitoring instrumentation channels FUNCTIONAL, take the actions described in Table 2-1. Exert best efforts to return the instruments to FUNCTIONAL status within 30 days and, if unsuccessful, explain in the next Radioactive Effluent Release Report, (Section 7.2), why the non-functionality was not corrected in a timely manner.

2.1.1 Required Monitors

This section describes the monitoring required during liquid releases and the backup sampling required when monitors are nonfunctional.

a) Alarm and Automatic Release Termination

i. Clean Radwaste Effluent Monitors (RE-1770 A & B)

Discharges from the Clean Radwaste Monitor Tanks (2) are monitored by redundant radiation monitoring systems (RE-1770 A & B). These monitors detect gross gamma activity in the effluent prior to mixing in the Collection Box. Measurements from each detector read out on the Victoreen panel in the Control Room. Each monitoring system is capable of initiating an alarm and an automatic termination of the release by closing Clean Liquid Radwaste Discharge Flow Control valve (WC-1771). The method for determining setpoints for the alarms is discussed in Section 2.3.

ii. Miscellaneous Radwaste Effluent Monitors (RE-1878 A & B) Discharges from the Miscellaneous Liquid Waste Monitor Tank and the Detergent Waste Drain Tank are monitored by redundant radiation monitoring systems (RE-1878 A & B). These monitors detect gross gamma activity in the effluent line prior to mixing in the Collection Box. Measurements from each detector read out on the Victoreen panel in the Control Room. Each monitor is separately capable of initiating an alarm and automatic termination of the release by closing Miscellaneous Waste Discharge Isolation valve (WM-1876). Setpoint determination for the alarms is discussed in Section 2.3.

b) Alarm (only)

i. Storm Sewer Drain Line (RE-4686)

The monitor on the Storm Sewer Drain effluent line detects abnormal radionuclide concentrations in the storm sewer effluent. This monitor is located near the end of the storm sewer drainpipe, upstream of the final discharge point into the Training Center Pond. The most probable source of any non-naturally occurring radioactive material in the storm sewer would be from the secondary system.

To eliminate this potential source of radioactivity, the Turbine Building Sump effluent is normally directed to the onsite Settling Basins. In this configuration, the source of radioactivity in the Storm Sewer Drain line is from Turbine Building drains that are not routed to the Turbine Building Sump, or from Storm Sewer drains. Evaluation of the alarm setpoint for RE-4686 is discussed in Section 2.3.4.

c) Flow Rate Measuring Devices

i. Clean Radwaste Effluent Line

Flow Indicator (FI) 1700 A & B
Flow Totalizer (FQI) 1700 A & B

ii. Miscellaneous Radwaste Effluent Line

Flow Indicator (FI) 1887 A & B
Flow Totalizer (FQI) 1887 A & B

iii. Dilution Flow to the Collection Box

Computer Point F201 consists of four points:

- F147 Cooling Tower Blowdown
- F890 Service Water Outflow
- F200 Collection Box Dilution Flow
- F886 Unit Dilution Pump Flow

2.1.2 Non-Required Monitors

Additional monitors, although not required by the ODCM, have been installed to monitor radioactive material in liquid. The monitors are:

- Component Cooling Water System (CCWS) (RE-1412 & 1413)-monitors the CCWS return lines. High alarm redirects the vent path to the Miscellaneous Waste Drain Tank,
- Service Water System (SWS) (RE-8432) offline detector monitors the SWS outlet prior to discharge to the Collection Box, and
- Intake Forebay (RE-8434) monitors the station intake water from intake forebay.

2.2 SAMPLING AND ANALYSIS OF LIQUID EFFLUENTS

As a minimum, radioactive liquid wastes shall be sampled and analyzed according to the sampling and analysis program of Table 2-3. Table 2-3 identifies three potential sources of liquid radioactive effluents. A fourth potential release point from the Turbine Building Sump is discussed in Section 2.2.2.

The results of the radioactivity analyses shall be used in accordance with the methodology and parameters of this section to ensure that the concentrations at the point of release are maintained within the limits of 10 CFR 20.1302.

2.2.1 Batch Releases

BATCH RELEASE is defined as the discharge of liquid waste of a discrete volume. The releases from the Clean Waste Monitor Tanks 1-1 and 1-2, the Miscellaneous Liquid Waste Monitor Tank, and the Detergent Waste Drain Tank are classified as BATCH RELEASES. The following sampling and analysis requirements shall be met for all releases from these tanks.

- Prior to each release, analysis of a representative grab sample for principal gamma emitters.
- Once per month, as a minimum, analysis of one sample from a BATCH RELEASE for dissolved and entrained gases (see note below).
- Once per month, analysis of a COMPOSITE SAMPLE of all releases that month for tritium and gross alpha activity. Samples contributed to the composite are to be proportional to the quantity of liquid discharged.
- Once per quarter, analysis of a COMPOSITE SAMPLE of all releases that quarter for Strontium (Sr)-89, Sr-90, and Iron (Fe)-55.

NOTE: Identification of noble gases that are principal gamma-emitting radionuclides are included as a part of the gamma spectral analysis performed on all liquid radwaste effluents. Therefore, the Table 2-3 requirement for sampling and analysis of one batch per month for noble gases need not be performed as a separate program.

2.2.2 Continuous Releases

Releases from the Turbine Building Sump (TBS) and Storm Sewer Drains (SSD) are classified as continuous releases.

Because the Turbine Building Sump discharges may contain minute concentrations of radionuclides due to primary-to-secondary system leakage, the Turbine Building Sump discharges are routed to the onsite Settling Basins instead of the SSD line. Screenwash water from the Screenwash Catch Basin is also routed to the North Settling Basin. Overflow from the Settling Basins is pumped to the Collection Box where it is mixed with dilution flow and released to Lake Erie. Releases via this pathway are monitored by weekly analysis for principal gamma-emitting radionuclides and tritium, and by quarterly analysis of composite samples for Fe-55, Sr-89 and Sr-90.

Discharges to the Storm Sewer Drains are from Turbine Building drains that are not routed to the TBS and from storm drains. The Storm Sewer discharges to the Training Center Pond with the overflow discharging to the Toussaint River. For conservatism, it is assumed that radioactive material released to the Training Center Pond is ultimately discharged to Lake Erie (unless actions are taken to prevent this occurrence).

Grab samples are collected weekly from the Settling Basins and analyzed by gamma spectroscopy. If activity is identified, additional controls are enacted to ensure that the release concentrations are maintained below Effluent Concentration Limits and that the cumulative releases are a small fraction of the dose limits of Section 2.4.1. The following actions will be considered for controlling any radioactive material releases via the TBS and SSD:

- Increase the sampling frequency of the TBS and SSD until the source of the contamination is identified.
- Perform gamma spectral analysis on each sample for principal gamma emitters.
- Compare the measured radionuclide concentrations in the sample with Effluent Concentration (EC) equation 2-2 to ensure releases are within the limits.
- Based on the measured concentrations, a re-evaluation of the alarm setpoint for the SSD monitor (RE-4686) may be performed as specified in Section 2.3.4.
- Consider each sample representative of the releases that have occurred since the previous sample. Determine the volume of liquid released from the Turbine Building Sump based on the Turbine Building Sump pump run times and flow rates.
- Determine the total radioactive material released from the sample analysis and the calculated volume released. Determine cumulative doses in accordance with Section 2.4.

2.2.3 Condensate Demineralizer Backwash

Discharges from the Condensate Demineralizer Backwash Receiving Tank (BRT) to the South Settling Basin are sampled in accordance with Table 2-3. Samples are collected prior to each release of the resin/water slurry and separated into the liquid phase (transfer water) and solid phase (resin). These samples are separately analyzed for principal gamma emitters. Energy Harbor Nuclear Corporation has imposed guidelines on concentrations of radionuclides that may be discharged to the onsite settling basin. These guidelines are presented in Table 2-4.

The radioactive material contamination in the condensate demineralizer backwash will be contained on the powdered resin; soluble or suspended radioactive material associated with the water phase is not expected. The resin and the water are analyzed separately thus allowing for a determination of the amounts retained onsite in the Settling Basin (the resin) and the amounts released to Lake Erie as an effluent (the decant).

The BRT receives the spent resin from the Condensate Polishing System. Low-level radioactive material contamination of the spent resin is periodically expected due to minor leaks in the steam generators and the leaching of residual activity in the secondary system.

During primary-to-secondary leakage, activity levels will be elevated and typically above the limits imposed for acceptable discharge to the basin. Under these conditions, the powdered resins are retained within the plant and processed as solid radwaste for offsite transport and disposal at a licensed radioactive waste disposal site. If within the criteria of Table 2-4, the BRT may be discharged to the onsite settling basin with the approval of the Manager – Site Chemistry.

2.2.4 Borated Water Storage Tank

The Borated Water Storage Tank (BWST) is an unprotected outdoor liquid storage tank and therefore is part the Explosive Gas and Storage Tank Radioactivity Monitoring Program (TS 5.5.11.b as implemented by TRM 8.7.4).

The quantity of radioactive material stored in the BWST shall be limited to ensure that an uncontrolled release of the tank contents would result in concentrations less than the limits of 10 CFR 20, Appendix B, Table 2, Column 2 at the nearest potable water supply and the nearest surface water supply in an unrestricted area.

The concentration of radionuclides in the BWST shall be determined to be within the applicable limits by analyzing a representative sample of the tank contents at least once per 7 days when radioactive materials are being added to the tank.

The method for limiting the BWST radionuclide concentration to meet the criteria above is described below.

- 1) Determine the limiting fraction of each radionuclide present in a liquid sample from the tank. This is the sample concentration in $\mu\text{Ci/ml}$ divided by the limiting activity from Table 2-5.
- 2) Sum the limiting fractions of each radionuclide in the sample. This sum should be less than one (1) to meet the limiting criteria for offsite dose rates via the liquid pathway.

If the sum of the limiting fractions of radionuclides in the BWST is equal to or exceeds one (1), then suspend all additions of radioactive material to the tank, reduce tank contents to within the limits, and describe the events leading to this condition in the next Radioactive Effluent Release Report. (TRM 8.7.4 requirements)

The values in Table 2-5 were calculated specifically for the BWST.

2.3 LIQUID EFFLUENT MONITOR SETPOINTS

2.3.1 Concentration Limits

The concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS shall be limited to the concentrations specified in 10 CFR Part 20.1302 for radionuclides other than dissolved or entrained noble gases. For dissolved or entrained noble gases, the concentration shall be limited to $2.0\text{E-}04 \mu\text{Ci/ml}$. If the concentration of radioactive material released in liquid effluents to UNRESTRICTED AREAS exceeds these limits, then without delay restore the concentrations to within these limits.

This limitation provides additional assurance that the levels of radioactive material in bodies of water outside the site should not result in exposures exceeding the Section II.A design objective of Appendix I, 10 CFR Part 50, to an individual, and the limits of 10 CFR Part 20.1302 to the population.

The concentration limit for noble gases is based upon the assumption that Xe-135 is the controlling radioisotope and its Effluent Concentration in air (submersion) was converted to an equivalent concentration in water using the methods described in International Commission on Radiological Protection (ICRP) Publication 2.

2.3.2 Basic Setpoint Equation

During the release of liquid radioactive effluents, radiation monitor setpoints shall be established to alarm and trip prior to exceeding the limits specified above. To meet this requirement, the alarm/trip setpoint for liquid effluent monitors measuring the radioactivity concentration prior to dilution is derived in Section 2.3.3.

2.3.3 Liquid Radwaste Effluent Line Monitor Setpoint Calculations (RE-1770A & B, RE-1878A & B)

The Liquid Radwaste Effluent Line Monitors provide alarm and automatic termination of releases prior to exceeding the Effluent Concentrations (EC) of 10 CFR 20.1302 at the UNRESTRICTED AREA. As required by Table 2-3 and as discussed in Section 2.2.1, a sample of the liquid radwaste to be discharged is collected and analyzed by gamma spectroscopy to identify principal gamma-emitting radionuclides. A maximum release rate from the tank is determined for the release based on the radionuclide concentrations and the available dilution flow rate.

The maximum release rate is inversely proportional to the ratio of the radionuclide concentrations to their EC values. This ratio of measured concentration to EC values is referred to as the EC fraction (ECF) and is calculated by the equation:

$$\text{ECF} = \sum_i \frac{C_i}{\text{EC}_i} \quad (2-2)$$

where:

- ECF = sum of the fractions of the unrestricted area EC for a mixture of radionuclides,
- C_i = concentration of each radionuclide i measured in tank prior to release ($\mu\text{Ci/ml}$), and
- EC_i = unrestricted area EC ($\mu\text{Ci/ml}$) for each radionuclide i from 10 CFR Part 20.1302. For dissolved and entrained noble gases an EC value of $2.0\text{E-}04 \mu\text{Ci/ml}$ shall be used.

Based on the ECF, the minimum dilution factor (MDF) for the conduct of the release is established at 3.33 times larger than actually required. This safety factor (SF) provides conservatism, accounting for variations in monitor response and flow rates and also for the presence of radionuclides that may not be detected by the monitors (i.e., non-gamma emitters). The following equation is used for calculating the required minimum dilution factor:

$$\text{MDF} = \text{ECF}/\text{SF} \quad (2-3)$$

where:

- MDF = minimum required dilution factor,
- SF = 0.3 administrative safety factor.

The maximum release rate from the tank is then calculated by dividing the available dilution flow rate (ADF) at the Collection Box by the MDF as calculated by equation (2-4).

$$\text{MAX RR} = 0.9 (\text{ADF}/\text{MDF}) \quad (2-4)$$

where:

- MAX RR = maximum allowable release rate (gal/min),
- 0.9 = administrative conservatism factor, and
- ADF = available dilution flow rate at the Collection Box as measured by Computer Point F201 (gal/min).

NOTE: Equations (2-3) and (2-4) are valid only for $\text{ECF} > 1$. For $\text{ECF} \leq 1$, the waste tank concentration is below the limits of 10 CFR Part 20.1302 without dilution, and MAX RR may take on any value within discharge pump capacity.

If MAX RR is greater than the maximum discharge pump capacity, then the pump capacity should be used in establishing the actual release rate (RR) for the radwaste discharge. For releases from the Miscellaneous Waste Monitor Tank and Detergent Waste Drain Tank, the discharge pump capacity is 100 gpm; for the Clean Waste Monitor Tank, this value is 140 gpm.

Since the actual release rate from the tank is derived such that 10 CFR 20.1302 limits will not be exceeded given the radionuclide concentration in the tank and the available dilution flow, setpoints must be established to ensure:

- 1) radionuclide concentration released from the tank does not increase above the concentration detected in the sample,
- 2) available dilution flow does not decrease, and
- 3) actual release rate from the tank does not increase above the calculated value.

The setpoints for the predilution radiation monitor (RE-1770 A & B, or RE-1878 A & B) are determined as follows:

$$\text{Alert Alarm SP} = [2 * R * \Sigma (C_i * \text{SEN}_i)] + \text{Bkg} \quad (2-5)$$

$$\text{High Alarm SP} = [3 * R * \Sigma (C_i * \text{SEN}_i)] + \text{Bkg} \quad (2-6)$$

where:

- SP = setpoint of the radiation monitor (cpm),
- C_i = concentration of radionuclide i as measured by gamma spectroscopy ($\mu\text{Ci/ml}$),
- SEN_i = monitor sensitivity for radionuclide i based on calibration curve (cpm per $\mu\text{Ci/ml}$),
- Bkg = background reading of the radiation monitor (cpm), and
- R = MAX RR / actual release rate

The Cs-137 sensitivity may be used in lieu of the sensitivity values for individual radionuclides. The Cs-137 sensitivity provides a reasonably conservative monitor response correlation for radionuclides of interest in reactor effluents. Coupled with the safety factor SF in equation (2-3), this assumption simplifies the evaluation without invalidating the overall conservatism of the setpoint determination.

The high flow setpoint should be set equal to the MAX RR calculated in equation (2-4) or discharge pump capacity (whichever is smaller). The low flow setpoint for dilution flow rate should be set at 0.9 times the available dilution flow rate.

2.3.4 Storm Sewer Drain Monitor (RE-4686)

The setpoint for the SSD radiation monitor, RE-4686, shall be established to ensure the concentration in the effluent does not exceed the limits of 10 CFR 20.1302. The SSD is not normally radioactively contaminated by other than naturally-occurring radionuclides. Therefore, the setpoint for this monitor has been established at a practical level to provide an early indication of any abnormal conditions without causing spurious alarm due to fluctuations in background.

Since discharge is to the Training Center Pond, exceeding the RE-4686 setpoint does not necessarily mean Section 2.3.1 concentration limits have been exceeded at UNRESTRICTED AREAS. The verification of compliance with the limits on concentration should be based on actual samples of the effluent from the pond to the Toussaint River and Lake Erie. (Refer to Section 2.3.6).

2.3.5 Alarm Setpoints for the Non-Required Radiation Monitors

a) Component Cooling Water System (CCWS) (RE-1412 & 1413)

The monitors RE-1412 and 1413 provide indication of a breach in the CCWS integrity that would allow reactor coolant water to enter and contaminate the system. Therefore, the alarm setpoint is established to prevent incurring a spurious alarm due to background fluctuations. The setpoint is controlled in accordance with the Radiation Monitor Setpoint Manual.

b) Service Water System (SWS) (RE-8432)

No radioactive material is expected to be contained within the SWS during normal operations. Therefore, the high alarm setpoint is established to prevent incurring a spurious alarm due to background fluctuations. The setpoint is controlled in accordance with the Radiation Monitor Setpoint Manual.

c) Intake Forebay Monitor (RE-8434)

The high alarm setpoint is established to prevent incurring a spurious alarm due to background fluctuations. Although highly unlikely, a verified alarm from this system would indicate a possible contamination of the station intake water. The setpoint is controlled in accordance with the Radiation Monitor Setpoint Manual.

2.3.6 Alarm Response - Evaluating Actual Release Conditions

Liquid release rates are controlled and alarm setpoints are established to ensure that releases do not exceed the concentration limits of Section 2.3.1 (i.e., 10 CFR 20 ECs at the discharge to Lake Erie). However, if any of the monitors (RE-1770 A & B, RE-1878 A & B, or RE-4686) alarm during a liquid release, it becomes necessary to re-evaluate the release conditions to determine compliance with the limits. After an alarm, the following actual release conditions should be determined:

- verify radiation monitor alarm setpoint to ensure consistency with the setpoint evaluation for the release;
- re-sample and re-analyze the source of the release
- re-determine the release rate and the dilution water flow.

Based on available data, the following equation may be used for evaluating the actual release conditions:

$$\sum \frac{C_i}{EC_i} * \frac{RR}{DF + RR} \leq 1 \quad (2-7)$$

where:

- C_i = measured concentration of radionuclide i in the effluent stream prior to dilution ($\mu\text{Ci/ml}$),
- EC_i = the Effluent Concentration for radionuclide i from Appendix B, Table II, Column 2 of 10 CFR 20 or $2.0\text{E-}04 \mu\text{Ci/ml}$ for dissolved or entrained noble gases ($\mu\text{Ci/ml}$),
- RR = actual release rate of the liquid effluent at the time of the alarm (gal/min), and
- DF = actual dilution water flow at the time of the release alarm (gal/min).

If the value calculated by equation 2-7 is less than or equal to 1, then the release did not exceed the limits of 10 CFR 20.1302.

2.4 LIQUID EFFLUENT DOSE CALCULATION - 10 CFR 50

2.4.1 Dose Limits to MEMBERS OF THE PUBLIC

The limits for dose or dose commitment to MEMBERS OF THE PUBLIC from radioactive materials in liquid effluents from Davis-Besse are:

- during any calendar quarter:
 - ≤ 1.5 mrem to total body
 - ≤ 5.0 mrem to any organ
- during any calendar year:
 - ≤ 3.0 mrem to total body
 - ≤ 10.0 mrem to any organ

With the calculated dose from the release of radioactive materials in liquid effluents exceeding any of the above limits, prepare and submit to the Commission within 60 days, pursuant to Section 7.3, a Licensee Event Report that identifies the cause(s) for exceeding the limit(s) and defines the corrective actions that have been taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be in compliance with the above limits.

Cumulative dose contributions from liquid effluents for the current calendar quarter and the current calendar year shall be determined in accordance with the methodology and parameters in the ODCM at least once per 31 days.

This requirement is provided to implement the requirements of Sections II.A, III.A and IV.A of Appendix I, 10 CFR Part 50.

This action provides the required operating flexibility and at the same time implements the guides set forth in Section IV.A of Appendix I, 10 CFR Part 50 to assure that the releases of radioactive material in liquid effluents will be kept "as low as is reasonably achievable."

NOTE: For fresh water sites with drinking water supplies which can be potentially affected by plant operations, there is reasonable assurance that the operation of the facility will not result in radionuclide concentrations in the finished drinking water that are in excess of the requirements of 40 CFR 141. The dose calculations in the ODCM implement the requirements of Section III.A of Appendix I, 10 CFR Part 50. Conformance with the guides of Appendix I is to be shown by calculational procedures based on models and data such that the actual exposure of an individual through appropriate pathways is unlikely to be substantially underestimated. The equations specified in the ODCM for calculating the doses due to the actual release rates of radioactive materials in liquid effluents are consistent with the methodology provided in Regulatory Guide 1.109, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I," Revision 1, October 1977.

2.4.2 MEMBER OF THE PUBLIC DOSE - Liquid Effluents

The calculation of the potential doses to MEMBERS OF THE PUBLIC is a function of the radioactive material releases to the lake, the subsequent transport and dilution in the exposure pathways, and the resultant individual uptake. At Davis-Besse, the combined fish consumption and drinking water pathway has been modeled to provide a conservative dose assessment for exposures to MEMBERS OF THE PUBLIC. For the fish pathway, it has been conservatively assumed that the maximum exposed individual consumes 21 kg per year of fish taken in the immediate vicinity of the Davis-Besse discharge to the lake. For the drinking water pathway, the conservative modeling is based on an individual drinking 730 liters per year of water from the Carroll Township Water Intake located 3.0 miles to the NW of the site discharge.

The equation for assessing the maximum potential dose to MEMBERS OF THE PUBLIC from liquid radwaste releases from Davis-Besse is:

$$D_o = \frac{1.67E-02 * VOL}{DF * Z} * \sum (C_i * A_{io}) \quad (2-8)$$

where:

- D_o = dose or dose commitment to organ "o" including total body (mrem),
- A_{io} = site-specific ingestion dose commitment factor to the total body or any organ "o" for radionuclide "i" given in Table 2-6 (mrem/hr per $\mu\text{Ci/ml}$),
- C_i = average concentration of radionuclide i in undiluted liquid effluent representative of the volume VOL ($\mu\text{Ci/ml}$),
- VOL = total volume of undiluted liquid effluent released (gal),
- DF = average dilution water flow rate during release period (gal/min) (typically 20,000 gpm),
- Z = 10 (near field dilution factor)*
- 1.67E-02 = 1 hr/60 min.

* Near field dilution factor and dilution to Carroll Township water intake is based on USAR Section 11.2.7.2 and a study performed by Stone & Webster for Toledo Edison entitled "Aquatic Dilution Factors within 50 Miles of the Davis-Besse Unit 1 Nuclear Power Plant", June 1980.

The site-specific ingestion dose/dose commitment factors (A_{io}) represent a composite dose factor for the fish and drinking water pathway. The site-specific dose factor is based on the NRC's generic maximum individual consumption rates. Values of A_{io} are presented in Table 2-6. These values were derived in accordance with the guidance of NUREG-0133 using the following equation:

$$A_{io} = 1.14E+05 (U_W / D_W + U_F * BF_i) DF_i \quad (2-9)$$

where:

$$U_F = 21 \text{ kg/yr adult fish consumption,}$$

$$U_W = 730 \text{ liters/yr adult water consumption,}$$

$$D_W = 175 \text{ additional dilution from the near field to the Carroll Township water intake (net dilution of 1750),}$$

$$BF_i = \text{bioaccumulation factor for radionuclide "i" in fish from Table 2-7 (pCi/kg per pCi/l),}$$

$$DF_i = \text{dose conversion factor for nuclide "i" for adults in organ "o" from Table E-11 of Regulatory Guide 1.109 and Table 4 of NUREG 0172 (mrem/pCi), and}$$

$$1.14E+05 = 10^6 (\text{pCi}/\mu\text{Ci}) * 10^3 (\text{ml/kg}) / 8760 (\text{hr/yr}).$$

The radionuclides included in the periodic dose assessment required by Section 2.4.1 are those identified by gamma spectral analysis of the liquid waste samples collected and analyzed per the requirements of Table 2-3. In keeping with the NUREG-0133 guidance, the adult age group represents the maximum exposed individual age group. Evaluation of doses for other age groups is not required for demonstrating compliance with the dose criteria of Section 2.4.1. The dose analysis for radionuclides requiring radiochemical analysis will be performed after receipt of results of the analysis of the composite samples. In keeping with the required analytical frequencies of Table 2-3, tritium dose analyses will be performed at least monthly; Sr-89, Sr-90 and Fe-55 dose analyses will be performed at least quarterly.

2.4.3 Simplified Liquid Effluent Dose Calculation

In lieu of the individual radionuclide dose assessment presented in Section 2.4.2, the following simplified dose calculation may be used for demonstrating compliance with the dose limits required by Section 2.4.1. Radionuclides included in this dose calculation should be those measured in the grab sample of the release (principal gamma emitters measured by gamma spectroscopy). H-3 should not be included in this analysis. Refer to Appendix A for the derivation of this simplified method.

Total Body

$$D_{tb} = \frac{9.67E+02 * VOL}{DF} * \Sigma C_i \quad (2-10)$$

$$D_{max} = \frac{1.18E+03 * VOL}{DF} * \Sigma C_i \quad (2-11)$$

where:

- C_i = average concentration of radionuclide i excluding H-3 in undiluted liquid effluent representative of the release volume ($\mu\text{Ci/ml}$),
- VOL = volume of liquid effluent released (gal),
- DF = average dilution water flow rate during release period (gal/min),
- D_{tb} = conservatively evaluated total body dose (mrem),
- D_{max} = conservatively evaluated maximum organ dose (mrem),
- $9.67E+02$ = $0.0167 \text{ (hr/min)} * 5.79E+05 \text{ (mrem/hr per } \mu\text{Ci/ml, Cs-134 total body dose factor from Table 2-6) / 10 (near field dilution), and}$
- $1.18E+03$ = $0.0167 \text{ (hr/min)} * 7.09E+05 \text{ (mrem/hr per } \mu\text{Ci/ml, Cs-134 liver dose factor from Table 2-6) / 10 (near field dilution).}$

2.4.4 Contaminated TBS/SSD System - Dose Calculation

All non-naturally occurring radioactivity released from the SSD must be included in the evaluation of the cumulative dose to a MEMBER OF THE PUBLIC. Although the discharges are via the Training Center Pond to Pool 3, and then to the Toussaint River (instead of directly to Lake Erie), the modeling of equation (2-8) remains reasonably conservative for determining a hypothetical maximum individual dose. The following assumptions should be applied for the dose assessment of any radioactive material releases from the SSD into the Training Center Pond and subsequently to the Toussaint River:

- If no additional controls are taken, then it should be assumed that any radioactive material released to the Training Center Pond will ultimately be discharged to the lake environment;
- If actions are taken to limit any release, then the assessment of dose should be made based on an evaluation of actual releases; and
- The dilution flow should consider additional dilution of the SSD discharge from other sources into the Training Center Pond prior to release to the river.

2.5 LIQUID EFFLUENT DOSE PROJECTIONS

10 CFR 50.36a requires licensees to maintain and operate the radwaste system to ensure releases are maintained ALARA. This Section implements the requirements of 10 CFR Part 50.36a, General Design Criterion 60 of Appendix A to 10 CFR Part 50 and design objective Section II.D of Appendix I to 10 CFR Part 50. Based on a cost analysis of treating liquid radwaste, the specified limits governing the use of appropriate portions of the liquid radwaste treatment system were specified as the dose design objectives as set forth in Section II.A of Appendix I, 10 CFR Part 50, for liquid effluents. This requirement is implemented through this ODCM.

The liquid radioactive waste processing system shall be used to reduce the radioactive material levels in the liquid waste prior to release when the projected doses in any 31-day period would exceed:

- 0.06 mrem to the total body, or
- 0.20 mrem to any organ.

This dose criteria for processing is established at one quarter of the design objective rate (i.e., 1/4 of 3 mrem/yr total body and 10 mrem/yr any organ over a 31-day projection).

With radioactive liquid waste being discharged without treatment and in excess of the above limits, prepare and submit to the Commission within 60 days, pursuant to Section 7.3, a Licensee Event Report that includes the following information:

- explanation of why liquid radwaste was being discharged without treatment, identification of any nonfunctional equipment or subsystems, and the reason for the non-functionality;
- action(s) taken to restore the nonfunctional equipment to FUNCTIONAL status; and
- summary description of action(s) taken to prevent a recurrence.

In any month in which radioactive liquid effluent is being discharged without treatment, doses due to liquid releases to UNRESTRICTED AREAS shall be projected at least once per 31 days in accordance with the methodology and parameters in the ODCM.

The following equations may be used for the dose projection calculation:

$$D_{tbp} = D_{tb} (31 / d) \quad (2-12)$$

$$D_{maxp} = D_{max} (31 / d) \quad (2-13)$$

where:

- D_{tbp} = the 31-day total body dose projection (mrem),
- D_{tb} = the cumulative total body dose for current calendar month including release under consideration as determined by equation (2-8) or (2-10) (mrem),
- D_{maxp} = the 31-day maximum organ dose projection (mrem),
- D_{max} = the maximum organ dose for current calendar month including release under consideration as determined by equation (2-8) or (2-11) (mrem),
- d = the number of days into current month, and
- 31 = the number of days in projection.

Table 2-1

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>REQUIRED CHANNELS</u>	<u>APPLICABILITY</u>	<u>ACTION</u>
1. Gross Radioactivity Monitors Providing Alarms and Automatic Termination of Release			
a. Liquid Radwaste Effluent Line (either Miscellaneous (RE 1878A, B) or Clean (RE 1770A, B), but not both simultaneously)*	1	(1)	A
2. Flow Rate Measurement Devices			
a. Liquid Radwaste Effluent Line	1	(1)	B
b. Dilution Flow to Collection Box	1	(1)	B
c. FE 4687 Storm Sewer	1	(1)	B
3. Gross Beta or Gamma Radioactivity Monitors Providing Alarm But Not Providing Automatic Termination of Release			
a. Storm Sewer Drain (RE 4686)	1	(1)	C

* Only one release (either MWMT or CWMT) at a time can be in progress.

Table 2-1 (continued)

TABLE NOTATION

(1) During radioactive releases via this pathway

ACTION A With less than the number of required channels FUNCTIONAL, effluent releases may be resumed, provided that prior to initiating a release:

1. At least two independent samples are analyzed in accordance with Table 2-3 for analyses performed with each batch;
2. At least two independent verification of the release rate calculations are performed;
3. At least two independent verifications of the discharge valving are performed;

Otherwise, suspend release of radioactive effluents via this pathway.

ACTION B With less than the number of required channels FUNCTIONAL, effluent releases via this pathway may continue provided the flow rate is estimated at least once per 4 hours during actual releases. Pump curves may be used to estimate flow.

ACTION C With less than the number of required channels FUNCTIONAL, or if high alarm is locked in on RE, effluent releases via this pathway may continue provided that during effluent releases, grab samples are collected AND analyzed once per 12 hours (both actions shall be completed within the 12 hour period) for gross radioactivity (beta or gamma) at a lower limit of detection no greater than 1.0E-07 $\mu\text{Ci/ml}$ or a gamma isotopic analysis meeting the LLD Requirement of Table 2-3.

Table 2-2

RADIOACTIVE LIQUID EFFLUENT MONITORING
INSTRUMENTATION VERIFICATION REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. Gross Beta or Gamma Radioactivity Monitors Providing Alarm and Automatic Isolation, if applicable.				
a. Liquid Radwaste Effluents Lines	D ⁽¹⁾	P	E ⁽³⁾	Q ⁽²⁾
b. Storm Sewer Discharge Line	D ⁽⁴⁾	M	E ₍₃₎	Q ⁽²⁾
2. Flow Rate Monitors				
a. Liquid Radwaste Effluent Lines	D ⁽⁴⁾	N/A	E	Q
b. Dilution Flow to Collection Box	D ⁽⁴⁾	N/A	E	Q
c. Storm Sewer		N/A		

Table 2-2 (continued)

TABLE NOTATION

- (1) During releases via this pathway.
- (2) If applicable, the CHANNEL FUNCTIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occurs if the instrument indicates measured levels above the alarm/trip setpoint.
- (3) The initial CHANNEL CALIBRATION for radioactivity measurement instrumentation shall be performed using one or more of the reference standards certified by the National Institute of Standards and Technology (NIST) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NIST. These standards should permit calibrating the system over its intended range of energy and rate capabilities. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration should be used, at intervals of at least once per eighteen months. For high range monitoring instrumentation, where calibration with a radioactive source is impractical, an electronic calibration may be substituted for the radiation source calibration.
- (4) CHANNEL CHECK shall consist of verifying indication of flow during periods of release. CHANNEL CHECK shall be made at least once daily on any day on which continuous, periodic, or BATCH RELEASES are made.
- (D) At least once per 24 hours.
- (M) At least once per 31 days.
- (P) Prior to each release.
- (E) At least once per 18 month (550 days).
- (Q) At least once per 92 days.
- (R) At least once per 24 months (730 days)

Table 2-3

RADIOACTIVE LIQUID WASTE SAMPLING AND ANALYSIS PROGRAM

Liquid Release Type		Sampling Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (LLD) ($\mu\text{Ci/ml}$) ^a
A.	Batch Waste Release Tanks ^d	P Each Batch	P Each Batch	Principal Gamma Emitters ^f	5.0E-07 ^b
				I-131 ^f	1.0E-06
		P One Batch/M	M	Dissolved and Entrained Gases	1.0E-05
				H-3	1.0E-05
		P Each Batch	M Composite ^c	Gross Alpha	1.0E-07
				Sr-89, Sr-90	5.0E-08
		P Each Batch	Q Composite ^c	Fe-55	1.0E-06
				Sr-89, Sr-90	5.0E-08
B.	Storm Sewer Drain	Continuously monitored	S ^c	Principal Gamma Emitters ^f	5.0E-07 ^b
				I-131 ^f	1.0E-06
C.	Condensate Demineralizer Backwash	P Each Batch when discharged to the settling basin	P Each Batch when discharged to the settling basin	Principal Gamma Emitters ^f	5.0E-07 ^b
				I-131 ^f	1.0E-06

Table 2-3 (continued)

TABLE NOTATION

- a. The LLD is the smallest concentration of radioactive material in a sample that will be detected with 95% probability with 5% probability of falsely concluding that a blank observation represents a "real" signal.

For a particular measurement system (which may include radiochemical separation):

$$LLD = \frac{4.66 s_b}{E * V * 2.22 * Y * \exp(-\lambda \Delta t)}$$

where

LLD is the lower limit of detection as defined above (as pCi per unit mass or volume);

s_b is the standard deviation of the background counting rate or of the counting rate of a blank sample as appropriate (as counts per minute);

E is the counting efficiency (as counts per transformation);

V is the sample size (in units of mass or volume);

2.22 is the number of transformations per minute per picocurie;

Y is the fractional radiochemical yield (when applicable);

λ is the radioactive decay constant for the particular radionuclide;

Δt for plant effluents is the elapsed time between the midpoint of sample collection and time of counting.

It should be recognized that the LLD is defined as an a priori (before the fact) limit representing the capability of a measurement system and not as an a posteriori (after the fact) limit for a particular measurement.

- b. The principal gamma emitters for which the LLD specification will apply are exclusively the following radionuclides: Mn-54, Fe-59, Co-58, Co-60, Zn-65, Mo-99, Cs-134, Cs-137, and Ce-141. For Ce-144, the LLD is 2.0E-06 $\mu\text{Ci/ml}$. Other peaks which are measured and identified shall also be reported.

Nuclides which are below the LLD for the analysis should not be reported as being present at the LLD level. When unusual circumstances result in LLDs higher than required, the reasons shall be documented in the Radioactive Effluent Release Report.

- c. A COMPOSITE SAMPLE is one in which the method of sampling employed results is a specimen which is representative of the liquids released.

Table 2-3 (continued)

TABLE NOTATION

- d. A BATCH RELEASE is the discharge of liquid wastes of a discrete volume.
- e. See Table 2-1 Action C for sample AND analysis requirements when RE4686 is non-functional or in high alarm.
- f. If an isotopic analysis is unavailable, gross beta or gamma measurement of BATCH RELEASE may be substituted provided the concentration released to the UNRESTRICTED AREA does not exceed $1.0\text{E-}07 \mu\text{Ci/ml}$ and a COMPOSITE SAMPLE is analyzed for principal gamma emitters when instrumentation is available.
- g. Frequency notation:
 - P - Prior to each release.
 - M - At least once per 31 days.
 - Q - At least once per 92 days.
 - S - Continuous.

Table 2-4

LIMITING RADIONUCLIDE CONCENTRATIONS* IN SECONDARY-SIDE
CLEAN-UP RESINS FOR ALLOWABLE DISCHARGES TO ONSITE SETTLING BASIN

Radionuclide	Limiting Concentration** ($\mu\text{Ci}/\text{cm}^3$)
Cr-51	3.3E-02
Mn-54	6.2E-05
Fe-59	5.1E-04
Co-58	3.0E-04
Co-60	5.4E-06
Y-91	2.1E-03
Zr-95	4.1E-04
Nb-95	1.0E-03
Mo-99	7.8E-03***
Ru-103	1.0E-03
Ru-106	1.6E-05
Ag-110m	1.6E-05
Te-125m	5.4E-05
Te-127m	1.5E-05
Te-129m	6.2E-05
Te-131m	3.1E-03***
Te-132	3.5E-03***
I-131	1.1E-04
I-133	3.8E-04
I-135	1.5E-03
Cs-134	1.1E-05
Cs-136	2.3E-03***
Cs-137	1.0E-05
Ba-140	3.1E-03***
La-140	3.5E-03***
Ce-141	5.8E-03
Ce-144	4.1E-05
Pr-143	1.9E-02

* Concentration limits based on the study, Disposal of Low-Level Radioactively Contaminated Secondary-Side Clean-up Resins in the On-site Settling Basins at the Davis-Besse Nuclear Power Station, J. Stewart Bland, May 1983. The limits represent a hypothetical maximum individual dose of less than 1 mrem per year due to an inadvertent release to the offsite environment. The allowable release limits as presented in Table 2 of the above reference report have been reduced by a factor of 10 for added conservatism - representing a hypothetical dose of less than 0.1 mrem.

** With more than one radionuclide identified in a resin batch, the evaluation for acceptable discharge to the onsite settling basin shall be based on the "sum of the fractions" rule as follows: Determine for each identified radionuclide the ratio between the measured concentration and the limiting concentration; the sum of these ratios for all radionuclides should be less than one (1) for discharge to the basin.

*** Limits updated due to changes in 10CFR20, Appendix B, Table 2, Column 2 values.

Table 2-5

RADIONUCLIDE CONCENTRATION LIMITS FOR THE BWST

Isotope	Maximum Permissible Concentration, $\mu\text{Ci/ml}$
H-3	1.35E+00
Cr-51	6.76E-01
Mn-54	4.06E-02
Fe-59	1.35E-02
Co-57	8.12E-02
Co-58	2.70E-02
Co-60	4.06E-03
Zn-65	6.76E-03
Rb-88	5.40E-01
Sr-89	1.08E-02
Sr-90	6.76E-04
Sr-91	2.70E-02
Sr-92	5.40E-02
Y-90	9.46E-03
Y-91	1.08E-02
Y-93	2.70E-02
Zr-95	2.70E-02
Zr-97	1.22E-02
Nb-95	4.06E-02
Nb-97	4.06E-01
Mo-99	2.70E-02
Tc-99m	1.35E+00
Ru-103	4.06E-02
Ru-106	4.06E-03
Ag-110m	8.12E-03
Sn-113	4.06E-02
Te-123m	1.35E-02
Sb-124	9.46E-03
Sb-125	4.06E-02
Te-132	1.22E-02
I-131	1.35E-03
I-132	1.35E-01
I-133	9.46E-03
I-134	5.40E-01
I-135	4.06E-02
Cs-134	1.22E-03
Cs-136	8.12E-03
Cs-137	1.35E-03
Cs-138	5.40E-01
Ba-139	2.70E-01
Ba-140	1.08E-02
La-140	1.22E-02
Ce-141	4.06E-02
Ce-144	4.06E-03

Table 2-6

LIQUID INGESTION DOSE COMMITMENT FACTORS, A_{io}
(mrem/hr per $\mu\text{Ci/ml}$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>T.Body</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>
H-3	0.00E+01	2.76E-01	2.76E-01	2.76E-01	2.76E-01	2.76E-01	2.76E-01
C-14	3.13E+04	6.26E+03	6.26E+03	6.26E+03	6.26E+03	6.26E+03	6.26E+03
Na-24	4.08E+02	4.08E+02	4.08E+02	4.08E+02	4.08E+02	4.08E+02	4.08E+02
P-32	1.39E+06	8.62E+04	5.36E+04	0.00E+01	0.00E+01	0.00E+01	1.56E+05
Cr-51	0.00E+01	0.00E+01	1.27E+00	7.62E-01	2.81E-01	1.69E+00	3.21E+02
Mn-54	0.00E+01	4.38E+03	8.35E+02	0.00E+01	1.30E+03	0.00E+01	1.34E+04
Mn-56	0.00E+01	1.10E+02	1.95E+01	0.00E+01	1.40E+02	0.00E+01	3.52E+03
Fe-55	6.60E+02	4.56E+02	1.06E+02	0.00E+01	0.00E+01	2.54E+02	2.61E+02
Fe-59	1.04E+03	2.45E+03	9.38E+02	0.00E+01	0.00E+01	6.84E+02	8.16E+03
Co-57	0.00E+01	2.10E+01	3.50E+01	0.00E+01	0.00E+01	0.00E+01	5.34E+02
Co-58	0.00E+01	8.95E+01	2.01E+02	0.00E+01	0.00E+01	0.00E+01	1.81E+03
Co-60	0.00E+01	2.57E+02	5.67E+02	0.00E+01	0.00E+01	0.00E+01	4.83E+03
Ni-63	3.12E+04	2.16E+03	1.05E+03	0.00E+01	0.00E+01	0.00E+01	4.51E+02
Ni-65	1.27E+02	1.65E+01	7.51E+00	0.00E+01	0.00E+01	0.00E+01	4.17E+02
Cu-64	0.00E+01	1.00E+01	4.70E+00	0.00E+01	2.52E+01	0.00E+01	8.53E+02
Zn-65	2.32E+04	7.37E+04	3.33E+04	0.00E+01	4.93E+04	0.00E+01	4.64E+04
Zn-69	4.93E+01	9.43E+01	6.56E+00	0.00E+01	6.13E+01	0.00E+01	1.42E+01
Zn-69m	8.14E+02	1.95E+03	1.79E+02	0.00E+01	1.18E+03	0.00E+01	1.19E+05
Br-82	0.00E+01	0.00E+01	2.27E+03	0.00E+01	0.00E+01	0.00E+01	2.61E+03
Br-83	0.00E+01	0.00E+01	4.04E+01	0.00E+01	0.00E+01	0.00E+01	5.82E+01
Br-84	0.00E+01	0.00E+01	5.24E+01	0.00E+01	0.00E+01	0.00E+01	4.11E-04
Br-85	0.00E+01	0.00E+01	2.15E+00	0.00E+01	0.00E+01	0.00E+01	0.00E+01
Rb-86	0.00E+01	1.01E+05	4.71E+04	0.00E+01	0.00E+01	0.00E+01	1.99E+04
Rb-88	0.00E+01	2.90E+02	1.54E+02	0.00E+01	0.00E+01	0.00E+01	4.00E-09
Rb-89	0.00E+01	1.92E+02	1.35E+02	0.00E+01	0.00E+01	0.00E+01	1.12E-11
Sr-89	2.23E+04	0.00E+01	6.39E+02	0.00E+01	0.00E+01	0.00E+01	3.57E+03
Sr-90	5.48E+05	0.00E+01	1.34E+05	0.00E+01	0.00E+01	0.00E+01	1.58E+04
Sr-91	4.10E+02	0.00E+01	1.66E+01	0.00E+01	0.00E+01	0.00E+01	1.95E+03
Sr-92	1.55E+02	0.00E+01	6.72E+00	0.00E+01	0.00E+01	0.00E+01	3.08E+03
Y-90	5.80E-01	0.00E+01	1.56E-02	0.00E+01	0.00E+01	0.00E+01	6.15E+03
Y-91m	5.48E-03	0.00E+01	2.12E-04	0.00E+01	0.00E+01	0.00E+01	1.61E-02
Y-91	8.51E+00	0.00E+01	2.27E-01	0.00E+01	0.00E+01	0.00E+01	4.68E+03
Y-92	5.10E-02	0.00E+01	1.49E-03	0.00E+01	0.00E+01	0.00E+01	8.93E+02
Y-93	1.62E-01	0.00E+01	4.46E-03	0.00E+01	0.00E+01	0.00E+01	5.13E+03
Zr-95	2.55E-01	8.17E-02	5.53E-02	0.00E+01	1.28E-01	0.00E+01	2.59E+02
Zr-97	1.41E-02	2.84E-03	1.30E-03	0.00E+01	4.29E-03	0.00E+01	8.79E+02
Nb-95	4.47E+02	2.48E+02	1.34E+02	0.00E+01	2.46E+02	0.00E+01	1.51E+06
Nb-97	3.75E+00	9.48E-01	3.46E-01	0.00E+01	1.11E+00	0.00E+01	3.50E+03
Mo-99	0.00E+01	1.05E+02	2.00E+01	0.00E+01	2.38E+02	0.00E+01	2.44E+02
Tc-99m	8.99E-03	2.54E-02	3.23E-01	0.00E+01	3.86E-01	1.24E-02	1.50E+01
Tc-101	9.24E-03	1.33E-02	1.31E-01	0.00E+01	2.40E-01	6.80E-03	4.00E-14
Ru-103	4.52E+00	0.00E+01	1.95E+00	0.00E+01	1.72E+01	0.00E+01	5.27E+02
Ru-105	3.76E-01	0.00E+01	1.48E-01	0.00E+01	4.86E+00	0.00E+01	2.30E+02

Table 2-6 (Continued)

LIQUID INGESTION DOSE COMMITMENT FACTORS, A_{io}
(mrem/hr per $\mu\text{Ci/ml}$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>T.Body</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>
Ru-106	6.71E+01	0.00E+01	8.50E+00	0.00E+01	1.30E+02	0.00E+01	4.35E+03
Rh-103m	0.00E+01	0.00E+01	0.00E+01	0.00E+01	0.00E+01	0.00E+01	0.00E+01
Rh-106	0.00E+01	0.00E+01	0.00E+01	0.00E+01	0.00E+01	0.00E+01	0.00E+01
Ag-110m	9.57E-01	8.85E-01	5.26E-01	0.00E+01	1.74E+00	0.00E+01	3.61E+02
Sb-124	8.03E+00	1.52E-01	3.19E+00	1.95E-02	0.00E+01	6.26E+00	2.28E+02
Sb-125	5.14E+00	5.74E-02	1.22E+00	5.22E-03	0.00E+01	3.96E+00	5.65E+01
Te-125m	2.57E+03	9.30E+02	3.44E+02	7.72E+02	1.04E+04	0.00E+01	1.03E+04
Te-127m	6.49E+03	2.32E+03	7.90E+02	1.66E+03	2.63E+04	0.00E+01	2.17E+04
Te-127	1.05E+02	3.78E+01	2.28E+01	7.81E+01	4.29E+02	0.00E+01	8.32E+03
Te-129m	1.10E+04	4.11E+03	1.74E+03	3.78E+03	4.60E+04	0.00E+01	5.55E+04
Te-129	3.01E+01	1.13E+01	7.33E+00	2.31E+01	1.26E+02	0.00E+01	2.27E+01
Te-131m	1.66E+03	8.11E+02	6.75E+02	1.28E+03	8.21E+03	0.00E+01	8.05E+04
Te-131	1.89E+01	7.88E+00	5.96E+00	1.55E+01	8.27E+01	0.00E+01	2.67E+00
Te-132	2.41E+03	1.56E+03	1.47E+03	1.72E+03	1.50E+04	0.00E+01	7.39E+04
I-130	2.75E+01	8.11E+01	3.20E+01	6.88E+03	1.27E+02	0.00E+01	6.99E+01
I-131	1.51E+02	2.16E+02	1.24E+02	7.10E+04	3.71E+02	0.00E+01	5.71E+01
I-132	7.39E+00	1.98E+01	6.91E+00	6.91E+02	3.15E+01	0.00E+01	3.71E+00
I-133	5.17E+01	8.99E+01	2.74E+01	1.32E+04	1.57E+02	0.00E+01	8.08E+01
I-134	3.86E+00	1.05E+01	3.75E+00	1.82E+02	1.67E+01	0.00E+01	9.13E-03
I-135	1.61E+01	4.22E+01	1.56E+01	2.78E+03	6.77E+01	0.00E+01	4.77E+01
Cs-134	2.98E+05	7.09E+05	5.79E+05	0.00E+01	2.29E+05	7.61E+04	1.24E+04
Cs-136	3.12E+04	1.23E+05	8.86E+04	0.00E+01	6.85E+04	9.39E+03	1.40E+04
Cs-137	3.82E+05	5.22E+05	3.42E+05	0.00E+01	1.77E+05	5.89E+04	1.01E+04
Cs-138	2.64E+02	5.22E+02	2.59E+02	0.00E+01	3.84E+02	3.79E+01	2.23E-03
Ba-139	9.75E-01	6.95E-04	2.85E-02	0.00E+01	6.49E-04	3.94E-04	1.73E+00
Ba-140	2.04E+02	2.56E-01	1.34E+01	0.00E+01	8.71E-02	1.47E-01	4.20E+02
Ba-141	4.73E-01	3.58E-04	1.60E-02	0.00E+01	3.33E-04	2.03E-04	2.23E-10
Ba-142	2.14E-01	2.20E-04	1.35E-02	0.00E+01	1.86E-04	1.25E-04	3.02E-19
La-140	1.51E-01	7.60E-02	2.01E-02	0.00E+01	0.00E+01	0.00E+01	5.58E+03
La-142	7.72E-03	3.51E-03	8.75E-04	0.00E+01	0.00E+01	0.00E+01	2.56E+01
Ce-141	2.69E-02	1.82E-02	2.06E-03	0.00E+01	8.44E-03	0.00E+01	6.94E+01
Ce-143	4.73E-03	3.50E+00	3.87E-04	0.00E+01	1.54E-03	0.00E+01	1.31E+02
Ce-144	1.40E+00	5.85E-01	7.52E-02	0.00E+01	3.47E-01	0.00E+01	4.73E+02
Pr-143	5.55E-01	2.23E-01	2.75E-02	0.00E+01	1.28E-01	0.00E+01	2.43E+03
Pr-144	1.82E-03	7.54E-04	9.23E-05	0.00E+01	4.25E-04	0.00E+01	2.61E-10
Nd-147	3.79E-01	4.39E-01	2.62E-02	0.00E+01	2.56E-01	0.00E+01	2.11E+03
W-187	2.96E+02	2.47E+02	8.65E+01	0.00E+01	0.00E+01	0.00E+01	8.10E+04
Np-239	2.91E-02	2.86E-03	1.57E-03	0.00E+01	8.91E-03	0.00E+01	5.86E+02

Table 2-7

BIOACCUMULATION FACTORS (BFi)
(pCi/kg per pCi/liter)*

<u>Element</u>	<u>Freshwater Fish</u>
H	9.0E-01
C	4.6E+03
Na	1.0E+02
P	3.0E+03
Cr	2.0E+02
Mn	4.0E+02
Fe	1.0E+02
Co	5.0E+01
Ni	1.0E+02
Cu	5.0E+01
Zn	2.0E+03
Br	4.2E+02
Rb	2.0E+03
Sr	3.0E+01
Y	2.5E+01
Zr	3.3E+00
Nb	3.0E+04
Mo	1.0E+01
Tc	1.5E+01
Ru	1.0E+01
Rh	1.0E+01
Ag	2.3E+00
Sb	1.0E+00
Te	4.0E+02
I	1.5E+01
Cs	2.0E+03
Ba	4.0E+00
La	2.5E+01
Ce	1.0E+00
Pr	2.5E+01
Nd	2.5E+01
W	1.2E+03
Np	1.0E+01

* Values in this Table are taken from Regulatory Guide 1.109 except for phosphorus which is adapted from NUREG/CR-1336 and silver and antimony which are taken from UCRL 50564, Rev. 1, October 1972.

Table 2-8

LIQUID PATHWAY DOSE COMMITMENT FACTORS, $A_{shore,I}$
FOR RELEASES TO THE TRAINING CENTER POND
 (mrem/hr per $\mu\text{Ci/ml}$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>T.Body</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>
H-3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
C-14	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na-24	2.10E+00	2.10E+00	2.10E+00	2.10E+00	2.10E+00	2.10E+00	2.10E+00
P-32	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cr-51	1.38E+00	1.38E+00	1.38E+00	1.38E+00	1.38E+00	1.38E+00	1.38E+00
Mn-54	4.02E+02	4.02E+02	4.02E+02	4.02E+02	4.02E+02	4.02E+02	4.02E+02
Mn-56	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02
Fe-55	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe-59	8.18E+01	8.18E+01	8.18E+01	8.18E+01	8.18E+01	8.18E+01	8.18E+01
Co-57	9.49E+01	9.49E+01	9.49E+01	9.49E+01	9.49E+01	9.49E+01	9.49E+01
Co-58	1.14E+02	1.14E+02	1.14E+02	1.14E+02	1.14E+02	1.14E+02	1.14E+02
Co-60	6.43E+03	6.43E+03	6.43E+03	6.43E+03	6.43E+03	6.43E+03	6.43E+03
Ni-63	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ni-65	3.28E-03	3.28E-03	3.28E-03	3.28E-03	3.28E-03	3.28E-03	3.28E-03
Cu-64	9.50E-02	9.50E-02	9.50E-02	9.50E-02	9.50E-02	9.50E-02	9.50E-02
Zn-65	2.23E+02	2.23E+02	2.23E+02	2.23E+02	2.23E+02	2.23E+02	2.23E+02
Zn-69	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Br-82	9.08E+00	9.08E+00	9.08E+00	9.08E+00	9.08E+00	9.08E+00	9.08E+00
Br-83	4.58E-05	4.58E-05	4.58E-05	4.58E-05	4.58E-05	4.58E-05	4.58E-05
Br-84	9.29E-09	9.29E-09	9.29E-09	9.29E-09	9.29E-09	9.29E-09	9.29E-09
Br-85	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rb-86	2.64E+00	2.64E+00	2.64E+00	2.64E+00	2.64E+00	2.64E+00	2.64E+00
Rb-88	5.52E-15	5.52E-15	5.52E-15	5.52E-15	5.52E-15	5.52E-15	5.52E-15
Rb-89	2.00E-16	2.00E-16	2.00E-16	2.00E-16	2.00E-16	2.00E-16	2.00E-16
Sr-89	6.43E-03	6.43E-03	6.43E-03	6.43E-03	6.43E-03	6.43E-03	6.43E-03
Sr-90	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr-91	2.77E-01	2.77E-01	2.77E-01	2.77E-01	2.77E-01	2.77E-01	2.77E-01
Sr-92	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02
Y-90	1.18E-03	1.18E-03	1.18E-03	1.18E-03	1.18E-03	1.18E-03	1.18E-03
Y-91m	1.39E-06	1.39E-06	1.39E-06	1.39E-06	1.39E-06	1.39E-06	1.39E-06
Y-91	3.21E-01	3.21E-01	3.21E-01	3.21E-01	3.21E-01	3.21E-01	3.21E-01
Y-92	5.11E-03	5.11E-03	5.11E-03	5.11E-03	5.11E-03	5.11E-03	5.11E-03
Y-93	2.46E-02	2.46E-02	2.46E-02	2.46E-02	2.46E-02	2.46E-02	2.46E-02
Zr-95	7.41E+01	7.41E+01	7.41E+01	7.41E+01	7.41E+01	7.41E+01	7.41E+01
Zr-97	5.38E-01	5.38E-01	5.38E-01	5.38E-01	5.38E-01	5.38E-01	5.38E-01
Nb-95	4.05E+01	4.05E+01	4.05E+01	4.05E+01	4.05E+01	4.05E+01	4.05E+01
Nb-97	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.14E-04
Mo-99	1.07E+00	1.07E+00	1.07E+00	1.07E+00	1.07E+00	1.07E+00	1.07E+00
Tc-99m	1.37E-02	1.37E-02	1.37E-02	1.37E-02	1.37E-02	1.37E-02	1.37E-02
Tc-101	3.33E-18	3.33E-18	3.33E-18	3.33E-18	3.33E-18	3.33E-18	3.33E-18
Ru-103	3.24E+01	3.24E+01	3.24E+01	3.24E+01	3.24E+01	3.24E+01	3.24E+01
Ru-105	2.93E-02	2.93E-02	2.93E-02	2.93E-02	2.93E-02	2.93E-02	2.93E-02
Ru-106	1.26E+02	1.26E+02	1.26E+02	1.26E+02	1.26E+02	1.26E+02	1.26E+02

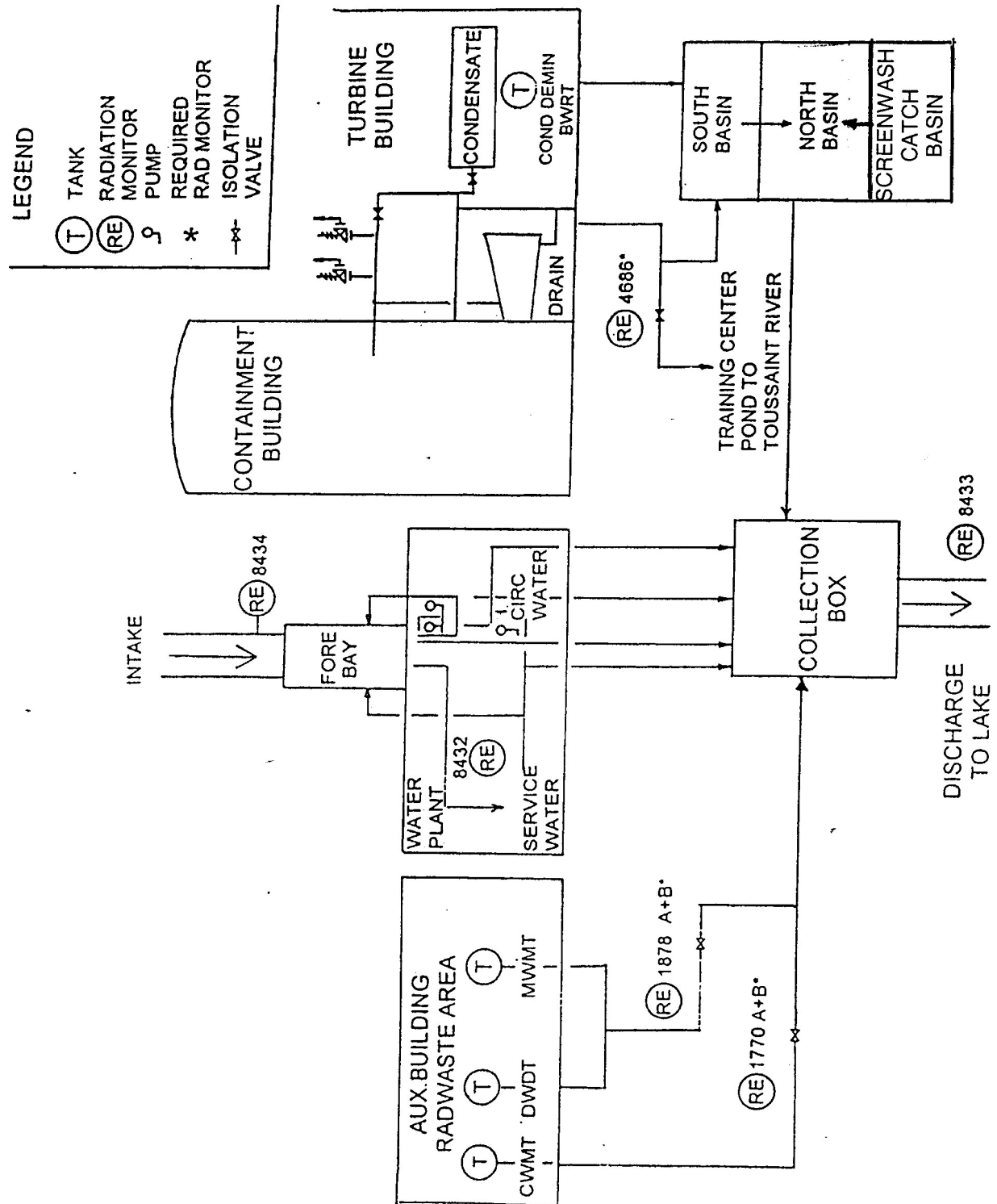
Table 2-8 (Continued)

LIQUID PATHWAY DOSE COMMITMENT FACTORS, $A_{shore,1}$
FOR RELEASES TO THE TRAINING CENTER POND
 (mrem/hr per $\mu\text{Ci/ml}$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>T.Body</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>
Rh-103m	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rh-106	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ag-110m	1.04E+03	1.04E+03	1.04E+03	1.04E+03	1.04E+03	1.04E+03	1.04E+03
Sb-124	3.13E+02	3.13E+02	3.13E+02	3.13E+02	3.13E+02	3.13E+02	3.13E+02
Sb-125	1.26E+03	1.26E+03	1.26E+03	1.26E+03	1.26E+03	1.26E+03	1.26E+03
Te-125m	4.62E-01	4.62E-01	4.62E-01	4.62E-01	4.62E-01	4.62E-01	4.62E-01
Te-127m	2.74E-02	2.74E-02	2.74E-02	2.74E-02	2.74E-02	2.74E-02	2.74E-02
Te-127	3.71E-04	3.71E-04	3.71E-04	3.71E-04	3.71E-04	3.71E-04	3.71E-04
Te-129m	5.94E+00	5.94E+00	5.94E+00	5.94E+00	5.94E+00	5.94E+00	5.94E+00
Te-129	5.62E-06	5.62E-06	5.62E-06	5.62E-06	5.62E-06	5.62E-06	5.62E-06
Te-131m	1.82E+00	1.82E+00	1.82E+00	1.82E+00	1.82E+00	1.82E+00	1.82E+00
Te-131	1.97E-11	1.97E-11	1.97E-11	1.97E-11	1.97E-11	1.97E-11	1.97E-11
Te-132	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00
I-130	8.48E-01	8.48E-01	8.48E-01	8.48E-01	8.48E-01	8.48E-01	8.48E-01
I-131	4.95E+00	4.95E+00	4.95E+00	4.95E+00	4.95E+00	4.95E+00	4.95E+00
I-132	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02
I-133	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01
I-134	1.07E-05	1.07E-05	1.07E-05	1.07E-05	1.07E-05	1.07E-05	1.07E-05
I-135	2.22E-01	2.22E-01	2.22E-01	2.22E-01	2.22E-01	2.22E-01	2.22E-01
Cs-134	2.02E+03	2.02E+03	2.02E+03	2.02E+03	2.02E+03	2.02E+03	2.02E+03
Cs-136	4.35E+01	4.35E+01	4.35E+01	4.35E+01	4.35E+01	4.35E+01	4.35E+01
Cs-137	3.08E+03	3.08E+03	3.08E+03	3.08E+03	3.08E+03	3.08E+03	3.08E+03
Cs-138	2.00E-08	2.00E-08	2.00E-08	2.00E-08	2.00E-08	2.00E-08	2.00E-08
Ba-139	7.96E-05	7.96E-05	7.96E-05	7.96E-05	7.96E-05	7.96E-05	7.96E-05
Ba-140	5.99E+00	5.99E+00	5.99E+00	5.99E+00	5.99E+00	5.99E+00	5.99E+00
Ba-141	1.08E-14	1.08E-14	1.08E-14	1.08E-14	1.08E-14	1.08E-14	1.08E-14
Ba-142	7.48E-23	7.48E-23	7.48E-23	7.48E-23	7.48E-23	7.48E-23	7.48E-23
La-140	4.66E+00	4.66E+00	4.66E+00	4.66E+00	4.66E+00	4.66E+00	4.66E+00
La-142	9.95E-04	9.95E-04	9.95E-04	9.95E-04	9.95E-04	9.95E-04	9.95E-04
Ce-141	4.04E+00	4.04E+00	4.04E+00	4.04E+00	4.04E+00	4.04E+00	4.04E+00
Ce-143	5.41E-01	5.41E-01	5.41E-01	5.41E-01	5.41E-01	5.41E-01	5.41E-01
Ce-144	2.08E+01	2.08E+01	2.08E+01	2.08E+01	2.08E+01	2.08E+01	2.08E+01
Pr-143	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pr-144	1.58E-16	1.58E-16	1.58E-16	1.58E-16	1.58E-16	1.58E-16	1.58E-16
Nd-147	2.44E+00	2.44E+00	2.44E+00	2.44E+00	2.44E+00	2.44E+00	2.44E+00
W-187	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01
Np-239	4.41E-01	4.41E-01	4.41E-01	4.41E-01	4.41E-01	4.41E-01	4.41E-01

Figure 2-1

Liquid Radioactive Effluent Monitoring and Processing Diagram



3.0 GASEOUS EFFLUENTS

3.1 RADIATION MONITORING INSTRUMENTATION AND CONTROLS

This Section specifies the gaseous effluent monitoring instrumentation required at Davis-Besse for controlling and monitoring radioactive effluents. Location and control function of these monitors are displayed in Figure 3-1. More information is provided in the Davis-Besse USAR, Section 11.3, Gaseous Waste System.

The radioactive gaseous effluent monitoring instrumentation channels shown in Table 3-1 shall be FUNCTIONAL with their alarm/trip setpoints set to ensure that the limits of Section 3.3 are not exceeded. The alarm/trip setpoints of these channels shall be determined and adjusted in accordance with the methodology and parameters in Section 3.3.

With a radioactive gaseous effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required, without delay suspend the release of radioactive gaseous effluents monitored by the affected channel, or declare the channel nonfunctional, or change the setpoint so it is acceptably conservative.

With less than the required number of radioactive gaseous effluent monitoring instrumentation channels FUNCTIONAL, take the actions shown in Table 3-1. Exert best efforts to return the instruments to FUNCTIONAL status within 30 days and, if unsuccessful, explain in the next Radioactive Effluent Release Report (Section 7.2) why the non-functionality was not corrected in a timely manner.

Each radioactive gaseous effluent monitoring instrumentation channel shall be demonstrated FUNCTIONAL by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 3-2. Each of these operations shall be performed within the specified time interval with a maximum allowable extension not to exceed 25 percent of the specified interval.

NOTE: The monitors specified in Table 3-2 are nonfunctional if verifications are not performed or setpoints are less conservative than required.

The radioactive gaseous effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in gaseous effluents during actual or potential releases. The alarm/trip setpoints for these instruments shall be calculated in accordance with methods in Section 3.3 to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. The FUNCTIONALITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63 and 64 of Appendix A to 10 CFR Part 50.

3.1.1 Alarm and Automatic Release Termination

a) Waste Gas Decay System Monitor (RE-1822 A&B)

The radioactive waste gas discharge line is continuously monitored by two offline detectors, each measuring gross activity. The monitors' control function will terminate the waste discharge prior to exceeding the release rate limits of Section 3.3.2. Table 3-1 requires that the Waste Gas Decay System contain as a minimum the following instrumentation:

- noble gas activity monitor (RE-1822 A or B), and
- effluent system flow rate measuring device (FT-1821 or 1821 A).

If both noble gas monitors are declared nonfunctional, then the contents of the tank may be released provided that prior to the release:

- at least two independent gas samples are collected and analyzed by gamma spectroscopy for principal gamma emitters (noble gases),
- at least two independent verifications of the release rate calculations are performed, and
- at least two independent verifications of the discharge valve line-up are performed.

If the flow rate device is nonfunctional, effluent releases may continue provided that the flow rate is estimated at least once per 12 hours. Flow rates may be estimated based on fan curves or discharge valve header positioning.

b) Containment Purge Exhaust Filter Monitor (RE-5052 A,B&C)

This detector monitors the containment atmosphere for radioactivity during Containment VENT or PURGE. The noble gas activity monitor (Channel C) is required by Table 3-1. It provides an automatic termination of the release prior to exceeding the release rate limits of Section 3.3.2. Although not required in order to comply with Table 3.1, Channels A and B provide indications of increasing levels of particulate and radioiodine releases and terminate the release if their high alarm setpoint is exceeded.

3.1.2 Alarm Only

a) Station Vent Monitor (RE-4598 AA, BA)

The Station Vent is designed as the final release point for all gaseous radioactive effluents. Three separate channels (A, B, and C) are provided for each monitoring system. Channel A is a Silicon alpha beta particle monitor viewing a fixed particulate filter. Channel B is a Sodium Iodide detector viewing a fixed charcoal cartridge sampler. Channel C is a Silicon detector viewing a fixed air volume measuring for noble gases. Only the Channel C radiation detector is required by Table 3.1.

The Channel A and Channel B detectors provide information on potential particulate and radioiodine releases, respectively. However, those monitors experience wide variations in response due, in part, to the much more abundant noble gases in the effluent stream relative to the particulate or radioiodines being sampled. Therefore, while Channels A and B provide useful information for identifying particulate and radioiodine releases, they are not required by Table 3.1 for quantifying the release rate. Refer to Section 3.5.

The following sampling and/or monitoring instrumentation on the Station Vent is required by Table 3-1:

- noble gas activity monitor (Channel C),
- particulate sampler filter,
- iodine sampler cartridge,
- sampler flow rate measuring device, and
- unit vent total Flow Indicating Transmitter (FIT- computer points F883 or F885).

The hydrogen purge line serves as a Containment pressure relief route to the Station Vent. A separate radiation monitor on this line is not required. Any release through the hydrogen purge line will be monitored by the Station Vent monitor, RE-4598.

b) Waste Gas System Oxygen Monitors (AE 5984 and 6570)

The Waste Gas System is provided with two oxygen monitors (with an alarm function) as required by Table 3-1 to alert operators in the unlikely event of oxygen leakage into the waste gas header. The concentration of oxygen is limited to less than or equal to 2% by volume whenever the hydrogen concentration exceeds 4% by volume. An oxygen concentration above the specified limit will actuate a local and control room alarm (TS 5.5.11.a as implemented by TRM 8.7.5).

3.2 SAMPLING AND ANALYSIS OF GASEOUS EFFLUENTS

Radioactive gaseous wastes shall be sampled and analyzed in accordance with Table 3-3. This sampling and analysis ensures that the dose rates and doses from gaseous effluents remain below the release rate limits of Section 3.3.2, and the dose limits of Sections 3.7.1 and 3.8.1.

3.2.1 Batch Releases

Table 3-3 requires that a grab gas sample be collected and analyzed prior to each BATCH RELEASE from the Waste Gas Decay Tanks (WGDT) or a Containment PURGE. The analysis shall include the identification of all principal gamma emitters (noble gas) and tritium. Although not required by Table 3-3, Containment Pressure releases, Integrated Leak Rate Tests of Containment, and other tank venting operations are batch releases and shall be sampled similarly.

The results of the sample analysis are used to establish the acceptable release rate in accordance with Section 3.3.5. This evaluation is necessary to ensure compliance with the limits of Section 3.3.2.

3.2.2 Continuous Release

All releases from the Station Vent are required to be continuously sampled for radioactivity. As specified in Table 3-3, the following minimum samples and analyses are required:

- once per week, analysis of an absorption media (e.g., charcoal cartridge) for I-131,
- once per week, analysis of a filter sample for all principal gamma emitters (particulate radioactive material),
- once per month, analysis of a grab gas sample for all principal gamma emitters (noble gas) and tritium,
- once per month, analysis of a composite of the particulate samples of all releases for that month for gross alpha activity,
- once per quarter, analysis of a composite of the particulate samples for all releases for that quarter for Sr-89 and 90, and
- continuous monitoring for noble gases (gross beta and gamma activity).

3.2.3 Releases Resulting from Primary-to-Secondary System Leakage

Due to secondary coolant system contamination, there are several additional gaseous release points to consider:

- The Atmospheric Vent Valves (AVVs) weepage - continuous ground level release
- Main Steam System Relief Valves (MSSVs) - batch ground level release
- Auxiliary Feed Pump Turbines (AFPTs) - batch ground level release
- Auxiliary Steam System Relief Valves (235#, 15#, 50#, 5# Relief Valves) - batch ground level release
- Auxiliary Boiler Relief Valve - batch ground level release
- Steam Packing Exhauster (SPE) – continuous ground level release

Steam may be released via any of these points due to improper valve seating. Steam may be released via the MSSVs and AVVs if the plant trips, or via the AVVs during a condenser outage. Steam is released through the AFPTs during their operation. Steam may be released due to over pressurization of the Auxiliary Steam System via the relief valves on the various steam headers. Gland Steam from the High and Low Pressure Turbine labyrinth gland seals, and valve stem steam leakage from the Turbine Control Valves and Combined Intermediate Valves are released during normal plant operation from the Steam Packing Exhauster.

For secondary coolant system release pathways, the following minimum samples and analyses are required:

- once per week, analysis of a secondary system off-gas sample for principal gamma emitters (noble gases) and tritium;
- once per week, analysis of condensate sample for principal gamma emitters (iodines and particulates) and tritium;
- once per quarter, analysis of a composite of condensate samples for strontium-89 and strontium-90.

To supplement the above requirements, the moisture separator drain tank liquid may be analyzed for principal gamma emitters (iodines and particulates)

Liquid samples are analyzed from Condensate during normal operations, and from the Auxiliary Boiler during Modes 5 and 6. For Auxiliary Steam System Relief lifts that occur when the Auxiliary Boiler is the source of Auxiliary Steam, liquid samples from the Auxiliary Boiler are analyzed for principal gamma emitters (iodines and particulates) and tritium.

If only one steam generator has a primary-to-secondary leak, then radionuclides other than tritium are released through the valves on the leaking steam generator's main steam line. Demineralizing and gas stripping remove some radionuclides from the condensate prior to its return to the steam generator as feedwater. However, these processes do not remove tritium.

3.3 GASEOUS EFFLUENT MONITOR SETPOINT DETERMINATION

3.3.1 Total Effective Dose Equivalent Limits

10 CFR 20.1301 limits the total effective dose equivalent, (TEDE), to individual members of the public from all licensed operations to 100 mrem in a year. At Davis-Besse, the total effective dose equivalent due to radioactive materials released in gaseous effluents at the boundary of the unrestricted area shall be limited to 50 mrem in a year.

3.3.2 Release Rate Limits

All releases of gaseous radioactive effluents are designed to occur via the Station Vent. Station Vent alarm setpoints shall be established to ensure the release rate of noble gas, iodine and particulate effluent does not exceed any 10 CFR limit at or beyond the site boundary. For batch and intermittent releases (e.g. containment purges, etc.), compliance may be demonstrated by ensuring that:

Noble gas: A dose rate less than or equal to 500 mrem/year to the total body, and a dose rate less than or equal to 3000 mrem/year to the skin,

And

Iodine 131, Iodine 133, Tritium, and all radionuclides in particulate form with half-lives greater than 8 days: A dose rate less than or equal to 1500 mrem/year to any organ.

Should dose rate(s) exceed the above limits, without delay restore the release rate to within the above limit(s).

These requirements ensure that the total effective dose equivalent at the UNRESTRICTED AREA BOUNDARY from gaseous effluents will be within the annual dose limits of 10 CFR Part 20 for individual members of the public.

For INDIVIDUAL MEMBERS OF THE PUBLIC who may at times be within the UNRESTRICTED AREA BOUNDARY, the occupancy of that MEMBER OF THE PUBLIC will be sufficiently low to compensate for any increase in the atmospheric diffusion factor above that for the UNRESTRICTED AREA BOUNDARY.

3.3.3 Individual Release Radiation Monitor Setpoints

Although generic radiation monitor setpoints are normally used at Davis-Besse (see Section 3.3.4), setpoints may be established from a sample analysis of the applicable source (i.e., Station Vent, Waste Gas Decay Tanks, or Containment atmosphere), and the following equations:

$$SP_{TB} = \frac{\sum C_i * 500}{472 * \chi / Q_{NG} * VF * \sum (C_i * K_i)} \quad (3-1)$$

$$SP_S = \frac{\sum C_i * 3000}{472 * \chi / Q_{NG} * VF * \sum (C_i * (L_i + 1.1 M_i))} \quad (3-2)$$

where:

SP_{TB}	=	monitor setpoint corresponding to the release rate limit for the total body dose rate of 500 mrem per year ($\mu\text{Ci/ml}$),
SP_S	=	monitor setpoint corresponding to the release rate limit for the skin dose rate of 3000 mrem per year ($\mu\text{Ci/ml}$),
500	=	total body dose rate limit (mrem/yr),
3000	=	skin dose rate limit (mrem/yr),
χ/Q_{NG}	=	atmospheric χ/Q value for direct exposure to noble gas at the UNRESTRICTED AREA BOUNDARY given in Table 3-6 (sec/m^3),
VF	=	ventilation system flow rate for the applicable release point and monitor ($\text{ft}^3/\text{minute}$),
C_i	=	concentration of noble gas radionuclide "i" as determined by gamma spectral analysis of grab sample ($\mu\text{Ci/ml}$),
K_i	=	total body dose conversion factor for radionuclide "i" (mrem/yr per $\mu\text{Ci/m}^3$) from Table 3-5,
L_i	=	beta skin dose conversion factor for radionuclide "i" (mrem/yr per $\mu\text{Ci/m}^3$) from Table 3-5,
M_i	=	gamma air dose conversion factor for radionuclide "i" (mrad/yr per $\mu\text{Ci/m}^3$) from Table 3-5,
1.1	=	mrem skin dose per mrad gamma air dose (mrem/mrad), and
472	=	$28,317 (\text{ml/ft}^3) * 1/60 (\text{min/sec})$.

The lesser value of SP_{TB} or SP_S is used to establish the monitor setpoint.

The Station Vent monitor (RE-4598) efficiencies and read outs are in $\mu\text{Ci/ml}$; however, the Containment Purge Exhaust Monitor (RE-5052) and the WGD monitor (RE-1822) efficiencies and readouts are in counts per minute. Therefore, for RE-5052 and RE-1822, the setpoints in $\mu\text{Ci/ml}$ must be corrected to an equivalent monitor counts per minute. The monitor calibration curves are used for determining specific radionuclide efficiencies (cpm per $\mu\text{Ci/ml}$).

Normally, the monitor for Xe-133 efficiency is used in lieu of the efficiency values for the individual radionuclides. Xe-133 is used because it is the predominant inert gas found in station gaseous releases. The use of Xe-133 efficiency provides a conservative value for alarm setpoint determination.

3.3.4 Conservative, Generic Radiation Monitor Setpoints

Normally, generic alarm setpoints are established instead of those determined by individual radionuclide analysis. This approach eliminates the need to adjust the setpoint periodically to reflect minor changes in radionuclide distribution or release flow rate. Therefore, the more restrictive setpoint is based on the total body dose rate limit and may be calculated using equation (3-1). Again, Xe-133 monitor efficiency is used for conservatism. Xe-133 is used because it is the predominant inert gas in station gaseous releases. The alarm setpoints are controlled for RE-4598, RE-5052, and RE-1822 in accordance with the Radiation Monitor Setpoint Manual.

3.3.5 Release Flow Rate Evaluation For Batch Releases

To comply with the release rate limits of Section 3.3.2, each batch release shall be evaluated for maximum release flow rate prior to being released. Based on noble gas concentration, and the radioiodine, particulate, and tritium concentration in the sample as collected in accordance with Table 3-3, the allowable release rate is determined based on equations (3-3), (3-4) and (3-5). The smallest value of RR_{tb} , RR_s or RR_{INH} is used as the maximum allowable release flow rate.

To determine RR_{INH} exactly, a separate RR_{INH} must be calculated for every organ in every age group (28 values of RR_{INH}). The smallest of these 28 is the RR_{INH} which is compared to RR_{tb} and RR_s to determine maximum allowable release rate. A conservative shortcut is to calculate RR_{INH} once by using the largest inhalation dose factor (R_{io} from Table 3-7) for any organ of any age group for each nuclide released. The largest dose factors in the inhalation pathway are usually for the teen lung.

$$RR_{tb} = \frac{500}{472 * \chi / Q_{NG} * \Sigma(K_i * CNG_i)} \quad (3-3)$$

$$RR_s = \frac{3000}{472 * \chi / Q_{NG} * \Sigma((L_i + 1.1 M_i) * CNG_i)} \quad (3-4)$$

$$RR_{INH} = \frac{1500}{472 * \chi / Q_{INH} * \Sigma(R_{io} * CINH_i) * DF_{IP}} \quad (3-5)$$

where:

RR_{tb}	=	allowable release flow rate so as not to exceed a total body dose rate of 500 mrem/yr ($\text{ft}^3/\text{minute}$),
RR_s	=	allowable release flow rate so as not to exceed a skin dose rate of 3000 mrem/yr ($\text{ft}^3/\text{minute}$),
RR_{INH}	=	allowable release flow rate so as not to exceed an inhalation dose rate of 1500 mrem/yr (ft^3/min),
500	=	total body dose rate limit at the UNRESTRICTED AREA BOUNDARY (mrem/yr),
3000	=	skin dose rate limit at the UNRESTRICTED AREA BOUNDARY (mrem/yr),
1500	=	inhalation dose rate limit at the UNRESTRICTED AREA BOUNDARY (mrem/yr),
472	=	$28317 (\text{ml}/\text{ft}^3) * 1/60 (\text{min}/\text{sec})$,
χ/Q_{NG}	=	atmospheric χ/Q value for direct exposure to noble gas at the UNRESTRICTED AREA BOUNDARY given in Table 3-6 (sec/m^3),
χ/Q_{INH}	=	atmospheric χ/Q value for inhalation at the UNRESTRICTED AREA BOUNDARY given in Table 3-6 (sec/m^3),
K_i	=	total body dose conversion factor for radionuclide "i" (mrem/yr per $\mu\text{Ci}/\text{m}^3$) from Table 3-5,
L_i	=	beta skin dose conversion factor for radionuclide "i" (mrem/yr per $\mu\text{Ci}/\text{m}^3$) from Table 3-5,
M_i	=	gamma air dose conversion factor for radionuclide "i" (mrad/yr per $\mu\text{Ci}/\text{m}^3$) from Table 3-5,
R_{io}	=	dose factor for radionuclide _i to organ "o" of age group _a given in Table 3-7 (mrem/yr per $\mu\text{Ci}/\text{m}^3$),
CNG_i	=	concentration of noble gas radionuclide "i" analyzed in grab samples,
$CINH_i$	=	concentration of tritium, radioiodine, or particulate radionuclide "i" analyzed in grab samples, and
DF_{IP}	=	0.01 which is a removal factor of 100 for radioiodines and particulates when the effluent is processed through an absolute filter (do <u>not</u> use for tritium).

The actual release rate may be set lower than the maximum allowable release rate to provide an additional assurance that the release rate limits of Section 3.3.2 are not exceeded.

3.4 UNRESTRICTED AREA BOUNDARY DOSE RATE CALCULATION - NOBLE GAS

If an effluent noble gas monitor exceeds the alarm setpoint, then an evaluation of compliance with the release rate limits of Section 3.3.2 must be performed using actual release conditions. This evaluation requires collecting a sample of the effluent to establish actual radionuclide concentrations and monitor response.

The following equations may be used for evaluating compliance with the release rate limit of Section 3.3.2 for noble gases:

$$D_{tb} = 472 * \chi / Q_{NG} * VF * \Sigma (K_i * C_i) \quad (3-6)$$

$$D_s = 472 * \chi / Q_{NG} * VF * \Sigma ((L_i + 1.1 M_i) * C_i) \quad (3-7)$$

where:

D_{tb}	=	total body dose rate (mrem/yr),
D_s	=	skin dose rate (mrem/yr),
χ/Q_{NG}	=	atmospheric χ/Q for direct exposure to noble gases at the UNRESTRICTED AREA BOUNDARY given in Table 3-6 (sec/m ³),
VF	=	ventilation system flow rate (ft ³ /min),
C_i	=	concentration of radionuclide "i" as measured in sample (μCi/ml),
K_i	=	total body dose conversion factor for noble gas radionuclide "i" (mrem/yr per μCi/m ³) from Table 3-5,
L_i	=	beta skin dose conversion factor for noble gas radionuclide "i" (mrem/yr per μCi/m ³) from Table 3-5,
M_i	=	gamma air dose conversion factor for noble gas radionuclide "i" (mrad/yr per μCi/m ³) from Table 3-5,
1.1	=	mrem skin dose per mrad gamma air dose (mrem/mrad), and
472	=	28,317 (ml/ft ³) * 1/60 (min/sec).

3.5 UNRESTRICTED AREA BOUNDARY DOSE RATE CALCULATION - RADIOIODINE, TRITIUM, AND PARTICULATES

3.5.1 Dose Rate Calculation

Section 3.3.2 limits the dose rate to ≤ 1500 mrem/yr to any organ for gaseous releases of I-131, tritium and all particulates with half-lives greater than 8 days. To demonstrate compliance with this limit, an evaluation is performed in accordance with Table 3-3 (nominally once per 7 days). The following equation may be used for the dose rate evaluation:

$$D_o = \chi / Q_{INH} * \sum (R_{io} * Q_i) \quad (3-8)$$

where:

D_o = dose rate to organ "o" over the sampling time period (mrem/yr)

χ/Q_{INH} = atmospheric χ/Q value for inhalation at the UNRESTRICTED AREA BOUNDARY given in Table 3-6 (sec/m³),

R_{io} = dose factor to organ_o from radionuclide "i" for the controlling age group via the inhalation pathway (mrem/yr per $\mu\text{Ci}/\text{m}^3$) from Table 3-7, and

Q_i = average release rate over the appropriate sampling period and analysis frequency for radionuclide "i" ($\mu\text{Ci}/\text{sec}$).

3.5.2 Simplified Dose Rate Evaluation for Radioiodine, Tritium and Particulates

It is conservative to evaluate dose rates by applying the I-131 dose factor to the collective releases for all measured radionuclides. By substituting 1500 mrem/yr for the dose rate to organ "o" in Equation (3-8) and solving for Q_i , an allowable release rate can be determined. Based on the annual average meteorological dispersion (see Table 3-6) and the I-131 dose factor for the most limiting potential pathway, age group and organ (inhalation, child, thyroid - $R_{io} = 1.64\text{E}+07$ mrem/yr per $\mu\text{Ci}/\text{m}^3$), the allowable release rate is 63.6 $\mu\text{Ci}/\text{sec}$. An added conservatism factor of 0.8 has been included in this calculation to account for any potential dose contribution from other radioactive particulate material.

For a 7-day period, which is the nominal sampling and analysis frequency, the cumulative release would be 38.5 Ci. Therefore, as long as the total radioiodine, tritium, and particulate releases in any 7-day period do not exceed 38.5 Ci, no additional analyses are needed to verify compliance with the Section 3.3.2 limits on allowable release rate.

3.6 QUANTIFYING ACTIVITY RELEASED

NRC Regulatory Guide 1.21 requires reporting the quantities of individual radionuclides released in gaseous effluents. Therefore, these quantities shall be determined.

3.6.1 Quantifying Noble Gas Activity Released Using a Grab Sample or RE-4598

The quantification of continuous noble gas effluents is based on sampling and analysis of the Station Vent effluent. The monitor, RE-4598, provides a measurement of gross radioactive material concentration in the effluent. As required by Table 3-3, a gas sample is collected at least monthly from the Station Vent. And, as discussed in Section 3.2.2, this sample is analyzed by gamma spectroscopy to identify principal gamma emitting radionuclides (noble gases). The results of the analysis are used to determine the quantities of radionuclides released. This simplified approach reasonably quantifies the continuous release provided that no atypical levels have been observed (e.g., alert setpoint being exceeded).

Based on the actual grab sample analysis, the release quantities are determined by using the following equation:

$$Q_i = 28,317 * VF * T * C_i * 1E-06 \quad (3-9)$$

where:

Q_i	=	total activity released of radionuclide _i (C_i),
28,317	=	milliliters per ft ³ ,
VF	=	ventilation system flow rate (ft ³ /min),
T	=	release duration (min),
1E-06	=	Ci per μ Ci, and
C_i	=	concentration of radionuclide "i" as measured in the grab sample (μ Ci/ml).

As an alternative method, the average noble gas reading for the release period can be used to quantify individual noble gas radionuclides released provided a normal isotopic mixture of gases is present by using the following equation:

$$Q_i = 28,317 * \frac{A_i}{\sum A_i} * C * VF * T \quad (3-10)$$

where:

Q_i	=	total activity released of radionuclide "i" (μ Ci),
28,317	=	milliliters per ft ³ ,

A_i	=	activity concentration of radionuclide "i" from the gamma spectral analysis of a grab sample from the release point ($\mu\text{Ci/ml}$),
C	=	average gross activity concentration over the release period as measured by the noble gas monitor excluding any BATCH RELEASES ($\mu\text{Ci/ml}$),
VF	=	ventilation system flow rate (ft^3/min), and
T	=	release duration (min).

3.6.2 Quantifying Noble Gas Activity Released While RE-4598AA and BA, Channel C Are Inoperable

With both Station Vent radiation monitors inoperable (i.e., RE-4598 AA and BA, Channel C), the alarm functions are also nonfunctional. The once-per-8 hours grab samples provide for continued quantification of releases in accordance with Table 3-1 requirements. Analysis of grab samples provides the radionuclide concentrations in the effluent. The flow measurement device (or flow rate estimate) and the release duration provide the total volume released. With these, the total amount of radioactive material released can be determined by using equation 3-9.

3.6.3 Quantifying Radioiodine, Tritium, and Particulate Activity Released

For radioiodine and particulates:

$$Q_i = \frac{A_i * \lambda_i * t * v * 1E-06}{(1 - e^{-\lambda_i t}) * s * 0.72} \quad (3-11)$$

where:

Q_i	=	total activity released of radionuclide _i (Ci),
A_i	=	activity of radionuclide _i measured on filter media (μCi),
λ_i	=	decay constant of radionuclide _i (hr^{-1}),
t	=	release duration (hr),
v	=	total vent system flow for sampling period (cc),
$1E-06$	=	Ci per μCi ,
s	=	total flow through sampler (cc), and
0.72	=	isokinetic flow correction factor for normal range station vent skid RE 4598 AA or BA filter media.

For Tritium:

$$Q = \frac{C * W * V * 1E - 06}{0.9 * S} \quad (3-12)$$

where:

Q	=	total activity of tritium released (Ci),
C	=	tritium concentration in gas washing bottle (μCi/ml),
W	=	volume of water added to gas washing bottle (ml),
V	=	total vent system flow for release period (cc),
1E-06	=	Ci per μCi,
0.9	=	efficiency for collection of tritium, and
S	=	total sample volume through gas washing bottle (cc).

3.6.4 Quantifying Ground Level Releases Activity

The ground level releases listed in Section 3.2.3 do not exhaust through Station Vent nor are directly sampled for activity. The condensate sample is used to calculate the postulated iodine and particulates activities and a portion of the tritium and noble gas activity. The off-gas sample supplement the tritium and noble gas activities released (due to partitioning factors, over 99.9% of iodines and particulates are in the condensate and moisture separator drain tank liquid). The results of the sampling program are used to indirectly quantify the activity released as follows:

$$Q_i = T \left[(M * 7.564) (C_{ic} + 0.065 * P * C_{im}) + (F * 28317 * C_{is} * M / M_c) \right]$$

where:

Q _i	=	total activity released of radionuclide _i (μCi),
T	=	duration of release (min),
M	=	mass flow rate of release (lbs/hr),
M _c	=	mass flow rate of condensate (lbs/hr),
7.564	=	$\frac{1}{60}$ hr/min * (3785 cc/8.34 lbs),
C _{ic}	=	concentration of radionuclide in condensate (μCi/cc),

0.065	=	mass flow rate ratio of moisture separator drain to condensate,
P	=	fraction of moisture separator drain flow routed to feedwater,
C _{im}	=	concentration of radionuclide in moisture separator drain (μCi/cc),
F	=	flowrate of off-gas system (ft ³ /min),
28317	=	cc per ft ³
C _{is}	=	concentration of radionuclide _i in off-gas sample (μCi/cc)

3.7 NOBLE GAS DOSE CALCULATIONS - 10 CFR 50

3.7.1 UNRESTRICTED AREA Dose - Limits

Cumulative dose contributions for the current calendar quarter and current calendar year for noble gases shall be determined in accordance with the methodology and parameters in this Section or the methodology used in GASPAR II (NUREG/CR-4653) at least once per 31 days. This periodic assessment of releases of noble gases is to evaluate compliance with the quarterly dose limits and calendar year limits.

The air dose due to noble gases released in gaseous effluents to areas at and beyond the UNRESTRICTED AREA BOUNDARY shall be limited to the following:

- during any calendar quarter: less than or equal to 5 mrad for gamma radiation and less than or equal to 10 mrad for beta radiation, and
- during any calendar year: less than or equal to 10 mrad for gamma radiation and less than or equal to 20 mrad for beta radiation.

With the calculated air dose from radioactive noble gases in gaseous effluents exceeding any of the above limits, prepare and submit to the Commission within 60 days, pursuant to Section 7.3, a Licensee Event Report that identifies the cause(s) for exceeding the limit(s) and defines the corrective actions that have been taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be in compliance with the above limits.

This specification is provided to implement the requirements of Section II.B, III.A and IV.A of Appendix I, 10 CFR Part 50. The limits specified above provide the required operating flexibility and at the same time implement the guides set forth in Section IV.A of Appendix I to assure that the releases of radioactive material in gaseous effluents will be kept "as low as is reasonably achievable." This Section implements the requirements of Section III.A of Appendix I that conformance with the guides of Appendix I to be shown by calculational procedures based on models and data such that the actual exposure of an individual through the appropriate pathways is unlikely to be substantially underestimated. The dose calculations established for calculating the doses due to the actual release rates of radioactive noble gases in gaseous effluents are consistent with the methodology provided in Regulatory Guide 1.109, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I," Revision 1, October 1977 and Regulatory Guide 1.111, "Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors," Revision 1, July 1977.

3.7.2 Dose Calculations - Noble Gases

The following equations may be used to calculate the gamma-air and beta-air doses:

$$D\lambda = 3.17E - 08 * \chi / Q_{NG} * \Sigma (M_i * Q_i) \quad (3-13)$$

$$D\beta = 3.17E - 08 * \chi / Q_{NG} * \Sigma (N_i * Q_i) \quad (3-14)$$

where:

$D\lambda$ = air dose due to gamma emissions for noble gas radionuclides (mrad),

$D\beta$ = air dose due to beta emissions for noble gas radionuclides (mrad),

χ/Q_{NG} = atmospheric χ/Q value for direct exposure to noble gas at the UNRESTRICTED AREA BOUNDARY given in Table 3-6 (sec/m³),

Q_i = cumulative release of noble gas radionuclide "i" over the period of interest (μCi),

M_i = air dose factor due to gamma emissions from noble gas radionuclide "i" (mrad/yr per $\mu\text{Ci}/\text{m}^3$) from Table 3-5,

N_i = air dose factor due to beta emissions from noble gas radionuclide "i" (mrad/yr per $\mu\text{Ci}/\text{m}^3$) from Table 3-5, and

$3.17\text{E}-08 = 1/3.15\text{E}+07$ (yr/sec).

3.7.3 Simplified Dose Calculation for Noble Gases

In lieu of the individual noble gas radionuclide dose assessment presented above, the following simplified equations may be used for verifying compliance with the dose limits of Section 3.7.1. (Refer to Appendix B for the derivation and justification of this simplified method.)

$$D\lambda = 2.0 * 3.17\text{E} - 08 * \chi / Q_{NG} * M_{\text{eff}} * \Sigma Q_i \quad (3-15)$$

and

$$D\beta = 2.0 * 3.17\text{E} - 08 * \chi / Q_{NG} * N_{\text{eff}} * \Sigma Q_i \quad (3-16)$$

where:

M_{eff} = $5.7\text{E}+02$, effective gamma-air dose factor from Appendix B (mrad/yr per $\mu\text{Ci}/\text{m}^3$),

N_{eff} = $1.1\text{E}+03$, effective beta-air dose factor from Appendix B (mrad/yr per $\mu\text{Ci}/\text{m}^3$), and

2.0 = conservatism factor to account for potential variability in the radionuclide distribution.

3.8 RADIOIODINE, TRITIUM AND PARTICULATE DOSE CALCULATIONS - 10 CFR 50

3.8.1 UNRESTRICTED AREA Dose Limits

A periodic assessment is required to evaluate compliance with the quarterly dose limit and the calendar year limit to any organ. Cumulative dose contributions for the current calendar quarter and current calendar year for I-131, tritium, and radionuclides in particulate form with half-lives greater than 8 days shall be determined in accordance with the methodology and parameters in this Section or the methodology used in GASPAR II (NREG/CR-4653) at least once per 31 days.

The dose to a MEMBER OF THE PUBLIC from I-131, tritium and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released to areas at and beyond the UNRESTRICTED AREA BOUNDARY shall be limited to the following:

- During any calendar quarter: less than or equal to 7.5 mrem to any organ, and
- During any calendar year: less than or equal to 15 mrem to any organ.

With the calculated dose from the release of iodine-131, tritium and radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents exceeding any of the above limits, prepare and submit to the Commission within 60 days, pursuant to Section 7.3, a Licensee Event Report that identifies the cause(s) for exceeding the limit and defines the corrective actions that have been taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be in compliance with the above limits.

This requirement is provided to implement the requirements of Section II.C, III.A, and IV.A of Appendix I, 10 CFR Part 50. The limits are the guides set forth in Section II.C of Appendix I. The actions specified provide the required operating flexibility and at the same time implement the guides set forth in Section IV.A of Appendix I to assure that the releases of radioactive materials in gaseous effluents will be kept "as low as is reasonably achievable." The ODCM calculational methods specified in this Section implement the requirements in Section III.A of Appendix I that conformance with the guides of Appendix I be shown by calculational procedure based on models and data such that the actual exposure of an individual through appropriate pathways is unlikely to be substantially underestimated. The ODCM methods for calculating the doses due to the actual release rates of the subject materials are consistent with the methodology provided in Regulatory Guide 1.109, "Calculating of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR 50, Appendix I", Revision 1, October 1977 and Regulatory Guide 1.111, "Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors," Revision 1, July 1977.

The release rate specifications for radioiodines and radioactive material in particulate form are dependent on the existing radionuclide pathways to man in the UNRESTRICTED AREA. The pathways which are examined in the development of these calculations are:

- individual inhalation of airborne radionuclides,
- deposition of radionuclides into green leafy vegetation with subsequent consumption by man,
- deposition onto grassy areas where milk animals and meat-producing animals graze with consumption of the milk and meat by man, and
- deposition on the ground with subsequent exposure of man.

3.8.2 Critical Pathway

The critical pathway is that exposure pathway, age group, organ, and receptor location for which the maximum dose is calculated due to a given gaseous release of radionuclides. Determination of the critical pathway is made as part of the Annual Land Use Census. As part of this process, the maximum exposure pathway is determined for each directional sector in the area surrounding Davis-Besse. The maximum exposure pathways for each sector are listed in Table 3-4. The critical pathway is chosen from among the maximum pathways for each sector and is listed in Table 3-6.

Only the dose via the critical pathway identified in Table 3-6 need be evaluated for compliance with the dose limits of Section 3.8.1. Dose shall be calculated to the organ with the highest dose factor for the controlling age group to determine the maximum organ dose. The dose factors for organs of the various age groups are listed by exposure pathway in Tables 3-7 through 3-12. The meteorological dispersion values used (Table 3-6) may be those derived from current Land Use Census or those created by XOQDOQ.

3.8.3 Dose Calculations - Radioiodine, Tritium and Particulates

The following equation may be used to evaluate the maximum organ dose due to releases of iodine-131, tritium and particulates with half-lives greater than 8 days:

$$D_{aop} = 3.17E - 08 * W * ICF * SF * \Sigma (R_{io} * Q_i) \quad (3-17)$$

Where:

D_{aop}	=	dose or dose commitment to organ "o" via controlling pathway "p" and age group "a" as identified in Table 3-6 (mrem),
W	=	atmospheric dispersion factor to the controlling location as identified in Table 3-6
W	=	χ/Q , dispersion factor for inhalation pathway and H-3 dose contribution via all pathways (sec/m ³)
W	=	D/Q , deposition factor for vegetation, milk and ground plane exposure pathways (m ⁻²),
R_{io}	=	dose factor for radionuclide "i" to organ "o" of age group "a" via pathway "p" as identified in Table 3-7, 3-8, 3-9, 3-10, 3-11, or 3-12

depending on the pathway specified (mrem/yr per $\mu\text{Ci}/\text{m}^3$) or (m^2 - mrem/yr per $\mu\text{Ci}/\text{sec}$),

Q_i = cumulative release over the period of interest for radionuclide "i" (μCi),

ICF = elemental iodine correction factor which may be used in calculating doses from radioiodines via the vegetation, milk, and ground plane exposure pathways = 0.5,

SF = seasonal correction factor which may be used for milk and vegetation pathways = 0.5, and

$3.17\text{E}-08$ = $1/3.15\text{E}+07$ (yr/sec).

The dose factors in Tables 3-7 through 3-12 are derived in accordance with NUREG-0133. The elemental iodine correction factor in equation (3-17) is referenced in Regulatory Guide 1.109.

3.8.4 Simplified Dose Calculation for Radioiodine, Tritium and Particulates

In lieu of the individual radionuclide dose assessment presented in equation (3-17) the following simplified dose calculation may be used for verifying compliance with the dose limits of Section 3.8.1:

$$D_{\max} = 3.17\text{E} - 08 * W * \text{ICF} * \text{SF} * R_{\text{I-131}} * \Sigma Q_i \quad (3-18)$$

where:

D_{\max} = maximum organ dose (mrem),

$R_{\text{I-131}}$ = I-131 dose factor for the thyroid for the controlling pathway identified in Table 3-6, and

ΣQ_i = sum of the activities of all radioiodines, tritium and particulates (μCi).

The ground plane exposure and inhalation pathways need not be considered when the simplified method is used because of the negligible contribution of these pathways to the total thyroid dose. It is recognized that for some particulate radionuclides (e.g., Co-60 and Cs-137), the ground exposure pathway may represent a higher dose contribution than either the vegetation or milk pathway. However, use of the I-131 thyroid dose factor for all radionuclides will maximize the organ dose calculation, especially considering that no other radionuclide has a higher dose factor for any organ via any pathway than I-131 for the thyroid via the vegetable or milk pathway.

3.9 GASEOUS EFFLUENT DOSE PROJECTION

As with liquid effluents, gaseous effluents require processing if the projected dose exceeds specified limits. This requirement implements the requirements of 10 CFR 50.36a on maintaining and using the appropriate radwaste processing equipment to keep releases ALARA.

The GASEOUS RADWASTE TREATMENT SYSTEM (i.e., Waste Gas Decay Tank) shall be used to reduce noble gas levels prior to discharge when the projected air dose due to gaseous effluent releases to areas at and beyond the UNRESTRICTED AREA BOUNDARY would exceed 0.2 mrad for gamma radiation and 0.4 mrad for beta radiation in a 31 day period (i.e., one quarter of the design objective rate).

The VENTILATION EXHAUST TREATMENT SYSTEM shall be used to reduce radioiodine and particulate effluents, prior to their discharge, when the projected dose due to gaseous effluents releases to areas at or beyond the UNRESTRICTED AREA BOUNDARY would exceed 0.3 mrem to any organ in a 31-day period. Figure 3-1 presents the gaseous effluent release points and the GASEOUS RADWASTE and VENTILATION EXHAUST TREATMENT SYSTEMS applicable for reducing effluents prior to release.

With the gaseous waste being discharged without treatment and in excess of the limits, prepare and submit to the commission within 60 days, pursuant to Section 7.3 a Licensee Event Report that includes the following information:

- Explanation of why gaseous radwaste was being discharged without treatment, identification of any nonfunctional equipment or subsystems, and the reasons for the non-functionality,
- Actions taken to restore the nonfunctional equipment to FUNCTIONAL status, and
- Summary description of action(s) taken to prevent a recurrence.

The requirements that the appropriate portions of these systems be used, when specified, provides reasonable assurance that the releases of radioactive materials in gaseous effluents will be kept "as low as is reasonably achievable." This requirement implements the requirements of 10 CFR Part 50.36a, General Design Criterion 60 of Appendix A to 10 CFR Part 50. The specified limits governing the use of appropriate portions of the systems were specified as a suitable fraction of the dose design objectives set forth in Sections II.B and II.C of Appendix I, 10 CFR Part 50, for gaseous effluents.

If the GASEOUS RADWASTE and VENTILATION EXHAUST TREATMENT SYSTEMS are not being used, dose projections shall be performed at least once per 31 days using the following equations:

$$D\lambda_p = D\lambda * (31 / d) \quad (3-19)$$

$$D\beta_p = D\beta * (31 / d) \quad (3-20)$$

$$D_{\max p} = D_{\max} * (31 / d) \quad (3-21)$$

where:

$D\lambda_p$	=	projected 31-day gamma-air dose (mrad),
$D\lambda$	=	gamma-air dose for current calendar quarter (mrad),
$D\beta_p$	=	projected 31-day beta-air dose (mrad),
$D\beta$	=	beta-air dose for current calendar quarter (mrad),
D_{maxp}	=	projected 31-day maximum organ dose (mrem),
D_{max}	=	maximum organ dose for current calendar quarter as determined by equation (3-17) or (3-18) (mrem),
d	=	number of days accounted for by current calendar quarter dose, and
31	=	number of days in projection.

Table 3-1

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>REQUIRED CHANNELS</u>	<u>APPLICABILITY</u>	<u>PARAMETER</u>	<u>ACTION</u>
1. Waste Gas Decay System (provides automatic isolation)				
a. Noble Gas Activity Monitor (RE 1822A, B)	1	(1)	Radioactivity Measurement	A
b. Effluent System Flow Rate Measuring Device	1	(1)	System Flow Rate Measurement	B
2. Waste Gas System (provides alarm function)				
a. Oxygen Monitor (AE5984, AE6570)	1	(2)	% Oxygen	D
3. Containment Purge Monitoring System (provides automatic isolation)				
a. Noble Gas Activity Monitor (RE 5052C)	1	(1)	Radioactivity measurement	C
4. Station Vent Stack (provides alarm function) (RE 4598AA,BA)				
a. Noble Gas Activity Monitor	1	(1)	Radioactivity Measurement	C*
b. Iodine Sampler Cartridge	1	(1)	Verify Presence of Cartridge	E*
c. Particulate Sampler Filter	1	(1)	Verify Presence of Filter	E*
d. Effluent System Flow Rate Measuring Device	1	(1)	System Flow Rate Measurement	B*
e. Sampler Flow Rate Measuring Device	1	(1)	Sampler Flow Rate Measurement	B*

*This requirement is not applicable for routine replacement of sampling media or routine test.

Table 3-1 (Continued)

TABLE NOTATION

(1) During radioactive waste gas releases via this pathway.

(2) During additions to the waste gas surge tank

ACTION A With less than the number of required channels FUNCTIONAL, the contents of the tank may be released to the environment provided that prior to initiating the release:

1. At least two independent samples are analyzed in accordance with Table 3-3 for analyses performed with each batch;
2. At least two independent verifications of the release rate calculations are performed;
3. At least two independent verifications of the discharge valving are performed.

ACTION B With less than the number of required channels FUNCTIONAL, effluent releases via this pathway may continue provided the flow rate is estimated at least once per 12 hours.

ACTION C With less than the number of required channels FUNCTIONAL, effluent releases via this pathway may continue provided grab samples are taken at least once per 8 hours and analyzed in accordance with applicable procedures.

ACTION D With less than the number of required channels FUNCTIONAL, additions to the waste gas surge tank may continue provided another method for ascertaining oxygen concentrations, such as grab sample analysis, is implemented to provide measurements at least once per four (4) hours during degassing and daily during other operations.

ACTION E With less than the number of required channels FUNCTIONAL, effluent releases via this pathway may continue provided samples are continuously collected with auxiliary sampling equipment, as required in Table 3-3 (this requirement is not applicable for routine replacement of sampling media or routine testing).

Table 3-2

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION
VERIFICATION REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. Waste Gas Decay System				
a. Noble Gas Activity Monitor (RE 1822A,B)	P ⁽¹⁾	P	E ⁽⁵⁾	Q ⁽³⁾
b. Effluent System Flow Rate	P ⁽¹⁾	N/A	E	Q
2. Containment Purge Vent System				
a. Noble Gas Activity Monitor (RE 5052C)	D ⁽¹⁾	P ⁽⁷⁾ ;M ⁽⁸⁾	E ⁽⁵⁾	Q ⁽³⁾
3. Station Vent Stack				
a. Noble Gas Activity Monitor (RE 4598AA,BA)	D ⁽¹⁾	M	E ⁽⁵⁾	Q ⁽⁴⁾
b. Iodine Sampler	W ⁽¹⁾	N/A	N/A	N/A
c. Particulate Sampler	W ⁽¹⁾	N/A	N/A	N/A
d. System Effluent Flow Rate Measurement Device	D ⁽¹⁾	N/A	R	N/A
e. Sampler Flow Rate Measurement Device	W ⁽¹⁾	N/A	E	N/A

Table 3-2 (Continued)

TABLE NOTATION

- (1) During radioactive waste gas releases via this pathway.
 - (2) During additions to the waste gas surge tank.
 - (3) The CHANNEL FUNCTIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occurs if the instrument indicates measured levels above the alarm/trip setpoint.
 - (4) The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if the instrument indicates measured levels above the alarm/trip setpoint.
 - (5) The initial CHANNEL CALIBRATION for radioactivity measurement instrumentation shall be performed using one or more reference standards certified by the National Institute of Standards and Technology or using standards that have been obtained from suppliers that participate in measurement assurance activities with NIST. These standards should permit calibrating the system over its intended range of energy and rate capabilities. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration should be used, at intervals of at least once per eighteen months. For high range monitoring instrumentation, where calibration with a radioactive source is impractical, an electronic calibration may be substituted for the radiation source calibration.
 - (6) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:
 1. One volume percent oxygen, balance nitrogen; and
 2. Four volume percent oxygen, balance nitrogen.
 - (7) During containment purges.
 - (8) When used in a continuous mode.
- P Prior to each release.
- E At least once per 18 months (550 days).
- Q At least once per 92 days.
- D At least once per 24 hours.
- M At least once per 31 days.
- W At least once per 7 days.
- R At least once per 24 months (730 days)

Table 3-3

RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS PROGRAM

Gaseous Release Type	Sampling Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (LLD) ($\mu\text{Ci/ml}$) ^a
Waste Gas Decay	P Each Release	P Each Release	Principal Gamma Emitters ^C	1.0E-04
	Grab Sample		H-3	1.0E-06
Containment Purge	P Each Purge	P Each Purge	Principal Gamma Emitters ^C	1.0E-04
	Grab Sample		H-3	1.0E-06
Station Vent Stack	M Grab Sample	M	Principal Gamma Emitters ^C	1.0E-04
			H-3	1.0E-06
	Continuous ^b	W Charcoal Sample	I-131, I-133	1.0E-12
	Continuous ^b	W Particulate Sample	Principal Gamma Emitters ^C	1.0E-11
	Continuous ^b	M Composite Particulate Sample	Gross Alpha	1.0E-11
	Continuous ^b	Q Composite Particulate Sample	Sr-89, Sr-90	1.0E-11
	Continuous ^b	Noble Gas Monitor	Noble Gases Gross Beta or Gamma	1.0E-06

Table 3-3 (Continued)

TABLE NOTATION

- a. The LLD is the smallest concentration of radioactive material in a sample that will be detected with 95% probability with 5% probability of falsely concluding that a blank observation represents a "real" signal.

For a particular measurement system (which may include radio-chemical separation):

$$LLD = \frac{4.66 s_b}{E * V * 2.22 * Y * \exp(-\lambda \Delta t)}$$

where

LLD is the lower limit of detection as defined above (as pCi per unit mass or volume);

s_b is the standard deviation of the background counting rate or of the counting rate of a blank sample as appropriate (as counts per minute);

E is the counting efficiency (as counts per transformation);

V is the sample size (in units of mass or volume);

2.22 is the number of transformations per minute per picocurie;

Y is the fractional radiochemical yield (when applicable);

λ is the radioactive decay constant for the particular radionuclide;

Δt for plant effluents is the elapsed time between the midpoint of sample collection and time of counting.

It should be recognized that the LLD is defined as an a priori (before the fact) limit representing the capability of a measurement system and not as a posteriori (after the fact) limit for a particular measurement.

- b. The ratio of the sample flow rate to the sampled stream flow rate shall be known for the time period covered by each dose or dose rate calculation made in accordance with Sections 3.3.1 and 3.8.

Table 3-3 (Continued)

TABLE NOTATION

- c. The principal gamma emitters for which the LLD specification will apply are exclusively the following radionuclides: Kr-87, Kr-88, Xe-133, Xe-133m, Xe-135, and Xe-138 for gaseous emissions and Mn-54, Fe-59, Co-58, Co-60, Zn-65, Mo-99, Cs-134, Cs-137, Ce-141 and Ce-144 for particulate emissions. This list does not mean that only these nuclides are to be detected and reported. Other peaks which are measured and identified, together with the above nuclides, shall also be identified and reported. Nuclides which are below the LLD for the analyses should be reported as "less than" the nuclide's LLD and should not be reported as being present at the LLD level for the nuclide. The "less than" values shall not be used in the required dose calculations. When unusual circumstances result in LLDs higher than required, the reasons shall be documented in the Radioactive Effluent Release Report.

Frequency notation:

P - Prior to each release.

M - At least once per 31 days.

W - At least once per 7 days.

Q - At least once per 92 days.

Table 3-4
LAND USE CENSUS SUMMARY

Exposure Pathway Locations and Atmospheric Dispersion Parameters**

<u>Sector</u>	<u>Distance (miles)</u>	<u>Exposure Pathway</u>	<u>Controlling Age Group</u>	<u>χ/Q *** (sec/m³)</u>	<u>D/Q (m⁻²)</u>
N	0.55	inhalation	child	5.47E-07	6.52E-09
NNE	0.55	inhalation	child	8.90E-07	1.29E-08
NE	0.56	inhalation	child	1.15E-06	2.73E-08
ENE*	-	-	-	-	-
E*	-	-	-	-	-
ESE*	-	-	-	-	-
SE	4.94	inhalation	child	1.62E-08	1.31E-10
SSE	1.82	vegetation	child	6.30E-08	7.81E-10
S	3.10	vegetation	child	2.64E-08	2.14E-10
SSW	0.70	vegetation	child	2.66E-07	5.45E-09
SW	0.67	inhalation	child	3.60E-07	6.88E-09
WSW	4.00	vegetation	child	4.79E-08	3.46E-10
W	0.97	vegetation	child	2.44E-07	3.57E-09
WNW	0.94	inhalation	child	1.22E-07	1.53E-09
NW	0.93	inhalation	child	8.22E-08	9.57E-10
NNW	0.80	inhalation	child	1.15E-07	1.33E-09

* Because these sectors are located over marsh areas and Lake Erie with no receptors, no ingestion or inhalation pathways are present.

** There were no new Controlling locations identified during the 2022 Land Use Census.

*** 8-Day, decayed and depleted χ/Q

Note: The meteorological dispersion factors are taken from the Chesapeake Nuclear Services report, Davis-Besse Nuclear Power Station Meteorological and Atmospheric Dispersion Report, May, 2022.

Table 3-5

DOSE FACTORS FOR NOBLE GASES*

<u>Nuclide</u>	Total Body Gamma Dose Factor K_i (mrem/yr per $\mu\text{Ci}/\text{m}^3$)	Skin Beta Dose Factor L_i (mrem/yr per $\mu\text{Ci}/\text{m}^3$)	Gamma Air Dose Factor M_i (mrad/yr per $\mu\text{Ci}/\text{m}^3$)	Beta Air Dose Factor N_i (mrad/yr per $\mu\text{Ci}/\text{m}^3$)
Kr-83m	7.56E-02	--	1.93E+01	2.88E+02
Kr-85m	1.17E+03	1.46E+03	1.23E+03	1.97E+03
Kr-85	1.61E+01	1.34E+03	1.72E+01	1.95E+03
Kr-87	5.92E+03	9.73E+03	6.17E+03	1.03E+04
Kr-88	1.47E+04	2.37E+03	1.52E+04	2.93E+03
Kr-89	1.66E+04	1.01E+04	1.73E+04	1.06E+04
Kr-90	1.56E+04	7.29E+03	1.63E+04	7.83E+03
Xe-131m	9.15E+01	4.76E+02	1.56E+02	1.11E+03
Xe-133m	2.51E+02	9.94E+02	3.27E+02	1.48E+03
Xe-133	2.94E+02	3.06E+02	3.53E+02	1.05E+03
Xe-135m	3.12E+03	7.11E+02	3.36E+03	7.39E+02
Xe-135	1.81E+03	1.86E+03	1.92E+03	2.46E+03
Xe-137	1.42E+03	1.22E+04	1.51E+03	1.27E+04
Xe-138	8.83E+03	4.13E+03	9.21E+03	4.75E+03
Ar-41	8.84E+03	2.69E+03	9.30E+03	3.28E+03

* Dose factors taken from NRC Regulatory Guide 1.109

Table 3-6

EXPOSURE PATHWAYS, CONTROLLING PARAMETERS, AND ATMOSPHERIC
DISPERSION FOR DOSE CALCULATIONS

Exposure Pathway	Receptor Location	Atmospheric Dispersion		D/Q (m ⁻²)	Use
		Controlling Age Group	χ/Q (sec/m ³)		
noble gases direct exposure	UNRESTRICTED AREA BOUNDARY 0.51 miles NE		⁽³⁾ 1.41E-06	N/A	(a)
inhalation	UNRESTRICTED AREA BOUNDARY 0.56 miles NE	child	⁽⁴⁾ 1.15E-06	N/A	(a)
(critical pathway) garden	0.70 miles SSW	child	⁽¹⁾ 2.66E-07	⁽¹⁾ 5.45E-09	(b), (c)
Variable Dispersion Factors			⁽²⁾ Variable	⁽²⁾ Variable	(c), (d)

- (a) To calculate allowable release rates (Sections 3.3 through 3.8)
- (b) To reflect results of Land Use Census
- (c) To screen individual releases for dose and/or calculate 31 day dose
- (d) To calculate annual dose and/or calculate 31 day dose

NOTES:

- Meteorological dispersion values have been taken from the Chesapeake Nuclear Services report, Davis-Besse Nuclear Power Station Meteorological and Atmospheric Dispersion Report, May, 2022.
- Meteorological dispersion values generated using XOQDOQ (NUREG/CR-2919) for input into GASP. Meteorological data may be historic or real time.
- The noble gas, direct exposure χ/Q s are based on the 2.26 day decayed, undepleted values.
- The inhalation pathway χ/Q s are based on the 8 day decayed, depleted values.

Table 3-7

R_{io}, INHALATION PATHWAY DOSE FACTORS
ADULT (mrem/yr per $\mu\text{Ci}/\text{m}^3$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	1.26E+3	1.26E+3	1.26E+3	1.26E+3	1.26E+3	1.26E+3
C-14	1.82E+4	3.41E+3	3.41E+3	3.41E+3	3.41E+3	3.41E+3	3.41E+3
Na-24	1.02E+4	1.02E+4	1.02E+4	1.02E+4	1.02E+4	1.02E+4	1.02E+4
P-32	1.32E+6	7.71E+4	-	-	-	8.64E+4	5.01E+4
Cr-51	-	-	5.95E+1	2.28E+1	1.44E+4	3.32E+3	1.00E+2
Mn-54	-	3.96E+4	-	9.84E+3	1.40E+6	7.74E+4	6.30E+3
Mn-56	-	1.24E+0	-	1.30E+0	9.44E+3	2.02E+4	1.83E-1
Fe-55	2.46E+4	1.70E+4	-	-	7.21E+4	6.03E+3	3.94E+3
Fe-59	1.18E+4	2.78E+4	-	-	1.02E+6	1.88E+5	1.06E+4
Co-57	-	6.92E+2	-	-	3.70E+5	3.14E+4	6.71E+2
Co-58	-	1.58E+3	-	-	9.28E+5	1.06E+5	2.07E+3
Co-60	-	1.15E+4	-	-	5.97E+6	2.85E+5	1.48E+4
Ni-63	4.32E+5	3.14E+4	-	-	1.78E+5	1.34E+4	1.45E+4
Ni-65	1.54E+0	2.10E-1	-	-	5.60E+3	1.23E+4	9.12E-2
Cu-64	-	1.46E+0	-	4.62E+0	6.78E+3	4.90E+4	6.15E-1
Zn-65	3.24E+4	1.03E+5	-	6.90E+4	8.64E+5	5.34E+4	4.66E+4
Zn-69	3.38E-2	6.51E-2	-	4.22E-2	9.20E+2	1.63E+1	4.52E-3
Br-82	-	-	-	-	-	1.04E+4	1.35E+4
Br-83	-	-	-	-	-	2.32E+2	2.41E+2
Br-84	-	-	-	-	-	1.64E-3	3.13E+2
Br-85	-	-	-	-	-	-	1.28E+1
Rb-86	-	1.35E+5	-	-	-	1.66E+4	5.90E+4
Rb-88	-	3.87E+2	-	-	-	3.34E-9	1.93E+2
Rb-89	-	2.56E+2	-	-	-	-	1.70E+2
Sr-89	3.04E+5	-	-	-	1.40E+6	3.50E+5	8.72E+3
Sr-90	9.92E+7	-	-	-	9.60E+6	7.22E+5	6.10E+6
Sr-91	6.19E+1	-	-	-	3.65E+4	1.91E+5	2.50E+0
Sr-92	6.74E+0	-	-	-	1.65E+4	4.30E+4	2.91E-1
Y-90	2.09E+3	-	-	-	1.70E+5	5.06E+5	5.61E+1
Y-91m	2.61E-1	-	-	-	1.92E+3	1.33E+0	1.02E-2
Y-91	4.62E+6	-	-	-	1.70E+6	3.85E+5	1.24E+4
Y-92	1.03E+1	-	-	-	1.57E+4	7.35E+4	3.02E-1
Y-93	9.44E+1	-	-	-	4.85E+4	4.22E+5	2.61E+0
Zr-95	1.07E+5	3.44E+4	-	5.42E+4	1.77E+6	1.50E+5	2.33E+4
Zr-97	9.68E+1	1.96E+1	-	2.97E+1	7.87E+4	5.23E+5	9.04E+0
Nb-95	1.41E+4	7.82E+3	-	7.74E+3	5.05E+5	1.04E+5	4.21E+3
Nb-97	2.22E-1	5.62E-2	-	6.54E-2	2.40E+3	2.42E+2	2.05E-2
Mo-99	-	1.21E+2	-	2.91E+2	9.12E+4	2.48E+5	2.30E+1
Tc-99m	1.03E-3	2.91E-3	-	4.42E-2	7.64E+2	4.16E+3	3.70E-2
Tc-101	4.18E-5	6.02E-5	-	1.08E-3	3.99E+2	-	5.90E-4

Table 3-7

R_{io}, INHALATION PATHWAY DOSE FACTORS
ADULT (mrem/yr per $\mu\text{Ci}/\text{m}^3$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	1.53E+3	-	-	5.83E+3	5.05E+5	1.10E+5	6.58E+2
Ru-105	7.90E-1	-	-	1.02E+0	1.10E+4	4.82E+4	3.11E-1
Ru-106	6.91E+4	-	-	1.34E+5	9.36E+6	9.12E+5	8.72E+3
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	1.08E+4	1.00E+4	-	1.97E+4	4.63E+6	3.02E+5	5.94E+3
Sb-124	3.12E+4	5.89E+2	7.55E+1	-	2.48E+6	4.06E+5	1.24E+4
Sb-125	5.34E+4	5.95E+2	5.40E+1	-	1.74E+6	1.01E+5	1.26E+4
Te-125m	3.42E+3	1.58E+3	1.05E+3	1.24E+4	3.14E+5	7.06E+4	4.67E+2
Te-127m	1.26E+4	5.77E+3	3.29E+3	4.58E+4	9.60E+5	1.50E+5	1.57E+3
Te-127	1.40E+0	6.42E-1	1.06E+0	5.10E+0	6.51E+3	5.74E+4	3.10E-1
Te-129m	9.76E+3	4.67E+3	3.44E+3	3.66E+4	1.16E+6	3.83E+5	1.58E+3
Te-129	4.98E-2	2.39E-2	3.90E-2	1.87E-1	1.94E+3	1.57E+2	1.24E-2
Te-131m	6.99E+1	4.36E+1	5.50E+1	3.09E+2	1.46E+5	5.56E+5	2.90E+1
Te-131	1.11E-2	5.95E-3	9.36E-3	4.37E-2	1.39E+3	1.84E+1	3.59E-3
Te-132	2.60E+2	2.15E+2	1.90E+2	1.46E+3	2.88E+5	5.10E+5	1.62E+2
I-130	4.58E+3	1.34E+4	1.14E+6	2.09E+4	-	7.69E+3	5.28E+3
I-131	2.52E+4	3.58E+4	1.19E+7	6.13E+4	-	6.28E+3	2.05E+4
I-132	1.16E+3	3.26E+3	1.14E+5	5.18E+3	-	4.06E+2	1.16E+3
I-133	8.64E+3	1.48E+4	2.15E+6	2.58E+4	-	8.88E+3	4.52E+3
I-134	6.44E+2	1.73E+3	2.98E+4	2.75E+3	-	1.01E+0	6.15E+2
I-135	2.68E+3	6.98E+3	4.48E+5	1.11E+4	-	5.25E+3	2.57E+3
Cs-134	3.73E+5	8.48E+5	-	2.87E+5	9.76E+4	1.04E+4	7.28E+5
Cs-136	3.90E+4	1.46E+5	-	8.56E+4	1.20E+4	1.17E+4	1.10E+5
Cs-137	4.78E+5	6.21E+5	-	2.22E+5	7.52E+4	8.40E+3	4.28E+5
Cs-138	3.31E+2	6.21E+2	-	4.80E+2	4.86E+1	1.86E-3	3.24E+2
Ba-139	9.36E-1	6.66E-4	-	6.22E-4	3.76E+3	8.96E+2	2.74E-2
Ba-140	3.90E+4	4.90E+1	-	1.67E+1	1.27E+6	2.18E+5	2.57E+3
Ba-141	1.00E-1	7.53E-5	-	7.00E-5	1.94E+3	1.16E-7	3.36E-3
Ba-142	2.63E-2	2.70E-5	-	2.29E-5	1.19E+3	-	1.66E-3
La-140	3.44E+2	1.74E+2	-	-	1.36E+5	4.58E+5	4.58E+1
La-142	6.83E-1	3.10E-1	-	-	6.33E+3	2.11E+3	7.72E-2
Ce-141	1.99E+4	1.35E+4	-	6.26E+3	3.62E+5	1.20E+5	1.53E+3
Ce-143	1.86E+2	1.38E+2	-	6.08E+1	7.98E+4	2.26E+5	1.53E+1
Ce-144	3.43E+6	1.43E+6	-	8.48E+5	7.78E+6	8.16E+5	1.84E+5
Pr-143	9.36E+3	3.75E+3	-	2.16E+3	2.81E+5	2.00E+5	4.64E+2
Pr-144	3.01E-2	1.25E-2	-	7.05E-3	1.02E+3	2.15E-8	1.53E-3
Nd-147	5.27E+3	6.10E+3	-	3.56E+3	2.21E+5	1.73E+5	3.65E+2
W-187	8.48E+0	7.08E+0	-	-	2.90E+4	1.55E+5	2.48E+0
Np-239	2.30E+2	2.26E+1	-	7.00E+1	3.76E+4	1.19E+5	1.24E+1

Table 3-7

R_{io}, INHALATION PATHWAY DOSE FACTORS
TEENAGER (mrem/yr per $\mu\text{Ci}/\text{m}^3$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	1.27E+3	1.27E+3	1.27E+3	1.27E+3	1.27E+3	1.27E+3
C-14	2.60E+4	4.87E+3	4.87E+3	4.87E+3	4.87E+3	4.87E+3	4.87E+3
Na-24	1.38E+4	1.38E+4	1.38E+4	1.38E+4	1.38E+4	1.38E+4	1.38E+4
P-32	1.89E+6	1.10E+5	-	-	-	9.28E+4	7.16E+4
Cr-51	-	-	7.50E+1	3.07E+1	2.10E+4	3.00E+3	1.35E+2
Mn-54	-	5.11E+4	-	1.27E+4	1.98E+6	6.68E+4	8.40E+3
Mn-56	-	1.70E+0	-	1.79E+0	1.52E+4	5.74E+4	2.52E-1
Fe-55	3.34E+4	2.38E+4	-	-	1.24E+5	6.39E+3	5.54E+3
Fe-59	1.59E+4	3.70E+4	-	-	1.53E+6	1.78E+5	1.43E+4
Co-57	-	6.92E+2	-	-	5.86E+5	3.14E+4	9.20E+2
Co-58	-	2.07E+3	-	-	1.34E+6	9.52E+4	2.78E+3
Co-60	-	1.51E+4	-	-	8.72E+6	2.59E+5	1.98E+4
Ni-63	5.80E+5	4.34E+4	-	-	3.07E+5	1.42E+4	1.98E+4
Ni-65	2.18E+0	2.93E-1	-	-	9.36E+3	3.67E+4	1.27E-1
Cu-64	-	2.03E+0	-	6.41E+0	1.11E+4	6.14E+4	8.48E-1
Zn-65	3.86E+4	1.34E+5	-	8.64E+4	1.24E+6	4.66E+4	6.24E+4
Zn-69	4.83E-2	9.20E-2	-	6.02E-2	1.58E+3	2.85E+2	6.46E-3
Br-82	-	-	-	-	-	-	1.82E+4
Br-83	-	-	-	-	-	-	3.44E+2
Br-84	-	-	-	-	-	-	4.33E+2
Br-85	-	-	-	-	-	-	1.83E+1
Rb-86	-	1.90E+5	-	-	-	1.77E+4	8.40E+4
Rb-88	-	5.46E+2	-	-	-	2.92E-5	2.72E+2
Rb-89	-	3.52E+2	-	-	-	3.38E-7	2.33E+2
Sr-89	4.34E+5	-	-	-	2.42E+6	3.71E+5	1.25E+4
Sr-90	1.08E+8	-	-	-	1.65E+7	7.65E+5	6.68E+6
Sr-91	8.80E+1	-	-	-	6.07E+4	2.59E+5	3.51E+0
Sr-92	9.52E+0	-	-	-	2.74E+4	1.19E+5	4.06E-1
Y-90	2.98E+3	-	-	-	2.93E+5	5.59E+5	8.00E+1
Y-91m	3.70E-1	-	-	-	3.20E+3	3.02E+1	1.42E-2
Y-91	6.61E+5	-	-	-	2.94E+6	4.09E+5	1.77E+4
Y-92	1.47E+1	-	-	-	2.68E+4	1.65E+5	4.29E-1
Y-93	1.35E+2	-	-	-	8.32E+4	5.79E+5	3.72E+0
Zr-95	1.46E+5	4.58E+4	-	6.74E+4	2.69E+6	1.49E+5	3.15E+4
Zr-97	1.38E+2	2.72E+1	-	4.12E+1	1.30E+5	6.30E+5	1.26E+1
Nb-95	1.86E+4	1.03E+4	-	1.00E+4	7.51E+5	9.68E+4	5.66E+3
Nb-97	3.14E-1	7.78E-2	-	9.12E-2	3.93E+3	2.17E+3	2.84E-2
Mo-99	-	1.69E+2	-	4.11E+2	1.54E+5	2.69E+5	3.22E+1
Tc-99m	1.38E-3	3.86E-3	-	5.76E-2	1.15E+3	6.13E+3	4.99E-2
Tc-101	5.92E-5	8.40E-5	-	1.52E-3	6.67E+2	8.72E-7	8.24E-4

Table 3-7

R_{io}, INHALATION PATHWAY DOSE FACTORS
TEENAGER (mrem/yr per $\mu\text{Ci}/\text{m}^3$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	2.10E+3	-	-	7.43E+3	7.83E+5	1.09E+5	8.96E+2
Ru-105	1.12E+0	-	-	1.41E+0	1.82E+4	9.04E+4	4.34E-1
Ru-106	9.84E+4	-	-	1.90E+5	1.61E+7	9.60E+5	1.24E+4
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	1.38E+4	1.31E+4	-	2.50E+4	6.75E+6	2.73E+5	7.99E+3
Sb-124	4.30E+4	7.94E+2	9.76E+1	-	3.85E+6	3.98E+5	1.68E+4
Sb-125	7.38E+4	8.08E+2	7.04E+1	-	2.74E+6	9.92E+4	1.72E+4
Te-125m	4.88E+3	2.24E+3	1.40E+3	-	5.36E+5	7.50E+4	6.67E+2
Te-127m	1.80E+4	8.16E+3	4.38E+3	6.54E+4	1.66E+6	1.59E+5	2.18E+3
Te-127	2.01E+0	9.12E-1	1.42E+0	7.28E+0	1.12E+4	8.08E+4	4.42E-1
Te-129m	1.39E+4	6.58E+3	4.58E+3	5.19E+4	1.98E+6	4.05E+5	2.25E+3
Te-129	7.10E-2	3.38E-2	5.18E-2	2.66E-1	3.30E+3	1.62E+3	1.76E-2
Te-131m	9.84E+1	6.01E+1	7.25E+1	4.39E+2	2.38E+5	6.21E+5	4.02E+1
Te-131	1.58E-2	8.32E-3	1.24E-2	6.18E-2	2.34E+3	1.51E+1	5.04E-3
Te-132	3.60E+2	2.90E+2	2.46E+2	1.95E+3	4.49E+5	4.63E+5	2.19E+2
I-130	6.24E+3	1.79E+4	1.49E+6	2.75E+4	-	9.12E+3	7.17E+3
I-131	3.54E+4	4.91E+4	1.46E+7	8.40E+4	-	6.49E+3	2.64E+4
I-132	1.59E+3	4.38E+3	1.51E+5	6.92E+3	-	1.27E+3	1.58E+3
I-133	1.22E+4	2.05E+4	2.92E+6	3.59E+4	-	1.03E+4	6.22E+3
I-134	8.88E+2	2.32E+3	3.95E+4	3.66E+3	-	2.04E+1	8.40E+2
I-135	3.70E+3	9.44E+3	6.21E+5	1.49E+4	-	6.95E+3	3.49E+3
Cs-134	5.02E+5	1.13E+6	-	3.75E+5	1.46E+5	9.76E+3	5.49E+5
Cs-136	5.15E+4	1.94E+5	-	1.10E+5	1.78E+4	1.09E+4	1.37E+5
Cs-137	6.70E+5	8.48E+5	-	3.04E+5	1.21E+5	8.48E+3	3.11E+5
Cs-138	4.66E+2	8.56E+2	-	6.62E+2	7.87E+1	2.70E-1	4.46E+2
Ba-139	1.34E+0	9.44E-4	-	8.88E-4	6.46E+3	6.45E+3	3.90E-2
Ba-140	5.47E+4	6.70E+1	-	2.28E+1	2.03E+6	2.29E+5	3.52E+3
Ba-141	1.42E-1	1.06E-4	-	9.84E-5	3.29E+3	7.46E-4	4.74E-3
Ba-142	3.70E-2	3.70E-5	-	3.14E-5	1.91E+3	-	2.27E-3
La-140	4.79E+2	2.36E+2	-	-	2.14E+5	4.87E+5	6.26E+1
La-142	9.60E-1	4.25E-1	-	-	1.02E+4	1.20E+4	1.06E-1
Ce-141	2.84E+4	1.90E+4	-	8.88E+3	6.14E+5	1.26E+5	2.17E+3
Ce-143	2.66E+2	1.94E+2	-	8.64E+1	1.30E+5	2.55E+5	2.16E+1
Ce-144	4.89E+6	2.02E+6	-	1.21E+6	1.34E+7	8.64E+5	2.62E+5
Pr-143	1.34E+4	5.31E+3	-	3.09E+3	4.83E+5	2.14E+5	6.62E+2
Pr-144	4.30E-2	1.76E-2	-	1.01E-2	1.75E+3	2.35E-4	2.18E-3
Nd-147	7.86E+3	8.56E+3	-	5.02E+3	3.72E+5	1.82E+5	5.13E+2
W-187	1.20E+1	9.76E+0	-	-	4.74E+4	1.77E+5	3.43E+0
Np-239	3.38E+2	3.19E+1	-	1.00E+2	6.49E+4	1.32E+5	1.77E+1

Table 3-7

R_{io}, INHALATION PATHWAY DOSE FACTORS
CHILD (mrem/yr per $\mu\text{Ci}/\text{m}^3$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	1.12E+3	1.12E+3	1.12E+3	1.12E+3	1.12E+3	1.12E+3
C-14	3.59E+4	6.73E+3	6.73E+3	6.73E+3	6.73E+3	6.73E+3	6.73E+3
Na-24	1.61E+4	1.61E+4	1.61E+4	1.61E+4	1.61E+4	1.61E+4	1.61E+4
P-32	2.60E+6	1.14E+5	-	-	-	4.22E+4	9.88E+4
Cr-51	-	-	8.55E+1	2.43E+1	1.70E+4	1.08E+3	1.54E+2
Mn-54	-	4.29E+4	-	1.00E+4	1.58E+6	2.29E+4	9.51E+3
Mn-56	-	1.66E+0	-	1.67E+0	1.31E+4	1.23E+5	3.12E-1
Fe-55	4.74E+4	2.52E+4	-	-	1.11E+5	2.87E+3	7.77E+3
Fe-59	2.07E+4	3.34E+4	-	-	1.27E+6	7.07E+4	1.67E+4
Co-57	-	9.03E+2	-	-	5.07E+5	1.32E+4	1.07E+3
Co-58	-	1.77E+3	-	-	1.11E+6	3.44E+4	3.16E+3
Co-60	-	1.31E+4	-	-	7.07E+6	9.62E+4	2.26E+4
Ni-63	8.21E+5	4.63E+4	-	-	2.75E+5	6.33E+3	2.80E+4
Ni-65	2.99E+0	2.96E-1	-	-	8.18E+3	8.40E+4	1.64E-1
Cu-64	-	1.99E+0	-	6.03E+0	9.58E+3	3.67E+4	1.07E+0
Zn-65	4.26E+4	1.13E+5	-	7.14E+4	9.95E+5	1.63E+4	7.03E+4
Zn-69	6.70E-2	9.66E-2	-	5.85E-2	1.42E+3	1.01E+4	8.92E-3
Br-82	-	-	-	-	-	-	2.09E+4
Br-83	-	-	-	-	-	-	4.74E+2
Br-84	-	-	-	-	-	-	5.48E+2
Br-85	-	-	-	-	-	-	2.53E+1
Rb-86	-	1.98E+5	-	-	-	7.99E+3	1.14E+5
Rb-88	-	5.62E+2	-	-	-	1.72E+1	3.66E+2
Rb-89	-	3.45E+2	-	-	-	1.89E+0	2.90E+2
Sr-89	5.99E+5	-	-	-	2.16E+6	1.67E+5	1.72E+4
Sr-90	1.01E+8	-	-	-	1.48E+7	3.43E+5	6.44E+6
Sr-91	1.21E+2	-	-	-	5.33E+4	1.74E+5	4.59E+0
Sr-92	1.31E+1	-	-	-	2.40E+4	2.42E+5	5.25E-1
Y-90	4.11E+3	-	-	-	2.62E+5	2.68E+5	1.11E+2
Y-91m	5.07E-1	-	-	-	2.81E+3	1.72E+3	1.84E-2
Y-91	9.14E+5	-	-	-	2.63E+6	1.84E+5	2.44E+4
Y-92	2.04E+1	-	-	-	2.39E+4	2.39E+5	5.81E-1
Y-93	1.86E+2	-	-	-	7.44E+4	3.89E+5	5.11E+0
Zr-95	1.90E+5	4.18E+4	-	5.96E+4	2.23E+6	6.11E+4	3.70E+4
Zr-97	1.88E+2	2.72E+1	-	3.89E+1	1.13E+5	3.51E+5	1.60E+1
Nb-95	2.35E+4	9.18E+3	-	8.62E+3	6.14E+5	3.70E+4	6.55E+3
Nb-97	4.29E-1	7.70E-2	-	8.55E-2	3.42E+3	2.78E+4	3.60E-2
Mo-99	-	1.72E+2	-	3.92E+2	1.35E+5	1.27E+5	4.26E+1
Tc-99m	1.78E-3	3.48E-3	-	5.07E-2	9.51E+2	4.81E+3	5.77E-2
Tc-101	8.10E-5	8.51E-5	-	1.45E-3	5.85E+2	1.63E+1	1.08E-3

Table 3-7

R_{io}, INHALATION PATHWAY DOSE FACTORS
CHILD (mrem/yr per $\mu\text{Ci}/\text{m}^3$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	2.79E+3	-	-	7.03E+3	6.62E+5	4.48E+4	1.07E+3
Ru-105	1.53E+0	-	-	1.34E+0	1.59E+4	9.95E+4	5.55E-1
Ru-106	1.36E+5	-	-	1.84E+5	1.43E+7	4.29E+5	1.69E+4
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	1.69E+4	1.14E+4	-	2.12E+4	5.48E+6	1.00E+5	9.14E+3
Sb-124	5.74E+4	7.40E+2	1.26E+2	-	3.24E+6	1.64E+5	2.00E+4
Sb-125	9.84E+4	7.59E+2	9.10E+1	-	2.32E+6	4.03E+4	2.07E+4
Te-125m	6.73E+3	2.33E+3	1.92E+3	-	4.77E+5	3.38E+4	9.14E+2
Te-127m	2.49E+4	8.55E+3	6.07E+3	6.36E+4	1.48E+6	7.14E+4	3.02E+3
Te-127	2.77E+0	9.51E-1	1.96E+0	7.07E+0	1.00E+4	5.62E+4	6.11E-1
Te-129m	1.92E+4	6.85E+3	6.33E+3	5.03E+4	1.76E+6	1.82E+5	3.04E+3
Te-129	9.77E-2	3.50E-2	7.14E-2	2.57E-1	2.93E+3	2.55E+4	2.38E-2
Te-131m	1.34E+2	5.92E+1	9.77E+1	4.00E+2	2.06E+5	3.08E+5	5.07E+1
Te-131	2.17E-2	8.44E-3	1.70E-2	5.88E-2	2.05E+3	1.33E+3	6.59E-3
Te-132	4.81E+2	2.72E+2	3.17E+2	1.77E+3	3.77E+5	1.38E+5	2.63E+2
I-130	8.18E+3	1.64E+4	1.85E+6	2.45E+4	-	1E+3	8.44E+3
I-131	4.81E+4	4.81E+4	1.62E+7	7.88E+4	-	2.84E+3	2.73E+4
I-132	2.12E+3	4.07E+3	1.94E+5	6.25E+3	-	3.20E+3	1.88E+3
I-133	1.66E+4	2.03E+4	3.85E+6	3.38E+4	-	5.48E+3	7.70E+3
I-134	1.17E+3	2.16E+3	5.07E+4	3.30E+3	-	9.55E+2	9.95E+2
I-135	4.92E+3	8.73E+3	7.92E+5	1.34E+4	-	4.44E+3	4.14E+3
Cs-134	6.51E+5	1.01E+6	-	3.30E+5	1.21E+5	3.85E+3	2.25E+5
Cs-136	6.51E+4	1.71E+5	-	9.55E+4	1.45E+4	4.18E+3	1.16E+5
Cs-137	9.07E+5	8.25E+5	-	2.82E+5	1.04E+5	3.62E+3	1.28E+5
Cs-138	6.33E+2	8.40E+2	-	6.22E+2	6.81E+1	2.70E+2	5.55E+2
Ba-139	1.84E+0	9.84E-4	-	8.62E-4	5.77E+3	5.77E+4	5.37E-2
Ba-140	7.40E+4	6.48E+1	-	2.11E+1	1.74E+6	1.02E+5	4.33E+3
Ba-141	1.96E-1	1.09E-4	-	9.47E-5	2.92E+3	2.75E+2	6.36E-3
Ba-142	5.00E-2	3.60E-5	-	2.91E-5	1.64E+3	2.74E+0	2.79E-3
La-140	6.44E+2	2.25E+2	-	-	1.83E+5	2.26E+5	7.55E+1
La-142	1.30E+0	4.11E-1	-	-	8.70E+3	7.59E+4	1.29E-1
Ce-141	3.92E+4	1.95E+4	-	8.55E+3	5.44E+5	5.66E+4	2.90E+3
Ce-143	3.66E+2	1.99E+2	-	8.36E+1	1.15E+5	1.27E+5	2.87E+1
Ce-144	6.77E+6	2.12E+6	-	1.17E+6	1.20E+7	3.89E+5	3.61E+5
Pr-143	1.85E+4	5.55E+3	-	3.00E+3	4.33E+5	9.73E+4	9.14E+2
Pr-144	5.96E-2	1.85E-2	-	9.77E-3	1.57E+3	1.97E+2	3.00E-3
Nd-147	1.08E+4	8.73E+3	-	4.81E+3	3.28E+5	8.21E+4	6.81E+2
W-187	1.63E+1	9.66E+0	-	-	4.11E+4	9.10E+4	4.33E+0
Np-239	4.66E+2	3.34E+1	-	9.73E+1	5.81E+4	6.40E+4	2.35E+1

Table 3-7

R_{io}, INHALATION PATHWAY DOSE FACTORS
INFANT (mrem/yr per $\mu\text{Ci}/\text{m}^3$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	6.47E+2	6.47E+2	6.47E+2	6.47E+2	6.47E+2	6.47E+2
C-14	2.65E+4	5.31E+3	5.31E+3	5.31E+3	5.31E+3	5.31E+3	5.31E+3
Na-24	1.06E+4	1.06E+4	1.06E+4	1.06E+4	1.06E+4	1.06E+4	1.06E+4
P-32	2.03E+6	1.12E+5	-	-	-	1.61E+4	7.74E+4
Cr-51	-	-	5.75E+1	1.32E+1	1.28E+4	3.57E+2	8.95E+1
Mn-54	-	2.53E+4	-	4.98E+3	1.00E+6	7.06E+3	4.98E+3
Mn-56	-	1.54E+0	-	1.10E+0	1.25E+4	7.17E+4	2.21E-1
Fe-55	1.97E+4	1.17E+4	-	-	8.69E+4	1.09E+3	3.33E+3
Fe-59	1.36E+4	2.35E+4	-	-	1.02E+6	2.48E+4	9.48E+3
Co-57	-	6.51E+2	-	-	3.79E+5	4.86E+3	6.41E+2
Co-58	-	1.22E+3	-	-	7.77E+5	1.11E+4	1.82E+3
Co-60	-	8.02E+3	-	-	4.51E+6	3.19E+4	1.18E+4
Ni-63	3.39E+5	2.04E+4	-	-	2.09E+5	2.42E+3	1.16E+4
Ni-65	2.39E+0	2.84E-1	-	-	8.12E+3	5.01E+4	1.23E-1
Cu-64	-	1.88E+0	-	3.98E+0	9.30E+3	1.50E+4	7.74E-1
Zn-65	1.93E+4	6.26E+4	-	3.25E+4	6.47E+5	5.14E+4	3.11E+4
Zn-69	5.39E-2	9.67E-2	-	4.02E-2	1.47E+3	1.32E+4	7.18E-3
Br-82	-	-	-	-	-	-	1.33E+4
Br-83	-	-	-	-	-	-	3.81E+2
Br-84	-	-	-	-	-	-	4.00E+2
Br-85	-	-	-	-	-	-	2.04E+1
Rb-86	-	1.90E+5	-	-	-	3.04E+3	8.82E+4
Rb-88	-	5.57E+2	-	-	-	3.39E+2	2.87E+2
Rb-89	-	3.21E+2	-	-	-	6.82E+1	2.06E+2
Sr-89	3.98E+5	-	-	-	2.03E+6	6.40E+4	1.14E+4
Sr-90	4.09E+7	-	-	-	1.12E+7	1.31E+5	2.59E+6
Sr-91	9.56E+1	-	-	-	5.26E+4	7.34E+4	3.46E+0
Sr-92	1.05E+1	-	-	-	2.38E+4	1.40E+5	3.91E-1
Y-90	3.29E+3	-	-	-	2.69E+5	1.04E+5	8.82E+1
Y-91m	4.07E-1	-	-	-	2.79E+3	2.35E+3	1.39E-2
Y-91	5.88E+5	-	-	-	2.45E+6	7.03E+4	1.57E+4
Y-92	1.64E+1	-	-	-	2.45E+4	1.27E+5	4.61E-1
Y-93	1.50E+2	-	-	-	7.64E+4	1.67E+5	4.07E+0
Zr-95	1.15E+5	2.79E+4	-	3.11E+4	1.75E+6	2.17E+4	2.03E+4
Zr-97	1.50E+2	2.56E+1	-	2.59E+1	1.10E+5	1.40E+5	1.17E+1
Nb-95	1.57E+4	6.43E+3	-	4.72E+3	4.79E+5	1.27E+4	3.78E+3
Nb-97	3.42E-1	7.29E-2	-	5.70E-2	3.32E+3	2.69E+4	2.63E-2
Mo-99	-	1.65E+2	-	2.65E+2	1.35E+5	4.87E+4	3.23E+1
Tc-99m	1.40E-3	2.88E-3	-	3.11E-2	8.11E+2	2.03E+3	3.72E-2
Tc-101	6.51E-5	8.23E-5	-	9.79E-4	5.84E+2	8.44E+2	8.12E-4

Table 3-7

R_{io}, INHALATION PATHWAY DOSE FACTORS
INFANT (mrem/yr per $\mu\text{Ci}/\text{m}^3$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	2.02E+3	-	-	4.24E+3	5.52E+5	1.61E+4	6.79E+2
Ru-105	1.22E+0	-	-	8.99E-1	1.57E+4	4.84E+4	4.10E-1
Ru-106	8.68E+4	-	-	1.07E+5	1.16E+7	1.64E+5	1.09E+4
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	9.98E+3	7.22E+3	-	1.09E+4	3.67E+6	3.30E+4	5.00E+3
Sb-124	3.79E+4	5.56E+2	1.01E+2	-	2.65E+6	5.91E+4	1.20E+4
Sb-125	5.17E+4	4.77E+2	6.23E+1	-	1.64E+6	1.47E+4	1.09E+4
Te-125m	4.76E+3	1.99E+3	1.62E+3	-	4.47E+5	1.29E+4	6.58E+2
Te-127m	1.67E+4	6.90E+3	4.87E+3	3.75E+4	1.31E+6	2.73E+4	2.07E+3
Te-127	2.23E+0	9.53E-1	1.85E+0	4.86E+0	1.03E+4	2.44E+4	4.89E-1
Te-129m	1.41E+4	6.09E+3	5.47E+3	3.18E+4	1.68E+6	6.90E+4	2.23E+3
Te-129	7.88E-2	3.47E-2	6.75E-2	1.75E-1	3.00E+3	2.63E+4	1.88E-2
Te-131m	1.07E+2	5.50E+1	8.93E+1	2.65E+2	1.99E+5	1.19E+5	3.63E+1
Te-131	1.74E-2	8.22E-3	1.58E-2	3.99E-2	2.06E+3	8.22E+3	5.00E-3
Te-132	3.72E+2	2.37E+2	2.79E+2	1.03E+3	3.40E+5	4.41E+4	1.76E+2
I-130	6.36E+3	1.39E+4	1.60E+6	1.53E+4	-	1.99E+3	5.57E+3
I-131	3.79E+4	4.44E+4	1.48E+7	5.18E+4	-	1.06E+3	1.96E+4
I-132	1.69E+3	3.54E+3	1.69E+5	3.95E+3	-	1.90E+3	1.26E+3
I-133	1.32E+4	1.92E+4	3.56E+6	2.24E+4	-	2.16E+3	5.60E+3
I-134	9.21E+2	1.88E+3	4.45E+4	2.09E+3	-	1.29E+3	6.65E+2
I-135	3.86E+3	7.60E+3	6.96E+5	8.47E+3	-	1.83E+3	2.77E+3
Cs-134	3.96E+5	7.03E+5	-	1.90E+5	7.97E+4	1.33E+3	7.45E+4
Cs-136	4.83E+4	1.35E+5	-	5.64E+4	1.18E+4	1.43E+3	5.29E+4
Cs-137	5.49E+5	6.12E+5	-	1.72E+5	7.13E+4	1.33E+3	4.55E+4
Cs-138	5.05E+2	7.81E+2	-	4.10E+2	6.54E+1	8.76E+2	3.98E+2
Ba-139	1.48E+0	9.84E-4	-	5.92E-4	5.95E+3	5.10E+4	4.30E-2
Ba-140	5.60E+4	5.60E+1	-	1.34E+1	1.60E+6	3.84E+4	2.90E+3
Ba-141	1.57E-1	1.08E-4	-	6.50E-5	2.97E+3	4.75E+3	4.97E-3
Ba-142	3.98E-2	3.30E-5	-	1.90E-5	1.55E+3	6.93E+2	1.96E-3
La-140	5.05E+2	2.00E+2	-	-	1.68E+5	8.48E+4	5.15E+1
La-142	1.03E+0	3.77E-1	-	-	8.22E+3	5.95E+4	9.04E-2
Ce-141	2.77E+4	1.67E+4	-	5.25E+3	5.17E+5	2.16E+4	1.99E+3
Ce-143	2.93E+2	1.93E+2	-	5.64E+1	1.16E+5	4.97E+4	2.21E+1
Ce-144	3.19E+6	1.21E+6	-	5.38E+5	9.84E+6	1.48E+5	1.76E+5
Pr-143	1.40E+4	5.24E+3	-	1.97E+3	4.33E+5	3.72E+4	6.99E+2
Pr-144	4.79E-2	1.85E-2	-	6.72E-3	1.61E+3	4.28E+3	2.41E-3
Nd-147	7.94E+3	8.13E+3	-	3.15E+3	3.22E+5	3.12E+4	5.00E+2
W-187	1.30E+1	9.02E+0	-	-	3.96E+4	3.56E+4	3.12E+0
Np-239	3.71E+2	3.32E+1	-	6.62E+1	5.95E+4	2.49E+4	1.88E+1

Table 3-8

R_{io}, GRASS - COW - MILK PATHWAY DOSE FACTORS

ADULT (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 ($\text{m}^2 * \text{mrem}/\text{yr}$ per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	7.63E+2	7.63E+2	7.63E+2	7.63E+2	7.63E+2	7.63E+2
C-14	3.63E+5	7.26E+4	7.26E+4	7.26E+4	7.26E+4	7.26E+4	7.26E+4
Na-24	2.54E+6	2.54E+6	2.54E+6	2.54E+6	2.54E+6	2.54E+6	2.54E+6
P-32	1.71E+10	1.06E+9	-	-	-	1.92E+9	6.60E+8
Cr-51	-	-	1.71E+4	6.30E+3	3.80E+4	7.20E+6	2.86E+4
Mn-54	-	8.40E+6	-	2.50E+6	-	2.57E+7	1.60E+6
Mn-56	-	4.23E-3	-	5.38E-3	-	1.35E-1	7.51E-4
Fe-55	2.51E+7	1.73E+7	-	-	9.67E+6	9.95E+6	4.04E+6
Fe-59	2.98E+7	7.00E+7	-	-	1.95E+7	2.33E+8	2.68E+7
Co-57	-	1.28E+6	-	-	-	3.25E+7	2.13E+6
Co-58	-	4.72E+6	-	-	-	9.57E+7	1.06E+7
Co-60	-	1.64E+7	-	-	-	3.08E+8	3.62E+7
Ni-63	6.73E+9	4.66E+8	-	-	-	9.73E+7	2.26E+8
Ni-65	3.70E-1	4.81E-2	-	-	-	1.22E+0	2.19E-2
Cu-64	-	2.41E+4	-	6.08E+4	-	2.05E+6	1.13E+4
Zn-65	1.37E+9	4.36E+9	-	2.92E+9	-	2.75E+9	1.97E+9
Zn-69	-	-	-	-	-	-	-
Br-82	-	-	-	-	-	3.72E+7	3.25E+7
Br-83	-	-	-	-	-	1.49E-1	1.03E-1
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	2.59E+9	-	-	-	5.11E+8	1.21E+9
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	1.45E+9	-	-	-	-	2.33E+8	4.16E+7
Sr-90	4.68E+10	-	-	-	-	1.35E+9	1.15E+10
Sr-91	3.13E+4	-	-	-	-	1.49E+5	1.27E+3
Sr-92	4.89E-1	-	-	-	-	9.68E+0	2.11E-2
Y-90	7.07E+1	-	-	-	-	7.50E+5	1.90E+0
Y-91m	-	-	-	-	-	-	-
Y-91	8.60E+3	-	-	-	-	4.73E+6	2.30E+2
Y-92	5.42E-5	-	-	-	-	9.49E-1	1.58E-6
Y-93	2.33E-1	-	-	-	-	7.39E+3	6.43E-3
Zr-95	9.46E+2	3.03E+2	-	4.76E+2	-	9.62E+5	2.05E+2
Zr-97	4.26E-1	8.59E-2	-	1.30E-1	-	2.66E+4	3.93E-2
Nb-95	8.25E+4	4.59E+4	-	4.54E+4	-	2.79E+8	2.47E+4
Nb-97	-	-	-	-	-	5.47E-9	-
Mo-99	-	2.52E+7	-	5.72E+7	-	5.85E+7	4.80E+6
Tc-99m	3.25E+0	9.19E+0	-	1.40E+2	4.50E+0	5.44E+3	1.17E+2
Tc-101	-	-	-	-	-	-	-

Table 3-8

R_{io}, GRASS - COW - MILK PATHWAY DOSE FACTORS

ADULT (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 ($\text{m}^2 \cdot \text{mrem}/\text{yr}$ per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	1.02E+3	-	-	3.89E+3	-	1.19E+5	4.39E+2
Ru-105	8.57E-4	-	-	1.11E-2	-	5.24E-1	3.38E-4
Ru-106	2.04E+4	-	-	3.94E+4	-	1.32E+6	2.58E+3
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	5.83E+7	5.39E+7	-	1.06E+8	-	2.20E+10	3.20E+7
Sb-124	2.57E+7	4.86E+5	6.24E+4	-	2.00E+7	7.31E+8	1.02E+7
Sb-125	2.04E+7	2.28E+5	2.08E+4	-	1.58E+7	2.25E+8	4.86E+6
Te-125m	1.63E+7	5.90E+6	4.90E+6	6.63E+7	-	6.50E+7	2.18E+6
Te-127m	4.58E+7	1.64E+7	1.17E+7	1.86E+8	-	1.54E+8	5.58E+6
Te-127	6.72E+2	2.41E+2	4.98E+2	2.74E+3	-	5.30E+4	1.45E+2
Te-129m	6.04E+7	2.25E+7	2.08E+7	2.52E+8	-	3.04E+8	9.57E+6
Te-129	-	-	-	-	-	-	-
Te-131m	3.61E+5	1.77E+5	2.80E+5	1.79E+6	-	1.75E+7	1.47E+5
Te-131	-	-	-	-	-	-	-
Te-132	2.39E+6	1.55E+6	1.71E+6	1.49E+7	-	7.32E+7	1.45E+6
I-130	4.26E+5	1.26E+6	1.07E+8	1.96E+6	-	1.08E+6	4.96E+5
I-131	2.96E+8	4.24E+8	1.39E+11	7.27E+8	-	1.12E+8	2.43E+8
I-132	1.64E-1	4.37E-1	1.53E+1	6.97E-1	-	8.22E-2	1.53E-1
I-133	3.97E+6	6.90E+6	1.01E+9	1.20E+7	-	6.20E+6	2.10E+6
I-134	-	-	-	-	-	-	-
I-135	1.39E+4	3.63E+4	2.40E+6	5.83E+4	-	4.10E+4	1.34E+4
Cs-134	5.65E+9	1.34E+10	-	4.35E+9	1.44E+9	2.35E+8	1.10E+10
Cs-136	2.61E+8	1.03E+9	-	5.74E+8	7.87E+7	1.17E+8	7.42E+8
Cs-137	7.38E+9	1.01E+10	-	3.43E+9	1.14E+9	1.95E+8	6.61E+9
Cs-138	-	-	-	-	-	-	-
Ba-139	4.70E-8	-	-	-	-	8.34E-8	1.38E-9
Ba-140	2.69E+7	3.38E+4	-	1.15E+4	1.93E+4	5.54E+7	1.76E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	4.49E+0	2.26E+0	-	-	-	1.66E+5	5.97E-1
La-142	-	-	-	-	-	3.03E-8	-
Ce-141	4.84E+3	3.27E+3	-	1.52E+3	-	1.25E+7	3.71E+2
Ce-143	4.19E+1	3.09E+4	-	1.36E+1	-	1.16E+6	3.42E+0
Ce-144	3.58E+5	1.50E+5	-	8.87E+4	-	1.21E+8	1.92E+4
Pr-143	1.59E+2	6.37E+1	-	3.68E+1	-	6.96E+5	7.88E+0
Pr-144	-	-	-	-	-	-	-
Nd-147	9.42E+1	1.09E+2	-	6.37E+1	-	5.23E+5	6.52E+0
W-187	6.56E+3	5.48E+3	-	-	-	1.80E+6	1.92E+3
Np-239	3.66E+0	3.60E-1	-	1.12E+0	-	7.39E+4	1.98E-1

Table 3-8

R_{io}, GRASS - COW - MILK PATHWAY DOSE FACTORSTEENAGER (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mrem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	9.94E+2	9.94E+2	9.94E+2	9.94E+2	9.94E+2	9.94E+2
C-14	6.70E+5	1.34E+5	1.34E+5	1.34E+5	1.34E+5	1.34E+5	1.34E+5
Na-24	4.44E+6	4.44E+6	4.44E+6	4.44E+6	4.44E+6	4.44E+6	4.44E+6
P-32	3.15E+10	1.95E+9	-	-	-	2.65E+9	1.22E+9
Cr-51	-	-	2.78E+4	1.10E+4	7.13E+4	8.40E+6	5.00E+4
Mn-54	-	1.40E+7	-	4.17E+6	-	2.87E+7	2.78E+6
Mn-56	-	7.51E-3	-	9.50E-3	-	4.94E-1	1.33E-3
Fe-55	4.45E+7	3.16E+7	-	-	2.00E+7	1.37E+7	7.36E+6
Fe-59	5.20E+7	1.21E+8	-	-	3.82E+7	2.87E+8	4.68E+7
Co-57	-	2.25E+6	-	-	-	4.19E+7	3.76E+6
Co-58	-	7.95E+6	-	-	-	1.10E+8	1.83E+7
Co-60	-	2.78E+7	-	-	-	3.62E+8	6.26E+7
Ni-63	1.18E+10	8.35E+8	-	-	-	1.33E+8	4.01E+8
Ni-65	6.78E-1	8.66E-2	-	-	-	4.70E+0	3.94E-2
Cu-64	-	4.29E+4	-	1.09E+5	-	3.33E+6	2.02E+4
Zn-65	2.11E+9	7.31E+9	-	4.68E+9	-	3.10E+9	3.41E+9
Zn-69	-	-	-	-	-	-	-
Br-82	-	-	-	-	-	-	5.64E+7
Br-83	-	-	-	-	-	-	1.91E-1
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	4.73E+9	-	-	-	7.00E+8	2.22E+9
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	2.67E+9	-	-	-	-	3.18E+8	7.66E+7
Sr-90	6.61E+10	-	-	-	-	1.86E+9	1.63E+10
Sr-91	5.75E+4	-	-	-	-	2.61E+5	2.29E+3
Sr-92	8.95E-1	-	-	-	-	2.28E+1	3.81E-2
Y-90	1.30E+2	-	-	-	-	1.07E+6	3.50E+0
Y-91m	-	-	-	-	-	-	-
Y-91	1.58E+4	-	-	-	-	6.48E+6	4.24E+2
Y-92	1.00E-4	-	-	-	-	2.75E+0	2.90E-6
Y-93	4.30E-1	-	-	-	-	1.31E+4	1.18E-2
Zr-95	1.65E+3	5.22E+2	-	7.67E+2	-	1.20E+6	3.59E+2
Zr-97	7.75E-1	1.53E-1	-	2.32E-1	-	4.15E+4	7.06E-2
Nb-95	1.41E+5	7.80E+4	-	7.57E+4	-	3.34E+8	4.30E+4
Nb-97	-	-	-	-	-	6.34E-8	-
Mo-99	-	4.56E+7	-	1.04E+8	-	8.16E+7	8.69E+6
Tc-99m	5.64E+0	1.57E+1	-	2.34E+2	8.73E+0	1.03E+4	2.04E+2
Tc-101	-	-	-	-	-	-	-

Table 3-8

R_{io}, GRASS - COW - MILK PATHWAY DOSE FACTORSTEENAGER (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m²* mrem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	1.81E+3	-	-	6.40E+3	-	1.52E+5	7.75E+2
Ru-105	1.57E-3	-	-	1.97E-2	-	1.26E+0	6.08E-4
Ru-106	3.75E+4	-	-	7.23E+4	-	1.80E+6	4.73E+3
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	9.63E+7	9.11E+7	-	1.74E+8	-	2.56E+10	5.54E+7
Sb-124	4.59E+7	8.46E+5	1.04E+5	-	4.01E+7	9.25E+8	1.79E+7
Sb-125	3.65E+7	3.99E+5	3.49E+4	-	3.21E+7	2.84E+8	8.54E+6
Te-125m	3.00E+7	1.08E+7	8.39E+6	-	-	8.86E+7	4.02E+6
Te-127m	8.44E+7	2.99E+7	2.01E+7	3.42E+8	-	2.10E+8	1.00E+7
Te-127	1.24E+3	4.41E+2	8.59E+2	5.04E+3	-	9.61E+4	2.68E+2
Te-129m	1.11E+8	4.10E+7	3.57E+7	4.62E+8	-	4.15E+8	1.75E+7
Te-129	-	-	-	1.67E-9	-	2.18E-9	-
Te-131m	6.57E+5	3.15E+5	4.74E+5	3.29E+6	-	2.53E+7	2.63E+5
Te-131	-	-	-	-	-	-	-
Te-132	4.28E+6	2.71E+6	2.86E+6	2.60E+7	-	8.58E+7	2.55E+6
I-130	7.49E+5	2.17E+6	1.77E+8	3.34E+6	-	1.67E+6	8.66E+5
I-131	5.38E+8	7.53E+8	2.20E+11	1.30E+9	-	1.49E+8	4.04E+8
I-132	2.90E-1	7.59E-1	2.56E+1	1.20E+0	-	3.31E-1	2.72E-1
I-133	7.24E+6	1.23E+7	1.72E+9	2.15E+7	-	9.30E+6	3.75E+6
I-134	-	-	-	-	-	-	-
I-135	2.47E+4	6.35E+4	4.08E+6	1.00E+5	-	7.03E+4	2.35E+4
Cs-134	9.81E+9	2.31E+10	-	7.34E+9	2.80E+9	2.87E+8	1.07E+10
Cs-136	4.45E+8	1.75E+9	-	9.53E+8	1.50E+8	1.41E+8	1.18E+9
Cs-137	1.34E+10	1.78E+10	-	6.06E+9	2.35E+9	2.53E+8	6.20E+9
Cs-138	-	-	-	-	-	-	-
Ba-139	8.69E-8	-	-	-	-	7.75E-7	2.53E-9
Ba-140	4.85E+7	5.95E+4	-	2.02E+4	4.00E+4	7.49E+7	3.13E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	8.06E+0	3.96E+0	-	-	-	2.27E+5	1.05E+0
La-142	-	-	-	-	-	2.23E-7	-
Ce-141	8.87E+3	5.92E+3	-	2.79E+3	-	1.69E+7	6.81E+2
Ce-143	7.69E+1	5.60E+4	-	2.51E+1	-	1.68E+6	6.25E+0
Ce-144	6.58E+5	2.72E+5	-	1.63E+5	-	1.66E+8	3.54E+4
Pr-143	2.92E+2	1.17E+2	-	6.77E+1	-	9.61E+5	1.45E+1
Pr-144	-	-	-	-	-	-	-
Nd-147	1.81E+2	1.97E+2	-	1.16E+2	-	7.11E+5	1.18E+1
W-187	1.20E+4	9.78E+3	-	-	-	2.65E+6	3.43E+3
Np-239	6.99E+0	6.59E-1	-	2.07E+0	-	1.06E+5	3.66E-1

Table 3-8

R_{io}, GRASS - COW - MILK PATHWAY DOSE FACTORSCHILD (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mrem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	1.57E+3	1.57E+3	1.57E+3	1.57E+3	1.57E+3	1.57E+3
C-14	1.65E+6	3.29E+5	3.29E+5	3.29E+5	3.29E+5	3.29E+5	3.29E+5
Na-24	9.23E+6	9.23E+6	9.23E+6	9.23E+6	9.23E+6	9.23E+6	9.23E+6
P-32	7.77E+10	3.64E+9	-	-	-	2.15E+9	3.00E+9
Cr-51	-	-	5.66E+4	1.55E+4	1.03E+5	5.41E+6	1.02E+5
Mn-54	-	2.09E+7	-	5.87E+6	-	1.76E+7	5.58E+6
Mn-56	-	1.31E-2	-	1.58E-2	-	1.90E+0	2.95E-3
Fe-55	1.12E+8	5.93E+7	-	-	3.35E+7	1.10E+7	1.84E+7
Fe-59	1.20E+8	1.95E+8	-	-	5.65E+7	2.03E+8	9.71E+7
Co-57	-	3.84E+6	-	-	-	3.14E+7	7.77E+6
Co-58	-	1.21E+7	-	-	-	7.08E+7	3.72E+7
Co-60	-	4.32E+7	-	-	-	2.39E+8	1.27E+8
Ni-63	2.96E+10	1.59E+9	-	-	-	1.07E+8	1.01E+9
Ni-65	1.66E+0	1.56E-1	-	-	-	1.91E+1	9.11E-2
Cu-64	-	7.55E+4	-	1.82E+5	-	3.54E+6	4.56E+4
Zn-65	4.13E+9	1.10E+10	-	6.94E+9	-	1.93E+9	6.85E+9
Zn-69	-	-	-	-	-	2.14E-9	-
Br-82	-	-	-	-	-	-	1.15E+8
Br-83	-	-	-	-	-	-	4.69E-1
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	8.77E+9	-	-	-	5.64E+8	5.39E+9
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	6.62E+9	-	-	-	-	2.56E+8	1.89E+8
Sr-90	1.12E+11	-	-	-	-	1.51E+9	2.83E+10
Sr-91	1.41E+5	-	-	-	-	3.12E+5	5.33E+3
Sr-92	2.19E+0	-	-	-	-	4.14E+1	8.76E-2
Y-90	3.22E+2	-	-	-	-	9.15E+5	8.61E+0
Y-91m	-	-	-	-	-	-	-
Y-91	3.91E+4	-	-	-	-	5.21E+6	1.04E+3
Y-92	2.46E-4	-	-	-	-	7.10E+0	7.03E-6
Y-93	1.06E+0	-	-	-	-	1.57E+4	2.90E-2
Zr-95	3.84E+3	8.45E+2	-	1.21E+3	-	8.81E+5	7.52E+2
Zr-97	1.89E+0	2.72E-1	-	3.91E-1	-	4.13E+4	1.61E-1
Nb-95	3.18E+5	1.24E+5	-	1.16E+5	-	2.29E+8	8.84E+4
Nb-97	-	-	-	-	-	1.45E-6	-
Mo-99	-	8.29E+7	-	1.77E+8	-	6.86E+7	2.05E+7
Tc-99m	1.29E+1	2.54E+1	-	3.68E+2	1.29E+1	1.44E+4	4.20E+2
Tc-101	-	-	-	-	-	-	-

Table 3-8

R_{io}, GRASS - COW - MILK PATHWAY DOSE FACTORSCHILD (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mrem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	4.29E+3	-	-	1.08E+4	-	1.11E+5	1.65E+3
Ru-105	3.82E-3	-	-	3.36E-2	-	2.49E+0	1.39E-3
Ru-106	9.24E+4	-	-	1.25E+5	-	1.44E+6	1.15E+4
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	2.09E+8	1.41E+8	-	2.63E+8	-	1.68E+10	1.13E+8
Sb-124	1.09E+8	1.41E+8	2.40E+5	-	6.03E+7	6.79E+8	3.81E+7
Sb-125	8.70E+7	1.41E+6	8.06E+4	-	4.85E+7	2.08E+8	1.82E+7
Te-125m	7.38E+7	2.00E+7	2.07E+7	-	-	7.12E+7	9.84E+6
Te-127m	2.08E+8	5.60E+7	4.97E+7	5.93E+8	-	1.68E+8	2.47E+7
Te-127	3.06E+3	8.25E+2	2.12E+3	8.71E+3	-	1.20E+5	6.56E+2
Te-129m	2.72E+8	7.61E+7	8.78E+7	8.00E+8	-	3.32E+8	4.23E+7
Te-129	-	-	-	2.87E-9	-	6.12E-8	-
Te-131m	1.60E+6	5.53E+5	1.14E+6	5.35E+6	-	2.24E+7	5.89E+5
Te-131	-	-	-	-	-	-	-
Te-132	1.02E+7	4.52E+6	6.58E+6	4.20E+7	-	4.55E+7	5.46E+6
I-130	1.75E+6	3.54E+6	3.90E+8	5.29E+6	-	1.66E+6	1.82E+6
I-131	1.30E+9	1.31E+9	4.34E+11	2.15E+9	-	1.17E+8	7.46E+8
I-132	6.86E-1	1.26E+0	5.85E+1	1.93E+0	-	1.48E+0	5.80E-1
I-133	1.76E+7	2.18E+7	4.04E+9	3.63E+7	-	8.77E+6	8.23E+6
I-134	-	-	-	-	-	-	-
I-135	5.84E+4	1.05E+5	9.30E+6	1.61E+5	-	8.00E+4	4.97E+4
Cs-134	2.26E+10	3.71E+10	-	1.15E+10	4.13E+9	2.00E+8	7.83E+9
Cs-136	1.00E+9	2.76E+9	-	1.47E+9	2.19E+8	9.70E+7	1.79E+9
Cs-137	3.22E+10	3.09E+10	-	1.01E+10	3.62E+9	1.93E+8	4.55E+9
Cs-138	-	-	-	-	-	-	-
Ba-139	2.14E-7	-	-	-	-	1.23E-5	6.19E-9
Ba-140	1.17E+8	1.03E+5	-	3.34E+4	6.12E+4	5.94E+7	6.84E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	1.93E+1	6.74E+0	-	-	-	1.88E+5	2.27E+0
La-142	-	-	-	-	-	2.51E-6	-
Ce-141	2.19E+4	1.09E+4	-	4.78E+3	-	1.36E+7	1.62E+3
Ce-143	1.89E+2	1.02E+5	-	4.29E+1	-	1.50E+6	1.48E+1
Ce-144	1.62E+6	5.09E+5	-	2.82E+5	-	1.33E+8	8.66E+4
Pr-143	7.23E+2	2.17E+2	-	1.17E+2	-	7.80E+5	3.59E+1
Pr-144	-	-	-	-	-	-	-
Nd-147	4.45E+2	3.60E+2	-	1.98E+2	-	5.71E+5	2.79E+1
W-187	2.91E+4	1.72E+4	-	-	-	2.42E+6	7.73E+3
Np-239	1.72E+1	1.23E+0	-	3.57E+0	-	9.14E+4	8.68E-1

Table 3-8

R_{io}, GRASS - COW - MILK PATHWAY DOSE FACTORS

INFANT (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 $(\text{m}^2 * \text{mrem}/\text{yr per } \mu\text{Ci}/\text{sec})$ for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	2.38E+3	2.38E+3	2.38E+3	2.38E+3	2.38E+3	2.38E+3
C-14	3.23E+6	6.89E+5	6.89E+5	6.89E+5	6.89E+5	6.89E+5	6.89E+5
Na-24	1.61E+7	1.61E+7	1.61E+7	1.61E+7	1.61E+7	1.61E+7	1.61E+7
P-32	1.60E+11	9.42E+9	-	-	-	2.17E+9	6.21E+9
Cr-51	-	-	1.05E+5	2.30E+4	2.05E+5	4.71E+6	1.61E+5
Mn-54	-	3.89E+7	-	8.63E+6	-	1.43E+7	8.83E+6
Mn-56	-	3.21E-2	-	2.76E-2	-	2.91E+0	5.53E-3
Fe-55	1.35E+8	8.72E+7	-	-	4.27E+7	1.11E+7	2.33E+7
Fe-59	2.25E+8	3.93E+8	-	-	1.16E+8	1.88E+8	1.55E+8
Co-57	-	8.95E+6	-	-	-	3.05E+7	1.46E+7
Co-58	-	2.43E+7	-	-	-	6.05E+7	6.06E+7
Co-60	-	8.81E+7	-	-	-	2.10E+8	2.08E+8
Ni-63	3.49E+10	2.16E+9	-	-	-	1.07E+8	1.21E+9
Ni-65	3.51E+0	3.97E-1	-	-	-	3.02E+1	1.81E-1
Cu-64	-	1.88E+5	-	3.17E+5	-	3.85E+6	8.69E+4
Zn-65	5.55E+9	1.90E+10	-	9.23E+9	-	1.61E+10	8.78E+9
Zn-69	-	-	-	-	-	7.36E-9	-
Br-82	-	-	-	-	-	-	1.94E+8
Br-83	-	-	-	-	-	-	9.95E-1
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	2.22E+10	-	-	-	5.69E+8	1.10E+10
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	1.26E+10	-	-	-	-	2.59E+8	3.61E+8
Sr-90	1.22E+11	-	-	-	-	1.52E+9	3.10E+10
Sr-91	2.94E+5	-	-	-	-	3.48E+5	1.06E+4
Sr-92	4.65E+0	-	-	-	-	5.01E+1	1.73E-1
Y-90	6.80E+2	-	-	-	-	9.39E+5	1.82E+1
Y-91m	-	-	-	-	-	-	-
Y-91	7.33E+4	-	-	-	-	5.26E+6	1.95E+3
Y-92	5.22E-4	-	-	-	-	9.97E+0	1.47E-5
Y-93	2.25E+0	-	-	-	-	1.78E+4	6.13E-2
Zr-95	6.83E+3	1.66E+3	-	1.79E+3	-	8.28E+5	1.18E+3
Zr-97	3.99E+0	6.85E-1	-	6.91E-1	-	4.37E+4	3.13E-1
Nb-95	5.93E+5	2.44E+5	-	1.75E+5	-	2.06E+8	1.41E+5
Nb-97	-	-	-	-	-	3.70E-6	-
Mo-99	-	2.12E+8	-	3.17E+8	-	6.98E+7	4.13E+7
Tc-99m	2.69E+1	5.55E+1	-	5.97E+2	2.90E+1	1.61E+4	7.15E+2
Tc-101	-	-	-	-	-	-	-

Table 3-8

R_{io}, GRASS - COW - MILK PATHWAY DOSE FACTORSINFANT (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mrem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	8.69E+3	-	-	1.81E+4	-	1.06E+5	2.91E+3
Ru-105	8.06E-3	-	-	5.92E-2	-	3.21E+0	2.71E-3
Ru-106	1.90E+5	-	-	2.25E+5	-	1.44E+6	2.38E+4
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	3.86E+8	2.82E+8	-	4.03E+8	-	1.46E+10	1.86E+8
Sb-124	2.09E+8	3.08E+6	5.56E+5	-	1.31E+8	6.46E+8	6.49E+7
Sb-125	1.49E+8	1.45E+6	1.87E+5	-	9.38E+7	1.99E+8	3.07E+7
Te-125m	1.51E+8	5.04E+7	5.07E+7	-	-	7.18E+7	2.04E+7
Te-127m	4.21E+8	1.40E+8	1.22E+8	1.04E+9	-	1.70E+8	5.10E+7
Te-127	6.50E+3	2.18E+3	5.29E+3	1.59E+4	-	1.36E+5	1.40E+3
Te-129m	5.59E+8	1.92E+8	2.15E+8	1.40E+9	-	3.34E+8	8.62E+7
Te-129	2.08E-9	-	1.75E-9	5.18E-9	-	1.66E-7	-
Te-131m	3.38E+6	1.36E+6	2.76E+6	9.35E+6	-	2.29E+7	1.12E+6
Te-131	-	-	-	-	-	-	-
Te-132	2.10E+7	1.04E+7	1.54E+7	6.51E+7	-	3.85E+7	9.72E+6
I-130	3.60E+6	7.92E+6	8.88E+8	8.70E+6	-	1.70E+6	3.18E+6
I-131	2.72E+9	3.21E+9	1.05E+12	3.75E+9	-	1.15E+8	1.41E+9
I-132	1.42E+0	2.89E+0	1.35E+2	3.22E+0	-	2.34E+0	1.03E+0
I-133	3.72E+7	5.41E+7	9.84E+9	6.36E+7	-	9.16E+6	1.58E+7
I-134	-	-	1.01E-9	-	-	-	-
I-135	1.21E+5	2.41E+5	2.16E+7	2.69E+5	-	8.74E+4	8.80E+4
Cs-134	3.65E+10	6.80E+10	-	1.75E+10	7.18E+9	1.85E+8	6.87E+9
Cs-136	1.96E+9	5.77E+9	-	2.30E+9	4.70E+8	8.76E+7	2.15E+9
Cs-137	5.15E+10	6.02E+10	-	1.62E+10	6.55E+9	1.88E+8	4.27E+9
Cs-138	-	-	-	-	-	-	-
Ba-139	4.55E-7	-	-	-	-	2.88E-5	1.32E-8
Ba-140	2.41E+8	2.41E+5	-	5.73E+4	1.48E+5	5.92E+7	1.24E+7
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	4.03E+1	1.59E+1	-	-	-	1.87E+5	4.09E+0
La-142	-	-	-	-	-	5.21E-6	-
Ce-141	4.33E+4	2.64E+4	-	8.15E+3	-	1.37E+7	3.11E+3
Ce-143	4.00E+2	2.65E+5	-	7.72E+1	-	1.55E+6	3.02E+1
Ce-144	2.33E+6	9.52E+5	-	3.85E+5	-	1.33E+8	1.30E+5
Pr-143	1.49E+3	5.59E+2	-	2.08E+2	-	7.89E+5	7.41E+1
Pr-144	-	-	-	-	-	-	-
Nd-147	8.82E+2	9.06E+2	-	3.49E+2	-	5.74E+5	5.55E+1
W-187	6.12E+4	4.26E+4	-	-	-	2.50E+6	1.47E+4
Np-239	3.64E+1	3.25E+0	-	6.49E+0	-	9.40E+4	1.84E+0

Table 3-9

R_{io} GRASS - GOAT - MILK PATHWAY DOSE FACTORS

ADULT (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 ($\text{m}^2 * \text{mrem}/\text{yr}$ per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	1.56E+3	1.56E+3	1.56E+3	1.56E+3	1.56E+3	1.56E+3
C-14	3.63E+5	7.26E+4	7.26E+4	7.26E+4	7.26E+4	7.26E+4	7.26E+4
Na-24	3.05E+5	3.05E+5	3.05E+5	3.05E+5	3.05E+5	3.05E+5	3.05E+5
P-32	2.05E+10	1.27E+9	-	-	-	2.30E+9	7.92E+8
Cr-51	-	-	2.05E+3	7.56E+2	4.56E+3	8.64E+5	3.43E+3
Mn-54	-	1.01E+6	-	3.00E+5	-	3.08E+6	1.92E+5
Mn-56	-	5.08E-4	-	6.46E-4	-	1.65E-2	9.01E-5
Fe-55	3.31E+5	2.28E+5	-	-	1.28E+5	1.31E+5	5.33E+4
Fe-59	3.93E+5	9.24E+5	-	-	2.57E+5	3.08E+6	3.54E+5
Co-57	-	1.54E+5	-	-	-	3.90E+6	2.56E+5
Co-58	-	5.66E+5	-	-	-	1.15E+7	1.27E+6
Co-60	-	1.97E+6	-	-	-	3.70E+7	3.34E+6
Ni-63	8.08E+8	5.59E+7	-	-	-	1.17E+7	2.71E+7
Ni-65	4.44E-2	5.77E-3	-	-	-	1.46E-1	2.63E-3
Cu-64	-	2.69E+3	-	6.79E+3	-	2.79E+5	1.26E+3
Zn-65	1.64E+8	5.23E+8	-	3.50E+8	-	3.30E+8	2.36E+8
Zn-69	-	-	-	-	-	-	-
Br-82	-	-	-	-	-	4.46E+6	3.90E+6
Br-83	-	-	-	-	-	1.79E-2	1.24E-2
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	3.11E+8	-	-	-	6.13E+7	1.45E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	3.04E+9	-	-	-	-	4.89E+8	8.74E+7
Sr-90	9.83E+10	-	-	-	-	2.84E+9	2.42E+10
Sr-91	6.57E+4	-	-	-	-	3.13E+5	2.67E+3
Sr-92	1.03E+0	-	-	-	-	2.03E+1	4.43E-2
Y-90	8.48E+0	-	-	-	-	9.00E+4	2.28E-1
Y-91m	-	-	-	-	-	-	-
Y-91	1.03E+3	-	-	-	-	5.71E+5	2.76E+1
Y-92	6.50E-6	-	-	-	-	1.14E-1	1.90E-7
Y-93	2.80E-2	-	-	-	-	8.87E+2	7.72E-4
Zr-95	1.15E+2	3.64E+1	-	5.71E+1	-	1.15E+5	2.46E+1
Zr-97	5.11E-2	1.03E-2	-	1.56E-2	-	3.19E+3	4.72E-3
Nb-95	9.90E+3	5.51E+3	-	5.34E+3	-	3.35E+7	2.96E+3
Nb-97	-	-	-	-	-	6.56E-10	-
Mo-99	-	3.02E+6	-	6.96E+6	-	7.02E+6	5.76E+5
Tc-99m	3.90-1	1.10E+0	-	1.68E+1	5.40E-1	6.53E+2	1.40E+1
Tc-101	-	-	-	-	-	-	-

Table 3-9

R_{io}, GRASS - GOAT - MILK PATHWAY DOSE FACTORS

ADULT (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 (m^2 * mrem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	1.22E+2	-	-	4.67E+2	-	1.43E+4	5.27E+1
Ru-105	1.03E-4	-	-	1.33E-3	-	6.29E-2	4.06E-5
Ru-106	2.45E+3	-	-	4.73E+3	-	1.58E+5	3.10E+2
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	6.70E+6	6.47E+6	-	1.27E+7	-	2.64E+9	3.84E+6
Sb-124	3.08E+6	5.83E+4	7.49E+3	-	2.40E+6	8.77E+7	1.22E+6
Sb-125	2.45E+6	2.74E+4	2.50E+3	-	1.90E+6	2.70E+7	5.83E+5
Te-125m	1.96E+6	7.08E+5	5.88E+5	7.96E+6	-	7.80E+6	2.62E+5
Te-127m	5.50E+6	1.97E+6	1.40E+6	2.23E+7	-	1.85E+7	6.70E+5
Te-127	8.06E+1	2.89E+1	5.80E+1	3.29E+2	-	6.36E+3	1.74E+1
Te-129m	7.25E+6	2.70E+6	2.50E+6	3.02E+7	-	3.65E+7	1.15E+6
Te-129	-	-	-	-	-	-	-
Te-131m	4.33E+4	2.12E+4	3.36E+4	2.15E+5	-	2.10E+6	1.76E+4
Te-131	-	-	-	-	-	-	-
Te-132	2.87E+5	1.96E+5	2.05E+5	1.79E+6	-	8.78E+6	1.74E+5
I-130	5.11E+5	1.51E+6	1.28E+8	2.35E+6	-	1.30E+6	5.95E+5
I-131	3.55E+8	5.01E+8	1.67E+11	8.72E+8	-	1.34E+8	2.92E+8
I-132	1.97E-1	5.24E-1	1.84E+1	8.36E-1	-	9.86E-2	1.84E-1
I-133	4.76E+6	8.28E+6	1.21E+9	1.44E+7	-	7.44E+6	2.52E+6
I-134	-	-	-	-	-	-	-
I-135	1.67E+4	4.36E+4	2.88E+6	6.70E+4	-	4.92E+4	1.61E+4
Cs-134	1.70E+10	4.02E+10	-	1.31E+10	4.32E+9	7.05E+8	3.30E+10
Cs-136	7.83E+8	3.09E+9	-	1.72E+9	2.36E+8	3.31E+8	2.23E+9
Cs-137	2.21E+10	3.03E+10	-	1.03E+10	3.42E+9	5.85E+8	1.98E+10
Cs-138	-	-	-	-	-	-	-
Ba-139	5.64E-9	-	-	-	-	1.00E-8	1.66E-10
Ba-140	3.23E+6	4.06E+3	-	1.38E+3	2.32E+3	6.65E+6	2.11E+5
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	5.39E-1	2.71E-1	-	-	-	1.99E+4	7.16E-2
La-142	-	-	-	-	-	3.64E-9	-
Ce-141	5.81E+2	3.92E+2	-	1.82E+2	-	1.50E+6	4.45E+1
Ce-143	5.03E+0	3.71E+3	-	1.62E+0	-	1.39E+5	4.10E-1
Ce-144	4.30E+4	1.80E+4	-	1.06E+4	-	1.45E+7	2.30E+3
Pr-143	1.91E+1	7.64E+0	-	4.42E+0	-	8.35E+4	9.46E-1
Pr-144	-	-	-	-	-	-	-
Nd-147	1.13E+1	1.31E+1	-	7.64E+0	-	6.28E+4	6.74E-1
W-187	7.87E+2	6.58E+2	-	-	-	2.16E+5	2.30E+2
Np-239	4.39E-1	4.32E-2	-	1.34E-1	-	8.87E+3	2.38E-2

Table 3-9

R_{io} GRASS - GOAT - MILK PATHWAY DOSE FACTORSTEENAGER (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14 $(\text{m}^2 * \text{mrem/yr per } \mu\text{Ci/sec})$ for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	2.03E+3	2.03E+3	2.03E+3	2.03E+3	2.03E+3	2.03E+3
C-14	6.70E+5	1.34E+5	1.34E+5	1.34E+5	1.34E+5	1.34E+5	1.34E+5
Na-24	5.33E+5	5.33E+5	5.33E+5	5.33E+5	5.33E+5	5.33E+5	5.33E+5
P-32	3.78E+10	2.34E+9	-	-	-	3.18E+9	1.46E+9
Cr-51	-	-	3.34E+3	1.32E+3	8.56E+3	1.01E+6	6.00E+3
Mn-54	-	1.68E+6	-	5.00E+5	-	3.44E+6	3.34E+5
Mn-56	-	9.01E-4	-	1.14E-3	-	5.93E-2	1.60E-4
Fe-55	5.79E+5	4.11E+5	-	-	2.60E+5	1.78E+5	9.57E+4
Fe-59	6.76E+5	1.57E+6	-	-	4.97E+5	3.73E+6	6.08E+5
Co-57	-	2.70E+5	-	-	-	5.03E+6	4.51E+5
Co-58	-	9.54E+5	-	-	-	1.32E+7	2.20E+6
Co-60	-	3.34E+6	-	-	-	4.34E+7	7.51E+6
Ni-63	1.42E+9	1.00E+8	-	-	-	1.60E+7	4.81E+7
Ni-65	8.14E-2	1.04E-2	-	-	-	5.64E-1	4.73E-3
Cu-64	-	4.78E+3	-	1.21E+4	-	3.71E+5	2.25E+3
Zn-65	2.53E+8	8.77E+8	-	5.62E+8	-	3.72E+8	4.09E+8
Zn-69	-	-	-	-	-	-	-
Br-82	-	-	-	-	-	-	6.77E+6
Br-83	-	-	-	-	-	-	2.29E-2
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	5.68E+8	-	-	-	8.40E+7	2.66E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	5.61E+9	-	-	-	-	6.68E+8	1.61E+8
Sr-90	1.39E+11	-	-	-	-	3.91E+9	3.42E+10
Sr-91	1.20E+5	-	-	-	-	5.48E+5	4.81E+3
Sr-92	1.88E+0	-	-	-	-	4.79E+1	8.00E-2
Y-90	1.56E+1	-	-	-	-	1.28E+5	4.20E-1
Y-91m	-	-	-	-	-	-	-
Y-91	1.90E+3	-	-	-	-	7.78E+5	5.09E+1
Y-92	1.20E-5	-	-	-	-	3.30E-1	3.48E-7
Y-93	5.16E-2	-	-	-	-	1.57E+3	1.42E-3
Zr-95	1.98E+2	6.26E+1	-	9.20E+1	-	1.44E+5	4.31E+1
Zr-97	9.30E-2	1.84E-2	-	2.78E-2	-	4.98E+3	8.47E-3
Nb-95	1.69E+4	936E+3	-	9.08E+3	-	4.01E+7	5.16E+3
Nb-97	-	-	-	-	-	7.61E-9	-
Mo-99	-	5.47E+6	-	1.25E+7	-	9.79E+6	1.04E+6
Tc-99m	6.77E-1	1.88E+0	-	2.81E+1	1.05E+0	1.24E+3	2.45E+1
Tc-101	-	-	-	-	-	-	-

Table 3-9

R_{io}, GRASS - GOAT - MILK PATHWAY DOSE FACTORSTEENAGER (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m²* mrem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	2.17E+2	-	-	7.68E+2	-	1.82E+4	9.30E+1
Ru-105	1.88E-4	-	-	2.36E-3	-	1.51E-1	7.30E-5
Ru-106	4.50E+3	-	-	8.68E+3	-	2.16E+5	5.68E+2
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	1.16E+7	1.09E+7	-	2.09E+7	-	3.07E+9	6.65E+6
Sb-124	5.51E+6	1.02E+5	1.25E+4	-	4.81E+6	1.11E+8	2.15E+6
Sb-125	4.38E+6	4.79E+4	4.19E+3	-	3.85E+6	3.41E+7	1.02E+6
Te-125m	3.60E+6	1.30E+6	1.01E+6	-	-	1.06E+7	4.82E+5
Te-127m	1.01E+7	3.59E+6	2.41E+6	4.10E+7	-	2.52E+7	1.20E+6
Te-127	1.49E+2	5.29E+1	1.03E+2	6.05E+2	-	1.15E+4	3.22E+1
Te-129m	1.33E+7	4.92E+6	4.28E+6	5.54E+7	-	4.98E+7	2.10E+6
Te-129	-	-	-	2.00E-10	-	2.62E-10	-
Te-131m	7.88E+4	3.78E+4	5.69E+4	3.95E+5	-	3.04E+6	3.16E+4
Te-131	-	-	-	-	-	-	-
Te-132	5.14E+5	3.25E+5	3.43E+5	3.12E+6	-	1.03E+7	3.06E+5
I-130	8.99E+5	2.60E+6	2.12E+8	4.01E+6	-	2.00E+6	1.04E+6
I-131	6.46E+8	9.04E+8	2.64E+11	1.56E+9	-	1.79E+8	4.85E+8
I-132	3.48E-1	9.11E-1	3.07E+1	1.44E+0	-	3.97E-1	3.26E-1
I-133	8.69E+6	1.48E+7	2.06E+9	2.58E+7	-	1.12E+7	4.50E+6
I-134	-	-	-	-	-	-	-
I-135	2.96E+4	7.62E+4	4.90E+6	1.20E+5	-	8.44E+4	2.82E+4
Cs-134	2.94E+10	6.93E+10	-	2.20E+10	8.40E+9	8.61E+8	3.21E+10
Cs-136	1.34E+9	5.25E+9	-	2.86E+9	4.50E+8	4.23E+8	3.54E+9
Cs-137	4.02E+10	5.34E+10	-	1.82E+10	7.05E+9	7.59E+8	1.86E+10
Cs-138	-	-	-	-	-	-	-
Ba-139	1.04E-8	-	-	-	-	9.30E-8	3.04E-10
Ba-140	5.82E+6	7.14E+3	-	2.42E+3	4.80E+3	6.99E+6	3.76E+5
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	9.67E-1	4.75E-1	-	-	-	2.72E+4	1.26E-1
La-142	-	-	-	-	-	2.68E-8	-
Ce-141	1.06E+3	7.10E+2	-	3.35E+2	-	2.03E+6	8.17E+1
Ce-143	9.23E+0	6.72E+3	-	3.01E+0	-	2.02E+5	7.50E-1
Ce-144	7.90E+4	3.26E+4	-	1.96E+4	-	1.99E+7	4.25E+3
Pr-143	3.50E+1	1.40E+1	-	8.12E+0	-	1.15E+5	1.74E+0
Pr-144	-	-	-	-	-	-	-
Nd-147	2.17E+1	2.36E+1	-	1.39E+1	-	8.53E+4	1.42E+0
W-187	1.44E+3	1.17E+3	-	-	-	3.18E+5	4.12E+2
Np-239	8.39E-1	7.91E-2	-	2.48E-1	-	1.27E+4	4.39E-2

Table 3-9

R_{io}, GRASS - GOAT - MILK PATHWAY DOSE FACTORS

CHILD (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 $(\text{m}^2 * \text{mrem}/\text{yr per } \mu\text{Ci}/\text{sec})$ for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	3.20E+3	3.20E+3	3.20E+3	3.20E+3	3.20E+3	3.20E+3
C-14	1.65E+6	3.29E+5	3.29E+5	3.29E+5	3.29E+5	3.29E+5	3.29E+5
Na-24	1.11E+6	1.11E+6	1.11E+6	1.11E+6	1.11E+6	1.11E+6	1.11E+6
P-32	9.32E+10	4.37E+9	-	-	-	2.58E+9	3.60E+9
Cr-51	-	-	6.79E+3	1.86E+3	1.24E+4	6.49E+5	1.22E+4
Mn-54	-	2.51E+6	-	7.04E+5	-	2.11E+6	6.70E+5
Mn-56	-	1.57E-3	-	1.90E-3	-	2.28E-1	3.54E-4
Fe-55	1.46E+6	7.71E+5	-	-	4.36E+5	1.43E+5	2.39E+5
Fe-59	1.56E+6	2.54E+6	-	-	7.34E+5	2.64E+6	1.26E+6
Co-57	-	4.61E+5	-	-	-	3.77E+6	9.32E+5
Co-58	-	1.45E+6	-	-	-	8.50E+6	4.46E+6
Co-60	-	5.18E+6	-	-	-	2.87E+7	1.52E+7
Ni-63	3.55E+9	1.91E+8	-	-	-	1.28E+7	1.21E+8
Ni-65	1.99E-1	1.82E-2	-	-	-	2.29E+0	1.09E-2
Cu-64	-	8.41E+3	-	2.03E+4	-	3.94E+5	5.08E+3
Zn-65	4.96E+8	1.32E+9	-	8.33E+8	-	2.32E+8	8.22E+8
Zn-69	-	-	-	-	-	2.57E-10	-
Br-82	-	-	-	-	-	-	1.38E+7
Br-83	-	-	-	-	-	-	5.63E-2
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	1.05E+9	-	-	-	6.77E+7	6.47E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	1.39E+10	-	-	-	-	5.38E+8	3.97E+8
Sr-90	2.35E+11	-	-	-	-	3.17E+9	5.94E+10
Sr-91	2.96E+5	-	-	-	-	6.55E+5	1.12E+4
Sr-92	4.60E+0	-	-	-	-	8.69E+1	1.84E-1
Y-90	3.86E+1	-	-	-	-	1.10E+5	1.03E+0
Y-91m	-	-	-	-	-	-	-
Y-91	4.69E+3	-	-	-	-	6.25E+5	1.25E+2
Y-92	2.95E-5	-	-	-	-	8.52E-1	8.44E-7
Y-93	1.27E-1	-	-	-	-	1.88E+3	3.48E-3
Zr-95	4.61E+2	1.01E+2	-	1.45E+2	-	1.06E+5	9.02E+1
Zr-97	2.27E-1	3.26E-2	-	4.69E-2	-	4.96E+3	1.93E-2
Nb-95	3.82E+4	1.49E+4	-	1.39E+4	-	2.75E+7	1.06E+4
Nb-97	-	-	-	-	-	1.74E-7	-
Mo-99	-	9.95E+6	-	2.12E+7	-	8.23E+6	2.46E+6
Tc-99m	1.55E+0	3.05E+0	-	4.42E+1	1.55E+0	1.73E+3	5.04E+1
Tc-101	-	-	-	-	-	-	-

Table 3-9

R_{io}, GRASS - GOAT - MILK PATHWAY DOSE FACTORSCHILD (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mrem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	5.15E+2	-	-	1.30E+3	-	1.33E+4	1.98E+2
Ru-105	4.58E-4	-	-	4.03E-3	-	2.99E-1	1.67E-4
Ru-106	1.11E+4	-	-	1.50E+4	-	1.73E+5	1.38E+3
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	2.51E+7	1.69E+7	-	2.76E+7	-	2.02E+9	1.36E+7
Sb-124	1.31E+7	1.69E+7	2.88E+4	-	7.24E+6	8.15E+7	4.57E+6
Sb-125	1.04E+7	1.69E+5	9.67E+3	-	5.82E+6	2.50E+7	2.18E+6
Te-125m	8.86E+6	2.40E+6	2.49E+6	-	-	8.54E+6	1.18E+6
Te-127m	2.50E+7	6.72E+6	5.96E+6	7.12E+7	-	2.02E+7	2.96E+6
Te-127	3.67E+2	9.90E+1	2.54E+2	1.04E+3	-	1.44E+4	7.87E+1
Te-129m	3.26E+7	9.13E+6	1.05E+7	9.60E+7	-	3.98E+7	5.08E+6
Te-129	-	-	-	3.44E-10	-	7.34E-9	-
Te-131m	1.92E+5	6.64E+4	1.37E+5	6.42E+5	-	2.69E+6	7.07E+4
Te-131	-	-	-	-	-	-	-
Te-132	1.22E+6	5.42E+5	7.90E+5	5.04E+6	-	5.46E+6	6.55E+5
I-130	2.11E+6	4.25E+6	4.68E+8	6.35E+6	-	1.99E+6	2.18E+6
I-131	1.56E+9	1.57E+9	5.21E+11	2.58E+9	-	1.40E+8	8.95E+8
I-132	8.23E-1	1.51E+0	7.02E+1	2.32E+0	-	1.78E+0	6.96E-1
I-133	2.11E+7	2.62E+7	4.85E+9	4.36E+7	-	1.05E+7	9.88E+6
I-134	-	-	-	-	-	-	-
I-135	7.01E+4	1.26E+5	1.12E+7	1.93E+5	-	9.60E+4	5.96E+4
Cs-134	6.78E+10	1.13E+11	-	3.45E+10	1.24E+10	6.00E+8	2.35E+10
Cs-136	3.00E+9	8.28E+9	-	4.41E+9	6.57E+8	2.91E+8	5.37E+9
Cs-137	9.66E+10	9.27E+10	-	3.03E+10	1.09E+10	5.79E+8	1.36E+10
Cs-138	-	-	-	-	-	-	-
Ba-139	2.57E-8	-	-	-	-	1.48E-6	7.45E-10
Ba-140	1.40E+7	1.24E+4	-	4.01E+3	7.34E+3	7.13E+6	8.21E+5
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	2.32E+0	8.09E-1	-	-	-	2.26E+4	2.72E-1
La-142	-	-	-	-	-	3.01E-7	-
Ce-141	2.63E+3	1.31E+3	-	5.74E+2	-	1.63E+6	1.84E+2
Ce-143	2.27E+1	1.22E+4	-	5.15E+0	-	1.80E+5	1.78E+0
Ce-144	1.94E+5	6.11E+4	-	3.38E+4	-	1.60E+7	1.04E+4
Pr-143	8.68E+1	2.60E+1	-	1.40E+1	-	9.36E+4	4.31E+0
Pr-144	-	-	-	-	-	-	-
Nd-147	5.34E+1	4.32E+1	-	2.38E+1	-	6.83E+4	3.35E+0
W-187	3.49E+3	2.06E+3	-	-	-	2.96E+5	9.28E+2
Np-239	2.06E+0	1.48E-1	-	4.28E-1	-	1.10E+4	1.04E-1

Table 3-9

R_{io}, GRASS - GOAT - MILK PATHWAY DOSE FACTORS

INFANT (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 $(\text{m}^2 * \text{mrem}/\text{yr per } \mu\text{Ci}/\text{sec})$ for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	4.86E+3	4.86E+3	4.86E+3	4.86E+3	4.86E+3	4.86E+3
C-14	3.23E+6	6.89E+5	6.89E+5	6.89E+5	6.89E+5	6.89E+5	6.89E+5
Na-24	1.93E+6	1.93E+6	1.93E+6	1.93E+6	1.93E+6	1.93E+6	1.93E+6
P-32	1.92E+11	1.13E+10	-	-	-	2.60E+9	7.45E+9
Cr-51	-	-	1.26E+4	2.76E+3	2.46E+4	5.65E+5	1.93E+4
Mn-54	-	4.67E+6	-	1.04E+6	-	1.72E+6	1.06E+6
Mn-56	-	3.85E-3	-	3.31E-3	-	3.49E-1	6.64E-4
Fe-55	1.76E+6	1.13E+6	-	-	5.55E+5	1.44E+5	3.03E+5
Fe-59	2.93E+6	5.11E+6	-	-	1.51E+6	2.44E+6	2.02E+6
Co-57	-	1.07E+6	-	-	-	3.66E+6	1.75E+6
Co-58	-	2.92E+6	-	-	-	7.26E+6	7.27E+6
Co-60	-	1.06E+7	-	-	-	2.52E+7	2.50E+7
Ni-63	4.19E+9	2.59E+8	-	-	-	1.28E+7	1.45E+8
Ni-65	4.21E-1	4.76E-2	-	-	-	3.62E+0	2.17E-2
Cu-64	-	2.09E+4	-	3.53E+4	-	4.29E+5	9.68E+3
Zn-65	6.66E+8	2.28E+9	-	1.11E+9	-	1.93E+9	1.05E+9
Zn-69	-	-	-	-	-	8.83E-10	-
Br-82	-	-	-	-	-	-	2.33E+7
Br-83	-	-	-	-	-	-	1.19E-1
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	2.66E+9	-	-	-	6.83E+7	1.32E+9
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	2.65E+10	-	-	-	-	5.44E+8	7.58E+8
Sr-90	2.56E+11	-	-	-	-	3.19E+9	6.51E+10
Sr-91	6.17E+5	-	-	-	-	7.31E+5	2.23E+4
Sr-92	9.76E+0	-	-	-	-	1.05E+2	3.63E-1
Y-90	8.16E+1	-	-	-	-	1.13E+5	2.18E+0
Y-91m	-	-	-	-	-	-	-
Y-91	8.80E+3	-	-	-	-	6.31E+5	2.34E+2
Y-92	6.26E-5	-	-	-	-	1.20E+0	1.76E-6
Y-93	2.70E-1	-	-	-	-	2.14E+3	7.36E-3
Zr-95	8.20E+2	1.99E+2	-	2.15E+2	-	9.94E+4	1.42E+2
Zr-97	4.79E-1	8.22E-2	-	8.29E-2	-	5.24E+3	3.76E-2
Nb-95	7.12E+4	2.93E+4	-	2.10E+4	-	2.47E+7	1.69E+4
Nb-97	-	-	-	-	-	4.44E-7	-
Mo-99	-	2.54E+7	-	3.80E+7	-	8.38E+6	4.96E+6
Tc-99m	3.23E+0	6.66E+0	-	7.16E+1	3.48E+0	1.93E+3	8.58E+1
Tc-101	-	-	-	-	-	-	-

Table 3-9

R_{io}, GRASS - GOAT - MILK PATHWAY DOSE FACTORSINFANT (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mrem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	1.04E+3	-	-	2.17E+3	-	1.27E+4	3.49E+2
Ru-105	9.67E-4	-	-	7.10E-3	-	3.85E-1	3.25E-4
Ru-106	2.28E+4	-	-	2.70E+4	-	1.73E+5	2.86E+3
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	4.63E+7	3.38E+7	-	4.84E+7	-	1.75E+9	2.23E+7
Sb-124	2.51E+7	3.70E+5	6.67E+4	-	1.57E+7	7.75E+7	7.79E+6
Sb-125	1.79E+7	1.74E+5	2.24E+4	-	1.13E+7	2.39E+7	3.68E+6
Te-125m	1.81E+7	6.05E+6	6.08E+6	-	-	8.62E+6	2.45E+6
Te-127m	5.05E+7	1.68E+7	1.46E+7	1.25E+8	-	2.04E+7	6.12E+6
Te-127	7.80E+2	2.62E+2	6.35E+2	1.91E+3	-	1.63E+4	1.68E+2
Te-129m	6.71E+7	2.30E+7	2.58E+7	1.68E+8	-	4.01E+7	1.03E+7
Te-129	2.50E-10	-	2.10E-10	6.22E-10	-	1.99E-8	-
Te-131m	4.06E+5	1.63E+5	3.31E+5	1.12E+6	-	2.75E+6	1.34E+5
Te-131	-	-	-	-	-	-	-
Te-132	2.52E+6	1.25E+6	1.85E+6	7.81E+6	-	4.62E+6	1.17E+6
I-130	4.32E+6	9.50E+6	1.07E+9	1.04E+7	-	2.04E+6	3.82E+6
I-131	3.26E+9	3.85E+9	1.26E+12	4.50E+9	-	1.38E+8	1.69E+9
I-132	1.70E+0	3.47E+0	1.62E+2	3.86E+0	-	2.81E+0	1.24E+0
I-133	4.46E+7	6.49E+7	1.18E+10	7.63E+7	-	1.10E+7	1.90E+7
I-134	-	-	1.21E-9	-	-	-	-
I-135	1.45E+5	2.89E+5	2.59E+7	3.23E+5	-	1.05E+5	1.06E+5
Cs-134	1.10E+11	2.04E+11	-	5.25E+10	2.15E+10	5.55E+8	2.06E+10
Cs-136	5.88E+9	1.73E+10	-	6.90E+9	1.41E+9	2.63E+8	6.45E+9
Cs-137	1.54E+11	1.81E+11	-	4.86E+10	1.96E+10	5.64E+8	1.28E+10
Cs-138	-	-	-	-	-	-	-
Ba-139	5.46E-8	-	-	-	-	3.46E-6	1.58E-9
Ba-140	2.89E+7	2.89E+4	-	6.88E+3	1.78E+4	7.10E+6	1.49E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	4.84E+0	1.91E+0	-	-	-	2.24E+4	4.91E-1
La-142	-	-	-	-	-	6.25E-7	-
Ce-141	5.20E+3	3.17E+3	-	9.78E+2	-	1.64E+6	3.73E+2
Ce-143	4.80E+1	3.18E+4	-	9.26E+0	-	1.86E+5	3.62E+0
Ce-144	2.80E+5	1.14E+5	-	4.62E+4	-	1.60E+7	1.56E+4
Pr-143	1.79E+2	6.71E+1	-	2.50E+1	-	9.47E+4	8.89E+0
Pr-144	-	-	-	-	-	-	-
Nd-147	1.06E+2	1.09E+2	-	4.19E+1	-	6.89E+4	6.66E+0
W-187	7.34E+3	5.11E+3	-	-	-	3.00E+5	1.76E+3
Np-239	4.67E+0	3.90E-1	-	7.79E-1	-	1.13E+4	2.21E-1

Table 3-10

R₁₀, GRASS - COW - MEAT PATHWAY DOSE FACTORSADULT (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mrem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	3.25E+2	3.25E+2	3.25E+2	3.25E+2	3.25E+2	3.25E+2
C-14	3.33E+5	6.66E+4	6.66E+4	6.66E+4	6.66E+4	6.66E+4	6.66E+4
Na-24	1.84E-3	1.84E-3	1.84E-3	1.84E-3	1.84E-3	1.84E-3	1.84E-3
P-32	4.65E+9	2.89E+8	-	-	-	5.23E+8	1.80E+8
Cr-51	-	-	4.22E+3	1.56E+3	9.38E+3	1.78E+6	7.07E+3
Mn-54	-	9.15E+6	-	2.72E+6	-	2.80E+7	1.75E+6
Mn-56	-	-	-	-	-	-	-
Fe-55	2.93E+8	2.02E+8	-	-	1.13E+8	1.16E+8	4.72E+7
Fe-59	2.67E+8	6.27E+8	-	-	1.75E+8	2.09E+9	2.40E+8
Co-57	-	5.64E+6	-	-	-	1.43E+8	9.37E+6
Co-58	-	1.83E+7	-	-	-	3.70E+8	4.10E+7
Co-60	-	7.52E+7	-	-	-	1.41E+9	1.66E+8
Ni-63	1.89E+10	1.31E+9	-	-	-	2.73E+8	6.33E+8
Ni-65	-	-	-	-	-	-	-
Cu-64	-	2.95E-7	-	7.45E-7	-	2.52E-5	1.39E-7
Zn-65	3.56E+8	1.13E+9	-	7.57E+8	-	7.13E+8	5.12E+8
Zn-69	-	-	-	-	-	-	-
Br-82	-	-	-	-	-	1.44E+3	1.26E+3
Br-83	-	-	-	-	-	-	-
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	4.87E+8	-	-	-	9.60E+7	2.27E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	3.01E+8	-	-	-	-	4.84E+7	8.65E+6
Sr-90	1.24E+10	-	-	-	-	3.59E+8	3.05E+9
Sr-91	-	-	-	-	-	1.38E-9	-
Sr-92	-	-	-	-	-	-	-
Y-90	1.07E+2	-	-	-	-	1.13E+6	2.86E+0
Y-91m	-	-	-	-	-	-	-
Y-91	1.13E+6	-	-	-	-	6.24E+8	3.03E+4
Y-92	-	-	-	-	-	-	-
Y-93	-	-	-	-	-	2.08E-7	-
Zr-95	1.88E+6	6.04E+5	-	9.48E+5	-	1.91E+9	4.09E+5
Zr-97	1.83E-5	3.69E-6	-	5.58E-6	-	1.14E+0	1.69E-6
Nb-95	2.29E+6	1.28E+6	-	1.26E+6	-	7.75E+9	6.86E+5
Nb-97	-	-	-	-	-	-	-
Mo-99	-	1.09E+5	-	2.46E+5	-	2.52E+5	2.07E+4
Tc-99m	-	-	-	-	-	-	-
Tc-101	-	-	-	-	-	-	-

Table 3-10

R₁₀, GRASS - COW - MEAT PATHWAY DOSE FACTORSADULT (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mrem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	1.06E+8	-	-	4.03E+8	-	1.23E+10	4.55E+7
Ru-105	-	-	-	-	-	-	-
Ru-106	2.80E+9	-	-	5.40E+9	-	1.81E+11	3.54E+8
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	6.69E+6	6.19E+6	-	1.22E+7	-	2.52E+9	3.67E+6
Sb-124	1.98E+7	3.74E+5	4.80E+4	-	1.54E+7	5.62E+8	7.85E+6
Sb-125	1.91E+7	2.13E+5	1.94E+4	-	1.47E+7	2.10E+8	4.54E+6
Te-125m	3.59E+8	1.30E+8	1.08E+8	1.46E+9	-	1.43E+9	4.81E+7
Te-127m	1.12E+9	3.99E+8	2.85E+8	4.53E+9	-	3.74E+9	1.36E+8
Te-127	-	-	-	1.09E-9	-	2.10E-8	-
Te-129m	1.14E+9	4.27E+8	3.93E+8	4.77E+9	-	5.76E+9	1.81E+8
Te-129	-	-	-	-	-	-	-
Te-131m	4.51E+2	2.21E+2	3.50E+2	2.24E+3	-	2.19E+4	1.84E+2
Te-131	-	-	-	-	-	-	-
Te-132	1.40E+6	9.07E+5	1.00E+6	8.73E+6	-	4.29E+7	8.51E+5
I-130	2.35E-6	6.94E-6	5.88E-4	1.08E-5	-	5.98E-6	2.74E-6
I-131	1.08E+7	1.54E+7	5.05E+9	2.64E+7	-	4.07E+6	8.83E+6
I-132	-	-	-	-	-	-	-
I-133	4.30E-1	7.47E-1	1.10E+2	1.30E+0	-	6.72E-1	2.28E-1
I-134	-	-	-	-	-	-	-
I-135	-	-	-	-	-	-	-
Cs-134	6.57E+8	1.56E+9	-	5.06E+8	1.68E+8	2.74E+7	1.28E+9
Cs-136	1.18E+7	4.67E+7	-	2.60E+7	3.56E+6	5.30E+6	3.36E+7
Cs-137	8.72E+8	1.19E+9	-	4.05E+8	1.35E+8	2.31E+7	7.81E+8
Cs-138	-	-	-	-	-	-	-
Ba-139	-	-	-	-	-	-	-
Ba-140	2.88E+7	3.61E+4	-	1.23E+4	2.07E+4	5.92E+7	1.89E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	3.60E-2	1.81E-2	-	-	-	1.33E+3	4.79E-3
La-142	-	-	-	-	-	-	-
Ce-141	1.40E+4	9.48E+3	-	4.40E+3	-	3.62E+7	1.08E+3
Ce-143	2.09E-2	1.55E+1	-	6.80E-3	-	5.78E+2	1.71E-3
Ce-144	1.46E+6	6.09E+5	-	3.61E+5	-	4.93E+8	7.83E+4
Pr-143	2.13E+4	8.54E+3	-	4.93E+3	-	9.33E+7	1.06E+3
Pr-144	-	-	-	-	-	-	-
Nd-147	7.08E+3	8.18E+3	-	4.78E+3	-	3.93E+7	4.90E+2
W-187	2.16E-2	1.81E-2	-	-	-	5.92E+0	6.32E-3
Np-239	2.56E-1	2.51E-2	-	7.84E-2	-	5.15E+3	1.39E-2

Table 3-10

R₁₀, GRASS - COW - MEAT PATHWAY DOSE FACTORSTEENAGER (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
($\text{m}^2 \cdot \text{mrem}/\text{yr}$ per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	1.94E+2	1.94E+2	1.94E+2	1.94E+2	1.94E+2	1.94E+2
C-14	2.81E+5	5.62E+4	5.62E+4	5.62E+4	5.62E+4	5.62E+4	5.62E+4
Na-24	1.47E-3	1.47E-3	1.47E-3	1.47E-3	1.47E-3	1.47E-3	1.47E-3
P-32	3.93E+9	2.44E+8	-	-	-	3.30E+8	1.52E+8
Cr-51	-	-	3.14E+3	1.24E+3	8.07E+3	9.50E+5	5.65E+3
Mn-54	-	6.98E+6	-	2.08E+6	-	1.43E+7	1.38E+6
Mn-56	-	-	-	-	-	-	-
Fe-55	2.38E+8	1.69E+8	-	-	1.07E+8	7.30E+7	3.93E+7
Fe-59	2.13E+8	4.98E+8	-	-	1.57E+8	1.18E+9	1.92E+8
Co-57	-	4.53E+6	-	-	-	8.45E+7	7.59E+6
Co-58	-	1.41E+7	-	-	-	1.94E+8	3.25E+7
Co-60	-	5.83E+7	-	-	-	7.60E+8	1.31E+8
Ni-63	1.52E+10	1.07E+9	-	-	-	1.71E+8	5.15E+8
Ni-65	-	-	-	-	-	-	-
Cu-64	-	2.41E-7	-	6.10E-7	-	1.87E-5	1.13E-7
Zn-65	2.50E+8	8.69E+8	-	5.56E+8	-	3.68E+8	4.05E+8
Zn-69	-	-	-	-	-	-	-
Br-82	-	-	-	-	-	-	9.98E+2
Br-83	-	-	-	-	-	-	-
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	4.06E+8	-	-	-	6.01E+7	1.91E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	2.54E+8	-	-	-	-	3.03E+7	7.29E+6
Sr-90	8.05E+9	-	-	-	-	2.26E+8	1.99E+9
Sr-91	-	-	-	-	-	1.10E-9	-
Sr-92	-	-	-	-	-	-	-
Y-90	8.98E+1	-	-	-	-	7.40E+5	2.42E+0
Y-91m	-	-	-	-	-	-	-
Y-91	9.56E+5	-	-	-	-	3.92E+8	2.56E+4
Y-92	-	-	-	-	-	-	-
Y-93	-	-	-	-	-	1.69E-7	-
Zr-95	1.51E+6	4.76E+5	-	6.99E+5	-	1.10E+9	3.27E+5
Zr-97	1.53E-5	3.02E-6	-	4.58E-6	-	8.18E-1	1.39E-6
Nb-95	1.79E+6	9.94E+5	-	9.64E+5	-	4.25E+9	5.47E+5
Nb-97	-	-	-	-	-	-	-
Mo-99	-	8.98E+4	-	2.06E+5	-	1.61E+5	1.71E+4
Tc-99m	-	-	-	-	-	-	-
Tc-101	-	-	-	-	-	-	-

Table 3-10

R₁₀, GRASS - COW - MEAT PATHWAY DOSE FACTORSTEENAGER (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mrem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	8.60E+7	-	-	3.03E+8	-	7.18E+9	3.68E+7
Ru-105	-	-	-	-	-	-	-
Ru-106	2.36E+9	-	-	4.55E+9	-	1.13E+11	2.97E+8
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	5.06E+6	4.79E+6	-	9.14E+6	-	1.35E+9	2.91E+6
Sb-124	1.62E+7	2.98E+5	3.67E+4	-	1.41E+7	3.26E+8	6.31E+6
Sb-125	1.56E+7	1.71E+5	1.49E+4	-	1.37E+7	1.22E+8	3.66E+6
Te-125m	3.03E+8	1.09E+8	8.47E+7	-	-	8.94E+8	4.05E+7
Te-127m	9.41E+8	3.34E+8	2.24E+8	3.82E+9	-	2.35E+9	1.12E+8
Te-127	-	-	-	-	-	1.75E-8	-
Te-129m	9.58E+8	3.56E+8	3.09E+8	4.01E+9	-	3.60E+9	1.52E+8
Te-129	-	-	-	-	-	-	-
Te-131m	3.76E+2	1.80E+2	2.71E+2	1.88E+3	-	1.45E+4	1.50E+2
Te-131	-	-	-	-	-	-	-
Te-132	1.15E+6	7.26E+5	7.66E+5	6.97E+6	-	2.30E+7	6.84E+5
I-130	1.89E-6	5.48E-6	4.47E-4	8.44E-6	-	4.21E-6	2.19E-6
I-131	8.95E+6	1.25E+7	3.66E+9	2.16E+7	-	2.48E+6	6.73E+6
I-132	-	-	-	-	-	-	-
I-133	3.59E-1	6.10E-1	8.51E+1	1.07E+0	-	4.61E-1	1.86E-1
I-134	-	-	-	-	-	-	-
I-135	-	-	-	-	-	-	-
Cs-134	5.23E+8	1.23E+9	-	3.91E+8	1.49E+8	1.53E+7	5.71E+8
Cs-136	9.22E+6	3.63E+7	-	1.97E+7	3.11E+6	2.92E+6	2.44E+7
Cs-137	7.24E+8	9.63E+8	-	3.28E+8	1.27E+8	1.37E+7	3.36E+8
Cs-138	-	-	-	-	-	-	-
Ba-139	-	-	-	-	-	-	-
Ba-140	2.38E+7	2.91E+4	-	9.88E+3	1.96E+4	3.67E+7	1.53E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	2.96E-2	1.45E-2	-	-	-	8.35E+2	3.87E-3
La-142	-	-	-	-	-	-	-
Ce-141	1.18E+4	7.86E+3	-	3.70E+3	-	2.25E+7	9.03E+2
Ce-143	1.76E-2	1.28E+1	-	5.74E-3	-	3.85E+2	1.43E-3
Ce-144	1.23E+6	5.08E+5	-	3.04E+5	-	3.09E+8	6.60E+4
Pr-143	1.79E+4	7.15E+3	-	4.16E+3	-	5.90E+7	8.92E+2
Pr-144	-	-	-	-	-	-	-
Nd-147	6.24E+3	6.79E+3	-	3.98E+3	-	2.45E+7	4.06E+2
W-187	1.81E-2	1.48E-2	-	-	-	3.99E+0	5.17E-3
Np-239	2.23E-1	2.11E-2	-	6.61E-2	-	3.39E+3	1.17E-2

Table 3-10

R₁₀, GRASS - COW - MEAT PATHWAY DOSE FACTORSCHILD (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mrem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	2.34E+2	2.34E+2	2.34E+2	2.34E+2	2.34E+2	2.34E+2
C-14	5.29E+5	1.06E+5	1.06E+5	1.06E+5	1.06E+5	1.06E+5	1.06E+5
Na-24	2.34E-3	2.34E-3	2.34E-3	2.34E-3	2.34E-3	2.34E-3	2.34E-3
P-32	7.41E+9	3.47E+8	-	-	-	2.05E+8	2.86E+8
Cr-51	-	-	4.89E+3	1.34E+3	8.93E+3	4.67E+5	8.81E+3
Mn-54	-	7.99E+6	-	2.24E+6	-	6.70E+6	2.13E+6
Mn-56	-	-	-	-	-	-	-
Fe-55	4.57E+8	2.42E+8	-	-	1.37E+8	4.49E+7	7.51E+7
Fe-59	3.78E+8	6.12E+8	-	-	1.77E+8	6.37E+8	3.05E+8
Co-57	-	5.92E+6	-	-	-	4.85E+7	1.20E+7
Co-58	-	1.65E+7	-	-	-	9.60E+7	5.04E+7
Co-60	-	6.93E+7	-	-	-	3.84E+8	2.04E+8
Ni-63	2.91E+10	1.56E+9	-	-	-	1.05E+8	9.91E+8
Ni-65	-	-	-	-	-	-	-
Cu-64	-	3.24E-7	-	7.82E-7	-	1.52E-5	1.96E-7
Zn-65	3.75E+8	1.00E+9	-	6.30E+8	-	1.76E+8	6.22E+8
Zn-69	-	-	-	-	-	-	-
Br-82	-	-	-	-	-	-	1.56E+3
Br-83	-	-	-	-	-	-	-
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	5.76E+8	-	-	-	3.71E+7	3.54E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	4.82E+8	-	-	-	-	1.86E+7	1.38E+7
Sr-90	1.04E+10	-	-	-	-	1.40E+8	2.64E+9
Sr-91	-	-	-	-	-	1.01E-9	-
Sr-92	-	-	-	-	-	-	-
Y-90	1.70E+2	-	-	-	-	4.84E+5	4.55E+0
Y-91m	-	-	-	-	-	-	-
Y-91	1.81E+6	-	-	-	-	2.41E+8	4.83E+4
Y-92	-	-	-	-	-	-	-
Y-93	-	-	-	-	-	1.55E-7	-
Zr-95	2.68E+6	5.89E+5	-	8.43E+5	-	6.14E+8	5.24E+5
Zr-97	2.84E-5	4.10E-6	-	5.89E-6	-	6.21E-1	2.42E-6
Nb-95	3.09E+6	1.20E+6	-	1.13E+6	-	2.23E+9	8.61E+5
Nb-97	-	-	-	-	-	-	-
Mo-99	-	1.25E+5	-	2.67E+5	-	1.03E+5	3.09E+4
Tc-99m	-	-	-	-	-	-	-
Tc-101	-	-	-	-	-	-	-

Table 3-10

R₁₀, GRASS - COW - MEAT PATHWAY DOSE FACTORSCHILD (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mrem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	1.56E+8	-	-	3.92E+8	-	4.02E+9	5.98E+7
Ru-105	-	-	-	-	-	-	-
Ru-106	4.44E+9	-	-	5.99E+9	-	6.90E+10	5.54E+8
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	8.40E+6	5.67E+6	-	1.06E+7	-	6.75E+8	4.53E+6
Sb-124	2.93E+7	3.80E+5	6.46E+4	-	1.62E+7	1.83E+8	1.03E+7
Sb-125	2.85E+7	2.19E+5	2.64E+4	-	1.59E+7	6.80E+7	5.96E+6
Te-125m	5.69E+8	1.54E+8	1.60E+8	-	-	5.49E+8	7.59E+7
Te-127m	1.77E+9	4.78E+8	4.24E+8	5.06E+9	-	1.44E+9	2.11E+8
Te-127	-	-	-	1.21E-9	-	1.66E-8	-
Te-129m	1.81E+9	5.04E+8	5.82E+8	5.30E+9	-	2.20E+9	2.80E+8
Te-129	-	-	-	-	-	-	-
Te-131m	7.00E+2	2.42E+2	4.98E+2	2.34E+3	-	9.82E+3	2.58E+2
Te-131	-	-	-	-	-	-	-
Te-132	2.09E+6	9.27E+5	1.35E+6	8.60E+6	-	9.33E+6	1.12E+6
I-130	3.39E-6	6.85E-6	7.54E-4	1.02E-5	-	3.20E-6	3.53E-6
I-131	1.66E+7	1.67E+7	5.52E+9	2.74E+7	-	1.49E+6	9.49E+6
I-132	-	-	-	-	-	-	-
I-133	6.68E-1	8.26E-1	1.53E+2	1.38E+0	-	3.33E-1	3.12E-1
I-134	-	-	-	-	-	-	-
I-135	-	-	-	-	-	-	-
Cs-134	9.22E+8	1.51E+9	-	4.69E+8	1.68E+8	8.15E+6	3.19E+8
Cs-136	1.59E+7	4.37E+7	-	2.33E+7	3.47E+6	1.54E+6	2.83E+7
Cs-137	1.33E+9	1.28E+9	-	4.16E+8	1.50E+8	7.99E+6	1.88E+8
Cs-138	-	-	-	-	-	-	-
Ba-139	-	-	-	-	-	-	-
Ba-140	4.39E+7	3.85E+4	-	1.25E+4	2.29E+4	2.22E+7	2.56E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	5.41E-2	1.89E-2	-	-	-	5.27E+2	6.38E-3
La-142	-	-	-	-	-	-	-
Ce-141	2.22E+4	1.11E+4	-	4.84E+3	-	1.38E+7	1.64E+3
Ce-143	3.30E-2	1.79E+1	-	7.51E-3	-	2.62E+2	2.59E-3
Ce-144	2.32E+6	7.26E+5	-	4.02E+5	-	1.89E+8	1.24E+5
Pr-143	3.39E+4	1.02E+4	-	5.51E+3	-	3.66E+7	1.68E+3
Pr-144	-	-	-	-	-	-	-
Nd-147	1.17E+4	9.48E+3	-	5.20E+3	-	1.50E+7	7.34E+2
W-187	3.36E-2	1.99E-2	-	-	-	2.79E+0	8.92E-3
Np-239	4.20E-1	3.02E-2	-	8.73E-2	-	2.23E+3	2.12E-2

Table 3-11

R_{io}, VEGETATION PATHWAY DOSE FACTORS

ADULT (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 $(\text{m}^2 * \text{mrem}/\text{yr per } \mu\text{Ci}/\text{sec})$ for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	2.26E+3	2.26E+3	2.26E+3	2.26E+3	2.26E+3	2.26E+3
C-14	8.97E+5	1.79E+5	1.79E+5	1.79E+5	1.79E+5	1.79E+5	1.79E+5
Na-24	2.76E+5	2.76E+5	2.76E+5	2.76E+5	2.76E+5	2.76E+5	2.76E+5
P-32	1.40E+9	8.73E+7	-	-	-	1.58E+8	5.42E+7
Cr-51	-	-	2.79E+4	1.03E+4	6.19E+4	1.17E+7	4.66E+4
Mn-54	-	3.11E+8	-	9.27E+7	-	9.54E+8	5.94E+7
Mn-56	-	1.61E+1	-	2.04E+1	-	5.13E+2	2.85E+0
Fe-55	2.09E+8	1.45E+8	-	-	8.06E+7	8.29E+7	3.37E+7
Fe-59	1.27E+8	2.99E+8	-	-	8.35E+7	9.96E+8	1.14E+8
Co-57	-	1.17E+7	-	-	-	2.97E+8	1.95E+7
Co-58	-	3.09E+7	-	-	-	6.26E+8	6.92E+7
Co-60	-	1.67E+8	-	-	-	3.14E+9	3.69E+8
Ni-63	1.04E+10	7.21E+8	-	-	-	1.50E+8	3.49E+8
Ni-65	6.15E+1	7.99E+0	-	-	-	2.03E+2	3.65E+0
Cu-64	-	9.27E+3	-	2.34E+4	-	7.90E+5	4.35E+3
Zn-65	3.17E+8	1.01E+9	-	6.75E+8	-	6.36E+8	4.56E+8
Zn-69	8.75E-6	1.67E-5	-	1.09E-5	-	2.51E-6	1.16E-6
Br-82	-	-	-	-	-	1.73E+6	1.51E+6
Br-83	-	-	-	-	-	4.63E+0	3.21E+0
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	2.19E+8	-	-	-	4.32E+7	1.02E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	9.96E+9	-	-	-	-	1.60E+9	2.86E+8
Sr-90	6.05E+11	-	-	-	-	1.75E+10	1.48E+11
Sr-91	3.20E+5	-	-	-	-	1.52E+6	1.29E+4
Sr-92	4.27E+2	-	-	-	-	8.46E+3	1.85E+1
Y-90	1.33E+4	-	-	-	-	1.41E+8	3.56E+2
Y-91m	5.83E-9	-	-	-	-	1.71E-8	-
Y-91	5.13E+6	-	-	-	-	2.82E+9	1.37E+5
Y-92	9.01E-1	-	-	-	-	1.58E+4	2.63E-2
Y-93	1.74E+2	-	-	-	-	5.52E+6	4.80E+0
Zr-95	1.19E+6	3.81E+5	-	5.97E+5	-	1.21E+9	2.58E+5
Zr-97	3.33E+2	6.73E+1	-	1.02E+2	-	2.08E+7	3.08E+1
Nb-95	1.42E+5	7.91E+4	-	7.81E+4	-	4.80E+8	4.25E+4
Nb-97	2.90E-6	7.34E-7	-	8.56E-7	-	2.71E-3	2.68E-7
Mo-99	-	6.25E+6	-	1.41E+7	-	1.45E+7	1.19E+6
Tc-99m	3.06E+0	8.66E+0	-	1.32E+2	4.24E+0	5.12E+3	1.10E+2
Tc-101	-	-	-	-	-	-	-

Table 3-11

R_{io}, VEGETATION PATHWAY DOSE FACTORS
 ADULT (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 ($\text{m}^2 \cdot \text{mrem}/\text{yr}$ per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	4.80E+6	-	-	1.83E+7	-	5.61E+8	2.07E+6
Ru-105	5.39E+1	-	-	6.96E+2	-	3.30E+4	2.13E+1
Ru-106	1.93E+8	-	-	3.72E+8	-	1.25E+10	2.44E+7
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	1.06E+7	9.76E+6	-	1.92E+7	-	3.98E+9	5.80E+6
Sb-124	1.04E+8	1.96E+6	2.52E+5	-	8.08E+7	2.95E+9	4.11E+7
Sb-125	1.36E+8	1.52E+6	1.39E+5	-	1.05E+8	1.50E+9	3.25E+7
Te-125m	9.66E+7	3.50E+7	2.90E+7	3.93E+8	-	3.86E+8	1.29E+7
Te-127m	3.49E+8	1.25E+8	8.92E+7	1.42E+9	-	1.17E+9	4.26E+7
Te-127	5.76E+3	2.07E+3	4.27E+3	2.35E+4	-	4.54E+5	1.25E+3
Te-129m	2.55E+8	9.50E+7	8.75E+7	1.06E+9	-	1.28E+9	4.03E+7
Te-129	6.65E-4	2.50E-4	5.10E-4	2.79E-3	-	5.02E-4	1.62E-4
Te-131m	9.12E+5	4.46E+5	7.06E+5	4.52E+6	-	4.43E+7	3.72E+5
Te-131	-	-	-	-	-	-	-
Te-132	4.29E+6	2.77E+6	3.06E+6	2.67E+7	-	1.31E+8	2.60E+6
I-130	3.96E+5	1.17E+6	9.90E+7	1.82E+6	-	1.01E+6	4.61E+5
I-131	8.09E+7	1.16E+8	3.79E+10	1.98E+8	-	3.05E+7	6.63E+7
I-132	5.74E+1	1.54E+2	5.38E+3	2.45E+2	-	2.89E+1	5.38E+1
I-133	2.12E+6	3.69E+6	5.42E+8	6.44E+6	-	3.31E+6	1.12E+6
I-134	1.06E-4	2.88E-4	5.00E-3	4.59E-4	-	2.51E-7	1.03E-4
I-135	4.08E+4	1.07E+5	7.04E+6	1.71E+5	-	1.21E+5	3.94E+4
Cs-134	4.66E+9	1.11E+10	-	3.59E+9	1.19E+9	1.94E+8	9.07E+9
Cs-136	4.20E+7	1.66E+8	-	9.24E+7	1.27E+7	1.89E+7	1.19E+8
Cs-137	6.36E+9	8.70E+9	-	2.95E+9	9.81E+8	1.68E+8	5.70E+9
Cs-138	-	-	-	-	-	-	-
Ba-139	2.95E-2	2.10E-5	-	1.96E-5	1.19E-5	5.23E-2	8.64E-4
Ba-140	1.29E+8	1.62E+5	-	5.49E+4	9.25E+4	2.65E+8	8.43E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	1.97E+3	9.92E+2	-	-	-	7.28E+7	2.62E+2
La-142	1.40E-4	6.35E-5	-	-	-	4.64E-1	1.58E-5
Ce-141	1.96E+5	1.33E+5	-	6.17E+4	-	5.08E+8	1.51E+4
Ce-143	1.00E+3	7.42E+5	-	3.26E+2	-	2.77E+7	8.21E+1
Ce-144	3.29E+7	1.38E+7	-	8.16E+6	-	1.11E+10	1.77E+6
Pr-143	6.34E+4	2.54E+4	-	1.47E+4	-	2.78E+8	3.14E+3
Pr-144	-	-	-	-	-	-	-
Nd-147	3.34E+4	3.86E+4	-	2.25E+4	-	1.85E+8	2.31E+3
W-187	3.82E+4	3.19E+4	-	-	-	1.05E+7	1.12E+4
Np-239	1.42E+3	1.40E+2	-	4.37E+2	-	2.87E+7	7.72E+1

Table 3-11

R_{io}, VEGETATION PATHWAY DOSE FACTORS
 TEENAGER (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 ($\text{m}^2 * \text{mrem}/\text{yr}$ per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	2.59E+3	2.59E+3	2.59E+3	2.59E+3	2.59E+3	2.59E+3
C-14	1.45E+6	2.91E+5	2.91E+5	2.91E+5	2.91E+5	2.91E+5	2.91E+5
Na-24	2.45E+5	2.45E+5	2.45E+5	2.45E+5	2.45E+5	2.45E+5	2.45E+5
P-32	1.61E+9	9.96E+7	-	-	-	1.35E+8	6.23E+7
Cr-51	-	-	3.44E+4	1.36E+4	8.85E+4	1.04E+7	6.20E+4
Mn-54	-	4.52E+8	-	1.35E+8	-	9.27E+8	8.97E+7
Mn-56	-	1.45E+1	-	1.83E+1	-	9.54E+2	2.58E+0
Fe-55	3.25E+8	2.31E+8	-	-	1.46E+8	9.98E+7	5.38E+7
Fe-59	1.81E+8	4.22E+8	-	-	1.33E+8	9.98E+8	1.63E+8
Co-57	-	1.79E+7	-	-	-	3.34E+8	3.00E+7
Co-58	-	4.38E+7	-	-	-	6.04E+8	1.01E+8
Co-60	-	2.49E+8	-	-	-	3.24E+9	5.60E+8
Ni-63	1.61E+10	1.13E+9	-	-	-	1.81E+8	5.45E+8
Ni-65	5.73E+1	7.32E+0	-	-	-	3.97E+2	3.33E+0
Cu-64	-	8.40E+3	-	2.12E+4	-	6.51E+5	3.95E+3
Zn-65	4.24E+8	1.47E+9	-	9.41E+8	-	6.23E+8	6.86E+8
Zn-69	8.19E-6	1.56E-5	-	1.02E-5	-	2.88E-5	1.09E-6
Br-82	-	-	-	-	-	-	1.33E+6
Br-83	-	-	-	-	-	-	3.01E+0
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	2.73E+8	-	-	-	4.05E+7	1.28E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	1.51E+10	-	-	-	-	1.80E+9	4.33E+8
Sr-90	7.51E+11	-	-	-	-	2.11E+10	1.85E+11
Sr-91	2.99E+5	-	-	-	-	1.36E+6	1.19E+4
Sr-92	3.97E+2	-	-	-	-	1.01E+4	1.69E+1
Y-90	1.24E+4	-	-	-	-	1.02E+8	3.34E+2
Y-91m	5.43E-9	-	-	-	-	2.56E-7	-
Y-91	7.87E+6	-	-	-	-	3.23E+9	2.11E+5
Y-92	8.47E-1	-	-	-	-	2.32E+4	2.45E-2
Y-93	1.63E+2	-	-	-	-	4.98E+6	4.47E+0
Zr-95	1.74E+6	5.49E+5	-	8.07E+5	-	1.27E+9	3.78E+5
Zr-97	3.09E+2	6.11E+1	-	9.26E+1	-	1.65E+7	2.81E+1
Nb-95	1.92E+5	1.06E+5	-	1.03E+5	-	4.55E+8	5.86E+4
Nb-97	2.69E-6	6.67E-7	-	7.80E-7	-	1.59E-2	2.44E-7
Mo-99	-	5.74E+6	-	1.31E+7	-	1.03E+7	1.09E+6
Tc-99m	2.70E+0	7.54E+0	-	1.12E+2	4.19E+0	4.95E+3	9.77E+1
Tc-101	-	-	-	-	-	-	-

Table 3-11

R_{io}, VEGETATION PATHWAY DOSE FACTORS
 TEENAGER (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 ($\text{m}^2 * \text{mrem}/\text{yr}$ per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	6.87E+6	-	-	2.42E+7	-	5.74E+8	2.94E+6
Ru-105	5.00E+1	-	-	6.31E+2	-	4.04E+4	1.94E+1
Ru-106	3.09E+8	-	-	5.97E+8	-	1.48E+10	3.90E+7
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	1.52E+7	1.44E+7	-	2.74E+7	-	4.04E+9	8.74E+6
Sb-124	1.55E+8	2.85E+6	3.51E+5	-	1.35E+8	3.11E+9	6.03E+7
Sb-125	2.14E+8	2.34E+6	2.04E+5	-	1.88E+8	1.66E+9	5.00E+7
Te-125m	1.48E+8	5.34E+7	4.14E+7	-	-	4.37E+8	1.98E+7
Te-127m	5.51E+8	1.96E+8	1.31E+8	2.24E+9	-	1.37E+9	6.56E+7
Te-127	5.43E+3	1.92E+3	3.74E+3	2.20E+4	-	4.19E+5	1.17E+3
Te-129m	3.67E+8	1.36E+8	1.18E+8	1.54E+9	-	1.38E+9	5.81E+7
Te-129	6.22E-4	2.32E-4	4.45E-4	2.61E-3	-	3.40E-3	1.51E-4
Te-131m	8.44E+5	4.05E+5	6.09E+5	4.22E+6	-	3.25E+7	3.38E+5
Te-131	-	-	-	-	-	-	-
Te-132	3.90E+6	2.47E+6	2.60E+6	2.37E+7	-	7.82E+7	2.32E+6
I-130	3.54E+5	1.02E+6	8.35E+7	1.58E+6	-	7.87E+5	4.09E+5
I-131	7.70E+7	1.08E+8	3.14E+10	1.85E+8	-	2.13E+7	5.79E+7
I-132	5.18E+1	1.36E+2	4.57E+3	2.14E+2	-	5.91E+1	4.87E+1
I-133	1.97E+6	3.34E+6	4.66E+8	5.86E+6	-	2.53E+6	1.02E+6
I-134	9.59E-5	2.54E-4	4.24E-3	4.01E-4	-	3.35E-6	9.13E-5
I-135	3.68E+4	9.48E+4	6.10E+6	1.50E+5	-	1.05E+5	3.52E+4
Cs-134	7.09E+9	1.67E+10	-	5.30E+9	2.02E+9	2.08E+8	7.74E+9
Cs-136	4.29E+7	1.69E+8	-	9.19E+7	1.45E+7	1.36E+7	1.13E+8
Cs-137	1.01E+10	1.35E+10	-	4.59E+9	1.78E+9	1.92E+8	4.69E+9
Cs-138	-	-	-	-	-	-	-
Ba-139	2.77E-2	1.95E-5	-	1.84E-5	1.34E-5	2.47E-1	8.08E-4
Ba-140	1.38E+8	1.69E+5	-	5.75E+4	1.14E+5	2.13E+8	8.91E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	1.80E+3	8.84E+2	-	-	-	5.08E+7	2.35E+2
La-142	1.28E-4	5.69E-5	-	-	-	1.73E+0	1.42E-5
Ce-141	2.82E+5	1.88E+5	-	8.86E+4	-	5.38E+8	2.16E+4
Ce-143	9.37E+2	6.82E+5	-	3.06E+2	-	2.05E+7	7.62E+1
Ce-144	5.27E+7	2.18E+7	-	1.30E+7	-	1.33E+10	2.83E+6
Pr-143	7.12E+4	2.84E+4	-	1.65E+4	-	2.34E+8	3.55E+3
Pr-144	-	-	-	-	-	-	-
Nd-147	3.63E+4	3.94E+4	-	2.32E+4	-	1.42E+8	2.36E+3
W-187	3.55E+4	2.90E+4	-	-	-	7.84E+6	1.02E+4
Np-239	1.38E+3	1.30E+2	-	4.09E+2	-	2.10E+7	7.24E+1

Table 3-11

R_{io}, VEGETATION PATHWAY DOSE FACTORS

CHILD (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 (m² * mrem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	4.01E+3	4.01E+3	4.01E+3	4.01E+3	4.01E+3	4.01E+3
C-14	3.50E+6	7.01E+5	7.01E+5	7.01E+5	7.01E+5	7.01E+5	7.01E+5
Na-24	3.83E+5	3.83E+5	3.83E+5	3.83E+5	3.83E+5	3.83E+5	3.83E+5
P-32	3.37E+9	1.58E+8	-	-	-	9.30E+7	1.30E+8
Cr-51	-	-	6.54E+4	1.79E+4	1.19E+5	6.25E+6	1.18E+5
Mn-54	-	6.61E+8	-	1.85E+8	-	5.55E+8	1.76E+8
Mn-56	-	1.90E+1	-	2.29E+1	-	2.75E+3	4.28E+0
Fe-55	8.00E+8	4.24E+8	-	-	2.40E+8	7.86E+7	1.31E+8
Fe-59	4.01E+8	6.49E+8	-	-	1.88E+8	6.76E+8	3.23E+8
Co-57	-	2.99E+7	-	-	-	2.45E+8	6.04E+7
Co-58	-	6.47E+7	-	-	-	3.77E+8	1.98E+8
Co-60	-	3.78E+8	-	-	-	2.10E+9	1.12E+9
Ni-63	3.95E+10	2.11E+9	-	-	-	1.42E+8	1.34E+9
Ni-65	1.05E+2	9.89E+0	-	-	-	1.21E+3	5.77E+0
Cu-64	-	1.11E+4	-	2.68E+4	-	5.20E+5	6.69E+3
Zn-65	8.12E+8	2.16E+9	-	1.36E+9	-	3.80E+8	1.35E+9
Zn-69	1.51E-5	2.18E-5	-	1.32E-5	-	1.38E-3	2.02E-6
Br-82	-	-	-	-	-	-	2.04E+6
Br-83	-	-	-	-	-	-	5.55E+0
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	4.52E+8	-	-	-	2.91E+7	2.78E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	3.59E+10	-	-	-	-	1.39E+9	1.03E+9
Sr-90	1.24E+12	-	-	-	-	1.67E+10	3.15E+11
Sr-91	5.50E+5	-	-	-	-	1.21E+6	2.08E+4
Sr-92	7.28E+2	-	-	-	-	1.38E+4	2.92E+1
Y-90	2.30E+4	-	-	-	-	6.56E+7	6.17E+2
Y-91m	9.94E-9	-	-	-	-	1.95E-5	-
Y-91	1.87E+7	-	-	-	-	2.49E+9	5.01E+5
Y-92	1.56E+0	-	-	-	-	4.51E+4	4.46E-2
Y-93	3.01E+2	-	-	-	-	4.48E+6	8.25E+0
Zr-95	3.90E+6	8.58E+5	-	1.23E+6	-	8.95E+8	7.64E+5
Zr-97	5.64E+2	8.15E+1	-	1.17E+2	-	1.23E+7	4.81E+1
Nb-95	4.10E+5	1.59E+5	-	1.50E+5	-	2.95E+8	1.14E+5
Nb-97	4.90E-6	8.85E-7	-	9.82E-7	-	2.73E-1	4.13E-7
Mo-99	-	7.83E+6	-	1.67E+7	-	6.48E+6	1.94E+6
Tc-99m	4.65E+0	9.12E+0	-	1.33E+2	4.63E+0	5.19E+3	1.51E+2
Tc-101	-	-	-	-	-	-	-

Table 3-11

R_{io}, VEGETATION PATHWAY DOSE FACTORS

CHILD (mrem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 $(\text{m}^2 * \text{mrem}/\text{yr per } \mu\text{Ci}/\text{sec})$ for others

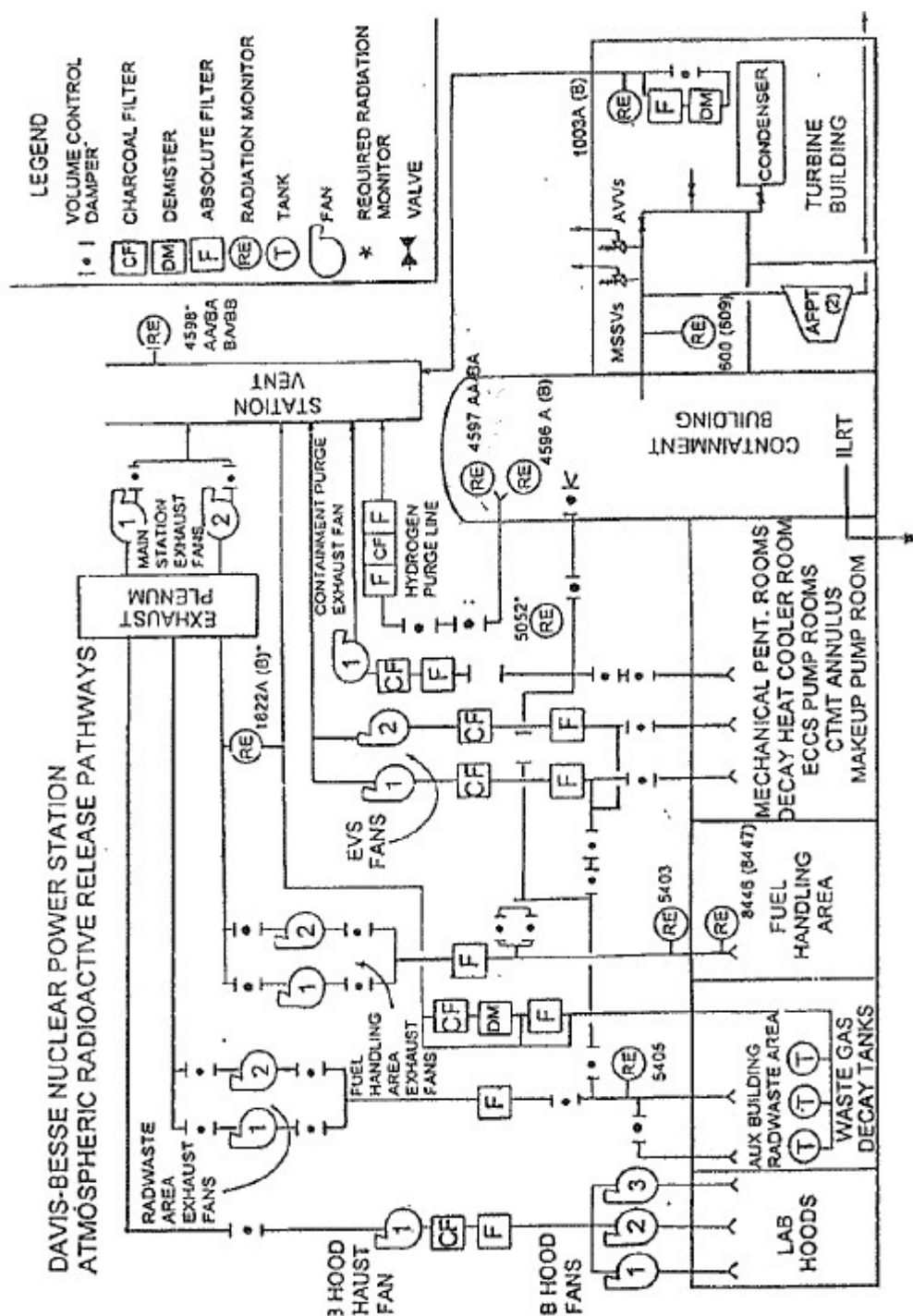
<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	1.55E+7	-	-	3.89E+7	-	3.99E+8	5.94E+6
Ru-105	9.17E+1	-	-	8.06E+2	-	5.98E+4	3.33E+1
Ru-106	7.45E+8	-	-	1.01E+9	-	1.16E+10	9.30E+7
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	3.22E+7	2.17E+7	-	4.05E+7	-	2.58E+9	1.74E+7
Sb-124	3.52E+8	4.57E+6	7.78E+5	-	1.96E+8	2.20E+9	1.23E+8
Sb-125	4.99E+8	3.85E+6	4.62E+5	-	2.78E+8	1.19E+9	1.05E+8
Te-125m	3.51E+8	9.50E+7	9.84E+7	-	-	3.38E+8	4.67E+7
Te-127m	1.32E+9	3.56E+8	3.16E+8	3.77E+9	-	1.07E+9	1.57E+8
Te-127	1.00E+4	2.70E+3	6.93E+3	2.85E+4	-	3.91E+5	2.15E+3
Te-129m	8.54E+8	2.39E+8	2.75E+8	2.51E+9	-	1.04E+9	1.33E+8
Te-129	1.15E-3	3.22E-4	8.22E-4	3.37E-3	-	7.17E-2	2.74E-4
Te-131m	1.54E+6	5.33E+5	1.10E+6	5.16E+6	-	2.16E+7	5.68E+5
Te-131	-	-	-	-	-	-	-
Te-132	6.98E+6	3.09E+6	4.50E+6	2.87E+7	-	3.11E+7	3.73E+6
I-130	6.21E+5	1.26E+6	1.38E+8	1.88E+6	-	5.87E+5	6.47E+5
I-131	1.43E+8	1.44E+8	4.76E+10	2.36E+8	-	1.28E+7	8.18E+7
I-132	9.20E+1	1.69E+2	7.84E+3	2.59E+2	-	1.99E+2	7.77E+1
I-133	3.59E+6	4.44E+6	8.25E+8	7.40E+6	-	1.79E+6	1.68E+6
I-134	1.70E-4	3.16E-4	7.28E-3	4.84E-4	-	2.10E-4	1.46E-4
I-135	6.54E+4	1.18E+5	1.04E+7	1.81E+5	-	8.98E+4	5.57E+4
Cs-134	1.60E+10	2.63E+10	-	8.14E+9	2.92E+9	1.42E+8	5.54E+9
Cs-136	8.06E+7	2.22E+8	-	1.18E+8	1.76E+7	7.79E+6	1.43E+8
Cs-137	2.39E+10	2.29E+10	-	7.46E+9	2.68E+9	1.43E+8	3.38E+9
Cs-138	-	-	-	-	-	-	-
Ba-139	5.11E-2	2.73E-5	-	2.38E-5	1.61E-5	2.95E+0	1.48E-3
Ba-140	2.77E+8	2.43E+5	-	7.90E+4	1.45E+5	1.40E+8	1.62E+7
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	3.23E+3	1.13E+3	-	-	-	3.15E+7	3.81E+2
La-142	2.32E-4	7.40E-5	-	-	-	1.47E+1	2.32E-5
Ce-141	1.23E+5	6.14E+4	-	2.69E+4	-	7.66E+7	9.12E+3
Ce-143	1.73E+3	9.36E+5	-	3.93E+2	-	1.37E+7	1.36E+2
Ce-144	1.27E+8	3.98E+7	-	2.21E+7	-	1.04E+10	6.78E+6
Pr-143	1.48E+5	4.46E+4	-	2.41E+4	-	1.60E+8	7.37E+3
Pr-144	-	-	-	-	-	-	-
Nd-147	7.16E+4	5.80E+4	-	3.18E+4	-	9.18E+7	4.49E+3
W-187	6.47E+4	3.83E+4	-	-	-	5.38E+6	1.72E+4
Np-239	2.55E+3	1.83E+2	-	5.30E+2	-	1.36E+7	1.29E+2

Table 3-12

R_{io} GROUND PLANE PATHWAY DOSE FACTORS
(m² * mrem/yr per μCi/sec)

<u>Nuclide</u>	<u>Any Organ</u>	<u>Nuclide</u>	<u>Any Organ</u>
-		Rh-103m	-
C-14	-	Rh-106	-
Na-24	1.21E+7	Ag-110m	3.47E+9
P-32	-	Te-125m	1.55E+6
Cr-51	4.68E+6	Te-127m	9.17E+4
Mn-54	1.34E+9	Te-127	3.00E+3
Mn-56	9.05E+5	Te-129m	2.00E+7
Fe-55	-	Te-129	2.60E+4
Fe-59	2.75E+8	Te-131m	8.03E+6
Co-58	3.82E+8	Te-131	2.93E+4
Co-60	2.16E+10	Te-132	4.22E+6
Ni-63	-	I-130	5.53E+6
Ni-65	2.97E+5	I-131	1.72E+7
Cu-64	6.09E+5	I-132	1.24E+6
Zn-65	7.45E+8	I-133	2.47E+6
		I-134	4.49E+5
Zn-69	-	I-135	2.56E+6
Br-83	4.89E+3	Cs-134	6.75E+9
Br-84	2.03E+5	Cs-136	1.49E+8
Br-85	-	Cs-137	1.04E+10
Rb-86	8.98E+6		
		Cs-138	3.59E+5
Rb-88	3.29E+4	Ba-139	1.06E+5
Rb-89	1.21E+5	Ba-140	2.05E+7
Sr-89	2.16E+4	Ba-141	4.18E+4
Sr-90	-	Ba-142	4.49E+4
Sr-91	2.19E+6		
		La-140	1.91E+7
Sr-92	7.77E+5	La-142	7.36E+5
Y-90	4.48E+3	Ce-141	1.36E+7
Y-91m	1.01E+5	Ce-143	2.32E+6
Y-91	1.08E+6	Ce-144	6.95E+7
Y-92	1.80E+5		
		Pr-143	-
Y-93	1.85E+5	Pr-144	1.83E+3
Zr-95	2.48E+8	Nd-147	8.40E+6
Zr-97	2.94E+6	W-187	2.36E+6
Nb-95	1.36E+8	Np-239	1.71E+6
Mo-99	4.05E+6		
Tc-99m	1.83E+5		
Tc-101	2.04E+4		
Ru-103	1.09E+8		
Ru-105	6.36E+5		
Ru-106	4.21E+8		

Gaseous Radioactive Effluent Monitoring and Ventilation Systems Diagram



4.0 SPECIAL DOSE ANALYSES

4.1 DOSES TO THE PUBLIC DUE TO ACTIVITIES INSIDE THE UNRESTRICTED AREA BOUNDARY

In accordance with Section 7.2, the Radioactive Effluent Release Report shall include an assessment of radiation doses from radioactive liquid and gaseous effluents to MEMBERS OF THE PUBLIC due to their activities inside the UNRESTRICTED AREA BOUNDARY.

In special instances MEMBERS OF THE PUBLIC are permitted access to the radiologically restricted area within the Davis-Besse station. Tours for the public are conducted with the assurance that no individual will receive an appreciable dose (i.e., small fraction of the 40 CFR 190 dose standards).

The Wellness Center, located inside the DBNPS Controlled Area and therefore within the UNRESTRICTED AREA BOUNDARY, is also accessible to MEMBERS OF THE PUBLIC. Considering the frequency and duration of visits, the resultant dose would be a fraction of the calculated maximum UNRESTRICTED AREA BOUNDARY unrestricted area dose. The dose from airborne effluents and the direct "shine" from the Independent Spent Fuel Storage Installation (ISFSI) and the Old Steam Generator Storage Facility (OSGSF) are considered. The direct "shine" from normal Plant operation and the OSGSF is negligible. This combination is considered the controlling factor when evaluating doses to MEMBERS OF THE PUBLIC from activities inside the UNRESTRICTED AREA BOUNDARY.

For purposes of assessing the dose to MEMBERS OF THE PUBLIC in accordance with Technical Specification 5.6.2 and ODCM Section 7.2, the following exposure assumptions may be used:

- Exposure time for maximum exposed visitor user of the Wellness Center of 250 hours (1 h/day, 5 day/wk, 50 wk/yr).*
- For noble gas direct exposure, default use of the maximum UNRESTRICTED AREA BOUNDARY dispersion from table 3-6.
- For Inhalation Pathway, default use of the maximum UNRESTRICTED AREA BOUNDARY dispersion from Table 3-6.
- For Direct "Shine" from the ISFSI, default use of the maximum dose rate for a completed (full) ISFSI, and a distance of 950 feet.

Additional locations within the Unrestricted Area boundary with periodic public access include the pavilion and associated pond area and the Training Center pond. Considering the assumptions above for the Wellness Center, any potential doses to Members of the public from activities at the pavilion and associated pond will be less than those assessed for the Wellness Center. The assumed exposure time of 67 h/y for activities at the pavilion and on-site fishing is a fraction of the 250 h/y assumed for the Wellness Center. The pavilion and associated pond area are located in the southwest sector relative to the reactor, and this is not a prevailing wind direction. Therefore, the dispersion factor will be lower for the pavilion area than for the Wellness Center.

* Based on a maximum conservative estimate.

Extrapolating from historical meteorological data^{*}, the annual average dispersion (considered ground level) for the Wellness Center, is approximately $2\text{E-}05 \text{ sec/m}^3$. The Wellness Center is controlling and poses the highest potential dose to Members of the Public from activities inside the Unrestricted Area boundary from a dose modeling standpoint.

For purposes of evaluating any direct exposure component, the Wellness Center is closer to the Borated Water Storage Tank and the ISFSI than are the pavilion and associated pond area or the Training Center pond. The evaluation of the direct exposure component at the Wellness Center remains conservative. The Pavilion and associated pond area and the Training Center Pond are located closer to the OSGSF than is the Wellness Center, however, direct exposure at these locations is still considered negligible.

The equations in Section 4.2 may be used for calculating the potential dose to a MEMBER OF THE PUBLIC for activities inside the UNRESTRICTED AREA BOUNDARY. Based on these assumptions, this dose would be at least a factor of 35 less than the maximum UNRESTRICTED AREA BOUNDARY air dose as calculated in Section 3.7.

Public access is periodically allowed to areas on-site for the purposes of recreational activities. During company sponsored events, Members of the Public may be allowed to fish at the Training Center pond. However, since the pond communicates with a release path of potential liquid effluents from the plant, the potential dose to individuals during these activities has been evaluated. Fishing is only allowed under a “catch-and-release” program; therefore, the fish pathway is not considered applicable. For the Training Center pond, releases via the Storm Sewer Drains could pose an exposure pathway from shoreline deposition. In the past, releases to the pond have been negligible, with radioactivity levels ranging from non-detectable to very low levels of tritium and cesium. Therefore, based on historical effluents, a significant exposure pathway does not exist. If releases were to occur, this pathway would be evaluated.

^{*} Chesapeake Nuclear Services report, Davis-Besse Nuclear Power Station Meteorological and Atmospheric Dispersion Report, November 2017.

The following equation, adapted from Regulatory Guide 1.109, provides a conservative estimate for this calculation:

$$D_{shore,o} = \frac{1.67E-02 * VOL}{DF} * \sum C_i * A_{shore,i}$$

where:

$D_{shore,o}$ = dose to total body or any organ from shoreline exposure (mrem)

VOL = volume of undiluted liquid effluent to the pond (gal)

DF = dilution flow, average flow from the SSD to the pond during the time period of measurable levels being released to the pond (gal/min)

C_i = concentration of radionuclide i in SSD to the pond

$A_{shore,i}$ = site-specific shoreline dose conversion factor for the total body and any organ (mrem/h per μ Ci/ml, from Table 2-8)

1.67E-02 = conversion factor (hour per minute)

Table 28 provides the $A_{shore,i}$ values that were calculated using Regulatory Guide 1.109 modeling.

4.2 DOSES TO MEMBERS OF THE PUBLIC - 40 CFR 190

As required by and ODCM Section 7.2, the Radioactive Effluent Release Report shall also include an assessment of the radiation dose to the likely most exposed MEMBER OF THE PUBLIC for reactor releases and other nearby uranium fuel cycle sources (including dose contributions from effluents and direct radiation from onsite sources). For the likely most exposed MEMBER OF THE PUBLIC in the vicinity of the Davis-Besse site, the sources of exposure need consider only the radioactive effluents and direct exposure contribution from Davis-Besse. No other fuel cycle facilities contribute significantly to the cumulative dose to a MEMBER OF THE PUBLIC in the immediate vicinity of the site. Fermi-2 is the closest fuel cycle facility located about 20 miles to the NNW. Due to environmental dispersion, any routine releases from Fermi-2 would contribute insignificantly to the potential doses in the vicinity of Davis-Besse.

The correlation of measured plant effluents with pathway modeling of this ODCM provide the primary method for demonstrating/evaluating compliance with the limits specified below (40 CFR 190). However, as appropriate, the results of the environmental monitoring program may be used to provide additional data on actual measured levels of radioactive material in the actual pathways of exposure. ODCM Section 4.2.3 discusses the methodology for correlating measured levels of radioactive material in environmental pathway samples with potential doses. Also, results of the Land Use Census may be used to determine actual exposure pathways and locations.

The annual (calendar year) dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from uranium fuel cycle sources shall be limited to less than or equal to 25 mrem to the total body or any organ, except the thyroid, which shall be limited to less than or equal to 75 mrem.

With the calculated doses from the releases of radioactive materials in liquid or gaseous effluents exceeding twice the limits of Sections 2.4.1, 3.7.1, and 3.8.1, evaluations should be made including direct radiation contributions from the reactor unit, from the Old Steam Generator Storage Facility (OSGSF) and from outside storage tanks to determine whether the above limits of this Section have been exceeded. If such is the case, prepare and submit to the Commission within 60 days, pursuant to Section 7.3, a Licensee Event Report that defines the corrective action to be taken to reduce subsequent releases to prevent recurrence of exceeding the above limits and includes the schedule for achieving conformance with the above limits. This report, as defined in 10 CFR Part 20.2203, shall include an analysis that estimates the radiation exposure (dose) to a MEMBER OF THE PUBLIC from uranium fuel cycle sources, including all effluent pathways and direct radiation, for the calendar year that includes the release(s) covered by this report. It shall also describe levels of radiation and concentrations of radioactive material involved, and the cause of the exposure levels or concentrations. If the estimated dose(s) exceeds the above limits, and if the release condition resulting in violation of 40 CFR Part 190 has not already been corrected, the report shall include a request for a variance in accordance with the provisions of 40 CFR Part 190. Submittal of the report is considered a timely request, and a variance is granted until staff action on the request is complete.

This requirement is provided to meet the dose limitations of 40 CFR Part 190 that have been incorporated into 10 CFR Part 20 by 46 FR 18525. The requirement requires the preparation and submittal of a report whenever the calculated doses from plant generated radioactive effluents and direct radiation exceed 25 mrem to the total body or any organ, except the thyroid, which shall be limited to less than or equal to 75 mrem.

It is highly unlikely that the resultant dose to a MEMBER OF THE PUBLIC will exceed the dose limits of 40 CFR Part 190 if the reactor remains within twice the dose design objectives of Appendix I, and if direct radiation doses from the reactor and outside storage tanks are kept small. The report will describe a course of action that should result in the limitation of the annual dose to a MEMBER OF THE PUBLIC to within the 40 CFR Part 190 limits. For the purposes of the report, it may be assumed that the dose commitment to the MEMBER OF THE PUBLIC from other uranium fuel cycle sources is negligible, with the exception that the dose contributions from other nuclear fuel cycle facilities at the same site or within a radius of 8 km must be considered. If a dose to any MEMBER OF THE PUBLIC is estimated to exceed the requirements of 40 CFR 190, the report with a request for variance (provided the release conditions resulting in violation of 40 CFR Part 190 have not already been corrected), in accordance with the provisions of 40 CFR Part 190.11 and 10 CFR Part 20.405c, is considered to be a timely request and fulfills the requirements of 40 CFR Part 190 until NRC staff action is completed. The variance only relates to the limits of 40 CFR Part 190, and does not apply in any way to the other dose requirements for dose limitation of 10 CFR Part 20, as addressed in Sections 2.2 and 3.3.1. An individual is not considered a MEMBER OF THE PUBLIC during any period in which he/she is engaged in carrying out any operation that is a part of the nuclear fuel cycle.

4.2.1 Effluent Dose Calculations

For purposes of implementing the above requirements of determining the cumulative dose contribution from liquid and gaseous effluents in accordance with Sections 2 and 3 and the reporting requirements of Section 7, dose calculations for Davis-Besse may be performed using the calculational methods contained within this ODCM; the conservative controlling pathways and locations of Table 3-6 or the actual pathways and locations as identified by the Land Use Census may be used. Liquid pathway doses may be calculated using equations in ODCM Section 2.4. Doses due to releases of radioiodines, tritium and particulates are calculated based on equations in Section 3.8.

The following equations may be used for calculating the dose to MEMBERS OF THE PUBLIC from releases of noble gases:

$$D_{tb} = 3.17E - 08 * \frac{U}{8760} * \chi / Q * \Sigma (K_i * Q_i) \quad (4-1)$$

and

$$D_s = 3.17E - 08 * U * \chi / Q * \Sigma ((L_i + 1.1 M_i) * Q_i) \quad (4-2)$$

where:

D_{tb}	=	total body dose due to gamma emissions for noble gas radionuclides (mrem)
D_s	=	skin dose due to gamma and beta emissions for noble gas radionuclides (mrem)
U	=	duration of exposure (hr/yr, default values in Table 4-1)
χ/Q	=	atmospheric dispersion to the offsite location (sec/m ³)
Q_i	=	cumulative release of noble gas radionuclide i over the period of interest (μCi)
K_i	=	total body dose factor due to gamma emissions from noble gas radionuclide i from Table 3-5 (mrem/yr per μCi/m ³)
L_i	=	skin dose factor due to beta emissions from noble gas radionuclide i from Table 3-5 (mrem/yr per μCi/m ³)
M_i	=	gamma air dose factor for noble gas radionuclide i from Table 3-5 (mrad/yr per μCi/m ³)
8760	=	hours per year
1.1	=	mrem skin dose per mrad gamma air dose (mrem/mrad)
3.17E-08	=	1/3.15E+07 yr/sec

Average annual meteorological dispersion parameters or meteorological conditions concurrent with the release period under evaluation may be used (e.g., quarterly averages or year-specific annual averages).

4.2.2 Direct Exposure Dose Determination - Onsite Sources

Any potentially significant direct exposure contribution from onsite sources to offsite individual doses may be evaluated based on the results of the environmental measurements (e.g., TLD, ion chamber measurements) or by the use of a radiation transport and shielding calculational method. Only during atypical conditions will there exist any potential for significant onsite sources at Davis-Besse that would yield potentially significant offsite doses to a MEMBER OF THE PUBLIC. However, should a situation exist whereby the direct exposure contribution is potentially significant, onsite measurements, offsite measurements and calculational techniques will be used for determination of dose for assessing 40 CFR 190 compliance.

The following simplified method may be used for evaluating the direct dose based on onsite or site boundary measurements:

$$D_{L,\theta} = D_{B,\theta} \frac{(X_{B,\theta})^2}{(X_{L,\theta})^2} \quad (4-3)$$

where:

$D_{B,\theta}$ = direct radiation dose measured at location B (onsite or site boundary) in sector θ

$D_{L,\theta}$ = extrapolated dose at location L in same sector θ

$X_{L,\theta}$ = distance to the location L from the radiation source

$X_{B,\theta}$ = distance to location B from the radiation source

4.2.3 Dose Assessment Based on Radiological Environmental Monitoring Data

Normally, the assessment of potential doses to MEMBERS OF THE PUBLIC must be calculated based on the measured radioactive effluents at the plant. The resultant levels of radioactive material in the offsite environment are so minute as to be undetectable. The calculational methods as presented in this ODCM are used for modeling the transport in the environment and the resultant exposure to offsite individuals.

The results of the radiological environmental monitoring program can provide input into the overall assessment of impact of plant operations and radioactive effluents. With measured levels of plant related radioactive material in principal pathways of exposure, a quantitative assessment of potential exposures can be performed. With the monitoring program not identifying any measurable levels, the data provides a qualitative assessment - a confirmatory demonstration of the negligible impact.

Dose modeling can be simplified into three basic parameters that can be applied in using environmental monitoring data for dose assessment.

$$D = C * U * DF \quad (4-4)$$

where:

D	=	dose or dose commitment
C	=	concentration in the exposure media, such as air concentration for the inhalation pathway, or fish, vegetation or milk concentration for the ingestion pathway
U	=	individual exposure to the pathway, such as hr/yr for direct exposure, kg/yr for ingestion pathway
DF	=	dose conversion factor to convert from an exposure or uptake to an individual dose or dose commitment

The applicability of each of these basic modeling parameters to the use of environmental monitoring data for dose assessment is addressed below:

Concentration - C

The main value of using environmental sampling data to assess potential doses to individuals is that the data represents actual measured levels of radioactive material in the exposure pathways. This eliminates one main uncertainty in the modeling - the release from the plant and the transport to the environmental exposure medium.

Environmental samples are collected on a routine frequency (e.g., weekly airborne particulate samples, monthly vegetable samples, annual fish samples). To determine the annual average concentration in the environmental medium for use in assessing cumulative dose for the year, an average concentration should be determined based on the sampling frequency and measured levels.

$$\bar{C}_i = \Sigma (C_i * t) / 365 \quad (4-5)$$

where:

\bar{C}_i	=	average concentration in the sampling medium for the year
C_i	=	concentration of each radionuclide i measured in the individual sampling medium
t	=	period of time that the measured concentration is considered representative of the sampling medium (typically equal to the sampling frequency; e.g., 7 days for weekly samples, 30 days for monthly samples).

If the concentration in the sampling medium is below the detection capabilities (i.e., less than lower limits of detection -LLD), a value of zero should be used for C_i ($C_i = 0$).

Exposure - U

Default exposure values (U) as recommended in Regulatory Guide 1.109 are presented in Table 4-1. These values should be used only when specific data applicable to the environmental pathway being evaluated is unavailable.

Also, the routine radiological environmental monitoring program is designed to sample/monitor the environmental media that would provide early indications of any measurable levels in the environment but not necessarily levels to which any individual is exposed. For example, sediment samples are collected in the area of the liquid discharge: typically, no individuals are directly exposed. To apply the measured levels of radioactivity in samples that are not directly applicable to exposure to real individuals, the approach recommended is to correlate the location and measured levels to actual locations of exposure. Hydrological or atmospheric dilution factors can be used to provide reasonable correlations of concentrations (and doses) at other locations. The other alternative is to conservatively assume a hypothetical individual at the sampling location. Doses that are calculated in this manner should be presented as hypothetical and very conservatively determined - actual exposure would be much less. Samples collected from nearby wells or actual water supply intake (e.g., Port Clinton) should be used for estimating the potential drinking water doses. Other water samples collected, such as near field dilution area, are not applicable to this pathway.

Dose Factors - DF

The dose factors are used to convert the intake of the radioactive material to an individual dose commitment. Values of the dose factors are presented in NRC Regulatory Guide 1.109. The use of the Regulatory Guide 1.109 values applicable to the exposure pathway and maximum exposed individual is referenced in Table 4-1.

4.2.4 Use of Environmental TLD for Assessing Doses Due to Noble Gas Releases

Thermoluminescent dosimeters (TLD) are routinely used to assess the direct exposure component of radiation doses in the environment. However, because routine releases of radioactive material (noble gases) are so low, the resultant direct exposure doses are also very low. A study* performed for the NRC concluded that it is possible to determine a plant contribution to the natural background radiation levels (direct exposure) of around 10 mrem per year (by optimum methods and high precision data). Therefore, for routine releases from nuclear power plants the use of TLD is mainly confirmatory - ensuring actual exposures are within the expected natural background variation.

For releases of noble gases, environmental modeling using plant measured releases and atmospheric transport models as presented in this ODCM represents the best method of assessing potential environmental doses. However, any observed variations in TLD measurements outside the norm should be evaluated.

* NUREG/CR-0711, Evaluation of Methods for the Determination of X- and Gamma-Ray Exposure Attributable to a Nuclear Facility Using Environmental TLD Measurements, Gail dePlanque, June 1979, USNRC.

Table 4-1

RECOMMENDED EXPOSURE RATES IN LIEU OF SITE SPECIFIC DATA*

<u>Exposure Pathway</u>	<u>Maximum Exposed Age Group</u>	<u>Exposure Rates</u>	<u>Table Reference for Dose Factors from RG 1.109</u>
<u>Liquid Releases</u>			
Fish	Adult	21 kg/y	E-11
Drinking Water	Adult	730 l/y	E-11
Bottom Sediment	Teen	67 h/y	E-6
<u>Atmospheric Releases</u>			
Inhalation	Teen	8,000 m ³ /y	E-8
Direct Exposure	All	6,100 h/y**	N/A (ODCM Table 3-5)
Leafy Vegetables	Child	26 kg/y	E-13
Fruits, Vegetables & Grain	Teen	630 kg/y	E-12
Milk	Infant	330 l/y	E-14

* Adapted from Regulatory Guide 1.109, Table E-5

** Net exposure of 6,100 h/y is based on the total 8760 hours per year adjusted by a 0.7 shielding factor as recommended in Regulatory Guide 1.109.

5.0 ASSESSMENT OF LAND USE CENSUS DATA

A Land Use Census (LUC) is conducted annually in the vicinity of the Davis-Besse site. This census fulfills two main purposes: 1) meet requirements of the Radiological Environmental Monitoring Program (as required by 10 CFR 50, Appendix I, Section IV.B.3) for identifying controlling location/pathway for dose assessment of ODCM Section 3.8.1; and 2) provide data on actual exposure pathways for assessing realistic doses to MEMBERS OF THE PUBLIC.

5.1 LAND USE CENSUS REQUIREMENTS

A land use census shall be conducted during the growing season at least once per twelve months using that information that will provide the best results, such as by a door-to-door survey, aerial survey, or by consulting local agricultural authorities. The Land Use Census shall identify within a distance of 8 km (5 miles) the location, in each of the 16 meteorological sectors, of the nearest milk animal, the nearest residence and the nearest garden of greater than 50 m² (500 ft²) producing broad leaf vegetation. This requirement is provided to ensure that changes in the use of UNRESTRICTED AREAS are identified and that modifications to the monitoring program are made if required by the results of this census. This census satisfies the requirements of Section IV.B.3 of Appendix I to 10 CFR Part 50. Restricting the census to gardens of greater than 50 m² (500 ft²) provides assurance that significant exposure pathways via leafy vegetables will be identified and monitored. A garden of this size is the minimum required to produce the quantity (26 kg/year) of leafy vegetables assumed in Regulatory Guide 1.109 for consumption by a child. To determine this minimum garden size, the following assumptions were made: (1) 20% of the garden was used for growing broad leaf vegetation (i.e., similar to lettuce and cabbage), and (2) a vegetation yield of 2 kg/m².

The data from the Land Use Census is used for updating the location/pathway for dose assessment and for updating the Radiological Environmental Monitoring Program. The results of the Land Use Census shall be included in the Annual Radiological Environmental Operating Report pursuant to Section 7.1.

With a Land Use Census identifying a location(s) that yields a calculated dose or dose commitment greater than the values currently being calculated in Sections 3.8.1, identify the new locations(s) in the next Radioactive Effluent Release Report, pursuant to Section 7.2. With a Land Use Census identifying a locations(s) that yields a calculated dose or dose commitment (via the same exposure pathway) 20 percent greater than that at a location from which samples are currently being obtained in accordance with Section 6.1, add the new locations(s) if practical (and readily obtainable) to the Radiological Environmental Monitoring Program within 30 days. The sampling locations(s), excluding the control station location, having a lower calculated dose or dose commitment(s), via the same exposure pathway, may be deleted from this monitoring program. Identify the new location(s) in the next Radioactive Effluent Release Report and also include in the report a revised figure(s) and table for the ODCM reflecting the new location(s).

The following guidelines shall be used for assessing the results from the Land Use Census to ensure compliance with this Section.

5.1.1 Data Compilation

- A. Locations and pathways of exposure as identified by the Land Use Census will be compiled for comparison with the current locations as presented in Table 3-4.
- B. Changes from the previous year's census will be identified. Also, any location/pathway not currently included in the Radiological Environmental Monitoring Program (Table 6-2) will be identified.
- C. Historical, annual average meteorological dispersion parameters (χ/Q , D/Q) for any new location (i.e., location not previously identified and/or evaluated) will be determined. All locations should be evaluated against the same historical meteorological data set.

5.1.2 Relative Dose Significance

- A. For all new locations, the relative dose significance will be determined by applicable pathways of exposure.
- B. Relative dose calculations should be based on a generic radionuclide distribution (e.g., Davis-Besse USAR gaseous effluent source term or past year actual effluents). An I-131 source term dose may be used for assessment of the maximum organ ingestion pathway dose because of its overwhelming contribution to the total dose relative to the other particulates.
- C. The pathway dose equations of the ODCM should be used.

5.1.3 Data Evaluation

- A. The controlling location used in the ODCM Table 3-4 will be verified. If any location/pathway(s) is identified with a higher relative dose, this location/pathway(s) should replace the previously identified controlling location/pathway in Table 3-4. If the previously identified controlling pathway is no longer present, the current controlling location/pathway should be determined.
- B. Any changes in either the controlling location/pathway(s) of the ODCM dose calculations (Section 3.7 and Table 3-4) or the Radiological Environmental Monitoring Program (ODCM Section 6.0 and Table 6-2) shall be reported to NRC in accordance with ODCM Section 5.1 and 7.2.

5.2 LAND USE CENSUS TO SUPPORT REALISTIC DOSE ASSESSMENT

The Land Use Census (LUC) provides data needed to support the special dose analyses of Section 4.0. Activities inside the UNRESTRICTED AREA BOUNDARY should be periodically reviewed for dose assessment as required by Section 4.1. Assessment of realistic doses to MEMBERS OF THE PUBLIC is required by Section 4.0 for demonstrating compliance with the EPA Environmental Dose Standard, 40 CFR 190 (Section 4.2).

Even though not a part of the LUC, to support these dose assessments, areas within the UNRESTRICTED AREA BOUNDARY that are accessible to the public; and (b) use of Lake Erie water on and near the site are evaluated. The scope of the evaluation includes the following:

- Assessment of areas onsite that are accessible to MEMBERS OF THE PUBLIC. Particular attention should be given to assessing exposure times for visits to the Davis-Besse Administration Building and Wellness Center. Data should be used for updating Table 4-1.
- Data on Lake Erie use should be obtained from local and state officials. Reasonable efforts shall be made to identify individual irrigation and potable water users, and industrial and commercial water users whose source is Lake Erie. This data is used to verify the pathways of exposure used in Section 2.4.

6.0 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

The Radiological Environmental Monitoring Program (REMP) provides measurements of radiation and of radioactive materials in those exposure pathways and for those radionuclides which lead to the higher potential radiation exposures of individuals resulting from the station operations. The sampling and analysis program described in this Section was developed to provide representative measurements of radiation and radioactive materials resulting from station operation in the principal pathways of exposure of MEMBERS OF THE PUBLIC. This monitoring program implements Sections IV.B.2 of Appendix I to 10 CFR Part 50 and thereby supplements the radiological effluent controls by verifying that the measurable concentrations of radioactive materials and levels of radiation are not higher than expected on the basis of the effluent measurements and the modeling of the environmental exposure pathways. Guidance for the development of this monitoring program is provided by the Radiological Assessment Branch Technical Position on Environmental Monitoring.

6.1 PROGRAM DESCRIPTION

6.1.1 General

The REMP shall be conducted as specified in Table 6-1. This table describes the minimum environmental media to be sampled, the sample collection frequencies, the number of representative samples required, the characteristics of the sampling locations, and the type and frequency of sample analysis. Table 6-2 provides a detailed listing of the sample locations for Davis-Besse which satisfy the requirements of Table 6-1. Wherever possible, the Davis-Besse program includes redundant sample locations to minimize the occurrence of missed samples. Maps for each site listed in Table 6-2 are contained in Appendix C. The specific locations used to satisfy the requirements of Table 6-1 may be changed as deemed appropriate by the Manager – Site Chemistry. The changes shall be reported in the Annual Radiological Environmental Operating Report and the Radiological Effluent Release Report as required by Sections 7.1 and 7.2, respectively. If the changes are to be permanent, Table 6-2 and Appendix C shall be updated.

Note: For the purpose of implementing Section 5.1, sampling locations will be modified, to reflect the findings of the Land Use Census as described in ODCM Section 5.1.

6.1.2 Program Deviations

With the minimum REMP samples not collected and analyzed as specified in Table 6-1, prepare and submit to the Commission, in the Annual Radiological Environmental Operating Report required by Section 7.1, a description of the reasons for not conducting the program as required and plans for preventing a recurrence.

6.1.3 Unavailability of Milk or Broad Leaf Vegetation Samples

With milk or fresh leafy vegetable samples unavailable from one or more of the sample locations required by Table 6-1, identify locations for obtaining replacement samples and if practical add them to the REMP within 30 days. The locations from which samples were unavailable may then be deleted from the monitoring program. In lieu of a Licensee Event Report and pursuant to Section 7.2, identify the cause of the unavailability of samples and identify the new locations(s) for obtaining replacement samples in the next Radiological Effluent Release Report and also include in the report a revised figure(s) and table for the ODCM reflecting the new locations(s).

6.1.4 Seasonal Unavailability, Equipment Malfunctions, Safety Concerns

With specimens unobtainable due to hazardous conditions, seasonal unavailability, malfunction of automatic sampling equipment and other legitimate reasons, every effort will be made to complete corrective action prior to the end of the next sampling period. All deviations from the sampling schedule will be documented in the Annual Radiological Environmental Operating report pursuant to Section 7.1.

6.1.5 Sample Analysis

REMP samples shall be analyzed pursuant to the requirements of Table 6-1 and the detection capabilities required by Table 6-3. Cumulative potential dose contributions for the current calendar year from radionuclides detected in environmental samples shall be determined in accordance with the methodology and parameters in this ODCM.

6.2 REPORTING LEVELS

6.2.1 General

The reporting levels are based on the design objective doses of 10 CFR 50, Appendix I (i.e., levels of radioactive material in the sampling media corresponding to potential annual doses of 3 mrem, total body or 10 mrem, maximum organ from liquid pathways; or 5 mrem, total body, or 15 mrem, maximum organ for gaseous effluent pathways - the annual limits of Sections 2.4.1, 3.7.1 and 3.8.1). These potential doses are modeled on the maximum exposure or consumption rates of NRC Regulatory Guide 1.109.

The evaluation of potential doses should be based solely on radioactive material resulting from plant operation.

6.2.2 Exceedance of Reporting Levels

With the level of radioactivity as the result of plant effluents in an environmental sampling medium at a specified location exceeding the reporting levels of Table 6-4 when averaged over any calendar quarter, prepare and submit to the Commission within 60 days, pursuant to Section 7.3, a Licensee Event report that identifies the cause(s) for exceeding the limit(s) and defines the corrective actions to be taken to reduce radioactive effluents so that the potential annual dose to MEMBER OF THE PUBLIC is less than the calendar year limits of Sections 2.4.1, 3.7.1 and 3.8.1. When more than one of the radionuclides in Table 6-3 are detected in the sampling medium, this report shall be submitted if:

$$\frac{\text{concentration (1)}}{\text{reporting level (1)}} + \frac{\text{concentration (2)}}{\text{reporting level (2)}} + \dots \geq 1.0.$$

When radionuclides other than those in Table 6-4 are detected and are the result of plant effluents, this report shall be submitted if the potential annual dose to a MEMBER OF THE PUBLIC is equal to or greater than the calendar year limits of Sections 2.4.1, 3.7.1 and 3.8.1. The method described in Section 4.2.3 may be used for assessing the potential dose and required reporting for radionuclides other than those listed in Table 6-4.

A Licensee Event Report is not required if the measured level of radioactivity was not the result of plant effluents; however, in such an event, the condition shall be reported and described in the Annual Radiological Environmental Operating Report.

6.3 INTERLABORATORY COMPARISON PROGRAM

Analyses shall be performed on radioactive materials supplied as part of an Interlaboratory Comparison Program that has been approved by the Commission. The requirement for participating in an approved Interlaboratory Comparison Program is provided to ensure that independent checks on the precision and accuracy of the measurements of radioactive material in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring in order to demonstrate that the results are reasonably valid for the purposes of Section IV.B.2 of Appendix I to 10 CFR Part 50.

A summary of the results obtained as part of the required Interlaboratory Comparison Program shall be included in the Annual Radiological Environmental Operating Report pursuant to Section 7.1. With analyses not being performed as required, report the corrective actions taken to prevent a recurrence to the Commission in the Annual Radiological Environmental Operating Report pursuant to Section 7.1.

Table 6-1

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

	<u>Exposure Pathway and/or Sample</u>	<u>Minimum Number of Representative Samples and Sample Locations^a</u>	<u>Collection Frequency</u>	<u>Type and Frequency of Analysis</u>
1.	DIRECT RADIATION ^b (TLD)	<p>27 routine monitoring stations either with two or more dosimeters or with one instrument for measuring and recording dose rate continuously, placed as follows:</p> <p>an inner ring of stations, generally one in each meteorological sector in the general area of the UNRESTRICTED AREA BOUNDARY;</p> <p>an outer ring of stations, one in each meteorological sector in the 6 to 8 km range from the site, excluding the sectors over Lake Erie;</p> <p>the balance of the stations to be placed in special interest areas such as population centers, nearby residences, schools, and in 1 or 2 areas to serve as control stations.</p>	Quarterly	Gamma dose quarterly

Table 6-1 (Continued)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Exposure Pathway and/or Sample	Minimum Number of Representative Samples and Sample Locations ^a	Collection Frequency	Type and Frequency of Analysis
2. AIRBORNE ^c			
Radioiodine and Particulates (AI/AP)	<p>Samples from 5 locations, placed as follows:</p> <p>3 samples from close to the UNRESTRICTED AREA BOUNDARY, in different sectors, generally from areas of higher calculated annual average groundlevel D/Q.</p> <p>*1 sample from the vicinity of a nearby community, generally in the area of higher calculated annual average groundlevel D/Q.</p> <p>1 sample from a control location, 15-30 km from the site.</p>	Continuous sampler operation with sample collection weekly, or more frequent if required by dust loading.	Radioiodine Canister: I-131 analysis weekly. Particulate Sampler: Gross beta radioactivity analysis following filter change; ^d Gamma isotopic analysis of composite (by location) quarterly.
3. WATERBORNE			
a. Surface (untreated water) (SWU)	2 samples	Weekly composite sample (Indicator location should be a composite)	Tritium and gamma isotopic ^e analysis of composite sample monthly.
b. Ground (WW)	Sample from one source only if likely to be affected ^f	Quarterly	Gamma isotopic ^e and tritium analysis quarterly.

*NOTE: A nearby community may be considered as a large group of residences in a close proximity to the Plant.

Table 6-1 (Continued)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

<u>Exposure Pathway and/or Sample</u>		<u>Minimum Number of Representative Samples and Sample Locations^a</u>	<u>Collection Frequency</u>	<u>Type and Frequency of Analysis</u>
4.	c. Drinking (Treated water) (SWT)	1 sample from the nearest source. 1 sample from a control location.	Weekly composite sample.	Gross beta on monthly composite. Tritium and gamma isotopic analysis on quarterly composite. I-131 analysis on each composite when the dose calculated for the consumption of the water is greater than 1 mrem per year.
	d. Sediment from Shoreline (SED)	1 sample from area with existing or potential recreational value.	Semiannually	Gamma isotopic analyzed semi-annually.
	a. Milk (MIL)	If available ^g , samples from animals up to 2 locations within 8 km distance having the highest dose potential. 1 sample ^g from milking animals at a control location 15-30 km distant and generally in a less prevalent wind direction.	Semimonthly when animals are on pasture, monthly at other times	Gamma isotopic ^e and I-131 analysis semi-monthly when animals are on pasture; monthly at other times.
	b. Fish (FIS)	1 sample each of 2 commercially and/or recreationally important species in vicinity of site. 1 sample of same species in areas not influenced by plant discharge.	1 sample in season.	Gamma isotopic analysis on edible portions.

Table 6-1 (Continued)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

<u>Exposure Pathway and/or Sample</u>	<u>Minimum Number of Representative Samples and Sample Locations^a</u>	<u>Collection Frequency</u>	<u>Type and Frequency of Analysis</u>
c. Food Products (Broad leaf vegetation) (BLV)	Samples of up to 3 different kinds of broad leaf vegetation grown in two different offsite locations of higher predicted annual average ground-level D/Q if milk sampling is not performed ^g .	Monthly when available.	Gamma isotopic ^f and I-131 analysis.
	1 sample of each of the similar broad leaf vegetations grown 15-30 km distant in a less prevalent wind direction if milk sampling is not performed ^g .	Monthly when available.	Gamma isotopic ^f and I-131 analysis.

Table 6-1 (Continued)

TABLE NOTATION

^aSpecific parameters of distance and direction sector from the centerline of the reactor, and additional description (where pertinent) are provided for each and every sample location in Table 6-2. Refer to NUREG-0133, "Preparation of Radiological Effluent Technical Specifications for Nuclear Power Plants", October 1978, and to Radiological Assessment Branch Technical Position, Revision 1, November 1979. It is recognized that, at times, it may not be possible or practicable to continue to obtain samples of the media of choice at the most desired location or time. In these instances, suitable alternative media and locations may be chosen for the particular pathway in question and appropriate substitutions made within 30 days in the Radiological Environmental Monitoring Program. In lieu of a Licensee Event Report and pursuant to Technical Specification 5.6.1 and Section 7.2, identify the cause of the unavailability of samples for that pathway and identify the new location(s) for obtaining replacement samples in the next Radioactive Effluent Release Report. Also, include in the report a revised figure(s) and table for the ODCM reflecting the new location(s).

^bOne or more instruments, such as a pressurized ion chamber, for measuring and recording dose rate continuously may be used in place of, or in addition to, integrating dosimeters. For the purposes of this table, a thermoluminescent dosimeter (TLD) is considered to be one phosphor; two or more phosphors in a packet are considered as two or more dosimeters. Film badges shall not be used as dosimeters for measuring direct radiation. The number of direct radiation monitoring stations may be reduced according to geographical limitations; e.g., at an ocean site, some sectors will be over water so that the number of dosimeters may be reduced accordingly. The frequency of analysis or readout for TLD systems will depend upon the characteristics of the specific system used and should be selected to obtain optimum dose information with minimal fading. Whenever possible, an additional TLD is located in each sector at a different location to ensure the minimum number of samples in Table 6-1 are collected and analyzed.

^cDue to lack of suitable locations (marsh and private unavailable private property) for installation of an air monitor close to the Unrestricted Area Boundary in the sectors with the highest two calculated annual average groundlevel D/Q, monitors are installed in the third, sixth, and eleventh highest annual D/Q. Whenever possible, an additional monitor is in service in a different sector to ensure the minimum number of air samples in Table 6-1 are collected and analyzed.

^dAirborne particulate sample filters shall be analyzed for gross beta radioactivity 24 hours or more after sampling to allow for radon and thoron daughter decay. If gross beta activity in air particulate samples is greater than ten times the yearly mean of control samples, then gamma isotopic analysis shall be performed on the individual samples.

^eGamma isotopic analysis means the identification and quantification of gamma emitting radionuclides that may be attributable to the effluents from the facility.

^fGroundwater samples shall be taken when this source is tapped for drinking or irrigation purposes in areas where the hydraulic gradient or recharge properties are suitable for contamination. There currently are not any wells used for drinking or irrigation purposes located in areas where the hydraulic gradient or recharge properties are suitable for contamination. Groundwater wells located within the Unrestricted Area Boundary are monitored in accordance with the NEI 07-07 program.

^gThere currently are not any milking animals within 8 km distance from the station. A Control location 15-30 km from the station has been established for sampling milk if animals are reintroduced to the area.

Table 6-2

REMP SAMPLING LOCATIONS

Location	Samples Collected (1)	Appendix C Page Reference	Type of Location*	Location Description
T-1	AI, AP, TLD	145, 149	I	Inner Ring, 0.6 mile ENE of Station
T-2	AI, AP, TLD	145, 149	I	Inner Ring, 0.9 mile E of Station
T-3	AI, AP, TLD, SWU, SED	145, 149, 152	I	Inner Ring, 1.4 miles ESE of Station near mouth of Toussaint River
T-4	AI, AP, TLD	145, 149	I	Inner Ring, 0.8 mile S of Station
T-5	TLD	145	I	Inner Ring, 0.5 mile W of Station
T-6	TLD	145	I	Inner Ring, 0.5 mile NNE of Station
T-7	AI, AP, TLD	148, 150	I/SI	Community, 0.9 mile NW of Station TLD is a Special Interest location.
T-9	AI, AP, TLD	147, 150	I/C	Community, 7.5 miles SW of Station. TLD is a Control Location.
T-10	TLD	145	I	Inner Ring, 0.5 mile SSW of Station
T-11	AI, AP, TLD, SWT, SWU, SED	147, 151, 154	C	All samples are collected at the Ottawa County Regional Water Intake Facility, 9.5 miles SE of Plant except for Treated Water Sample, which is collected at the Ottawa County Regional Water Treatment Plant, 9.1 miles SE of Plant
T-12	TLD	147	C	Toledo Water Treatment Plant, 20.7 miles WNW of Station
T-17	BLV	155	I	Garden, 1.82 miles SSE of Station
T-19	BLV	155	I	Garden, 1.0 mile W of Station
T-22	SWT, SWU	152, 153	I	Carroll Township Water Treatment Plant, SWU collected 2.1 miles W of station and SWT from REMP Lab DBAB Annex
T-24	MIL	156	C	Dairy, 21 miles SE of Station

* I = Indicator locations, C = Control locations, SI = Special Interest.

Table 6-2

REMP SAMPLING LOCATIONS

Location	Samples Collected (1)	Appendix C Page Reference	Type of Location*	Location Description
T-27	AI, AP, TLD	147, 150, 156	I/C	Park, 5.4 miles WNW of Station. TLD is a Control Location.
T-30	BLV	156	C	Farm, 12.8 miles WNW of Station
T-32	AI, AP	151	C	Lindsey Service Center, 15.6 miles SSW of Station
T-33	FIS	153	I	Lake Erie within a 5-mile radius from Station
T-35	FIS	154	C	Lake Erie, greater than a 10-mile radius from Station
T-37	BLV	156	C	Farm, 13.0 miles SW of Station
T-38	TLD	145	I	Inner Ring, 0.6 mile ENE of Station
T-40	TLD	145	I	Inner Ring, 1.1 mile SE of Station
T-41	TLD	145	I	Inner Ring, 0.75 mile SSE of Station
T-42	TLD	145	I	Inner Ring, 0.6 mile SW of Station
T-43	TLD	145	I	Inner Ring, 0.5 mile SW of Station
T-44	TLD	145	I	Inner Ring, 0.5 mile WSW of Station
T-45	TLD	145	I	Inner Ring, 0.5 mile WNW of Station
T-46	TLD	145	I	Inner Ring, 0.5 mile NW of Station
T-47	TLD	145	I	Inner Ring, 0.5 mile N of Station
T-48	TLD	145	I	Inner Ring, 0.5 mile NE of Station
T-49	TLD	145	I	Inner Ring, 0.5 mile NE of Station
T-51	TLD	146	I	Outer Ring, 4.2 miles SSE of Station
T-52	TLD	146	I	Outer Ring, 4.2 miles S of Station
T-54	TLD	146	I	Outer Ring, 4.2 miles SW of Station
T-55	TLD	146	I	Outer Ring, 4.0 miles W of Station

* I = Indicator locations, C = Control locations, SI = Special Interest.

Table 6-2

REMP SAMPLING LOCATIONS

Location	Samples Collected (1)	Appendix C Page Reference	Type of Location*	Location Description
T-60	TLD	145	I	Inner Ring, 0.7 miles S of Station
T-62	TLD	145	I	Inner Ring, 1.0 mile SE of Station
T-67	TLD	145	I	Inner Ring, 0.4 miles NNW of Station
T-68	TLD	145	I	Inner Ring, 0.5 miles WNW of Station
T-69	TLD	145	I	Inner Ring, 0.4 miles W of Station
T-71	TLD	145	I	Inner Ring, 0.5 miles NNW of Station
T-73	TLD	145	I	Inner Ring, 0.5 miles WSW of Station
T-74	TLD	145	I	Inner Ring, 0.5 miles SSW of Station
T-100	TLD	147	C	Population Center, 6.0 miles S of Station
T-124	TLD	148	SI	Population Center, 6.0 miles SSW of Station
T-125	TLD	146	I	Outer Ring, 4.4 miles SSW of Station
T-126	TLD	146	I	Outer Ring, 4.4 miles S of Station
T-127	TLD	146	I	Outer Ring, 4.0 miles SSE of Station
T-128	TLD	146	I	Outer Ring, 4.0 miles SE of Station
T-142	TLD	145	I	Inner Ring, 0.8 miles SSE of Station
T-150	TLD	148	SI	Residence, 2.1 miles NW of Station
T-154	TLD	146	I	Outer Ring, 4.0 miles SW of Station
T-155	TLD	148	SI	Population Center, 9.5 miles SE of Station
T-201	TLD	148	SI	Residence, 1.1 miles NNW of Station
T-203	TLD	145	I	Inner Ring, 0.7 miles N of Station
T-206	TLD	145	I	Inner Ring, 0.6 miles NW of Station
T-208	TLD	145	I	Inner Ring, 0.5 miles NNE of Station
T-211	TLD	145	I	Inner Ring, 0.8 miles E of Station

* I = Indicator locations, C = Control locations, SI = Special Interest.

Table 6-2

REMP SAMPLING LOCATIONS

Location	Samples Collected (1)	Appendix C Page Reference	Type of Location*	Location Description
T-212	TLD	145	I	Inner Ring, 1.2 miles ESE of Station
T-217	TLD	146	I	Outer Ring, 4.2 miles SSW of Station
T-218	TLD	146	I	Outer Ring, 4.0 miles WSW of Station
T-219	TLD	146	I	Outer Ring, 4.8 miles WSW of Station
T-220	TLD	146	I	Outer Ring, 4.6 miles W of Station
T-221	TLD	146	I	Outer Ring, 5.0 miles WNW of Station
T-222	TLD	146	I	Outer Ring, 3.8 miles WNW of Station
T-224	TLD	146	I	Outer Ring, 4.4 miles SE of Station

(1) See Table 6-1 for Sample designations:
AP/AI/TLD/SWU/SWT/WW/SED/FIS/BLV

* I = Indicator locations; C = Control locations, SI = Special Interest.

Table 6-3

LOWER LIMITS OF DETECTION (LLD)^a

Analysis	Water (pCi/l)	Airborne Particulate or Gas (pCi/m³)	Fish (pCi/kg, wet)	Milk (pCi/l)	Food Products (pCi/kg, wet)	Sediment (pCi/kg, dry)
Gross Beta	4 ^b	1.0E-02				
³ H	2000 ^{c*}					
⁵⁴ Mn	15		130			
⁵⁹ Fe	30		260			
⁵⁸ Co, ⁶⁰ Co	15		130			
⁶⁵ Zn	30		260			
⁹⁵ Zr	15					
¹³¹ I	1 ^d	7.0E-02		1	60	
¹³⁴ Cs, ¹³⁷ Cs	15(10 ^b),18	6.0E-02	130	15	60	150
¹⁴⁰ Ba-La	15			15		

NOTE: This list does not mean that only these nuclides are to be detected and reported. Other peaks which are measurable and identifiable, together with the above nuclides, shall be identified and reported.

* If no drinking water pathway exists, a value of 3000 pCi/L may be used.

Table 6-3 (Continued)

TABLE NOTATION

- a. The LLD is the smallest concentration of radioactive material in a sample that will be detected with 95% probability (with 5% probability of falsely concluding that a blank observation represents a "real" signal).

For a particular measurement system (which may include radiochemical separation):

$$LLD = \frac{4.66 s_b}{E * V * 2.22 * Y * \exp(-\lambda \Delta t)}$$

where:

LLD is the lower limit of detection as defined above (pCi per unit mass or volume),

s_b is the standard deviation of the background counting rate or of the counting rate of a blank sample as appropriate (counts per minute),

E is the counting efficiency (counts per transformation),

V is the sample size (in units of mass or volume),

2.22 is the number of transformations per minute per picocurie,

Y is the fractional radiochemical yield (when applicable),

λ is the radioactive decay constant for the particular radionuclide,

Δt is the elapsed time between end of the sample collection period and time of counting.

Typical values of E, V, Y and Δt should be used in the calculations.

The LLD is defined as an a priori (before the fact) limit representing the capability of a measurement system and not as a a posteriori (after the fact) limit for a particular measurement.

Analyses shall be performed in such a manner that the stated LLDs will be achieved under routine conditions. Occasionally background fluctuations, unavoidable small sample sizes, the presence of interfering nuclides, or uncontrollable circumstances may render these LLDs unachievable. In such cases, the contributing factors will be identified and described in the Annual Radiological Environmental Operating Report.

For more complete discussion of the LLD and other detection limits, see the following:

- (1) HASL Procedures Manual, HASL-300 (revised annually).
- (2) Currie, L. A., "Limits for Qualitative Detection and Quantitative Determination - Application to Radiochemistry" Anal. Chem. **40**, 586-93 (1968).

Table 6-3 (Continued)

TABLE NOTATION

- (3) Hartwell, J. K., "Detection Limits for Radioisotopic Counting Techniques", Atlantic Richfield Hanford Company Report ARH-2537 (June 22, 1972).
- b. LLD for drinking water.
- c. If no drinking water pathway exists, a value of 3000 pCi/liter may be used.
- d. LLD only when specific analysis for I-131 required.

Table 6-4

REPORTING LEVELS FOR RADIOACTIVITY CONCENTRATIONS IN ENVIRONMENTAL SAMPLES

Reporting Levels

Analysis	Water (pCi/L)	Airborne Particulate or Gas (pCi/m³)	Fish (pCi/kg. wet)	Milk (pCi/l)	Vegetables (pCi/kg, wet)
³ H	2.0E+04*				
⁵⁴ Mn	1.0E+03		3.0E+04		
⁵⁹ Fe	4.0E+02		1.0E+04		
⁵⁸ Co	1.0E+03		3.0E+04		
⁶⁰ Co	3.0E+02		1.0E+04		
⁶⁵ Zn	3.0E+02		2.0E+04		
⁹⁵ Zr-Nb	4.0E+02				
¹³¹ I	2.0E+00	9.0E-01		3.0E+00	1.0E+02
¹³⁴ Cs	3.0E+01	1.0E+01	1.0E+03	6.0E+01	1.0E+03
¹³⁷ Cs	5.0E+01	2.0E+01	2.0E+03	7.0E+02	2.0E+03
¹⁴⁰ Ba-La	2.0E+02			3.0E+02	

* For drinking water samples, this is the 40 CFR 141 value. If no drinking water pathway exists, a value of 30,000 pCi/liter may be used.

7.0 ADMINISTRATIVE CONTROLS

7.1 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

Routine Radiological Environmental Operating reports covering the operation of the unit during the previous calendar year shall be submitted by May 15 of each year.

The Annual Radiological Environmental Operating Report shall include summaries, interpretations, and an analysis of trends of the results of the radiological environmental verification activities for the report period, including a comparison with the preoperational studies, with operational controls, as appropriate, and with previous environmental surveillance reports and an assessment of the observed impacts of the plant operation on the environment. The reports shall also include the results of land use censuses as required in Section 5.1.

The Annual Radiological Environmental Operating Reports shall include the summarized and tabulated results of analysis of radiological environmental samples and of radiation measurements taken during the period pursuant to the locations specified in Sections 6.1 and Appendix C of this ODCM. In the event that some results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

The reports shall also include the following: a summary description of the radiological environmental monitoring program; at least two legible maps covering all sampling locations keyed to a table giving distances and directions from the centerline of one reactor; the results of licensee participation in the Interlaboratory Comparison Program, required by Section 6.3; and discussions of all analyses in which the LLD required by Table 6-3 was not achievable.

7.2 RADIOACTIVE EFFLUENT RELEASE REPORT

Radioactive Effluent Release Reports covering the operation of the unit during the previous calendar year shall be submitted by May 15 of each year.

The Radioactive Effluent Release Reports (RERR) shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit as outlined in Regulatory Guide 1.21, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants," Revision 1, June 1974, with data summarized on a quarterly basis following the format of Appendix B thereof.

The RERR shall include an annual summary of hourly meteorological data collected over the previous year. This annual summary may be either in the form of an hour-by-hour listing of wind speed, wind direction, atmospheric stability, and precipitation (if measured), or in the form of joint frequency distributions of wind speed, wind direction, and atmospheric stability. This same report shall include an assessment of the radiation doses due to the radioactive liquid and gaseous effluents released from the unit or station during the previous calendar year. This same report shall also include an assessment of the radiation doses from radioactive liquid and gaseous effluents to MEMBERS OF THE PUBLIC due to their activities inside the UNRESTRICTED AREA BOUNDARY during the reporting period. All assumptions used in making these assessments, i.e., specific activity, exposure time, and location, shall be included in these reports. The assessment of radiation doses shall be performed in accordance with the methodology and parameters in this ODCM.

The RERR shall also include an assessment of radiation doses to the likely most exposed MEMBER OF THE PUBLIC from reactor releases and other nearby uranium fuel cycle sources, including doses from primary effluent pathways and direct radiation, for the previous calendar year to show conformance with 40 CFR Part 190, "Environmental Radiation Protection Standards for Nuclear Power Operation."

The RERR shall include the following information for each class of solid waste (as defined by 10 CFR Part 61) shipped offsite during the report period:

- a. container volume,
- b. total curie quantity (specify whether determined by measurement or estimate),
- c. principal radionuclides (specify whether determined by measurement or estimate),
- d. source of waste and processing employed (e.g., dewatered spent resin, compressed dry waste, evaporator bottoms).
- e. type of container (e.g., Type A, Type 3, Large Quantity), and
- f. solidification agent or absorbent (e.g., cement, urea formaldehyde).

The RERR shall include a list and description of unplanned releases from the site to UNRESTRICTED AREAS of radioactive materials in gaseous and liquid effluents made during the reporting period.

The RERR shall include any changes made during the reporting period to the PROCESS CONTROL PROGRAM (PCP) and to the ODCM, as well as a listing of new locations for dose calculations and pursuant to Section 5.1.

The RERR shall include any radionuclide activity limits for the BWST which have been exceeded during the reporting period, a description of the event leading to the limit being exceeded and action taken to return it to within the limits.

7.3 LICENSEE EVENT REPORTS

Licensee Event Reports shall be submitted to the U. S. Nuclear Regulatory Commission (NRC) in accordance with 10 CFR 50.4 within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference:

- a. dose or dose commitment exceedances to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released to UNRESTRICTED AREAS (Section 2.4.1),
- b. the discharge of radioactive liquid waste without treatment and in excess of the limits in Section 2,
- c. the calculated air dose from radioactive gases exceeding the limits in Section 3.7.1,
- d. the calculated dose from the release of iodine-131, tritium, and radionuclides in particulate form with half-lives greater than 8 days, in gaseous effluents exceeding the limits of Section 3.8.1,

- e. the discharge of radioactive gaseous waste without treatment and in excess of the limits in Section 3.9,
- f. the calculated doses from the release of radioactive materials in liquid or gaseous effluents exceeding the limits of Section 4.2, and
- g. the level of radioactivity as the result of plant effluents in an environmental sampling medium exceeding the reporting levels of Table 6-4 (Section 6.2.2).

7.4 MAJOR CHANGES TO RADIOACTIVE LIQUID AND GASEOUS WASTE TREATMENT SYSTEMS

Licensee initiated major changes to the radioactive waste systems (liquid and gaseous):

1. Shall be reported to the Commission in the update to the Safety Analysis Report. The discussion of each change shall contain:
 - a. a summary of the evaluation that led to the determination that the change could be made in accordance with 10 CFR Part 50.59;
 - b. sufficient detailed information to totally support the reason for the change without benefit of additional or supplemental information;
 - c. a detailed description of the equipment, components and processes involved and the interfaces with other plant systems;
 - d. an evaluation of the change which shows the predicted releases of radioactive materials in liquid or gaseous effluents and/or quantity of solid waste that differ from those previously predicted in the license application and amendments thereto;
 - e. an evaluation of the change which shows the expected maximum exposures to individuals in the UNRESTRICTED AREA and the general population that differ from those previously estimated in the license application and amendments thereto;
 - f. a comparison of the predicted releases of radioactive materials in liquid and gaseous effluents to the actual releases for the period prior to when the changes are to be made;
 - g. an estimate of the exposure to plant operating personnel as a result of the change; and
 - h. documentation of the fact that the change was reviewed and found acceptable by the Plant Operations Review Committee.
2. Shall become effective upon review and acceptance by the Plant Operations Review Committee.

7.5 DEFINITIONS

- 7.5.1 BATCH RELEASE - The discharge of liquid wastes of a discrete volume.
- 7.5.2 COMPOSITE SAMPLE - A sample in which the method of sampling employed results in a specimen which is representative of the liquids released.
- 7.5.3 GASEOUS RADWASTE TREATMENT SYSTEM - The GASEOUS RADWASTE TREATMENT SYSTEM is a system that is designed and installed to reduce radioactive gaseous effluents by collecting primary coolant system off gases and providing for decay for the purpose of reducing the total radioactivity prior to release to the environment.
- 7.5.4 LOWER LIMIT OF DETECTION (LLD) - The LLD is the smallest concentration of radioactive material in a sample that will be detected with 95% probability, with 5% probability of falsely concluding that a blank observation represents a "real" signal.

For a particular measurement system (which may include radiochemical separation):

$$LLD = \frac{4.66 S_b}{E * V * 2.22 * Y * \exp(-\lambda \Delta t)}$$

where

LLD is the lower limit of detection as defined above (as pCi per unit mass or volume);

S_b is the standard deviation of the background counting rate or of the counting rate of a blank sample as appropriate (as counts per minute);

E is the counting efficiency (as counts per transformations);

V is the sample size (in units of mass or volume);

2.22 is the number of transformations per minute per picocurie;

Y is the fractional radiochemical yield (when applicable);

λ is the radioactive decay constant for the particular radionuclide; and

Δt for plant effluents is the elapsed time between the midpoint of sample collection and time of counting.

It should be recognized that the LLD is defined as an a priori (before the fact) limit representing the capability of a measurement system and not as an a posteriori (after the fact) limit for a particular measurement.

- 7.5.5 MEMBER OF THE PUBLIC - MEMBER(S) OF THE PUBLIC shall include all persons who are not occupationally associated with the plant. This category does not include employees of the utility, its contractors, or vendors. Also excluded from this category are persons who enter the site to service equipment or to make deliveries. This category does include persons who use portions of the site for recreation, occupational, or other purposes not associated with the plant.

- 7.5.6 PURGE-PURGING - PURGE OR PURGING is the controlled process of discharging air or gas from a confinement to maintain temperature, pressure, humidity, concentration or other operating condition, in such a manner that replacement air or gas is required to purify the confinement.
- 7.5.7 UNRESTRICTED AREA BOUNDARY - The UNRESTRICTED AREA BOUNDARY shall be that line beyond which the land is neither owned, nor leased, nor otherwise controlled by the licensee.
- 7.5.8 SOURCE CHECK - A SOURCE CHECK shall be the observation of channel upscale response when the channel sensor is exposed to a radioactive or LED source.
- 7.5.9 UNRESTRICTED AREA - An UNRESTRICTED AREA shall be any area at or beyond the UNRESTRICTED AREA BOUNDARY, access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation or radioactive materials, or any area within the UNRESTRICTED AREA BOUNDARY used for residential quarters or for industrial, commercial, institutional, and/or recreational purposes. The definition of UNRESTRICTED AREA used in implementing the Radiological Effluent Technical Specifications has been expanded over that in 10 CFR 100.3(a), but the unrestricted area does not include areas over water bodies. The concept of unrestricted areas, established at or beyond the UNRESTRICTED AREA BOUNDARY, is utilized in the Technical Specifications and the ODCM to keep levels of radioactive materials in liquid and gaseous effluents as low as is reasonably achievable, pursuant to 10 CFR 50.36a.
- 7.5.10 VENTILATION EXHAUST TREATMENT SYSTEM - A VENTILATION EXHAUST TREATMENT SYSTEM is a system that is designed and installed to reduce radioactive material in particulate form in effluents by passing ventilation or vent exhaust gases through HEPA filters for the purpose of removing particulates from the gaseous exhaust stream prior to release to the environment. Engineered Safety Feature (ESF) atmospheric cleanup systems are not considered to be VENTILATION EXHAUST TREATMENT SYSTEM components.
- 7.5.11 VENTING - VENTING is the controlled process of discharging air or gas from a confinement to maintain temperature, pressure, humidity, concentration or other operating condition, in such a manner that replacement air or gas is not provided or required during VENTING. Vent, used in system names, does not imply a VENTING process.

NOTES:

1. The following terms are defined in Section 1.1 of the Technical Specifications: CHANNEL CALIBRATION, CHANNEL CHECK, CHANNEL FUNCTIONAL TEST, OPERABLE-OPERABILITY.
2. The following terms are defined in Section 7.1 of the Technical Requirements Manual: FUNCTIONAL-FUNCTIONALITY.

APPENDIX A
Technical Basis for Simplified Dose Calculations
Liquid Effluent Releases

Overview

To simplify the dose calculation process, it is conservative to identify a controlling, dose-significant radionuclide and to use its dose conversion factor in the dose calculations. Using the total release (i.e., the cumulative activity of all radionuclides) and this single dose conversion factor as inputs to a one-step dose assessment yields a dose calculation method which is both simple and conservative.

Cs-134 is the controlling nuclide for the total body dose. It has the highest total body dose conversion factor for all the radionuclides listed in Table 2-6. Therefore, the use of its dose conversion factor in the simplified dose assessment method for evaluating the total body dose is demonstrably conservative.

The selection of the maximum organ dose conversion factor for use in the simplified calculation requires consideration of the prevalence of the radionuclides in the effluents. An examination of the Table 2-6 factor will show that the Nb-95 dose factor for the GI-LLI represents the highest value (1.51E+06 mrem/hr per $\mu\text{Ci/ml}$); and the P-32 bone factor (1.39E+06) is similarly high. However, neither of these two radionuclides are of significance in the Davis-Besse effluents. Nb-95 is not typically measured in the liquid effluents and P-32 analyses are not even performed. (NRC has categorically determined that P-32 is not a significant radionuclide in liquid effluents from nuclear power plants and does not require the special radiochemical analyses needed for identification and quantification.) The next highest dose conversion factor is for Cs-134, liver, with a value of 7.09E+05 mrem/hr per $\mu\text{Ci/ml}$. Cs-134 is a prevalent radionuclide in the liquid effluents from Davis-Besse. Therefore, it is recommended that the Cs-134 liver dose conversion factor be used for the simplified maximum organ dose assessment.

Simplified Method

For evaluating compliance with the dose limits of Section 2.4.1, the following simplified equations may be used:

Total Body

$$D_{\text{tb}} = \frac{1.67\text{E} - 02 * \text{VOL}}{\text{DF} * Z} * A_{(\text{Cs-134, tb})} * \Sigma C_i \quad (\text{A-1})$$

where:

D_{tb} = dose to the total body (mrem)

VOL = volume of liquid effluents released (gal)

DF = average Collection Box release flow (gal/min)

Z = 10, near field dilution

$A_{(Cs-134,tb)}$ = $5.79E+05$ mrem/hr per $\mu Ci/ml$, the total body ingestion dose factor for Cs-134

ΣC_i = total concentration of all radionuclides ($\mu Ci/ml$)

$1.67E-02$ = 1 hr/60 min

Substituting the values for Z and the Cs-134 total body dose conversion factor, the equation simplifies to:

$$D_{tb} = \frac{9.67E+02 * VOL}{DF} * \Sigma C_i \quad (A-2)$$

Maximum Organ

$$D_{max} = \frac{1.67E-02 * VOL}{DF * Z} * A_{(Cs-134,liver)} * \Sigma C_i \quad (A-3)$$

where:

D_{max} = maximum organ dose (mrem)

$A_{(Cs-134,liver)}$ = $7.09E+05$ mrem/hr per $\mu Ci/ml$, the liver ingestion dose factor for Cs-134

Substituting the values for Z and the Cs-134 liver dose conversion factor, the equation simplifies to:

$$D_{max} = \frac{1.18E+03 * VOL}{DF} * \Sigma C_i \quad (A-4)$$

Tritium should not be included in the simplified analysis dose assessment for liquid releases. The potential dose resulting from normal reactor releases of H-3 is relatively negligible. But, its relatively higher abundance would yield resulting simplified doses that would be overly conservative and unrealistic. Excluding tritium has essentially no impact on the conservative use of this recommended simplified method. Furthermore, the release of tritium is a function of operating history and is essentially unrelated to radwaste system operations.

APPENDIX B

Technical Basis for Effective Dose Factors

Gaseous Effluent Releases

Overview

Dose evaluations for releases of gaseous radioactive effluents may be simplified by the use of an effective dose factor rather than radionuclide-specific dose factors. These effective dose factors are applied to the total radioactive release to approximate the various doses in the environment; i.e., the total body, gamma-air, and beta-air doses. The effective dose factors are based on the typical radionuclide distribution in the gaseous radioactive effluents. The approach provides a reasonable estimate of the actual doses since under normal operating conditions, minor variations are expected in the radionuclide distribution.

Determination of Effective Dose Factors

Effective dose factors are calculated by equations (B-1) through (B-4).

$$K_{\text{eff}} = \Sigma (K_i * f_i) \quad (\text{B-1})$$

where:

- K_{eff} = the effective total body dose factor due to gamma emissions from all noble gases released (mrem/yr per $\mu\text{Ci}/\text{m}^3$),
- K_i = the total body dose factor due to gamma emissions from each noble gas radionuclide i released, from Table 3-5 (mrem/yr per $\mu\text{Ci}/\text{m}^3$), and
- f_i = the fractional abundance of noble gas radionuclide i relative to the total noble gas activity.

$$(L + 1.1 M)_{\text{eff}} = \Sigma ((L_{i\beta} + 1.1M_i) * f_i) \quad (\text{B-2})$$

where:

- $(L+1.1M)_{\text{eff}}$ = the effective skin dose factor due to beta and gamma emissions from all noble gases released (mrem/yr per $\mu\text{Ci}/\text{m}^3$), and
- $(L_i+1.1M_i)$ = the skin dose factor due to beta and gamma emissions from each noble gas radionuclide i released, from Table 3-5 (mrem/yr per $\mu\text{Ci}/\text{m}^3$).

$$M_{\text{eff}} = \Sigma (M_i * f_i) \quad (\text{B-3})$$

where:

- M_{eff} = the effective air dose factor due to gamma emissions from all noble gases released (mrad/yr per $\mu\text{Ci}/\text{m}^3$), and
- M_i = the air dose factor due to gamma emissions from each noble gas radionuclide i released, from Table 3-5 (mrad/yr per $\mu\text{Ci}/\text{m}^3$).

$$N_{\text{eff}} = \sum (N_i * f_i) \quad (\text{B-4})$$

where:

- N_{eff} = the effective air dose factor due to beta emissions from all noble gases released (mrad/yr per $\mu\text{Ci}/\text{m}^3$), and
- N_i = the air dose factor due to beta emissions from each noble gas radionuclide i released, from Table 3-5 (mrad/yr per $\mu\text{Ci}/\text{m}^3$).

Normally, past radioactive effluent data would be used for the determination of the effective dose factors. However, the releases of noble gases from Davis-Besse have been exceedingly insignificant. Therefore, in order to ensure overall conservatism in the modeling, the USAR estimate of radionuclide concentrations at the UNRESTRICTED AREA BOUNDARY (summarized in Table B-1) has been used as the initial typical distribution. The effective dose factors derived from this distribution are presented in Table B-2.

Application

To provide an additional degree of conservatism, a factor of 2.0 is introduced into the dose calculation when the effective dose factor is used. This conservatism provides additional assurance that the evaluation of doses by the use of a single effective dose factor will not significantly underestimate any actual doses in the environment.

For evaluating compliance with the dose limits of Technical Specification 5.5.3.e and 5.5.3.h, the following simplified equations may be used:

$$D\lambda = 2.0 * 3.17E - 08 * \chi / Q * M_{\text{eff}} * \sum Q_i \quad (\text{B-5})$$

and

$$D\beta = 2.0 * 3.17E - 08 * \chi / Q * N_{\text{eff}} * \sum Q_i \quad (\text{B-6})$$

where:

- $D\lambda$ = air dose due to gamma emissions for the cumulative release of all noble gases (mrad),
- $D\beta$ = air dose due to beta emissions for the cumulative release of all noble gases (mrad),
- χ/Q = atmospheric dispersion to the controlling unrestricted area boundary (sec/m^3),
- M_{eff} = $5.7E+02$, effective gamma-air dose factor (mrad/yr per $\mu\text{Ci}/\text{m}^3$),
- N_{eff} = $1.1E+03$, effective beta-air dose factor (mrad/yr per $\mu\text{Ci}/\text{m}^3$),

Q_i = cumulative release for all noble gas radionuclides (μCi),

$3.17\text{E}-08$ = conversion factor (yr/sec), and

2.0 = conservatism factor to account for the variability in the effluent data.

Combining the constants, the dose calculation equations simplify to:

$$D\lambda = 3.61\text{E} - 05 * \chi / Q * \Sigma Q_i \quad (\text{B-5})$$

and

$$D\beta = 7.20\text{E} - 05 * \chi / Q * \Sigma Q_i \quad (\text{B-6})$$

The effective dose factors are used for the purpose of facilitating the timely assessment of radioactive effluent releases, particularly during periods when the computer or ODCM software may be unavailable to perform a detailed dose assessment.

Table B-1
Default Noble Gas Radionuclide Distribution *
of Gaseous Effluents

<u>Nuclide</u>	Fraction of Total ($A_i / \sum A_i$)			
	<u>Containment Vessel Purge</u>	<u>Station Vent</u>	<u>Waste Gas Decay Tank</u>	<u>Total</u>
Ar-41	0.0003	0.004	0.004	0.003
Kr-85	0.12	0.012	0.034	0.06
Xe-131m	0.02	0.009	0.008	0.017
Xe-133m	0.005	0.011	0.011	0.008
Xe-133	0.86	0.94	0.92	0.83
Xe-135m	--	0.004	0.0034	0.06
Xe-135	<u>0.002</u>	<u>0.02</u>	<u>0.02</u>	<u>0.021</u>
Total	<u>1.0</u>	<u>1.0</u>	<u>1.0</u>	<u>1.0</u>

NOTE:

** Data adapted from Davis-Besse USAR Section 11.3, Table 11.3-13 and Table 11.3-14. Kr-83m, Kr-85m, Kr-87, Kr-88 and Xe-138 have been excluded because of their negligible fractional abundance (i.e., < 1%).

Table B-2
Effective Dose Factors - Noble Gas Effluents

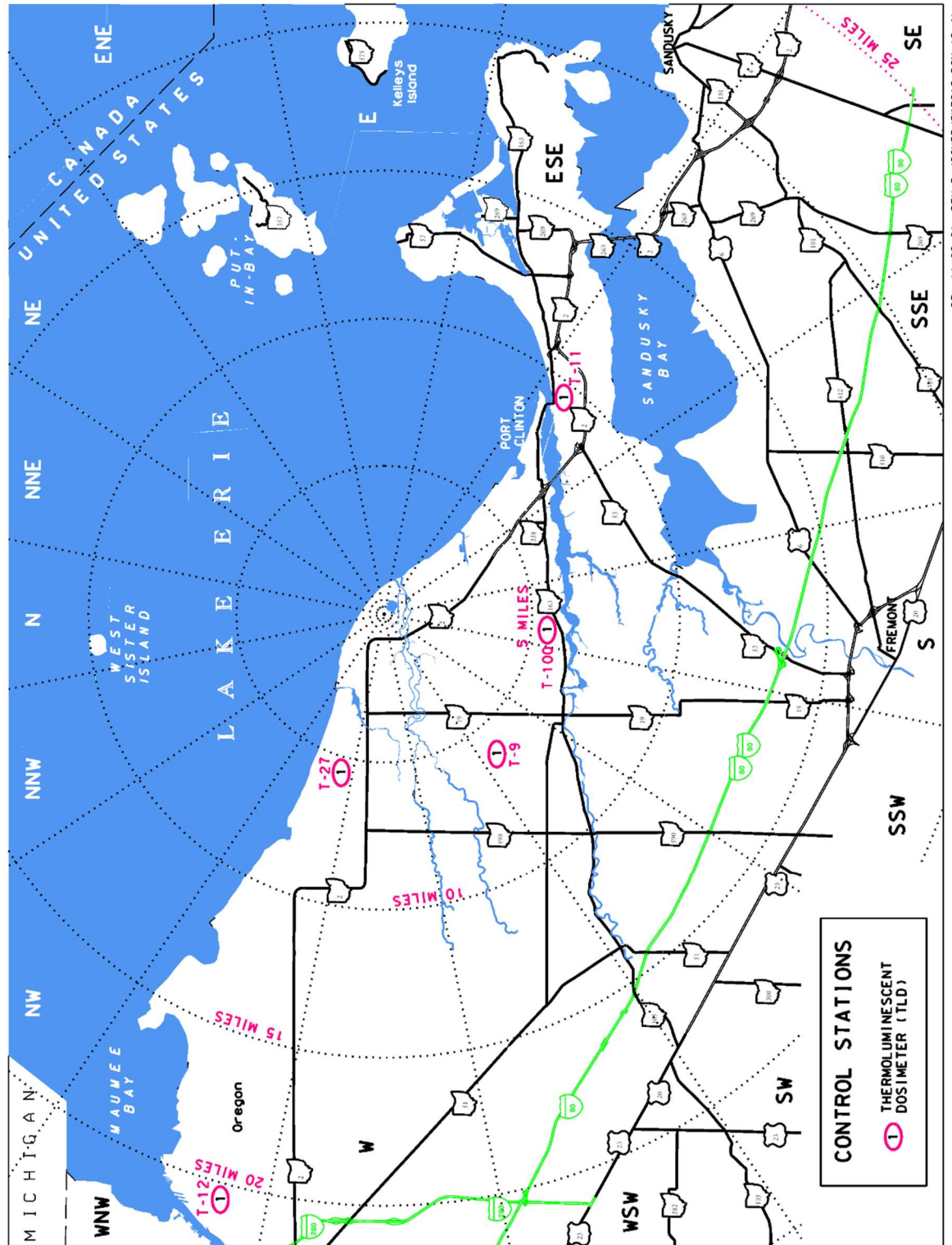
Isotope	Fractional Abundance	Total Body Dose Factor K_{eff} (mrem/yr per $\mu\text{Ci}/\text{m}^3$)	Skin Dose Factor (L+1.1 M_{eff}) (mrem/yr per $\mu\text{Ci}/\text{m}^3$)	Gamma Air Dose Factor M_{eff} (mrad/yr per $\mu\text{Ci}/\text{m}^3$)	Beta Air Dose Factor N_{eff} (mrad/yr per $\mu\text{Ci}/\text{m}^3$)
Ar-41	0.003	2.65E+01	3.87E+01	2.79E+01	9.84E+00
Kr-85	0.06	9.96E-01	8.15E+01	1.03E+00	1.17E+02
Xe-131m	0.017	1.55E+00	1.10E+01	2.65E+00	1.88E+01
Xe-133m	0.008	2.00E+00	1.08E+01	2.61E+00	1.18E+01
Xe-133	0.83	2.44E+02	5.76E+02	2.93E+02	8.72E+02
Xe-135m	0.06	1.87E+02	2.64E+02	2.02E+02	4.43E+01
Xe-135	0.02	3.62E+01	7.94E+02	4.03E+01	5.16E+01
TOTAL	1.0	4.98E+02	9.89E+02	5.69E+02	1.12E+03

APPENDIX C
Radiological Environmental Monitoring Program
Sample Location Maps

The map displays the Savannah River Site, showing the Inner Ring and various indicator stations. The central area contains the main facility buildings, including the Service Building, Turbine Building, and Cooling Tower. The map is divided into sections by dashed lines, with compass directions (N, NE, E, SE, S, SW, W, NW, NNW, NNE, ENE, ESE, SSE, SSW, WSW, WNW, NNW, NNE, ENE, ESE, SSE, SSW, WSW, WNW) labeled around the perimeter. Numerous indicator stations are marked with red circles and labeled with codes such as T-203, T-47, T-71, T-206, T-46, T-68, T-45, T-65, T-50, T-44, T-73, T-43, T-42, T-10, T-14, T-41, T-60, T-142, T-62, T-40, T-3, T-212, T-2, T-211, T-38, T-11, T-49, T-48, T-6, T-208, T-203, T-47, T-71, T-206, T-46, T-68, T-45, T-65, T-50, T-44, T-73, T-43, T-42, T-10, T-14, T-41, T-60, T-142, T-62, T-40, T-3, T-212, T-2, T-211, T-38, T-11, T-49, T-48, T-6, T-208, T-203. A legend box in the center-right indicates 'INDICATOR STATIONS INNER RING THERMOLUMINESCENT DOSIMETER (TLD)'.

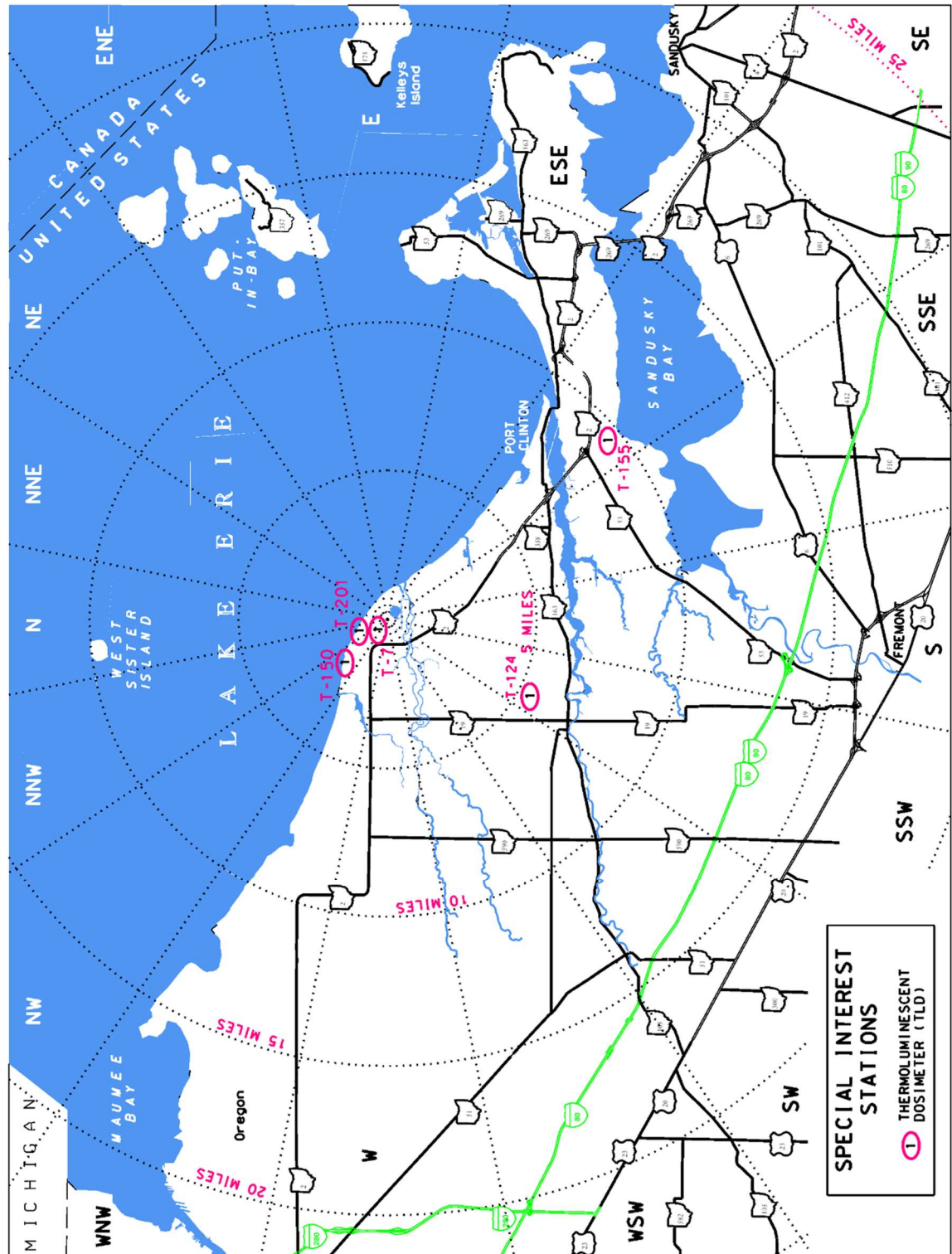
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ODCM

DAVIS-BESSE NUCLEAR POWER STATION RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM



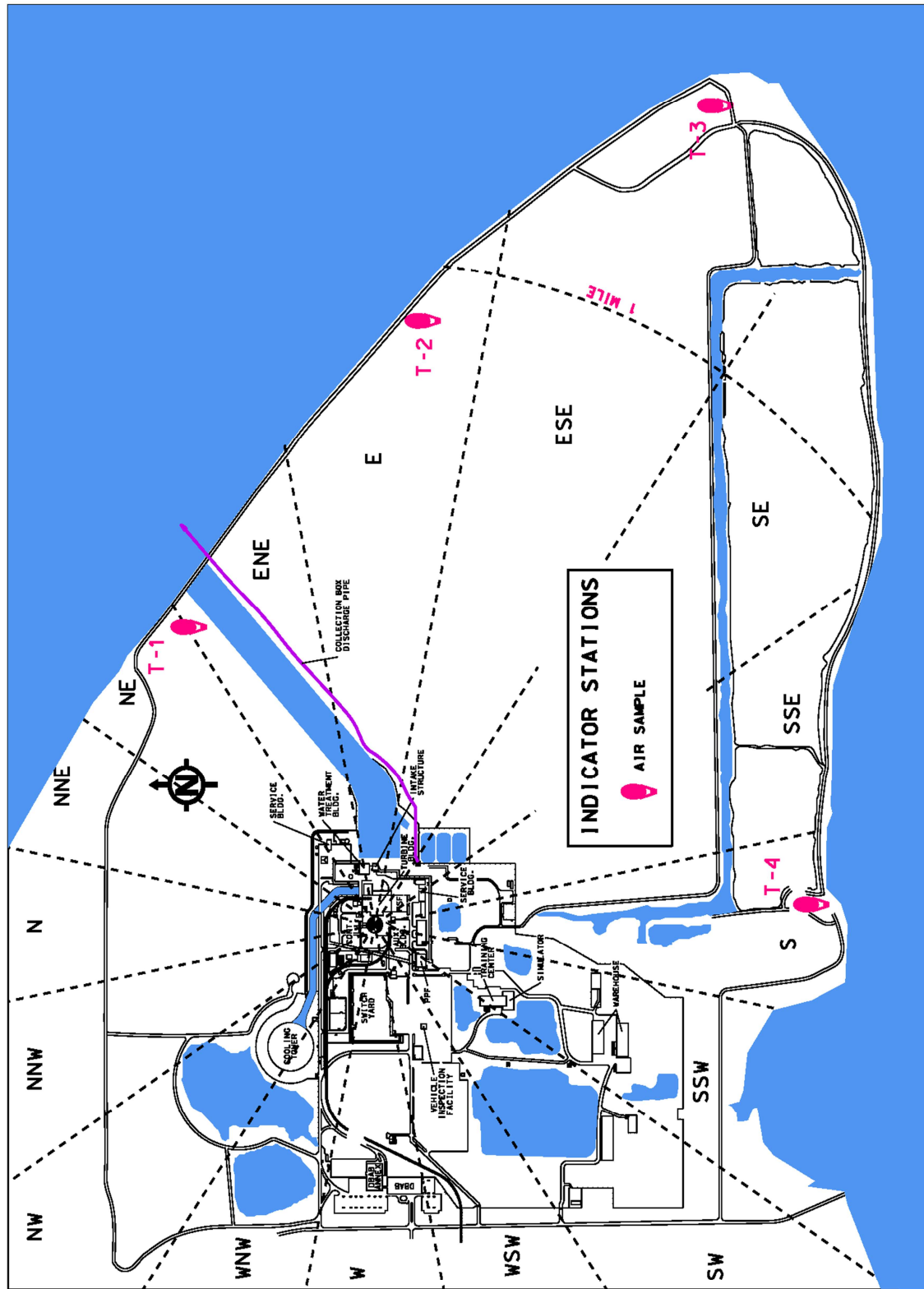
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DAVIS-BESSE NUCLEAR POWER STATION RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM



DB: 11-29-21 DFN#F1/SCHED/SK2815.DGN (C-4)

DAVIS-BESSE NUCLEAR POWER STATION RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM



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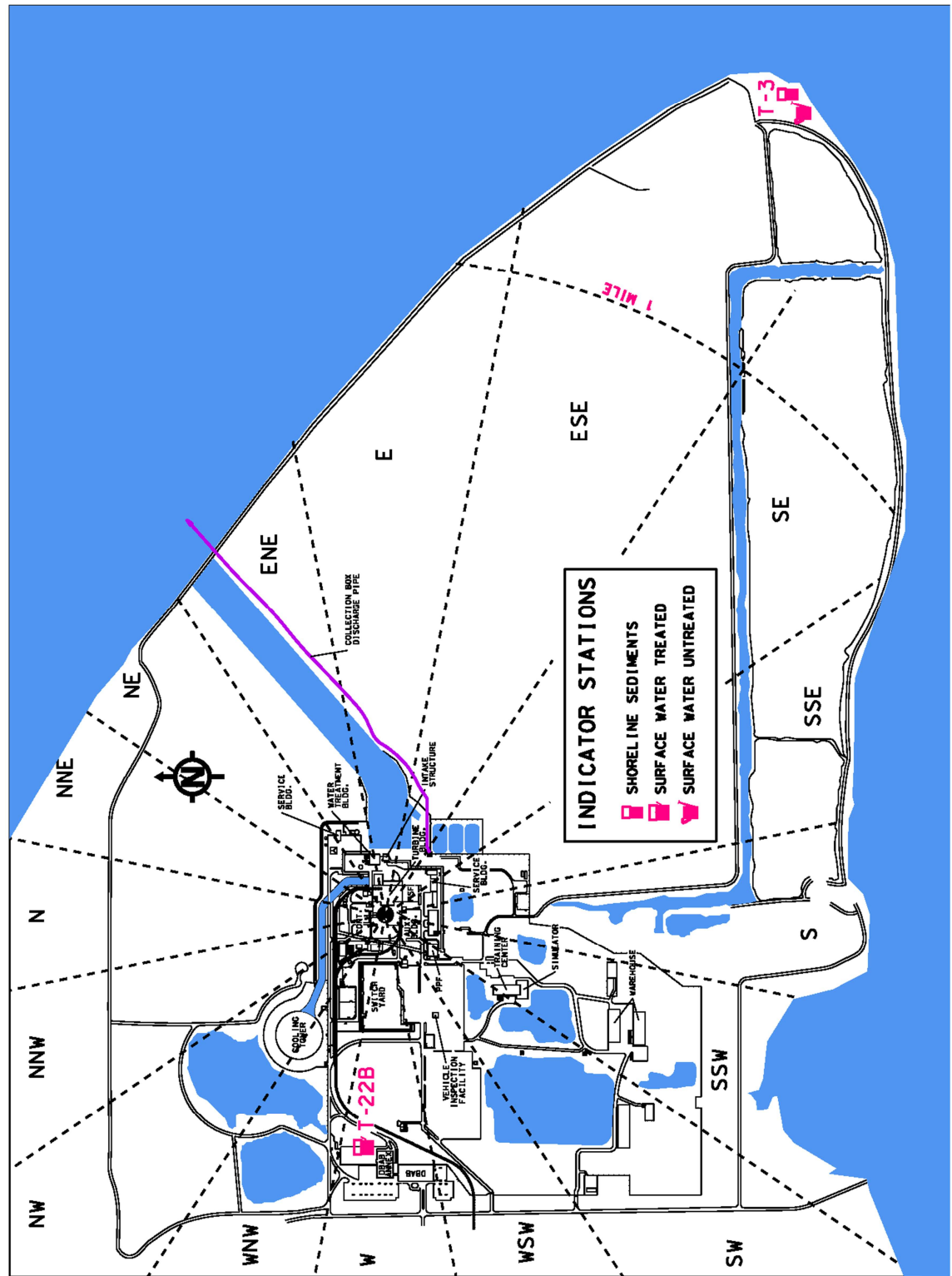
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ODCM

This map illustrates the Lake Erie region, including parts of Michigan, Ontario, Canada, and the United States. Key features include:

- Geographical Features:** Lake Erie, Sandusky Bay, Port Clinton, West Sister Island, Put-In-Bay, and Kelley's Island.
- Control Stations:** Indicated by pink dots with labels: T-32, T-31, and T-30.
- Air Sample Locations:** Indicated by pink dots with labels: T-32, T-31, and T-30.
- Distances:** Marked in miles (e.g., 10 MILES, 15 MILES, 20 MILES, 25 MILES).
- Directions:** Indicated by letters (e.g., NW, W, SW, S, SE, SSE, E, ENE, NE, NNE, NNW, NN, NW, WSW, WNW, WNW, WNW).
- Legend:** A box in the bottom right corner defines the symbols: "CONTROL STATIONS" (pink dot) and "AIR SAMPLE" (pink dot).

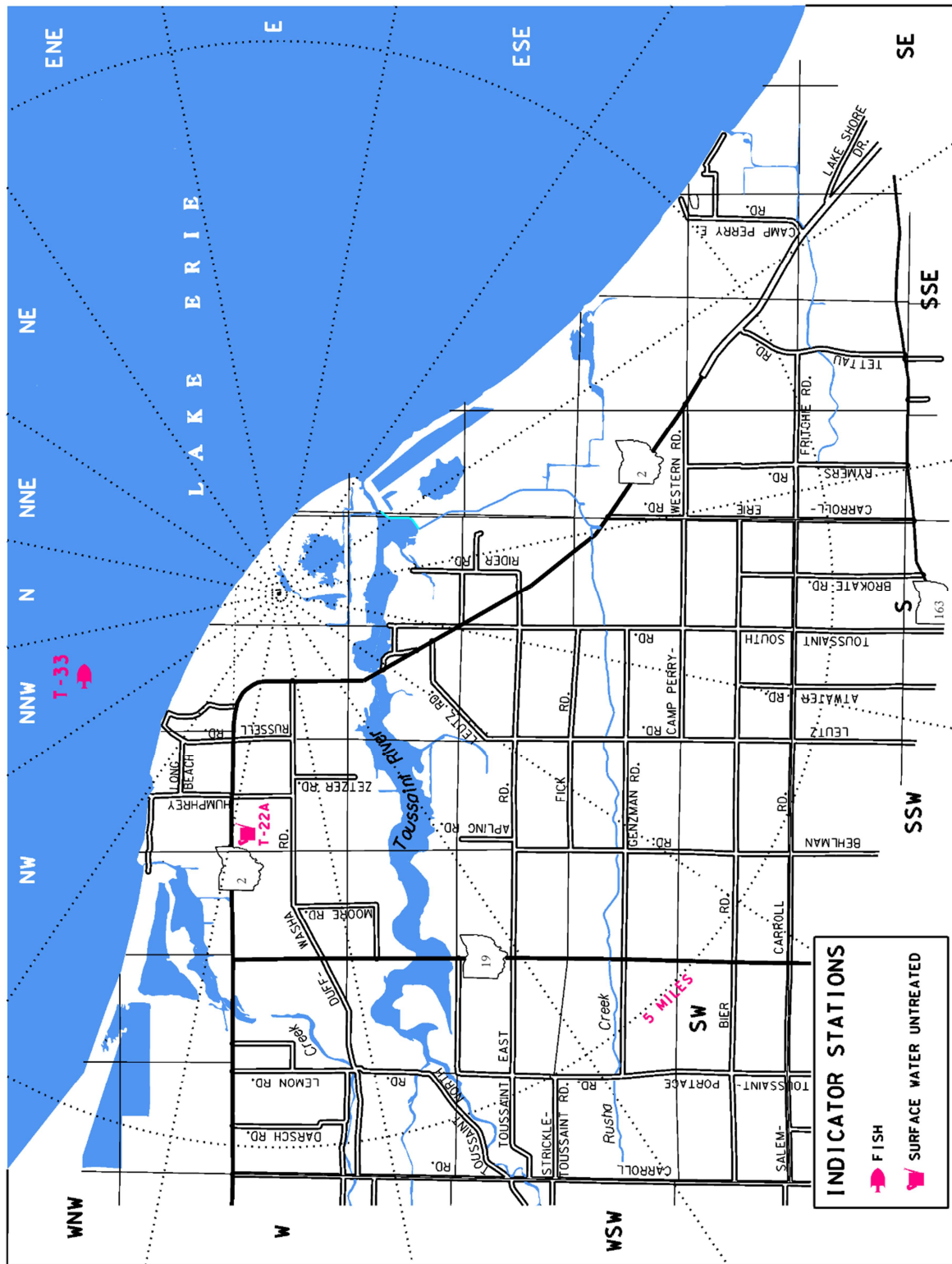


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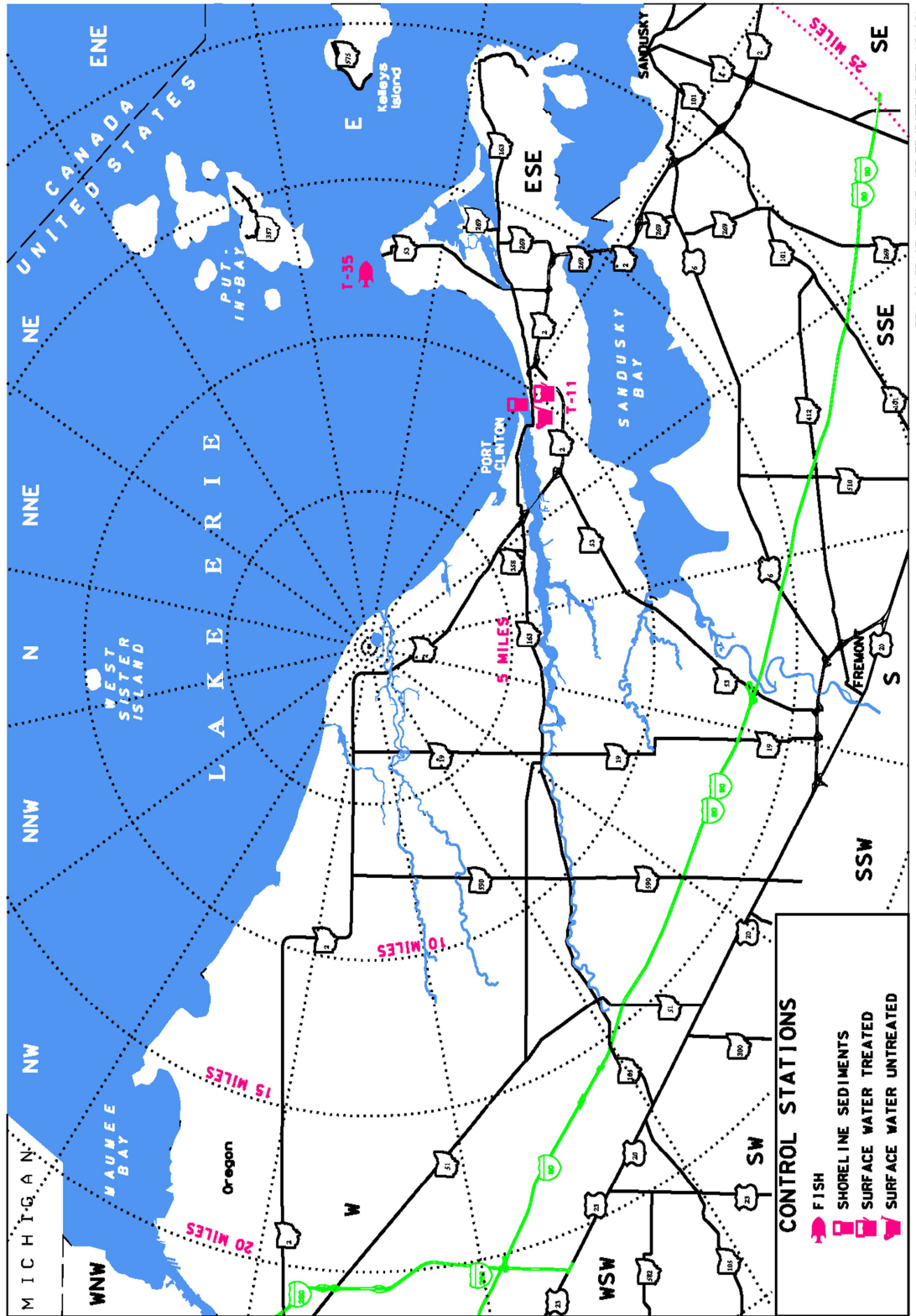
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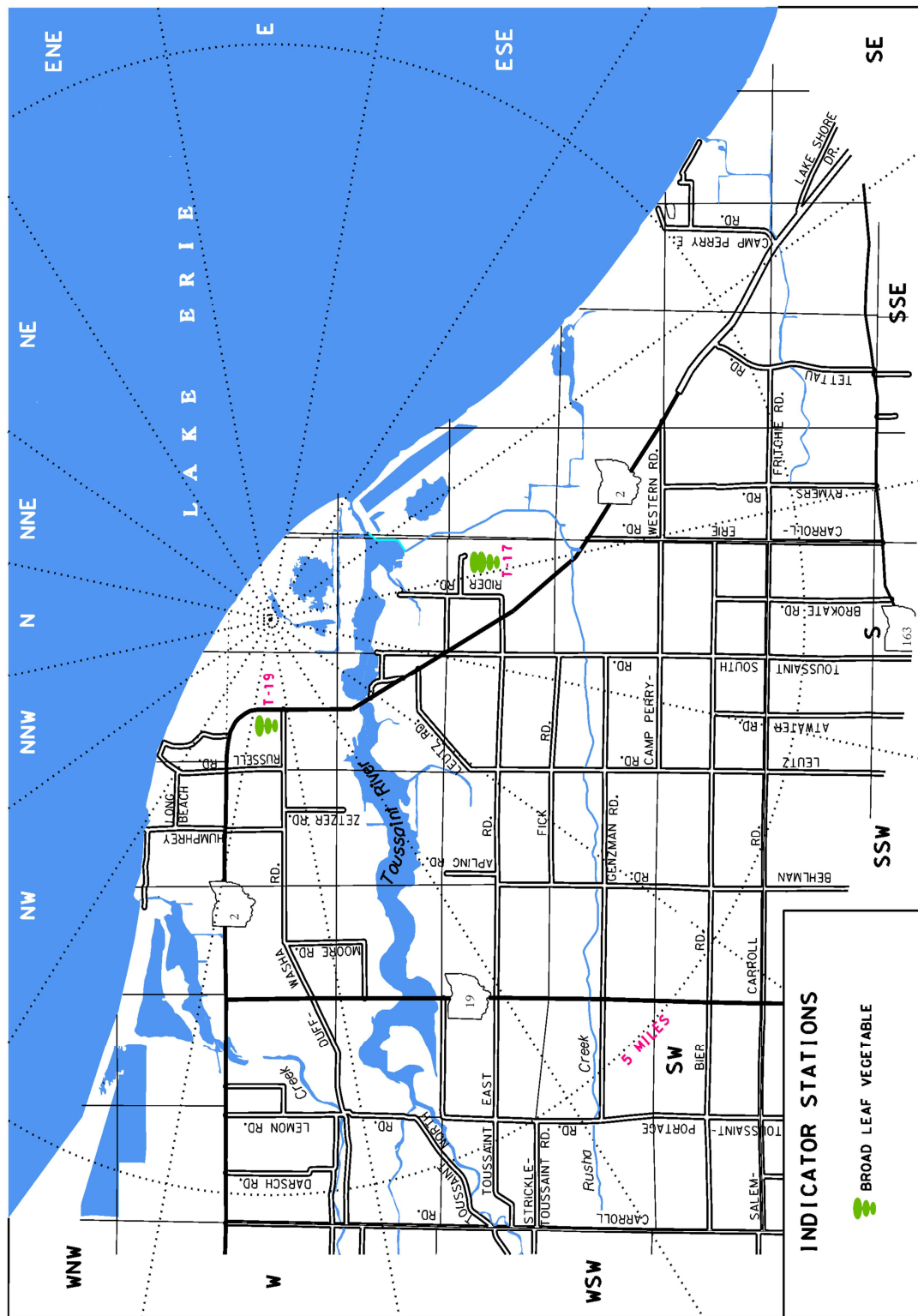
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DAVIS-BESSE NUCLEAR POWER STATION RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM



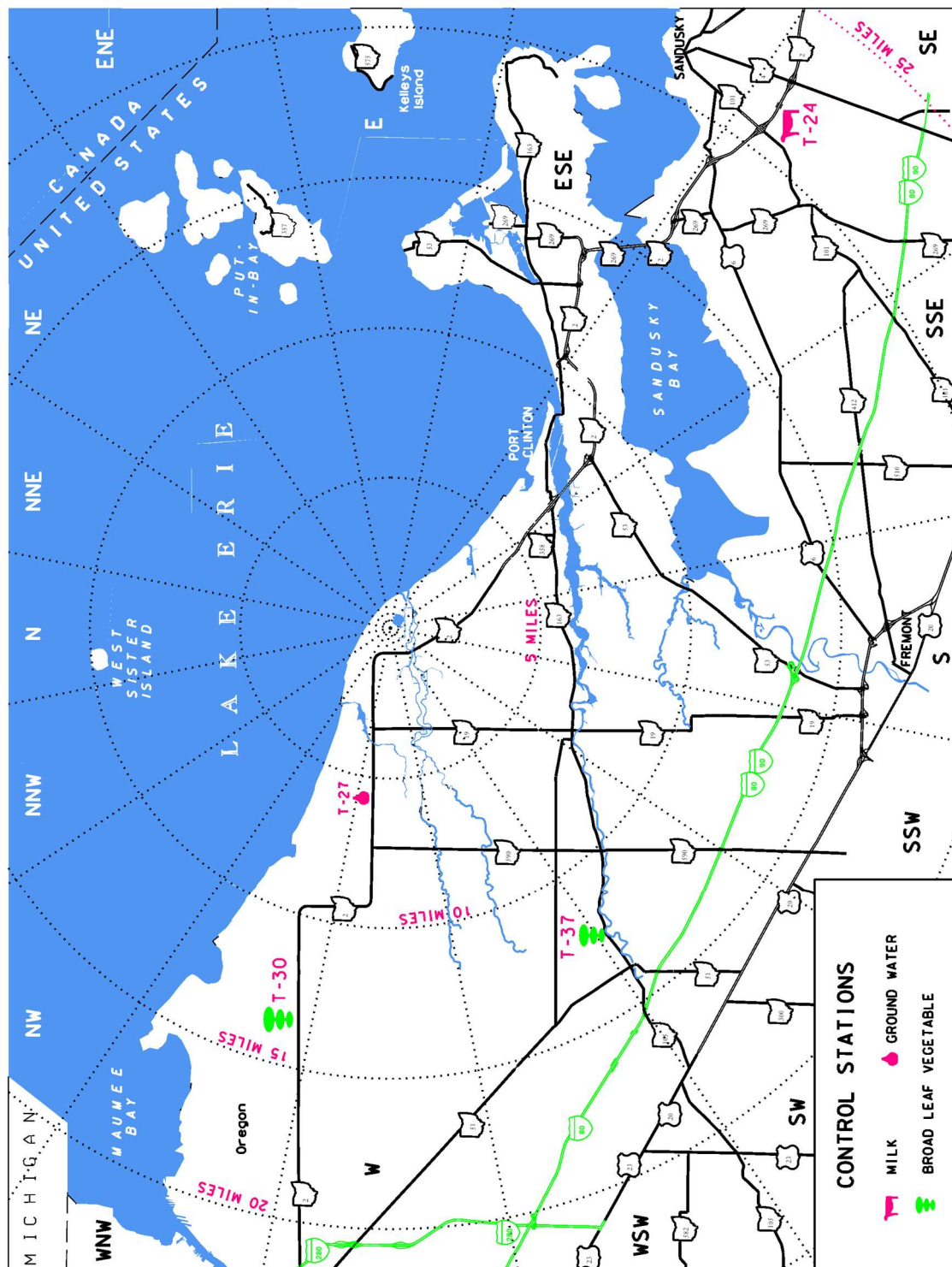
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DAVIS-BESSE NUCLEAR POWER STATION RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM



DB: 10-22-20 DFN-F7/SOHE/SK2816.GDN (C-11)

DAVIS-BESSE NUCLEAR POWER STATION RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM



DB: 11-29-21 DFN-F: /SCHED/SK2815.DGN (C-12)

APPENDIX D
ODCM Subsections Related to Station Procedures

OVERVIEW

To ensure required alteration changes to the ODCM and implementing procedures are completed, the following ODCM subsections and the implementing procedures may be referenced as an aid.

2.0 LIQUID EFFLUENTS

2.1.1.a.i Clean Radwaste Effluent Monitors (RE-1770A & B)

DB-SC-03200 - Shift Channel Check of the Radiation Monitor System
DB-SC-03221 - Quarterly Functional Test of RE 1770A and/or RE 1770B, Clean
Liquid Waste System Discharge Radiation Monitors
DB-MI-03401 - Channel Calibration of RE-1770A & B, RE-1878A & B, RE-4686
Liquid Process and RE-1822A & B Waste Gas System Outlet Digital
Radiation Monitors
DB-OP-03011 - Radioactive Liquid Batch Release

2.1.1.a.ii Miscellaneous Radwaste Effluent Monitors (RE 1878A & B)

DB-SC-03200 - Shift Channel Check of the Radiation Monitor System
DB-SC-03222 - Quarterly Functional Test of RE 1878A and/or RE1878B,
Miscellaneous Waste System Outlet Radiation Elements
DB-MI-03401 - Channel Calibration of RE-1770A & B, RE-1878A & B, RE-4686
Liquid Process and RE-1822A & B Waste Gas System Outlet Digital
Radiation Monitors
DB-OP-03011 - Radioactive Liquid Batch Release

2.1.1.b.i Storm Sewer Drain line (RE-4686)

DB-SC-03200 - Shift Channel Check of the Radiation Monitor System
DB-SC-03224 - Quarterly Functional Test of RE 4686, Turbine Building/ Storm
Sewer Discharge Radiation Monitor
DB-SC-03231 - Monthly Check Source Test of RE 4686, Turbine Building/ Storm
Sewer Discharge Radiation Monitor
DB-MI-03401 - Channel Calibration of RE-1770A&B, RE-1878A & B, RE-4686
Liquid Process and RE-1822A & B Waste Gas System Outlet Digital
Radiation Monitors

2.1.1.c.i Flow Indicator (FI) 1700 A&B

DB-MI-03423 - Channel Functional Test of 69D-ISF1700A Clean Waste Outlet 1.5”
Flow
DB-MI-03424 - Channel Calibration of 69D-ISF1700A Clean Waste Outlet 1.5” Flow
DB-MI-03425 - Channel Functional Test of 69D-ISF1700B Clean Waste Outlet 3.0”
Flow
DB-MI-03426 - Channel Calibration of 69D-ISF1700B Clean Waste Outlet 3.0” Flow

Flow Totalizer (FQI) 1700 A&B

DB-MI-03424 - Channel Calibration of 69D-ISF1700A Clean Waste Outlet 1.5" Flow

DB-MI-03426 - Channel Calibration of 69D-ISF1700B Clean Waste Outlet 3.0" Flow

2.1.1.c.ii

Flow Indicator (FI) 1887 A&B

DB-MI-03432 - Channel Calibration of 71C-ISF1887A Miscellaneous Waste Outlet
1.5" Flow

DB-MI-03434 - Channel Calibration of 71C-ISF1887B Miscellaneous Waste Outlet
3.0" Flow

Flow Totalizer (FQI) 1887 A&B

DB-MI-03432 - Channel Calibration of 71C-ISF1887A Miscellaneous Waste Outlet
1.5" Flow

DB-MI-03434 - Channel Calibration of 71C-ISF1887B Miscellaneous Waste Outlet
3.0" Flow

2.1.1.c.iii

F145(FT-840)

DB-MI-03422 – Channel Functional/Calibration of 41C-ISF840, Cooling Tower
Blowdown Flow

F890 Service Water Outflow (FT-2729)

DB-MI-03435 - Channel Functional Test of 20A-ISF2729, Service Water Outlet Flow
to Collection Box

F200 Collection Box Dilution Flow (FT2799)

DB-MI-03437 - Channel Functional Test of 20A-ISF2799, Cooling Tower Makeup
Pumps to Collection Box Flow

F886 Unit Dilution Pump Flow (FT3611)

DB-MI-03439 – Channel Functional Test of 20A-ISF3611 Dilution Pump Discharge
Flow

2.1.2

Non Required Monitors

Component Cooling Water System (RE-1412 & RE-1413)

DB-SC-04178 - Quarterly Functional Test of RE 1412, Component Cooling Water Return Line to CC Pump 1 Radiation Monitor

DB-SC-04179 - Quarterly Functional Test of RE 1413, Component Cooling Water Return Line to CC Pump 2 Radiation Monitor

DB-SC-04187 - Daily Check of the Radiation Monitoring System

DB-MI-04501 - Channel Calibration of RE-1412 and RE-1413 Process Radiation Monitors

Service Water System (RE-8432)

DB-SC-04162 - Quarterly Functional Test of RE 8432, Service Water Discharge Radiation Monitor

DB-SC-04187 - Daily Check of the Radiation Monitoring System

DB-MI-04559 - Channel Calibration of RE-1998 (Failed Fuel), RE-8432, and RE-8434 Process Radiation Monitors (UDR)

Intake Forebay (RE-8434)

DB-SC-04164 - Quarterly Functional Test of RE 8434, Station Intake Forebay Radiation Monitor

DB-SC-04187 - Daily Check of the Radiation Monitoring System

DB-MI-04559 - Channel Calibration of RE-1998 (Failed Fuel), RE-8432, and RE-8434 Process Radiation Monitors (UDR)

2.2

Sampling and Analysis of Liquid Effluents

2.2.1

Batch Releases

Prior to Release (Grab sample of principal Gamma Emitters)

DB-OP-03011 - Radioactive Liquid Batch Release

Once Per Month (Dissolved and Entrained Gases)

DB-OP-03011 - Radioactive Liquid Batch Release

Once Per month (Composite Sample of H-3 and alpha activity)

DB-CN-03012 - Liquid Releases, Monthly Monitoring Analysis

Once Per Quarter (Composite sample of Sr-89, Sr-90 and Fe-55)

DB-CN-03013 - Liquid Releases, Quarterly Monitoring Analysis

2.2.2

Continuous Releases

North Settling Basin

DB-CN-04039 - North Settling Basin Weekly Sampling and Analysis

DB-CN-04040 - North Settling Basin Quarterly Analysis

Turbine Building Sump and Storm Sewer Drain

DB-CN-12005 - Storm Sewer Monitor (RE 4686) Inoperable/In Alarm

- 2.2.4 Borated Water Storage Tank
DB-CH-03004 - Borated Water Storage Tank Analysis
- 2.3.3 Liquid Radwaste Effluent Monitor Set Point Calculation - (RE1770A/B & RE 1878A/B)
DB-OP-03011 - Radioactive Liquid Batch Release
- 2.3.4 Storm Sewer Drain Monitor (RE-4686) Setpoint
DB-HP-10000 - Radiation Monitor Setpoint Control
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Component Cooling Water System (RE-8412, RE-8413)
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- 2.3.6 Alarm Response - Evaluating Actual Release Conditions
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- 2.4 Liquid Effluent Dose Calculation – 10 CFR - 50
DB-CN-03001 - Liquid and Gaseous Radioactive Dose Commitment
DB-OP-03011 - Radioactive Liquid Batch Release
DB-CN-03023 - Annual Land Use Census
- 2.5 Liquid Dose Projections
DB-OP-03011 - Radioactive Liquid Batch Release
DB-CN-03001 - Liquid and Gaseous Radioactive Dose Commitment

3.0 GASEOUS EFFLUENTS

3.1.1 Alarm and Automatic Release Termination

Waste Gas Decay System Monitor (RE 1822A & B)

DB-SC-03200 - Shift Channel Check of the Radiation Monitor System

DB-SC-03225 - Quarterly Functional Test of RE 1822A and/or RE 1822B, Waste Gas System Discharge to Station Vent Radiation Monitors

DB-MI-03401 - Channel Calibration of RE-1770A & B, RE-1878A & B, RE-4686 Liquid Process and RE-1822A & B Waste Gas System Outlet Digital Radiation Monitors

DB-OP-03012 - Radioactive Gaseous Batch Release

Containment Purge Exhaust Filter Monitor (RE 5052A, B and C)

DB-SC-03200 - Shift Channel Check of the Radiation Monitor System

DB-SC-03227 - Quarterly Functional Test of RE 5052A, B, and C, CTMT Purge Exhaust Radiation Monitor

DB-SC-03228 - Monthly Check Source Test of RE 5052C, CTMT Purge Exhaust Radiation Monitor (Noble Gas Activity Channel)

DB-MI-03415 - Channel Calibration of RE-5052C, Containment Purge Exhaust Fan Inlet Digital Process Radiation Monitor

DB-MI-03428 - Channel Calibration of 72C-ISF1821 Waste Gas System Outlet 1.0" Flow

DB-MI-04503 - Channel Calibration of RE-5327A & C and RE-5328A & C, Analog Process Radiation Monitors

DB-MI-04514 - Channel Calibration of RE-5327B and RE-5328B Analog Process Radiation Monitors

DB-RE-04503 - Channel Calibration of RE-1003B, RE-5052A, RE-5403A & C, and RE-5405A & C Digital Process Radiation Monitors

DB-RE-04514 - Channel Calibration of RE-1003A, RE-5052B, RE-5403B, and RE-5405B Digital Process Radiation Monitors

Gaseous Flow Measurement Devices (FT-1821)

DB-MI-03428 - Channel Calibration of 72C-ISF1821 Waste System Gas Outlet 1.0" Flow

DB-SP-03419 - Waste Gas System Flow Transmitters Quarterly Channel Functional Test

3.1.2 Alarm Only

Station Vent Monitor (RE 4598AA & BA)

DB-SC-03200 - Shift Channel Check of the Radiation Monitor System

DB-SC-03216 - Quarterly Functional Test of RE 4598AA, Station Vent Normal Range Radiation Monitor

DB-SC-03218 - Quarterly Functional Test of RE 4598BA, Station Vent Normal Range Radiation Monitor

DB-SC-03229 - Monthly Check Source Test of RE 4598AA, Station Vent Normal Range Radiation Monitor (Noble Gas Activity Channel)

DB-SC-03230 - Monthly Check Source Test of RE 4598BA Station Vent Normal Range Radiation Monitor (Noble Gas Activity Channel)

DB-MI-03413 - Channel Calibration of RE4598AA Station Vent Normal Range Radiation Monitor Channel 1

DB-MI-03417 - Channel Calibration of RE4598BA Station Vent Normal Range Radiation Monitor Channel 2

3.2 Sample and Analysis of Gaseous Effluents

3.2.1 Batch Releases

Prior to Batch Release

DB-OP-03012 - Radioactive Gaseous Batch Release

3.2.2 Continuous Releases

Once per week, analysis of an adsorption media for (I-131)

DB-CN-03008 - Station Vent Releases, Weekly Radiological Monitoring, Sampling and Analysis of RE 4598AA

DB-CN-03009 - Station Vent Releases, Weekly Radiological Monitoring, Sampling and Analysis of RE 4598BA

Once per week, analysis for principal gamma emitters (Particulate Radioactive Material)

DB-CN-03008 - Station Vent Releases, Weekly Radiological Monitoring Sampling and Analysis of RE 4598AA

DB-CN-03009 - Station Vent Releases, Weekly Radiological Monitoring Sampling and Analysis of RE 4598BA

Once per month, grab gas sample analysis for (Noble Gas and Tritium)

DB-CN-03008 - Station Vent Releases, Weekly Radiological Monitoring Sampling and Analysis of RE 4598AA

DB-CN-03009 - Station Vent Releases, Weekly Radiological Monitoring Sampling and Analysis of RE 4598BA

Once per month, composite analysis for (Gross Alpha Activity)

DB-CN-03010 - Station Vent Releases, Monthly Radiological Monitoring Analysis

Once per quarter, composite analysis for particulates Sr-89 and Sr-90

DB-CN-03011 - Station Vent Releases, Quarterly Radiological Monitoring Analysis

Continuous monitoring for Noble Gas (Gross Beta and Gamma activity)

DB-OP-06131 - Gaseous Radioactive Waste System

DB-OP-06412 - Process and Area Radiation Monitor

3.2.3 Release Resulting from Primary to Secondary System Leakage

Once per week, analysis of a secondary system off - gas for gamma emitters (noble gases) and tritium.

DB-CH-04005 - Weekly Condenser Air Activity Sampling and Analysis

Once per week, analysis of condensate sample for principle gamma emitters (Iodines and particulates) and tritium.

DB-CH-06901 - Radiochemistry Test Requirements

Once per quarter, composite analysis of condensate for particulates Sr-89 and Sr-90.

DB-CN-04038 - Radioactive Strontium Determination in Condensate

Auxiliary Steam System Relief lifts when Auxiliary Boiler is the Source of Auxiliary Steam.

DB-CH-06901 - Radiochemistry Test Requirements

DB-CN-10102 - Calculating Radioactive Release Data

RETSCode

3.3.2 Release Rate Limits

DB-OP-03012 - Radioactive Gaseous Batch Release

3.3.3 Individual Release Radiation Monitor Setpoints

DB-OP-03012 - Radioactive Gaseous Batch Release

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3.6.4 Quantifying Ground Level Releases Activity

DB-CN-10102 - Calculating Radioactive Release Data

3.7.1 Unrestricted Area Dose Limits

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5.0 Assessment of Land Use Census Data

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DB-CN-00014 - Annual Radiological Environmental Operating Report Preparation and Submittal

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DB-CN-03005 - Radiological Monitoring Weekly, Semimonthly, and Monthly Sampling

DB-CN-04022 - Preparation of REMP Sample Analysis Results Quarterly Report

7.1 Annual Radiological Environmental Operating Report

DB-CN-00012 - Preparation of Radioactive Effluent Release Report

DB-CN-00014 - Annual Radiological Environmental Operating Report Preparation and Submittal

DB-CN-03001 - Liquid and Gaseous Radioactive Dose Commitment

DB-CN-10102 - Calculating Radioactive Release Data

DB-CN-10106 - Processing Changes to the ODCM

L-24-072
Enclosure E

Davis-Besse Offsite Dose Calculation Manual, Revision 41

(1 Report follows)

DAVIS-BESSE

OFFSITE DOSE CALCULATION MANUAL

Revision 41

Approval:

Kevin Zeller Miller
PORC Chairman

11/8/23
Date

Dan Hartnett For C Jackson
General Plant Manager, Nuclear

11/8/23
Date

ODCM REVISION 41 - LIST OF CHANGES

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1.0 INTRODUCTION

The Davis-Besse Offsite Dose Calculation Manual (ODCM) describes the methodology and parameters used in:

- 1) determining the radioactive material release rates and cumulative releases;
- 2) calculating the radioactive liquid and gaseous effluent monitoring instrumentation alarm/trip setpoints; and
- 3) calculating the corresponding dose rates and cumulative quarterly and yearly doses.

The ODCM also describes and provides requirements for the Radiological Environmental Monitoring Program. Sampling locations, media and collection frequencies, and analytical requirements are specified. The methodology provided in this manual is acceptable for use in demonstrating compliance with concentration limits of 10 CFR 20.1302; the cumulative dose criteria of 10 CFR 50, Appendix I; 40 CFR 190; and the Davis-Besse Technical Specifications (TS) 5.5.3.

The exposure pathway and dose modeling presented provides estimates (e.g., calculational results) that are conservative (i.e., higher than actual exposures in the environment). This conservatism does not invalidate the modeling since the main purpose of these calculations is for demonstrating "As Low As is Reasonably Achievable" (ALARA) for radioactive effluents. In using these models for evaluation and controlling actual effluents, further simplification and conservatism may be applied. For purposes of demonstrating compliance with the EPA environmental dose standard for the Uranium Fuel Cycle (40 CFR 190), more realistic dose assessment modeling may be used. Other approved methodologies (LADTAP, GASPAR, XOQDOQ) also may be used to assess dose from radioactive effluents.

The ODCM will be maintained for use as a reference guide and training document of accepted methodologies and calculations. Changes to the ODCM calculational methodologies and parameters will be made as necessary to ensure reasonable conservatism in keeping with the principles of 10 CFR 50, Appendix I, Section III and IV. Questions about the ODCM should be directed to the Manager, Site Chemistry.

Changes to the ODCM shall be in accordance with TS 5.5.1.

NOTE: Throughout this document, words appearing all capitalized denote definitions specified in Section 7.5 of this manual, or common acronyms.

Section 2.0 describes equipment for monitoring and controlling liquid effluents, sampling requirements, and dose evaluation methods. Section 3.0 provides similar information on gaseous effluent controls, sampling, and dose evaluation. Section 4.0 describes special dose analyses required for Regulatory Guide 1.21, Annual Effluent Reporting and EPA Environmental Dose Standard of 40 CFR 190. Section 5.0 describes the role of the annual land use census in identifying the controlling pathways and locations of exposure for assessing the potential offsite doses. Section 6.0 describes the Radiological Environmental Monitoring Program. Section 7.0 describes the environmental, effluent and reporting requirements, procedural requirements for major changes to liquid and gaseous radwaste systems, and definitions.

2.0 LIQUID EFFLUENTS

2.1 RADIATION MONITORING INSTRUMENTATION AND CONTROLS

This section summarizes information on the liquid effluent radiation monitoring instrumentation and controls. More detailed information is provided in the Davis-Besse USAR, Section 11.2, Liquid Waste Systems, and associated design drawings from which this summary was derived. Location and control function of the monitors are displayed in Figure 2-1.

The radioactive liquid effluent instrumentation is provided to monitor and control, as applicable, releases of radioactivity in liquid effluents during actual or potential releases. The radioactive liquid effluent monitoring instrumentation channels listed in Table 2-1 shall be FUNCTIONAL with their alarm/trip setpoints set to ensure the limits specified in Section 2.3.1 are not exceeded.

Each radioactive liquid effluent monitoring instrumentation channel shall be demonstrated FUNCTIONAL by the performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION, and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 2-2. Each of these operations shall be performed within the specified time interval with a maximum allowable extension not to exceed 25 percent of the specified interval.

NOTE: The monitors indicated in 2.1.1 a), b), and c) are nonfunctional if verifications are not performed or setpoints are less conservative than required.

With a radioactive liquid effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required, without delay suspend the release of radioactive liquid effluents monitored by the affected channel, or declare the channel nonfunctional, or change the setpoint so it is acceptably conservative.

With less than the required number of radioactive liquid effluent monitoring instrumentation channels FUNCTIONAL, take the actions described in Table 2-1. Exert best efforts to return the instruments to FUNCTIONAL status within 30 days and, if unsuccessful, explain in the next Radioactive Effluent Release Report, (Section 7.2), why the non-functionality was not corrected in a timely manner.

2.1.1 Required Monitors

This section describes the monitoring required during liquid releases and the backup sampling required when monitors are nonfunctional.

a) Alarm and Automatic Release Termination

i. Clean Radwaste Effluent Monitors (RE-1770 A & B)

Discharges from the Clean Radwaste Monitor Tanks (2) are monitored by redundant radiation monitoring systems (RE-1770 A & B). These monitors detect gross gamma activity in the effluent prior to mixing in the Collection Box. Measurements from each detector read out on the Victoreen panel in the Control Room. Each monitoring system is capable of initiating an alarm and an automatic termination of the release by closing Clean Liquid Radwaste Discharge Flow Control valve (WC-1771). The method for determining setpoints for the alarms is discussed in Section 2.3.

ii. Miscellaneous Radwaste Effluent Monitors (RE-1878 A & B) Discharges from the Miscellaneous Liquid Waste Monitor Tank and the Detergent Waste Drain Tank are monitored by redundant radiation monitoring systems (RE-1878 A & B). These monitors detect gross gamma activity in the effluent line prior to mixing in the Collection Box. Measurements from each detector read out on the Victoreen panel in the Control Room. Each monitor is separately capable of initiating an alarm and automatic termination of the release by closing Miscellaneous Waste Discharge Isolation valve (WM-1876). Setpoint determination for the alarms is discussed in Section 2.3.

b) Alarm (only)

i. Storm Sewer Drain Line (RE-4686)

The monitor on the Storm Sewer Drain effluent line detects abnormal radionuclide concentrations in the storm sewer effluent. This monitor is located near the end of the storm sewer drainpipe, upstream of the final discharge point into the Training Center Pond. The most probable source of any non-naturally occurring radioactive material in the storm sewer would be from the secondary system.

To eliminate this potential source of radioactivity, the Turbine Building Sump effluent is normally directed to the onsite Settling Basins. In this configuration, the source of radioactivity in the Storm Sewer Drain line is from Turbine Building drains that are not routed to the Turbine Building Sump, or from Storm Sewer drains. Evaluation of the alarm setpoint for RE-4686 is discussed in Section 2.3.4.

c) Flow Rate Measuring Devices

i. Clean Radwaste Effluent Line

Flow Indicator (FI) 1700 A & B
Flow Totalizer (FQI) 1700 A & B

ii. Miscellaneous Radwaste Effluent Line

Flow Indicator (FI) 1887 A & B
Flow Totalizer (FQI) 1887 A & B

iii. Dilution Flow to the Collection Box

Computer Point F201 consists of four points:

- F147 Cooling Tower Blowdown
- F890 Service Water Outflow
- F200 Collection Box Dilution Flow
- F886 Unit Dilution Pump Flow

2.1.2 Non-Required Monitors

Additional monitors, although not required by the ODCM, have been installed to monitor radioactive material in liquid. The monitors are:

- Component Cooling Water System (CCWS) (RE-1412 & 1413)-monitors the CCWS return lines. High alarm redirects the vent path to the Miscellaneous Waste Drain Tank,
- Service Water System (SWS) (RE-8432) offline detector monitors the SWS outlet prior to discharge to the Collection Box, and
- Intake Forebay (RE-8434) monitors the station intake water from intake forebay.

2.2 SAMPLING AND ANALYSIS OF LIQUID EFFLUENTS

As a minimum, radioactive liquid wastes shall be sampled and analyzed according to the sampling and analysis program of Table 2-3. Table 2-3 identifies three potential sources of liquid radioactive effluents. A fourth potential release point from the Turbine Building Sump is discussed in Section 2.2.2.

The results of the radioactivity analyses shall be used in accordance with the methodology and parameters of this section to ensure that the concentrations at the point of release are maintained within the limits of 10 CFR 20.1302.

2.2.1 Batch Releases

BATCH RELEASE is defined as the discharge of liquid waste of a discrete volume. The releases from the Clean Waste Monitor Tanks 1-1 and 1-2, the Miscellaneous Liquid Waste Monitor Tank, and the Detergent Waste Drain Tank are classified as BATCH RELEASES. The following sampling and analysis requirements shall be met for all releases from these tanks.

- Prior to each release, analysis of a representative grab sample for principal gamma emitters.
- Once per month, as a minimum, analysis of one sample from a BATCH RELEASE for dissolved and entrained gases (see note below).
- Once per month, analysis of a COMPOSITE SAMPLE of all releases that month for tritium and gross alpha activity. Samples contributed to the composite are to be proportional to the quantity of liquid discharged.
- Once per quarter, analysis of a COMPOSITE SAMPLE of all releases that quarter for Strontium (Sr)-89, Sr-90, and Iron (Fe)-55.

NOTE: Identification of noble gases that are principal gamma-emitting radionuclides are included as a part of the gamma spectral analysis performed on all liquid radwaste effluents. Therefore, the Table 2-3 requirement for sampling and analysis of one batch per month for noble gases need not be performed as a separate program.

2.2.2 Continuous Releases

Releases from the Turbine Building Sump (TBS) and Storm Sewer Drains (SSD) are classified as continuous releases.

Because the Turbine Building Sump discharges may contain minute concentrations of radionuclides due to primary-to-secondary system leakage, the Turbine Building Sump discharges are routed to the onsite Settling Basins instead of the SSD line. Screenwash water from the Screenwash Catch Basin is also routed to the North Settling Basin. Overflow from the Settling Basins is pumped to the Collection Box where it is mixed with dilution flow and released to Lake Erie. Releases via this pathway are monitored by weekly analysis for principal gamma-emitting radionuclides and tritium, and by quarterly analysis of composite samples for Fe-55, Sr-89 and Sr-90.

Discharges to the Storm Sewer Drains are from Turbine Building drains that are not routed to the TBS and from storm drains. The Storm Sewer discharges to the Training Center Pond with the overflow discharging to the Toussaint River. For conservatism, it is assumed that radioactive material released to the Training Center Pond is ultimately discharged to Lake Erie (unless actions are taken to prevent this occurrence).

Grab samples are collected weekly from the Settling Basins and analyzed by gamma spectroscopy. If activity is identified, additional controls are enacted to ensure that the release concentrations are maintained below Effluent Concentration Limits and that the cumulative releases are a small fraction of the dose limits of Section 2.4.1. The following actions will be considered for controlling any radioactive material releases via the TBS and SSD:

- Increase the sampling frequency of the TBS and SSD until the source of the contamination is identified.
- Perform gamma spectral analysis on each sample for principal gamma emitters.
- Compare the measured radionuclide concentrations in the sample with Effluent Concentration (EC) equation 2-2 to ensure releases are within the limits.
- Based on the measured concentrations, a re-evaluation of the alarm setpoint for the SSD monitor (RE-4686) may be performed as specified in Section 2.3.4.
- Consider each sample representative of the releases that have occurred since the previous sample. Determine the volume of liquid released from the Turbine Building Sump based on the Turbine Building Sump pump run times and flow rates.
- Determine the total radioactive material released from the sample analysis and the calculated volume released. Determine cumulative doses in accordance with Section 2.4.

2.2.3 Condensate Demineralizer Backwash

Discharges from the Condensate Demineralizer Backwash Receiving Tank (BRT) to the South Settling Basin are sampled in accordance with Table 2-3. Samples are collected prior to each release of the resin/water slurry and separated into the liquid phase (transfer water) and solid phase (resin). These samples are separately analyzed for principal gamma emitters. Energy Harbor Nuclear Corporation has imposed guidelines on concentrations of radionuclides that may be discharged to the onsite settling basin. These guidelines are presented in Table 2-4.

The radioactive material contamination in the condensate demineralizer backwash will be contained on the powdered resin; soluble or suspended radioactive material associated with the water phase is not expected. The resin and the water are analyzed separately thus allowing for a determination of the amounts retained onsite in the Settling Basin (the resin) and the amounts released to Lake Erie as an effluent (the decant).

The BRT receives the spent resin from the Condensate Polishing System. Low-level radioactive material contamination of the spent resin is periodically expected due to minor leaks in the steam generators and the leaching of residual activity in the secondary system.

During primary-to-secondary leakage, activity levels will be elevated and typically above the limits imposed for acceptable discharge to the basin. Under these conditions, the powdered resins are retained within the plant and processed as solid radwaste for offsite transport and disposal at a licensed radioactive waste disposal site. If within the criteria of Table 2-4, the BRT may be discharged to the onsite settling basin with the approval of the Manager – Site Chemistry.

2.2.4 Borated Water Storage Tank

The Borated Water Storage Tank (BWST) is an unprotected outdoor liquid storage tank and therefore is part the Explosive Gas and Storage Tank Radioactivity Monitoring Program (TS 5.5.11.b as implemented by TRM 8.7.4).

The quantity of radioactive material stored in the BWST shall be limited to ensure that an uncontrolled release of the tank contents would result in concentrations less than the limits of 10 CFR 20, Appendix B, Table 2, Column 2 at the nearest potable water supply and the nearest surface water supply in an unrestricted area.

The concentration of radionuclides in the BWST shall be determined to be within the applicable limits by analyzing a representative sample of the tank contents at least once per 7 days when radioactive materials are being added to the tank.

The method for limiting the BWST radionuclide concentration to meet the criteria above is described below.

- 1) Determine the limiting fraction of each radionuclide present in a liquid sample from the tank. This is the sample concentration in $\mu\text{Ci/ml}$ divided by the limiting activity from Table 2-5.
- 2) Sum the limiting fractions of each radionuclide in the sample. This sum should be less than one (1) to meet the limiting criteria for offsite dose rates via the liquid pathway.

If the sum of the limiting fractions of radionuclides in the BWST is equal to or exceeds one (1), then suspend all additions of radioactive material to the tank, reduce tank contents to within the limits, and describe the events leading to this condition in the next Radioactive Effluent Release Report. (TRM 8.7.4 requirements)

The values in Table 2-5 were calculated specifically for the BWST.

2.3 LIQUID EFFLUENT MONITOR SETPOINTS

2.3.1 Concentration Limits

The concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS shall be limited to the concentrations specified in 10 CFR Part 20.1302 for radionuclides other than dissolved or entrained noble gases. For dissolved or entrained noble gases, the concentration shall be limited to $2.0\text{E-}04 \mu\text{Ci/ml}$. If the concentration of radioactive material released in liquid effluents to UNRESTRICTED AREAS exceeds these limits, then without delay restore the concentrations to within these limits.

This limitation provides additional assurance that the levels of radioactive material in bodies of water outside the site should not result in exposures exceeding the Section II.A design objective of Appendix I, 10 CFR Part 50, to an individual, and the limits of 10 CFR Part 20.1302 to the population.

The concentration limit for noble gases is based upon the assumption that Xe-135 is the controlling radioisotope and its Effluent Concentration in air (submersion) was converted to an equivalent concentration in water using the methods described in International Commission on Radiological Protection (ICRP) Publication 2.

2.3.2 Basic Setpoint Equation

During the release of liquid radioactive effluents, radiation monitor setpoints shall be established to alarm and trip prior to exceeding the limits specified above. To meet this requirement, the alarm/trip setpoint for liquid effluent monitors measuring the radioactivity concentration prior to dilution is derived in Section 2.3.3.

2.3.3 Liquid Radwaste Effluent Line Monitor Setpoint Calculations (RE-1770A & B, RE-1878A & B)

The Liquid Radwaste Effluent Line Monitors provide alarm and automatic termination of releases prior to exceeding the Effluent Concentrations (EC) of 10 CFR 20.1302 at the UNRESTRICTED AREA. As required by Table 2-3 and as discussed in Section 2.2.1, a sample of the liquid radwaste to be discharged is collected and analyzed by gamma spectroscopy to identify principal gamma-emitting radionuclides. A maximum release rate from the tank is determined for the release based on the radionuclide concentrations and the available dilution flow rate.

The maximum release rate is inversely proportional to the ratio of the radionuclide concentrations to their EC values. This ratio of measured concentration to EC values is referred to as the EC fraction (ECF) and is calculated by the equation:

$$\text{ECF} = \sum_i \frac{C_i}{\text{EC}_i} \quad (2-2)$$

where:

ECF = sum of the fractions of the unrestricted area EC for a mixture of radionuclides,

C_i = concentration of each radionuclide i measured in tank prior to release ($\mu\text{Ci/ml}$), and

EC_i = unrestricted area EC ($\mu\text{Ci/ml}$) for each radionuclide i from 10 CFR Part 20.1302. For dissolved and entrained noble gases an EC value of $2.0\text{E-}04 \mu\text{Ci/ml}$ shall be used.

Based on the ECF, the minimum dilution factor (MDF) for the conduct of the release is established at 3.33 times larger than actually required. This safety factor (SF) provides conservatism, accounting for variations in monitor response and flow rates and also for the presence of radionuclides that may not be detected by the monitors (i.e., non-gamma emitters). The following equation is used for calculating the required minimum dilution factor:

$$\text{MDF} = \text{ECF}/\text{SF} \quad (2-3)$$

where:

MDF = minimum required dilution factor,

SF = 0.3 administrative safety factor.

The maximum release rate from the tank is then calculated by dividing the available dilution flow rate (ADF) at the Collection Box by the MDF as calculated by equation (2-4).

$$\text{MAX RR} = 0.9 (\text{ADF}/\text{MDF}) \quad (2-4)$$

where:

MAX RR = maximum allowable release rate (gal/min),

0.9 = administrative conservatism factor, and

ADF = available dilution flow rate at the Collection Box as measured by Computer Point F201 (gal/min).

NOTE: Equations (2-3) and (2-4) are valid only for $\text{ECF} > 1$. For $\text{ECF} \leq 1$, the waste tank concentration is below the limits of 10 CFR Part 20.1302 without dilution, and MAX RR may take on any value within discharge pump capacity.

If MAX RR is greater than the maximum discharge pump capacity, then the pump capacity should be used in establishing the actual release rate (RR) for the radwaste discharge. For releases from the Miscellaneous Waste Monitor Tank and Detergent Waste Drain Tank, the discharge pump capacity is 100 gpm; for the Clean Waste Monitor Tank, this value is 140 gpm.

Since the actual release rate from the tank is derived such that 10 CFR 20.1302 limits will not be exceeded given the radionuclide concentration in the tank and the available dilution flow, setpoints must be established to ensure:

- 1) radionuclide concentration released from the tank does not increase above the concentration detected in the sample,
- 2) available dilution flow does not decrease, and
- 3) actual release rate from the tank does not increase above the calculated value.

The setpoints for the predilution radiation monitor (RE-1770 A & B, or RE-1878 A & B) are determined as follows:

$$\text{Alert Alarm SP} = [2 * R * \Sigma (C_i * \text{SEN}_i)] + \text{Bkg} \quad (2-5)$$

$$\text{High Alarm SP} = [3 * R * \Sigma (C_i * \text{SEN}_i)] + \text{Bkg} \quad (2-6)$$

where:

- SP = setpoint of the radiation monitor (cpm),
- C_i = concentration of radionuclide i as measured by gamma spectroscopy ($\mu\text{Ci/ml}$),
- SEN_i = monitor sensitivity for radionuclide i based on calibration curve (cpm per $\mu\text{Ci/ml}$),
- Bkg = background reading of the radiation monitor (cpm), and
- R = MAX RR / actual release rate

The Cs-137 sensitivity may be used in lieu of the sensitivity values for individual radionuclides. The Cs-137 sensitivity provides a reasonably conservative monitor response correlation for radionuclides of interest in reactor effluents. Coupled with the safety factor SF in equation (2-3), this assumption simplifies the evaluation without invalidating the overall conservatism of the setpoint determination.

The high flow setpoint should be set equal to the MAX RR calculated in equation (2-4) or discharge pump capacity (whichever is smaller). The low flow setpoint for dilution flow rate should be set at 0.9 times the available dilution flow rate.

2.3.4 Storm Sewer Drain Monitor (RE-4686)

The setpoint for the SSD radiation monitor, RE-4686, shall be established to ensure the concentration in the effluent does not exceed the limits of 10 CFR 20.1302. The SSD is not normally radioactively contaminated by other than naturally-occurring radionuclides. Therefore, the setpoint for this monitor has been established at a practical level to provide an early indication of any abnormal conditions without causing spurious alarm due to fluctuations in background.

Since discharge is to the Training Center Pond, exceeding the RE-4686 setpoint does not necessarily mean Section 2.3.1 concentration limits have been exceeded at UNRESTRICTED AREAS. The verification of compliance with the limits on concentration should be based on actual samples of the effluent from the pond to the Toussaint River and Lake Erie. (Refer to Section 2.3.6).

2.3.5 Alarm Setpoints for the Non-Required Radiation Monitors

a) Component Cooling Water System (CCWS) (RE-1412 & 1413)

The monitors RE-1412 and 1413 provide indication of a breach in the CCWS integrity that would allow reactor coolant water to enter and contaminate the system. Therefore, the alarm setpoint is established to prevent incurring a spurious alarm due to background fluctuations. The setpoint is controlled in accordance with the Radiation Monitor Setpoint Manual.

b) Service Water System (SWS) (RE-8432)

No radioactive material is expected to be contained within the SWS during normal operations. Therefore, the high alarm setpoint is established to prevent incurring a spurious alarm due to background fluctuations. The setpoint is controlled in accordance with the Radiation Monitor Setpoint Manual.

c) Intake Forebay Monitor (RE-8434)

The high alarm setpoint is established to prevent incurring a spurious alarm due to background fluctuations. Although highly unlikely, a verified alarm from this system would indicate a possible contamination of the station intake water. The setpoint is controlled in accordance with the Radiation Monitor Setpoint Manual.

2.3.6 Alarm Response - Evaluating Actual Release Conditions

Liquid release rates are controlled and alarm setpoints are established to ensure that releases do not exceed the concentration limits of Section 2.3.1 (i.e., 10 CFR 20 ECs at the discharge to Lake Erie). However, if any of the monitors (RE-1770 A & B, RE-1878 A & B, or RE-4686) alarm during a liquid release, it becomes necessary to re-evaluate the release conditions to determine compliance with the limits. After an alarm, the following actual release conditions should be determined:

- verify radiation monitor alarm setpoint to ensure consistency with the setpoint evaluation for the release;
- re-sample and re-analyze the source of the release
- re-determine the release rate and the dilution water flow.

Based on available data, the following equation may be used for evaluating the actual release conditions:

$$\sum \frac{C_i}{EC_i} * \frac{RR}{DF + RR} \leq 1 \quad (2-7)$$

where:

- C_i = measured concentration of radionuclide i in the effluent stream prior to dilution ($\mu\text{Ci/ml}$),
- EC_i = the Effluent Concentration for radionuclide i from Appendix B, Table II, Column 2 of 10 CFR 20 or $2.0\text{E-}04 \mu\text{Ci/ml}$ for dissolved or entrained noble gases ($\mu\text{Ci/ml}$),
- RR = actual release rate of the liquid effluent at the time of the alarm (gal/min), and
- DF = actual dilution water flow at the time of the release alarm (gal/min).

If the value calculated by equation 2-7 is less than or equal to 1, then the release did not exceed the limits of 10 CFR 20.1302.

2.4 LIQUID EFFLUENT DOSE CALCULATION - 10 CFR 50

2.4.1 Dose Limits to MEMBERS OF THE PUBLIC

The limits for dose or dose commitment to MEMBERS OF THE PUBLIC from radioactive materials in liquid effluents from Davis-Besse are:

- during any calendar quarter:
 - ≤ 1.5 mRem to total body
 - ≤ 5.0 mRem to any organ
- during any calendar year:
 - ≤ 3.0 mRem to total body
 - ≤ 10.0 mRem to any organ

With the calculated dose from the release of radioactive materials in liquid effluents exceeding any of the above limits, prepare and submit to the Commission within 60 days, pursuant to Section 7.3, a Licensee Event Report that identifies the cause(s) for exceeding the limit(s) and defines the corrective actions that have been taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be in compliance with the above limits.

Cumulative dose contributions from liquid effluents for the current calendar quarter and the current calendar year shall be determined in accordance with the methodology and parameters in the ODCM at least once per 31 days.

This requirement is provided to implement the requirements of Sections II.A, III.A and IV.A of Appendix I, 10 CFR Part 50.

This action provides the required operating flexibility and at the same time implements the guides set forth in Section IV.A of Appendix I, 10 CFR Part 50 to assure that the releases of radioactive material in liquid effluents will be kept "as low as is reasonably achievable."

NOTE: For fresh water sites with drinking water supplies which can be potentially affected by plant operations, there is reasonable assurance that the operation of the facility will not result in radionuclide concentrations in the finished drinking water that are in excess of the requirements of 40 CFR 141. The dose calculations in the ODCM implement the requirements of Section III.A of Appendix I, 10 CFR Part 50. Conformance with the guides of Appendix I is to be shown by calculational procedures based on models and data such that the actual exposure of an individual through appropriate pathways is unlikely to be substantially underestimated. The equations specified in the ODCM for calculating the doses due to the actual release rates of radioactive materials in liquid effluents are consistent with the methodology provided in Regulatory Guide 1.109, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I," Revision 1, October 1977.

2.4.2 MEMBER OF THE PUBLIC DOSE - Liquid Effluents

The calculation of the potential doses to MEMBERS OF THE PUBLIC is a function of the radioactive material releases to the lake, the subsequent transport and dilution in the exposure pathways, and the resultant individual uptake. At Davis-Besse, the combined fish consumption and drinking water pathway has been modeled to provide a conservative dose assessment for exposures to MEMBERS OF THE PUBLIC. For the fish pathway, it has been conservatively assumed that the maximum exposed individual consumes 21 kg per year of fish taken in the immediate vicinity of the Davis-Besse discharge to the lake. For the drinking water pathway, the conservative modeling is based on an individual drinking 730 liters per year of water from the Carroll Township Water Intake located 3.0 miles to the NW of the site discharge.

The equation for assessing the maximum potential dose to MEMBERS OF THE PUBLIC from liquid radwaste releases from Davis-Besse is:

$$D_o = \frac{1.67E-02 * VOL}{DF * Z} * \sum (C_i * A_{io}) \quad (2-8)$$

where:

- D_o = dose or dose commitment to organ "o" including total body (mRem),
- A_{io} = site-specific ingestion dose commitment factor to the total body or any organ "o" for radionuclide "i" given in Table 2-6 (mRem/hr per μ Ci/ml),
- C_i = average concentration of radionuclide i in undiluted liquid effluent representative of the volume VOL (μ Ci/ml),
- VOL = total volume of undiluted liquid effluent released (gal),
- DF = average dilution water flow rate during release period (gal/min) (typically 20,000 gpm),
- Z = 10 (near field dilution factor)*
- 1.67E-02 = 1 hr/60 min.

* Near field dilution factor and dilution to Carroll Township water intake is based on USAR Section 11.2.7.2 and a study performed by Stone & Webster for Toledo Edison entitled "Aquatic Dilution Factors within 50 Miles of the Davis-Besse Unit 1 Nuclear Power Plant", June 1980.

The site-specific ingestion dose/dose commitment factors (A_{io}) represent a composite dose factor for the fish and drinking water pathway. The site-specific dose factor is based on the NRC's generic maximum individual consumption rates. Values of A_{io} are presented in Table 2-6. These values were derived in accordance with the guidance of NUREG-0133 using the following equation:

$$A_{io} = 1.14E+05 (U_W / D_W + U_F * BF_i) DF_i \quad (2-9)$$

where:

U_F = 21 kg/yr adult fish consumption,

U_W = 730 liters/yr adult water consumption,

D_W = 175 additional dilution from the near field to the Carroll Township water intake (net dilution of 1750),

BF_i = bioaccumulation factor for radionuclide "i" in fish from Table 2-7 (pCi/kg per pCi/l),

DF_i = dose conversion factor for nuclide "i" for adults in organ "o" from Table E-11 of Regulatory Guide 1.109 and Table 4 of NUREG 0172 (mRem/pCi), and

$$1.14E+05 = 10^6 (\text{pCi}/\mu\text{Ci}) * 10^3 (\text{ml/kg}) / 8760 (\text{hr/yr}).$$

The radionuclides included in the periodic dose assessment required by Section 2.4.1 are those identified by gamma spectral analysis of the liquid waste samples collected and analyzed per the requirements of Table 2-3. In keeping with the NUREG-0133 guidance, the adult age group represents the maximum exposed individual age group. Evaluation of doses for other age groups is not required for demonstrating compliance with the dose criteria of Section 2.4.1. The dose analysis for radionuclides requiring radiochemical analysis will be performed after receipt of results of the analysis of the composite samples. In keeping with the required analytical frequencies of Table 2-3, tritium dose analyses will be performed at least monthly; Sr-89, Sr-90 and Fe-55 dose analyses will be performed at least quarterly.

2.4.3 Simplified Liquid Effluent Dose Calculation

In lieu of the individual radionuclide dose assessment presented in Section 2.4.2, the following simplified dose calculation may be used for demonstrating compliance with the dose limits required by Section 2.4.1. Radionuclides included in this dose calculation should be those measured in the grab sample of the release (principal gamma emitters measured by gamma spectroscopy). H-3 should not be included in this analysis. Refer to Appendix A for the derivation of this simplified method.

Total Body

$$D_{tb} = \frac{9.67E+02 * VOL}{DF} * \Sigma C_i \quad (2-10)$$

$$D_{max} = \frac{1.18E+03 * VOL}{DF} * \Sigma C_i \quad (2-11)$$

where:

- C_i = average concentration of radionuclide i excluding H-3 in undiluted liquid effluent representative of the release volume ($\mu\text{Ci/ml}$),
- VOL = volume of liquid effluent released (gal),
- DF = average dilution water flow rate during release period (gal/min),
- D_{tb} = conservatively evaluated total body dose (mRem),
- D_{max} = conservatively evaluated maximum organ dose (mRem),
- $9.67E+02$ = $0.0167 \text{ (hr/min)} * 5.79E+05 \text{ (mRem/hr per } \mu\text{Ci/ml, Cs-134 total body dose factor from Table 2-6) / 10 (near field dilution), and}$
- $1.18E+03$ = $0.0167 \text{ (hr/min)} * 7.09E+05 \text{ (mRem/hr per } \mu\text{Ci/ml, Cs-134 liver dose factor from Table 2-6) / 10 (near field dilution).}$

2.4.4 Contaminated TBS/SSD System - Dose Calculation

All non-naturally occurring radioactivity released from the SSD must be included in the evaluation of the cumulative dose to a MEMBER OF THE PUBLIC. Although the discharges are via the Training Center Pond to Pool 3, and then to the Toussaint River (instead of directly to Lake Erie), the modeling of equation (2-8) remains reasonably conservative for determining a hypothetical maximum individual dose. The following assumptions should be applied for the dose assessment of any radioactive material releases from the SSD into the Training Center Pond and subsequently to the Toussaint River:

- If no additional controls are taken, then it should be assumed that any radioactive material released to the Training Center Pond will ultimately be discharged to the lake environment;
- If actions are taken to limit any release, then the assessment of dose should be made based on an evaluation of actual releases; and
- The dilution flow should consider additional dilution of the SSD discharge from other sources into the Training Center Pond prior to release to the river.

2.5 LIQUID EFFLUENT DOSE PROJECTIONS

10 CFR 50.36a requires licensees to maintain and operate the radwaste system to ensure releases are maintained ALARA. This Section implements the requirements of 10 CFR Part 50.36a, General Design Criterion 60 of Appendix A to 10 CFR Part 50 and design objective Section II.D of Appendix I to 10 CFR Part 50. Based on a cost analysis of treating liquid radwaste, the specified limits governing the use of appropriate portions of the liquid radwaste treatment system were specified as the dose design objectives as set forth in Section II.A of Appendix I, 10 CFR Part 50, for liquid effluents. This requirement is implemented through this ODCM.

The liquid radioactive waste processing system shall be used to reduce the radioactive material levels in the liquid waste prior to release when the projected doses in any 31-day period would exceed:

- 0.06 mRem to the total body, or
- 0.20 mRem to any organ.

These dose criteria for processing are established at one quarter of the design objective rate (i.e., 1/4 of 3 mRem/yr total body and 10 mRem/yr any organ over a 31-day projection).

With radioactive liquid waste being discharged without treatment and in excess of the above limits, prepare and submit to the Commission within 60 days, pursuant to Section 7.3, a Licensee Event Report that includes the following information:

- explanation of why liquid radwaste was being discharged without treatment, identification of any nonfunctional equipment or subsystems, and the reason for the non-functionality;
- action(s) taken to restore the nonfunctional equipment to FUNCTIONAL status; and
- summary description of action(s) taken to prevent a recurrence.

In any month in which radioactive liquid effluent is being discharged without treatment, doses due to liquid releases to UNRESTRICTED AREAS shall be projected at least once per 31 days in accordance with the methodology and parameters in the ODCM.

The following equations may be used for the dose projection calculation:

$$D_{tbp} = D_{tb} (31 / d) \quad (2-12)$$

$$D_{maxp} = D_{max} (31 / d) \quad (2-13)$$

where:

D_{tbp}	=	the 31-day total body dose projection (mRem),	
D_{tb}	=	the cumulative total body dose for the current month and two months prior to the current month as determined by equation (2-8) or (2-10) (mRem),	
D_{maxp}	=	the 31-day maximum organ dose projection (mRem),	
D_{max}	=	the maximum cumulative organ dose for the current month and two months prior to the current month as determined by equation (2-8) or (2-11) (mRem),	
d	=	the sum of days of the current month and two months prior to the current month (e.g., October, November, and December = 92 days) and	
31	=	the number of days in projection.	

Table 2-1

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>REQUIRED CHANNELS</u>	<u>APPLICABILITY</u>	<u>ACTION</u>
1. Gross Radioactivity Monitors Providing Alarms and Automatic Termination of Release			
a. Liquid Radwaste Effluent Line (either Miscellaneous (RE 1878A, B) or Clean (RE 1770A, B), but not both simultaneously)*	1	(1)	A
2. Flow Rate Measurement Devices			
a. Liquid Radwaste Effluent Line	1	(1)	B
b. Dilution Flow to Collection Box	1	(1)	B
c. FE 4687 Storm Sewer	1	(1)	B
3. Gross Beta or Gamma Radioactivity Monitors Providing Alarm But Not Providing Automatic Termination of Release			
a. Storm Sewer Drain (RE 4686)	1	(1)	C

* Only one release (either MWMT or CWMT) at a time can be in progress.

Table 2-1 (continued)

TABLE NOTATION

(1) During radioactive releases via this pathway

ACTION A With less than the number of required channels FUNCTIONAL, effluent releases may be resumed, provided that prior to initiating a release:

1. At least two independent samples are analyzed in accordance with Table 2-3 for analyses performed with each batch;
2. At least two independent verification of the release rate calculations are performed;
3. At least two independent verifications of the discharge valving are performed;

Otherwise, suspend release of radioactive effluents via this pathway.

ACTION B With less than the number of required channels FUNCTIONAL, effluent releases via this pathway may continue provided the flow rate is estimated at least once per 4 hours during actual releases. Pump curves may be used to estimate flow.

ACTION C With less than the number of required channels FUNCTIONAL, or if high alarm is locked in on RE, effluent releases via this pathway may continue provided that during effluent releases, grab samples are collected AND analyzed once per 12 hours (both actions shall be completed within the 12 hour period) for gross radioactivity (beta or gamma) at a lower limit of detection no greater than $1.0\text{E-}07$ $\mu\text{Ci/ml}$ or a gamma isotopic analysis meeting the LLD Requirement of Table 2-3.

Table 2-2

RADIOACTIVE LIQUID EFFLUENT MONITORING
INSTRUMENTATION VERIFICATION REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. Gross Beta or Gamma Radioactivity Monitors Providing Alarm and Automatic Isolation, if applicable.				
a. Liquid Radwaste Effluents Lines	D ⁽¹⁾	P	E ⁽³⁾	Q ⁽²⁾
b. Storm Sewer Discharge Line	D ⁽⁴⁾	M	E ₍₃₎	Q ⁽²⁾
2. Flow Rate Monitors				
a. Liquid Radwaste Effluent Lines	D ⁽⁴⁾	N/A	E	Q
b. Dilution Flow to Collection Box	D ⁽⁴⁾	N/A	E	Q
c. Storm Sewer		N/A		

Table 2-2 (continued)

TABLE NOTATION

- (1) During releases via this pathway.
- (2) If applicable, the CHANNEL FUNCTIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occurs if the instrument indicates measured levels above the alarm/trip setpoint.
- (3) The initial CHANNEL CALIBRATION for radioactivity measurement instrumentation shall be performed using one or more of the reference standards certified by the National Institute of Standards and Technology (NIST) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NIST. These standards should permit calibrating the system over its intended range of energy and rate capabilities. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration should be used, at intervals of at least once per eighteen months. For high range monitoring instrumentation, where calibration with a radioactive source is impractical, an electronic calibration may be substituted for the radiation source calibration.
- (4) CHANNEL CHECK shall consist of verifying indication of flow during periods of release. CHANNEL CHECK shall be made at least once daily on any day on which continuous, periodic, or BATCH RELEASES are made.
- (D) At least once per 24 hours.
- (M) At least once per 31 days.
- (P) Prior to each release.
- (E) At least once per 18 month (550 days).
- (Q) At least once per 92 days.
- (R) At least once per 24 months (730 days)

Table 2-3

RADIOACTIVE LIQUID WASTE SAMPLING AND ANALYSIS PROGRAM

Liquid Release Type		Sampling Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (LLD) ($\mu\text{Ci/ml}$) ^a
A.	Batch Waste Release Tanks ^d	P Each Batch	P Each Batch	Principal Gamma Emitters ^f	5.0E-07 ^b
				I-131 ^f	1.0E-06
		P One Batch/M	M	Dissolved and Entrained Gases	1.0E-05
				H-3	1.0E-05
		P Each Batch	M Composite ^c	Gross Alpha	1.0E-07
				Sr-89, Sr-90	5.0E-08
		P Each Batch	Q Composite ^c	Fe-55	1.0E-06
				Sr-89, Sr-90	5.0E-08
B.	Storm Sewer Drain	Continuously monitored	S ^c	Principal Gamma Emitters ^f	5.0E-07 ^b
				I-131 ^f	1.0E-06
C.	Condensate Demineralizer Backwash	P Each Batch when discharged to the settling basin	P Each Batch when discharged to the settling basin	Principal Gamma Emitters ^f	5.0E-07 ^b
				I-131 ^f	1.0E-06

Table 2-3 (continued)

TABLE NOTATION

- a. The LLD is the smallest concentration of radioactive material in a sample that will be detected with 95% probability with 5% probability of falsely concluding that a blank observation represents a "real" signal.

For a particular measurement system (which may include radiochemical separation):

$$LLD = \frac{4.66 s_b}{E * V * 2.22 * Y * \exp(-\lambda \Delta t)}$$

where

LLD is the lower limit of detection as defined above (as pCi per unit mass or volume);

S_b is the standard deviation of the background counting rate or of the counting rate of a blank sample as appropriate (as counts per minute);

E is the counting efficiency (as counts per transformation);

V is the sample size (in units of mass or volume);

2.22 is the number of transformations per minute per picocurie;

Y is the fractional radiochemical yield (when applicable);

λ is the radioactive decay constant for the particular radionuclide;

Δt for plant effluents is the elapsed time between the midpoint of sample collection and time of counting.

It should be recognized that the LLD is defined as an a priori (before the fact) limit representing the capability of a measurement system and not as an a posteriori (after the fact) limit for a particular measurement.

- b. The principal gamma emitters for which the LLD specification will apply are exclusively the following radionuclides: Mn-54, Fe-59, Co-58, Co-60, Zn-65, Mo-99, Cs-134, Cs-137, and Ce-141. For Ce-144, the LLD is 2.0E-06 $\mu\text{Ci/ml}$. Other peaks which are measured and identified shall also be reported.

Nuclides which are below the LLD for the analysis should not be reported as being present at the LLD level. When unusual circumstances result in LLDs higher than required, the reasons shall be documented in the Radioactive Effluent Release Report.

- c. A COMPOSITE SAMPLE is one in which the method of sampling employed results is a specimen which is representative of the liquids released.

Table 2-3 (continued)

TABLE NOTATION

- d. A BATCH RELEASE is the discharge of liquid wastes of a discrete volume.
- e. See Table 2-1 Action C for sample AND analysis requirements when RE4686 is inoperable or in high alarm.
- f. If an isotopic analysis is unavailable, gross beta or gamma measurement of BATCH RELEASE may be substituted provided the concentration released to the UNRESTRICTED AREA does not exceed 1.0E-07 $\mu\text{Ci/ml}$ and a COMPOSITE SAMPLE is analyzed for principal gamma emitters when instrumentation is available.
- g. Frequency notation:
 - P - Prior to each release.
 - M - At least once per 31 days.
 - Q - At least once per 92 days.
 - S - Continuous.

Table 2-4

LIMITING RADIONUCLIDE CONCENTRATIONS* IN SECONDARY-SIDE
CLEAN-UP RESINS FOR ALLOWABLE DISCHARGES TO ONSITE SETTLING BASIN

Radionuclide	Limiting Concentration** ($\mu\text{Ci}/\text{cm}^3$)
Cr-51	3.3E-02
Mn-54	6.2E-05
Fe-59	5.1E-04
Co-58	3.0E-04
Co-60	5.4E-06
Y-91	2.1E-03
Zr-95	4.1E-04
Nb-95	1.0E-03
Mo-99	7.8E-03***
Ru-103	1.0E-03
Ru-106	1.6E-05
Ag-110m	1.6E-05
Te-125m	5.4E-05
Te-127m	1.5E-05
Te-129m	6.2E-05
Te-131m	3.1E-03***
Te-132	3.5E-03***
I-131	1.1E-04
I-133	3.8E-04
I-135	1.5E-03
Cs-134	1.1E-05
Cs-136	2.3E-03***
Cs-137	1.0E-05
Ba-140	3.1E-03***
La-140	3.5E-03***
Ce-141	5.8E-03
Ce-144	4.1E-05
Pr-143	1.9E-02

* Concentration limits based on the study, Disposal of Low-Level Radioactively Contaminated Secondary-Side Clean-up Resins in the On-site Settling Basins at the Davis-Besse Nuclear Power Station, J. Stewart Bland, May 1983. The limits represent a hypothetical maximum individual dose of less than 1 mRem per year due to an inadvertent release to the offsite environment. The allowable release limits as presented in Table 2 of the above reference report have been reduced by a factor of 10 for added conservatism - representing a hypothetical dose of less than 0.1 mRem.

** With more than one radionuclide identified in a resin batch, the evaluation for acceptable discharge to the onsite settling basin shall be based on the "sum of the fractions" rule as follows: Determine for each identified radionuclide the ratio between the measured concentration and the limiting concentration; the sum of these ratios for all radionuclides should be less than one (1) for discharge to the basin.

*** Limits updated due to changes in 10CFR20, Appendix B, Table 2, Column 2 values.

Table 2-5

RADIONUCLIDE CONCENTRATION LIMITS FOR THE BWST

Isotope	Maximum Permissible Concentration, $\mu\text{Ci/ml}$
H-3	1.35E+00
Cr-51	6.76E-01
Mn-54	4.06E-02
Fe-59	1.35E-02
Co-57	8.12E-02
Co-58	2.70E-02
Co-60	4.06E-03
Zn-65	6.76E-03
Rb-88	5.40E-01
Sr-89	1.08E-02
Sr-90	6.76E-04
Sr-91	2.70E-02
Sr-92	5.40E-02
Y-90	9.46E-03
Y-91	1.08E-02
Y-93	2.70E-02
Zr-95	2.70E-02
Zr-97	1.22E-02
Nb-95	4.06E-02
Nb-97	4.06E-01
Mo-99	2.70E-02
Tc-99m	1.35E+00
Ru-103	4.06E-02
Ru-106	4.06E-03
Ag-110m	8.12E-03
Sn-113	4.06E-02
Te-123m	1.35E-02
Sb-124	9.46E-03
Sb-125	4.06E-02
Te-132	1.22E-02
I-131	1.35E-03
I-132	1.35E-01
I-133	9.46E-03
I-134	5.40E-01
I-135	4.06E-02
Cs-134	1.22E-03
Cs-136	8.12E-03
Cs-137	1.35E-03
Cs-138	5.40E-01
Ba-139	2.70E-01
Ba-140	1.08E-02
La-140	1.22E-02
Ce-141	4.06E-02
Ce-144	4.06E-03

Table 2-6

LIQUID INGESTION DOSE COMMITMENT FACTORS, A_{io}
(mRem/hr per μ Ci/ml)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>T.Body</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>
H-3	0.00E+01	2.76E-01	2.76E-01	2.76E-01	2.76E-01	2.76E-01	2.76E-01
C-14	3.13E+04	6.26E+03	6.26E+03	6.26E+03	6.26E+03	6.26E+03	6.26E+03
Na-24	4.08E+02	4.08E+02	4.08E+02	4.08E+02	4.08E+02	4.08E+02	4.08E+02
P-32	1.39E+06	8.62E+04	5.36E+04	0.00E+01	0.00E+01	0.00E+01	1.56E+05
Cr-51	0.00E+01	0.00E+01	1.27E+00	7.62E-01	2.81E-01	1.69E+00	3.21E+02
Mn-54	0.00E+01	4.38E+03	8.35E+02	0.00E+01	1.30E+03	0.00E+01	1.34E+04
Mn-56	0.00E+01	1.10E+02	1.95E+01	0.00E+01	1.40E+02	0.00E+01	3.52E+03
Fe-55	6.60E+02	4.56E+02	1.06E+02	0.00E+01	0.00E+01	2.54E+02	2.61E+02
Fe-59	1.04E+03	2.45E+03	9.38E+02	0.00E+01	0.00E+01	6.84E+02	8.16E+03
Co-57	0.00E+01	2.10E+01	3.50E+01	0.00E+01	0.00E+01	0.00E+01	5.34E+02
Co-58	0.00E+01	8.95E+01	2.01E+02	0.00E+01	0.00E+01	0.00E+01	1.81E+03
Co-60	0.00E+01	2.57E+02	5.67E+02	0.00E+01	0.00E+01	0.00E+01	4.83E+03
Ni-63	3.12E+04	2.16E+03	1.05E+03	0.00E+01	0.00E+01	0.00E+01	4.51E+02
Ni-65	1.27E+02	1.65E+01	7.51E+00	0.00E+01	0.00E+01	0.00E+01	4.17E+02
Cu-64	0.00E+01	1.00E+01	4.70E+00	0.00E+01	2.52E+01	0.00E+01	8.53E+02
Zn-65	2.32E+04	7.37E+04	3.33E+04	0.00E+01	4.93E+04	0.00E+01	4.64E+04
Zn-69	4.93E+01	9.43E+01	6.56E+00	0.00E+01	6.13E+01	0.00E+01	1.42E+01
Zn-69m	8.14E+02	1.95E+03	1.79E+02	0.00E+01	1.18E+03	0.00E+01	1.19E+05
Br-82	0.00E+01	0.00E+01	2.27E+03	0.00E+01	0.00E+01	0.00E+01	2.61E+03
Br-83	0.00E+01	0.00E+01	4.04E+01	0.00E+01	0.00E+01	0.00E+01	5.82E+01
Br-84	0.00E+01	0.00E+01	5.24E+01	0.00E+01	0.00E+01	0.00E+01	4.11E-04
Br-85	0.00E+01	0.00E+01	2.15E+00	0.00E+01	0.00E+01	0.00E+01	0.00E+01
Rb-86	0.00E+01	1.01E+05	4.71E+04	0.00E+01	0.00E+01	0.00E+01	1.99E+04
Rb-88	0.00E+01	2.90E+02	1.54E+02	0.00E+01	0.00E+01	0.00E+01	4.00E-09
Rb-89	0.00E+01	1.92E+02	1.35E+02	0.00E+01	0.00E+01	0.00E+01	1.12E-11
Sr-89	2.23E+04	0.00E+01	6.39E+02	0.00E+01	0.00E+01	0.00E+01	3.57E+03
Sr-90	5.48E+05	0.00E+01	1.34E+05	0.00E+01	0.00E+01	0.00E+01	1.58E+04
Sr-91	4.10E+02	0.00E+01	1.66E+01	0.00E+01	0.00E+01	0.00E+01	1.95E+03
Sr-92	1.55E+02	0.00E+01	6.72E+00	0.00E+01	0.00E+01	0.00E+01	3.08E+03
Y-90	5.80E-01	0.00E+01	1.56E-02	0.00E+01	0.00E+01	0.00E+01	6.15E+03
Y-91m	5.48E-03	0.00E+01	2.12E-04	0.00E+01	0.00E+01	0.00E+01	1.61E-02
Y-91	8.51E+00	0.00E+01	2.27E-01	0.00E+01	0.00E+01	0.00E+01	4.68E+03
Y-92	5.10E-02	0.00E+01	1.49E-03	0.00E+01	0.00E+01	0.00E+01	8.93E+02
Y-93	1.62E-01	0.00E+01	4.46E-03	0.00E+01	0.00E+01	0.00E+01	5.13E+03
Zr-95	2.55E-01	8.17E-02	5.53E-02	0.00E+01	1.28E-01	0.00E+01	2.59E+02
Zr-97	1.41E-02	2.84E-03	1.30E-03	0.00E+01	4.29E-03	0.00E+01	8.79E+02
Nb-95	4.47E+02	2.48E+02	1.34E+02	0.00E+01	2.46E+02	0.00E+01	1.51E+06
Nb-97	3.75E+00	9.48E-01	3.46E-01	0.00E+01	1.11E+00	0.00E+01	3.50E+03
Mo-99	0.00E+01	1.05E+02	2.00E+01	0.00E+01	2.38E+02	0.00E+01	2.44E+02
Tc-99m	8.99E-03	2.54E-02	3.23E-01	0.00E+01	3.86E-01	1.24E-02	1.50E+01
Tc-101	9.24E-03	1.33E-02	1.31E-01	0.00E+01	2.40E-01	6.80E-03	4.00E-14
Ru-103	4.52E+00	0.00E+01	1.95E+00	0.00E+01	1.72E+01	0.00E+01	5.27E+02
Ru-105	3.76E-01	0.00E+01	1.48E-01	0.00E+01	4.86E+00	0.00E+01	2.30E+02

Table 2-6 (Continued)

LIQUID INGESTION DOSE COMMITMENT FACTORS, A_{io}
(mRem/hr per $\mu\text{Ci/ml}$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>T.Body</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>
Ru-106	6.71E+01	0.00E+01	8.50E+00	0.00E+01	1.30E+02	0.00E+01	4.35E+03
Rh-103m	0.00E+01	0.00E+01	0.00E+01	0.00E+01	0.00E+01	0.00E+01	0.00E+01
Rh-106	0.00E+01	0.00E+01	0.00E+01	0.00E+01	0.00E+01	0.00E+01	0.00E+01
Ag-110m	9.57E-01	8.85E-01	5.26E-01	0.00E+01	1.74E+00	0.00E+01	3.61E+02
Sb-124	8.03E+00	1.52E-01	3.19E+00	1.95E-02	0.00E+01	6.26E+00	2.28E+02
Sb-125	5.14E+00	5.74E-02	1.22E+00	5.22E-03	0.00E+01	3.96E+00	5.65E+01
Te-125m	2.57E+03	9.30E+02	3.44E+02	7.72E+02	1.04E+04	0.00E+01	1.03E+04
Te-127m	6.49E+03	2.32E+03	7.90E+02	1.66E+03	2.63E+04	0.00E+01	2.17E+04
Te-127	1.05E+02	3.78E+01	2.28E+01	7.81E+01	4.29E+02	0.00E+01	8.32E+03
Te-129m	1.10E+04	4.11E+03	1.74E+03	3.78E+03	4.60E+04	0.00E+01	5.55E+04
Te-129	3.01E+01	1.13E+01	7.33E+00	2.31E+01	1.26E+02	0.00E+01	2.27E+01
Te-131m	1.66E+03	8.11E+02	6.75E+02	1.28E+03	8.21E+03	0.00E+01	8.05E+04
Te-131	1.89E+01	7.88E+00	5.96E+00	1.55E+01	8.27E+01	0.00E+01	2.67E+00
Te-132	2.41E+03	1.56E+03	1.47E+03	1.72E+03	1.50E+04	0.00E+01	7.39E+04
I-130	2.75E+01	8.11E+01	3.20E+01	6.88E+03	1.27E+02	0.00E+01	6.99E+01
I-131	1.51E+02	2.16E+02	1.24E+02	7.10E+04	3.71E+02	0.00E+01	5.71E+01
I-132	7.39E+00	1.98E+01	6.91E+00	6.91E+02	3.15E+01	0.00E+01	3.71E+00
I-133	5.17E+01	8.99E+01	2.74E+01	1.32E+04	1.57E+02	0.00E+01	8.08E+01
I-134	3.86E+00	1.05E+01	3.75E+00	1.82E+02	1.67E+01	0.00E+01	9.13E-03
I-135	1.61E+01	4.22E+01	1.56E+01	2.78E+03	6.77E+01	0.00E+01	4.77E+01
Cs-134	2.98E+05	7.09E+05	5.79E+05	0.00E+01	2.29E+05	7.61E+04	1.24E+04
Cs-136	3.12E+04	1.23E+05	8.86E+04	0.00E+01	6.85E+04	9.39E+03	1.40E+04
Cs-137	3.82E+05	5.22E+05	3.42E+05	0.00E+01	1.77E+05	5.89E+04	1.01E+04
Cs-138	2.64E+02	5.22E+02	2.59E+02	0.00E+01	3.84E+02	3.79E+01	2.23E-03
Ba-139	9.75E-01	6.95E-04	2.85E-02	0.00E+01	6.49E-04	3.94E-04	1.73E+00
Ba-140	2.04E+02	2.56E-01	1.34E+01	0.00E+01	8.71E-02	1.47E-01	4.20E+02
Ba-141	4.73E-01	3.58E-04	1.60E-02	0.00E+01	3.33E-04	2.03E-04	2.23E-10
Ba-142	2.14E-01	2.20E-04	1.35E-02	0.00E+01	1.86E-04	1.25E-04	3.02E-19
La-140	1.51E-01	7.60E-02	2.01E-02	0.00E+01	0.00E+01	0.00E+01	5.58E+03
La-142	7.72E-03	3.51E-03	8.75E-04	0.00E+01	0.00E+01	0.00E+01	2.56E+01
Ce-141	2.69E-02	1.82E-02	2.06E-03	0.00E+01	8.44E-03	0.00E+01	6.94E+01
Ce-143	4.73E-03	3.50E+00	3.87E-04	0.00E+01	1.54E-03	0.00E+01	1.31E+02
Ce-144	1.40E+00	5.85E-01	7.52E-02	0.00E+01	3.47E-01	0.00E+01	4.73E+02
Pr-143	5.55E-01	2.23E-01	2.75E-02	0.00E+01	1.28E-01	0.00E+01	2.43E+03
Pr-144	1.82E-03	7.54E-04	9.23E-05	0.00E+01	4.25E-04	0.00E+01	2.61E-10
Nd-147	3.79E-01	4.39E-01	2.62E-02	0.00E+01	2.56E-01	0.00E+01	2.11E+03
W-187	2.96E+02	2.47E+02	8.65E+01	0.00E+01	0.00E+01	0.00E+01	8.10E+04
Np-239	2.91E-02	2.86E-03	1.57E-03	0.00E+01	8.91E-03	0.00E+01	5.86E+02

Table 2-7

BIOACCUMULATION FACTORS (BFi)
(pCi/kg per pCi/liter)*

<u>Element</u>	<u>Freshwater Fish</u>
H	9.0E-01
C	4.6E+03
Na	1.0E+02
P	3.0E+03
Cr	2.0E+02
Mn	4.0E+02
Fe	1.0E+02
Co	5.0E+01
Ni	1.0E+02
Cu	5.0E+01
Zn	2.0E+03
Br	4.2E+02
Rb	2.0E+03
Sr	3.0E+01
Y	2.5E+01
Zr	3.3E+00
Nb	3.0E+04
Mo	1.0E+01
Tc	1.5E+01
Ru	1.0E+01
Rh	1.0E+01
Ag	2.3E+00
Sb	1.0E+00
Te	4.0E+02
I	1.5E+01
Cs	2.0E+03
Ba	4.0E+00
La	2.5E+01
Ce	1.0E+00
Pr	2.5E+01
Nd	2.5E+01
W	1.2E+03
Np	1.0E+01

* Values in this Table are taken from Regulatory Guide 1.109 except for phosphorus which is adapted from NUREG/CR-1336 and silver and antimony which are taken from UCRL 50564, Rev. 1, October 1972.

Table 2-8

LIQUID PATHWAY DOSE COMMITMENT FACTORS, $A_{shore,I}$
FOR RELEASES TO THE TRAINING CENTER POND
 (mRem/hr per $\mu\text{Ci/ml}$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>T.Body</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>
H-3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
C-14	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Na-24	2.10E+00	2.10E+00	2.10E+00	2.10E+00	2.10E+00	2.10E+00	2.10E+00
P-32	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cr-51	1.38E+00	1.38E+00	1.38E+00	1.38E+00	1.38E+00	1.38E+00	1.38E+00
Mn-54	4.02E+02	4.02E+02	4.02E+02	4.02E+02	4.02E+02	4.02E+02	4.02E+02
Mn-56	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02
Fe-55	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe-59	8.18E+01	8.18E+01	8.18E+01	8.18E+01	8.18E+01	8.18E+01	8.18E+01
Co-57	9.49E+01	9.49E+01	9.49E+01	9.49E+01	9.49E+01	9.49E+01	9.49E+01
Co-58	1.14E+02	1.14E+02	1.14E+02	1.14E+02	1.14E+02	1.14E+02	1.14E+02
Co-60	6.43E+03	6.43E+03	6.43E+03	6.43E+03	6.43E+03	6.43E+03	6.43E+03
Ni-63	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ni-65	3.28E-03	3.28E-03	3.28E-03	3.28E-03	3.28E-03	3.28E-03	3.28E-03
Cu-64	9.50E-02	9.50E-02	9.50E-02	9.50E-02	9.50E-02	9.50E-02	9.50E-02
Zn-65	2.23E+02	2.23E+02	2.23E+02	2.23E+02	2.23E+02	2.23E+02	2.23E+02
Zn-69	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Br-82	9.08E+00	9.08E+00	9.08E+00	9.08E+00	9.08E+00	9.08E+00	9.08E+00
Br-83	4.58E-05	4.58E-05	4.58E-05	4.58E-05	4.58E-05	4.58E-05	4.58E-05
Br-84	9.29E-09	9.29E-09	9.29E-09	9.29E-09	9.29E-09	9.29E-09	9.29E-09
Br-85	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rb-86	2.64E+00	2.64E+00	2.64E+00	2.64E+00	2.64E+00	2.64E+00	2.64E+00
Rb-88	5.52E-15	5.52E-15	5.52E-15	5.52E-15	5.52E-15	5.52E-15	5.52E-15
Rb-89	2.00E-16	2.00E-16	2.00E-16	2.00E-16	2.00E-16	2.00E-16	2.00E-16
Sr-89	6.43E-03	6.43E-03	6.43E-03	6.43E-03	6.43E-03	6.43E-03	6.43E-03
Sr-90	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr-91	2.77E-01	2.77E-01	2.77E-01	2.77E-01	2.77E-01	2.77E-01	2.77E-01
Sr-92	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02
Y-90	1.18E-03	1.18E-03	1.18E-03	1.18E-03	1.18E-03	1.18E-03	1.18E-03
Y-91m	1.39E-06	1.39E-06	1.39E-06	1.39E-06	1.39E-06	1.39E-06	1.39E-06
Y-91	3.21E-01	3.21E-01	3.21E-01	3.21E-01	3.21E-01	3.21E-01	3.21E-01
Y-92	5.11E-03	5.11E-03	5.11E-03	5.11E-03	5.11E-03	5.11E-03	5.11E-03
Y-93	2.46E-02	2.46E-02	2.46E-02	2.46E-02	2.46E-02	2.46E-02	2.46E-02
Zr-95	7.41E+01	7.41E+01	7.41E+01	7.41E+01	7.41E+01	7.41E+01	7.41E+01
Zr-97	5.38E-01	5.38E-01	5.38E-01	5.38E-01	5.38E-01	5.38E-01	5.38E-01
Nb-95	4.05E+01	4.05E+01	4.05E+01	4.05E+01	4.05E+01	4.05E+01	4.05E+01
Nb-97	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.14E-04
Mo-99	1.07E+00	1.07E+00	1.07E+00	1.07E+00	1.07E+00	1.07E+00	1.07E+00
Tc-99m	1.37E-02	1.37E-02	1.37E-02	1.37E-02	1.37E-02	1.37E-02	1.37E-02
Tc-101	3.33E-18	3.33E-18	3.33E-18	3.33E-18	3.33E-18	3.33E-18	3.33E-18
Ru-103	3.24E+01	3.24E+01	3.24E+01	3.24E+01	3.24E+01	3.24E+01	3.24E+01
Ru-105	2.93E-02	2.93E-02	2.93E-02	2.93E-02	2.93E-02	2.93E-02	2.93E-02
Ru-106	1.26E+02	1.26E+02	1.26E+02	1.26E+02	1.26E+02	1.26E+02	1.26E+02

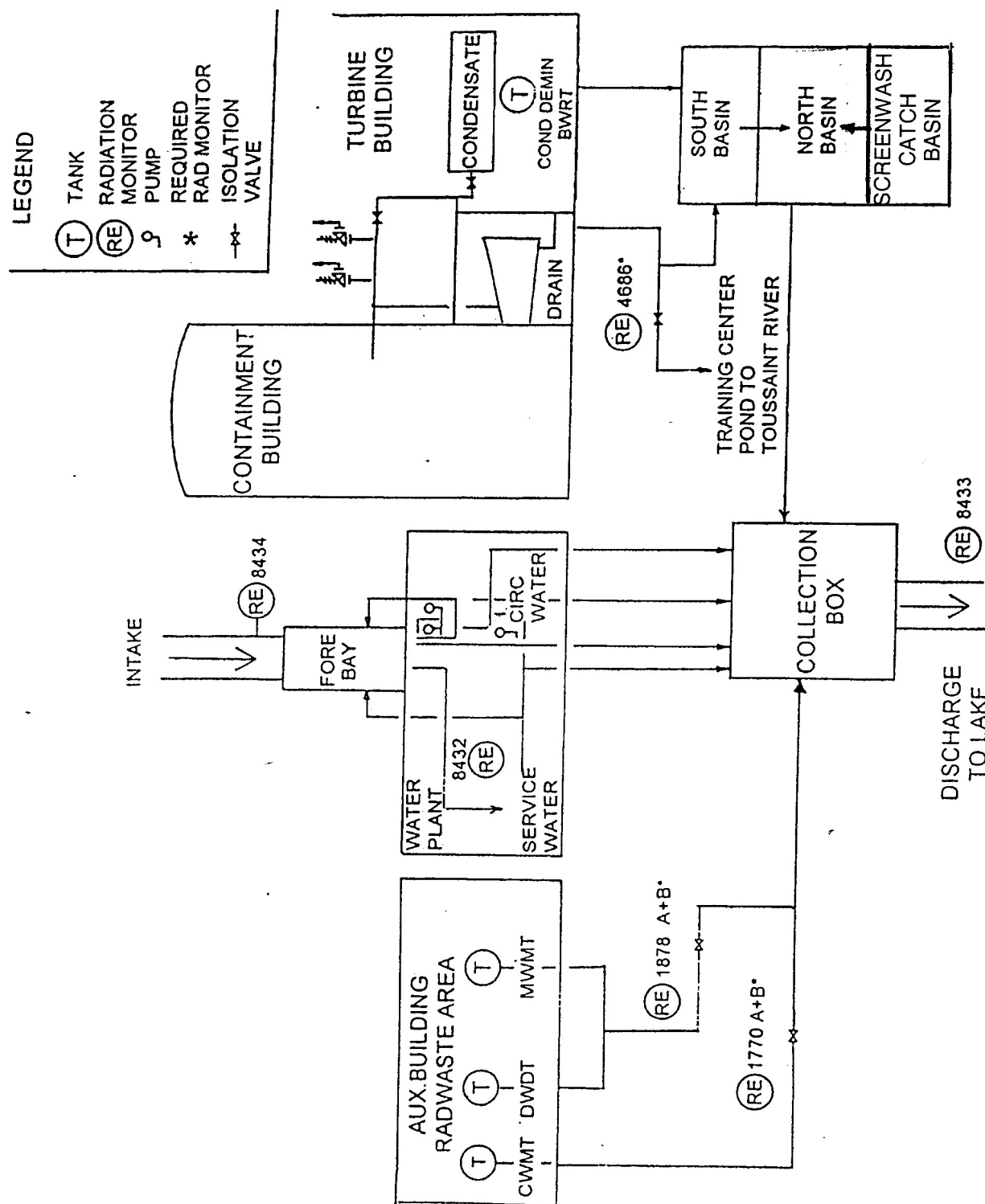
Table 2-8 (Continued)

LIQUID PATHWAY DOSE COMMITMENT FACTORS, $A_{shore,1}$
FOR RELEASES TO THE TRAINING CENTER POND
(mRem/hr per μ Ci/ml)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>T.Body</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>
Rh-103m	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rh-106	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ag-110m	1.04E+03	1.04E+03	1.04E+03	1.04E+03	1.04E+03	1.04E+03	1.04E+03
Sb-124	3.13E+02	3.13E+02	3.13E+02	3.13E+02	3.13E+02	3.13E+02	3.13E+02
Sb-125	1.26E+03	1.26E+03	1.26E+03	1.26E+03	1.26E+03	1.26E+03	1.26E+03
Te-125m	4.62E-01	4.62E-01	4.62E-01	4.62E-01	4.62E-01	4.62E-01	4.62E-01
Te-127m	2.74E-02	2.74E-02	2.74E-02	2.74E-02	2.74E-02	2.74E-02	2.74E-02
Te-127	3.71E-04	3.71E-04	3.71E-04	3.71E-04	3.71E-04	3.71E-04	3.71E-04
Te-129m	5.94E+00	5.94E+00	5.94E+00	5.94E+00	5.94E+00	5.94E+00	5.94E+00
Te-129	5.62E-06	5.62E-06	5.62E-06	5.62E-06	5.62E-06	5.62E-06	5.62E-06
Te-131m	1.82E+00	1.82E+00	1.82E+00	1.82E+00	1.82E+00	1.82E+00	1.82E+00
Te-131	1.97E-11	1.97E-11	1.97E-11	1.97E-11	1.97E-11	1.97E-11	1.97E-11
Te-132	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00
I-130	8.48E-01	8.48E-01	8.48E-01	8.48E-01	8.48E-01	8.48E-01	8.48E-01
I-131	4.95E+00	4.95E+00	4.95E+00	4.95E+00	4.95E+00	4.95E+00	4.95E+00
I-132	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02
I-133	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01
I-134	1.07E-05	1.07E-05	1.07E-05	1.07E-05	1.07E-05	1.07E-05	1.07E-05
I-135	2.22E-01	2.22E-01	2.22E-01	2.22E-01	2.22E-01	2.22E-01	2.22E-01
Cs-134	2.02E+03	2.02E+03	2.02E+03	2.02E+03	2.02E+03	2.02E+03	2.02E+03
Cs-136	4.35E+01	4.35E+01	4.35E+01	4.35E+01	4.35E+01	4.35E+01	4.35E+01
Cs-137	3.08E+03	3.08E+03	3.08E+03	3.08E+03	3.08E+03	3.08E+03	3.08E+03
Cs-138	2.00E-08	2.00E-08	2.00E-08	2.00E-08	2.00E-08	2.00E-08	2.00E-08
Ba-139	7.96E-05	7.96E-05	7.96E-05	7.96E-05	7.96E-05	7.96E-05	7.96E-05
Ba-140	5.99E+00	5.99E+00	5.99E+00	5.99E+00	5.99E+00	5.99E+00	5.99E+00
Ba-141	1.08E-14	1.08E-14	1.08E-14	1.08E-14	1.08E-14	1.08E-14	1.08E-14
Ba-142	7.48E-23	7.48E-23	7.48E-23	7.48E-23	7.48E-23	7.48E-23	7.48E-23
La-140	4.66E+00	4.66E+00	4.66E+00	4.66E+00	4.66E+00	4.66E+00	4.66E+00
La-142	9.95E-04	9.95E-04	9.95E-04	9.95E-04	9.95E-04	9.95E-04	9.95E-04
Ce-141	4.04E+00	4.04E+00	4.04E+00	4.04E+00	4.04E+00	4.04E+00	4.04E+00
Ce-143	5.41E-01	5.41E-01	5.41E-01	5.41E-01	5.41E-01	5.41E-01	5.41E-01
Ce-144	2.08E+01	2.08E+01	2.08E+01	2.08E+01	2.08E+01	2.08E+01	2.08E+01
Pr-143	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pr-144	1.58E-16	1.58E-16	1.58E-16	1.58E-16	1.58E-16	1.58E-16	1.58E-16
Nd-147	2.44E+00	2.44E+00	2.44E+00	2.44E+00	2.44E+00	2.44E+00	2.44E+00
W-187	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01
Np-239	4.41E-01	4.41E-01	4.41E-01	4.41E-01	4.41E-01	4.41E-01	4.41E-01

Figure 2-1

Liquid Radioactive Effluent Monitoring and Processing Diagram



3.0 GASEOUS EFFLUENTS

3.1 RADIATION MONITORING INSTRUMENTATION AND CONTROLS

This Section specifies the gaseous effluent monitoring instrumentation required at Davis-Besse for controlling and monitoring radioactive effluents. Location and control function of these monitors are displayed in Figure 3-1. More information is provided in the Davis-Besse USAR, Section 11.3, Gaseous Waste System.

The radioactive gaseous effluent monitoring instrumentation channels shown in Table 3-1 shall be FUNCTIONAL with their alarm/trip setpoints set to ensure that the limits of Section 3.3 are not exceeded. The alarm/trip setpoints of these channels shall be determined and adjusted in accordance with the methodology and parameters in Section 3.3.

With a radioactive gaseous effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required, without delay suspend the release of radioactive gaseous effluents monitored by the affected channel, or declare the channel nonfunctional, or change the setpoint so it is acceptably conservative.

With less than the required number of radioactive gaseous effluent monitoring instrumentation channels FUNCTIONAL, take the actions shown in Table 3-1. Exert best efforts to return the instruments to FUNCTIONAL status within 30 days and, if unsuccessful, explain in the next Radioactive Effluent Release Report (Section 7.2) why the non-functionality was not corrected in a timely manner.

Each radioactive gaseous effluent monitoring instrumentation channel shall be demonstrated FUNCTIONAL by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 3-2. Each of these operations shall be performed within the specified time interval with a maximum allowable extension not to exceed 25 percent of the specified interval.

NOTE: The monitors specified in Table 3-2 are nonfunctional if verifications are not performed or setpoints are less conservative than required.

The radioactive gaseous effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in gaseous effluents during actual or potential releases. The alarm/trip setpoints for these instruments shall be calculated in accordance with methods in Section 3.3 to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. The FUNCTIONALITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63 and 64 of Appendix A to 10 CFR Part 50.

3.1.1 Alarm and Automatic Release Termination

a) Waste Gas Decay System Monitor (RE-1822 A&B)

The radioactive waste gas discharge line is continuously monitored by two offline detectors, each measuring gross activity. The monitors' control function will terminate the waste discharge prior to exceeding the release rate limits of Section 3.3.2. Table 3-1 requires that the Waste Gas Decay System contain as a minimum the following instrumentation:

- noble gas activity monitor (RE-1822 A or B), and
- effluent system flow rate measuring device (FT-1821 or 1821 A).

If both noble gas monitors are declared nonfunctional, then the contents of the tank may be released provided that prior to the release:

- at least two independent gas samples are collected and analyzed by gamma spectroscopy for principal gamma emitters (noble gases),
- at least two independent verifications of the release rate calculations are performed, and
- at least two independent verifications of the discharge valve line-up are performed.

If the flow rate device is nonfunctional, effluent releases may continue provided that the flow rate is estimated at least once per 12 hours. Flow rates may be estimated based on fan curves or discharge valve header positioning.

b) Containment Purge Exhaust Filter Monitor (RE-5052 A,B&C)

This detector monitors the containment atmosphere for radioactivity during Containment VENT or PURGE. The noble gas activity monitor (Channel C) is required by Table 3-1. It provides an automatic termination of the release prior to exceeding the release rate limits of Section 3.3.2. Although not required in order to comply with Table 3.1, Channels A and B provide indications of increasing levels of particulate and radioiodine releases and terminate the release if their high alarm setpoint is exceeded.

3.1.2 Alarm Only

a) Station Vent Monitor (RE-4598 AA, BA)

The Station Vent is designed as the final release point for all gaseous radioactive effluents. Three separate channels (A, B, and C) are provided for each monitoring system. Channel A is a Silicon alpha beta particle monitor viewing a fixed particulate filter. Channel B is a Sodium Iodide detector viewing a fixed charcoal cartridge sampler. Channel C is a Silicon detector viewing a fixed air volume measuring for noble gases. Only the Channel C radiation detector is required by Table 3.1.

The Channel A and Channel B detectors provide information on potential particulate and radioiodine releases, respectively. However, those monitors experience wide variations in response due, in part, to the much more abundant noble gases in the effluent stream relative to the particulate or radioiodines being sampled. Therefore, while Channels A and B provide useful information for identifying particulate and radioiodine releases, they are not required by Table 3.1 for quantifying the release rate. Refer to Section 3.5.

The following sampling and/or monitoring instrumentation on the Station Vent is required by Table 3-1:

- noble gas activity monitor (Channel C),
- particulate sampler filter,
- iodine sampler cartridge,
- sampler flow rate measuring device, and
- unit vent total Flow Indicating Transmitter (FIT- computer points F883 or F885).

The hydrogen purge line serves as a Containment pressure relief route to the Station Vent. A separate radiation monitor on this line is not required. Any release through the hydrogen purge line will be monitored by the Station Vent monitor, RE-4598.

b) Waste Gas System Oxygen Monitors (AE 5984 and 6570)

The Waste Gas System is provided with two oxygen monitors (with an alarm function) as required by Table 3-1 to alert operators in the unlikely event of oxygen leakage into the waste gas header. The concentration of oxygen is limited to less than or equal to 2% by volume whenever the hydrogen concentration exceeds 4% by volume. An oxygen concentration above the specified limit will actuate a local and control room alarm (TS 5.5.11.a as implemented by TRM 8.7.5).

3.2 SAMPLING AND ANALYSIS OF GASEOUS EFFLUENTS

Radioactive gaseous wastes shall be sampled and analyzed in accordance with Table 3-3. This sampling and analysis ensures that the dose rates and doses from gaseous effluents remain below the release rate limits of Section 3.3.2, and the dose limits of Sections 3.7.1 and 3.8.1.

3.2.1 Batch Releases

Table 3-3 requires that a grab gas sample be collected and analyzed prior to each BATCH RELEASE from the Waste Gas Decay Tanks (WGDT) or a Containment PURGE. The analysis shall include the identification of all principal gamma emitters (noble gas) and tritium. Although not required by Table 3-3, Containment Pressure releases, Integrated Leak Rate Tests of Containment, and other tank venting operations are batch releases and shall be sampled similarly.

The results of the sample analysis are used to establish the acceptable release rate in accordance with Section 3.3.5. This evaluation is necessary to ensure compliance with the limits of Section 3.3.2.

3.2.2 Continuous Release

All releases from the Station Vent are required to be continuously sampled for radioactivity. As specified in Table 3-3, the following minimum samples and analyses are required:

- once per week, analysis of an absorption media (e.g., charcoal cartridge) for I-131,
- once per week, analysis of a filter sample for all principal gamma emitters (particulate radioactive material),
- once per month, analysis of a grab gas sample for all principal gamma emitters (noble gas) and tritium,
- once per month, analysis of a composite of the particulate samples of all releases for that month for gross alpha activity,
- once per quarter, analysis of a composite of the particulate samples for all releases for that quarter for Sr-89 and 90, and
- continuous monitoring for noble gases (gross beta and gamma activity).

3.2.3 Releases Resulting from Primary-to-Secondary System Leakage

Due to secondary coolant system contamination, there are several additional gaseous release points to consider:

- The Atmospheric Vent Valves (AVVs) weepage - continuous ground level release
- Main Steam System Relief Valves (MSSVs) - batch ground level release
- Auxiliary Feed Pump Turbines (AFPTs) - batch ground level release
- Auxiliary Steam System Relief Valves (235#, 15#, 50#, 5# Relief Valves) - batch ground level release
- Auxiliary Boiler Relief Valve - batch ground level release
- Steam Packing Exhauster (SPE) – continuous ground level release

Steam may be released via any of these points due to improper valve seating. Steam may be released via the MSSVs and AVVs if the plant trips, or via the AVVs during a condenser outage. Steam is released through the AFPTs during their operation. Steam may be released due to over pressurization of the Auxiliary Steam System via the relief valves on the various steam headers. Gland Steam from the High and Low Pressure Turbine labyrinth gland seals, and valve stem steam leakage from the Turbine Control Valves and Combined Intermediate Valves are released during normal plant operation from the Steam Packing Exhauster.

For secondary coolant system release pathways, the following minimum samples and analyses are required:

- once per week, analysis of a secondary system off-gas sample for principal gamma emitters (noble gases) and tritium;
- once per week, analysis of condensate sample for principal gamma emitters (iodines and particulates) and tritium;
- once per quarter, analysis of a composite of condensate samples for strontium-89 and strontium-90.

To supplement the above requirements, the moisture separator drain tank liquid may be analyzed for principal gamma emitters (iodines and particulates)

Liquid samples are analyzed from Condensate during normal operations, and from the Auxiliary Boiler during Modes 5 and 6. For Auxiliary Steam System Relief lifts that occur when the Auxiliary Boiler is the source of Auxiliary Steam, liquid samples from the Auxiliary Boiler are analyzed for principal gamma emitters (iodines and particulates) and tritium.

If only one steam generator has a primary-to-secondary leak, then radionuclides other than tritium are released through the valves on the leaking steam generator's main steam line. Demineralizing and gas stripping remove some radionuclides from the condensate prior to its return to the steam generator as feedwater. However, these processes do not remove tritium.

3.3 GASEOUS EFFLUENT MONITOR SETPOINT DETERMINATION

3.3.1 Total Effective Dose Equivalent Limits

10 CFR 20.1301 limits the total effective dose equivalent, (TEDE), to individual members of the public from all licensed operations to 100 mRem in a year. At Davis-Besse, the total effective dose equivalent due to radioactive materials released in gaseous effluents at the boundary of the unrestricted area shall be limited to 50 mRem in a year.

3.3.2 Release Rate Limits

All releases of gaseous radioactive effluents are designed to occur via the Station Vent. Station Vent alarm setpoints shall be established to ensure the release rate of noble gas, iodine and particulate effluent does not exceed any 10 CFR limit at or beyond the site boundary. For batch and intermittent releases (e.g. containment purges, etc.), compliance may be demonstrated by ensuring that:

Noble gas: A dose rate less than or equal to 500 mRem/year to the total body, and a dose rate less than or equal to 3000 mRem/year to the skin,

And

Iodine 131, Iodine 133, Tritium, and all radionuclides in particulate form with half-lives greater than 8 days: A dose rate less than or equal to 1500 mRem/year to any organ.

Should dose rate(s) exceed the above limits, without delay restore the release rate to within the above limit(s).

These requirements ensure that the total effective dose equivalent at the UNRESTRICTED AREA BOUNDARY from gaseous effluents will be within the annual dose limits of 10 CFR Part 20 for individual members of the public.

For INDIVIDUAL MEMBERS OF THE PUBLIC who may at times be within the UNRESTRICTED AREA BOUNDARY, the occupancy of that MEMBER OF THE PUBLIC will be sufficiently low to compensate for any increase in the atmospheric diffusion factor above that for the UNRESTRICTED AREA BOUNDARY.

3.3.3 Individual Release Radiation Monitor Setpoints

Although generic radiation monitor setpoints are normally used at Davis-Besse (see Section 3.3.4), setpoints may be established from a sample analysis of the applicable source (i.e., Station Vent, Waste Gas Decay Tanks, or Containment atmosphere), and the following equations:

$$SP_{TB} = \frac{\sum C_i * 500}{472 * \chi / Q_{NG} * VF * \sum (C_i * K_i)} \quad (3-1)$$

$$SP_S = \frac{\sum C_i * 3000}{472 * \chi / Q_{NG} * VF * \sum (C_i * (L_i + 1.1 M_i))} \quad (3-2)$$

where:

SP_{TB}	=	monitor setpoint corresponding to the release rate limit for the total body dose rate of 500 mRem per year ($\mu\text{Ci}/\text{ml}$),
SP_S	=	monitor setpoint corresponding to the release rate limit for the skin dose rate of 3000 mRem per year ($\mu\text{Ci}/\text{ml}$),
500	=	total body dose rate limit (mRem/yr),
3000	=	skin dose rate limit (mRem/yr),
χ/Q_{NG}	=	atmospheric χ/Q value for direct exposure to noble gas at the UNRESTRICTED AREA BOUNDARY given in Table 3-6 (sec/m^3),
VF	=	ventilation system flow rate for the applicable release point and monitor ($\text{ft}^3/\text{minute}$),
C_i	=	concentration of noble gas radionuclide "i" as determined by gamma spectral analysis of grab sample ($\mu\text{Ci}/\text{ml}$),
K_i	=	total body dose conversion factor for radionuclide "i" (mRem/yr per $\mu\text{Ci}/\text{m}^3$) from Table 3-5,
L_i	=	beta skin dose conversion factor for radionuclide "i" (mRem/yr per $\mu\text{Ci}/\text{m}^3$) from Table 3-5,
M_i	=	gamma air dose conversion factor for radionuclide "i" (mrad/yr per $\mu\text{Ci}/\text{m}^3$) from Table 3-5,
1.1	=	mRem skin dose per mrad gamma air dose (mRem/mrad), and
472	=	$28,317 (\text{ml}/\text{ft}^3) * 1/60 (\text{min}/\text{sec})$.

The lesser value of SP_{TB} or SP_S is used to establish the monitor setpoint.

The Station Vent monitor (RE-4598) efficiencies and read outs are in $\mu\text{Ci/ml}$; however, the Containment Purge Exhaust Monitor (RE-5052) and the WGDT monitor (RE-1822) efficiencies and readouts are in counts per minute. Therefore, for RE-5052 and RE-1822, the setpoints in $\mu\text{Ci/ml}$ must be corrected to an equivalent monitor counts per minute. The monitor calibration curves are used for determining specific radionuclide efficiencies (cpm per $\mu\text{Ci/ml}$).

Normally, the monitor for Xe-133 efficiency is used in lieu of the efficiency values for the individual radionuclides. Xe-133 is used because it is the predominant inert gas found in station gaseous releases. The use of Xe-133 efficiency provides a conservative value for alarm setpoint determination.

3.3.4 Conservative, Generic Radiation Monitor Setpoints

Normally, generic alarm setpoints are established instead of those determined by individual radionuclide analysis. This approach eliminates the need to adjust the setpoint periodically to reflect minor changes in radionuclide distribution or release flow rate. Therefore, the more restrictive setpoint is based on the total body dose rate limit and may be calculated using equation (3-1). Again, Xe-133 monitor efficiency is used for conservatism. Xe-133 is used because it is the predominant inert gas in station gaseous releases. The alarm setpoints are controlled for RE-4598, RE-5052, and RE-1822 in accordance with the Radiation Monitor Setpoint Manual.

3.3.5 Release Flow Rate Evaluation For Batch Releases

To comply with the release rate limits of Section 3.3.2, each batch release shall be evaluated for maximum release flow rate prior to being released. Based on noble gas concentration, and the radioiodine, particulate, and tritium concentration in the sample as collected in accordance with Table 3-3, the allowable release rate is determined based on equations (3-3), (3-4) and (3-5). The smallest value of RR_{tb} , RR_s or RR_{INH} is used as the maximum allowable release flow rate.

To determine RR_{INH} exactly, a separate RR_{INH} must be calculated for every organ in every age group (28 values of RR_{INH}). The smallest of these 28 is the RR_{INH} which is compared to RR_{tb} and RR_s to determine maximum allowable release rate. A conservative shortcut is to calculate RR_{INH} once by using the largest inhalation dose factor (R_{io} from Table 3-7) for any organ of any age group for each nuclide released. The largest dose factors in the inhalation pathway are usually for the teen lung.

$$RR_{tb} = \frac{500}{472 * \chi / Q_{NG} * \Sigma(K_i * CNG_i)} \quad (3-3)$$

$$RR_s = \frac{3000}{472 * \chi / Q_{NG} * \Sigma((L_i + 1.1 M_i) * CNG_i)} \quad (3-4)$$

$$RR_{INH} = \frac{1500}{472 * \chi / Q_{INH} * \Sigma(R_{io} * CINH_i) * DF_{IP}} \quad (3-5)$$

where:

RR_{tb}	=	allowable release flow rate so as not to exceed a total body dose rate of 500 mRem/yr ($\text{ft}^3/\text{minute}$),
RR_s	=	allowable release flow rate so as not to exceed a skin dose rate of 3000 mRem/yr ($\text{ft}^3/\text{minute}$),
RR_{INH}	=	allowable release flow rate so as not to exceed an inhalation dose rate of 1500 mRem/yr (ft^3/min),
500	=	total body dose rate limit at the UNRESTRICTED AREA BOUNDARY (mRem/yr),
3000	=	skin dose rate limit at the UNRESTRICTED AREA BOUNDARY (mRem/yr),
1500	=	inhalation dose rate limit at the UNRESTRICTED AREA BOUNDARY (mRem/yr),
472	=	$28317 (\text{ml}/\text{ft}^3) * 1/60 (\text{min}/\text{sec})$,
χ/Q_{NG}	=	atmospheric χ/Q value for direct exposure to noble gas at the UNRESTRICTED AREA BOUNDARY given in Table 3-6 (sec/m^3),
χ/Q_{INH}	=	atmospheric χ/Q value for inhalation at the UNRESTRICTED AREA BOUNDARY given in Table 3-6 (sec/m^3),
K_i	=	total body dose conversion factor for radionuclide "i" (mRem/yr per $\mu\text{Ci}/\text{m}^3$) from Table 3-5,
L_i	=	beta skin dose conversion factor for radionuclide "i" (mRem/yr per $\mu\text{Ci}/\text{m}^3$) from Table 3-5,
M_i	=	gamma air dose conversion factor for radionuclide "i" (mrad/yr per $\mu\text{Ci}/\text{m}^3$) from Table 3-5,
R_{io}	=	dose factor for radionuclide _i to organ "o" of age group _a given in Table 3-7 (mRem/yr per $\mu\text{Ci}/\text{m}^3$),
CNG_i	=	concentration of noble gas radionuclide "i" analyzed in grab samples,
$CINH_i$	=	concentration of tritium, radioiodine, or particulate radionuclide "i" analyzed in grab samples, and
DF_{IP}	=	0.01 which is a removal factor of 100 for radioiodines and particulates when the effluent is processed through an absolute filter (do <u>not</u> use for tritium).

The actual release rate may be set lower than the maximum allowable release rate to provide an additional assurance that the release rate limits of Section 3.3.2 are not exceeded.

3.4 UNRESTRICTED AREA BOUNDARY DOSE RATE CALCULATION - NOBLE GAS

If an effluent noble gas monitor exceeds the alarm setpoint, then an evaluation of compliance with the release rate limits of Section 3.3.2 must be performed using actual release conditions. This evaluation requires collecting a sample of the effluent to establish actual radionuclide concentrations and monitor response.

The following equations may be used for evaluating compliance with the release rate limit of Section 3.3.2 for noble gases:

$$D_{tb} = 472 * \chi / Q_{NG} * VF * \Sigma (K_i * C_i) \quad (3-6)$$

$$D_s = 472 * \chi / Q_{NG} * VF * \Sigma ((L_i + 1.1 M_i) * C_i) \quad (3-7)$$

where:

D_{tb}	=	total body dose rate (mRem/yr),
D_s	=	skin dose rate (mRem/yr),
χ/Q_{NG}	=	atmospheric χ/Q for direct exposure to noble gases at the UNRESTRICTED AREA BOUNDARY given in Table 3-6 (sec/m ³),
VF	=	ventilation system flow rate (ft ³ /min),
C_i	=	concentration of radionuclide "i" as measured in sample (μCi/ml),
K_i	=	total body dose conversion factor for noble gas radionuclide "i" (mRem/yr per μCi/m ³) from Table 3-5,
L_i	=	beta skin dose conversion factor for noble gas radionuclide "i" (mRem/yr per μCi/m ³) from Table 3-5,
M_i	=	gamma air dose conversion factor for noble gas radionuclide "i" (mrad/yr per μCi/m ³) from Table 3-5,
1.1	=	mRem skin dose per mrad gamma air dose (mRem/mrad), and
472	=	28,317 (ml/ft ³) * 1/60 (min/sec).

3.5 UNRESTRICTED AREA BOUNDARY DOSE RATE CALCULATION - RADIOIODINE, TRITIUM, AND PARTICULATES

3.5.1 Dose Rate Calculation

Section 3.3.2 limits the dose rate to ≤ 1500 mRem/yr to any organ for gaseous releases of I-131, tritium and all particulates with half-lives greater than 8 days. To demonstrate compliance with this limit, an evaluation is performed in accordance with Table 3-3 (nominally once per 7 days). The following equation may be used for the dose rate evaluation:

$$D_o = \chi / Q_{INH} * \Sigma (R_{io} * Q_i) \quad (3-8)$$

where:

D_o = dose rate to organ "o" over the sampling time period (mRem/yr)

χ/Q_{INH} = atmospheric χ/Q value for inhalation at the UNRESTRICTED AREA BOUNDARY given in Table 3-6 (sec/m³),

R_{io} = dose factor to organ_o from radionuclide "i" for the controlling age group via the inhalation pathway (mRem/yr per $\mu\text{Ci}/\text{m}^3$) from Table 3-7, and

Q_i = average release rate over the appropriate sampling period and analysis frequency for radionuclide "i" ($\mu\text{Ci}/\text{sec}$).

3.5.2 Simplified Dose Rate Evaluation for Radioiodine, Tritium and Particulates

It is conservative to evaluate dose rates by applying the I-131 dose factor to the collective releases for all measured radionuclides. By substituting 1500 mRem/yr for the dose rate to organ "o" in Equation (3-8) and solving for Q_i , an allowable release rate can be determined. Based on the annual average meteorological dispersion (see Table 3-6) and the I-131 dose factor for the most limiting potential pathway, age group and organ (inhalation, child, thyroid - $R_{io} = 1.64\text{E}+07$ mRem/yr per $\mu\text{Ci}/\text{m}^3$), the allowable release rate is 63.6 $\mu\text{Ci}/\text{sec}$. An added conservatism factor of 0.8 has been included in this calculation to account for any potential dose contribution from other radioactive particulate material.

For a 7-day period, which is the nominal sampling and analysis frequency, the cumulative release would be 38.5 Ci. Therefore, as long as the total radioiodine, tritium, and particulate releases in any 7-day period do not exceed 38.5 Ci, no additional analyses are needed to verify compliance with the Section 3.3.2 limits on allowable release rate.

3.6 QUANTIFYING ACTIVITY RELEASED

NRC Regulatory Guide 1.21 requires reporting the quantities of individual radionuclides released in gaseous effluents. Therefore, these quantities shall be determined.

3.6.1 Quantifying Noble Gas Activity Released Using a Grab Sample or RE-4598

The quantification of continuous noble gas effluents is based on sampling and analysis of the Station Vent effluent. The monitor, RE-4598, provides a measurement of gross radioactive material concentration in the effluent. As required by Table 3-3, a gas sample is collected at least monthly from the Station Vent. And, as discussed in Section 3.2.2, this sample is analyzed by gamma spectroscopy to identify principal gamma emitting radionuclides (noble gases). The results of the analysis are used to determine the quantities of radionuclides released. This simplified approach reasonably quantifies the continuous release provided that no atypical levels have been observed (e.g., alert setpoint being exceeded).

Based on the actual grab sample analysis, the release quantities are determined by using the following equation:

$$Q_i = 28,317 * VF * T * C_i * 1E-06 \quad (3-9)$$

where:

Q_i	=	total activity released of radionuclide _i (C_i),
28,317	=	milliliters per ft ³ ,
VF	=	ventilation system flow rate (ft ³ /min),
T	=	release duration (min),
1E-06	=	Ci per μ Ci, and
C_i	=	concentration of radionuclide "i" as measured in the grab sample (μ Ci/ml).

As an alternative method, the average noble gas reading for the release period can be used to quantify individual noble gas radionuclides released provided a normal isotopic mixture of gases is present by using the following equation:

$$Q_i = 28,317 * \frac{A_i}{\sum A_i} * C * VF * T \quad (3-10)$$

where:

Q_i	=	total activity released of radionuclide "i" (μ Ci),
28,317	=	milliliters per ft ³ ,

A_i	=	activity concentration of radionuclide "i" from the gamma spectral analysis of a grab sample from the release point ($\mu\text{Ci/ml}$),
C	=	average gross activity concentration over the release period as measured by the noble gas monitor excluding any BATCH RELEASES ($\mu\text{Ci/ml}$),
VF	=	ventilation system flow rate (ft^3/min), and
T	=	release duration (min).

3.6.2 Quantifying Noble Gas Activity Released While RE-4598AA and BA, Channel C Are Inoperable

With both Station Vent radiation monitors inoperable (i.e., RE-4598 AA and BA, Channel C), the alarm functions are also nonfunctional. The once-per-8 hours grab samples provide for continued quantification of releases in accordance with Table 3-1 requirements. Analysis of grab samples provides the radionuclide concentrations in the effluent. The flow measurement device (or flow rate estimate) and the release duration provide the total volume released. With these, the total amount of radioactive material released can be determined by using equation 3-9.

3.6.3 Quantifying Radioiodine, Tritium, and Particulate Activity Released

For radioiodine and particulates:

$$Q_i = \frac{A_i * \lambda_i * t * v * 1E-06}{(1 - e^{-\lambda_i t}) * s * 0.72} \quad (3-11)$$

where:

Q_i	=	total activity released of radionuclide _i (Ci),
A_i	=	activity of radionuclide _i measured on filter media (μCi),
λ_i	=	decay constant of radionuclide _i (hr^{-1}),
t	=	release duration (hr),
v	=	total vent system flow for sampling period (cc),
$1E-06$	=	Ci per μCi ,
s	=	total flow through sampler (cc), and
0.72	=	isokinetic flow correction factor for normal range station vent skid RE 4598 AA or BA filter media.

For Tritium:

$$Q = \frac{C * W * V * 1E - 06}{0.9 * S} \quad (3-12)$$

where:

- Q = total activity of tritium released (Ci),
- C = tritium concentration in gas washing bottle (μCi/ml),
- W = volume of water added to gas washing bottle (ml),
- V = total vent system flow for release period (cc),
- 1E-06 = Ci per μCi,
- 0.9 = efficiency for collection of tritium, and
- S = total sample volume through gas washing bottle (cc).

3.6.4 Quantifying Ground Level Releases Activity

The ground level releases listed in Section 3.2.3 do not exhaust through Station Vent nor are directly sampled for activity. The condensate sample is used to calculate the postulated iodine and particulates activities and a portion of the tritium and noble gas activity. The off-gas sample supplement the tritium and noble gas activities released (due to partitioning factors, over 99.9% of iodines and particulates are in the condensate and moisture separator drain tank liquid). The results of the sampling program are used to indirectly quantify the activity released as follows:

$$Q_i = T \left[(M * 7.564) (C_{ic} + 0.065 * P * C_{im}) + (F * 28317 * C_{is} * M / M_c) \right]$$

where:

- Q_i = total activity released of radionuclide _i (μCi),
- T = duration of release (min),
- M = mass flow rate of release (lbs/hr),
- M_c = mass flow rate of condensate (lbs/hr),
- 7.564 = $\frac{1}{60}$ hr/min * (3785 cc/8.34 lbs),
- C_{ic} = concentration of radionuclide in condensate (μCi/cc),

0.065	=	mass flow rate ratio of moisture separator drain to condensate,
P	=	fraction of moisture separator drain flow routed to feedwater,
C _{im}	=	concentration of radionuclide in moisture separator drain (μCi/cc),
F	=	flowrate of off-gas system (ft ³ /min),
28317	=	cc per ft ³
C _{is}	=	concentration of radionuclide _i in off-gas sample (μCi/cc)

3.7 NOBLE GAS DOSE CALCULATIONS - 10 CFR 50

3.7.1 UNRESTRICTED AREA Dose - Limits

Cumulative dose contributions for the current calendar quarter and current calendar year for noble gases shall be determined in accordance with the methodology and parameters in this Section or the methodology used in GASPAR II (NUREG/CR-4653) at least once per 31 days. This periodic assessment of releases of noble gases is to evaluate compliance with the quarterly dose limits and calendar year limits.

The air dose due to noble gases released in gaseous effluents to areas at and beyond the UNRESTRICTED AREA BOUNDARY shall be limited to the following:

- during any calendar quarter: less than or equal to 5 mrad for gamma radiation and less than or equal to 10 mrad for beta radiation, and
- during any calendar year: less than or equal to 10 mrad for gamma radiation and less than or equal to 20 mrad for beta radiation.

With the calculated air dose from radioactive noble gases in gaseous effluents exceeding any of the above limits, prepare and submit to the Commission within 60 days, pursuant to Section 7.3, a Licensee Event Report that identifies the cause(s) for exceeding the limit(s) and defines the corrective actions that have been taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be in compliance with the above limits.

This specification is provided to implement the requirements of Section II.B, III.A and IV.A of Appendix I, 10 CFR Part 50. The limits specified above provide the required operating flexibility and at the same time implement the guides set forth in Section IV.A of Appendix I to assure that the releases of radioactive material in gaseous effluents will be kept "as low as is reasonably achievable." This Section implements the requirements of Section III.A of Appendix I that conformance with the guides of Appendix I to be shown by calculational procedures based on models and data such that the actual exposure of an individual through the appropriate pathways is unlikely to be substantially underestimated. The dose calculations established for calculating the doses due to the actual release rates of radioactive noble gases in gaseous effluents are consistent with the methodology provided in Regulatory Guide 1.109, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I," Revision 1, October 1977 and Regulatory Guide 1.111, "Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors," Revision 1, July 1977.

3.7.2 Dose Calculations - Noble Gases

The following equations may be used to calculate the gamma-air and beta-air doses:

$$D\lambda = 3.17E - 08 * \chi / Q_{NG} * \Sigma (M_i * Q_i) \quad (3-13)$$

$$D\beta = 3.17E - 08 * \chi / Q_{NG} * \Sigma (N_i * Q_i) \quad (3-14)$$

where:

$D\lambda$ = air dose due to gamma emissions for noble gas radionuclides (mrad),

$D\beta$ = air dose due to beta emissions for noble gas radionuclides (mrad),

χ/Q_{NG} = atmospheric χ/Q value for direct exposure to noble gas at the UNRESTRICTED AREA BOUNDARY given in Table 3-6 (sec/m³),

Q_i = cumulative release of noble gas radionuclide "i" over the period of interest (μCi),

M_i = air dose factor due to gamma emissions from noble gas radionuclide "i" (mrad/yr per $\mu\text{Ci}/\text{m}^3$) from Table 3-5,

N_i = air dose factor due to beta emissions from noble gas radionuclide "i" (mrad/yr per $\mu\text{Ci}/\text{m}^3$) from Table 3-5, and

$3.17\text{E}-08 = 1/3.15\text{E}+07$ (yr/sec).

3.7.3 Simplified Dose Calculation for Noble Gases

In lieu of the individual noble gas radionuclide dose assessment presented above, the following simplified equations may be used for verifying compliance with the dose limits of Section 3.7.1. (Refer to Appendix B for the derivation and justification of this simplified method.)

$$D\lambda = 2.0 * 3.17\text{E} - 08 * \chi / Q_{NG} * M_{\text{eff}} * \Sigma Q_i \quad (3-15)$$

and

$$D\beta = 2.0 * 3.17\text{E} - 08 * \chi / Q_{NG} * N_{\text{eff}} * \Sigma Q_i \quad (3-16)$$

where:

M_{eff} = $5.7\text{E}+02$, effective gamma-air dose factor from Appendix B (mrad/yr per $\mu\text{Ci}/\text{m}^3$),

N_{eff} = $1.1\text{E}+03$, effective beta-air dose factor from Appendix B (mrad/yr per $\mu\text{Ci}/\text{m}^3$), and

2.0 = conservatism factor to account for potential variability in the radionuclide distribution.

3.8 RADIOIODINE, TRITIUM AND PARTICULATE DOSE CALCULATIONS - 10 CFR 50

3.8.1 UNRESTRICTED AREA Dose Limits

A periodic assessment is required to evaluate compliance with the quarterly dose limit and the calendar year limit to any organ. Cumulative dose contributions for the current calendar quarter and current calendar year for I-131, tritium, and radionuclides in particulate form with half-lives greater than 8 days shall be determined in accordance with the methodology and parameters in this Section or the methodology used in GASPAR II (NREG/CR-4653) at least once per 31 days.

The dose to a MEMBER OF THE PUBLIC from I-131, tritium and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released to areas at and beyond the UNRESTRICTED AREA BOUNDARY shall be limited to the following:

- During any calendar quarter: less than or equal to 7.5 mRem to any organ, and
- During any calendar year: less than or equal to 15 mRem to any organ.

With the calculated dose from the release of iodine-131, tritium and radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents exceeding any of the above limits, prepare and submit to the Commission within 60 days, pursuant to Section 7.3, a Licensee Event Report that identifies the cause(s) for exceeding the limit and defines the corrective actions that have been taken to reduce the releases and the proposed corrective actions to be taken to assure that subsequent releases will be in compliance with the above limits.

This requirement is provided to implement the requirements of Section II.C, III.A, and IV.A of Appendix I, 10 CFR Part 50. The limits are the guides set forth in Section II.C of Appendix I. The actions specified provide the required operating flexibility and at the same time implement the guides set forth in Section IV.A of Appendix I to assure that the releases of radioactive materials in gaseous effluents will be kept "as low as is reasonably achievable." The ODCM calculational methods specified in this Section implement the requirements in Section III.A of Appendix I that conformance with the guides of Appendix I be shown by calculational procedure based on models and data such that the actual exposure of an individual through appropriate pathways is unlikely to be substantially underestimated. The ODCM methods for calculating the doses due to the actual release rates of the subject materials are consistent with the methodology provided in Regulatory Guide 1.109, "Calculating of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR 50, Appendix I", Revision 1, October 1977 and Regulatory Guide 1.111, "Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors," Revision 1, July 1977.

The release rate specifications for radioiodines and radioactive material in particulate form are dependent on the existing radionuclide pathways to man in the UNRESTRICTED AREA. The pathways which are examined in the development of these calculations are:

- individual inhalation of airborne radionuclides,
- deposition of radionuclides into green leafy vegetation with subsequent consumption by man,
- deposition onto grassy areas where milk animals and meat-producing animals graze with consumption of the milk and meat by man, and
- deposition on the ground with subsequent exposure of man.

3.8.2 Critical Pathway

The critical pathway is that exposure pathway, age group, organ, and receptor location for which the maximum dose is calculated due to a given gaseous release of radionuclides. Determination of the critical pathway is made as part of the Annual Land Use Census. As part of this process, the maximum exposure pathway is determined for each directional sector in the area surrounding Davis-Besse. The maximum exposure pathways for each sector are listed in Table 3-4. The critical pathway is chosen from among the maximum pathways for each sector and is listed in Table 3-6.

Only the dose via the critical pathway identified in Table 3-6 need be evaluated for compliance with the dose limits of Section 3.8.1. Dose shall be calculated to the organ with the highest dose factor for the controlling age group to determine the maximum organ dose. The dose factors for organs of the various age groups are listed by exposure pathway in Tables 3-7 through 3-12. The meteorological dispersion values used (Table 3-6) may be those derived from current Land Use Census or those created by XOQDOQ.

3.8.3 Dose Calculations - Radioiodine, Tritium and Particulates

The following equation may be used to evaluate the maximum organ dose due to releases of iodine-131, tritium and particulates with half-lives greater than 8 days:

$$D_{aop} = 3.17E - 08 * W * ICF * SF * \Sigma (R_{io} * Q_i) \quad (3-17)$$

Where:

D_{aop}	=	dose or dose commitment to organ "o" via controlling pathway "p" and age group "a" as identified in Table 3-6 (mRem),
W	=	atmospheric dispersion factor to the controlling location as identified in Table 3-6
W	=	χ/Q , dispersion factor for inhalation pathway and H-3 dose contribution via all pathways (sec/m ³)
W	=	D/Q , deposition factor for vegetation, milk and ground plane exposure pathways (m ⁻²),
R_{io}	=	dose factor for radionuclide "i" to organ "o" of age group "a" via pathway "p" as identified in Table 3-7, 3-8, 3-9, 3-10, 3-11, or 3-12

depending on the pathway specified (mRem/yr per $\mu\text{Ci}/\text{m}^3$) or (m^2 - mRem/yr per $\mu\text{Ci}/\text{sec}$),

Q_i = cumulative release over the period of interest for radionuclide "i" (μCi),

ICF = elemental iodine correction factor which may be used in calculating doses from radioiodines via the vegetation, milk, and ground plane exposure pathways = 0.5,

SF = seasonal correction factor which may be used for milk and vegetation pathways = 0.5, and

$3.17\text{E}-08$ = $1/3.15\text{E}+07$ (yr/sec).

The dose factors in Tables 3-7 through 3-12 are derived in accordance with NUREG-0133. The elemental iodine correction factor in equation (3-17) is referenced in Regulatory Guide 1.109.

3.8.4 Simplified Dose Calculation for Radioiodine, Tritium and Particulates

In lieu of the individual radionuclide dose assessment presented in equation (3-17) the following simplified dose calculation may be used for verifying compliance with the dose limits of Section 3.8.1:

$$D_{\max} = 3.17\text{E} - 08 * W * \text{ICF} * \text{SF} * R_{\text{I-131}} * \Sigma Q_i \quad (3-18)$$

where:

D_{\max} = maximum organ dose (mRem),

$R_{\text{I-131}}$ = I-131 dose factor for the thyroid for the controlling pathway identified in Table 3-6, and

ΣQ_i = sum of the activities of all radioiodines, tritium and particulates (μCi).

The ground plane exposure and inhalation pathways need not be considered when the simplified method is used because of the negligible contribution of these pathways to the total thyroid dose. It is recognized that for some particulate radionuclides (e.g., Co-60 and Cs-137), the ground exposure pathway may represent a higher dose contribution than either the vegetation or milk pathway. However, use of the I-131 thyroid dose factor for all radionuclides will maximize the organ dose calculation, especially considering that no other radionuclide has a higher dose factor for any organ via any pathway than I-131 for the thyroid via the vegetable or milk pathway.

3.9 GASEOUS EFFLUENT DOSE PROJECTION

As with liquid effluents, gaseous effluents require processing if the projected dose exceeds specified limits. This requirement implements the requirements of 10 CFR 50.36a on maintaining and using the appropriate radwaste processing equipment to keep releases ALARA.

The GASEOUS RADWASTE TREATMENT SYSTEM (i.e., Waste Gas Decay Tank) shall be used to reduce noble gas levels prior to discharge when the projected air dose due to gaseous effluent releases to areas at and beyond the UNRESTRICTED AREA BOUNDARY would exceed 0.2 mrad for gamma radiation and 0.4 mrad for beta radiation in a 31 day period (i.e., one quarter of the design objective rate).

The VENTILATION EXHAUST TREATMENT SYSTEM shall be used to reduce radioiodine and particulate effluents, prior to their discharge, when the projected dose due to gaseous effluents releases to areas at or beyond the UNRESTRICTED AREA BOUNDARY would exceed 0.3 mRem to any organ in a 31-day period. Figure 3-1 presents the gaseous effluent release points and the GASEOUS RADWASTE and VENTILATION EXHAUST TREATMENT SYSTEMS applicable for reducing effluents prior to release.

With the gaseous waste being discharged without treatment and in excess of the limits, prepare and submit to the commission within 60 days, pursuant to Section 7.3 a Licensee Event Report that includes the following information:

- Explanation of why gaseous radwaste was being discharged without treatment, identification of any nonfunctional equipment or subsystems, and the reasons for the non-functionality,
- Actions taken to restore the nonfunctional equipment to FUNCTIONAL status, and
- Summary description of action(s) taken to prevent a recurrence.

The requirements that the appropriate portions of these systems be used, when specified, provides reasonable assurance that the releases of radioactive materials in gaseous effluents will be kept "as low as is reasonably achievable." This requirement implements the requirements of 10 CFR Part 50.36a, General Design Criterion 60 of Appendix A to 10 CFR Part 50. The specified limits governing the use of appropriate portions of the systems were specified as a suitable fraction of the dose design objectives set forth in Sections II.B and II.C of Appendix I, 10 CFR Part 50, for gaseous effluents.

If the GASEOUS RADWASTE and VENTILATION EXHAUST TREATMENT SYSTEMS are not being used, dose projections shall be performed at least once per 31 days using the following equations:

$$D\lambda_p = D\lambda * (31 / d) \quad (3-19)$$

$$D\beta_p = D\beta * (31 / d) \quad (3-20)$$

$$D_{\max p} = D_{\max} * (31 / d) \quad (3-21)$$

where:

$D\lambda_p$	=	projected 31-day gamma-air dose (mrad),	
$D\lambda$	=	gamma-air dose for the current month and two months prior to the current month (mrad),	
$D\beta_p$	=	projected 31-day beta-air dose (mrad),	
$D\beta$	=	beta-air dose for the current month and two months prior to the current month (mrad),	
D_{maxp}	=	projected 31-day maximum organ dose (mRem),	
D_{max}	=	maximum cumulative organ dose for current month, and two months prior to the current month as determined by equation (3-17) or (3-18) (mRem),	
d	=	the sum of days of the current month, and two months prior to the current month (e.g., October, November, and December = 92 days) and	
31	=	number of days in projection.	

Table 3-1

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>REQUIRED CHANNELS</u>	<u>APPLICABILITY</u>	<u>PARAMETER</u>	<u>ACTION</u>
1. Waste Gas Decay System (provides automatic isolation)				
a. Noble Gas Activity Monitor (RE 1822A, B)	1	(1)	Radioactivity Measurement	A
b. Effluent System Flow Rate Measuring Device	1	(1)	System Flow Rate Measurement	B
2. Waste Gas System (provides alarm function)				
a. Oxygen Monitor (AE5984, AE6570)	1	(2)	% Oxygen	D
3. Containment Purge Monitoring System (provides automatic isolation)				
a. Noble Gas Activity Monitor (RE 5052C)	1	(1)	Radioactivity measurement	C
4. Station Vent Stack (provides alarm function) (RE 4598AA,BA)				
a. Noble Gas Activity Monitor	1	(1)	Radioactivity Measurement	C*
b. Iodine Sampler Cartridge	1	(1)	Verify Presence of Cartridge	E*
c. Particulate Sampler Filter	1	(1)	Verify Presence of Filter	E*
d. Effluent System Flow Rate Measuring Device	1	(1)	System Flow Rate Measurement	B*
e. Sampler Flow Rate Measuring Device	1	(1)	Sampler Flow Rate Measurement	B*

*This requirement is not applicable for routine replacement of sampling media or routine test.

Table 3-1 (Continued)

TABLE NOTATION

(1) During radioactive waste gas releases via this pathway.

(2) During additions to the waste gas surge tank

ACTION A With less than the number of required channels FUNCTIONAL, the contents of the tank may be released to the environment provided that prior to initiating the release:

1. At least two independent samples are analyzed in accordance with Table 3-3 for analyses performed with each batch;
2. At least two independent verifications of the release rate calculations are performed;
3. At least two independent verifications of the discharge valving are performed.

ACTION B With less than the number of required channels FUNCTIONAL, effluent releases via this pathway may continue provided the flow rate is estimated at least once per 12 hours.

ACTION C With less than the number of required channels FUNCTIONAL, effluent releases via this pathway may continue provided grab samples are taken at least once per 8 hours and analyzed in accordance with applicable procedures.

ACTION D With less than the number of required channels FUNCTIONAL, additions to the waste gas surge tank may continue provided another method for ascertaining oxygen concentrations, such as grab sample analysis, is implemented to provide measurements at least once per four (4) hours during degassing and daily during other operations.

ACTION E With less than the number of required channels FUNCTIONAL, effluent releases via this pathway may continue provided samples are continuously collected with auxiliary sampling equipment, as required in Table 3-3 (this requirement is not applicable for routine replacement of sampling media or routine testing).

Table 3-2

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION
VERIFICATION REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. Waste Gas Decay System				
a. Noble Gas Activity Monitor (RE 1822A,B)	P ⁽¹⁾	P	E ⁽⁵⁾	Q ⁽³⁾
b. Effluent System Flow Rate	P ⁽¹⁾	N/A	E	Q
2. Containment Purge Vent System				
a. Noble Gas Activity Monitor (RE 5052C)	D ⁽¹⁾	P ⁽⁷⁾ ;M ⁽⁸⁾	E ⁽⁵⁾	Q ⁽³⁾
3. Station Vent Stack				
a. Noble Gas Activity Monitor (RE 4598AA,BA)	D ⁽¹⁾	M	E ⁽⁵⁾	Q ⁽⁴⁾
b. Iodine Sampler	W ⁽¹⁾	N/A	N/A	N/A
c. Particulate Sampler	W ⁽¹⁾	N/A	N/A	N/A
d. System Effluent Flow Rate Measurement Device	D ⁽¹⁾	N/A	R	N/A
e. Sampler Flow Rate Measurement Device	W ⁽¹⁾	N/A	E	N/A

Table 3-2 (Continued)

TABLE NOTATION

- (1) During radioactive waste gas releases via this pathway.
 - (2) During additions to the waste gas surge tank.
 - (3) The CHANNEL FUNCTIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occurs if the instrument indicates measured levels above the alarm/trip setpoint.
 - (4) The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if the instrument indicates measured levels above the alarm/trip setpoint.
 - (5) The initial CHANNEL CALIBRATION for radioactivity measurement instrumentation shall be performed using one or more reference standards certified by the National Institute of Standards and Technology or using standards that have been obtained from suppliers that participate in measurement assurance activities with NIST. These standards should permit calibrating the system over its intended range of energy and rate capabilities. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration should be used, at intervals of at least once per eighteen months. For high range monitoring instrumentation, where calibration with a radioactive source is impractical, an electronic calibration may be substituted for the radiation source calibration.
 - (6) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:
 1. One volume percent oxygen, balance nitrogen; and
 2. Four volume percent oxygen, balance nitrogen.
 - (7) During containment purges.
 - (8) When used in a continuous mode.
- P Prior to each release.
- E At least once per 18 months (550 days).
- Q At least once per 92 days.
- D At least once per 24 hours.
- M At least once per 31 days.
- W At least once per 7 days.
- R At least once per 24 months (730 days)

Table 3-3

RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS PROGRAM

Gaseous Release Type	Sampling Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (LLD) ($\mu\text{Ci/ml}$) ^a
Waste Gas Decay	P Each Release	P Each Release	Principal Gamma Emitters ^C	1.0E-04
	Grab Sample		H-3	1.0E-06
Containment Purge	P Each Purge	P Each Purge	Principal Gamma Emitters ^C	1.0E-04
	Grab Sample		H-3	1.0E-06
Station Vent Stack	M Grab Sample	M	Principal Gamma Emitters ^C	1.0E-04
			H-3	1.0E-06
	Continuous ^b	W Charcoal Sample	I-131, I-133	1.0E-12
	Continuous ^b	W Particulate Sample	Principal Gamma Emitters ^C	1.0E-11
	Continuous ^b	M Composite Particulate Sample	Gross Alpha	1.0E-11
	Continuous ^b	Q Composite Particulate Sample	Sr-89, Sr-90	1.0E-11
	Continuous ^b	Noble Gas Monitor	Noble Gases Gross Beta or Gamma	1.0E-06

Table 3-3 (Continued)

TABLE NOTATION

- a. The LLD is the smallest concentration of radioactive material in a sample that will be detected with 95% probability with 5% probability of falsely concluding that a blank observation represents a "real" signal.

For a particular measurement system (which may include radio-chemical separation):

$$LLD = \frac{4.66 s_b}{E * V * 2.22 * Y * \exp(-\lambda \Delta t)}$$

where

LLD is the lower limit of detection as defined above (as pCi per unit mass or volume);

s_b is the standard deviation of the background counting rate or of the counting rate of a blank sample as appropriate (as counts per minute);

E is the counting efficiency (as counts per transformation);

V is the sample size (in units of mass or volume);

2.22 is the number of transformations per minute per picocurie;

Y is the fractional radiochemical yield (when applicable);

λ is the radioactive decay constant for the particular radionuclide;

Δt for plant effluents is the elapsed time between the midpoint of sample collection and time of counting.

It should be recognized that the LLD is defined as an a priori (before the fact) limit representing the capability of a measurement system and not as a posteriori (after the fact) limit for a particular measurement.

- b. The ratio of the sample flow rate to the sampled stream flow rate shall be known for the time period covered by each dose or dose rate calculation made in accordance with Sections 3.3.1 and 3.8.

Table 3-3 (Continued)

TABLE NOTATION

- c. The principal gamma emitters for which the LLD specification will apply are exclusively the following radionuclides: Kr-87, Kr-88, Xe-133, Xe-133m, Xe-135, and Xe-138 for gaseous emissions and Mn-54, Fe-59, Co-58, Co-60, Zn-65, Mo-99, Cs-134, Cs-137, Ce-141 and Ce-144 for particulate emissions. This list does not mean that only these nuclides are to be detected and reported. Other peaks which are measured and identified, together with the above nuclides, shall also be identified and reported. Nuclides which are below the LLD for the analyses should be reported as "less than" the nuclide's LLD and should not be reported as being present at the LLD level for the nuclide. The "less than" values shall not be used in the required dose calculations. When unusual circumstances result in LLDs higher than required, the reasons shall be documented in the Radioactive Effluent Release Report.

Frequency notation:

P - Prior to each release.

M - At least once per 31 days.

W - At least once per 7 days.

Q - At least once per 92 days.

Table 3-4
LAND USE CENSUS SUMMARY

Exposure Pathway Locations and Atmospheric Dispersion Parameters**

<u>Sector</u>	<u>Distance (miles)</u>	<u>Exposure Pathway</u>	<u>Controlling Age Group</u>	<u>χ/Q *** (sec/m³)</u>	<u>D/Q (m⁻²)</u>
N	0.55	inhalation	child	5.47E-07	6.52E-09
NNE	0.55	inhalation	child	8.90E-07	1.29E-08
NE	0.56	inhalation	child	1.15E-06	2.73E-08
ENE*	-	-	-	-	-
E*	-	-	-	-	-
ESE*	-	-	-	-	-
SE	4.94	inhalation	child	1.62E-08	1.31E-10
SSE	1.82	vegetation	child	6.30E-08	7.81E-10
S	3.10	vegetation	child	2.64E-08	2.14E-10
SSW	0.70	vegetation	child	2.66E-07	5.45E-09
SW	0.67	inhalation	child	3.60E-07	6.88E-09
WSW	4.00	vegetation	child	4.79E-08	3.46E-10
W	0.97	vegetation	child	2.44E-07	3.57E-09
WNW	0.94	inhalation	child	1.22E-07	1.53E-09
NW	0.93	inhalation	child	8.22E-08	9.57E-10
NNW	0.80	inhalation	child	1.15E-07	1.33E-09

* Because these sectors are located over marsh areas and Lake Erie with no receptors, no ingestion or inhalation pathways are present.

** There were no new Controlling locations identified during the 2022 Land Use Census.

*** 8-Day, decayed and depleted χ/Q

Note: The meteorological dispersion factors are taken from the Chesapeake Nuclear Services report, Davis-Besse Nuclear Power Station Meteorological and Atmospheric Dispersion Report, May, 2022.

Table 3-5

DOSE FACTORS FOR NOBLE GASES*

<u>Nuclide</u>	Total Body Gamma Dose Factor K_i (mRem/yr per $\mu\text{Ci}/\text{m}^3$)	Skin Beta Dose Factor L_i (mRem/yr per $\mu\text{Ci}/\text{m}^3$)	Gamma Air Dose Factor M_i (mrad/yr per $\mu\text{Ci}/\text{m}^3$)	Beta Air Dose Factor N_i (mrad/yr per $\mu\text{Ci}/\text{m}^3$)
Kr-83m	7.56E-02	--	1.93E+01	2.88E+02
Kr-85m	1.17E+03	1.46E+03	1.23E+03	1.97E+03
Kr-85	1.61E+01	1.34E+03	1.72E+01	1.95E+03
Kr-87	5.92E+03	9.73E+03	6.17E+03	1.03E+04
Kr-88	1.47E+04	2.37E+03	1.52E+04	2.93E+03
Kr-89	1.66E+04	1.01E+04	1.73E+04	1.06E+04
Kr-90	1.56E+04	7.29E+03	1.63E+04	7.83E+03
Xe-131m	9.15E+01	4.76E+02	1.56E+02	1.11E+03
Xe-133m	2.51E+02	9.94E+02	3.27E+02	1.48E+03
Xe-133	2.94E+02	3.06E+02	3.53E+02	1.05E+03
Xe-135m	3.12E+03	7.11E+02	3.36E+03	7.39E+02
Xe-135	1.81E+03	1.86E+03	1.92E+03	2.46E+03
Xe-137	1.42E+03	1.22E+04	1.51E+03	1.27E+04
Xe-138	8.83E+03	4.13E+03	9.21E+03	4.75E+03
Ar-41	8.84E+03	2.69E+03	9.30E+03	3.28E+03

* Dose factors taken from NRC Regulatory Guide 1.109

Table 3-6

EXPOSURE PATHWAYS, CONTROLLING PARAMETERS, AND ATMOSPHERIC
DISPERSION FOR DOSE CALCULATIONS

Exposure Pathway	Receptor Location	Controlling Age Group	Atmospheric Dispersion		Use
			χ/Q (sec/m ³)	D/Q (m ⁻²)	
noble gases direct exposure	UNRESTRICTED AREA BOUNDARY 0.51 miles NE		⁽³⁾ 1.41E-06	N/A	(a)
inhalation	UNRESTRICTED AREA BOUNDARY 0.56 miles NE	child	⁽⁴⁾ 1.15E-06	N/A	(a)
(critical pathway) garden	0.70 miles SSW	child	⁽¹⁾ 2.66E-07	⁽¹⁾ 5.45E-09	(b), (c)
Variable Dispersion Factors			⁽²⁾ Variable	⁽²⁾ Variable	(c), (d)

- (a) To calculate allowable release rates (Sections 3.3 through 3.8)
- (b) To reflect results of Land Use Census
- (c) To screen individual releases for dose and/or calculate 31 day dose
- (d) To calculate annual dose and/or calculate 31 day dose

NOTES:

- Meteorological dispersion values have been taken from the Chesapeake Nuclear Services report, Davis-Besse Nuclear Power Station Meteorological and Atmospheric Dispersion Report, May, 2022.
- Meteorological dispersion values generated using XOQDOQ (NUREG/CR-2919) for input into GASP. Meteorological data may be historic or real time.
- The noble gas, direct exposure χ/Q s are based on the 2.26 day decayed, undepleted values.
- The inhalation pathway χ/Q s are based on the 8 day decayed, depleted values.

Table 3-7

R_{io}, INHALATION PATHWAY DOSE FACTORS
ADULT (mRem/yr per $\mu\text{Ci}/\text{m}^3$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	1.26E+3	1.26E+3	1.26E+3	1.26E+3	1.26E+3	1.26E+3
C-14	1.82E+4	3.41E+3	3.41E+3	3.41E+3	3.41E+3	3.41E+3	3.41E+3
Na-24	1.02E+4	1.02E+4	1.02E+4	1.02E+4	1.02E+4	1.02E+4	1.02E+4
P-32	1.32E+6	7.71E+4	-	-	-	8.64E+4	5.01E+4
Cr-51	-	-	5.95E+1	2.28E+1	1.44E+4	3.32E+3	1.00E+2
Mn-54	-	3.96E+4	-	9.84E+3	1.40E+6	7.74E+4	6.30E+3
Mn-56	-	1.24E+0	-	1.30E+0	9.44E+3	2.02E+4	1.83E-1
Fe-55	2.46E+4	1.70E+4	-	-	7.21E+4	6.03E+3	3.94E+3
Fe-59	1.18E+4	2.78E+4	-	-	1.02E+6	1.88E+5	1.06E+4
Co-57	-	6.92E+2	-	-	3.70E+5	3.14E+4	6.71E+2
Co-58	-	1.58E+3	-	-	9.28E+5	1.06E+5	2.07E+3
Co-60	-	1.15E+4	-	-	5.97E+6	2.85E+5	1.48E+4
Ni-63	4.32E+5	3.14E+4	-	-	1.78E+5	1.34E+4	1.45E+4
Ni-65	1.54E+0	2.10E-1	-	-	5.60E+3	1.23E+4	9.12E-2
Cu-64	-	1.46E+0	-	4.62E+0	6.78E+3	4.90E+4	6.15E-1
Zn-65	3.24E+4	1.03E+5	-	6.90E+4	8.64E+5	5.34E+4	4.66E+4
Zn-69	3.38E-2	6.51E-2	-	4.22E-2	9.20E+2	1.63E+1	4.52E-3
Br-82	-	-	-	-	-	1.04E+4	1.35E+4
Br-83	-	-	-	-	-	2.32E+2	2.41E+2
Br-84	-	-	-	-	-	1.64E-3	3.13E+2
Br-85	-	-	-	-	-	-	1.28E+1
Rb-86	-	1.35E+5	-	-	-	1.66E+4	5.90E+4
Rb-88	-	3.87E+2	-	-	-	3.34E-9	1.93E+2
Rb-89	-	2.56E+2	-	-	-	-	1.70E+2
Sr-89	3.04E+5	-	-	-	1.40E+6	3.50E+5	8.72E+3
Sr-90	9.92E+7	-	-	-	9.60E+6	7.22E+5	6.10E+6
Sr-91	6.19E+1	-	-	-	3.65E+4	1.91E+5	2.50E+0
Sr-92	6.74E+0	-	-	-	1.65E+4	4.30E+4	2.91E-1
Y-90	2.09E+3	-	-	-	1.70E+5	5.06E+5	5.61E+1
Y-91m	2.61E-1	-	-	-	1.92E+3	1.33E+0	1.02E-2
Y-91	4.62E+6	-	-	-	1.70E+6	3.85E+5	1.24E+4
Y-92	1.03E+1	-	-	-	1.57E+4	7.35E+4	3.02E-1
Y-93	9.44E+1	-	-	-	4.85E+4	4.22E+5	2.61E+0
Zr-95	1.07E+5	3.44E+4	-	5.42E+4	1.77E+6	1.50E+5	2.33E+4
Zr-97	9.68E+1	1.96E+1	-	2.97E+1	7.87E+4	5.23E+5	9.04E+0
Nb-95	1.41E+4	7.82E+3	-	7.74E+3	5.05E+5	1.04E+5	4.21E+3
Nb-97	2.22E-1	5.62E-2	-	6.54E-2	2.40E+3	2.42E+2	2.05E-2
Mo-99	-	1.21E+2	-	2.91E+2	9.12E+4	2.48E+5	2.30E+1
Tc-99m	1.03E-3	2.91E-3	-	4.42E-2	7.64E+2	4.16E+3	3.70E-2
Tc-101	4.18E-5	6.02E-5	-	1.08E-3	3.99E+2	-	5.90E-4

Table 3-7

R_{io}, INHALATION PATHWAY DOSE FACTORS
ADULT (mRem/yr per $\mu\text{Ci}/\text{m}^3$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	1.53E+3	-	-	5.83E+3	5.05E+5	1.10E+5	6.58E+2
Ru-105	7.90E-1	-	-	1.02E+0	1.10E+4	4.82E+4	3.11E-1
Ru-106	6.91E+4	-	-	1.34E+5	9.36E+6	9.12E+5	8.72E+3
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	1.08E+4	1.00E+4	-	1.97E+4	4.63E+6	3.02E+5	5.94E+3
Sb-124	3.12E+4	5.89E+2	7.55E+1	-	2.48E+6	4.06E+5	1.24E+4
Sb-125	5.34E+4	5.95E+2	5.40E+1	-	1.74E+6	1.01E+5	1.26E+4
Te-125m	3.42E+3	1.58E+3	1.05E+3	1.24E+4	3.14E+5	7.06E+4	4.67E+2
Te-127m	1.26E+4	5.77E+3	3.29E+3	4.58E+4	9.60E+5	1.50E+5	1.57E+3
Te-127	1.40E+0	6.42E-1	1.06E+0	5.10E+0	6.51E+3	5.74E+4	3.10E-1
Te-129m	9.76E+3	4.67E+3	3.44E+3	3.66E+4	1.16E+6	3.83E+5	1.58E+3
Te-129	4.98E-2	2.39E-2	3.90E-2	1.87E-1	1.94E+3	1.57E+2	1.24E-2
Te-131m	6.99E+1	4.36E+1	5.50E+1	3.09E+2	1.46E+5	5.56E+5	2.90E+1
Te-131	1.11E-2	5.95E-3	9.36E-3	4.37E-2	1.39E+3	1.84E+1	3.59E-3
Te-132	2.60E+2	2.15E+2	1.90E+2	1.46E+3	2.88E+5	5.10E+5	1.62E+2
I-130	4.58E+3	1.34E+4	1.14E+6	2.09E+4	-	7.69E+3	5.28E+3
I-131	2.52E+4	3.58E+4	1.19E+7	6.13E+4	-	6.28E+3	2.05E+4
I-132	1.16E+3	3.26E+3	1.14E+5	5.18E+3	-	4.06E+2	1.16E+3
I-133	8.64E+3	1.48E+4	2.15E+6	2.58E+4	-	8.88E+3	4.52E+3
I-134	6.44E+2	1.73E+3	2.98E+4	2.75E+3	-	1.01E+0	6.15E+2
I-135	2.68E+3	6.98E+3	4.48E+5	1.11E+4	-	5.25E+3	2.57E+3
Cs-134	3.73E+5	8.48E+5	-	2.87E+5	9.76E+4	1.04E+4	7.28E+5
Cs-136	3.90E+4	1.46E+5	-	8.56E+4	1.20E+4	1.17E+4	1.10E+5
Cs-137	4.78E+5	6.21E+5	-	2.22E+5	7.52E+4	8.40E+3	4.28E+5
Cs-138	3.31E+2	6.21E+2	-	4.80E+2	4.86E+1	1.86E-3	3.24E+2
Ba-139	9.36E-1	6.66E-4	-	6.22E-4	3.76E+3	8.96E+2	2.74E-2
Ba-140	3.90E+4	4.90E+1	-	1.67E+1	1.27E+6	2.18E+5	2.57E+3
Ba-141	1.00E-1	7.53E-5	-	7.00E-5	1.94E+3	1.16E-7	3.36E-3
Ba-142	2.63E-2	2.70E-5	-	2.29E-5	1.19E+3	-	1.66E-3
La-140	3.44E+2	1.74E+2	-	-	1.36E+5	4.58E+5	4.58E+1
La-142	6.83E-1	3.10E-1	-	-	6.33E+3	2.11E+3	7.72E-2
Ce-141	1.99E+4	1.35E+4	-	6.26E+3	3.62E+5	1.20E+5	1.53E+3
Ce-143	1.86E+2	1.38E+2	-	6.08E+1	7.98E+4	2.26E+5	1.53E+1
Ce-144	3.43E+6	1.43E+6	-	8.48E+5	7.78E+6	8.16E+5	1.84E+5
Pr-143	9.36E+3	3.75E+3	-	2.16E+3	2.81E+5	2.00E+5	4.64E+2
Pr-144	3.01E-2	1.25E-2	-	7.05E-3	1.02E+3	2.15E-8	1.53E-3
Nd-147	5.27E+3	6.10E+3	-	3.56E+3	2.21E+5	1.73E+5	3.65E+2
W-187	8.48E+0	7.08E+0	-	-	2.90E+4	1.55E+5	2.48E+0
Np-239	2.30E+2	2.26E+1	-	7.00E+1	3.76E+4	1.19E+5	1.24E+1

Table 3-7

R_{io}, INHALATION PATHWAY DOSE FACTORS
TEENAGER (mRem/yr per $\mu\text{Ci}/\text{m}^3$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	1.27E+3	1.27E+3	1.27E+3	1.27E+3	1.27E+3	1.27E+3
C-14	2.60E+4	4.87E+3	4.87E+3	4.87E+3	4.87E+3	4.87E+3	4.87E+3
Na-24	1.38E+4	1.38E+4	1.38E+4	1.38E+4	1.38E+4	1.38E+4	1.38E+4
P-32	1.89E+6	1.10E+5	-	-	-	9.28E+4	7.16E+4
Cr-51	-	-	7.50E+1	3.07E+1	2.10E+4	3.00E+3	1.35E+2
Mn-54	-	5.11E+4	-	1.27E+4	1.98E+6	6.68E+4	8.40E+3
Mn-56	-	1.70E+0	-	1.79E+0	1.52E+4	5.74E+4	2.52E-1
Fe-55	3.34E+4	2.38E+4	-	-	1.24E+5	6.39E+3	5.54E+3
Fe-59	1.59E+4	3.70E+4	-	-	1.53E+6	1.78E+5	1.43E+4
Co-57	-	6.92E+2	-	-	5.86E+5	3.14E+4	9.20E+2
Co-58	-	2.07E+3	-	-	1.34E+6	9.52E+4	2.78E+3
Co-60	-	1.51E+4	-	-	8.72E+6	2.59E+5	1.98E+4
Ni-63	5.80E+5	4.34E+4	-	-	3.07E+5	1.42E+4	1.98E+4
Ni-65	2.18E+0	2.93E-1	-	-	9.36E+3	3.67E+4	1.27E-1
Cu-64	-	2.03E+0	-	6.41E+0	1.11E+4	6.14E+4	8.48E-1
Zn-65	3.86E+4	1.34E+5	-	8.64E+4	1.24E+6	4.66E+4	6.24E+4
Zn-69	4.83E-2	9.20E-2	-	6.02E-2	1.58E+3	2.85E+2	6.46E-3
Br-82	-	-	-	-	-	-	1.82E+4
Br-83	-	-	-	-	-	-	3.44E+2
Br-84	-	-	-	-	-	-	4.33E+2
Br-85	-	-	-	-	-	-	1.83E+1
Rb-86	-	1.90E+5	-	-	-	1.77E+4	8.40E+4
Rb-88	-	5.46E+2	-	-	-	2.92E-5	2.72E+2
Rb-89	-	3.52E+2	-	-	-	3.38E-7	2.33E+2
Sr-89	4.34E+5	-	-	-	2.42E+6	3.71E+5	1.25E+4
Sr-90	1.08E+8	-	-	-	1.65E+7	7.65E+5	6.68E+6
Sr-91	8.80E+1	-	-	-	6.07E+4	2.59E+5	3.51E+0
Sr-92	9.52E+0	-	-	-	2.74E+4	1.19E+5	4.06E-1
Y-90	2.98E+3	-	-	-	2.93E+5	5.59E+5	8.00E+1
Y-91m	3.70E-1	-	-	-	3.20E+3	3.02E+1	1.42E-2
Y-91	6.61E+5	-	-	-	2.94E+6	4.09E+5	1.77E+4
Y-92	1.47E+1	-	-	-	2.68E+4	1.65E+5	4.29E-1
Y-93	1.35E+2	-	-	-	8.32E+4	5.79E+5	3.72E+0
Zr-95	1.46E+5	4.58E+4	-	6.74E+4	2.69E+6	1.49E+5	3.15E+4
Zr-97	1.38E+2	2.72E+1	-	4.12E+1	1.30E+5	6.30E+5	1.26E+1
Nb-95	1.86E+4	1.03E+4	-	1.00E+4	7.51E+5	9.68E+4	5.66E+3
Nb-97	3.14E-1	7.78E-2	-	9.12E-2	3.93E+3	2.17E+3	2.84E-2
Mo-99	-	1.69E+2	-	4.11E+2	1.54E+5	2.69E+5	3.22E+1
Tc-99m	1.38E-3	3.86E-3	-	5.76E-2	1.15E+3	6.13E+3	4.99E-2
Tc-101	5.92E-5	8.40E-5	-	1.52E-3	6.67E+2	8.72E-7	8.24E-4

Table 3-7

R_{io}, INHALATION PATHWAY DOSE FACTORS
TEENAGER (mRem/yr per $\mu\text{Ci}/\text{m}^3$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	2.10E+3	-	-	7.43E+3	7.83E+5	1.09E+5	8.96E+2
Ru-105	1.12E+0	-	-	1.41E+0	1.82E+4	9.04E+4	4.34E-1
Ru-106	9.84E+4	-	-	1.90E+5	1.61E+7	9.60E+5	1.24E+4
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	1.38E+4	1.31E+4	-	2.50E+4	6.75E+6	2.73E+5	7.99E+3
Sb-124	4.30E+4	7.94E+2	9.76E+1	-	3.85E+6	3.98E+5	1.68E+4
Sb-125	7.38E+4	8.08E+2	7.04E+1	-	2.74E+6	9.92E+4	1.72E+4
Te-125m	4.88E+3	2.24E+3	1.40E+3	-	5.36E+5	7.50E+4	6.67E+2
Te-127m	1.80E+4	8.16E+3	4.38E+3	6.54E+4	1.66E+6	1.59E+5	2.18E+3
Te-127	2.01E+0	9.12E-1	1.42E+0	7.28E+0	1.12E+4	8.08E+4	4.42E-1
Te-129m	1.39E+4	6.58E+3	4.58E+3	5.19E+4	1.98E+6	4.05E+5	2.25E+3
Te-129	7.10E-2	3.38E-2	5.18E-2	2.66E-1	3.30E+3	1.62E+3	1.76E-2
Te-131m	9.84E+1	6.01E+1	7.25E+1	4.39E+2	2.38E+5	6.21E+5	4.02E+1
Te-131	1.58E-2	8.32E-3	1.24E-2	6.18E-2	2.34E+3	1.51E+1	5.04E-3
Te-132	3.60E+2	2.90E+2	2.46E+2	1.95E+3	4.49E+5	4.63E+5	2.19E+2
I-130	6.24E+3	1.79E+4	1.49E+6	2.75E+4	-	9.12E+3	7.17E+3
I-131	3.54E+4	4.91E+4	1.46E+7	8.40E+4	-	6.49E+3	2.64E+4
I-132	1.59E+3	4.38E+3	1.51E+5	6.92E+3	-	1.27E+3	1.58E+3
I-133	1.22E+4	2.05E+4	2.92E+6	3.59E+4	-	1.03E+4	6.22E+3
I-134	8.88E+2	2.32E+3	3.95E+4	3.66E+3	-	2.04E+1	8.40E+2
I-135	3.70E+3	9.44E+3	6.21E+5	1.49E+4	-	6.95E+3	3.49E+3
Cs-134	5.02E+5	1.13E+6	-	3.75E+5	1.46E+5	9.76E+3	5.49E+5
Cs-136	5.15E+4	1.94E+5	-	1.10E+5	1.78E+4	1.09E+4	1.37E+5
Cs-137	6.70E+5	8.48E+5	-	3.04E+5	1.21E+5	8.48E+3	3.11E+5
Cs-138	4.66E+2	8.56E+2	-	6.62E+2	7.87E+1	2.70E-1	4.46E+2
Ba-139	1.34E+0	9.44E-4	-	8.88E-4	6.46E+3	6.45E+3	3.90E-2
Ba-140	5.47E+4	6.70E+1	-	2.28E+1	2.03E+6	2.29E+5	3.52E+3
Ba-141	1.42E-1	1.06E-4	-	9.84E-5	3.29E+3	7.46E-4	4.74E-3
Ba-142	3.70E-2	3.70E-5	-	3.14E-5	1.91E+3	-	2.27E-3
La-140	4.79E+2	2.36E+2	-	-	2.14E+5	4.87E+5	6.26E+1
La-142	9.60E-1	4.25E-1	-	-	1.02E+4	1.20E+4	1.06E-1
Ce-141	2.84E+4	1.90E+4	-	8.88E+3	6.14E+5	1.26E+5	2.17E+3
Ce-143	2.66E+2	1.94E+2	-	8.64E+1	1.30E+5	2.55E+5	2.16E+1
Ce-144	4.89E+6	2.02E+6	-	1.21E+6	1.34E+7	8.64E+5	2.62E+5
Pr-143	1.34E+4	5.31E+3	-	3.09E+3	4.83E+5	2.14E+5	6.62E+2
Pr-144	4.30E-2	1.76E-2	-	1.01E-2	1.75E+3	2.35E-4	2.18E-3
Nd-147	7.86E+3	8.56E+3	-	5.02E+3	3.72E+5	1.82E+5	5.13E+2
W-187	1.20E+1	9.76E+0	-	-	4.74E+4	1.77E+5	3.43E+0
Np-239	3.38E+2	3.19E+1	-	1.00E+2	6.49E+4	1.32E+5	1.77E+1

Table 3-7

R_{io}, INHALATION PATHWAY DOSE FACTORS
CHILD (mRem/yr per $\mu\text{Ci}/\text{m}^3$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	1.12E+3	1.12E+3	1.12E+3	1.12E+3	1.12E+3	1.12E+3
C-14	3.59E+4	6.73E+3	6.73E+3	6.73E+3	6.73E+3	6.73E+3	6.73E+3
Na-24	1.61E+4	1.61E+4	1.61E+4	1.61E+4	1.61E+4	1.61E+4	1.61E+4
P-32	2.60E+6	1.14E+5	-	-	-	4.22E+4	9.88E+4
Cr-51	-	-	8.55E+1	2.43E+1	1.70E+4	1.08E+3	1.54E+2
Mn-54	-	4.29E+4	-	1.00E+4	1.58E+6	2.29E+4	9.51E+3
Mn-56	-	1.66E+0	-	1.67E+0	1.31E+4	1.23E+5	3.12E-1
Fe-55	4.74E+4	2.52E+4	-	-	1.11E+5	2.87E+3	7.77E+3
Fe-59	2.07E+4	3.34E+4	-	-	1.27E+6	7.07E+4	1.67E+4
Co-57	-	9.03E+2	-	-	5.07E+5	1.32E+4	1.07E+3
Co-58	-	1.77E+3	-	-	1.11E+6	3.44E+4	3.16E+3
Co-60	-	1.31E+4	-	-	7.07E+6	9.62E+4	2.26E+4
Ni-63	8.21E+5	4.63E+4	-	-	2.75E+5	6.33E+3	2.80E+4
Ni-65	2.99E+0	2.96E-1	-	-	8.18E+3	8.40E+4	1.64E-1
Cu-64	-	1.99E+0	-	6.03E+0	9.58E+3	3.67E+4	1.07E+0
Zn-65	4.26E+4	1.13E+5	-	7.14E+4	9.95E+5	1.63E+4	7.03E+4
Zn-69	6.70E-2	9.66E-2	-	5.85E-2	1.42E+3	1.01E+4	8.92E-3
Br-82	-	-	-	-	-	-	2.09E+4
Br-83	-	-	-	-	-	-	4.74E+2
Br-84	-	-	-	-	-	-	5.48E+2
Br-85	-	-	-	-	-	-	2.53E+1
Rb-86	-	1.98E+5	-	-	-	7.99E+3	1.14E+5
Rb-88	-	5.62E+2	-	-	-	1.72E+1	3.66E+2
Rb-89	-	3.45E+2	-	-	-	1.89E+0	2.90E+2
Sr-89	5.99E+5	-	-	-	2.16E+6	1.67E+5	1.72E+4
Sr-90	1.01E+8	-	-	-	1.48E+7	3.43E+5	6.44E+6
Sr-91	1.21E+2	-	-	-	5.33E+4	1.74E+5	4.59E+0
Sr-92	1.31E+1	-	-	-	2.40E+4	2.42E+5	5.25E-1
Y-90	4.11E+3	-	-	-	2.62E+5	2.68E+5	1.11E+2
Y-91m	5.07E-1	-	-	-	2.81E+3	1.72E+3	1.84E-2
Y-91	9.14E+5	-	-	-	2.63E+6	1.84E+5	2.44E+4
Y-92	2.04E+1	-	-	-	2.39E+4	2.39E+5	5.81E-1
Y-93	1.86E+2	-	-	-	7.44E+4	3.89E+5	5.11E+0
Zr-95	1.90E+5	4.18E+4	-	5.96E+4	2.23E+6	6.11E+4	3.70E+4
Zr-97	1.88E+2	2.72E+1	-	3.89E+1	1.13E+5	3.51E+5	1.60E+1
Nb-95	2.35E+4	9.18E+3	-	8.62E+3	6.14E+5	3.70E+4	6.55E+3
Nb-97	4.29E-1	7.70E-2	-	8.55E-2	3.42E+3	2.78E+4	3.60E-2
Mo-99	-	1.72E+2	-	3.92E+2	1.35E+5	1.27E+5	4.26E+1
Tc-99m	1.78E-3	3.48E-3	-	5.07E-2	9.51E+2	4.81E+3	5.77E-2
Tc-101	8.10E-5	8.51E-5	-	1.45E-3	5.85E+2	1.63E+1	1.08E-3

Table 3-7

R_{io}, INHALATION PATHWAY DOSE FACTORS
CHILD (mRem/yr per μCi/m³)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	2.79E+3	-	-	7.03E+3	6.62E+5	4.48E+4	1.07E+3
Ru-105	1.53E+0	-	-	1.34E+0	1.59E+4	9.95E+4	5.55E-1
Ru-106	1.36E+5	-	-	1.84E+5	1.43E+7	4.29E+5	1.69E+4
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	1.69E+4	1.14E+4	-	2.12E+4	5.48E+6	1.00E+5	9.14E+3
Sb-124	5.74E+4	7.40E+2	1.26E+2	-	3.24E+6	1.64E+5	2.00E+4
Sb-125	9.84E+4	7.59E+2	9.10E+1	-	2.32E+6	4.03E+4	2.07E+4
Te-125m	6.73E+3	2.33E+3	1.92E+3	-	4.77E+5	3.38E+4	9.14E+2
Te-127m	2.49E+4	8.55E+3	6.07E+3	6.36E+4	1.48E+6	7.14E+4	3.02E+3
Te-127	2.77E+0	9.51E-1	1.96E+0	7.07E+0	1.00E+4	5.62E+4	6.11E-1
Te-129m	1.92E+4	6.85E+3	6.33E+3	5.03E+4	1.76E+6	1.82E+5	3.04E+3
Te-129	9.77E-2	3.50E-2	7.14E-2	2.57E-1	2.93E+3	2.55E+4	2.38E-2
Te-131m	1.34E+2	5.92E+1	9.77E+1	4.00E+2	2.06E+5	3.08E+5	5.07E+1
Te-131	2.17E-2	8.44E-3	1.70E-2	5.88E-2	2.05E+3	1.33E+3	6.59E-3
Te-132	4.81E+2	2.72E+2	3.17E+2	1.77E+3	3.77E+5	1.38E+5	2.63E+2
I-130	8.18E+3	1.64E+4	1.85E+6	2.45E+4	-	1E+3	8.44E+3
I-131	4.81E+4	4.81E+4	1.62E+7	7.88E+4	-	2.84E+3	2.73E+4
I-132	2.12E+3	4.07E+3	1.94E+5	6.25E+3	-	3.20E+3	1.88E+3
I-133	1.66E+4	2.03E+4	3.85E+6	3.38E+4	-	5.48E+3	7.70E+3
I-134	1.17E+3	2.16E+3	5.07E+4	3.30E+3	-	9.55E+2	9.95E+2
I-135	4.92E+3	8.73E+3	7.92E+5	1.34E+4	-	4.44E+3	4.14E+3
Cs-134	6.51E+5	1.01E+6	-	3.30E+5	1.21E+5	3.85E+3	2.25E+5
Cs-136	6.51E+4	1.71E+5	-	9.55E+4	1.45E+4	4.18E+3	1.16E+5
Cs-137	9.07E+5	8.25E+5	-	2.82E+5	1.04E+5	3.62E+3	1.28E+5
Cs-138	6.33E+2	8.40E+2	-	6.22E+2	6.81E+1	2.70E+2	5.55E+2
Ba-139	1.84E+0	9.84E-4	-	8.62E-4	5.77E+3	5.77E+4	5.37E-2
Ba-140	7.40E+4	6.48E+1	-	2.11E+1	1.74E+6	1.02E+5	4.33E+3
Ba-141	1.96E-1	1.09E-4	-	9.47E-5	2.92E+3	2.75E+2	6.36E-3
Ba-142	5.00E-2	3.60E-5	-	2.91E-5	1.64E+3	2.74E+0	2.79E-3
La-140	6.44E+2	2.25E+2	-	-	1.83E+5	2.26E+5	7.55E+1
La-142	1.30E+0	4.11E-1	-	-	8.70E+3	7.59E+4	1.29E-1
Ce-141	3.92E+4	1.95E+4	-	8.55E+3	5.44E+5	5.66E+4	2.90E+3
Ce-143	3.66E+2	1.99E+2	-	8.36E+1	1.15E+5	1.27E+5	2.87E+1
Ce-144	6.77E+6	2.12E+6	-	1.17E+6	1.20E+7	3.89E+5	3.61E+5
Pr-143	1.85E+4	5.55E+3	-	3.00E+3	4.33E+5	9.73E+4	9.14E+2
Pr-144	5.96E-2	1.85E-2	-	9.77E-3	1.57E+3	1.97E+2	3.00E-3
Nd-147	1.08E+4	8.73E+3	-	4.81E+3	3.28E+5	8.21E+4	6.81E+2
W-187	1.63E+1	9.66E+0	-	-	4.11E+4	9.10E+4	4.33E+0
Np-239	4.66E+2	3.34E+1	-	9.73E+1	5.81E+4	6.40E+4	2.35E+1

Table 3-7

R_{io}, INHALATION PATHWAY DOSE FACTORS
INFANT (mRem/yr per $\mu\text{Ci}/\text{m}^3$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	6.47E+2	6.47E+2	6.47E+2	6.47E+2	6.47E+2	6.47E+2
C-14	2.65E+4	5.31E+3	5.31E+3	5.31E+3	5.31E+3	5.31E+3	5.31E+3
Na-24	1.06E+4	1.06E+4	1.06E+4	1.06E+4	1.06E+4	1.06E+4	1.06E+4
P-32	2.03E+6	1.12E+5	-	-	-	1.61E+4	7.74E+4
Cr-51	-	-	5.75E+1	1.32E+1	1.28E+4	3.57E+2	8.95E+1
Mn-54	-	2.53E+4	-	4.98E+3	1.00E+6	7.06E+3	4.98E+3
Mn-56	-	1.54E+0	-	1.10E+0	1.25E+4	7.17E+4	2.21E-1
Fe-55	1.97E+4	1.17E+4	-	-	8.69E+4	1.09E+3	3.33E+3
Fe-59	1.36E+4	2.35E+4	-	-	1.02E+6	2.48E+4	9.48E+3
Co-57	-	6.51E+2	-	-	3.79E+5	4.86E+3	6.41E+2
Co-58	-	1.22E+3	-	-	7.77E+5	1.11E+4	1.82E+3
Co-60	-	8.02E+3	-	-	4.51E+6	3.19E+4	1.18E+4
Ni-63	3.39E+5	2.04E+4	-	-	2.09E+5	2.42E+3	1.16E+4
Ni-65	2.39E+0	2.84E-1	-	-	8.12E+3	5.01E+4	1.23E-1
Cu-64	-	1.88E+0	-	3.98E+0	9.30E+3	1.50E+4	7.74E-1
Zn-65	1.93E+4	6.26E+4	-	3.25E+4	6.47E+5	5.14E+4	3.11E+4
Zn-69	5.39E-2	9.67E-2	-	4.02E-2	1.47E+3	1.32E+4	7.18E-3
Br-82	-	-	-	-	-	-	1.33E+4
Br-83	-	-	-	-	-	-	3.81E+2
Br-84	-	-	-	-	-	-	4.00E+2
Br-85	-	-	-	-	-	-	2.04E+1
Rb-86	-	1.90E+5	-	-	-	3.04E+3	8.82E+4
Rb-88	-	5.57E+2	-	-	-	3.39E+2	2.87E+2
Rb-89	-	3.21E+2	-	-	-	6.82E+1	2.06E+2
Sr-89	3.98E+5	-	-	-	2.03E+6	6.40E+4	1.14E+4
Sr-90	4.09E+7	-	-	-	1.12E+7	1.31E+5	2.59E+6
Sr-91	9.56E+1	-	-	-	5.26E+4	7.34E+4	3.46E+0
Sr-92	1.05E+1	-	-	-	2.38E+4	1.40E+5	3.91E-1
Y-90	3.29E+3	-	-	-	2.69E+5	1.04E+5	8.82E+1
Y-91m	4.07E-1	-	-	-	2.79E+3	2.35E+3	1.39E-2
Y-91	5.88E+5	-	-	-	2.45E+6	7.03E+4	1.57E+4
Y-92	1.64E+1	-	-	-	2.45E+4	1.27E+5	4.61E-1
Y-93	1.50E+2	-	-	-	7.64E+4	1.67E+5	4.07E+0
Zr-95	1.15E+5	2.79E+4	-	3.11E+4	1.75E+6	2.17E+4	2.03E+4
Zr-97	1.50E+2	2.56E+1	-	2.59E+1	1.10E+5	1.40E+5	1.17E+1
Nb-95	1.57E+4	6.43E+3	-	4.72E+3	4.79E+5	1.27E+4	3.78E+3
Nb-97	3.42E-1	7.29E-2	-	5.70E-2	3.32E+3	2.69E+4	2.63E-2
Mo-99	-	1.65E+2	-	2.65E+2	1.35E+5	4.87E+4	3.23E+1
Tc-99m	1.40E-3	2.88E-3	-	3.11E-2	8.11E+2	2.03E+3	3.72E-2
Tc-101	6.51E-5	8.23E-5	-	9.79E-4	5.84E+2	8.44E+2	8.12E-4

Table 3-7

R_{io}, INHALATION PATHWAY DOSE FACTORS
INFANT (mRem/yr per $\mu\text{Ci}/\text{m}^3$)

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	2.02E+3	-	-	4.24E+3	5.52E+5	1.61E+4	6.79E+2
Ru-105	1.22E+0	-	-	8.99E-1	1.57E+4	4.84E+4	4.10E-1
Ru-106	8.68E+4	-	-	1.07E+5	1.16E+7	1.64E+5	1.09E+4
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	9.98E+3	7.22E+3	-	1.09E+4	3.67E+6	3.30E+4	5.00E+3
Sb-124	3.79E+4	5.56E+2	1.01E+2	-	2.65E+6	5.91E+4	1.20E+4
Sb-125	5.17E+4	4.77E+2	6.23E+1	-	1.64E+6	1.47E+4	1.09E+4
Te-125m	4.76E+3	1.99E+3	1.62E+3	-	4.47E+5	1.29E+4	6.58E+2
Te-127m	1.67E+4	6.90E+3	4.87E+3	3.75E+4	1.31E+6	2.73E+4	2.07E+3
Te-127	2.23E+0	9.53E-1	1.85E+0	4.86E+0	1.03E+4	2.44E+4	4.89E-1
Te-129m	1.41E+4	6.09E+3	5.47E+3	3.18E+4	1.68E+6	6.90E+4	2.23E+3
Te-129	7.88E-2	3.47E-2	6.75E-2	1.75E-1	3.00E+3	2.63E+4	1.88E-2
Te-131m	1.07E+2	5.50E+1	8.93E+1	2.65E+2	1.99E+5	1.19E+5	3.63E+1
Te-131	1.74E-2	8.22E-3	1.58E-2	3.99E-2	2.06E+3	8.22E+3	5.00E-3
Te-132	3.72E+2	2.37E+2	2.79E+2	1.03E+3	3.40E+5	4.41E+4	1.76E+2
I-130	6.36E+3	1.39E+4	1.60E+6	1.53E+4	-	1.99E+3	5.57E+3
I-131	3.79E+4	4.44E+4	1.48E+7	5.18E+4	-	1.06E+3	1.96E+4
I-132	1.69E+3	3.54E+3	1.69E+5	3.95E+3	-	1.90E+3	1.26E+3
I-133	1.32E+4	1.92E+4	3.56E+6	2.24E+4	-	2.16E+3	5.60E+3
I-134	9.21E+2	1.88E+3	4.45E+4	2.09E+3	-	1.29E+3	6.65E+2
I-135	3.86E+3	7.60E+3	6.96E+5	8.47E+3	-	1.83E+3	2.77E+3
Cs-134	3.96E+5	7.03E+5	-	1.90E+5	7.97E+4	1.33E+3	7.45E+4
Cs-136	4.83E+4	1.35E+5	-	5.64E+4	1.18E+4	1.43E+3	5.29E+4
Cs-137	5.49E+5	6.12E+5	-	1.72E+5	7.13E+4	1.33E+3	4.55E+4
Cs-138	5.05E+2	7.81E+2	-	4.10E+2	6.54E+1	8.76E+2	3.98E+2
Ba-139	1.48E+0	9.84E-4	-	5.92E-4	5.95E+3	5.10E+4	4.30E-2
Ba-140	5.60E+4	5.60E+1	-	1.34E+1	1.60E+6	3.84E+4	2.90E+3
Ba-141	1.57E-1	1.08E-4	-	6.50E-5	2.97E+3	4.75E+3	4.97E-3
Ba-142	3.98E-2	3.30E-5	-	1.90E-5	1.55E+3	6.93E+2	1.96E-3
La-140	5.05E+2	2.00E+2	-	-	1.68E+5	8.48E+4	5.15E+1
La-142	1.03E+0	3.77E-1	-	-	8.22E+3	5.95E+4	9.04E-2
Ce-141	2.77E+4	1.67E+4	-	5.25E+3	5.17E+5	2.16E+4	1.99E+3
Ce-143	2.93E+2	1.93E+2	-	5.64E+1	1.16E+5	4.97E+4	2.21E+1
Ce-144	3.19E+6	1.21E+6	-	5.38E+5	9.84E+6	1.48E+5	1.76E+5
Pr-143	1.40E+4	5.24E+3	-	1.97E+3	4.33E+5	3.72E+4	6.99E+2
Pr-144	4.79E-2	1.85E-2	-	6.72E-3	1.61E+3	4.28E+3	2.41E-3
Nd-147	7.94E+3	8.13E+3	-	3.15E+3	3.22E+5	3.12E+4	5.00E+2
W-187	1.30E+1	9.02E+0	-	-	3.96E+4	3.56E+4	3.12E+0
Np-239	3.71E+2	3.32E+1	-	6.62E+1	5.95E+4	2.49E+4	1.88E+1

Table 3-8

R_{io}, GRASS - COW - MILK PATHWAY DOSE FACTORS

ADULT (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 ($\text{m}^2 * \text{mRem}/\text{yr}$ per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	7.63E+2	7.63E+2	7.63E+2	7.63E+2	7.63E+2	7.63E+2
C-14	3.63E+5	7.26E+4	7.26E+4	7.26E+4	7.26E+4	7.26E+4	7.26E+4
Na-24	2.54E+6	2.54E+6	2.54E+6	2.54E+6	2.54E+6	2.54E+6	2.54E+6
P-32	1.71E+10	1.06E+9	-	-	-	1.92E+9	6.60E+8
Cr-51	-	-	1.71E+4	6.30E+3	3.80E+4	7.20E+6	2.86E+4
Mn-54	-	8.40E+6	-	2.50E+6	-	2.57E+7	1.60E+6
Mn-56	-	4.23E-3	-	5.38E-3	-	1.35E-1	7.51E-4
Fe-55	2.51E+7	1.73E+7	-	-	9.67E+6	9.95E+6	4.04E+6
Fe-59	2.98E+7	7.00E+7	-	-	1.95E+7	2.33E+8	2.68E+7
Co-57	-	1.28E+6	-	-	-	3.25E+7	2.13E+6
Co-58	-	4.72E+6	-	-	-	9.57E+7	1.06E+7
Co-60	-	1.64E+7	-	-	-	3.08E+8	3.62E+7
Ni-63	6.73E+9	4.66E+8	-	-	-	9.73E+7	2.26E+8
Ni-65	3.70E-1	4.81E-2	-	-	-	1.22E+0	2.19E-2
Cu-64	-	2.41E+4	-	6.08E+4	-	2.05E+6	1.13E+4
Zn-65	1.37E+9	4.36E+9	-	2.92E+9	-	2.75E+9	1.97E+9
Zn-69	-	-	-	-	-	-	-
Br-82	-	-	-	-	-	3.72E+7	3.25E+7
Br-83	-	-	-	-	-	1.49E-1	1.03E-1
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	2.59E+9	-	-	-	5.11E+8	1.21E+9
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	1.45E+9	-	-	-	-	2.33E+8	4.16E+7
Sr-90	4.68E+10	-	-	-	-	1.35E+9	1.15E+10
Sr-91	3.13E+4	-	-	-	-	1.49E+5	1.27E+3
Sr-92	4.89E-1	-	-	-	-	9.68E+0	2.11E-2
Y-90	7.07E+1	-	-	-	-	7.50E+5	1.90E+0
Y-91m	-	-	-	-	-	-	-
Y-91	8.60E+3	-	-	-	-	4.73E+6	2.30E+2
Y-92	5.42E-5	-	-	-	-	9.49E-1	1.58E-6
Y-93	2.33E-1	-	-	-	-	7.39E+3	6.43E-3
Zr-95	9.46E+2	3.03E+2	-	4.76E+2	-	9.62E+5	2.05E+2
Zr-97	4.26E-1	8.59E-2	-	1.30E-1	-	2.66E+4	3.93E-2
Nb-95	8.25E+4	4.59E+4	-	4.54E+4	-	2.79E+8	2.47E+4
Nb-97	-	-	-	-	-	5.47E-9	-
Mo-99	-	2.52E+7	-	5.72E+7	-	5.85E+7	4.80E+6
Tc-99m	3.25E+0	9.19E+0	-	1.40E+2	4.50E+0	5.44E+3	1.17E+2
Tc-101	-	-	-	-	-	-	-

Table 3-8

R_{io}, GRASS - COW - MILK PATHWAY DOSE FACTORS

ADULT (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 ($\text{m}^2 * \text{mRem}/\text{yr}$ per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	1.02E+3	-	-	3.89E+3	-	1.19E+5	4.39E+2
Ru-105	8.57E-4	-	-	1.11E-2	-	5.24E-1	3.38E-4
Ru-106	2.04E+4	-	-	3.94E+4	-	1.32E+6	2.58E+3
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	5.83E+7	5.39E+7	-	1.06E+8	-	2.20E+10	3.20E+7
Sb-124	2.57E+7	4.86E+5	6.24E+4	-	2.00E+7	7.31E+8	1.02E+7
Sb-125	2.04E+7	2.28E+5	2.08E+4	-	1.58E+7	2.25E+8	4.86E+6
Te-125m	1.63E+7	5.90E+6	4.90E+6	6.63E+7	-	6.50E+7	2.18E+6
Te-127m	4.58E+7	1.64E+7	1.17E+7	1.86E+8	-	1.54E+8	5.58E+6
Te-127	6.72E+2	2.41E+2	4.98E+2	2.74E+3	-	5.30E+4	1.45E+2
Te-129m	6.04E+7	2.25E+7	2.08E+7	2.52E+8	-	3.04E+8	9.57E+6
Te-129	-	-	-	-	-	-	-
Te-131m	3.61E+5	1.77E+5	2.80E+5	1.79E+6	-	1.75E+7	1.47E+5
Te-131	-	-	-	-	-	-	-
Te-132	2.39E+6	1.55E+6	1.71E+6	1.49E+7	-	7.32E+7	1.45E+6
I-130	4.26E+5	1.26E+6	1.07E+8	1.96E+6	-	1.08E+6	4.96E+5
I-131	2.96E+8	4.24E+8	1.39E+11	7.27E+8	-	1.12E+8	2.43E+8
I-132	1.64E-1	4.37E-1	1.53E+1	6.97E-1	-	8.22E-2	1.53E-1
I-133	3.97E+6	6.90E+6	1.01E+9	1.20E+7	-	6.20E+6	2.10E+6
I-134	-	-	-	-	-	-	-
I-135	1.39E+4	3.63E+4	2.40E+6	5.83E+4	-	4.10E+4	1.34E+4
Cs-134	5.65E+9	1.34E+10	-	4.35E+9	1.44E+9	2.35E+8	1.10E+10
Cs-136	2.61E+8	1.03E+9	-	5.74E+8	7.87E+7	1.17E+8	7.42E+8
Cs-137	7.38E+9	1.01E+10	-	3.43E+9	1.14E+9	1.95E+8	6.61E+9
Cs-138	-	-	-	-	-	-	-
Ba-139	4.70E-8	-	-	-	-	8.34E-8	1.38E-9
Ba-140	2.69E+7	3.38E+4	-	1.15E+4	1.93E+4	5.54E+7	1.76E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	4.49E+0	2.26E+0	-	-	-	1.66E+5	5.97E-1
La-142	-	-	-	-	-	3.03E-8	-
Ce-141	4.84E+3	3.27E+3	-	1.52E+3	-	1.25E+7	3.71E+2
Ce-143	4.19E+1	3.09E+4	-	1.36E+1	-	1.16E+6	3.42E+0
Ce-144	3.58E+5	1.50E+5	-	8.87E+4	-	1.21E+8	1.92E+4
Pr-143	1.59E+2	6.37E+1	-	3.68E+1	-	6.96E+5	7.88E+0
Pr-144	-	-	-	-	-	-	-
Nd-147	9.42E+1	1.09E+2	-	6.37E+1	-	5.23E+5	6.52E+0
W-187	6.56E+3	5.48E+3	-	-	-	1.80E+6	1.92E+3
Np-239	3.66E+0	3.60E-1	-	1.12E+0	-	7.39E+4	1.98E-1

Table 3-8

R_{io}, GRASS - COW - MILK PATHWAY DOSE FACTORSTEENAGER (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mRem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	9.94E+2	9.94E+2	9.94E+2	9.94E+2	9.94E+2	9.94E+2
C-14	6.70E+5	1.34E+5	1.34E+5	1.34E+5	1.34E+5	1.34E+5	1.34E+5
Na-24	4.44E+6	4.44E+6	4.44E+6	4.44E+6	4.44E+6	4.44E+6	4.44E+6
P-32	3.15E+10	1.95E+9	-	-	-	2.65E+9	1.22E+9
Cr-51	-	-	2.78E+4	1.10E+4	7.13E+4	8.40E+6	5.00E+4
Mn-54	-	1.40E+7	-	4.17E+6	-	2.87E+7	2.78E+6
Mn-56	-	7.51E-3	-	9.50E-3	-	4.94E-1	1.33E-3
Fe-55	4.45E+7	3.16E+7	-	-	2.00E+7	1.37E+7	7.36E+6
Fe-59	5.20E+7	1.21E+8	-	-	3.82E+7	2.87E+8	4.68E+7
Co-57	-	2.25E+6	-	-	-	4.19E+7	3.76E+6
Co-58	-	7.95E+6	-	-	-	1.10E+8	1.83E+7
Co-60	-	2.78E+7	-	-	-	3.62E+8	6.26E+7
Ni-63	1.18E+10	8.35E+8	-	-	-	1.33E+8	4.01E+8
Ni-65	6.78E-1	8.66E-2	-	-	-	4.70E+0	3.94E-2
Cu-64	-	4.29E+4	-	1.09E+5	-	3.33E+6	2.02E+4
Zn-65	2.11E+9	7.31E+9	-	4.68E+9	-	3.10E+9	3.41E+9
Zn-69	-	-	-	-	-	-	-
Br-82	-	-	-	-	-	-	5.64E+7
Br-83	-	-	-	-	-	-	1.91E-1
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	4.73E+9	-	-	-	7.00E+8	2.22E+9
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	2.67E+9	-	-	-	-	3.18E+8	7.66E+7
Sr-90	6.61E+10	-	-	-	-	1.86E+9	1.63E+10
Sr-91	5.75E+4	-	-	-	-	2.61E+5	2.29E+3
Sr-92	8.95E-1	-	-	-	-	2.28E+1	3.81E-2
Y-90	1.30E+2	-	-	-	-	1.07E+6	3.50E+0
Y-91m	-	-	-	-	-	-	-
Y-91	1.58E+4	-	-	-	-	6.48E+6	4.24E+2
Y-92	1.00E-4	-	-	-	-	2.75E+0	2.90E-6
Y-93	4.30E-1	-	-	-	-	1.31E+4	1.18E-2
Zr-95	1.65E+3	5.22E+2	-	7.67E+2	-	1.20E+6	3.59E+2
Zr-97	7.75E-1	1.53E-1	-	2.32E-1	-	4.15E+4	7.06E-2
Nb-95	1.41E+5	7.80E+4	-	7.57E+4	-	3.34E+8	4.30E+4
Nb-97	-	-	-	-	-	6.34E-8	-
Mo-99	-	4.56E+7	-	1.04E+8	-	8.16E+7	8.69E+6
Tc-99m	5.64E+0	1.57E+1	-	2.34E+2	8.73E+0	1.03E+4	2.04E+2
Tc-101	-	-	-	-	-	-	-

Table 3-8

R_{io}, GRASS - COW - MILK PATHWAY DOSE FACTORS

TEENAGER (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 (m²* mRem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	1.81E+3	-	-	6.40E+3	-	1.52E+5	7.75E+2
Ru-105	1.57E-3	-	-	1.97E-2	-	1.26E+0	6.08E-4
Ru-106	3.75E+4	-	-	7.23E+4	-	1.80E+6	4.73E+3
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	9.63E+7	9.11E+7	-	1.74E+8	-	2.56E+10	5.54E+7
Sb-124	4.59E+7	8.46E+5	1.04E+5	-	4.01E+7	9.25E+8	1.79E+7
Sb-125	3.65E+7	3.99E+5	3.49E+4	-	3.21E+7	2.84E+8	8.54E+6
Te-125m	3.00E+7	1.08E+7	8.39E+6	-	-	8.86E+7	4.02E+6
Te-127m	8.44E+7	2.99E+7	2.01E+7	3.42E+8	-	2.10E+8	1.00E+7
Te-127	1.24E+3	4.41E+2	8.59E+2	5.04E+3	-	9.61E+4	2.68E+2
Te-129m	1.11E+8	4.10E+7	3.57E+7	4.62E+8	-	4.15E+8	1.75E+7
Te-129	-	-	-	1.67E-9	-	2.18E-9	-
Te-131m	6.57E+5	3.15E+5	4.74E+5	3.29E+6	-	2.53E+7	2.63E+5
Te-131	-	-	-	-	-	-	-
Te-132	4.28E+6	2.71E+6	2.86E+6	2.60E+7	-	8.58E+7	2.55E+6
I-130	7.49E+5	2.17E+6	1.77E+8	3.34E+6	-	1.67E+6	8.66E+5
I-131	5.38E+8	7.53E+8	2.20E+11	1.30E+9	-	1.49E+8	4.04E+8
I-132	2.90E-1	7.59E-1	2.56E+1	1.20E+0	-	3.31E-1	2.72E-1
I-133	7.24E+6	1.23E+7	1.72E+9	2.15E+7	-	9.30E+6	3.75E+6
I-134	-	-	-	-	-	-	-
I-135	2.47E+4	6.35E+4	4.08E+6	1.00E+5	-	7.03E+4	2.35E+4
Cs-134	9.81E+9	2.31E+10	-	7.34E+9	2.80E+9	2.87E+8	1.07E+10
Cs-136	4.45E+8	1.75E+9	-	9.53E+8	1.50E+8	1.41E+8	1.18E+9
Cs-137	1.34E+10	1.78E+10	-	6.06E+9	2.35E+9	2.53E+8	6.20E+9
Cs-138	-	-	-	-	-	-	-
Ba-139	8.69E-8	-	-	-	-	7.75E-7	2.53E-9
Ba-140	4.85E+7	5.95E+4	-	2.02E+4	4.00E+4	7.49E+7	3.13E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	8.06E+0	3.96E+0	-	-	-	2.27E+5	1.05E+0
La-142	-	-	-	-	-	2.23E-7	-
Ce-141	8.87E+3	5.92E+3	-	2.79E+3	-	1.69E+7	6.81E+2
Ce-143	7.69E+1	5.60E+4	-	2.51E+1	-	1.68E+6	6.25E+0
Ce-144	6.58E+5	2.72E+5	-	1.63E+5	-	1.66E+8	3.54E+4
Pr-143	2.92E+2	1.17E+2	-	6.77E+1	-	9.61E+5	1.45E+1
Pr-144	-	-	-	-	-	-	-
Nd-147	1.81E+2	1.97E+2	-	1.16E+2	-	7.11E+5	1.18E+1
W-187	1.20E+4	9.78E+3	-	-	-	2.65E+6	3.43E+3
Np-239	6.99E+0	6.59E-1	-	2.07E+0	-	1.06E+5	3.66E-1

Table 3-8

R_{io}, GRASS - COW - MILK PATHWAY DOSE FACTORS

CHILD (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 (m² * mRem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	1.57E+3	1.57E+3	1.57E+3	1.57E+3	1.57E+3	1.57E+3
C-14	1.65E+6	3.29E+5	3.29E+5	3.29E+5	3.29E+5	3.29E+5	3.29E+5
Na-24	9.23E+6	9.23E+6	9.23E+6	9.23E+6	9.23E+6	9.23E+6	9.23E+6
P-32	7.77E+10	3.64E+9	-	-	-	2.15E+9	3.00E+9
Cr-51	-	-	5.66E+4	1.55E+4	1.03E+5	5.41E+6	1.02E+5
Mn-54	-	2.09E+7	-	5.87E+6	-	1.76E+7	5.58E+6
Mn-56	-	1.31E-2	-	1.58E-2	-	1.90E+0	2.95E-3
Fe-55	1.12E+8	5.93E+7	-	-	3.35E+7	1.10E+7	1.84E+7
Fe-59	1.20E+8	1.95E+8	-	-	5.65E+7	2.03E+8	9.71E+7
Co-57	-	3.84E+6	-	-	-	3.14E+7	7.77E+6
Co-58	-	1.21E+7	-	-	-	7.08E+7	3.72E+7
Co-60	-	4.32E+7	-	-	-	2.39E+8	1.27E+8
Ni-63	2.96E+10	1.59E+9	-	-	-	1.07E+8	1.01E+9
Ni-65	1.66E+0	1.56E-1	-	-	-	1.91E+1	9.11E-2
Cu-64	-	7.55E+4	-	1.82E+5	-	3.54E+6	4.56E+4
Zn-65	4.13E+9	1.10E+10	-	6.94E+9	-	1.93E+9	6.85E+9
Zn-69	-	-	-	-	-	2.14E-9	-
Br-82	-	-	-	-	-	-	1.15E+8
Br-83	-	-	-	-	-	-	4.69E-1
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	8.77E+9	-	-	-	5.64E+8	5.39E+9
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	6.62E+9	-	-	-	-	2.56E+8	1.89E+8
Sr-90	1.12E+11	-	-	-	-	1.51E+9	2.83E+10
Sr-91	1.41E+5	-	-	-	-	3.12E+5	5.33E+3
Sr-92	2.19E+0	-	-	-	-	4.14E+1	8.76E-2
Y-90	3.22E+2	-	-	-	-	9.15E+5	8.61E+0
Y-91m	-	-	-	-	-	-	-
Y-91	3.91E+4	-	-	-	-	5.21E+6	1.04E+3
Y-92	2.46E-4	-	-	-	-	7.10E+0	7.03E-6
Y-93	1.06E+0	-	-	-	-	1.57E+4	2.90E-2
Zr-95	3.84E+3	8.45E+2	-	1.21E+3	-	8.81E+5	7.52E+2
Zr-97	1.89E+0	2.72E-1	-	3.91E-1	-	4.13E+4	1.61E-1
Nb-95	3.18E+5	1.24E+5	-	1.16E+5	-	2.29E+8	8.84E+4
Nb-97	-	-	-	-	-	1.45E-6	-
Mo-99	-	8.29E+7	-	1.77E+8	-	6.86E+7	2.05E+7
Tc-99m	1.29E+1	2.54E+1	-	3.68E+2	1.29E+1	1.44E+4	4.20E+2
Tc-101	-	-	-	-	-	-	-

Table 3-8

R_{io}, GRASS - COW - MILK PATHWAY DOSE FACTORSCHILD (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mRem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	4.29E+3	-	-	1.08E+4	-	1.11E+5	1.65E+3
Ru-105	3.82E-3	-	-	3.36E-2	-	2.49E+0	1.39E-3
Ru-106	9.24E+4	-	-	1.25E+5	-	1.44E+6	1.15E+4
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	2.09E+8	1.41E+8	-	2.63E+8	-	1.68E+10	1.13E+8
Sb-124	1.09E+8	1.41E+8	2.40E+5	-	6.03E+7	6.79E+8	3.81E+7
Sb-125	8.70E+7	1.41E+6	8.06E+4	-	4.85E+7	2.08E+8	1.82E+7
Te-125m	7.38E+7	2.00E+7	2.07E+7	-	-	7.12E+7	9.84E+6
Te-127m	2.08E+8	5.60E+7	4.97E+7	5.93E+8	-	1.68E+8	2.47E+7
Te-127	3.06E+3	8.25E+2	2.12E+3	8.71E+3	-	1.20E+5	6.56E+2
Te-129m	2.72E+8	7.61E+7	8.78E+7	8.00E+8	-	3.32E+8	4.23E+7
Te-129	-	-	-	2.87E-9	-	6.12E-8	-
Te-131m	1.60E+6	5.53E+5	1.14E+6	5.35E+6	-	2.24E+7	5.89E+5
Te-131	-	-	-	-	-	-	-
Te-132	1.02E+7	4.52E+6	6.58E+6	4.20E+7	-	4.55E+7	5.46E+6
I-130	1.75E+6	3.54E+6	3.90E+8	5.29E+6	-	1.66E+6	1.82E+6
I-131	1.30E+9	1.31E+9	4.34E+11	2.15E+9	-	1.17E+8	7.46E+8
I-132	6.86E-1	1.26E+0	5.85E+1	1.93E+0	-	1.48E+0	5.80E-1
I-133	1.76E+7	2.18E+7	4.04E+9	3.63E+7	-	8.77E+6	8.23E+6
I-134	-	-	-	-	-	-	-
I-135	5.84E+4	1.05E+5	9.30E+6	1.61E+5	-	8.00E+4	4.97E+4
Cs-134	2.26E+10	3.71E+10	-	1.15E+10	4.13E+9	2.00E+8	7.83E+9
Cs-136	1.00E+9	2.76E+9	-	1.47E+9	2.19E+8	9.70E+7	1.79E+9
Cs-137	3.22E+10	3.09E+10	-	1.01E+10	3.62E+9	1.93E+8	4.55E+9
Cs-138	-	-	-	-	-	-	-
Ba-139	2.14E-7	-	-	-	-	1.23E-5	6.19E-9
Ba-140	1.17E+8	1.03E+5	-	3.34E+4	6.12E+4	5.94E+7	6.84E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	1.93E+1	6.74E+0	-	-	-	1.88E+5	2.27E+0
La-142	-	-	-	-	-	2.51E-6	-
Ce-141	2.19E+4	1.09E+4	-	4.78E+3	-	1.36E+7	1.62E+3
Ce-143	1.89E+2	1.02E+5	-	4.29E+1	-	1.50E+6	1.48E+1
Ce-144	1.62E+6	5.09E+5	-	2.82E+5	-	1.33E+8	8.66E+4
Pr-143	7.23E+2	2.17E+2	-	1.17E+2	-	7.80E+5	3.59E+1
Pr-144	-	-	-	-	-	-	-
Nd-147	4.45E+2	3.60E+2	-	1.98E+2	-	5.71E+5	2.79E+1
W-187	2.91E+4	1.72E+4	-	-	-	2.42E+6	7.73E+3
Np-239	1.72E+1	1.23E+0	-	3.57E+0	-	9.14E+4	8.68E-1

Table 3-8

R_{io}, GRASS - COW - MILK PATHWAY DOSE FACTORS

INFANT (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 $(\text{m}^2 * \text{mRem}/\text{yr per } \mu\text{Ci}/\text{sec})$ for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	2.38E+3	2.38E+3	2.38E+3	2.38E+3	2.38E+3	2.38E+3
C-14	3.23E+6	6.89E+5	6.89E+5	6.89E+5	6.89E+5	6.89E+5	6.89E+5
Na-24	1.61E+7	1.61E+7	1.61E+7	1.61E+7	1.61E+7	1.61E+7	1.61E+7
P-32	1.60E+11	9.42E+9	-	-	-	2.17E+9	6.21E+9
Cr-51	-	-	1.05E+5	2.30E+4	2.05E+5	4.71E+6	1.61E+5
Mn-54	-	3.89E+7	-	8.63E+6	-	1.43E+7	8.83E+6
Mn-56	-	3.21E-2	-	2.76E-2	-	2.91E+0	5.53E-3
Fe-55	1.35E+8	8.72E+7	-	-	4.27E+7	1.11E+7	2.33E+7
Fe-59	2.25E+8	3.93E+8	-	-	1.16E+8	1.88E+8	1.55E+8
Co-57	-	8.95E+6	-	-	-	3.05E+7	1.46E+7
Co-58	-	2.43E+7	-	-	-	6.05E+7	6.06E+7
Co-60	-	8.81E+7	-	-	-	2.10E+8	2.08E+8
Ni-63	3.49E+10	2.16E+9	-	-	-	1.07E+8	1.21E+9
Ni-65	3.51E+0	3.97E-1	-	-	-	3.02E+1	1.81E-1
Cu-64	-	1.88E+5	-	3.17E+5	-	3.85E+6	8.69E+4
Zn-65	5.55E+9	1.90E+10	-	9.23E+9	-	1.61E+10	8.78E+9
Zn-69	-	-	-	-	-	7.36E-9	-
Br-82	-	-	-	-	-	-	1.94E+8
Br-83	-	-	-	-	-	-	9.95E-1
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	2.22E+10	-	-	-	5.69E+8	1.10E+10
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	1.26E+10	-	-	-	-	2.59E+8	3.61E+8
Sr-90	1.22E+11	-	-	-	-	1.52E+9	3.10E+10
Sr-91	2.94E+5	-	-	-	-	3.48E+5	1.06E+4
Sr-92	4.65E+0	-	-	-	-	5.01E+1	1.73E-1
Y-90	6.80E+2	-	-	-	-	9.39E+5	1.82E+1
Y-91m	-	-	-	-	-	-	-
Y-91	7.33E+4	-	-	-	-	5.26E+6	1.95E+3
Y-92	5.22E-4	-	-	-	-	9.97E+0	1.47E-5
Y-93	2.25E+0	-	-	-	-	1.78E+4	6.13E-2
Zr-95	6.83E+3	1.66E+3	-	1.79E+3	-	8.28E+5	1.18E+3
Zr-97	3.99E+0	6.85E-1	-	6.91E-1	-	4.37E+4	3.13E-1
Nb-95	5.93E+5	2.44E+5	-	1.75E+5	-	2.06E+8	1.41E+5
Nb-97	-	-	-	-	-	3.70E-6	-
Mo-99	-	2.12E+8	-	3.17E+8	-	6.98E+7	4.13E+7
Tc-99m	2.69E+1	5.55E+1	-	5.97E+2	2.90E+1	1.61E+4	7.15E+2
Tc-101	-	-	-	-	-	-	-

Table 3-8

R_{io}, GRASS - COW - MILK PATHWAY DOSE FACTORSINFANT (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mRem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	8.69E+3	-	-	1.81E+4	-	1.06E+5	2.91E+3
Ru-105	8.06E-3	-	-	5.92E-2	-	3.21E+0	2.71E-3
Ru-106	1.90E+5	-	-	2.25E+5	-	1.44E+6	2.38E+4
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	3.86E+8	2.82E+8	-	4.03E+8	-	1.46E+10	1.86E+8
Sb-124	2.09E+8	3.08E+6	5.56E+5	-	1.31E+8	6.46E+8	6.49E+7
Sb-125	1.49E+8	1.45E+6	1.87E+5	-	9.38E+7	1.99E+8	3.07E+7
Te-125m	1.51E+8	5.04E+7	5.07E+7	-	-	7.18E+7	2.04E+7
Te-127m	4.21E+8	1.40E+8	1.22E+8	1.04E+9	-	1.70E+8	5.10E+7
Te-127	6.50E+3	2.18E+3	5.29E+3	1.59E+4	-	1.36E+5	1.40E+3
Te-129m	5.59E+8	1.92E+8	2.15E+8	1.40E+9	-	3.34E+8	8.62E+7
Te-129	2.08E-9	-	1.75E-9	5.18E-9	-	1.66E-7	-
Te-131m	3.38E+6	1.36E+6	2.76E+6	9.35E+6	-	2.29E+7	1.12E+6
Te-131	-	-	-	-	-	-	-
Te-132	2.10E+7	1.04E+7	1.54E+7	6.51E+7	-	3.85E+7	9.72E+6
I-130	3.60E+6	7.92E+6	8.88E+8	8.70E+6	-	1.70E+6	3.18E+6
I-131	2.72E+9	3.21E+9	1.05E+12	3.75E+9	-	1.15E+8	1.41E+9
I-132	1.42E+0	2.89E+0	1.35E+2	3.22E+0	-	2.34E+0	1.03E+0
I-133	3.72E+7	5.41E+7	9.84E+9	6.36E+7	-	9.16E+6	1.58E+7
I-134	-	-	1.01E-9	-	-	-	-
I-135	1.21E+5	2.41E+5	2.16E+7	2.69E+5	-	8.74E+4	8.80E+4
Cs-134	3.65E+10	6.80E+10	-	1.75E+10	7.18E+9	1.85E+8	6.87E+9
Cs-136	1.96E+9	5.77E+9	-	2.30E+9	4.70E+8	8.76E+7	2.15E+9
Cs-137	5.15E+10	6.02E+10	-	1.62E+10	6.55E+9	1.88E+8	4.27E+9
Cs-138	-	-	-	-	-	-	-
Ba-139	4.55E-7	-	-	-	-	2.88E-5	1.32E-8
Ba-140	2.41E+8	2.41E+5	-	5.73E+4	1.48E+5	5.92E+7	1.24E+7
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	4.03E+1	1.59E+1	-	-	-	1.87E+5	4.09E+0
La-142	-	-	-	-	-	5.21E-6	-
Ce-141	4.33E+4	2.64E+4	-	8.15E+3	-	1.37E+7	3.11E+3
Ce-143	4.00E+2	2.65E+5	-	7.72E+1	-	1.55E+6	3.02E+1
Ce-144	2.33E+6	9.52E+5	-	3.85E+5	-	1.33E+8	1.30E+5
Pr-143	1.49E+3	5.59E+2	-	2.08E+2	-	7.89E+5	7.41E+1
Pr-144	-	-	-	-	-	-	-
Nd-147	8.82E+2	9.06E+2	-	3.49E+2	-	5.74E+5	5.55E+1
W-187	6.12E+4	4.26E+4	-	-	-	2.50E+6	1.47E+4
Np-239	3.64E+1	3.25E+0	-	6.49E+0	-	9.40E+4	1.84E+0

Table 3-9

R_{io}, GRASS - GOAT - MILK PATHWAY DOSE FACTORS

ADULT (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
($\text{m}^2 \cdot \text{mRem}/\text{yr}$ per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	1.56E+3	1.56E+3	1.56E+3	1.56E+3	1.56E+3	1.56E+3
C-14	3.63E+5	7.26E+4	7.26E+4	7.26E+4	7.26E+4	7.26E+4	7.26E+4
Na-24	3.05E+5	3.05E+5	3.05E+5	3.05E+5	3.05E+5	3.05E+5	3.05E+5
P-32	2.05E+10	1.27E+9	-	-	-	2.30E+9	7.92E+8
Cr-51	-	-	2.05E+3	7.56E+2	4.56E+3	8.64E+5	3.43E+3
Mn-54	-	1.01E+6	-	3.00E+5	-	3.08E+6	1.92E+5
Mn-56	-	5.08E-4	-	6.46E-4	-	1.65E-2	9.01E-5
Fe-55	3.31E+5	2.28E+5	-	-	1.28E+5	1.31E+5	5.33E+4
Fe-59	3.93E+5	9.24E+5	-	-	2.57E+5	3.08E+6	3.54E+5
Co-57	-	1.54E+5	-	-	-	3.90E+6	2.56E+5
Co-58	-	5.66E+5	-	-	-	1.15E+7	1.27E+6
Co-60	-	1.97E+6	-	-	-	3.70E+7	3.34E+6
Ni-63	8.08E+8	5.59E+7	-	-	-	1.17E+7	2.71E+7
Ni-65	4.44E-2	5.77E-3	-	-	-	1.46E-1	2.63E-3
Cu-64	-	2.69E+3	-	6.79E+3	-	2.79E+5	1.26E+3
Zn-65	1.64E+8	5.23E+8	-	3.50E+8	-	3.30E+8	2.36E+8
Zn-69	-	-	-	-	-	-	-
Br-82	-	-	-	-	-	4.46E+6	3.90E+6
Br-83	-	-	-	-	-	1.79E-2	1.24E-2
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	3.11E+8	-	-	-	6.13E+7	1.45E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	3.04E+9	-	-	-	-	4.89E+8	8.74E+7
Sr-90	9.83E+10	-	-	-	-	2.84E+9	2.42E+10
Sr-91	6.57E+4	-	-	-	-	3.13E+5	2.67E+3
Sr-92	1.03E+0	-	-	-	-	2.03E+1	4.43E-2
Y-90	8.48E+0	-	-	-	-	9.00E+4	2.28E-1
Y-91m	-	-	-	-	-	-	-
Y-91	1.03E+3	-	-	-	-	5.71E+5	2.76E+1
Y-92	6.50E-6	-	-	-	-	1.14E-1	1.90E-7
Y-93	2.80E-2	-	-	-	-	8.87E+2	7.72E-4
Zr-95	1.15E+2	3.64E+1	-	5.71E+1	-	1.15E+5	2.46E+1
Zr-97	5.11E-2	1.03E-2	-	1.56E-2	-	3.19E+3	4.72E-3
Nb-95	9.90E+3	5.51E+3	-	5.34E+3	-	3.35E+7	2.96E+3
Nb-97	-	-	-	-	-	6.56E-10	-
Mo-99	-	3.02E+6	-	6.96E+6	-	7.02E+6	5.76E+5
Tc-99m	3.90-1	1.10E+0	-	1.68E+1	5.40E-1	6.53E+2	1.40E+1
Tc-101	-	-	-	-	-	-	-

Table 3-9

R_{io}, GRASS - GOAT - MILK PATHWAY DOSE FACTORS

ADULT (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 ($\text{m}^2 * \text{mRem}/\text{yr}$ per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	1.22E+2	-	-	4.67E+2	-	1.43E+4	5.27E+1
Ru-105	1.03E-4	-	-	1.33E-3	-	6.29E-2	4.06E-5
Ru-106	2.45E+3	-	-	4.73E+3	-	1.58E+5	3.10E+2
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	6.70E+6	6.47E+6	-	1.27E+7	-	2.64E+9	3.84E+6
Sb-124	3.08E+6	5.83E+4	7.49E+3	-	2.40E+6	8.77E+7	1.22E+6
Sb-125	2.45E+6	2.74E+4	2.50E+3	-	1.90E+6	2.70E+7	5.83E+5
Te-125m	1.96E+6	7.08E+5	5.88E+5	7.96E+6	-	7.80E+6	2.62E+5
Te-127m	5.50E+6	1.97E+6	1.40E+6	2.23E+7	-	1.85E+7	6.70E+5
Te-127	8.06E+1	2.89E+1	5.80E+1	3.29E+2	-	6.36E+3	1.74E+1
Te-129m	7.25E+6	2.70E+6	2.50E+6	3.02E+7	-	3.65E+7	1.15E+6
Te-129	-	-	-	-	-	-	-
Te-131m	4.33E+4	2.12E+4	3.36E+4	2.15E+5	-	2.10E+6	1.76E+4
Te-131	-	-	-	-	-	-	-
Te-132	2.87E+5	1.96E+5	2.05E+5	1.79E+6	-	8.78E+6	1.74E+5
I-130	5.11E+5	1.51E+6	1.28E+8	2.35E+6	-	1.30E+6	5.95E+5
I-131	3.55E+8	5.01E+8	1.67E+11	8.72E+8	-	1.34E+8	2.92E+8
I-132	1.97E-1	5.24E-1	1.84E+1	8.36E-1	-	9.86E-2	1.84E-1
I-133	4.76E+6	8.28E+6	1.21E+9	1.44E+7	-	7.44E+6	2.52E+6
I-134	-	-	-	-	-	-	-
I-135	1.67E+4	4.36E+4	2.88E+6	6.70E+4	-	4.92E+4	1.61E+4
Cs-134	1.70E+10	4.02E+10	-	1.31E+10	4.32E+9	7.05E+8	3.30E+10
Cs-136	7.83E+8	3.09E+9	-	1.72E+9	2.36E+8	3.31E+8	2.23E+9
Cs-137	2.21E+10	3.03E+10	-	1.03E+10	3.42E+9	5.85E+8	1.98E+10
Cs-138	-	-	-	-	-	-	-
Ba-139	5.64E-9	-	-	-	-	1.00E-8	1.66E-10
Ba-140	3.23E+6	4.06E+3	-	1.38E+3	2.32E+3	6.65E+6	2.11E+5
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	5.39E-1	2.71E-1	-	-	-	1.99E+4	7.16E-2
La-142	-	-	-	-	-	3.64E-9	-
Ce-141	5.81E+2	3.92E+2	-	1.82E+2	-	1.50E+6	4.45E+1
Ce-143	5.03E+0	3.71E+3	-	1.62E+0	-	1.39E+5	4.10E-1
Ce-144	4.30E+4	1.80E+4	-	1.06E+4	-	1.45E+7	2.30E+3
Pr-143	1.91E+1	7.64E+0	-	4.42E+0	-	8.35E+4	9.46E-1
Pr-144	-	-	-	-	-	-	-
Nd-147	1.13E+1	1.31E+1	-	7.64E+0	-	6.28E+4	6.74E-1
W-187	7.87E+2	6.58E+2	-	-	-	2.16E+5	2.30E+2
Np-239	4.39E-1	4.32E-2	-	1.34E-1	-	8.87E+3	2.38E-2

Table 3-9

R_{io}, GRASS - GOAT - MILK PATHWAY DOSE FACTORSTEENAGER (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mRem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	2.03E+3	2.03E+3	2.03E+3	2.03E+3	2.03E+3	2.03E+3
C-14	6.70E+5	1.34E+5	1.34E+5	1.34E+5	1.34E+5	1.34E+5	1.34E+5
Na-24	5.33E+5	5.33E+5	5.33E+5	5.33E+5	5.33E+5	5.33E+5	5.33E+5
P-32	3.78E+10	2.34E+9	-	-	-	3.18E+9	1.46E+9
Cr-51	-	-	3.34E+3	1.32E+3	8.56E+3	1.01E+6	6.00E+3
Mn-54	-	1.68E+6	-	5.00E+5	-	3.44E+6	3.34E+5
Mn-56	-	9.01E-4	-	1.14E-3	-	5.93E-2	1.60E-4
Fe-55	5.79E+5	4.11E+5	-	-	2.60E+5	1.78E+5	9.57E+4
Fe-59	6.76E+5	1.57E+6	-	-	4.97E+5	3.73E+6	6.08E+5
Co-57	-	2.70E+5	-	-	-	5.03E+6	4.51E+5
Co-58	-	9.54E+5	-	-	-	1.32E+7	2.20E+6
Co-60	-	3.34E+6	-	-	-	4.34E+7	7.51E+6
Ni-63	1.42E+9	1.00E+8	-	-	-	1.60E+7	4.81E+7
Ni-65	8.14E-2	1.04E-2	-	-	-	5.64E-1	4.73E-3
Cu-64	-	4.78E+3	-	1.21E+4	-	3.71E+5	2.25E+3
Zn-65	2.53E+8	8.77E+8	-	5.62E+8	-	3.72E+8	4.09E+8
Zn-69	-	-	-	-	-	-	-
Br-82	-	-	-	-	-	-	6.77E+6
Br-83	-	-	-	-	-	-	2.29E-2
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	5.68E+8	-	-	-	8.40E+7	2.66E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	5.61E+9	-	-	-	-	6.68E+8	1.61E+8
Sr-90	1.39E+11	-	-	-	-	3.91E+9	3.42E+10
Sr-91	1.20E+5	-	-	-	-	5.48E+5	4.81E+3
Sr-92	1.88E+0	-	-	-	-	4.79E+1	8.00E-2
Y-90	1.56E+1	-	-	-	-	1.28E+5	4.20E-1
Y-91m	-	-	-	-	-	-	-
Y-91	1.90E+3	-	-	-	-	7.78E+5	5.09E+1
Y-92	1.20E-5	-	-	-	-	3.30E-1	3.48E-7
Y-93	5.16E-2	-	-	-	-	1.57E+3	1.42E-3
Zr-95	1.98E+2	6.26E+1	-	9.20E+1	-	1.44E+5	4.31E+1
Zr-97	9.30E-2	1.84E-2	-	2.78E-2	-	4.98E+3	8.47E-3
Nb-95	1.69E+4	936E+3	-	9.08E+3	-	4.01E+7	5.16E+3
Nb-97	-	-	-	-	-	7.61E-9	-
Mo-99	-	5.47E+6	-	1.25E+7	-	9.79E+6	1.04E+6
Tc-99m	6.77E-1	1.88E+0	-	2.81E+1	1.05E+0	1.24E+3	2.45E+1
Tc-101	-	-	-	-	-	-	-

Table 3-9

R_{io}, GRASS - GOAT - MILK PATHWAY DOSE FACTORS

TEENAGER (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 (m²* mRem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	2.17E+2	-	-	7.68E+2	-	1.82E+4	9.30E+1
Ru-105	1.88E-4	-	-	2.36E-3	-	1.51E-1	7.30E-5
Ru-106	4.50E+3	-	-	8.68E+3	-	2.16E+5	5.68E+2
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	1.16E+7	1.09E+7	-	2.09E+7	-	3.07E+9	6.65E+6
Sb-124	5.51E+6	1.02E+5	1.25E+4	-	4.81E+6	1.11E+8	2.15E+6
Sb-125	4.38E+6	4.79E+4	4.19E+3	-	3.85E+6	3.41E+7	1.02E+6
Te-125m	3.60E+6	1.30E+6	1.01E+6	-	-	1.06E+7	4.82E+5
Te-127m	1.01E+7	3.59E+6	2.41E+6	4.10E+7	-	2.52E+7	1.20E+6
Te-127	1.49E+2	5.29E+1	1.03E+2	6.05E+2	-	1.15E+4	3.22E+1
Te-129m	1.33E+7	4.92E+6	4.28E+6	5.54E+7	-	4.98E+7	2.10E+6
Te-129	-	-	-	2.00E-10	-	2.62E-10	-
Te-131m	7.88E+4	3.78E+4	5.69E+4	3.95E+5	-	3.04E+6	3.16E+4
Te-131	-	-	-	-	-	-	-
Te-132	5.14E+5	3.25E+5	3.43E+5	3.12E+6	-	1.03E+7	3.06E+5
I-130	8.99E+5	2.60E+6	2.12E+8	4.01E+6	-	2.00E+6	1.04E+6
I-131	6.46E+8	9.04E+8	2.64E+11	1.56E+9	-	1.79E+8	4.85E+8
I-132	3.48E-1	9.11E-1	3.07E+1	1.44E+0	-	3.97E-1	3.26E-1
I-133	8.69E+6	1.48E+7	2.06E+9	2.58E+7	-	1.12E+7	4.50E+6
I-134	-	-	-	-	-	-	-
I-135	2.96E+4	7.62E+4	4.90E+6	1.20E+5	-	8.44E+4	2.82E+4
Cs-134	2.94E+10	6.93E+10	-	2.20E+10	8.40E+9	8.61E+8	3.21E+10
Cs-136	1.34E+9	5.25E+9	-	2.86E+9	4.50E+8	4.23E+8	3.54E+9
Cs-137	4.02E+10	5.34E+10	-	1.82E+10	7.05E+9	7.59E+8	1.86E+10
Cs-138	-	-	-	-	-	-	-
Ba-139	1.04E-8	-	-	-	-	9.30E-8	3.04E-10
Ba-140	5.82E+6	7.14E+3	-	2.42E+3	4.80E+3	6.99E+6	3.76E+5
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	9.67E-1	4.75E-1	-	-	-	2.72E+4	1.26E-1
La-142	-	-	-	-	-	2.68E-8	-
Ce-141	1.06E+3	7.10E+2	-	3.35E+2	-	2.03E+6	8.17E+1
Ce-143	9.23E+0	6.72E+3	-	3.01E+0	-	2.02E+5	7.50E-1
Ce-144	7.90E+4	3.26E+4	-	1.96E+4	-	1.99E+7	4.25E+3
Pr-143	3.50E+1	1.40E+1	-	8.12E+0	-	1.15E+5	1.74E+0
Pr-144	-	-	-	-	-	-	-
Nd-147	2.17E+1	2.36E+1	-	1.39E+1	-	8.53E+4	1.42E+0
W-187	1.44E+3	1.17E+3	-	-	-	3.18E+5	4.12E+2
Np-239	8.39E-1	7.91E-2	-	2.48E-1	-	1.27E+4	4.39E-2

Table 3-9

R_{io}, GRASS - GOAT - MILK PATHWAY DOSE FACTORS

CHILD (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 (m² * mRem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	3.20E+3	3.20E+3	3.20E+3	3.20E+3	3.20E+3	3.20E+3
C-14	1.65E+6	3.29E+5	3.29E+5	3.29E+5	3.29E+5	3.29E+5	3.29E+5
Na-24	1.11E+6	1.11E+6	1.11E+6	1.11E+6	1.11E+6	1.11E+6	1.11E+6
P-32	9.32E+10	4.37E+9	-	-	-	2.58E+9	3.60E+9
Cr-51	-	-	6.79E+3	1.86E+3	1.24E+4	6.49E+5	1.22E+4
Mn-54	-	2.51E+6	-	7.04E+5	-	2.11E+6	6.70E+5
Mn-56	-	1.57E-3	-	1.90E-3	-	2.28E-1	3.54E-4
Fe-55	1.46E+6	7.71E+5	-	-	4.36E+5	1.43E+5	2.39E+5
Fe-59	1.56E+6	2.54E+6	-	-	7.34E+5	2.64E+6	1.26E+6
Co-57	-	4.61E+5	-	-	-	3.77E+6	9.32E+5
Co-58	-	1.45E+6	-	-	-	8.50E+6	4.46E+6
Co-60	-	5.18E+6	-	-	-	2.87E+7	1.52E+7
Ni-63	3.55E+9	1.91E+8	-	-	-	1.28E+7	1.21E+8
Ni-65	1.99E-1	1.82E-2	-	-	-	2.29E+0	1.09E-2
Cu-64	-	8.41E+3	-	2.03E+4	-	3.94E+5	5.08E+3
Zn-65	4.96E+8	1.32E+9	-	8.33E+8	-	2.32E+8	8.22E+8
Zn-69	-	-	-	-	-	2.57E-10	-
Br-82	-	-	-	-	-	-	1.38E+7
Br-83	-	-	-	-	-	-	5.63E-2
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	1.05E+9	-	-	-	6.77E+7	6.47E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	1.39E+10	-	-	-	-	5.38E+8	3.97E+8
Sr-90	2.35E+11	-	-	-	-	3.17E+9	5.94E+10
Sr-91	2.96E+5	-	-	-	-	6.55E+5	1.12E+4
Sr-92	4.60E+0	-	-	-	-	8.69E+1	1.84E-1
Y-90	3.86E+1	-	-	-	-	1.10E+5	1.03E+0
Y-91m	-	-	-	-	-	-	-
Y-91	4.69E+3	-	-	-	-	6.25E+5	1.25E+2
Y-92	2.95E-5	-	-	-	-	8.52E-1	8.44E-7
Y-93	1.27E-1	-	-	-	-	1.88E+3	3.48E-3
Zr-95	4.61E+2	1.01E+2	-	1.45E+2	-	1.06E+5	9.02E+1
Zr-97	2.27E-1	3.26E-2	-	4.69E-2	-	4.96E+3	1.93E-2
Nb-95	3.82E+4	1.49E+4	-	1.39E+4	-	2.75E+7	1.06E+4
Nb-97	-	-	-	-	-	1.74E-7	-
Mo-99	-	9.95E+6	-	2.12E+7	-	8.23E+6	2.46E+6
Tc-99m	1.55E+0	3.05E+0	-	4.42E+1	1.55E+0	1.73E+3	5.04E+1
Tc-101	-	-	-	-	-	-	-

Table 3-9

R_{io}, GRASS - GOAT - MILK PATHWAY DOSE FACTORS

CHILD (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 (m² * mRem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	5.15E+2	-	-	1.30E+3	-	1.33E+4	1.98E+2
Ru-105	4.58E-4	-	-	4.03E-3	-	2.99E-1	1.67E-4
Ru-106	1.11E+4	-	-	1.50E+4	-	1.73E+5	1.38E+3
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	2.51E+7	1.69E+7	-	2.76E+7	-	2.02E+9	1.36E+7
Sb-124	1.31E+7	1.69E+7	2.88E+4	-	7.24E+6	8.15E+7	4.57E+6
Sb-125	1.04E+7	1.69E+5	9.67E+3	-	5.82E+6	2.50E+7	2.18E+6
Te-125m	8.86E+6	2.40E+6	2.49E+6	-	-	8.54E+6	1.18E+6
Te-127m	2.50E+7	6.72E+6	5.96E+6	7.12E+7	-	2.02E+7	2.96E+6
Te-127	3.67E+2	9.90E+1	2.54E+2	1.04E+3	-	1.44E+4	7.87E+1
Te-129m	3.26E+7	9.13E+6	1.05E+7	9.60E+7	-	3.98E+7	5.08E+6
Te-129	-	-	-	3.44E-10	-	7.34E-9	-
Te-131m	1.92E+5	6.64E+4	1.37E+5	6.42E+5	-	2.69E+6	7.07E+4
Te-131	-	-	-	-	-	-	-
Te-132	1.22E+6	5.42E+5	7.90E+5	5.04E+6	-	5.46E+6	6.55E+5
I-130	2.11E+6	4.25E+6	4.68E+8	6.35E+6	-	1.99E+6	2.18E+6
I-131	1.56E+9	1.57E+9	5.21E+11	2.58E+9	-	1.40E+8	8.95E+8
I-132	8.23E-1	1.51E+0	7.02E+1	2.32E+0	-	1.78E+0	6.96E-1
I-133	2.11E+7	2.62E+7	4.85E+9	4.36E+7	-	1.05E+7	9.88E+6
I-134	-	-	-	-	-	-	-
I-135	7.01E+4	1.26E+5	1.12E+7	1.93E+5	-	9.60E+4	5.96E+4
Cs-134	6.78E+10	1.13E+11	-	3.45E+10	1.24E+10	6.00E+8	2.35E+10
Cs-136	3.00E+9	8.28E+9	-	4.41E+9	6.57E+8	2.91E+8	5.37E+9
Cs-137	9.66E+10	9.27E+10	-	3.03E+10	1.09E+10	5.79E+8	1.36E+10
Cs-138	-	-	-	-	-	-	-
Ba-139	2.57E-8	-	-	-	-	1.48E-6	7.45E-10
Ba-140	1.40E+7	1.24E+4	-	4.01E+3	7.34E+3	7.13E+6	8.21E+5
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	2.32E+0	8.09E-1	-	-	-	2.26E+4	2.72E-1
La-142	-	-	-	-	-	3.01E-7	-
Ce-141	2.63E+3	1.31E+3	-	5.74E+2	-	1.63E+6	1.84E+2
Ce-143	2.27E+1	1.22E+4	-	5.15E+0	-	1.80E+5	1.78E+0
Ce-144	1.94E+5	6.11E+4	-	3.38E+4	-	1.60E+7	1.04E+4
Pr-143	8.68E+1	2.60E+1	-	1.40E+1	-	9.36E+4	4.31E+0
Pr-144	-	-	-	-	-	-	-
Nd-147	5.34E+1	4.32E+1	-	2.38E+1	-	6.83E+4	3.35E+0
W-187	3.49E+3	2.06E+3	-	-	-	2.96E+5	9.28E+2
Np-239	2.06E+0	1.48E-1	-	4.28E-1	-	1.10E+4	1.04E-1

Table 3-9

R_{io}, GRASS - GOAT - MILK PATHWAY DOSE FACTORS

INFANT (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 $(\text{m}^2 * \text{mRem}/\text{yr per } \mu\text{Ci}/\text{sec})$ for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	4.86E+3	4.86E+3	4.86E+3	4.86E+3	4.86E+3	4.86E+3
C-14	3.23E+6	6.89E+5	6.89E+5	6.89E+5	6.89E+5	6.89E+5	6.89E+5
Na-24	1.93E+6	1.93E+6	1.93E+6	1.93E+6	1.93E+6	1.93E+6	1.93E+6
P-32	1.92E+11	1.13E+10	-	-	-	2.60E+9	7.45E+9
Cr-51	-	-	1.26E+4	2.76E+3	2.46E+4	5.65E+5	1.93E+4
Mn-54	-	4.67E+6	-	1.04E+6	-	1.72E+6	1.06E+6
Mn-56	-	3.85E-3	-	3.31E-3	-	3.49E-1	6.64E-4
Fe-55	1.76E+6	1.13E+6	-	-	5.55E+5	1.44E+5	3.03E+5
Fe-59	2.93E+6	5.11E+6	-	-	1.51E+6	2.44E+6	2.02E+6
Co-57	-	1.07E+6	-	-	-	3.66E+6	1.75E+6
Co-58	-	2.92E+6	-	-	-	7.26E+6	7.27E+6
Co-60	-	1.06E+7	-	-	-	2.52E+7	2.50E+7
Ni-63	4.19E+9	2.59E+8	-	-	-	1.28E+7	1.45E+8
Ni-65	4.21E-1	4.76E-2	-	-	-	3.62E+0	2.17E-2
Cu-64	-	2.09E+4	-	3.53E+4	-	4.29E+5	9.68E+3
Zn-65	6.66E+8	2.28E+9	-	1.11E+9	-	1.93E+9	1.05E+9
Zn-69	-	-	-	-	-	8.83E-10	-
Br-82	-	-	-	-	-	-	2.33E+7
Br-83	-	-	-	-	-	-	1.19E-1
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	2.66E+9	-	-	-	6.83E+7	1.32E+9
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	2.65E+10	-	-	-	-	5.44E+8	7.58E+8
Sr-90	2.56E+11	-	-	-	-	3.19E+9	6.51E+10
Sr-91	6.17E+5	-	-	-	-	7.31E+5	2.23E+4
Sr-92	9.76E+0	-	-	-	-	1.05E+2	3.63E-1
Y-90	8.16E+1	-	-	-	-	1.13E+5	2.18E+0
Y-91m	-	-	-	-	-	-	-
Y-91	8.80E+3	-	-	-	-	6.31E+5	2.34E+2
Y-92	6.26E-5	-	-	-	-	1.20E+0	1.76E-6
Y-93	2.70E-1	-	-	-	-	2.14E+3	7.36E-3
Zr-95	8.20E+2	1.99E+2	-	2.15E+2	-	9.94E+4	1.42E+2
Zr-97	4.79E-1	8.22E-2	-	8.29E-2	-	5.24E+3	3.76E-2
Nb-95	7.12E+4	2.93E+4	-	2.10E+4	-	2.47E+7	1.69E+4
Nb-97	-	-	-	-	-	4.44E-7	-
Mo-99	-	2.54E+7	-	3.80E+7	-	8.38E+6	4.96E+6
Tc-99m	3.23E+0	6.66E+0	-	7.16E+1	3.48E+0	1.93E+3	8.58E+1
Tc-101	-	-	-	-	-	-	-

Table 3-9

R_{io}, GRASS - GOAT - MILK PATHWAY DOSE FACTORSINFANT (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mRem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	1.04E+3	-	-	2.17E+3	-	1.27E+4	3.49E+2
Ru-105	9.67E-4	-	-	7.10E-3	-	3.85E-1	3.25E-4
Ru-106	2.28E+4	-	-	2.70E+4	-	1.73E+5	2.86E+3
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	4.63E+7	3.38E+7	-	4.84E+7	-	1.75E+9	2.23E+7
Sb-124	2.51E+7	3.70E+5	6.67E+4	-	1.57E+7	7.75E+7	7.79E+6
Sb-125	1.79E+7	1.74E+5	2.24E+4	-	1.13E+7	2.39E+7	3.68E+6
Te-125m	1.81E+7	6.05E+6	6.08E+6	-	-	8.62E+6	2.45E+6
Te-127m	5.05E+7	1.68E+7	1.46E+7	1.25E+8	-	2.04E+7	6.12E+6
Te-127	7.80E+2	2.62E+2	6.35E+2	1.91E+3	-	1.63E+4	1.68E+2
Te-129m	6.71E+7	2.30E+7	2.58E+7	1.68E+8	-	4.01E+7	1.03E+7
Te-129	2.50E-10	-	2.10E-10	6.22E-10	-	1.99E-8	-
Te-131m	4.06E+5	1.63E+5	3.31E+5	1.12E+6	-	2.75E+6	1.34E+5
Te-131	-	-	-	-	-	-	-
Te-132	2.52E+6	1.25E+6	1.85E+6	7.81E+6	-	4.62E+6	1.17E+6
I-130	4.32E+6	9.50E+6	1.07E+9	1.04E+7	-	2.04E+6	3.82E+6
I-131	3.26E+9	3.85E+9	1.26E+12	4.50E+9	-	1.38E+8	1.69E+9
I-132	1.70E+0	3.47E+0	1.62E+2	3.86E+0	-	2.81E+0	1.24E+0
I-133	4.46E+7	6.49E+7	1.18E+10	7.63E+7	-	1.10E+7	1.90E+7
I-134	-	-	1.21E-9	-	-	-	-
I-135	1.45E+5	2.89E+5	2.59E+7	3.23E+5	-	1.05E+5	1.06E+5
Cs-134	1.10E+11	2.04E+11	-	5.25E+10	2.15E+10	5.55E+8	2.06E+10
Cs-136	5.88E+9	1.73E+10	-	6.90E+9	1.41E+9	2.63E+8	6.45E+9
Cs-137	1.54E+11	1.81E+11	-	4.86E+10	1.96E+10	5.64E+8	1.28E+10
Cs-138	-	-	-	-	-	-	-
Ba-139	5.46E-8	-	-	-	-	3.46E-6	1.58E-9
Ba-140	2.89E+7	2.89E+4	-	6.88E+3	1.78E+4	7.10E+6	1.49E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	4.84E+0	1.91E+0	-	-	-	2.24E+4	4.91E-1
La-142	-	-	-	-	-	6.25E-7	-
Ce-141	5.20E+3	3.17E+3	-	9.78E+2	-	1.64E+6	3.73E+2
Ce-143	4.80E+1	3.18E+4	-	9.26E+0	-	1.86E+5	3.62E+0
Ce-144	2.80E+5	1.14E+5	-	4.62E+4	-	1.60E+7	1.56E+4
Pr-143	1.79E+2	6.71E+1	-	2.50E+1	-	9.47E+4	8.89E+0
Pr-144	-	-	-	-	-	-	-
Nd-147	1.06E+2	1.09E+2	-	4.19E+1	-	6.89E+4	6.66E+0
W-187	7.34E+3	5.11E+3	-	-	-	3.00E+5	1.76E+3
Np-239	4.67E+0	3.90E-1	-	7.79E-1	-	1.13E+4	2.21E-1

Table 3-10

R₁₀, GRASS - COW - MEAT PATHWAY DOSE FACTORS

ADULT (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 ($\text{m}^2 * \text{mRem}/\text{yr}$ per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	3.25E+2	3.25E+2	3.25E+2	3.25E+2	3.25E+2	3.25E+2
C-14	3.33E+5	6.66E+4	6.66E+4	6.66E+4	6.66E+4	6.66E+4	6.66E+4
Na-24	1.84E-3	1.84E-3	1.84E-3	1.84E-3	1.84E-3	1.84E-3	1.84E-3
P-32	4.65E+9	2.89E+8	-	-	-	5.23E+8	1.80E+8
Cr-51	-	-	4.22E+3	1.56E+3	9.38E+3	1.78E+6	7.07E+3
Mn-54	-	9.15E+6	-	2.72E+6	-	2.80E+7	1.75E+6
Mn-56	-	-	-	-	-	-	-
Fe-55	2.93E+8	2.02E+8	-	-	1.13E+8	1.16E+8	4.72E+7
Fe-59	2.67E+8	6.27E+8	-	-	1.75E+8	2.09E+9	2.40E+8
Co-57	-	5.64E+6	-	-	-	1.43E+8	9.37E+6
Co-58	-	1.83E+7	-	-	-	3.70E+8	4.10E+7
Co-60	-	7.52E+7	-	-	-	1.41E+9	1.66E+8
Ni-63	1.89E+10	1.31E+9	-	-	-	2.73E+8	6.33E+8
Ni-65	-	-	-	-	-	-	-
Cu-64	-	2.95E-7	-	7.45E-7	-	2.52E-5	1.39E-7
Zn-65	3.56E+8	1.13E+9	-	7.57E+8	-	7.13E+8	5.12E+8
Zn-69	-	-	-	-	-	-	-
Br-82	-	-	-	-	-	1.44E+3	1.26E+3
Br-83	-	-	-	-	-	-	-
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	4.87E+8	-	-	-	9.60E+7	2.27E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	3.01E+8	-	-	-	-	4.84E+7	8.65E+6
Sr-90	1.24E+10	-	-	-	-	3.59E+8	3.05E+9
Sr-91	-	-	-	-	-	1.38E-9	-
Sr-92	-	-	-	-	-	-	-
Y-90	1.07E+2	-	-	-	-	1.13E+6	2.86E+0
Y-91m	-	-	-	-	-	-	-
Y-91	1.13E+6	-	-	-	-	6.24E+8	3.03E+4
Y-92	-	-	-	-	-	-	-
Y-93	-	-	-	-	-	2.08E-7	-
Zr-95	1.88E+6	6.04E+5	-	9.48E+5	-	1.91E+9	4.09E+5
Zr-97	1.83E-5	3.69E-6	-	5.58E-6	-	1.14E+0	1.69E-6
Nb-95	2.29E+6	1.28E+6	-	1.26E+6	-	7.75E+9	6.86E+5
Nb-97	-	-	-	-	-	-	-
Mo-99	-	1.09E+5	-	2.46E+5	-	2.52E+5	2.07E+4
Tc-99m	-	-	-	-	-	-	-
Tc-101	-	-	-	-	-	-	-

Table 3-10

R₁₀, GRASS - COW - MEAT PATHWAY DOSE FACTORS

ADULT (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 ($\text{m}^2 \cdot \text{mRem}/\text{yr}$ per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	1.06E+8	-	-	4.03E+8	-	1.23E+10	4.55E+7
Ru-105	-	-	-	-	-	-	-
Ru-106	2.80E+9	-	-	5.40E+9	-	1.81E+11	3.54E+8
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	6.69E+6	6.19E+6	-	1.22E+7	-	2.52E+9	3.67E+6
Sb-124	1.98E+7	3.74E+5	4.80E+4	-	1.54E+7	5.62E+8	7.85E+6
Sb-125	1.91E+7	2.13E+5	1.94E+4	-	1.47E+7	2.10E+8	4.54E+6
Te-125m	3.59E+8	1.30E+8	1.08E+8	1.46E+9	-	1.43E+9	4.81E+7
Te-127m	1.12E+9	3.99E+8	2.85E+8	4.53E+9	-	3.74E+9	1.36E+8
Te-127	-	-	-	1.09E-9	-	2.10E-8	-
Te-129m	1.14E+9	4.27E+8	3.93E+8	4.77E+9	-	5.76E+9	1.81E+8
Te-129	-	-	-	-	-	-	-
Te-131m	4.51E+2	2.21E+2	3.50E+2	2.24E+3	-	2.19E+4	1.84E+2
Te-131	-	-	-	-	-	-	-
Te-132	1.40E+6	9.07E+5	1.00E+6	8.73E+6	-	4.29E+7	8.51E+5
I-130	2.35E-6	6.94E-6	5.88E-4	1.08E-5	-	5.98E-6	2.74E-6
I-131	1.08E+7	1.54E+7	5.05E+9	2.64E+7	-	4.07E+6	8.83E+6
I-132	-	-	-	-	-	-	-
I-133	4.30E-1	7.47E-1	1.10E+2	1.30E+0	-	6.72E-1	2.28E-1
I-134	-	-	-	-	-	-	-
I-135	-	-	-	-	-	-	-
Cs-134	6.57E+8	1.56E+9	-	5.06E+8	1.68E+8	2.74E+7	1.28E+9
Cs-136	1.18E+7	4.67E+7	-	2.60E+7	3.56E+6	5.30E+6	3.36E+7
Cs-137	8.72E+8	1.19E+9	-	4.05E+8	1.35E+8	2.31E+7	7.81E+8
Cs-138	-	-	-	-	-	-	-
Ba-139	-	-	-	-	-	-	-
Ba-140	2.88E+7	3.61E+4	-	1.23E+4	2.07E+4	5.92E+7	1.89E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	3.60E-2	1.81E-2	-	-	-	1.33E+3	4.79E-3
La-142	-	-	-	-	-	-	-
Ce-141	1.40E+4	9.48E+3	-	4.40E+3	-	3.62E+7	1.08E+3
Ce-143	2.09E-2	1.55E+1	-	6.80E-3	-	5.78E+2	1.71E-3
Ce-144	1.46E+6	6.09E+5	-	3.61E+5	-	4.93E+8	7.83E+4
Pr-143	2.13E+4	8.54E+3	-	4.93E+3	-	9.33E+7	1.06E+3
Pr-144	-	-	-	-	-	-	-
Nd-147	7.08E+3	8.18E+3	-	4.78E+3	-	3.93E+7	4.90E+2
W-187	2.16E-2	1.81E-2	-	-	-	5.92E+0	6.32E-3
Np-239	2.56E-1	2.51E-2	-	7.84E-2	-	5.15E+3	1.39E-2

Table 3-10

R₁₀, GRASS - COW - MEAT PATHWAY DOSE FACTORSTEENAGER (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mRem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	1.94E+2	1.94E+2	1.94E+2	1.94E+2	1.94E+2	1.94E+2
C-14	2.81E+5	5.62E+4	5.62E+4	5.62E+4	5.62E+4	5.62E+4	5.62E+4
Na-24	1.47E-3	1.47E-3	1.47E-3	1.47E-3	1.47E-3	1.47E-3	1.47E-3
P-32	3.93E+9	2.44E+8	-	-	-	3.30E+8	1.52E+8
Cr-51	-	-	3.14E+3	1.24E+3	8.07E+3	9.50E+5	5.65E+3
Mn-54	-	6.98E+6	-	2.08E+6	-	1.43E+7	1.38E+6
Mn-56	-	-	-	-	-	-	-
Fe-55	2.38E+8	1.69E+8	-	-	1.07E+8	7.30E+7	3.93E+7
Fe-59	2.13E+8	4.98E+8	-	-	1.57E+8	1.18E+9	1.92E+8
Co-57	-	4.53E+6	-	-	-	8.45E+7	7.59E+6
Co-58	-	1.41E+7	-	-	-	1.94E+8	3.25E+7
Co-60	-	5.83E+7	-	-	-	7.60E+8	1.31E+8
Ni-63	1.52E+10	1.07E+9	-	-	-	1.71E+8	5.15E+8
Ni-65	-	-	-	-	-	-	-
Cu-64	-	2.41E-7	-	6.10E-7	-	1.87E-5	1.13E-7
Zn-65	2.50E+8	8.69E+8	-	5.56E+8	-	3.68E+8	4.05E+8
Zn-69	-	-	-	-	-	-	-
Br-82	-	-	-	-	-	-	9.98E+2
Br-83	-	-	-	-	-	-	-
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	4.06E+8	-	-	-	6.01E+7	1.91E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	2.54E+8	-	-	-	-	3.03E+7	7.29E+6
Sr-90	8.05E+9	-	-	-	-	2.26E+8	1.99E+9
Sr-91	-	-	-	-	-	1.10E-9	-
Sr-92	-	-	-	-	-	-	-
Y-90	8.98E+1	-	-	-	-	7.40E+5	2.42E+0
Y-91m	-	-	-	-	-	-	-
Y-91	9.56E+5	-	-	-	-	3.92E+8	2.56E+4
Y-92	-	-	-	-	-	-	-
Y-93	-	-	-	-	-	1.69E-7	-
Zr-95	1.51E+6	4.76E+5	-	6.99E+5	-	1.10E+9	3.27E+5
Zr-97	1.53E-5	3.02E-6	-	4.58E-6	-	8.18E-1	1.39E-6
Nb-95	1.79E+6	9.94E+5	-	9.64E+5	-	4.25E+9	5.47E+5
Nb-97	-	-	-	-	-	-	-
Mo-99	-	8.98E+4	-	2.06E+5	-	1.61E+5	1.71E+4
Tc-99m	-	-	-	-	-	-	-
Tc-101	-	-	-	-	-	-	-

Table 3-10

R₁₀, GRASS - COW - MEAT PATHWAY DOSE FACTORSTEENAGER (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mRem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	8.60E+7	-	-	3.03E+8	-	7.18E+9	3.68E+7
Ru-105	-	-	-	-	-	-	-
Ru-106	2.36E+9	-	-	4.55E+9	-	1.13E+11	2.97E+8
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	5.06E+6	4.79E+6	-	9.14E+6	-	1.35E+9	2.91E+6
Sb-124	1.62E+7	2.98E+5	3.67E+4	-	1.41E+7	3.26E+8	6.31E+6
Sb-125	1.56E+7	1.71E+5	1.49E+4	-	1.37E+7	1.22E+8	3.66E+6
Te-125m	3.03E+8	1.09E+8	8.47E+7	-	-	8.94E+8	4.05E+7
Te-127m	9.41E+8	3.34E+8	2.24E+8	3.82E+9	-	2.35E+9	1.12E+8
Te-127	-	-	-	-	-	1.75E-8	-
Te-129m	9.58E+8	3.56E+8	3.09E+8	4.01E+9	-	3.60E+9	1.52E+8
Te-129	-	-	-	-	-	-	-
Te-131m	3.76E+2	1.80E+2	2.71E+2	1.88E+3	-	1.45E+4	1.50E+2
Te-131	-	-	-	-	-	-	-
Te-132	1.15E+6	7.26E+5	7.66E+5	6.97E+6	-	2.30E+7	6.84E+5
I-130	1.89E-6	5.48E-6	4.47E-4	8.44E-6	-	4.21E-6	2.19E-6
I-131	8.95E+6	1.25E+7	3.66E+9	2.16E+7	-	2.48E+6	6.73E+6
I-132	-	-	-	-	-	-	-
I-133	3.59E-1	6.10E-1	8.51E+1	1.07E+0	-	4.61E-1	1.86E-1
I-134	-	-	-	-	-	-	-
I-135	-	-	-	-	-	-	-
Cs-134	5.23E+8	1.23E+9	-	3.91E+8	1.49E+8	1.53E+7	5.71E+8
Cs-136	9.22E+6	3.63E+7	-	1.97E+7	3.11E+6	2.92E+6	2.44E+7
Cs-137	7.24E+8	9.63E+8	-	3.28E+8	1.27E+8	1.37E+7	3.36E+8
Cs-138	-	-	-	-	-	-	-
Ba-139	-	-	-	-	-	-	-
Ba-140	2.38E+7	2.91E+4	-	9.88E+3	1.96E+4	3.67E+7	1.53E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	2.96E-2	1.45E-2	-	-	-	8.35E+2	3.87E-3
La-142	-	-	-	-	-	-	-
Ce-141	1.18E+4	7.86E+3	-	3.70E+3	-	2.25E+7	9.03E+2
Ce-143	1.76E-2	1.28E+1	-	5.74E-3	-	3.85E+2	1.43E-3
Ce-144	1.23E+6	5.08E+5	-	3.04E+5	-	3.09E+8	6.60E+4
Pr-143	1.79E+4	7.15E+3	-	4.16E+3	-	5.90E+7	8.92E+2
Pr-144	-	-	-	-	-	-	-
Nd-147	6.24E+3	6.79E+3	-	3.98E+3	-	2.45E+7	4.06E+2
W-187	1.81E-2	1.48E-2	-	-	-	3.99E+0	5.17E-3
Np-239	2.23E-1	2.11E-2	-	6.61E-2	-	3.39E+3	1.17E-2

Table 3-10

R₁₀, GRASS - COW - MEAT PATHWAY DOSE FACTORSCHILD (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mRem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	2.34E+2	2.34E+2	2.34E+2	2.34E+2	2.34E+2	2.34E+2
C-14	5.29E+5	1.06E+5	1.06E+5	1.06E+5	1.06E+5	1.06E+5	1.06E+5
Na-24	2.34E-3	2.34E-3	2.34E-3	2.34E-3	2.34E-3	2.34E-3	2.34E-3
P-32	7.41E+9	3.47E+8	-	-	-	2.05E+8	2.86E+8
Cr-51	-	-	4.89E+3	1.34E+3	8.93E+3	4.67E+5	8.81E+3
Mn-54	-	7.99E+6	-	2.24E+6	-	6.70E+6	2.13E+6
Mn-56	-	-	-	-	-	-	-
Fe-55	4.57E+8	2.42E+8	-	-	1.37E+8	4.49E+7	7.51E+7
Fe-59	3.78E+8	6.12E+8	-	-	1.77E+8	6.37E+8	3.05E+8
Co-57	-	5.92E+6	-	-	-	4.85E+7	1.20E+7
Co-58	-	1.65E+7	-	-	-	9.60E+7	5.04E+7
Co-60	-	6.93E+7	-	-	-	3.84E+8	2.04E+8
Ni-63	2.91E+10	1.56E+9	-	-	-	1.05E+8	9.91E+8
Ni-65	-	-	-	-	-	-	-
Cu-64	-	3.24E-7	-	7.82E-7	-	1.52E-5	1.96E-7
Zn-65	3.75E+8	1.00E+9	-	6.30E+8	-	1.76E+8	6.22E+8
Zn-69	-	-	-	-	-	-	-
Br-82	-	-	-	-	-	-	1.56E+3
Br-83	-	-	-	-	-	-	-
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	5.76E+8	-	-	-	3.71E+7	3.54E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	4.82E+8	-	-	-	-	1.86E+7	1.38E+7
Sr-90	1.04E+10	-	-	-	-	1.40E+8	2.64E+9
Sr-91	-	-	-	-	-	1.01E-9	-
Sr-92	-	-	-	-	-	-	-
Y-90	1.70E+2	-	-	-	-	4.84E+5	4.55E+0
Y-91m	-	-	-	-	-	-	-
Y-91	1.81E+6	-	-	-	-	2.41E+8	4.83E+4
Y-92	-	-	-	-	-	-	-
Y-93	-	-	-	-	-	1.55E-7	-
Zr-95	2.68E+6	5.89E+5	-	8.43E+5	-	6.14E+8	5.24E+5
Zr-97	2.84E-5	4.10E-6	-	5.89E-6	-	6.21E-1	2.42E-6
Nb-95	3.09E+6	1.20E+6	-	1.13E+6	-	2.23E+9	8.61E+5
Nb-97	-	-	-	-	-	-	-
Mo-99	-	1.25E+5	-	2.67E+5	-	1.03E+5	3.09E+4
Tc-99m	-	-	-	-	-	-	-
Tc-101	-	-	-	-	-	-	-

Table 3-10

R₁₀, GRASS - COW - MEAT PATHWAY DOSE FACTORSCHILD (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mRem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	1.56E+8	-	-	3.92E+8	-	4.02E+9	5.98E+7
Ru-105	-	-	-	-	-	-	-
Ru-106	4.44E+9	-	-	5.99E+9	-	6.90E+10	5.54E+8
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	8.40E+6	5.67E+6	-	1.06E+7	-	6.75E+8	4.53E+6
Sb-124	2.93E+7	3.80E+5	6.46E+4	-	1.62E+7	1.83E+8	1.03E+7
Sb-125	2.85E+7	2.19E+5	2.64E+4	-	1.59E+7	6.80E+7	5.96E+6
Te-125m	5.69E+8	1.54E+8	1.60E+8	-	-	5.49E+8	7.59E+7
Te-127m	1.77E+9	4.78E+8	4.24E+8	5.06E+9	-	1.44E+9	2.11E+8
Te-127	-	-	-	1.21E-9	-	1.66E-8	-
Te-129m	1.81E+9	5.04E+8	5.82E+8	5.30E+9	-	2.20E+9	2.80E+8
Te-129	-	-	-	-	-	-	-
Te-131m	7.00E+2	2.42E+2	4.98E+2	2.34E+3	-	9.82E+3	2.58E+2
Te-131	-	-	-	-	-	-	-
Te-132	2.09E+6	9.27E+5	1.35E+6	8.60E+6	-	9.33E+6	1.12E+6
I-130	3.39E-6	6.85E-6	7.54E-4	1.02E-5	-	3.20E-6	3.53E-6
I-131	1.66E+7	1.67E+7	5.52E+9	2.74E+7	-	1.49E+6	9.49E+6
I-132	-	-	-	-	-	-	-
I-133	6.68E-1	8.26E-1	1.53E+2	1.38E+0	-	3.33E-1	3.12E-1
I-134	-	-	-	-	-	-	-
I-135	-	-	-	-	-	-	-
Cs-134	9.22E+8	1.51E+9	-	4.69E+8	1.68E+8	8.15E+6	3.19E+8
Cs-136	1.59E+7	4.37E+7	-	2.33E+7	3.47E+6	1.54E+6	2.83E+7
Cs-137	1.33E+9	1.28E+9	-	4.16E+8	1.50E+8	7.99E+6	1.88E+8
Cs-138	-	-	-	-	-	-	-
Ba-139	-	-	-	-	-	-	-
Ba-140	4.39E+7	3.85E+4	-	1.25E+4	2.29E+4	2.22E+7	2.56E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	5.41E-2	1.89E-2	-	-	-	5.27E+2	6.38E-3
La-142	-	-	-	-	-	-	-
Ce-141	2.22E+4	1.11E+4	-	4.84E+3	-	1.38E+7	1.64E+3
Ce-143	3.30E-2	1.79E+1	-	7.51E-3	-	2.62E+2	2.59E-3
Ce-144	2.32E+6	7.26E+5	-	4.02E+5	-	1.89E+8	1.24E+5
Pr-143	3.39E+4	1.02E+4	-	5.51E+3	-	3.66E+7	1.68E+3
Pr-144	-	-	-	-	-	-	-
Nd-147	1.17E+4	9.48E+3	-	5.20E+3	-	1.50E+7	7.34E+2
W-187	3.36E-2	1.99E-2	-	-	-	2.79E+0	8.92E-3
Np-239	4.20E-1	3.02E-2	-	8.73E-2	-	2.23E+3	2.12E-2

Table 3-11

R_{io}, VEGETATION PATHWAY DOSE FACTORS

ADULT (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 ($\text{m}^2 * \text{mRem/yr per } \mu\text{Ci/sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	2.26E+3	2.26E+3	2.26E+3	2.26E+3	2.26E+3	2.26E+3
C-14	8.97E+5	1.79E+5	1.79E+5	1.79E+5	1.79E+5	1.79E+5	1.79E+5
Na-24	2.76E+5	2.76E+5	2.76E+5	2.76E+5	2.76E+5	2.76E+5	2.76E+5
P-32	1.40E+9	8.73E+7	-	-	-	1.58E+8	5.42E+7
Cr-51	-	-	2.79E+4	1.03E+4	6.19E+4	1.17E+7	4.66E+4
Mn-54	-	3.11E+8	-	9.27E+7	-	9.54E+8	5.94E+7
Mn-56	-	1.61E+1	-	2.04E+1	-	5.13E+2	2.85E+0
Fe-55	2.09E+8	1.45E+8	-	-	8.06E+7	8.29E+7	3.37E+7
Fe-59	1.27E+8	2.99E+8	-	-	8.35E+7	9.96E+8	1.14E+8
Co-57	-	1.17E+7	-	-	-	2.97E+8	1.95E+7
Co-58	-	3.09E+7	-	-	-	6.26E+8	6.92E+7
Co-60	-	1.67E+8	-	-	-	3.14E+9	3.69E+8
Ni-63	1.04E+10	7.21E+8	-	-	-	1.50E+8	3.49E+8
Ni-65	6.15E+1	7.99E+0	-	-	-	2.03E+2	3.65E+0
Cu-64	-	9.27E+3	-	2.34E+4	-	7.90E+5	4.35E+3
Zn-65	3.17E+8	1.01E+9	-	6.75E+8	-	6.36E+8	4.56E+8
Zn-69	8.75E-6	1.67E-5	-	1.09E-5	-	2.51E-6	1.16E-6
Br-82	-	-	-	-	-	1.73E+6	1.51E+6
Br-83	-	-	-	-	-	4.63E+0	3.21E+0
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	2.19E+8	-	-	-	4.32E+7	1.02E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	9.96E+9	-	-	-	-	1.60E+9	2.86E+8
Sr-90	6.05E+11	-	-	-	-	1.75E+10	1.48E+11
Sr-91	3.20E+5	-	-	-	-	1.52E+6	1.29E+4
Sr-92	4.27E+2	-	-	-	-	8.46E+3	1.85E+1
Y-90	1.33E+4	-	-	-	-	1.41E+8	3.56E+2
Y-91m	5.83E-9	-	-	-	-	1.71E-8	-
Y-91	5.13E+6	-	-	-	-	2.82E+9	1.37E+5
Y-92	9.01E-1	-	-	-	-	1.58E+4	2.63E-2
Y-93	1.74E+2	-	-	-	-	5.52E+6	4.80E+0
Zr-95	1.19E+6	3.81E+5	-	5.97E+5	-	1.21E+9	2.58E+5
Zr-97	3.33E+2	6.73E+1	-	1.02E+2	-	2.08E+7	3.08E+1
Nb-95	1.42E+5	7.91E+4	-	7.81E+4	-	4.80E+8	4.25E+4
Nb-97	2.90E-6	7.34E-7	-	8.56E-7	-	2.71E-3	2.68E-7
Mo-99	-	6.25E+6	-	1.41E+7	-	1.45E+7	1.19E+6
Tc-99m	3.06E+0	8.66E+0	-	1.32E+2	4.24E+0	5.12E+3	1.10E+2
Tc-101	-	-	-	-	-	-	-

Table 3-11

R_{io}, VEGETATION PATHWAY DOSE FACTORS

ADULT (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 ($\text{m}^2 * \text{mRem/yr per } \mu\text{Ci/sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	4.80E+6	-	-	1.83E+7	-	5.61E+8	2.07E+6
Ru-105	5.39E+1	-	-	6.96E+2	-	3.30E+4	2.13E+1
Ru-106	1.93E+8	-	-	3.72E+8	-	1.25E+10	2.44E+7
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	1.06E+7	9.76E+6	-	1.92E+7	-	3.98E+9	5.80E+6
Sb-124	1.04E+8	1.96E+6	2.52E+5	-	8.08E+7	2.95E+9	4.11E+7
Sb-125	1.36E+8	1.52E+6	1.39E+5	-	1.05E+8	1.50E+9	3.25E+7
Te-125m	9.66E+7	3.50E+7	2.90E+7	3.93E+8	-	3.86E+8	1.29E+7
Te-127m	3.49E+8	1.25E+8	8.92E+7	1.42E+9	-	1.17E+9	4.26E+7
Te-127	5.76E+3	2.07E+3	4.27E+3	2.35E+4	-	4.54E+5	1.25E+3
Te-129m	2.55E+8	9.50E+7	8.75E+7	1.06E+9	-	1.28E+9	4.03E+7
Te-129	6.65E-4	2.50E-4	5.10E-4	2.79E-3	-	5.02E-4	1.62E-4
Te-131m	9.12E+5	4.46E+5	7.06E+5	4.52E+6	-	4.43E+7	3.72E+5
Te-131	-	-	-	-	-	-	-
Te-132	4.29E+6	2.77E+6	3.06E+6	2.67E+7	-	1.31E+8	2.60E+6
I-130	3.96E+5	1.17E+6	9.90E+7	1.82E+6	-	1.01E+6	4.61E+5
I-131	8.09E+7	1.16E+8	3.79E+10	1.98E+8	-	3.05E+7	6.63E+7
I-132	5.74E+1	1.54E+2	5.38E+3	2.45E+2	-	2.89E+1	5.38E+1
I-133	2.12E+6	3.69E+6	5.42E+8	6.44E+6	-	3.31E+6	1.12E+6
I-134	1.06E-4	2.88E-4	5.00E-3	4.59E-4	-	2.51E-7	1.03E-4
I-135	4.08E+4	1.07E+5	7.04E+6	1.71E+5	-	1.21E+5	3.94E+4
Cs-134	4.66E+9	1.11E+10	-	3.59E+9	1.19E+9	1.94E+8	9.07E+9
Cs-136	4.20E+7	1.66E+8	-	9.24E+7	1.27E+7	1.89E+7	1.19E+8
Cs-137	6.36E+9	8.70E+9	-	2.95E+9	9.81E+8	1.68E+8	5.70E+9
Cs-138	-	-	-	-	-	-	-
Ba-139	2.95E-2	2.10E-5	-	1.96E-5	1.19E-5	5.23E-2	8.64E-4
Ba-140	1.29E+8	1.62E+5	-	5.49E+4	9.25E+4	2.65E+8	8.43E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	1.97E+3	9.92E+2	-	-	-	7.28E+7	2.62E+2
La-142	1.40E-4	6.35E-5	-	-	-	4.64E-1	1.58E-5
Ce-141	1.96E+5	1.33E+5	-	6.17E+4	-	5.08E+8	1.51E+4
Ce-143	1.00E+3	7.42E+5	-	3.26E+2	-	2.77E+7	8.21E+1
Ce-144	3.29E+7	1.38E+7	-	8.16E+6	-	1.11E+10	1.77E+6
Pr-143	6.34E+4	2.54E+4	-	1.47E+4	-	2.78E+8	3.14E+3
Pr-144	-	-	-	-	-	-	-
Nd-147	3.34E+4	3.86E+4	-	2.25E+4	-	1.85E+8	2.31E+3
W-187	3.82E+4	3.19E+4	-	-	-	1.05E+7	1.12E+4
Np-239	1.42E+3	1.40E+2	-	4.37E+2	-	2.87E+7	7.72E+1

Table 3-11

R_{io}, VEGETATION PATHWAY DOSE FACTORS
 TEENAGER (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 ($\text{m}^2 * \text{mRem}/\text{yr}$ per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	2.59E+3	2.59E+3	2.59E+3	2.59E+3	2.59E+3	2.59E+3
C-14	1.45E+6	2.91E+5	2.91E+5	2.91E+5	2.91E+5	2.91E+5	2.91E+5
Na-24	2.45E+5	2.45E+5	2.45E+5	2.45E+5	2.45E+5	2.45E+5	2.45E+5
P-32	1.61E+9	9.96E+7	-	-	-	1.35E+8	6.23E+7
Cr-51	-	-	3.44E+4	1.36E+4	8.85E+4	1.04E+7	6.20E+4
Mn-54	-	4.52E+8	-	1.35E+8	-	9.27E+8	8.97E+7
Mn-56	-	1.45E+1	-	1.83E+1	-	9.54E+2	2.58E+0
Fe-55	3.25E+8	2.31E+8	-	-	1.46E+8	9.98E+7	5.38E+7
Fe-59	1.81E+8	4.22E+8	-	-	1.33E+8	9.98E+8	1.63E+8
Co-57	-	1.79E+7	-	-	-	3.34E+8	3.00E+7
Co-58	-	4.38E+7	-	-	-	6.04E+8	1.01E+8
Co-60	-	2.49E+8	-	-	-	3.24E+9	5.60E+8
Ni-63	1.61E+10	1.13E+9	-	-	-	1.81E+8	5.45E+8
Ni-65	5.73E+1	7.32E+0	-	-	-	3.97E+2	3.33E+0
Cu-64	-	8.40E+3	-	2.12E+4	-	6.51E+5	3.95E+3
Zn-65	4.24E+8	1.47E+9	-	9.41E+8	-	6.23E+8	6.86E+8
Zn-69	8.19E-6	1.56E-5	-	1.02E-5	-	2.88E-5	1.09E-6
Br-82	-	-	-	-	-	-	1.33E+6
Br-83	-	-	-	-	-	-	3.01E+0
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	2.73E+8	-	-	-	4.05E+7	1.28E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	1.51E+10	-	-	-	-	1.80E+9	4.33E+8
Sr-90	7.51E+11	-	-	-	-	2.11E+10	1.85E+11
Sr-91	2.99E+5	-	-	-	-	1.36E+6	1.19E+4
Sr-92	3.97E+2	-	-	-	-	1.01E+4	1.69E+1
Y-90	1.24E+4	-	-	-	-	1.02E+8	3.34E+2
Y-91m	5.43E-9	-	-	-	-	2.56E-7	-
Y-91	7.87E+6	-	-	-	-	3.23E+9	2.11E+5
Y-92	8.47E-1	-	-	-	-	2.32E+4	2.45E-2
Y-93	1.63E+2	-	-	-	-	4.98E+6	4.47E+0
Zr-95	1.74E+6	5.49E+5	-	8.07E+5	-	1.27E+9	3.78E+5
Zr-97	3.09E+2	6.11E+1	-	9.26E+1	-	1.65E+7	2.81E+1
Nb-95	1.92E+5	1.06E+5	-	1.03E+5	-	4.55E+8	5.86E+4
Nb-97	2.69E-6	6.67E-7	-	7.80E-7	-	1.59E-2	2.44E-7
Mo-99	-	5.74E+6	-	1.31E+7	-	1.03E+7	1.09E+6
Tc-99m	2.70E+0	7.54E+0	-	1.12E+2	4.19E+0	4.95E+3	9.77E+1
Tc-101	-	-	-	-	-	-	-

Table 3-11

R_{io}, VEGETATION PATHWAY DOSE FACTORS
 TEENAGER (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14
 ($\text{m}^2 * \text{mRem}/\text{yr}$ per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	6.87E+6	-	-	2.42E+7	-	5.74E+8	2.94E+6
Ru-105	5.00E+1	-	-	6.31E+2	-	4.04E+4	1.94E+1
Ru-106	3.09E+8	-	-	5.97E+8	-	1.48E+10	3.90E+7
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	1.52E+7	1.44E+7	-	2.74E+7	-	4.04E+9	8.74E+6
Sb-124	1.55E+8	2.85E+6	3.51E+5	-	1.35E+8	3.11E+9	6.03E+7
Sb-125	2.14E+8	2.34E+6	2.04E+5	-	1.88E+8	1.66E+9	5.00E+7
Te-125m	1.48E+8	5.34E+7	4.14E+7	-	-	4.37E+8	1.98E+7
Te-127m	5.51E+8	1.96E+8	1.31E+8	2.24E+9	-	1.37E+9	6.56E+7
Te-127	5.43E+3	1.92E+3	3.74E+3	2.20E+4	-	4.19E+5	1.17E+3
Te-129m	3.67E+8	1.36E+8	1.18E+8	1.54E+9	-	1.38E+9	5.81E+7
Te-129	6.22E-4	2.32E-4	4.45E-4	2.61E-3	-	3.40E-3	1.51E-4
Te-131m	8.44E+5	4.05E+5	6.09E+5	4.22E+6	-	3.25E+7	3.38E+5
Te-131	-	-	-	-	-	-	-
Te-132	3.90E+6	2.47E+6	2.60E+6	2.37E+7	-	7.82E+7	2.32E+6
I-130	3.54E+5	1.02E+6	8.35E+7	1.58E+6	-	7.87E+5	4.09E+5
I-131	7.70E+7	1.08E+8	3.14E+10	1.85E+8	-	2.13E+7	5.79E+7
I-132	5.18E+1	1.36E+2	4.57E+3	2.14E+2	-	5.91E+1	4.87E+1
I-133	1.97E+6	3.34E+6	4.66E+8	5.86E+6	-	2.53E+6	1.02E+6
I-134	9.59E-5	2.54E-4	4.24E-3	4.01E-4	-	3.35E-6	9.13E-5
I-135	3.68E+4	9.48E+4	6.10E+6	1.50E+5	-	1.05E+5	3.52E+4
Cs-134	7.09E+9	1.67E+10	-	5.30E+9	2.02E+9	2.08E+8	7.74E+9
Cs-136	4.29E+7	1.69E+8	-	9.19E+7	1.45E+7	1.36E+7	1.13E+8
Cs-137	1.01E+10	1.35E+10	-	4.59E+9	1.78E+9	1.92E+8	4.69E+9
Cs-138	-	-	-	-	-	-	-
Ba-139	2.77E-2	1.95E-5	-	1.84E-5	1.34E-5	2.47E-1	8.08E-4
Ba-140	1.38E+8	1.69E+5	-	5.75E+4	1.14E+5	2.13E+8	8.91E+6
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	1.80E+3	8.84E+2	-	-	-	5.08E+7	2.35E+2
La-142	1.28E-4	5.69E-5	-	-	-	1.73E+0	1.42E-5
Ce-141	2.82E+5	1.88E+5	-	8.86E+4	-	5.38E+8	2.16E+4
Ce-143	9.37E+2	6.82E+5	-	3.06E+2	-	2.05E+7	7.62E+1
Ce-144	5.27E+7	2.18E+7	-	1.30E+7	-	1.33E+10	2.83E+6
Pr-143	7.12E+4	2.84E+4	-	1.65E+4	-	2.34E+8	3.55E+3
Pr-144	-	-	-	-	-	-	-
Nd-147	3.63E+4	3.94E+4	-	2.32E+4	-	1.42E+8	2.36E+3
W-187	3.55E+4	2.90E+4	-	-	-	7.84E+6	1.02E+4
Np-239	1.38E+3	1.30E+2	-	4.09E+2	-	2.10E+7	7.24E+1

Table 3-11

R_{io}, VEGETATION PATHWAY DOSE FACTORSCHILD (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mRem/yr per $\mu\text{Ci}/\text{sec}$) for others

<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
H-3	-	4.01E+3	4.01E+3	4.01E+3	4.01E+3	4.01E+3	4.01E+3
C-14	3.50E+6	7.01E+5	7.01E+5	7.01E+5	7.01E+5	7.01E+5	7.01E+5
Na-24	3.83E+5	3.83E+5	3.83E+5	3.83E+5	3.83E+5	3.83E+5	3.83E+5
P-32	3.37E+9	1.58E+8	-	-	-	9.30E+7	1.30E+8
Cr-51	-	-	6.54E+4	1.79E+4	1.19E+5	6.25E+6	1.18E+5
Mn-54	-	6.61E+8	-	1.85E+8	-	5.55E+8	1.76E+8
Mn-56	-	1.90E+1	-	2.29E+1	-	2.75E+3	4.28E+0
Fe-55	8.00E+8	4.24E+8	-	-	2.40E+8	7.86E+7	1.31E+8
Fe-59	4.01E+8	6.49E+8	-	-	1.88E+8	6.76E+8	3.23E+8
Co-57	-	2.99E+7	-	-	-	2.45E+8	6.04E+7
Co-58	-	6.47E+7	-	-	-	3.77E+8	1.98E+8
Co-60	-	3.78E+8	-	-	-	2.10E+9	1.12E+9
Ni-63	3.95E+10	2.11E+9	-	-	-	1.42E+8	1.34E+9
Ni-65	1.05E+2	9.89E+0	-	-	-	1.21E+3	5.77E+0
Cu-64	-	1.11E+4	-	2.68E+4	-	5.20E+5	6.69E+3
Zn-65	8.12E+8	2.16E+9	-	1.36E+9	-	3.80E+8	1.35E+9
Zn-69	1.51E-5	2.18E-5	-	1.32E-5	-	1.38E-3	2.02E-6
Br-82	-	-	-	-	-	-	2.04E+6
Br-83	-	-	-	-	-	-	5.55E+0
Br-84	-	-	-	-	-	-	-
Br-85	-	-	-	-	-	-	-
Rb-86	-	4.52E+8	-	-	-	2.91E+7	2.78E+8
Rb-88	-	-	-	-	-	-	-
Rb-89	-	-	-	-	-	-	-
Sr-89	3.59E+10	-	-	-	-	1.39E+9	1.03E+9
Sr-90	1.24E+12	-	-	-	-	1.67E+10	3.15E+11
Sr-91	5.50E+5	-	-	-	-	1.21E+6	2.08E+4
Sr-92	7.28E+2	-	-	-	-	1.38E+4	2.92E+1
Y-90	2.30E+4	-	-	-	-	6.56E+7	6.17E+2
Y-91m	9.94E-9	-	-	-	-	1.95E-5	-
Y-91	1.87E+7	-	-	-	-	2.49E+9	5.01E+5
Y-92	1.56E+0	-	-	-	-	4.51E+4	4.46E-2
Y-93	3.01E+2	-	-	-	-	4.48E+6	8.25E+0
Zr-95	3.90E+6	8.58E+5	-	1.23E+6	-	8.95E+8	7.64E+5
Zr-97	5.64E+2	8.15E+1	-	1.17E+2	-	1.23E+7	4.81E+1
Nb-95	4.10E+5	1.59E+5	-	1.50E+5	-	2.95E+8	1.14E+5
Nb-97	4.90E-6	8.85E-7	-	9.82E-7	-	2.73E-1	4.13E-7
Mo-99	-	7.83E+6	-	1.67E+7	-	6.48E+6	1.94E+6
Tc-99m	4.65E+0	9.12E+0	-	1.33E+2	4.63E+0	5.19E+3	1.51E+2
Tc-101	-	-	-	-	-	-	-

Table 3-11

R_{io}, VEGETATION PATHWAY DOSE FACTORSCHILD (mRem/yr per $\mu\text{Ci}/\text{m}^3$) for H-3 and C-14(m² * mRem/yr per $\mu\text{Ci}/\text{sec}$) for others

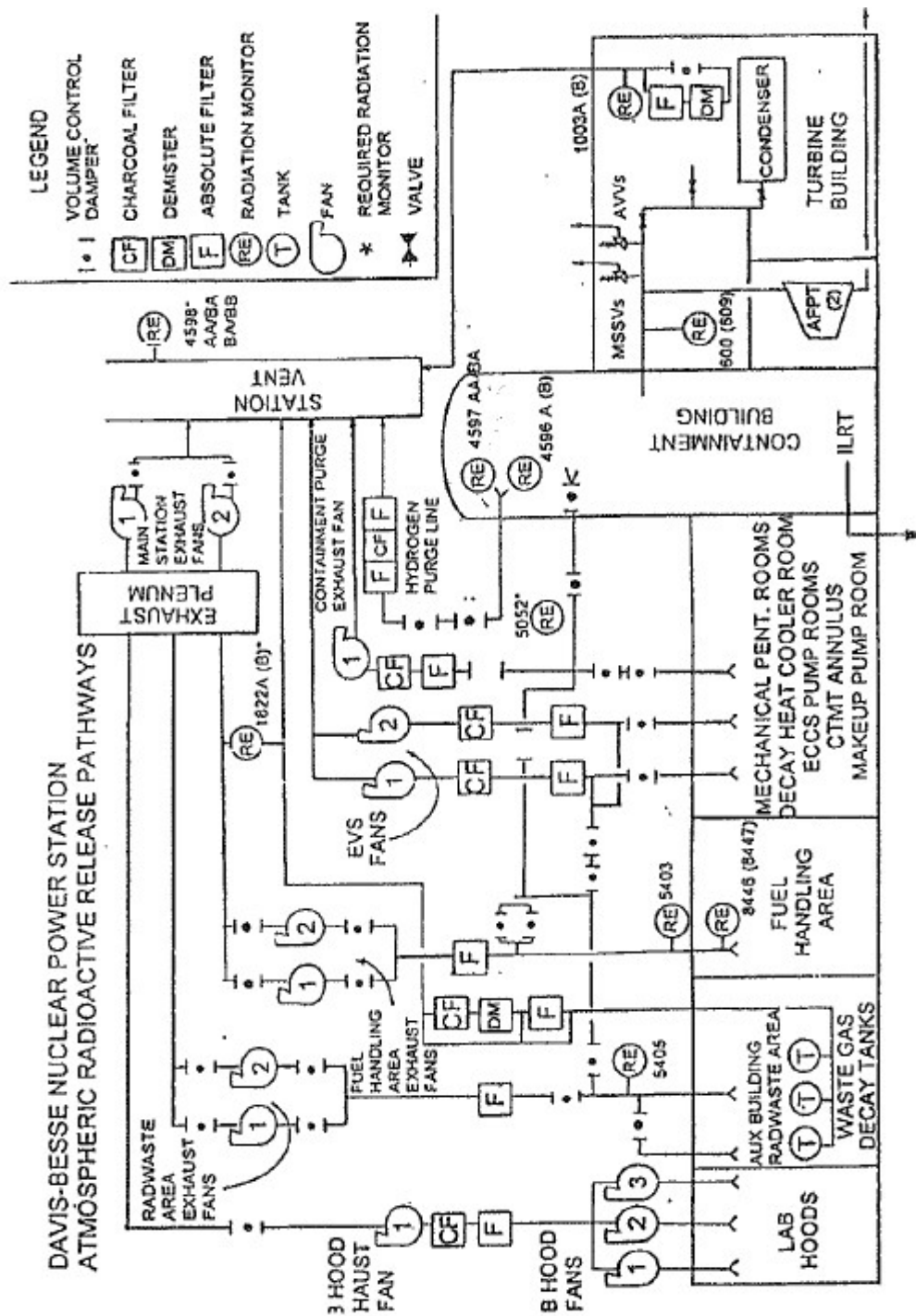
<u>Nuclide</u>	<u>Bone</u>	<u>Liver</u>	<u>Thyroid</u>	<u>Kidney</u>	<u>Lung</u>	<u>GI-LLI</u>	<u>T.Body</u>
Ru-103	1.55E+7	-	-	3.89E+7	-	3.99E+8	5.94E+6
Ru-105	9.17E+1	-	-	8.06E+2	-	5.98E+4	3.33E+1
Ru-106	7.45E+8	-	-	1.01E+9	-	1.16E+10	9.30E+7
Rh-103m	-	-	-	-	-	-	-
Rh-106	-	-	-	-	-	-	-
Ag-110m	3.22E+7	2.17E+7	-	4.05E+7	-	2.58E+9	1.74E+7
Sb-124	3.52E+8	4.57E+6	7.78E+5	-	1.96E+8	2.20E+9	1.23E+8
Sb-125	4.99E+8	3.85E+6	4.62E+5	-	2.78E+8	1.19E+9	1.05E+8
Te-125m	3.51E+8	9.50E+7	9.84E+7	-	-	3.38E+8	4.67E+7
Te-127m	1.32E+9	3.56E+8	3.16E+8	3.77E+9	-	1.07E+9	1.57E+8
Te-127	1.00E+4	2.70E+3	6.93E+3	2.85E+4	-	3.91E+5	2.15E+3
Te-129m	8.54E+8	2.39E+8	2.75E+8	2.51E+9	-	1.04E+9	1.33E+8
Te-129	1.15E-3	3.22E-4	8.22E-4	3.37E-3	-	7.17E-2	2.74E-4
Te-131m	1.54E+6	5.33E+5	1.10E+6	5.16E+6	-	2.16E+7	5.68E+5
Te-131	-	-	-	-	-	-	-
Te-132	6.98E+6	3.09E+6	4.50E+6	2.87E+7	-	3.11E+7	3.73E+6
I-130	6.21E+5	1.26E+6	1.38E+8	1.88E+6	-	5.87E+5	6.47E+5
I-131	1.43E+8	1.44E+8	4.76E+10	2.36E+8	-	1.28E+7	8.18E+7
I-132	9.20E+1	1.69E+2	7.84E+3	2.59E+2	-	1.99E+2	7.77E+1
I-133	3.59E+6	4.44E+6	8.25E+8	7.40E+6	-	1.79E+6	1.68E+6
I-134	1.70E-4	3.16E-4	7.28E-3	4.84E-4	-	2.10E-4	1.46E-4
I-135	6.54E+4	1.18E+5	1.04E+7	1.81E+5	-	8.98E+4	5.57E+4
Cs-134	1.60E+10	2.63E+10	-	8.14E+9	2.92E+9	1.42E+8	5.54E+9
Cs-136	8.06E+7	2.22E+8	-	1.18E+8	1.76E+7	7.79E+6	1.43E+8
Cs-137	2.39E+10	2.29E+10	-	7.46E+9	2.68E+9	1.43E+8	3.38E+9
Cs-138	-	-	-	-	-	-	-
Ba-139	5.11E-2	2.73E-5	-	2.38E-5	1.61E-5	2.95E+0	1.48E-3
Ba-140	2.77E+8	2.43E+5	-	7.90E+4	1.45E+5	1.40E+8	1.62E+7
Ba-141	-	-	-	-	-	-	-
Ba-142	-	-	-	-	-	-	-
La-140	3.23E+3	1.13E+3	-	-	-	3.15E+7	3.81E+2
La-142	2.32E-4	7.40E-5	-	-	-	1.47E+1	2.32E-5
Ce-141	1.23E+5	6.14E+4	-	2.69E+4	-	7.66E+7	9.12E+3
Ce-143	1.73E+3	9.36E+5	-	3.93E+2	-	1.37E+7	1.36E+2
Ce-144	1.27E+8	3.98E+7	-	2.21E+7	-	1.04E+10	6.78E+6
Pr-143	1.48E+5	4.46E+4	-	2.41E+4	-	1.60E+8	7.37E+3
Pr-144	-	-	-	-	-	-	-
Nd-147	7.16E+4	5.80E+4	-	3.18E+4	-	9.18E+7	4.49E+3
W-187	6.47E+4	3.83E+4	-	-	-	5.38E+6	1.72E+4
Np-239	2.55E+3	1.83E+2	-	5.30E+2	-	1.36E+7	1.29E+2

Table 3-12

R_{io} GROUND PLANE PATHWAY DOSE FACTORS
(m² * mRem/yr per μCi/sec)

<u>Nuclide</u>	<u>Any Organ</u>	<u>Nuclide</u>	<u>Any Organ</u>
-		Rh-103m	-
C-14	-	Rh-106	-
Na-24	1.21E+7	Ag-110m	3.47E+9
P-32	-	Te-125m	1.55E+6
Cr-51	4.68E+6	Te-127m	9.17E+4
Mn-54	1.34E+9	Te-127	3.00E+3
Mn-56	9.05E+5	Te-129m	2.00E+7
Fe-55	-	Te-129	2.60E+4
Fe-59	2.75E+8	Te-131m	8.03E+6
Co-58	3.82E+8	Te-131	2.93E+4
Co-60	2.16E+10	Te-132	4.22E+6
Ni-63	-	I-130	5.53E+6
Ni-65	2.97E+5	I-131	1.72E+7
Cu-64	6.09E+5	I-132	1.24E+6
Zn-65	7.45E+8	I-133	2.47E+6
		I-134	4.49E+5
Zn-69	-	I-135	2.56E+6
Br-83	4.89E+3	Cs-134	6.75E+9
Br-84	2.03E+5	Cs-136	1.49E+8
Br-85	-	Cs-137	1.04E+10
Rb-86	8.98E+6		
		Cs-138	3.59E+5
Rb-88	3.29E+4	Ba-139	1.06E+5
Rb-89	1.21E+5	Ba-140	2.05E+7
Sr-89	2.16E+4	Ba-141	4.18E+4
Sr-90	-	Ba-142	4.49E+4
Sr-91	2.19E+6		
		La-140	1.91E+7
Sr-92	7.77E+5	La-142	7.36E+5
Y-90	4.48E+3	Ce-141	1.36E+7
Y-91m	1.01E+5	Ce-143	2.32E+6
Y-91	1.08E+6	Ce-144	6.95E+7
Y-92	1.80E+5		
		Pr-143	-
Y-93	1.85E+5	Pr-144	1.83E+3
Zr-95	2.48E+8	Nd-147	8.40E+6
Zr-97	2.94E+6	W-187	2.36E+6
Nb-95	1.36E+8	Np-239	1.71E+6
Mo-99	4.05E+6		
Tc-99m	1.83E+5		
Tc-101	2.04E+4		
Ru-103	1.09E+8		
Ru-105	6.36E+5		
Ru-106	4.21E+8		

Figure 3-1
Gaseous Radioactive Effluent Monitoring and Ventilation Systems Diagram



4.0 SPECIAL DOSE ANALYSES

4.1 DOSES TO THE PUBLIC DUE TO ACTIVITIES INSIDE THE UNRESTRICTED AREA BOUNDARY

In accordance with Section 7.2, the Radioactive Effluent Release Report shall include an assessment of radiation doses from radioactive liquid and gaseous effluents to MEMBERS OF THE PUBLIC due to their activities inside the UNRESTRICTED AREA BOUNDARY.

In special instances MEMBERS OF THE PUBLIC are permitted access to the radiologically restricted area within the Davis-Besse station. Tours for the public are conducted with the assurance that no individual will receive an appreciable dose (i.e., small fraction of the 40 CFR 190 dose standards).

The Wellness Center, located inside the DBNPS Controlled Area and therefore within the UNRESTRICTED AREA BOUNDARY, is also accessible to MEMBERS OF THE PUBLIC. Considering the frequency and duration of visits, the resultant dose would be a fraction of the calculated maximum UNRESTRICTED AREA BOUNDARY unrestricted area dose. The dose from airborne effluents and the direct "shine" from the Independent Spent Fuel Storage Installation (ISFSI) and the Old Steam Generator Storage Facility (OSGSF) are considered. The direct "shine" from normal Plant operation and the OSGSF is negligible. This combination is considered the controlling factor when evaluating doses to MEMBERS OF THE PUBLIC from activities inside the UNRESTRICTED AREA BOUNDARY.

For purposes of assessing the dose to MEMBERS OF THE PUBLIC in accordance with Technical Specification 5.6.2 and ODCM Section 7.2, the following exposure assumptions may be used:

- Exposure time for maximum exposed visitor user of the Wellness Center of 250 hours (1 h/day, 5 day/wk, 50 wk/yr).*
- For noble gas direct exposure, default use of the maximum UNRESTRICTED AREA BOUNDARY dispersion from table 3-6.
- For Inhalation Pathway, default use of the maximum UNRESTRICTED AREA BOUNDARY dispersion from Table 3-6.
- For Direct "Shine" from the ISFSI, default use of the maximum dose rate for a completed (full) ISFSI, and a distance of 950 feet.

Additional locations within the Unrestricted Area boundary with periodic public access include the pavilion and associated pond area and the Training Center pond. Considering the assumptions above for the Wellness Center, any potential doses to Members of the public from activities at the pavilion and associated pond will be less than those assessed for the Wellness Center. The assumed exposure time of 67 h/y for activities at the pavilion and on-site fishing is a fraction of the 250 h/y assumed for the Wellness Center. The pavilion and associated pond area are located in the southwest sector relative to the reactor, and this is not a prevailing wind direction. Therefore, the dispersion factor will be lower for the pavilion area than for the Wellness Center.

* Based on a maximum conservative estimate.

Extrapolating from historical meteorological data^{*}, the annual average dispersion (considered ground level) for the Wellness Center, is approximately $2\text{E-}05 \text{ sec/m}^3$. The Wellness Center is controlling and poses the highest potential dose to Members of the Public from activities inside the Unrestricted Area boundary from a dose modeling standpoint.

For purposes of evaluating any direct exposure component, the Wellness Center is closer to the Borated Water Storage Tank and the ISFSI than are the pavilion and associated pond area or the Training Center pond. The evaluation of the direct exposure component at the Wellness Center remains conservative. The Pavilion and associated pond area and the Training Center Pond are located closer to the OSGSF than is the Wellness Center, however, direct exposure at these locations is still considered negligible.

The equations in Section 4.2 may be used for calculating the potential dose to a MEMBER OF THE PUBLIC for activities inside the UNRESTRICTED AREA BOUNDARY. Based on these assumptions, this dose would be at least a factor of 35 less than the maximum UNRESTRICTED AREA BOUNDARY air dose as calculated in Section 3.7.

Public access is periodically allowed to areas on-site for the purposes of recreational activities. During company sponsored events, Members of the Public may be allowed to fish at the Training Center pond. However, since the pond communicates with a release path of potential liquid effluents from the plant, the potential dose to individuals during these activities has been evaluated. Fishing is only allowed under a “catch-and-release” program; therefore, the fish pathway is not considered applicable. For the Training Center pond, releases via the Storm Sewer Drains could pose an exposure pathway from shoreline deposition. In the past, releases to the pond have been negligible, with radioactivity levels ranging from non-detectable to very low levels of tritium and cesium. Therefore, based on historical effluents, a significant exposure pathway does not exist. If releases were to occur, this pathway would be evaluated.

^{*} Chesapeake Nuclear Services report, Davis-Besse Nuclear Power Station Meteorological and Atmospheric Dispersion Report, November 2017.

The following equation, adapted from Regulatory Guide 1.109, provides a conservative estimate for this calculation:

$$D_{shore,o} = \frac{1.67E-02 * VOL}{DF} * \sum C_i * A_{shore,i}$$

where:

$D_{shore,o}$ = dose to total body or any organ from shoreline exposure (mRem)

VOL = volume of undiluted liquid effluent to the pond (gal)

DF = dilution flow, average flow from the SSD to the pond during the time period of measurable levels being released to the pond (gal/min)

C_i = concentration of radionuclide i in SSD to the pond

$A_{shore,i}$ = site-specific shoreline dose conversion factor for the total body and any organ (mRem/h per μ Ci/ml, from Table 2-8)

1.67E-02 = conversion factor (hour per minute)

Table 28 provides the $A_{shore,i}$ values that were calculated using Regulatory Guide 1.109 modeling.

4.2 DOSES TO MEMBERS OF THE PUBLIC - 40 CFR 190

As required by and ODCM Section 7.2, the Radioactive Effluent Release Report shall also include an assessment of the radiation dose to the likely most exposed MEMBER OF THE PUBLIC for reactor releases and other nearby uranium fuel cycle sources (including dose contributions from effluents and direct radiation from onsite sources). For the likely most exposed MEMBER OF THE PUBLIC in the vicinity of the Davis-Besse site, the sources of exposure need consider only the radioactive effluents and direct exposure contribution from Davis-Besse. No other fuel cycle facilities contribute significantly to the cumulative dose to a MEMBER OF THE PUBLIC in the immediate vicinity of the site. Fermi-2 is the closest fuel cycle facility located about 20 miles to the NNW. Due to environmental dispersion, any routine releases from Fermi-2 would contribute insignificantly to the potential doses in the vicinity of Davis-Besse.

The correlation of measured plant effluents with pathway modeling of this ODCM provide the primary method for demonstrating/evaluating compliance with the limits specified below (40 CFR 190). However, as appropriate, the results of the environmental monitoring program may be used to provide additional data on actual measured levels of radioactive material in the actual pathways of exposure. ODCM Section 4.2.3 discusses the methodology for correlating measured levels of radioactive material in environmental pathway samples with potential doses. Also, results of the Land Use Census may be used to determine actual exposure pathways and locations.

The annual (calendar year) dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from uranium fuel cycle sources shall be limited to less than or equal to 25 mRem to the total body or any organ, except the thyroid, which shall be limited to less than or equal to 75 mRem.

With the calculated doses from the releases of radioactive materials in liquid or gaseous effluents exceeding twice the limits of Sections 2.4.1, 3.7.1, and 3.8.1, evaluations should be made including direct radiation contributions from the reactor unit, from the Old Steam Generator Storage Facility (OSGSF) and from outside storage tanks to determine whether the above limits of this Section have been exceeded. If such is the case, prepare and submit to the Commission within 60 days, pursuant to Section 7.3, a Licensee Event Report that defines the corrective action to be taken to reduce subsequent releases to prevent recurrence of exceeding the above limits and includes the schedule for achieving conformance with the above limits. This report, as defined in 10 CFR Part 20.2203, shall include an analysis that estimates the radiation exposure (dose) to a MEMBER OF THE PUBLIC from uranium fuel cycle sources, including all effluent pathways and direct radiation, for the calendar year that includes the release(s) covered by this report. It shall also describe levels of radiation and concentrations of radioactive material involved, and the cause of the exposure levels or concentrations. If the estimated dose(s) exceeds the above limits, and if the release condition resulting in violation of 40 CFR Part 190 has not already been corrected, the report shall include a request for a variance in accordance with the provisions of 40 CFR Part 190. Submittal of the report is considered a timely request, and a variance is granted until staff action on the request is complete.

This requirement is provided to meet the dose limitations of 40 CFR Part 190 that have been incorporated into 10 CFR Part 20 by 46 FR 18525. The requirement requires the preparation and submittal of a report whenever the calculated doses from plant generated radioactive effluents and direct radiation exceed 25 mRem to the total body or any organ, except the thyroid, which shall be limited to less than or equal to 75 mRem.

It is highly unlikely that the resultant dose to a MEMBER OF THE PUBLIC will exceed the dose limits of 40 CFR Part 190 if the reactor remains within twice the dose design objectives of Appendix I, and if direct radiation doses from the reactor and outside storage tanks are kept small. The report will describe a course of action that should result in the limitation of the annual dose to a MEMBER OF THE PUBLIC to within the 40 CFR Part 190 limits. For the purposes of the report, it may be assumed that the dose commitment to the MEMBER OF THE PUBLIC from other uranium fuel cycle sources is negligible, with the exception that the dose contributions from other nuclear fuel cycle facilities at the same site or within a radius of 8 km must be considered. If a dose to any MEMBER OF THE PUBLIC is estimated to exceed the requirements of 40 CFR 190, the report with a request for variance (provided the release conditions resulting in violation of 40 CFR Part 190 have not already been corrected), in accordance with the provisions of 40 CFR Part 190.11 and 10 CFR Part 20.405c, is considered to be a timely request and fulfills the requirements of 40 CFR Part 190 until NRC staff action is completed. The variance only relates to the limits of 40 CFR Part 190, and does not apply in any way to the other dose requirements for dose limitation of 10 CFR Part 20, as addressed in Sections 2.2 and 3.3.1. An individual is not considered a MEMBER OF THE PUBLIC during any period in which he/she is engaged in carrying out any operation that is a part of the nuclear fuel cycle.

4.2.1 Effluent Dose Calculations

For purposes of implementing the above requirements of determining the cumulative dose contribution from liquid and gaseous effluents in accordance with Sections 2 and 3 and the reporting requirements of Section 7, dose calculations for Davis-Besse may be performed using the calculational methods contained within this ODCM; the conservative controlling pathways and locations of Table 3-6 or the actual pathways and locations as identified by the Land Use Census may be used. Liquid pathway doses may be calculated using equations in ODCM Section 2.4. Doses due to releases of radioiodines, tritium and particulates are calculated based on equations in Section 3.8.

The following equations may be used for calculating the dose to MEMBERS OF THE PUBLIC from releases of noble gases:

$$D_{tb} = 3.17E - 08 * \frac{U}{8760} * \chi / Q * \Sigma (K_i * Q_i) \quad (4-1)$$

and

$$D_s = 3.17E - 08 * U * \chi / Q * \Sigma ((L_i + 1.1 M_i) * Q_i) \quad (4-2)$$

where:

D_{tb}	=	total body dose due to gamma emissions for noble gas radionuclides (mRem)
D_s	=	skin dose due to gamma and beta emissions for noble gas radionuclides (mRem)
U	=	duration of exposure (hr/yr, default values in Table 4-1)
χ/Q	=	atmospheric dispersion to the offsite location (sec/m ³)
Q_i	=	cumulative release of noble gas radionuclide i over the period of interest (μCi)
K_i	=	total body dose factor due to gamma emissions from noble gas radionuclide i from Table 3-5 (mRem/yr per μCi/m ³)
L_i	=	skin dose factor due to beta emissions from noble gas radionuclide i from Table 3-5 (mRem/yr per μCi/m ³)
M_i	=	gamma air dose factor for noble gas radionuclide i from Table 3-5 (mrad/yr per μCi/m ³)
8760	=	hours per year
1.1	=	mRem skin dose per mrad gamma air dose (mRem/mrad)
3.17E-08	=	1/3.15E+07 yr/sec

Average annual meteorological dispersion parameters or meteorological conditions concurrent with the release period under evaluation may be used (e.g., quarterly averages or year-specific annual averages).

4.2.2 Direct Exposure Dose Determination - Onsite Sources

Any potentially significant direct exposure contribution from onsite sources to offsite individual doses may be evaluated based on the results of the environmental measurements (e.g., TLD, ion chamber measurements) or by the use of a radiation transport and shielding calculational method. Only during atypical conditions will there exist any potential for significant onsite sources at Davis-Besse that would yield potentially significant offsite doses to a MEMBER OF THE PUBLIC. However, should a situation exist whereby the direct exposure contribution is potentially significant, onsite measurements, offsite measurements and calculational techniques will be used for determination of dose for assessing 40 CFR 190 compliance.

The following simplified method may be used for evaluating the direct dose based on onsite or site boundary measurements:

$$D_{L,\theta} = D_{B,\theta} \frac{(X_{B,\theta})^2}{(X_{L,\theta})^2} \quad (4-3)$$

where:

$D_{B,\theta}$ = direct radiation dose measured at location B (onsite or site boundary) in sector θ

$D_{L,\theta}$ = extrapolated dose at location L in same sector θ

$X_{L,\theta}$ = distance to the location L from the radiation source

$X_{B,\theta}$ = distance to location B from the radiation source

4.2.3 Dose Assessment Based on Radiological Environmental Monitoring Data

Normally, the assessment of potential doses to MEMBERS OF THE PUBLIC must be calculated based on the measured radioactive effluents at the plant. The resultant levels of radioactive material in the offsite environment are so minute as to be undetectable. The calculational methods as presented in this ODCM are used for modeling the transport in the environment and the resultant exposure to offsite individuals.

The results of the radiological environmental monitoring program can provide input into the overall assessment of impact of plant operations and radioactive effluents. With measured levels of plant related radioactive material in principal pathways of exposure, a quantitative assessment of potential exposures can be performed. With the monitoring program not identifying any measurable levels, the data provides a qualitative assessment - a confirmatory demonstration of the negligible impact.

Dose modeling can be simplified into three basic parameters that can be applied in using environmental monitoring data for dose assessment.

$$D = C * U * DF \quad (4-4)$$

where:

D	=	dose or dose commitment
C	=	concentration in the exposure media, such as air concentration for the inhalation pathway, or fish, vegetation or milk concentration for the ingestion pathway
U	=	individual exposure to the pathway, such as hr/yr for direct exposure, kg/yr for ingestion pathway
DF	=	dose conversion factor to convert from an exposure or uptake to an individual dose or dose commitment

The applicability of each of these basic modeling parameters to the use of environmental monitoring data for dose assessment is addressed below:

Concentration - C

The main value of using environmental sampling data to assess potential doses to individuals is that the data represents actual measured levels of radioactive material in the exposure pathways. This eliminates one main uncertainty in the modeling - the release from the plant and the transport to the environmental exposure medium.

Environmental samples are collected on a routine frequency (e.g., weekly airborne particulate samples, monthly vegetable samples, annual fish samples). To determine the annual average concentration in the environmental medium for use in assessing cumulative dose for the year, an average concentration should be determined based on the sampling frequency and measured levels.

$$\bar{C}_i = \Sigma (C_i * t) / 365 \quad (4-5)$$

where:

\bar{C}_i	=	average concentration in the sampling medium for the year
C_i	=	concentration of each radionuclide i measured in the individual sampling medium
t	=	period of time that the measured concentration is considered representative of the sampling medium (typically equal to the sampling frequency; e.g., 7 days for weekly samples, 30 days for monthly samples).

If the concentration in the sampling medium is below the detection capabilities (i.e., less than lower limits of detection -LLD), a value of zero should be used for C_i ($C_i = 0$).

Exposure - U

Default exposure values (U) as recommended in Regulatory Guide 1.109 are presented in Table 4-1. These values should be used only when specific data applicable to the environmental pathway being evaluated is unavailable.

Also, the routine radiological environmental monitoring program is designed to sample/monitor the environmental media that would provide early indications of any measurable levels in the environment but not necessarily levels to which any individual is exposed. For example, sediment samples are collected in the area of the liquid discharge: typically, no individuals are directly exposed. To apply the measured levels of radioactivity in samples that are not directly applicable to exposure to real individuals, the approach recommended is to correlate the location and measured levels to actual locations of exposure. Hydrological or atmospheric dilution factors can be used to provide reasonable correlations of concentrations (and doses) at other locations. The other alternative is to conservatively assume a hypothetical individual at the sampling location. Doses that are calculated in this manner should be presented as hypothetical and very conservatively determined - actual exposure would be much less. Samples collected from nearby wells or actual water supply intake (e.g., Port Clinton) should be used for estimating the potential drinking water doses. Other water samples collected, such as near field dilution area, are not applicable to this pathway.

Dose Factors - DF

The dose factors are used to convert the intake of the radioactive material to an individual dose commitment. Values of the dose factors are presented in NRC Regulatory Guide 1.109. The use of the Regulatory Guide 1.109 values applicable to the exposure pathway and maximum exposed individual is referenced in Table 4-1.

4.2.4 Use of Environmental TLD for Assessing Doses Due to Noble Gas Releases

Thermoluminescent dosimeters (TLD) are routinely used to assess the direct exposure component of radiation doses in the environment. However, because routine releases of radioactive material (noble gases) are so low, the resultant direct exposure doses are also very low. A study* performed for the NRC concluded that it is possible to determine a plant contribution to the natural background radiation levels (direct exposure) of around 10 mRem per year (by optimum methods and high precision data). Therefore, for routine releases from nuclear power plants the use of TLD is mainly confirmatory - ensuring actual exposures are within the expected natural background variation.

For releases of noble gases, environmental modeling using plant measured releases and atmospheric transport models as presented in this ODCM represents the best method of assessing potential environmental doses. However, any observed variations in TLD measurements outside the norm should be evaluated.

* NUREG/CR-0711, Evaluation of Methods for the Determination of X- and Gamma-Ray Exposure Attributable to a Nuclear Facility Using Environmental TLD Measurements, Gail dePlanque, June 1979, USNRC.

Table 4-1

RECOMMENDED EXPOSURE RATES IN LIEU OF SITE SPECIFIC DATA*

<u>Exposure Pathway</u>	<u>Maximum Exposed Age Group</u>	<u>Exposure Rates</u>	<u>Table Reference for Dose Factors from RG 1.109</u>
<u>Liquid Releases</u>			
Fish	Adult	21 kg/y	E-11
Drinking Water	Adult	730 l/y	E-11
Bottom Sediment	Teen	67 h/y	E-6
<u>Atmospheric Releases</u>			
Inhalation	Teen	8,000 m ³ /y	E-8
Direct Exposure	All	6,100 h/y**	N/A (ODCM Table 3-5)
Leafy Vegetables	Child	26 kg/y	E-13
Fruits, Vegetables & Grain	Teen	630 kg/y	E-12
Milk	Infant	330 l/y	E-14

* Adapted from Regulatory Guide 1.109, Table E-5

** Net exposure of 6,100 h/y is based on the total 8760 hours per year adjusted by a 0.7 shielding factor as recommended in Regulatory Guide 1.109.

5.0 ASSESSMENT OF LAND USE CENSUS DATA

A Land Use Census (LUC) is conducted annually in the vicinity of the Davis-Besse site. This census fulfills two main purposes: 1) meet requirements of the Radiological Environmental Monitoring Program (as required by 10 CFR 50, Appendix I, Section IV.B.3) for identifying controlling location/pathway for dose assessment of ODCM Section 3.8.1; and 2) provide data on actual exposure pathways for assessing realistic doses to MEMBERS OF THE PUBLIC.

5.1 LAND USE CENSUS REQUIREMENTS

A land use census shall be conducted during the growing season at least once per twelve months using that information that will provide the best results, such as by a door-to-door survey, aerial survey, or by consulting local agricultural authorities. The Land Use Census shall identify within a distance of 8 km (5 miles) the location, in each of the 16 meteorological sectors, of the nearest milk animal, the nearest residence and the nearest garden of greater than 50 m² (500 ft²) producing broad leaf vegetation. This requirement is provided to ensure that changes in the use of UNRESTRICTED AREAS are identified and that modifications to the monitoring program are made if required by the results of this census. This census satisfies the requirements of Section IV.B.3 of Appendix I to 10 CFR Part 50. Restricting the census to gardens of greater than 50 m² (500 ft²) provides assurance that significant exposure pathways via leafy vegetables will be identified and monitored. A garden of this size is the minimum required to produce the quantity (26 kg/year) of leafy vegetables assumed in Regulatory Guide 1.109 for consumption by a child. To determine this minimum garden size, the following assumptions were made: (1) 20% of the garden was used for growing broad leaf vegetation (i.e., similar to lettuce and cabbage), and (2) a vegetation yield of 2 kg/m².

The data from the Land Use Census is used for updating the location/pathway for dose assessment and for updating the Radiological Environmental Monitoring Program. The results of the Land Use Census shall be included in the Annual Radiological Environmental Operating Report pursuant to Section 7.1.

With a Land Use Census identifying a location(s) that yields a calculated dose or dose commitment greater than the values currently being calculated in Sections 3.8.1, identify the new locations(s) in the next Radioactive Effluent Release Report, pursuant to Section 7.2. With a Land Use Census identifying a locations(s) that yields a calculated dose or dose commitment (via the same exposure pathway) 20 percent greater than that at a location from which samples are currently being obtained in accordance with Section 6.1, add the new locations(s) if practical (and readily obtainable) to the Radiological Environmental Monitoring Program within 30 days. The sampling locations(s), excluding the control station location, having a lower calculated dose or dose commitment(s), via the same exposure pathway, may be deleted from this monitoring program. Identify the new location(s) in the next Radioactive Effluent Release Report and also include in the report a revised figure(s) and table for the ODCM reflecting the new location(s).

The following guidelines shall be used for assessing the results from the Land Use Census to ensure compliance with this Section.

5.1.1 Data Compilation

- A. Locations and pathways of exposure as identified by the Land Use Census will be compiled for comparison with the current locations as presented in Table 3-4.
- B. Changes from the previous year's census will be identified. Also, any location/pathway not currently included in the Radiological Environmental Monitoring Program (Table 6-2) will be identified.
- C. Historical, annual average meteorological dispersion parameters (χ/Q , D/Q) for any new location (i.e., location not previously identified and/or evaluated) will be determined. All locations should be evaluated against the same historical meteorological data set.

5.1.2 Relative Dose Significance

- A. For all new locations, the relative dose significance will be determined by applicable pathways of exposure.
- B. Relative dose calculations should be based on a generic radionuclide distribution (e.g., Davis-Besse USAR gaseous effluent source term or past year actual effluents). An I-131 source term dose may be used for assessment of the maximum organ ingestion pathway dose because of its overwhelming contribution to the total dose relative to the other particulates.
- C. The pathway dose equations of the ODCM should be used.

5.1.3 Data Evaluation

- A. The controlling location used in the ODCM Table 3-4 will be verified. If any location/pathway(s) is identified with a higher relative dose, this location/pathway(s) should replace the previously identified controlling location/pathway in Table 3-4. If the previously identified controlling pathway is no longer present, the current controlling location/pathway should be determined.
- B. Any changes in either the controlling location/pathway(s) of the ODCM dose calculations (Section 3.7 and Table 3-4) or the Radiological Environmental Monitoring Program (ODCM Section 6.0 and Table 6-2) shall be reported to NRC in accordance with ODCM Section 5.1 and 7.2.

5.2 LAND USE CENSUS TO SUPPORT REALISTIC DOSE ASSESSMENT

The Land Use Census (LUC) provides data needed to support the special dose analyses of Section 4.0. Activities inside the UNRESTRICTED AREA BOUNDARY should be periodically reviewed for dose assessment as required by Section 4.1. Assessment of realistic doses to MEMBERS OF THE PUBLIC is required by Section 4.0 for demonstrating compliance with the EPA Environmental Dose Standard, 40 CFR 190 (Section 4.2).

Even though not a part of the LUC, to support these dose assessments, areas within the UNRESTRICTED AREA BOUNDARY that are accessible to the public; and (b) use of Lake Erie water on and near the site are evaluated. The scope of the evaluation includes the following:

- Assessment of areas onsite that are accessible to MEMBERS OF THE PUBLIC. Particular attention should be given to assessing exposure times for visits to the Davis-Besse Administration Building and Wellness Center. Data should be used for updating Table 4-1.
- Data on Lake Erie use should be obtained from local and state officials. Reasonable efforts shall be made to identify individual irrigation and potable water users, and industrial and commercial water users whose source is Lake Erie. This data is used to verify the pathways of exposure used in Section 2.4.

6.0 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

The Radiological Environmental Monitoring Program (REMP) provides measurements of radiation and of radioactive materials in those exposure pathways and for those radionuclides which lead to the higher potential radiation exposures of individuals resulting from the station operations. The sampling and analysis program described in this Section was developed to provide representative measurements of radiation and radioactive materials resulting from station operation in the principal pathways of exposure of MEMBERS OF THE PUBLIC. This monitoring program implements Sections IV.B.2 of Appendix I to 10 CFR Part 50 and thereby supplements the radiological effluent controls by verifying that the measurable concentrations of radioactive materials and levels of radiation are not higher than expected on the basis of the effluent measurements and the modeling of the environmental exposure pathways. Guidance for the development of this monitoring program is provided by the Radiological Assessment Branch Technical Position on Environmental Monitoring.

6.1 PROGRAM DESCRIPTION

6.1.1 General

The REMP shall be conducted as specified in Table 6-1. This table describes the minimum environmental media to be sampled, the sample collection frequencies, the number of representative samples required, the characteristics of the sampling locations, and the type and frequency of sample analysis. Table 6-2 provides a detailed listing of the sample locations for Davis-Besse which satisfy the requirements of Table 6-1. Wherever possible, the Davis-Besse program includes redundant sample locations to minimize the occurrence of missed samples. Maps for each site listed in Table 6-2 are contained in Appendix C. The specific locations used to satisfy the requirements of Table 6-1 may be changed as deemed appropriate by the Manager – Site Chemistry. The changes shall be reported in the Annual Radiological Environmental Operating Report and the Radiological Effluent Release Report as required by Sections 7.1 and 7.2, respectively. If the changes are to be permanent, Table 6-2 and Appendix C shall be updated.

Note: For the purpose of implementing Section 5.1, sampling locations will be modified, to reflect the findings of the Land Use Census as described in ODCM Section 5.1.

6.1.2 Program Deviations

With the minimum REMP samples not collected and analyzed as specified in Table 6-1, prepare and submit to the Commission, in the Annual Radiological Environmental Operating Report required by Section 7.1, a description of the reasons for not conducting the program as required and plans for preventing a recurrence.

6.1.3 Unavailability of Milk or Broad Leaf Vegetation Samples

With milk or fresh leafy vegetable samples unavailable from one or more of the sample locations required by Table 6-1, identify locations for obtaining replacement samples and if practical add them to the REMP within 30 days. The locations from which samples were unavailable may then be deleted from the monitoring program. In lieu of a Licensee Event Report and pursuant to Section 7.2, identify the cause of the unavailability of samples and identify the new locations(s) for obtaining replacement samples in the next Radiological Effluent Release Report and also include in the report a revised figure(s) and table for the ODCM reflecting the new locations(s).

6.1.4 Seasonal Unavailability, Equipment Malfunctions, Safety Concerns

With specimens unobtainable due to hazardous conditions, seasonal unavailability, malfunction of automatic sampling equipment and other legitimate reasons, every effort will be made to complete corrective action prior to the end of the next sampling period. All deviations from the sampling schedule will be documented in the Annual Radiological Environmental Operating report pursuant to Section 7.1.

6.1.5 Sample Analysis

REMP samples shall be analyzed pursuant to the requirements of Table 6-1 and the detection capabilities required by Table 6-3. Cumulative potential dose contributions for the current calendar year from radionuclides detected in environmental samples shall be determined in accordance with the methodology and parameters in this ODCM.

6.2 REPORTING LEVELS

6.2.1 General

The reporting levels are based on the design objective doses of 10 CFR 50, Appendix I (i.e., levels of radioactive material in the sampling media corresponding to potential annual doses of 3 mRem, total body or 10 mRem, maximum organ from liquid pathways; or 5 mRem, total body, or 15 mRem, maximum organ for gaseous effluent pathways - the annual limits of Sections 2.4.1, 3.7.1 and 3.8.1). These potential doses are modeled on the maximum exposure or consumption rates of NRC Regulatory Guide 1.109.

The evaluation of potential doses should be based solely on radioactive material resulting from plant operation.

6.2.2 Exceedance of Reporting Levels

With the level of radioactivity as the result of plant effluents in an environmental sampling medium at a specified location exceeding the reporting levels of Table 6-4 when averaged over any calendar quarter, prepare and submit to the Commission within 60 days, pursuant to Section 7.3, a Licensee Event report that identifies the cause(s) for exceeding the limit(s) and defines the corrective actions to be taken to reduce radioactive effluents so that the potential annual dose to MEMBER OF THE PUBLIC is less than the calendar year limits of Sections 2.4.1, 3.7.1 and 3.8.1. When more than one of the radionuclides in Table 6-3 are detected in the sampling medium, this report shall be submitted if:

$$\frac{\text{concentration (1)}}{\text{reporting level (1)}} + \frac{\text{concentration (2)}}{\text{reporting level (2)}} + \dots \geq 1.0.$$

When radionuclides other than those in Table 6-4 are detected and are the result of plant effluents, this report shall be submitted if the potential annual dose to a MEMBER OF THE PUBLIC is equal to or greater than the calendar year limits of Sections 2.4.1, 3.7.1 and 3.8.1. The method described in Section 4.2.3 may be used for assessing the potential dose and required reporting for radionuclides other than those listed in Table 6-4.

A Licensee Event Report is not required if the measured level of radioactivity was not the result of plant effluents; however, in such an event, the condition shall be reported and described in the Annual Radiological Environmental Operating Report.

6.3 INTERLABORATORY COMPARISON PROGRAM

Analyses shall be performed on radioactive materials supplied as part of an Interlaboratory Comparison Program that has been approved by the Commission. The requirement for participating in an approved Interlaboratory Comparison Program is provided to ensure that independent checks on the precision and accuracy of the measurements of radioactive material in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring in order to demonstrate that the results are reasonably valid for the purposes of Section IV.B.2 of Appendix I to 10 CFR Part 50.

A summary of the results obtained as part of the required Interlaboratory Comparison Program shall be included in the Annual Radiological Environmental Operating Report pursuant to Section 7.1. With analyses not being performed as required, report the corrective actions taken to prevent a recurrence to the Commission in the Annual Radiological Environmental Operating Report pursuant to Section 7.1.

Table 6-1

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

	<u>Exposure Pathway and/or Sample</u>	<u>Minimum Number of Representative Samples and Sample Locations^a</u>	<u>Collection Frequency</u>	<u>Type and Frequency of Analysis</u>
1.	DIRECT RADIATION ^b (TLD)	<p>27 routine monitoring stations either with two or more dosimeters or with one instrument for measuring and recording dose rate continuously, placed as follows:</p> <p>an inner ring of stations, generally one in each meteorological sector in the general area of the UNRESTRICTED AREA BOUNDARY;</p> <p>an outer ring of stations, one in each meteorological sector in the 6 to 8 km range from the site, excluding the sectors over Lake Erie;</p> <p>the balance of the stations to be placed in special interest areas such as population centers, nearby residences, schools, and in 1 or 2 areas to serve as control stations.</p>	Quarterly	Gamma dose quarterly

Table 6-1 (Continued)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Exposure Pathway and/or Sample	Minimum Number of Representative Samples and Sample Locations ^a	Collection Frequency	Type and Frequency of Analysis
2. AIRBORNE ^c			
Radioiodine and Particulates (AI/AP)	<p>Samples from 5 locations, placed as follows:</p> <p>3 samples from close to the UNRESTRICTED AREA BOUNDARY, in different sectors, generally from areas of higher calculated annual average groundlevel D/Q.</p> <p>*1 sample from the vicinity of a nearby community, generally in the area of higher calculated annual average groundlevel D/Q.</p> <p>1 sample from a control location, 15-30 km from the site.</p>	Continuous sampler operation with sample collection weekly, or more frequent if required by dust loading.	Radioiodine Canister: I-131 analysis weekly. Particulate Sampler: Gross beta radioactivity analysis following filter change; ^d Gamma isotopic analysis of composite (by location) quarterly.
3. WATERBORNE			
a. Surface (untreated water) (SWU)	2 samples	Weekly composite sample (Indicator location should be a composite)	Tritium and gamma isotopic ^e analysis of composite sample monthly.
b. Ground (WW)	Sample from one source only if likely to be affected ^f	Quarterly	Gamma isotopic ^e and tritium analysis quarterly.

*NOTE: A nearby community may be considered as a large group of residences in a close proximity to the Plant.

Table 6-1 (Continued)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

<u>Exposure Pathway and/or Sample</u>		<u>Minimum Number of Representative Samples and Sample Locations^a</u>	<u>Collection Frequency</u>	<u>Type and Frequency of Analysis</u>
4.	c. Drinking (Treated water) (SWT)	1 sample from the nearest source. 1 sample from a control location.	Weekly composite sample.	Gross beta on monthly composite. Tritium and gamma isotopic analysis on quarterly composite. I-131 analysis on each composite when the dose calculated for the consumption of the water is greater than 1 mRem per year.
	d. Sediment from Shoreline (SED)	1 sample from area with existing or potential recreational value.	Semiannually	Gamma isotopic analyzed semi-annually.
	a. Milk (MIL)	If available ^g , samples from animals up to 2 locations within 8 km distance having the highest dose potential. 1 sample ^g from milking animals at a control location 15-30 km distant and generally in a less prevalent wind direction.	Semimonthly when animals are on pasture, monthly at other times	Gamma isotopic ^e and I-131 analysis semi-monthly when animals are on pasture; monthly at other times.
	b. Fish (FIS)	1 sample each of 2 commercially and/or recreationally important species in vicinity of site. 1 sample of same species in areas not influenced by plant discharge.	1 sample in season.	Gamma isotopic analysis on edible portions.

Table 6-1 (Continued)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

<u>Exposure Pathway and/or Sample</u>	<u>Minimum Number of Representative Samples and Sample Locations^a</u>	<u>Collection Frequency</u>	<u>Type and Frequency of Analysis</u>
c. Food Products (Broad leaf vegetation) (BLV)	Samples of up to 3 different kinds of broad leaf vegetation grown in two different offsite locations of higher predicted annual average ground-level D/Q if milk sampling is not performed ^g .	Monthly when available.	Gamma isotopic ^f and I-131 analysis.
	1 sample of each of the similar broad leaf vegetations grown 15-30 km distant in a less prevalent wind direction if milk sampling is not performed ^g .	Monthly when available.	Gamma isotopic ^f and I-131 analysis.

Table 6-1 (Continued)

TABLE NOTATION

^aSpecific parameters of distance and direction sector from the centerline of the reactor, and additional description (where pertinent) are provided for each and every sample location in Table 6-2. Refer to NUREG-0133, "Preparation of Radiological Effluent Technical Specifications for Nuclear Power Plants", October 1978, and to Radiological Assessment Branch Technical Position, Revision 1, November 1979. It is recognized that, at times, it may not be possible or practicable to continue to obtain samples of the media of choice at the most desired location or time. In these instances, suitable alternative media and locations may be chosen for the particular pathway in question and appropriate substitutions made within 30 days in the Radiological Environmental Monitoring Program. In lieu of a Licensee Event Report and pursuant to Technical Specification 5.6.1 and Section 7.2, identify the cause of the unavailability of samples for that pathway and identify the new location(s) for obtaining replacement samples in the next Radioactive Effluent Release Report. Also, include in the report a revised figure(s) and table for the ODCM reflecting the new location(s).

^bOne or more instruments, such as a pressurized ion chamber, for measuring and recording dose rate continuously may be used in place of, or in addition to, integrating dosimeters. For the purposes of this table, a thermoluminescent dosimeter (TLD) is considered to be one phosphor; two or more phosphors in a packet are considered as two or more dosimeters. Film badges shall not be used as dosimeters for measuring direct radiation. The number of direct radiation monitoring stations may be reduced according to geographical limitations; e.g., at an ocean site, some sectors will be over water so that the number of dosimeters may be reduced accordingly. The frequency of analysis or readout for TLD systems will depend upon the characteristics of the specific system used and should be selected to obtain optimum dose information with minimal fading. Whenever possible, an additional TLD is located in each sector at a different location to ensure the minimum number of samples in Table 6-1 are collected and analyzed.

^cDue to lack of suitable locations (marsh and private unavailable private property) for installation of an air monitor close to the Unrestricted Area Boundary in the sectors with the highest two calculated annual average groundlevel D/Q, monitors are installed in the third, sixth, and eleventh highest annual D/Q. Whenever possible, an additional monitor is in service in a different sector to ensure the minimum number of air samples in Table 6-1 are collected and analyzed.

^dAirborne particulate sample filters shall be analyzed for gross beta radioactivity 24 hours or more after sampling to allow for radon and thoron daughter decay. If gross beta activity in air particulate samples is greater than ten times the yearly mean of control samples, then gamma isotopic analysis shall be performed on the individual samples.

^eGamma isotopic analysis means the identification and quantification of gamma emitting radionuclides that may be attributable to the effluents from the facility.

^fGroundwater samples shall be taken when this source is tapped for drinking or irrigation purposes in areas where the hydraulic gradient or recharge properties are suitable for contamination. There currently are not any wells used for drinking or irrigation purposes located in areas where the hydraulic gradient or recharge properties are suitable for contamination. Groundwater wells located within the Unrestricted Area Boundary are monitored in accordance with the NEI 07-07 program.

^gThere currently are not any milking animals within 8 km distance from the station. A Control location 15-30 km from the station has been established for sampling milk if animals are reintroduced to the area.

Table 6-2

REMP SAMPLING LOCATIONS

Location	Samples Collected (1)	Appendix C Page Reference	Type of Location*	Location Description
T-1	AI, AP, TLD	145, 149	I	Inner Ring, 0.6 mile ENE of Station
T-2	AI, AP, TLD	145, 149	I	Inner Ring, 0.9 mile E of Station
T-3	AI, AP, TLD, SWU, SED	145, 149, 152	I	Inner Ring, 1.4 miles ESE of Station near mouth of Toussaint River
T-4	AI, AP, TLD	145, 149	I	Inner Ring, 0.8 mile S of Station
T-5	TLD	145	I	Inner Ring, 0.5 mile W of Station
T-6	TLD	145	I	Inner Ring, 0.5 mile NNE of Station
T-7	AI, AP, TLD	148, 150	I/SI	Community, 0.9 mile NW of Station TLD is a Special Interest location.
T-9	AI, AP, TLD	147, 150	I/C	Community, 7.5 miles SW of Station. TLD is a Control Location.
T-10	TLD	145	I	Inner Ring, 0.5 mile SSW of Station
T-11	AI, AP, TLD, SWT, SWU, SED	147, 151, 154	C	All samples are collected at the Ottawa County Regional Water Intake Facility, 9.5 miles SE of Plant except for Treated Water Sample, which is collected at the Ottawa County Regional Water Treatment Plant, 9.1 miles SE of Plant
T-12	TLD	147	C	Toledo Water Treatment Plant, 20.7 miles WNW of Station
T-17	BLV	155	I	Garden, 1.82 miles SSE of Station
T-19	BLV	155	I	Garden, 1.0 mile W of Station
T-22	SWT, SWU	152, 153	I	Carroll Township Water Treatment Plant, SWU collected 2.1 miles W of station and SWT from REMP Lab DBAB Annex
T-24	MIL	156	C	Dairy, 21 miles SE of Station

* I = Indicator locations, C = Control locations, SI = Special Interest.

Table 6-2

REMP SAMPLING LOCATIONS

Location	Samples Collected (1)	Appendix C Page Reference	Type of Location*	Location Description
T-27	AI, AP, TLD	147, 150, 156	I/C	Park, 5.4 miles WNW of Station. TLD is a Control Location.
T-30	BLV	156	C	Farm, 12.8 miles WNW of Station
T-32	AI, AP	151	C	Lindsey Service Center, 15.6 miles SSW of Station
T-33	FIS	153	I	Lake Erie within a 5-mile radius from Station
T-35	FIS	154	C	Lake Erie, greater than a 10-mile radius from Station
T-37	BLV	156	C	Farm, 13.0 miles SW of Station
T-38	TLD	145	I	Inner Ring, 0.6 mile ENE of Station
T-40	TLD	145	I	Inner Ring, 1.1 mile SE of Station
T-41	TLD	145	I	Inner Ring, 0.75 mile SSE of Station
T-42	TLD	145	I	Inner Ring, 0.6 mile SW of Station
T-43	TLD	145	I	Inner Ring, 0.5 mile SW of Station
T-44	TLD	145	I	Inner Ring, 0.5 mile WSW of Station
T-45	TLD	145	I	Inner Ring, 0.5 mile WNW of Station
T-46	TLD	145	I	Inner Ring, 0.5 mile NW of Station
T-47	TLD	145	I	Inner Ring, 0.5 mile N of Station
T-48	TLD	145	I	Inner Ring, 0.5 mile NE of Station
T-49	TLD	145	I	Inner Ring, 0.5 mile NE of Station
T-51	TLD	146	I	Outer Ring, 4.2 miles SSE of Station
T-52	TLD	146	I	Outer Ring, 4.2 miles S of Station
T-54	TLD	146	I	Outer Ring, 4.2 miles SW of Station
T-55	TLD	146	I	Outer Ring, 4.0 miles W of Station

* I = Indicator locations, C = Control locations, SI = Special Interest.

Table 6-2

REMP SAMPLING LOCATIONS

Location	Samples Collected (1)	Appendix C Page Reference	Type of Location*	Location Description
T-60	TLD	145	I	Inner Ring, 0.7 miles S of Station
T-62	TLD	145	I	Inner Ring, 1.0 mile SE of Station
T-67	TLD	145	I	Inner Ring, 0.4 miles NNW of Station
T-68	TLD	145	I	Inner Ring, 0.5 miles WNW of Station
T-69	TLD	145	I	Inner Ring, 0.4 miles W of Station
T-71	TLD	145	I	Inner Ring, 0.5 miles NNW of Station
T-73	TLD	145	I	Inner Ring, 0.5 miles WSW of Station
T-74	TLD	145	I	Inner Ring, 0.5 miles SSW of Station
T-100	TLD	147	C	Population Center, 6.0 miles S of Station
T-124	TLD	148	SI	Population Center, 6.0 miles SSW of Station
T-125	TLD	146	I	Outer Ring, 4.4 miles SSW of Station
T-126	TLD	146	I	Outer Ring, 4.4 miles S of Station
T-127	TLD	146	I	Outer Ring, 4.0 miles SSE of Station
T-128	TLD	146	I	Outer Ring, 4.0 miles SE of Station
T-142	TLD	145	I	Inner Ring, 0.8 miles SSE of Station
T-150	TLD	148	SI	Residence, 2.1 miles NW of Station
T-154	TLD	146	I	Outer Ring, 4.0 miles SW of Station
T-155	TLD	148	SI	Population Center, 9.5 miles SE of Station
T-201	TLD	148	SI	Residence, 1.1 miles NNW of Station
T-203	TLD	145	I	Inner Ring, 0.7 miles N of Station
T-206	TLD	145	I	Inner Ring, 0.6 miles NW of Station
T-208	TLD	145	I	Inner Ring, 0.5 miles NNE of Station
T-211	TLD	145	I	Inner Ring, 0.8 miles E of Station

* I = Indicator locations, C = Control locations, SI = Special Interest.

Table 6-2

REMP SAMPLING LOCATIONS

Location	Samples Collected (1)	Appendix C Page Reference	Type of Location*	Location Description
T-212	TLD	145	I	Inner Ring, 1.2 miles ESE of Station
T-217	TLD	146	I	Outer Ring, 4.2 miles SSW of Station
T-218	TLD	146	I	Outer Ring, 4.0 miles WSW of Station
T-219	TLD	146	I	Outer Ring, 4.8 miles WSW of Station
T-220	TLD	146	I	Outer Ring, 4.6 miles W of Station
T-221	TLD	146	I	Outer Ring, 5.0 miles WNW of Station
T-222	TLD	146	I	Outer Ring, 3.8 miles WNW of Station
T-224	TLD	146	I	Outer Ring, 4.4 miles SE of Station

(1) See Table 6-1 for Sample designations:
AP/AI/TLD/SWU/SWT/WW/SED/FIS/BLV

* I = Indicator locations; C = Control locations, SI = Special Interest.

Table 6-3

LOWER LIMITS OF DETECTION (LLD)^a

Analysis	Water (pCi/l)	Airborne Particulate or Gas (pCi/m³)	Fish (pCi/kg, wet)	Milk (pCi/l)	Food Products (pCi/kg, wet)	Sediment (pCi/kg, dry)
Gross Beta	4 ^b	1.0E-02				
³ H	2000 ^{c*}					
⁵⁴ Mn	15		130			
⁵⁹ Fe	30		260			
⁵⁸ Co, ⁶⁰ Co	15		130			
⁶⁵ Zn	30		260			
⁹⁵ Zr	15					
¹³¹ I	1 ^d	7.0E-02		1	60	
¹³⁴ Cs, ¹³⁷ Cs	15(10 ^b),18	6.0E-02	130	15	60	150
¹⁴⁰ Ba-La	15			15		

NOTE: This list does not mean that only these nuclides are to be detected and reported. Other peaks which are measurable and identifiable, together with the above nuclides, shall be identified and reported.

* If no drinking water pathway exists, a value of 3000 pCi/L may be used.

Table 6-3 (Continued)

TABLE NOTATION

- a. The LLD is the smallest concentration of radioactive material in a sample that will be detected with 95% probability (with 5% probability of falsely concluding that a blank observation represents a "real" signal).

For a particular measurement system (which may include radiochemical separation):

$$LLD = \frac{4.66 s_b}{E * V * 2.22 * Y * \exp(-\lambda \Delta t)}$$

where:

LLD is the lower limit of detection as defined above (pCi per unit mass or volume),

s_b is the standard deviation of the background counting rate or of the counting rate of a blank sample as appropriate (counts per minute),

E is the counting efficiency (counts per transformation),

V is the sample size (in units of mass or volume),

2.22 is the number of transformations per minute per picocurie,

Y is the fractional radiochemical yield (when applicable),

λ is the radioactive decay constant for the particular radionuclide,

Δt is the elapsed time between end of the sample collection period and time of counting.

Typical values of E, V, Y and Δt should be used in the calculations.

The LLD is defined as an a priori (before the fact) limit representing the capability of a measurement system and not as a posteriori (after the fact) limit for a particular measurement.

Analyses shall be performed in such a manner that the stated LLDs will be achieved under routine conditions. Occasionally background fluctuations, unavoidable small sample sizes, the presence of interfering nuclides, or uncontrollable circumstances may render these LLDs unachievable. In such cases, the contributing factors will be identified and described in the Annual Radiological Environmental Operating Report.

For more complete discussion of the LLD and other detection limits, see the following:

- (1) HASL Procedures Manual, HASL-300 (revised annually).
- (2) Currie, L. A., "Limits for Qualitative Detection and Quantitative Determination - Application to Radiochemistry" Anal. Chem. 40, 586-93 (1968).

Table 6-3 (Continued)

TABLE NOTATION

- (3) Hartwell, J. K., "Detection Limits for Radioisotopic Counting Techniques", Atlantic Richfield Hanford Company Report ARH-2537 (June 22, 1972).
- b. LLD for drinking water.
- c. If no drinking water pathway exists, a value of 3000 pCi/liter may be used.
- d. LLD only when specific analysis for I-131 required.

Table 6-4

REPORTING LEVELS FOR RADIOACTIVITY CONCENTRATIONS IN ENVIRONMENTAL SAMPLES

Reporting Levels

Analysis	Water (pCi/L)	Airborne Particulate or Gas (pCi/m³)	Fish (pCi/kg. wet)	Milk (pCi/l)	Vegetables (pCi/kg, wet)
³ H	2.0E+04*				
⁵⁴ Mn	1.0E+03		3.0E+04		
⁵⁹ Fe	4.0E+02		1.0E+04		
⁵⁸ Co	1.0E+03		3.0E+04		
⁶⁰ Co	3.0E+02		1.0E+04		
⁶⁵ Zn	3.0E+02		2.0E+04		
⁹⁵ Zr-Nb	4.0E+02				
¹³¹ I	2.0E+00	9.0E-01		3.0E+00	1.0E+02
¹³⁴ Cs	3.0E+01	1.0E+01	1.0E+03	6.0E+01	1.0E+03
¹³⁷ Cs	5.0E+01	2.0E+01	2.0E+03	7.0E+02	2.0E+03
¹⁴⁰ Ba-La	2.0E+02			3.0E+02	

* For drinking water samples, this is the 40 CFR 141 value. If no drinking water pathway exists, a value of 30,000 pCi/liter may be used.

7.0 ADMINISTRATIVE CONTROLS

7.1 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

Routine Radiological Environmental Operating reports covering the operation of the unit during the previous calendar year shall be submitted by May 15 of each year.

The Annual Radiological Environmental Operating Report shall include summaries, interpretations, and an analysis of trends of the results of the radiological environmental verification activities for the report period, including a comparison with the preoperational studies, with operational controls, as appropriate, and with previous environmental surveillance reports and an assessment of the observed impacts of the plant operation on the environment. The reports shall also include the results of land use censuses as required in Section 5.1.

The Annual Radiological Environmental Operating Reports shall include the summarized and tabulated results of analysis of radiological environmental samples and of radiation measurements taken during the period pursuant to the locations specified in Sections 6.1 and Appendix C of this ODCM. In the event that some results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

The reports shall also include the following: a summary description of the radiological environmental monitoring program; at least two legible maps covering all sampling locations keyed to a table giving distances and directions from the centerline of one reactor; the results of licensee participation in the Interlaboratory Comparison Program, required by Section 6.3; and discussions of all analyses in which the LLD required by Table 6-3 was not achievable.

7.2 RADIOACTIVE EFFLUENT RELEASE REPORT

Radioactive Effluent Release Reports covering the operation of the unit during the previous calendar year shall be submitted by May 15 of each year.

The Radioactive Effluent Release Reports (RERR) shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit as outlined in Regulatory Guide 1.21, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants," Revision 1, June 1974, with data summarized on a quarterly basis following the format of Appendix B thereof.

The RERR shall include an annual summary of hourly meteorological data collected over the previous year. This annual summary may be either in the form of an hour-by-hour listing of wind speed, wind direction, atmospheric stability, and precipitation (if measured), or in the form of joint frequency distributions of wind speed, wind direction, and atmospheric stability. This same report shall include an assessment of the radiation doses due to the radioactive liquid and gaseous effluents released from the unit or station during the previous calendar year. This same report shall also include an assessment of the radiation doses from radioactive liquid and gaseous effluents to MEMBERS OF THE PUBLIC due to their activities inside the UNRESTRICTED AREA BOUNDARY during the reporting period. All assumptions used in making these assessments, i.e., specific activity, exposure time, and location, shall be included in these reports. The assessment of radiation doses shall be performed in accordance with the methodology and parameters in this ODCM.

The RERR shall also include an assessment of radiation doses to the likely most exposed MEMBER OF THE PUBLIC from reactor releases and other nearby uranium fuel cycle sources, including doses from primary effluent pathways and direct radiation, for the previous calendar year to show conformance with 40 CFR Part 190, "Environmental Radiation Protection Standards for Nuclear Power Operation."

The RERR shall include the following information for each class of solid waste (as defined by 10 CFR Part 61) shipped offsite during the report period:

- a. container volume,
- b. total curie quantity (specify whether determined by measurement or estimate),
- c. principal radionuclides (specify whether determined by measurement or estimate),
- d. source of waste and processing employed (e.g., dewatered spent resin, compressed dry waste, evaporator bottoms).
- e. type of container (e.g., Type A, Type 3, Large Quantity), and
- f. solidification agent or absorbent (e.g., cement, urea formaldehyde).

The RERR shall include a list and description of unplanned releases from the site to UNRESTRICTED AREAS of radioactive materials in gaseous and liquid effluents made during the reporting period.

The RERR shall include any changes made during the reporting period to the PROCESS CONTROL PROGRAM (PCP) and to the ODCM, as well as a listing of new locations for dose calculations and pursuant to Section 5.1.

The RERR shall include any radionuclide activity limits for the BWST which have been exceeded during the reporting period, a description of the event leading to the limit being exceeded and action taken to return it to within the limits.

7.3 LICENSEE EVENT REPORTS

Licensee Event Reports shall be submitted to the U. S. Nuclear Regulatory Commission (NRC) in accordance with 10 CFR 50.4 within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference:

- a. dose or dose commitment exceedances to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released to UNRESTRICTED AREAS (Section 2.4.1),
- b. the discharge of radioactive liquid waste without treatment and in excess of the limits in Section 2,
- c. the calculated air dose from radioactive gases exceeding the limits in Section 3.7.1,
- d. the calculated dose from the release of iodine-131, tritium, and radionuclides in particulate form with half-lives greater than 8 days, in gaseous effluents exceeding the limits of Section 3.8.1,

- e. the discharge of radioactive gaseous waste without treatment and in excess of the limits in Section 3.9,
- f. the calculated doses from the release of radioactive materials in liquid or gaseous effluents exceeding the limits of Section 4.2, and
- g. the level of radioactivity as the result of plant effluents in an environmental sampling medium exceeding the reporting levels of Table 6-4 (Section 6.2.2).

7.4 MAJOR CHANGES TO RADIOACTIVE LIQUID AND GASEOUS WASTE TREATMENT SYSTEMS

Licensee initiated major changes to the radioactive waste systems (liquid and gaseous):

1. Shall be reported to the Commission in the update to the Safety Analysis Report. The discussion of each change shall contain:
 - a. a summary of the evaluation that led to the determination that the change could be made in accordance with 10 CFR Part 50.59;
 - b. sufficient detailed information to totally support the reason for the change without benefit of additional or supplemental information;
 - c. a detailed description of the equipment, components and processes involved and the interfaces with other plant systems;
 - d. an evaluation of the change which shows the predicted releases of radioactive materials in liquid or gaseous effluents and/or quantity of solid waste that differ from those previously predicted in the license application and amendments thereto;
 - e. an evaluation of the change which shows the expected maximum exposures to individuals in the UNRESTRICTED AREA and the general population that differ from those previously estimated in the license application and amendments thereto;
 - f. a comparison of the predicted releases of radioactive materials in liquid and gaseous effluents to the actual releases for the period prior to when the changes are to be made;
 - g. an estimate of the exposure to plant operating personnel as a result of the change; and
 - h. documentation of the fact that the change was reviewed and found acceptable by the Plant Operations Review Committee.
2. Shall become effective upon review and acceptance by the Plant Operations Review Committee.

7.5 DEFINITIONS

- 7.5.1 BATCH RELEASE - The discharge of liquid wastes of a discrete volume.
- 7.5.2 COMPOSITE SAMPLE - A sample in which the method of sampling employed results in a specimen which is representative of the liquids released.
- 7.5.3 GASEOUS RADWASTE TREATMENT SYSTEM - The GASEOUS RADWASTE TREATMENT SYSTEM is a system that is designed and installed to reduce radioactive gaseous effluents by collecting primary coolant system off gases and providing for decay for the purpose of reducing the total radioactivity prior to release to the environment.
- 7.5.4 LOWER LIMIT OF DETECTION (LLD) - The LLD is the smallest concentration of radioactive material in a sample that will be detected with 95% probability, with 5% probability of falsely concluding that a blank observation represents a "real" signal.

For a particular measurement system (which may include radiochemical separation):

$$LLD = \frac{4.66 S_b}{E * V * 2.22 * Y * \exp(-\lambda \Delta t)}$$

where

LLD is the lower limit of detection as defined above (as pCi per unit mass or volume);

S_b is the standard deviation of the background counting rate or of the counting rate of a blank sample as appropriate (as counts per minute);

E is the counting efficiency (as counts per transformations);

V is the sample size (in units of mass or volume);

2.22 is the number of transformations per minute per picocurie;

Y is the fractional radiochemical yield (when applicable);

λ is the radioactive decay constant for the particular radionuclide; and

Δt for plant effluents is the elapsed time between the midpoint of sample collection and time of counting.

It should be recognized that the LLD is defined as an a priori (before the fact) limit representing the capability of a measurement system and not as an a posteriori (after the fact) limit for a particular measurement.

- 7.5.5 MEMBER OF THE PUBLIC - MEMBER(S) OF THE PUBLIC shall include all persons who are not occupationally associated with the plant. This category does not include employees of the utility, its contractors, or vendors. Also excluded from this category are persons who enter the site to service equipment or to make deliveries. This category does include persons who use portions of the site for recreation, occupational, or other purposes not associated with the plant.

- 7.5.6 PURGE-PURGING - PURGE OR PURGING is the controlled process of discharging air or gas from a confinement to maintain temperature, pressure, humidity, concentration or other operating condition, in such a manner that replacement air or gas is required to purify the confinement.
- 7.5.7 UNRESTRICTED AREA BOUNDARY - The UNRESTRICTED AREA BOUNDARY shall be that line beyond which the land is neither owned, nor leased, nor otherwise controlled by the licensee.
- 7.5.8 SOURCE CHECK - A SOURCE CHECK shall be the observation of channel upscale response when the channel sensor is exposed to a radioactive or LED source.
- 7.5.9 UNRESTRICTED AREA - An UNRESTRICTED AREA shall be any area at or beyond the UNRESTRICTED AREA BOUNDARY, access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation or radioactive materials, or any area within the UNRESTRICTED AREA BOUNDARY used for residential quarters or for industrial, commercial, institutional, and/or recreational purposes. The definition of UNRESTRICTED AREA used in implementing the Radiological Effluent Technical Specifications has been expanded over that in 10 CFR 100.3(a), but the unrestricted area does not include areas over water bodies. The concept of unrestricted areas, established at or beyond the UNRESTRICTED AREA BOUNDARY, is utilized in the Technical Specifications and the ODCM to keep levels of radioactive materials in liquid and gaseous effluents as low as is reasonably achievable, pursuant to 10 CFR 50.36a.
- 7.5.10 VENTILATION EXHAUST TREATMENT SYSTEM - A VENTILATION EXHAUST TREATMENT SYSTEM is a system that is designed and installed to reduce radioactive material in particulate form in effluents by passing ventilation or vent exhaust gases through HEPA filters for the purpose of removing particulates from the gaseous exhaust stream prior to release to the environment. Engineered Safety Feature (ESF) atmospheric cleanup systems are not considered to be VENTILATION EXHAUST TREATMENT SYSTEM components.
- 7.5.11 VENTING - VENTING is the controlled process of discharging air or gas from a confinement to maintain temperature, pressure, humidity, concentration or other operating condition, in such a manner that replacement air or gas is not provided or required during VENTING. Vent, used in system names, does not imply a VENTING process.

NOTES:

1. The following terms are defined in Section 1.1 of the Technical Specifications: CHANNEL CALIBRATION, CHANNEL CHECK, CHANNEL FUNCTIONAL TEST, OPERABLE-OPERABILITY.
2. The following terms are defined in Section 7.1 of the Technical Requirements Manual: FUNCTIONAL-FUNCTIONALITY.

APPENDIX A
Technical Basis for Simplified Dose Calculations
Liquid Effluent Releases

Overview

To simplify the dose calculation process, it is conservative to identify a controlling, dose-significant radionuclide and to use its dose conversion factor in the dose calculations. Using the total release (i.e., the cumulative activity of all radionuclides) and this single dose conversion factor as inputs to a one-step dose assessment yields a dose calculation method which is both simple and conservative.

Cs-134 is the controlling nuclide for the total body dose. It has the highest total body dose conversion factor for all the radionuclides listed in Table 2-6. Therefore, the use of its dose conversion factor in the simplified dose assessment method for evaluating the total body dose is demonstrably conservative.

The selection of the maximum organ dose conversion factor for use in the simplified calculation requires consideration of the prevalence of the radionuclides in the effluents. An examination of the Table 2-6 factor will show that the Nb-95 dose factor for the GI-LLI represents the highest value (1.51E+06 mRem/hr per $\mu\text{Ci/ml}$); and the P-32 bone factor (1.39E+06) is similarly high. However, neither of these two radionuclides are of significance in the Davis-Besse effluents. Nb-95 is not typically measured in the liquid effluents and P-32 analyses are not even performed. (NRC has categorically determined that P-32 is not a significant radionuclide in liquid effluents from nuclear power plants and does not require the special radiochemical analyses needed for identification and quantification.) The next highest dose conversion factor is for Cs-134, liver, with a value of 7.09E+05 mRem/hr per $\mu\text{Ci/ml}$. Cs-134 is a prevalent radionuclide in the liquid effluents from Davis-Besse. Therefore, it is recommended that the Cs-134 liver dose conversion factor be used for the simplified maximum organ dose assessment.

Simplified Method

For evaluating compliance with the dose limits of Section 2.4.1, the following simplified equations may be used:

Total Body

$$D_{\text{tb}} = \frac{1.67\text{E} - 02 * \text{VOL}}{\text{DF} * Z} * A_{(\text{Cs}-134, \text{tb})} * \Sigma C_i \quad (\text{A-1})$$

where:

D_{tb} = dose to the total body (mRem)

VOL = volume of liquid effluents released (gal)

DF = average Collection Box release flow (gal/min)

Z = 10, near field dilution

$A_{(Cs-134,tb)}$ = $5.79E+05$ mRem/hr per $\mu Ci/ml$, the total body ingestion dose factor for Cs-134

ΣC_i = total concentration of all radionuclides ($\mu Ci/ml$)

$1.67E-02$ = 1 hr/60 min

Substituting the values for Z and the Cs-134 total body dose conversion factor, the equation simplifies to:

$$D_{tb} = \frac{9.67E+02 * VOL}{DF} * \Sigma C_i \quad (A-2)$$

Maximum Organ

$$D_{max} = \frac{1.67E-02 * VOL}{DF * Z} * A_{(Cs-134,liver)} * \Sigma C_i \quad (A-3)$$

where:

D_{max} = maximum organ dose (mRem)

$A_{(Cs-134,liver)}$ = $7.09E+05$ mRem/hr per $\mu Ci/ml$, the liver ingestion dose factor for Cs-134

Substituting the values for Z and the Cs-134 liver dose conversion factor, the equation simplifies to:

$$D_{max} = \frac{1.18E+03 * VOL}{DF} * \Sigma C_i \quad (A-4)$$

Tritium should not be included in the simplified analysis dose assessment for liquid releases. The potential dose resulting from normal reactor releases of H-3 is relatively negligible. But, its relatively higher abundance would yield resulting simplified doses that would be overly conservative and unrealistic. Excluding tritium has essentially no impact on the conservative use of this recommended simplified method. Furthermore, the release of tritium is a function of operating history and is essentially unrelated to radwaste system operations.

APPENDIX B
Technical Basis for Effective Dose Factors
Gaseous Effluent Releases

Overview

Dose evaluations for releases of gaseous radioactive effluents may be simplified by the use of an effective dose factor rather than radionuclide-specific dose factors. These effective dose factors are applied to the total radioactive release to approximate the various doses in the environment; i.e., the total body, gamma-air, and beta-air doses. The effective dose factors are based on the typical radionuclide distribution in the gaseous radioactive effluents. The approach provides a reasonable estimate of the actual doses since under normal operating conditions, minor variations are expected in the radionuclide distribution.

Determination of Effective Dose Factors

Effective dose factors are calculated by equations (B-1) through (B-4).

$$K_{\text{eff}} = \Sigma (K_i * f_i) \quad (\text{B-1})$$

where:

- K_{eff} = the effective total body dose factor due to gamma emissions from all noble gases released (mRem/yr per $\mu\text{Ci}/\text{m}^3$),
- K_i = the total body dose factor due to gamma emissions from each noble gas radionuclide i released, from Table 3-5 (mRem/yr per $\mu\text{Ci}/\text{m}^3$), and
- f_i = the fractional abundance of noble gas radionuclide i relative to the total noble gas activity.

$$(L + 1.1 M)_{\text{eff}} = \Sigma ((L_{i\beta} + 1.1M_i) * f_i) \quad (\text{B-2})$$

where:

- $(L+1.1M)_{\text{eff}}$ = the effective skin dose factor due to beta and gamma emissions from all noble gases released (mRem/yr per $\mu\text{Ci}/\text{m}^3$), and
- $(L_i+1.1M_i)$ = the skin dose factor due to beta and gamma emissions from each noble gas radionuclide i released, from Table 3-5 (mRem/yr per $\mu\text{Ci}/\text{m}^3$).

$$M_{\text{eff}} = \Sigma (M_i * f_i) \quad (\text{B-3})$$

where:

- M_{eff} = the effective air dose factor due to gamma emissions from all noble gases released (mrad/yr per $\mu\text{Ci}/\text{m}^3$), and
- M_i = the air dose factor due to gamma emissions from each noble gas radionuclide i released, from Table 3-5 (mrad/yr per $\mu\text{Ci}/\text{m}^3$).

$$N_{\text{eff}} = \sum (N_i * f_i) \quad (\text{B-4})$$

where:

- N_{eff} = the effective air dose factor due to beta emissions from all noble gases released (mrad/yr per $\mu\text{Ci}/\text{m}^3$), and
- N_i = the air dose factor due to beta emissions from each noble gas radionuclide i released, from Table 3-5 (mrad/yr per $\mu\text{Ci}/\text{m}^3$).

Normally, past radioactive effluent data would be used for the determination of the effective dose factors. However, the releases of noble gases from Davis-Besse have been exceedingly insignificant. Therefore, in order to ensure overall conservatism in the modeling, the USAR estimate of radionuclide concentrations at the UNRESTRICTED AREA BOUNDARY (summarized in Table B-1) has been used as the initial typical distribution. The effective dose factors derived from this distribution are presented in Table B-2.

Application

To provide an additional degree of conservatism, a factor of 2.0 is introduced into the dose calculation when the effective dose factor is used. This conservatism provides additional assurance that the evaluation of doses by the use of a single effective dose factor will not significantly underestimate any actual doses in the environment.

For evaluating compliance with the dose limits of Technical Specification 5.5.3.e and 5.5.3.h, the following simplified equations may be used:

$$D\lambda = 2.0 * 3.17E - 08 * \chi / Q * M_{\text{eff}} * \sum Q_i \quad (\text{B-5})$$

and

$$D\beta = 2.0 * 3.17E - 08 * \chi / Q * N_{\text{eff}} * \sum Q_i \quad (\text{B-6})$$

where:

- $D\lambda$ = air dose due to gamma emissions for the cumulative release of all noble gases (mrad),
- $D\beta$ = air dose due to beta emissions for the cumulative release of all noble gases (mrad),
- χ/Q = atmospheric dispersion to the controlling unrestricted area boundary (sec/m^3),
- M_{eff} = $5.7E+02$, effective gamma-air dose factor (mrad/yr per $\mu\text{Ci}/\text{m}^3$),
- N_{eff} = $1.1E+03$, effective beta-air dose factor (mrad/yr per $\mu\text{Ci}/\text{m}^3$),

Q_i = cumulative release for all noble gas radionuclides (μCi),

$3.17\text{E}-08$ = conversion factor (yr/sec), and

2.0 = conservatism factor to account for the variability in the effluent data.

Combining the constants, the dose calculation equations simplify to:

$$D\lambda = 3.61\text{E} - 05 * \chi / Q * \Sigma Q_i \quad (\text{B-5})$$

and

$$D\beta = 7.20\text{E} - 05 * \chi / Q * \Sigma Q_i \quad (\text{B-6})$$

The effective dose factors are used for the purpose of facilitating the timely assessment of radioactive effluent releases, particularly during periods when the computer or ODCM software may be unavailable to perform a detailed dose assessment.

Table B-1
Default Noble Gas Radionuclide Distribution *
of Gaseous Effluents

<u>Nuclide</u>	Fraction of Total ($A_i / \Sigma A_i$)			
	<u>Containment Vessel Purge</u>	<u>Station Vent</u>	<u>Waste Gas Decay Tank</u>	<u>Total</u>
Ar-41	0.0003	0.004	0.004	0.003
Kr-85	0.12	0.012	0.034	0.06
Xe-131m	0.02	0.009	0.008	0.017
Xe-133m	0.005	0.011	0.011	0.008
Xe-133	0.86	0.94	0.92	0.83
Xe-135m	--	0.004	0.0034	0.06
Xe-135	<u>0.002</u>	<u>0.02</u>	<u>0.02</u>	<u>0.021</u>
Total	<u>1.0</u>	<u>1.0</u>	<u>1.0</u>	<u>1.0</u>

NOTE:

** Data adapted from Davis-Besse USAR Section 11.3, Table 11.3-13 and Table 11.3-14. Kr-83m, Kr-85m, Kr-87, Kr-88 and Xe-138 have been excluded because of their negligible fractional abundance (i.e., < 1%).

Table B-2
Effective Dose Factors - Noble Gas Effluents

Isotope	Fractional Abundance	Total Body Dose Factor K_{eff} (mRem/yr per $\mu\text{Ci}/\text{m}^3$)	Skin Dose Factor ($L+1.1M_{\text{eff}}$) (mRem/yr per $\mu\text{Ci}/\text{m}^3$)	Gamma Air Dose Factor M_{eff} (mrad/yr per $\mu\text{Ci}/\text{m}^3$)	Beta Air Dose Factor N_{eff} (mrad/yr per $\mu\text{Ci}/\text{m}^3$)
Ar-41	0.003	2.65E+01	3.87E+01	2.79E+01	9.84E+00
Kr-85	0.06	9.96E-01	8.15E+01	1.03E+00	1.17E+02
Xe-131m	0.017	1.55E+00	1.10E+01	2.65E+00	1.88E+01
Xe-133m	0.008	2.00E+00	1.08E+01	2.61E+00	1.18E+01
Xe-133	0.83	2.44E+02	5.76E+02	2.93E+02	8.72E+02
Xe-135m	0.06	1.87E+02	2.64E+02	2.02E+02	4.43E+01
Xe-135	0.02	3.62E+01	7.94E+02	4.03E+01	5.16E+01
TOTAL	1.0	4.98E+02	9.89E+02	5.69E+02	1.12E+03

APPENDIX C
Radiological Environmental Monitoring Program
Sample Location Maps

[illegible]

INDICATOR STATIONS

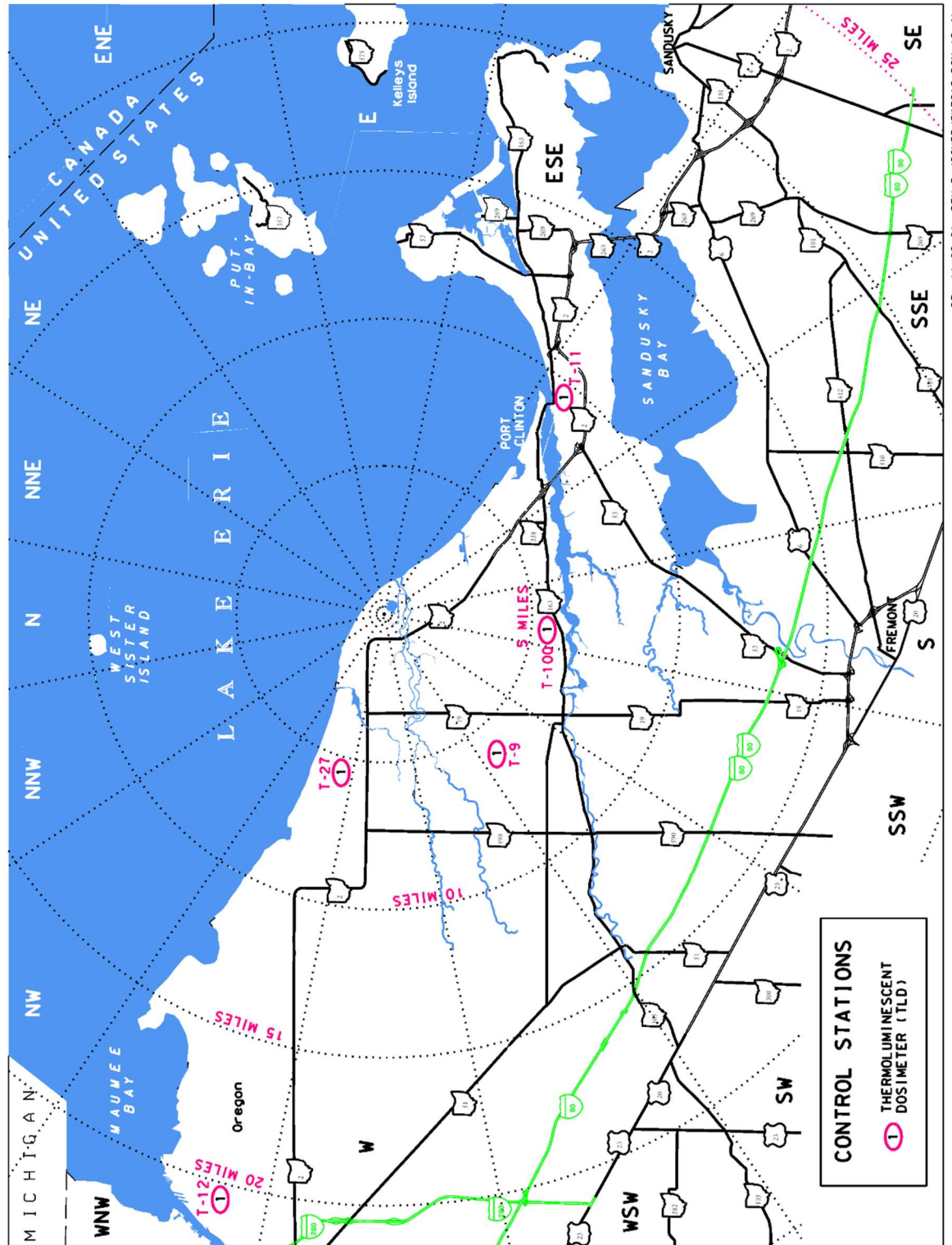
OUTER RING

1 THERMOLUMINESCENT DOSIMETER (TLD)

The map shows a grid of roads including Darsch Rd., Lemon Rd., Duff-Wesla Rd., Moore Rd., Zeitzer Rd., Russell Rd., Humpfrey Rd., Long Beach Rd., Rider Rd., Apling Rd., Fick Rd., Genzman Rd., Camp Perry Rd., South Rd., Toussaint Rd., Leutz Rd., Atwater Rd., Brokate Rd., Carroll Rd., Frutche Rd., Tettau Rd., Lake Shore Dr., Western Rd., and Eri Rd. Water bodies include Lake Erie, T-220 Creek, and Rusk Creek. Landmarks include the T-220 area, T-220 Creek, and T-220. A legend in the bottom right corner defines the symbols used: a pink circle with a black outline for 'INDICATOR STATIONS' and a pink circle with a black outline for 'OUTER RING'. A pink circle with a black outline is also labeled '1 THERMOLUMINESCENT DOSIMETER (TLD)'. The map includes a grid of roads, water bodies, and various landmarks. A legend in the bottom right corner defines the symbols used.

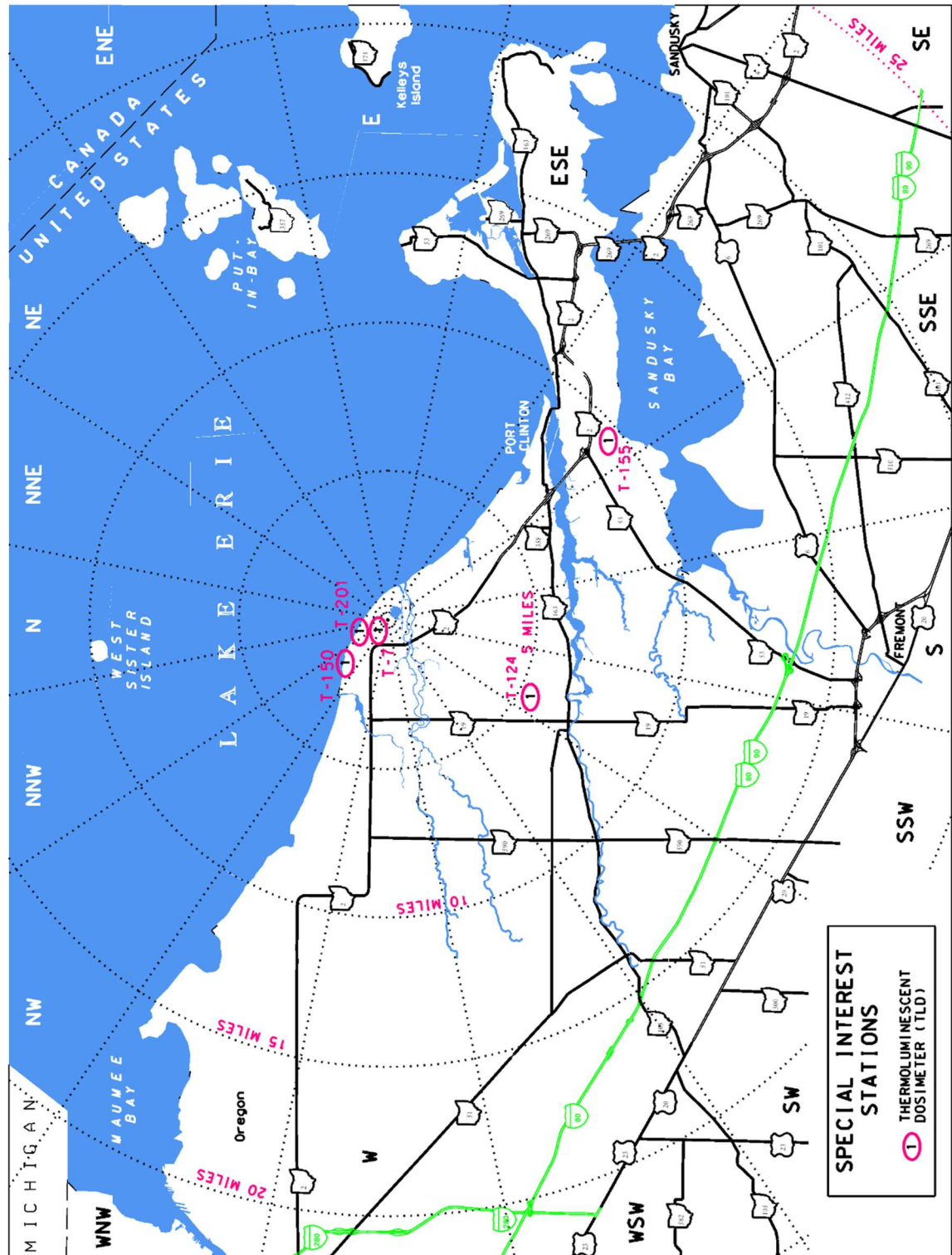
Revision 41
ODCM

DAVIS-BESSE NUCLEAR POWER STATION RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM



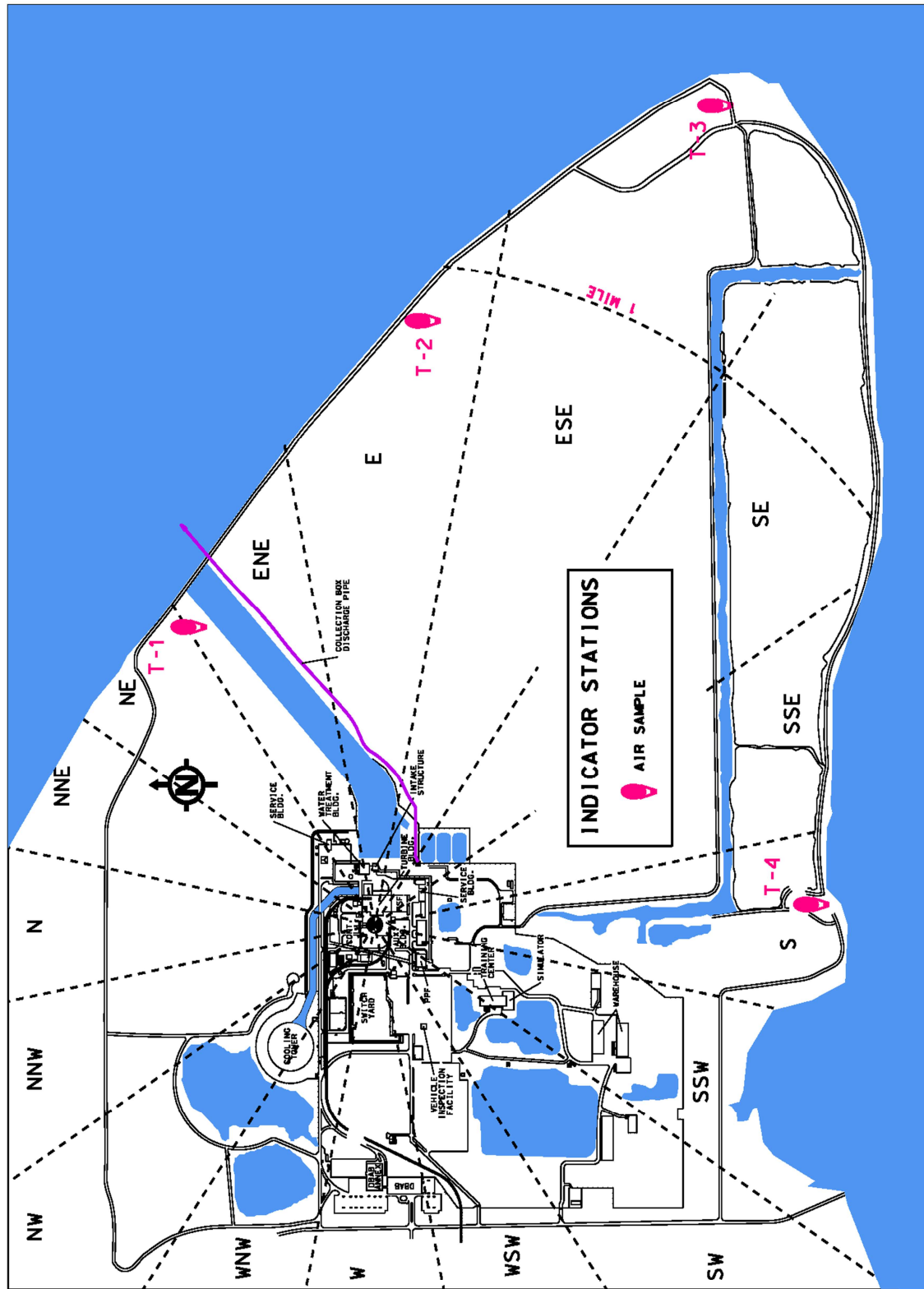
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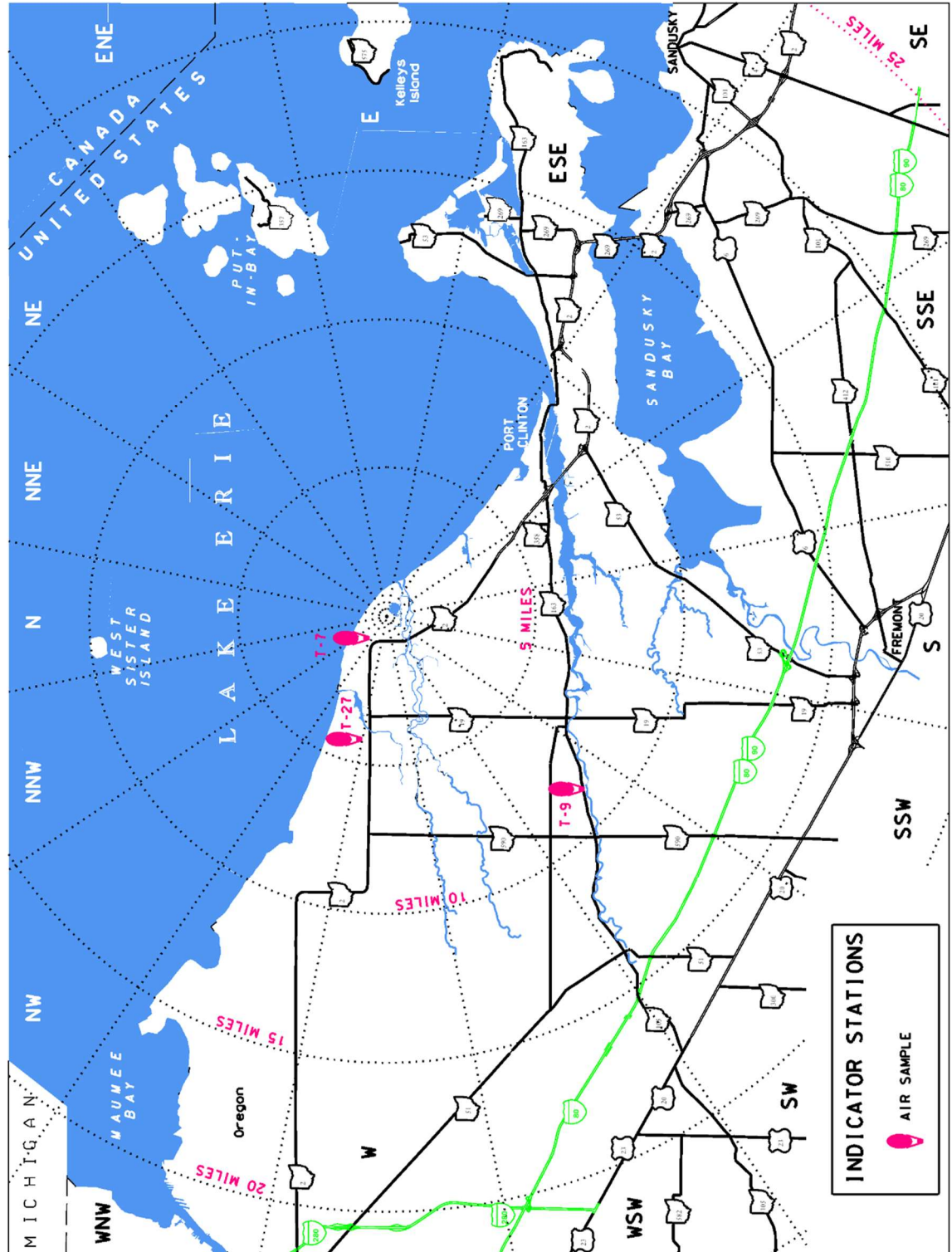
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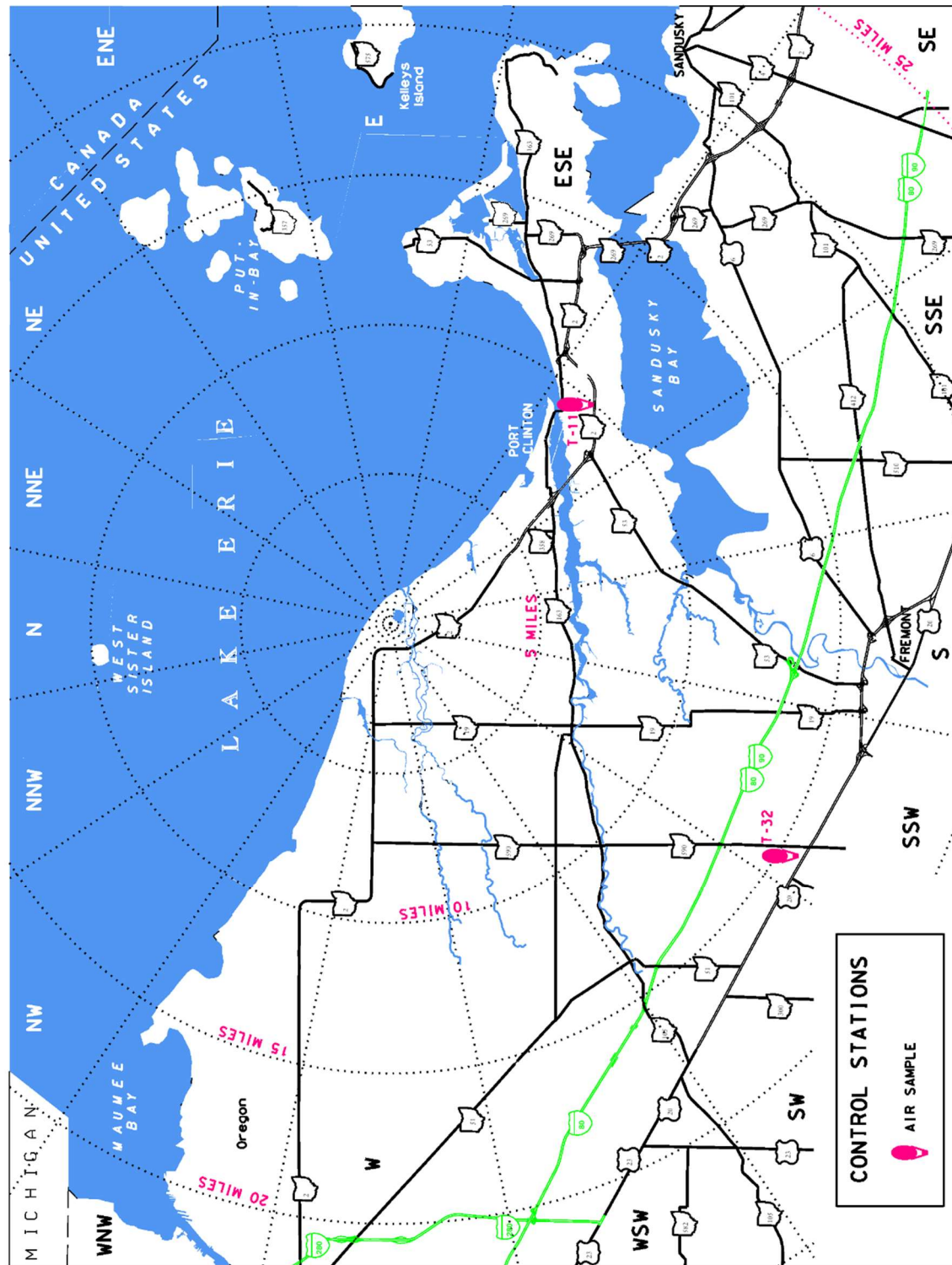
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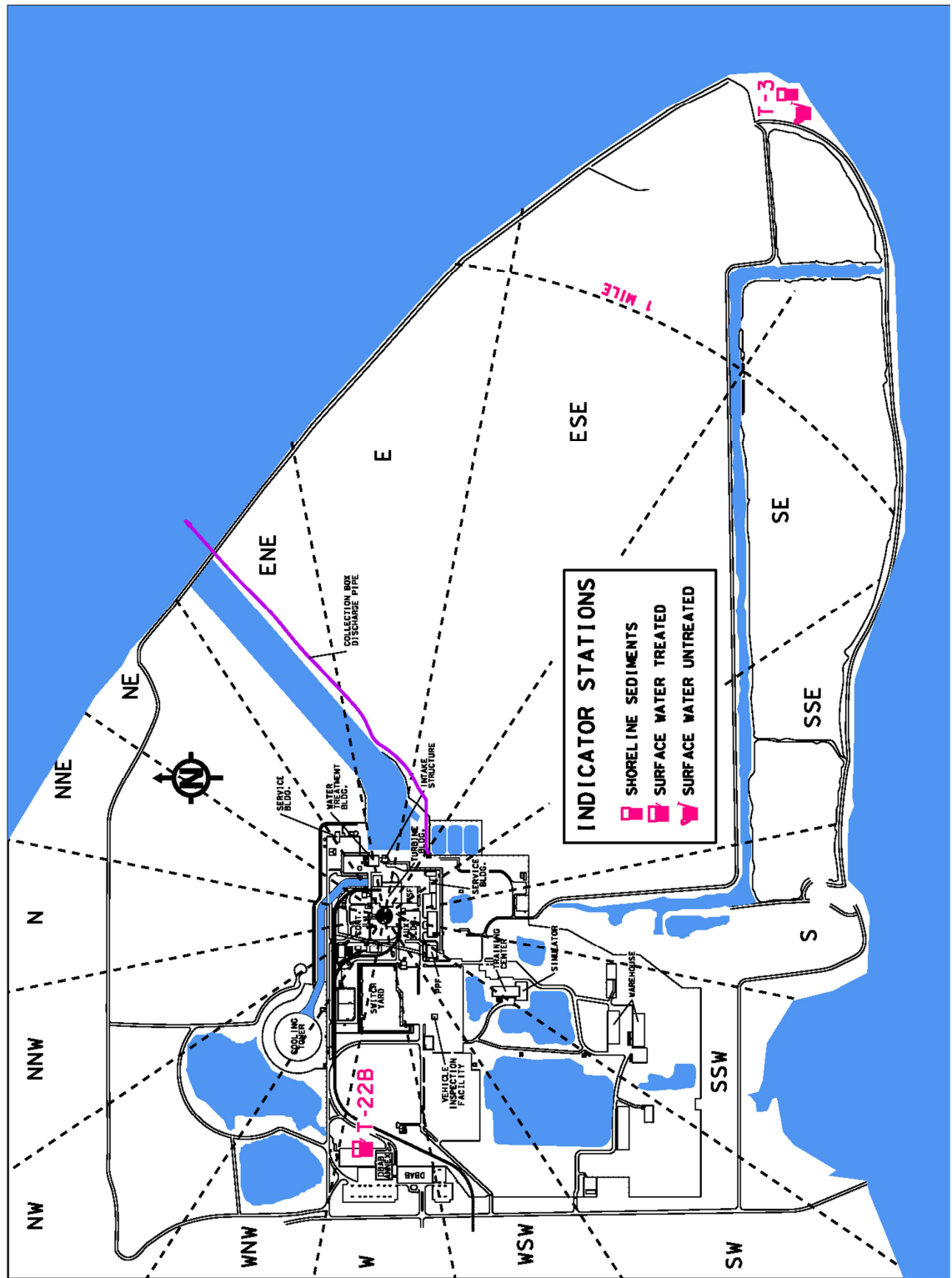
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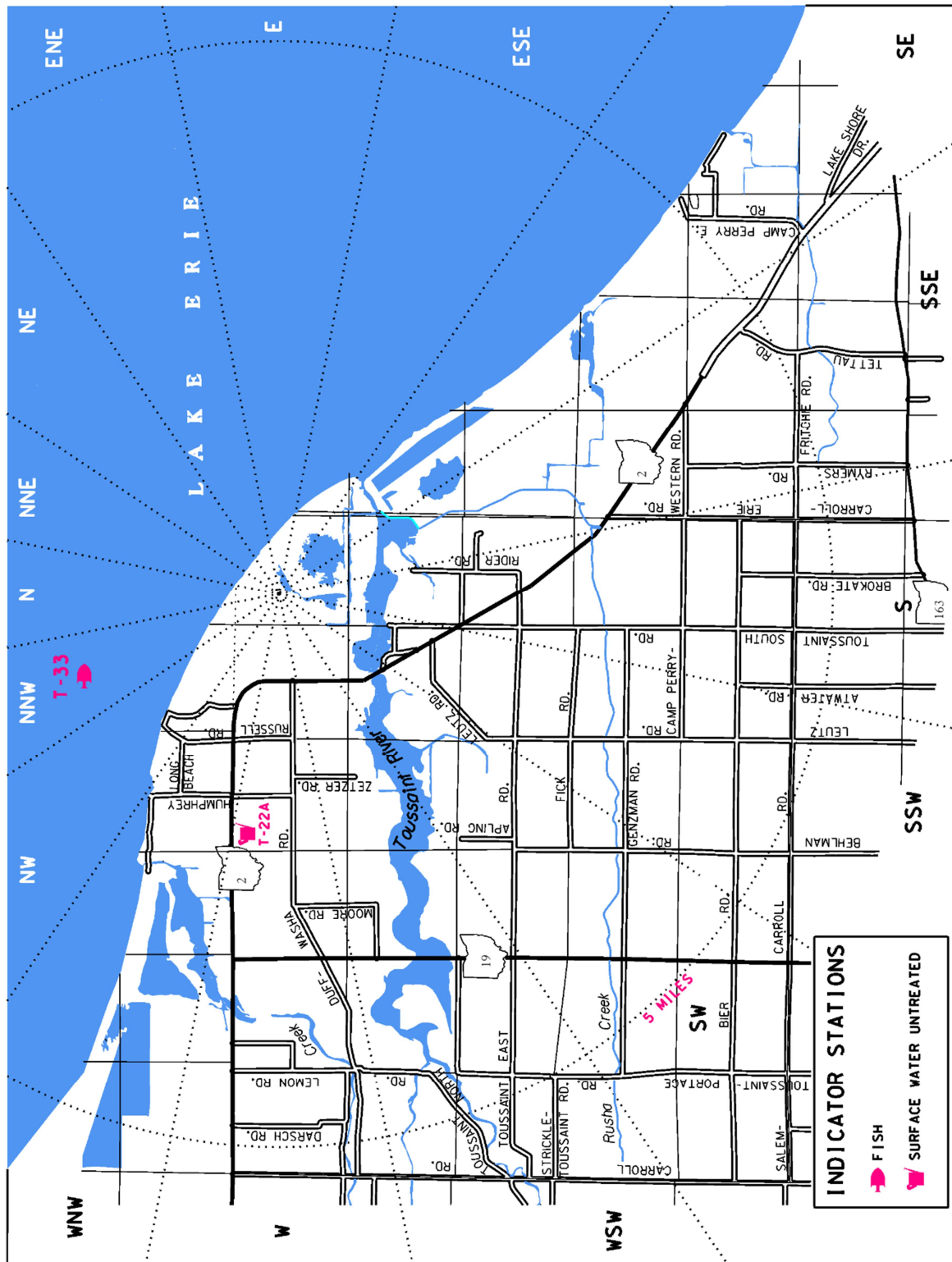
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DAVIS-BESSE NUCLEAR POWER STATION RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM



DB: 01-25-19 DFN-F7/SCHED/SKZ817.DGN (C-8)

DAVIS-BESSE NUCLEAR POWER STATION RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

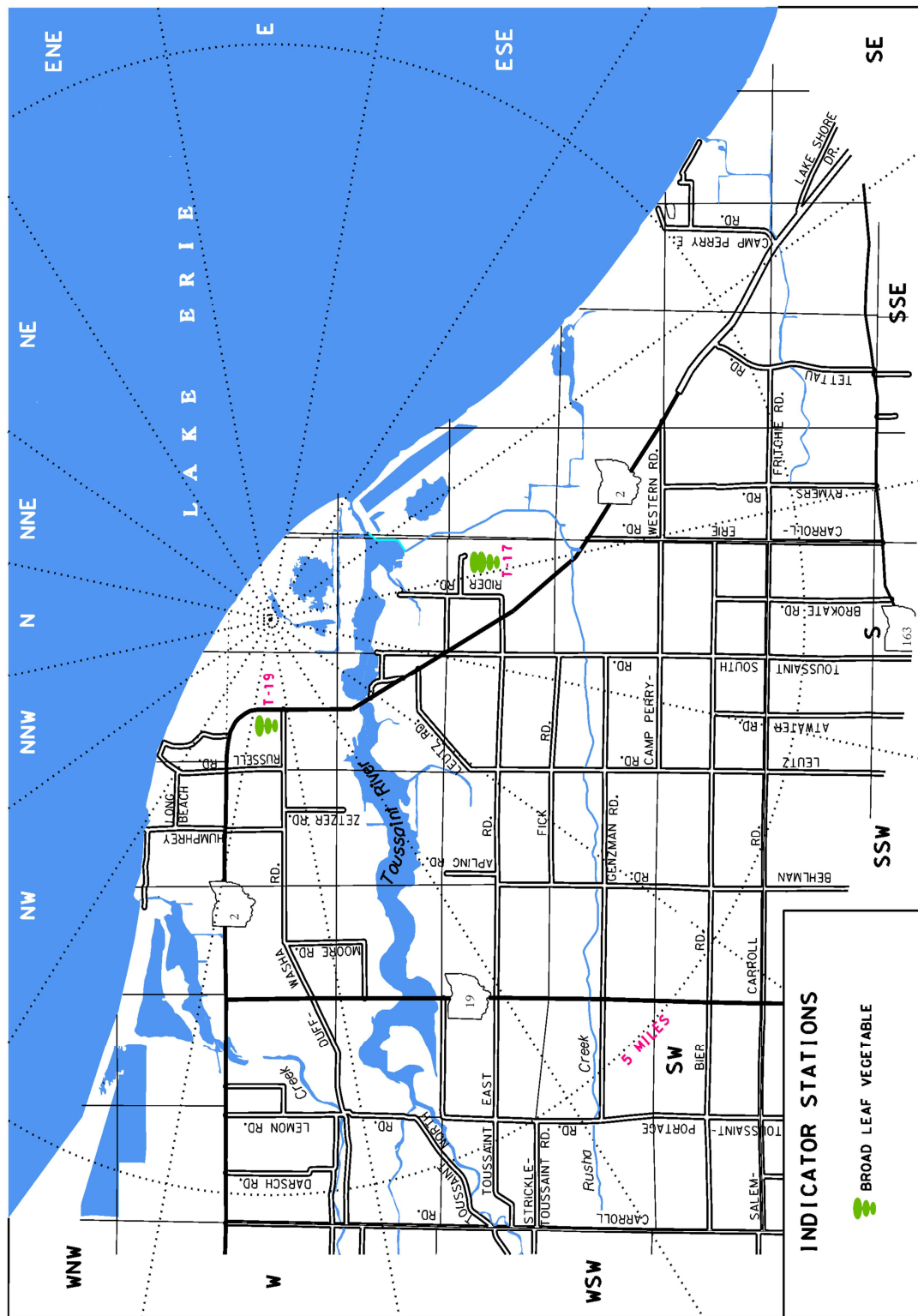


CONTROL STATIONS

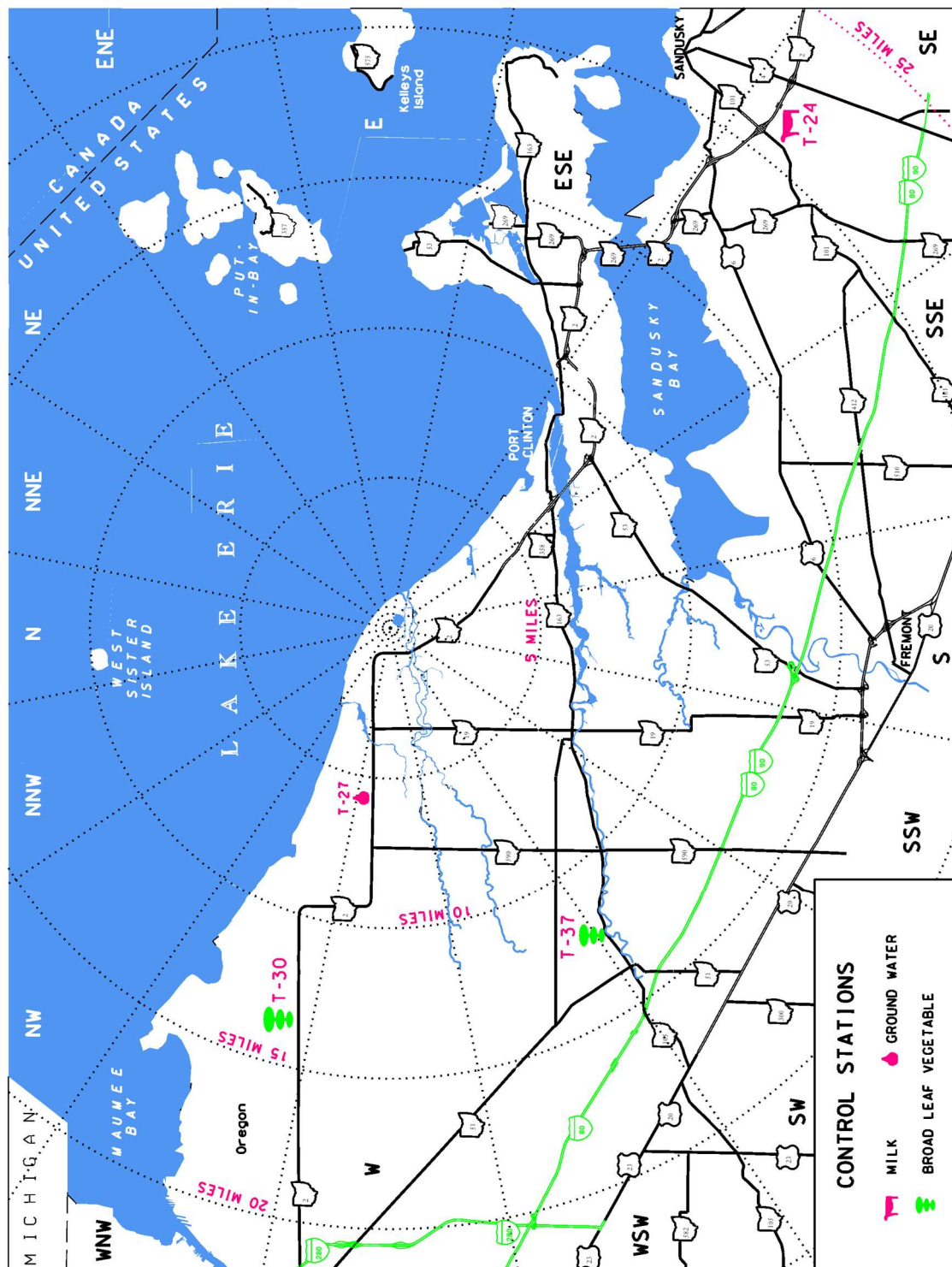
- FISH
- SHORE LINE SEDIMENTS
- SURFACE WATER TREATED
- SURFACE WATER UNTREATED

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DAVIS-BESSE NUCLEAR POWER STATION RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM



DB: 11-29-21 DFN-F: /SCHED/SK2815.DGN (C-12)

APPENDIX D
ODCM Subsections Related to Station Procedures

OVERVIEW

To ensure required alteration changes to the ODCM and implementing procedures are completed, the following ODCM subsections and the implementing procedures may be referenced as an aid.

2.0 LIQUID EFFLUENTS

2.1.1.a.i Clean Radwaste Effluent Monitors (RE-1770A & B)

DB-SC-03200 - Shift Channel Check of the Radiation Monitor System
DB-SC-03221 - Quarterly Functional Test of RE 1770A and/or RE 1770B, Clean
Liquid Waste System Discharge Radiation Monitors
DB-MI-03401 - Channel Calibration of RE-1770A & B, RE-1878A & B, RE-4686
Liquid Process and RE-1822A & B Waste Gas System Outlet Digital
Radiation Monitors
DB-OP-03011 - Radioactive Liquid Batch Release

2.1.1.a.ii Miscellaneous Radwaste Effluent Monitors (RE 1878A & B)

DB-SC-03200 - Shift Channel Check of the Radiation Monitor System
DB-SC-03222 - Quarterly Functional Test of RE 1878A and/or RE1878B,
Miscellaneous Waste System Outlet Radiation Elements
DB-MI-03401 - Channel Calibration of RE-1770A & B, RE-1878A & B, RE-4686
Liquid Process and RE-1822A & B Waste Gas System Outlet Digital
Radiation Monitors
DB-OP-03011 - Radioactive Liquid Batch Release

2.1.1.b.i Storm Sewer Drain line (RE-4686)

DB-SC-03200 - Shift Channel Check of the Radiation Monitor System
DB-SC-03224 - Quarterly Functional Test of RE 4686, Turbine Building/ Storm
Sewer Discharge Radiation Monitor
DB-SC-03231 - Monthly Check Source Test of RE 4686, Turbine Building/ Storm
Sewer Discharge Radiation Monitor
DB-MI-03401 - Channel Calibration of RE-1770A&B, RE-1878A & B, RE-4686
Liquid Process and RE-1822A & B Waste Gas System Outlet Digital
Radiation Monitors

2.1.1.c.i Flow Indicator (FI) 1700 A&B

DB-MI-03423 - Channel Functional Test of 69D-ISF1700A Clean Waste Outlet 1.5”
Flow
DB-MI-03424 - Channel Calibration of 69D-ISF1700A Clean Waste Outlet 1.5” Flow
DB-MI-03425 - Channel Functional Test of 69D-ISF1700B Clean Waste Outlet 3.0”
Flow
DB-MI-03426 - Channel Calibration of 69D-ISF1700B Clean Waste Outlet 3.0” Flow

Flow Totalizer (FQI) 1700 A&B

DB-MI-03424 - Channel Calibration of 69D-ISF1700A Clean Waste Outlet 1.5" Flow

DB-MI-03426 - Channel Calibration of 69D-ISF1700B Clean Waste Outlet 3.0" Flow

2.1.1.c.ii

Flow Indicator (FI) 1887 A&B

DB-MI-03432 - Channel Calibration of 71C-ISF1887A Miscellaneous Waste Outlet
1.5" Flow

DB-MI-03434 - Channel Calibration of 71C-ISF1887B Miscellaneous Waste Outlet
3.0" Flow

Flow Totalizer (FQI) 1887 A&B

DB-MI-03432 - Channel Calibration of 71C-ISF1887A Miscellaneous Waste Outlet
1.5" Flow

DB-MI-03434 - Channel Calibration of 71C-ISF1887B Miscellaneous Waste Outlet
3.0" Flow

2.1.1.c.iii

F145(FT-840)

DB-MI-03422 – Channel Functional/Calibration of 41C-ISF840, Cooling Tower
Blowdown Flow

F890 Service Water Outflow (FT-2729)

DB-MI-03435 - Channel Functional Test of 20A-ISF2729, Service Water Outlet Flow
to Collection Box

F200 Collection Box Dilution Flow (FT2799)

DB-MI-03437 - Channel Functional Test of 20A-ISF2799, Cooling Tower Makeup
Pumps to Collection Box Flow

F886 Unit Dilution Pump Flow (FT3611)

DB-MI-03439 – Channel Functional Test of 20A-ISF3611 Dilution Pump Discharge
Flow

2.1.2

Non Required Monitors

Component Cooling Water System (RE-1412 & RE-1413)

DB-SC-04178 - Quarterly Functional Test of RE 1412, Component Cooling Water Return Line to CC Pump 1 Radiation Monitor

DB-SC-04179 - Quarterly Functional Test of RE 1413, Component Cooling Water Return Line to CC Pump 2 Radiation Monitor

DB-SC-04187 - Daily Check of the Radiation Monitoring System

DB-MI-04501 - Channel Calibration of RE-1412 and RE-1413 Process Radiation Monitors

Service Water System (RE-8432)

DB-SC-04162 - Quarterly Functional Test of RE 8432, Service Water Discharge Radiation Monitor

DB-SC-04187 - Daily Check of the Radiation Monitoring System

DB-MI-04559 - Channel Calibration of RE-1998 (Failed Fuel), RE-8432, and RE-8434 Process Radiation Monitors (UDR)

Intake Forebay (RE-8434)

DB-SC-04164 - Quarterly Functional Test of RE 8434, Station Intake Forebay Radiation Monitor

DB-SC-04187 - Daily Check of the Radiation Monitoring System

DB-MI-04559 - Channel Calibration of RE-1998 (Failed Fuel), RE-8432, and RE-8434 Process Radiation Monitors (UDR)

2.2

Sampling and Analysis of Liquid Effluents

2.2.1

Batch Releases

Prior to Release (Grab sample of principal Gamma Emitters)

DB-OP-03011 - Radioactive Liquid Batch Release

Once Per Month (Dissolved and Entrained Gases)

DB-OP-03011 - Radioactive Liquid Batch Release

Once Per month (Composite Sample of H-3 and alpha activity)

DB-CN-03012 - Liquid Releases, Monthly Monitoring Analysis

Once Per Quarter (Composite sample of Sr-89, Sr-90 and Fe-55)

DB-CN-03013 - Liquid Releases, Quarterly Monitoring Analysis

2.2.2

Continuous Releases

North Settling Basin

DB-CN-04039 - North Settling Basin Weekly Sampling and Analysis

DB-CN-04040 - North Settling Basin Quarterly Analysis

Turbine Building Sump and Storm Sewer Drain

DB-CN-12005 - Storm Sewer Monitor (RE 4686) Inoperable/In Alarm

- 2.2.4 Borated Water Storage Tank
DB-CH-03004 - Borated Water Storage Tank Analysis

- 2.3.3 Liquid Radwaste Effluent Monitor Set Point Calculation - (RE1770A/B & RE 1878A/B)
DB-OP-03011 - Radioactive Liquid Batch Release

- 2.3.4 Storm Sewer Drain Monitor (RE-4686) Setpoint
DB-HP-10000 - Radiation Monitor Setpoint Control

- 2.3.5 Alarm Setpoints for the Non-Required Radiation Monitors
Component Cooling Water System (RE-8412, RE-8413)
Service Water System (RE-8432)
DB-HP-10000 - Radiation Monitor Setpoint Control

- 2.3.6 Alarm Response - Evaluating Actual Release Conditions
DB-OP-03011 - Radioactive Liquid Batch Release
RETSCode

- 2.4 Liquid Effluent Dose Calculation – 10 CFR - 50
DB-CN-03001 - Liquid and Gaseous Radioactive Dose Commitment
DB-OP-03011 - Radioactive Liquid Batch Release
DB-CN-03023 - Annual Land Use Census

- 2.5 Liquid Dose Projections
DB-OP-03011 - Radioactive Liquid Batch Release
DB-CN-03001 - Liquid and Gaseous Radioactive Dose Commitment

3.0 GASEOUS EFFLUENTS

3.1.1 Alarm and Automatic Release Termination

Waste Gas Decay System Monitor (RE 1822A & B)

DB-SC-03200 - Shift Channel Check of the Radiation Monitor System

DB-SC-03225 - Quarterly Functional Test of RE 1822A and/or RE 1822B, Waste Gas System Discharge to Station Vent Radiation Monitors

DB-MI-03401 - Channel Calibration of RE-1770A & B, RE-1878A & B, RE-4686 Liquid Process and RE-1822A & B Waste Gas System Outlet Digital Radiation Monitors

DB-OP-03012 - Radioactive Gaseous Batch Release

Containment Purge Exhaust Filter Monitor (RE 5052A, B and C)

DB-SC-03200 - Shift Channel Check of the Radiation Monitor System

DB-SC-03227 - Quarterly Functional Test of RE 5052A, B, and C, CTMT Purge Exhaust Radiation Monitor

DB-SC-03228 - Monthly Check Source Test of RE 5052C, CTMT Purge Exhaust Radiation Monitor (Noble Gas Activity Channel)

DB-MI-03415 - Channel Calibration of RE-5052C, Containment Purge Exhaust Fan Inlet Digital Process Radiation Monitor

DB-MI-03428 - Channel Calibration of 72C-ISF1821 Waste Gas System Outlet 1.0" Flow

DB-MI-04503 - Channel Calibration of RE-5327A & C and RE-5328A & C, Analog Process Radiation Monitors

DB-MI-04514 - Channel Calibration of RE-5327B and RE-5328B Analog Process Radiation Monitors

DB-RE-04503 - Channel Calibration of RE-1003B, RE-5052A, RE-5403A & C, and RE-5405A & C Digital Process Radiation Monitors

DB-RE-04514 - Channel Calibration of RE-1003A, RE-5052B, RE-5403B, and RE-5405B Digital Process Radiation Monitors

Gaseous Flow Measurement Devices (FT-1821)

DB-MI-03428 - Channel Calibration of 72C-ISF1821 Waste System Gas Outlet 1.0" Flow

DB-SP-03419 - Waste Gas System Flow Transmitters Quarterly Channel Functional Test

3.1.2 Alarm Only

Station Vent Monitor (RE 4598AA & BA)

DB-SC-03200 - Shift Channel Check of the Radiation Monitor System

DB-SC-03216 - Quarterly Functional Test of RE 4598AA, Station Vent Normal Range Radiation Monitor

DB-SC-03218 - Quarterly Functional Test of RE 4598BA, Station Vent Normal Range Radiation Monitor

DB-SC-03229 - Monthly Check Source Test of RE 4598AA, Station Vent Normal Range Radiation Monitor (Noble Gas Activity Channel)

DB-SC-03230 - Monthly Check Source Test of RE 4598BA Station Vent Normal Range Radiation Monitor (Noble Gas Activity Channel)

DB-MI-03413 - Channel Calibration of RE4598AA Station Vent Normal Range Radiation Monitor Channel 1

DB-MI-03417 - Channel Calibration of RE4598BA Station Vent Normal Range Radiation Monitor Channel 2

3.2 Sample and Analysis of Gaseous Effluents

3.2.1 Batch Releases

Prior to Batch Release

DB-OP-03012 - Radioactive Gaseous Batch Release

3.2.2 Continuous Releases

Once per week, analysis of an adsorption media for (I-131)

DB-CN-03008 - Station Vent Releases, Weekly Radiological Monitoring, Sampling and Analysis of RE 4598AA

DB-CN-03009 - Station Vent Releases, Weekly Radiological Monitoring, Sampling and Analysis of RE 4598BA

Once per week, analysis for principal gamma emitters (Particulate Radioactive Material)

DB-CN-03008 - Station Vent Releases, Weekly Radiological Monitoring Sampling and Analysis of RE 4598AA

DB-CN-03009 - Station Vent Releases, Weekly Radiological Monitoring Sampling and Analysis of RE 4598BA

Once per month, grab gas sample analysis for (Noble Gas and Tritium)

DB-CN-03008 - Station Vent Releases, Weekly Radiological Monitoring Sampling and Analysis of RE 4598AA

DB-CN-03009 - Station Vent Releases, Weekly Radiological Monitoring Sampling and Analysis of RE 4598BA

Once per month, composite analysis for (Gross Alpha Activity)

DB-CN-03010 - Station Vent Releases, Monthly Radiological Monitoring Analysis

Once per quarter, composite analysis for particulates Sr-89 and Sr-90

DB-CN-03011 - Station Vent Releases, Quarterly Radiological Monitoring Analysis

Continuous monitoring for Noble Gas (Gross Beta and Gamma activity)

DB-OP-06131 - Gaseous Radioactive Waste System

DB-OP-06412 - Process and Area Radiation Monitor

3.2.3 Release Resulting from Primary to Secondary System Leakage

Once per week, analysis of a secondary system off - gas for gamma emitters (noble gases) and tritium.

DB-CH-04005 - Weekly Condenser Air Activity Sampling and Analysis

Once per week, analysis of condensate sample for principle gamma emitters (Iodines and particulates) and tritium.

DB-CH-06901 - Radiochemistry Test Requirements

Once per quarter, composite analysis of condensate for particulates Sr-89 and Sr-90.

DB-CN-04038 - Radioactive Strontium Determination in Condensate

Auxiliary Steam System Relief lifts when Auxiliary Boiler is the Source of Auxiliary Steam.

DB-CH-06901 - Radiochemistry Test Requirements

DB-CN-10102 - Calculating Radioactive Release Data

RETSCode

3.3.2 Release Rate Limits

DB-OP-03012 - Radioactive Gaseous Batch Release

3.3.3 Individual Release Radiation Monitor Setpoints

DB-OP-03012 - Radioactive Gaseous Batch Release

DB-HP-10000 - Radiation Monitor Setpoint Control

3.6.4 Quantifying Ground Level Releases Activity

DB-CN-10102 - Calculating Radioactive Release Data

3.7.1 Unrestricted Area Dose Limits

DB-CN-03001 - Liquid and Gaseous Radioactive Release Dose Commitment

DB-CN-03011 - Station Vent Releases, Quarterly Radiological Monitoring Analysis

5.0 Assessment of Land Use Census Data

DB-CN-03023 - Annual Land Use Census

6.0 Radiological Environmental Program

DB-CN-00013 - Review and Evaluation of REMP Sample Analysis Results

DB-CN-00014 - Annual Radiological Environmental Operating Report Preparation and Submittal

DB-CN-00015 - Radiological Environmental Monitoring Program

DB-CN-03004 - Radiological Monitoring Quarterly, Semiannual and Annual Sampling

DB-CN-03005 - Radiological Monitoring Weekly, Semimonthly, and Monthly Sampling

DB-CN-04022 - Preparation of REMP Sample Analysis Results Quarterly Report

7.1 Annual Radiological Environmental Operating Report

DB-CN-00012 - Preparation of Radioactive Effluent Release Report

DB-CN-00014 - Annual Radiological Environmental Operating Report Preparation and Submittal

DB-CN-03001 - Liquid and Gaseous Radioactive Dose Commitment

DB-CN-10102 - Calculating Radioactive Release Data

DB-CN-10106 - Processing Changes to the ODCM