# Annual Radiological Environmental Operating Report

Watts Bar Nuclear Plant 2004



### ANNUAL ENVIRONMENTAL RADIOLOGICAL OPERATING REPORT WATTS BAR NUCLEAR PLANT 2004

TENNESSEE VALLEY AUTHORITY

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#### **EXECUTIVE SUMMARY**

This report describes the radiological environmental monitoring program conducted by TVA in the vicinity of the Watts Bar Nuclear Plant (WBN) in 2004. The program includes the collection of samples from the environment and the determination of the concentrations of radioactive materials in the samples. Samples are taken from stations in the general area of the plant and from areas that should not be influenced by plant operations. Material sampled includes air, atmospheric moisture, water, milk, foods, soil, fish, sediment, and direct radiation levels. Results from stations near the plant are compared with concentrations from control locations and with preoperational measurements to determine potential impacts of plant operations.

The majority of environmental radioactivity measured by the program was due to naturally occurring radioactive materials or radionuclides commonly found in the environment as a result of atmospheric fallout and the operation of other nuclear facilities in the area. Low levels of Cs-137 were measured in soil, fish, and shoreline sediment samples. Trace levels of tritium were detected in a limited number of atmospheric moisture samples and Sr-90 was identified in one soil sample. The concentrations were consistent with the preoperational monitoring program results and with levels normally found in the environment as the result of past nuclear weapons testing.

Tritium was detected in onsite ground water monitoring wells. Investigations were conducted to identify the source of the tritium and implement corrective actions. In addition, Co-60, Cs-137, and Sb-125 were identified in sediment collected from the onsite Yard Holding Pond. The level of activity measured in these on site locations would not present a risk of exposure to the general public.

#### INTRODUCTION

This report describes and summarizes the results of radioactivity measurements made in the vicinity of WBN and laboratory analyses of samples collected in the area. The measurements are made to comply with the requirements of 10 CFR 50, Appendix A, Criterion 64 and 10 CFR 50, Appendix I, Section IV.B.2, IV.B.3 and IV.C and to determine potential effects on public health and safety. This report satisfies the annual reporting requirements of WBN Technical Specification 5.9.2 and Offsite Dose Calculation Manual (ODCM) Administrative Control 5.1. In addition to reporting the data prescribed by specific requirements, other information is included to help correlate the significance of results measured by this monitoring program to the levels of environmental radiation resulting from naturally occurring radioactive materials.

#### Naturally Occurring and Background Radioactivity

Most materials in our world today contain trace amounts of naturally occurring radioactivity. Potassium-40 (K-40), with a half-life of 1.3 billion years, is one of the major types of radioactive materials found naturally in our environment. Approximately 0.01 percent of all potassium is radioactive potassium-40. Other examples of naturally occurring radioactive materials are beryllium (Be)-7, bismuth (Bi)-212 and 214, lead (Pb)-212 and 214, thallium (Tl)-208, actinium (Ac)-228, uranium (U)-238 and 235, thorium (Th)-234, radium (Ra)-226, radon (Ra)-222, carbon (C) -14, and hydrogen (H)-3 (generally called tritium). These naturally occurring radioactive materials are in the soil, our food, our drinking water, and our bodies. The radiation from these materials makes up a part of the low-level natural background radiation. The remainder of the natural background radiation comes from outer space.

It is possible to get an idea of the relative hazard of different types of radiation sources by evaluating the amount of radiation the U.S. population receives from each general type of radiation source. The information below is primarily adapted from References 2 and 3.

U.S. GENERAL POPULATION AVERAGE DOSE EQUIVALENT ESTIMATES

Source	Millirem/Year Per Person	<del></del>
Natural background dose equivalent		<del></del>
Cosmic	27	
Cosmogenic	1	
Terrestrial	28	
In the body	39	
Radon	200	
Total	295	
Release of radioactive material in natural gas, mining, ore processing, etc.	5	
Medical (effective dose equivalent)	53	
Nuclear weapons fallout	less than 1	
Nuclear energy	0.28	
Consumer products	0.03	
Total	355 (approximately)	

As can be seen from the data presented above, natural background radiation dose equivalent to the U.S. population normally exceeds that from nuclear plants by several hundred times. This indicates that nuclear plant operations normally result in a population radiation dose equivalent which is insignificant compared to that which results from natural background radiation. It should be noted that the use of radiation and radioactive materials for medical uses has resulted in a similar effective dose equivalent to the U.S. population as that caused by natural background cosmic and terrestrial radiation.

#### Electric Power Production

Nuclear power plants are similar in many respects to conventional coal burning (or other fossil fuel) electrical generating plants. The basic process behind electrical power production in both types of plants is that fuel is used to heat water to produce steam which provides the force to turn

turbines and generators. In a nuclear power plant, the fuel is uranium and heat is produced in the reactor through the fission of the uranium. Nuclear plants include many complex systems to control the nuclear fission process and to safeguard against the possibility of reactor malfunction. The nuclear reactions produce radionuclides commonly referred to as fission and activation products. Very small amounts of these fission and activation products are released into the plant systems. This radioactive material can be transported throughout plant systems and some of it released to the environment.

Paths through which radioactivity from a nuclear power plant is routinely released are monitored. Liquid and gaseous effluent monitors record the radiation levels for each release. These monitors also provide alarm mechanisms to prompt termination of any release above limits.

Releases are monitored at the onsite points of release and through the radiological environmental monitoring program which measures the environmental radiation in areas around the plant. In this way, the release of radioactive materials from the plant is tightly controlled, and verification is provided that the public is not exposed to significant levels of radiation or radioactive materials as the result of plant operations.

The WBN ODCM, which describes the program required by the plant Technical Specifications, prescribes limits for the release of radioactive effluents, as well as limits for doses to the general public from the release of these effluents.

The dose to a member of the general public from radioactive materials released to unrestricted areas, as given in NRC guidelines and the ODCM, is limited as follows:

#### Liquid Effluents

Total body Any organ ≤3 mrem/year ≤10 mrem/year

#### Gaseous Effluents

Noble gases:

Gamma radiation
Beta radiation

≤10 mrad/year ≤20 mrad/year

Particulates:

Any organ

≤15 mrem/year

The EPA limits for the total dose to the public in the vicinity of a nuclear power plant, established in the Environmental Dose Standard of 40 CFR 190, are as follows:

Total body
Thyroid
Any other organ

≤25 mrem/year
≤75 mrem/year

≤25 mrem/year

Appendix B to 10 CFR 20 presents annual average limits for the concentrations of radioactive materials released in gaseous and liquid effluents at the boundary of the unrestricted areas. Table 1 of this report presents the annual average concentration limits for the principal radionuclides associated with nuclear power plant effluents. The table also presents (1) the concentrations of radioactive materials in the environment which would require a special report to the NRC and (2) the detection limits for measured radionculides. It should be noted that the levels of radioactive materials measured in the environment are typically below or only slightly above the lower limit of detection.

#### SITE/PLANT DESCRIPTION

The WBN site is located in Rhea county, Tennessee, on the west bank of the Tennessee River at Tennessee River Mile (TRM) 528. Figure 1 shows the site in relation to other TVA projects. The WBN site, containing approximately 1770 acres on Chickamauga Lake, is approximately 2 miles south of the Watts Bar Dam and approximately 31 miles north-northeast of TVA's Sequoyah Nuclear Plant (SQN) site. Also located within the reservation are the Watts Bar Dam and Hydro-Electric Plant, the Watts Bar Steam Plant (not in operation), the TVA Central Maintenance Facility, and the Watts Bar Resort Area.

Approximately 16,000 people live within 10 miles of the WBN site. More than 80 percent of these live between 5 and 10 miles from the site. Two small towns, Spring City and Decatur, are located in this area. Spring City, with a population of approximately 2,200, is northwest and north-northwest from the site, while Decatur, with about 1,400 people, is south and south-southwest from the plant. The remainder of the area within 10 miles of the site is sparsely populated, consisting primarily of small farms and individual residences.

The area between 10 and 50 miles from the site includes portions of the cities of Chattanooga and Knoxville. The largest urban concentration in this area is the city of Chattanooga, located to the southwest and south-southwest. The city of Chattanooga has a population of about 153,000, with approximately 80 percent located between 40 and 50 miles from the site and the remainder located beyond 50 miles. The city of Knoxville is located to the east-northeast, with not more than 10 percent of its 165,000 plus people living within 50 miles of the site. Three smaller urban areas of greater than 20,000 people are located between 30 and 40 miles from the site. Oak Ridge is approximately 40 miles to the northeast, the twin cities of Alcoa and Maryville are located 45 to 50 miles to the east-northeast, and Cleveland is located about 30 miles to the south.

Chickamauga Reservoir is one of a series of highly controlled multiple-use reservoirs whose primary uses are flood control, navigation, and the generation of electric power. Secondary

uses include industrial and public water supply and waste disposal, commercial fishing, and recreation. Public access areas, boat docks, and residential subdivisions have been developed along the reservoir shoreline.

WBN consists of two pressurized water reactors. WBN Unit 1 received a low power operating license (NPF-20) on November 9, 1995, and achieved initial criticality in January 1996. The full power operating license (NPF-90) was received on February 7, 1996. Commercial operation was achieved May 25, 1996. WBN Unit 2 was deferred October 24, 2000, in accordance with the guidance in Generic Letter 87-15, "Policy Statement on Deferred Plants."

#### RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Most of the radiation and radioactivity generated in a nuclear power reactor is contained within the reactor itself or one of the other plant systems. Plant effluent radiation monitors are designed to monitor radionuclides released to the environment. Environmental monitoring is a final verification that the systems are performing as planned. The monitoring program is designed to monitor the pathways between the plant and the people in the immediate vicinity of the plant. Sample types are chosen so that the potential for detection of radioactivity in the environment will be maximized. The Radiological Environmental Monitoring Program (REMP) for WBN is outlined in Appendix A.

There are two primary pathways by which radioactivity can move through the environment to humans: air and water (see Figure 2). The air pathway can be separated into two components: the direct (airborne) pathway and the indirect (ground or terrestrial) pathway. The direct airborne pathway consists of direct radiation and inhalation by humans. In the terrestrial pathway, radioactive materials may be deposited on the ground or on plants and subsequently ingested by animals and/or humans. Human exposure through the liquid pathway may result from drinking water, eating fish, or by direct exposure at the shoreline. The types of samples collected in this program are designed to monitor these pathways.

A number of factors were considered in determining the locations for collecting environmental samples. The locations for the atmospheric monitoring stations were determined from a critical pathway analysis based on weather patterns, dose projections, population distribution, and land use. Terrestrial sampling stations were selected after reviewing such things as the locations of dairy animals and gardens in conjunction with the air pathway analysis. Liquid pathway stations were selected based on dose projections, water use information, and availability of media such as fish and sediment. Table A-2 (Appendix A, Table 2: This notation system is used for all tables and figures given in the appendices.) lists the sampling stations and the types of samples

collected from each. Modifications made to the WBN monitoring program in are described in Appendix B. While there were no modifications made in the WBN REMP in 2004, Appendix B is included in this report as a place keeper.

Deviations occur in the monitoring program due to equipment problems with automatic sampling systems, sample unavailability or when analyses cannot be completed. Deviations to the sampling and analysis schedule during 2004 are described in Appendix C.

To determine the amount of radioactivity in the environment prior to the operation of WBN, a preoperational radiological environmental monitoring program was initiated in December 1976 and operated through December 31, 1995. Measurements of the same types of radioactive materials that are measured currently were assessed during the preoperational phase to establish normal background levels for various radionuclides in the environment. During the 1950s, 60s, and 70s, atmospheric nuclear weapons testing released radioactive material to the environment causing fluctuations in background radiation levels. Knowledge of preexisting radionuclide patterns in the environment permits a determination, through comparison and trending analyses, of the actual environmental impact of WBN operation.

The determination of environmental impact during the operating phase also considers the presence of control stations that have been established in the environment. Results of environmental samples taken at control stations (far from the plant) are compared with those from indicator stations (near the plant) to aid in the determination of the impacts from WBN operation.

The sample analysis is performed by TVA's Environmental Radiological Monitoring and Instrumentation (ERM&I) group located at the Western Area Radiological Laboratory (WARL) in Muscle Shoals, Alabama. Analyses are conducted in accordance with written and approved procedures and are based on accepted methods. A summary of the analysis techniques

and methodology is presented in Appendix D. Data tables summarizing the sample analysis results are presented in Appendix H. The Data Supplement to this report contains the results of all measurements made as a part of this program.

The radiation detection devices and analysis methods used to determine the radionuclide content of samples collected in the environment are very sensitive to small amounts of radioactivity. The sensitivity of the measurement process is defined in terms of the lower limit of detection (LLD). A description of the nominal LLDs for the ERM&I laboratory is presented in Appendix E.

The ERM&I laboratory operates under a comprehensive quality assurance/quality control program to monitor laboratory performance throughout the year. The program is intended to detect any problems in the measurement process as soon as possible so they can be corrected. This program includes equipment checks to ensure that the radiation detection instruments are working properly and the analysis of quality control samples which are included alongside routine environmental samples. To provide for interlaboratory comparison program cross checks, the laboratory participates in a blind sample program administered by Analytics, Incorporated. Samples split with the State of Tennessee provide an additional verification of the overall performance of the laboratory. A complete description of the program is presented in Appendix F.

#### **DIRECT RADIATION MONITORING**

Direct radiation levels are measured at a number of stations around the plant site. These measurements include contributions from cosmic radiation, radioactivity in the ground, fallout from atmospheric nuclear weapons tests conducted in the past, and any radioactivity that may be present as a result of plant operations. Because of the relatively large variations in background radiation as compared to the small levels from the plant, contributions from the plant may be difficult to distinguish.

Direct radiation levels measured in the area around the WBN site in 2004 were consistent with levels from previous years and with levels measured at other locations in the region.

#### Measurement Techniques

Direct radiation measurements are made with thermoluminescent dosimeters (TLDs). The Panasonic Model UD-814 dosimeter is used for the measurement of direct radiation levels in the environment. This dosimeter contains four elements consisting of one lithium borate and three calcium sulfate phosphors. The calcium sulfate phosphors are shielded by approximately 1000 mg/cm<sup>2</sup> plastic and lead to compensate for the over-response of the detector to low energy radiation.

The TLDs are placed approximately one meter above the ground, with two or more TLDs at each station. Sixteen monitoring points are located around the plant near the site boundary; one location in each of the 16 compass sectors. An additional 16 monitoring points are located approximately 5 miles from the plant in each of the 16 sectors. Dosimeters are also placed at the perimeter and remote air monitoring sites and at additional locations out to approximately 32 miles from the site. The environmental TLD locations are listed in Table A-3. The TLDs are exchanged every 3 months and the accumulated exposure is read with a Panasonic Model UD-710A automatic reader interfaced with a computer system for data analysis.

Since the calcium sulfate phosphor is much more sensitive than the lithium borate, the measured exposure is taken as the median of the results obtained from the calcium sulfate phosphors. The values are corrected for gamma response, system variations, and transit exposure, with individual gamma response calibrations for each element. The system meets or exceeds the performance specifications outlined in Regulatory Guide 4.13 for environmental applications of TLDs.

#### Results

Results are normalized to a standard quarter (91.25 days or 2190 hours). The monitoring locations are grouped according to the distance from the plant. The first group consists of locations within 1 mile of the plant. The second group lies between 1 and 2 miles, the third group between 2 and 4 miles, the fourth group between 4 and 6 miles, and the fifth group is made up of monitoring points more than 6 miles from the plant. Past data have shown that the average results from groups greater than 2 miles from the plant are essentially the same. Therefore, for purposes of this report, locations 2 miles or less from the plant are identified as "onsite" and all others are considered "offsite."

The quarterly gamma radiation levels determined from the TLDs deployed around WBN in 2004 are summarized in Table H-1. The results from all measurements at individual stations are presented in Table H-2. The exposures are measured in milliroentgens (mR). For purposes of this report, one milliroentgen, one millirem (mrem) and one millirad (mrad) are assumed to be numerically equivalent. The rounded average annual exposures are shown below. For comparison purposes, the average direct radiation measurements made in the preoperational monitoring program for the period of 1990 to 1995 are also shown.

Annual Average
Direct Radiation Levels
WBN
mR/Year

	2004	Preoperational <u>Average</u>
Onsite Stations	66	65
Offsite Stations	61	. 57
•	10	

The data in Table H-1 indicate that the average quarterly radiation levels at the WBN onsite stations are approximately 1.3 mR/quarter higher than levels at the offsite stations. This difference is consistent with levels measured for the preoperation and construction phases of TVA nuclear power plant sites where the average levels onsite were generally 2-6 mR/quarter higher than levels offsite. The causes of these differences have not been isolated; however, it is postulated that the differences are probably attributable to combinations of influences such as natural variations in environmental radiation levels, earth-moving activities onsite, and the mass of concrete employed in the construction of the plant. Other undetermined influences may also play a part.

Figure H-1 compares plots of the data from the onsite or site boundary stations with those from the offsite stations over the period from 1990 through 2004. The results reported in 2004 are consistent with direct radiation levels reported in previous years. There is no indication that WBN activities increased the background radiation levels normally observed in the areas surrounding the plant.

#### ATMOSPHERIC MONITORING

The atmospheric monitoring network is divided into three groups identified as local, perimeter, and remote. Four local air monitoring stations are located on or adjacent to the plant site in the general directions of greatest wind frequency. Four perimeter air monitoring stations are located between 6 to 11 miles from the plant, and two remote air monitors are located out to 15 miles. The monitoring program and the locations of monitoring stations are identified in the tables and figures of Appendix A. The remote stations are used as control or baseline stations.

Results from the analysis of samples in the atmospheric pathway are presented in Tables H-3, H-4, and H-5. Radioactivity levels identified in this reporting period are consistent with background and preoperational program data. There is no indication of an increase in atmospheric radioactivity as a result of WBN.

#### Sample Collection and Analysis

Air particulates are collected by continuously sampling air at a flow rate of approximately 2 cubic feet per minute (cfm) through a 2-inch glass fiber filter. The sampling system consists of a pump, a magnehelic gauge for measuring the drop in pressure across the system, and a dry gas meter to measure the total volume of air sampled. This system is housed in a building approximately 2 feet by 3 feet by 4 feet. The filter is contained in a sampling head mounted on the outside of the monitor building. The filter is replaced weekly. Each filter is analyzed for gross beta activity about 3 days after collection to allow time for the radon daughters to decay. Every 4 weeks composites of the filters from each location are analyzed by gamma spectroscopy.

Gaseous radioiodine is sampled using a commercially available cartridge containing TEDAimpregnated charcoal. This system is designed to collect iodine in both the elemental form and as organic compounds. The cartridge is located in the same sampling head as the air particulate filter and is downstream of the particulate filter. The cartridge is changed at the same time as the particulate filter and samples the same volume of air. Each cartridge is analyzed for I-131 by gamma spectroscopy analysis.

Atmospheric moisture sampling is conducted by pulling air at a constant flow rate through a column loaded with approximately 400 grams of silica gel. Every two weeks, the column is exchanged on the sampler. The atmospheric moisture is removed from silica gel by heating and analyzed for tritium.

Rainwater is collected by use of a collection tray attached to the monitor building. The collection tray is protected from debris by a screen cover. As water drains from the tray, it is collected in one of two 5-gallon containers inside the monitor building. A 1-gallon sample is removed from the container every 4 weeks. Any excess water is discarded. Rainwater samples are held to be analyzed only if air particulate samples indicate the presence of elevated levels or if fallout is expected. For example, rainwater samples were analyzed during the period of fallout following the accident at Chernobyl in 1986. Since no plant-related air activity was detected in 2004, no rainwater samples from WBN were analyzed in this reporting period.

#### Results

The results from the analysis of air particulate samples are summarized in Table H-3. Gross beta activity in 2004 was consistent with levels reported in previous years. The average gross beta activity measured for air particulate samples was 0.020 pCi/m³. The annual averages of the gross beta activity in air particulate filters at these stations for the period 1977-2004 are presented in Figure H-2. Increased levels due to fallout from atmospheric nuclear weapons testing are evident in the years prior to 1981 and a small increase from the Chemobyl accident can be seen in 1986. These patterns are consistent with data from monitoring programs conducted by TVA at other nuclear power plant construction sites. Comparison with the same data for the preoperational period of 1990-1995 indicates that the annual average gross beta activity for air

particulates as measured in the 2004 monitoring program was consistent with preoperational data.

Only natural radioactive materials were identified by the monthly gamma spectral analysis of the air particulate samples. As shown in Table H-4, I-131 was not detected in any charcoal cartridge samples collected in 2004.

The results for atmospheric moisture sampling are reported in Table H-5. Tritium was measured in a limited number of atmospheric moisture samples at levels slightly above the nominal LLD value at 3.0 pCi/cubic meter.

#### TERRESTRIAL MONITORING

Terrestrial monitoring is accomplished by collecting samples of environmental media that may transport radioactive material from the atmosphere to humans. For example, radioactive material may be deposited on a vegetable garden and be ingested along with the vegetables or it may be deposited on pasture grass where dairy cattle are grazing. When the cow ingests the radioactive material, some of it may be transferred to the milk and consumed by humans who drink the milk. Therefore, samples of milk, soil, and food crops are collected and analyzed to determine potential impacts from exposure through this pathway. The results from the analysis of these samples are shown in Tables H-6 through H-12.

A land use survey is conducted annually between April and October to identify the location of the nearest milk animal, the nearest residence, and the nearest garden of greater than 500 square feet producing fresh leafy vegetables in each of 16 meteorological sectors within a distance of 5 miles from the plant. This land use survey satisfies the requirements 10 CFR 50, Appendix I, Section IV.B.3. From data produced by the land use survey, radiation doses are projected for individuals living near the plant. Doses from air submersion are calculated for the nearest residence in each sector, while doses from drinking milk or eating foods produced near the plant are calculated for the areas with milk-producing animals and gardens, respectively. These dose projections are hypothetical extremes and do not represent actual doses to the general public. The results of the 2004 land use survey are presented in Appendix G.

#### Sample Collection and Analysis

Milk samples are collected every 2 weeks from three indicator dairies and from at least one control dairy. Milk samples are placed on ice for transport to the radioanalytical laboratory. A specific analysis for I-131 and a gamma spectral analysis are performed on each sample and once per quarter samples are analyzed for Sr-89 and Sr-90.

The monitoring program includes a provision for sampling of vegetation from locations where milk is being produced and when milk sampling cannot be conducted. There were no periods during 2004 when vegetation sampling was necessary.

Soil samples are collected annually from the air monitoring locations. The samples are collected with either a "cookie cutter" or an auger type sampler. After drying and grinding, the sample is analyzed by gamma spectroscopy. When the gamma analysis is complete, the sample is ashed and analyzed for Sr-89 and Sr-90.

Samples representative of food crops raised in the area near the plant are obtained from individual gardens, corner markets, or cooperatives. Types of foods may vary from year to year as a result of changes in the local vegetable gardens. In 2004, samples of apples, cabbage, corn, green beans, and tomatoes, were collected from local vegetable gardens and/or farms. Samples of the same food products grown in areas that would not be effected by the plant were collected as control samples. The edible portion of each sample is analyzed by gamma spectroscopy.

#### Results

The results from the analysis of milk samples are presented in Table H-6. All I-131 values were below the established nominal LLD of 0.4 pCi/liter. The results for the quarterly Sr-89, Sr-90 analysis were also below the established LLD's for these analyses. The gamma isotopic analysis of milk samples detected only naturally occurring radionuclides. The predominant isotope reported in milk samples was the naturally occurring K-40.

Consistent with most of the environment, Cs-137 was detected in all of the soil samples collected in 2004. The maximum concentration of Cs-137 was 0.53 pCi/g. A trace amount of Sr-90 was measured in soil from one of the control sampling locations. The concentrations were consistent with levels previously reported from fallout. All other radionuclides reported were naturally occurring isotopes. The results of the analysis of soil samples are summarized in Table H-7.

A plot of the annual average Cs-137 concentrations in soil is presented in Figure H-3. Concentrations of Cs-137 in soil are steadily decreasing as a result of the cessation of weapons testing in the atmosphere, the 30 year half-life of Cs-137, and transport through the environment.

The radionuclides measured in food samples were naturally occurring. The results are reported in Tables H-8 through H-12.

#### LIQUID PATHWAY MONITORING

Potential exposures from the liquid pathway can occur from drinking water, ingestion of fish, or from direct radiation exposure from radioactive materials deposited in the shoreline sediment. The aquatic monitoring program includes the collection of samples of river (surface) water, groundwater, drinking water supplies, fish, and shoreline sediment. Indicator samples were collected downstream of the plant and control samples collected within the reservoir upstream of the plant or in the next upstream reservoir (Watts Bar Lake).

Results from the analysis of the liquid pathway samples are presented in Table H-13 through H-19. Radioactivity levels in surface and public water, fish, and shoreline sediment were consistent with background and/or fallout levels previously reported. Low levels of Cs-137 were measured in samples of shoreline sediment and fish. Tritium was detected in samples of ground water collected from onsite monitoring wells. The tritium concentrations were low and presented no risk of exposure to site personnel or the public. Results for the sediment sampling conducted in the onsite Yard Holding Pond are discussed later in this section.

#### Sample Collection and Analysis

Samples of surface water are collected from the Tennessee River using automatic sampling systems from two downstream stations and one upstream station. A timer turns on the system at least once every 2 hours. The line is flushed and a sample collected into a composite container. A 1-gallon sample is removed from the container at 4-week intervals and the remaining water is discarded. Each sample is analyzed for gamma-emitting radionculides, gross beta activity, and tritium.

Samples are also collected by an automatic sampling system at the first two downstream drinking water intakes. These samples are collected in the same manner as the surface water samples.

These monthly samples are analyzed for gamma-emitting radionuclides, gross beta activity, and tritium. The samples collected by the automatic sampling device are taken directly from the river at the intake structure. Since the sample at this point is raw water, the upstream surface water sample is used as a control sample for drinking water.

Groundwater is sampled from one onsite well down gradient from the plant, one onsite well up gradient from the plant, and four additional onsite ground water monitoring wells located along underground discharge lines. The onsite wells are sampled with a continuous sampling system. A composite sample is collected from the onsite wells every four weeks and and analyzed for gamma-emitting radionuclides, gross beta activity, and tritium content. In addition, a grab sample is collected every four weeks from a private well in an area unaffected by WBN. The grab sample is also analyzed for gross beta activity, gamma-emitting radionuclides, and for tritium.

Samples of commercial and game fish species are collected semiannually from each of two reservoirs: the reservoir on which the plant is located (Chickamauga Reservoir) and the upstream reservoir (Watts Bar Reservoir). The samples are collected using a combination of netting techniques and electrofishing. The ODCM specifies analysis of the edible portion of the fish. To comply with this requirement, filleted portions are taken from several fish of each species. The samples are analyzed by gamma spectroscopy.

Samples of shoreline sediment are collected from recreation areas in the vicinity of the plant. The samples are dried, ground, and analyzed by gamma spectroscopy.

Samples of sediment are also collected from the onsite Yard Holding Pond. A total of five samples were collected in 2004. The samples are dried, ground, and analyzed by gamma spectroscopy.

#### Results

Gross beta activity was detectable above the nominal LLD in most of the surface water samples. The gross beta concentrations averaged 3.8 pCi/liter in downstream samples and 2.6 pCi/liter in upstream samples. These levels were consistent with results found during the preoperational monitoring program. A summary table of the results is shown in Table H-13.

No fission or activation products were identified in drinking water samples. Average gross beta activity at downstream stations was 2.4 pCi/liter while the average for upstream stations was also 2.6 pCi/liter. The results are shown in Table H-14. Trend plots of the gross beta activity in surface water and drinking water samples from 1977 through 2004 are presented in Figure H-4.

The gamma isotopic analysis of ground water samples identified only naturally occurring radionuclides. Gross beta concentrations in samples from the onsite indicator locations averaged 5.7 pCi/liter. The average gross beta activity for samples from the control locations was 2.6 pCi/liter. As noted earlier, tritium was detected in samples from the onsite monitoring wells. The maximum concentration measured in the four-week composite samples from the onsite wells was 12,800 pCi/L. There was no tritium detected in the onsite up gradient well or the offsite ground water monitoring location. The results are presented in Table H-15.

Measurable levels of Cs-137 were identified in a total of seven fish samples. The maximum Cs-137 concentration was 0.08 pCi/g measured in commercial fish collected at the upstream control location. Other radioisotopes found in fish were naturally occurring, with the most notable being K-40. The results are summarized in Tables H-16 and H-17. Trend plots of the annual average Cs-137 concentrations measured in fish samples are presented in Figure H-5. The Cs-137 activities are consistent with preoperational results produced by fallout or effluents from other nuclear facilities.

Low levels of Cs-137 consistent with the concentrations present in the environment as the result of past nuclear weapons testing or other nuclear operations in the area were measured in samples of shoreline sediment. The results for the analysis of shoreline sediment is presented in Table H-18. Trend plots of the average concentration of Cs-137 in shoreline sediment are presented in Figure H-6.

Consistent with previous monitoring conducted for the onsite ponds, Cs-137 was detected in the sediment samples. The average of the Cs-137 levels measured in sediment from the onsite ponds was 0.08 pCi/gm. In addition, Co-60, and Sb-125 were also detected in some of the samples collected from the Yard Holding Pond. The results for the analysis of pond sediment samples are provided in Table H-19. Since these radionuclides were present in relatively low concentrations and confined to the Yard Holding Pond located in the owner controlled area not open to the general public, the presence of these radionuclides would not represent any increased risk of exposure to the general public.

#### ASSESSMENT AND EVALUATION

Potential doses to the public are estimated from measured effluents using computer models. These models were developed by TVA and are based on guidance provided by the NRC in . Regulatory Guide 1.109 for determining the potential dose to individuals and populations living in the vicinity of the plant. The results of the effluent dose calculations are reported in the Annual Radiological Effluent Release Report. The doses calculated are a representation of the dose to a "maximum exposed individual." Some of the factors used in these calculations (such as ingestion rates) are maximum expected values which will tend to overestimate the dose to the "hypothetical" person. The calculated maximum dose due to plant effluents are small fractions of the applicable regulatory limits. In reality, the expected dose to actual individuals is significantly lower.

Based on the very low concentrations of radionuclides actually present in the plant effluents, radioactivity levels measured in the environment as result of plant operations are expected to be negligible. The results for the radiological environmental monitoring conducted for the WBN 2004 operations confirm this expectation.

#### Results

As stated earlier in this report, the estimated increase in radiation dose equivalent to the general public resulting from the operation of WBN is insignificant when compared to the dose from natural background radiation. The results from each environmental sample are compared with the concentrations from the corresponding control stations and appropriate preoperational and background data to determine influences from the plant. During this report period, Cs-137 was detected in shoreline sediment, soil, and fish collected for the WBN program. Trace levels of tritium were measured in a few atmospheric moisture samples and Sr-90 was detected in one soil sample. The concentrations measured were consistent with levels measured during the preoperational monitoring program.

The levels of tritium detected in the onsite ground water monitoring wells and the radionuclides measured in samples of sediment from the Yard Holding Pond do not represent an increase risk of exposure to the public. These radionuclides were limited to the owner controlled area and would not present an exposure pathway for the general public.

#### Conclusions

It is concluded from the above analysis of environmental samples and from the trend plots presented in Appendix H, that exposure to members of the general public which may have been attributable to WBN is negligible. The radioactivity reported herein is primarily the result of fallout or natural background. Any activity which may be present in the environment as a result of plant operations does not represent a significant contribution to the exposure of Members of the Public.

#### **REFERENCES**

- 1. Merril Eisenbud, Environmental Radioactivity, Academic Press, Inc., New York, NY, 1987.
- 2. National Council on Radiation Protection and Measurements, Report No. 93, "Ionizing Radiation Exposure of the Population of the United States," September 1987.
- 3. United States Nuclear Regulatory Commission, Regulatory Guide 8.29, "Instruction Concerning Risks from Occupational Radiation Exposure," July 1981.

Table 1

## COMPARISON OF PROGRAM LOWER LIMITS OF DETECTION WITH THE REGULATORY LIMITS FOR MAXIMUM ANNUAL AVERAGE EFFLUENT CONCENTRATIONS RELEASED TO UNRESTRICTED AREAS AND REPORTING LEVELS

	Concentrations in Water, pCi/Liter		Concentrations in Air, pCi/Cubic Meter			
	Effluent	Reporting	Lower limit	Effluent	Reporting	Lower limit
	Concentration <sup>1</sup>	<u>Level<sup>2</sup></u>	of Detection <sup>3</sup>	Concentration <sup>1</sup>	<u>Level<sup>2</sup></u>	of Detection <sup>3</sup>
** 0		20.000	200	***		2.00
H-3	1,000,000	20,000	300	100,000		3.00
Cr-51	500,000	•	45	30,000		· 0.02
Mn-54	30,000	1,000 .	5	1,000		0.005
Co-58	20,000	1,000	5	1,000		0.005
Co-60	3,000	300	5	50		0.005
Zn-65	5,000	300	10	400	•	0.005
Sr-89	8,000	•	5	1,000		0.0011
Sr-90	500		2	6		0.0004
Nb-95	30,000	. 400	5	2,000		0.005
Zr-95	20,000	400	10	400		0.005
Ru-103	30,000		5	900		0.005
Ru-106	3,000	•	40	20	•	0.02
I-131	1,000	2	0.4	· 200	0.9	0.03
Cs-134	. 900	30	5	200	10	0.005
Cs-137	1,000	50	5	200	20	0.005
Ce-144	3,000		30	40		0.01
Ba-140	8,000	200	25	2,000		0.015
La-140	9,000	200	10	2,000		0.01

Note:  $1 \text{ pCi} = 3.7 \times 10^{-2} \text{ Bq}$ .

Note: For those reporting levels that are blank, no value is given in the reference.

1 Source: Table 2 of Appendix B to 10 CFR 20.1001-20.2401

2 Source: WBN Offsite Dose Calculation Manual, Table 2.3-2

3 Source: Table E-1 of this report.

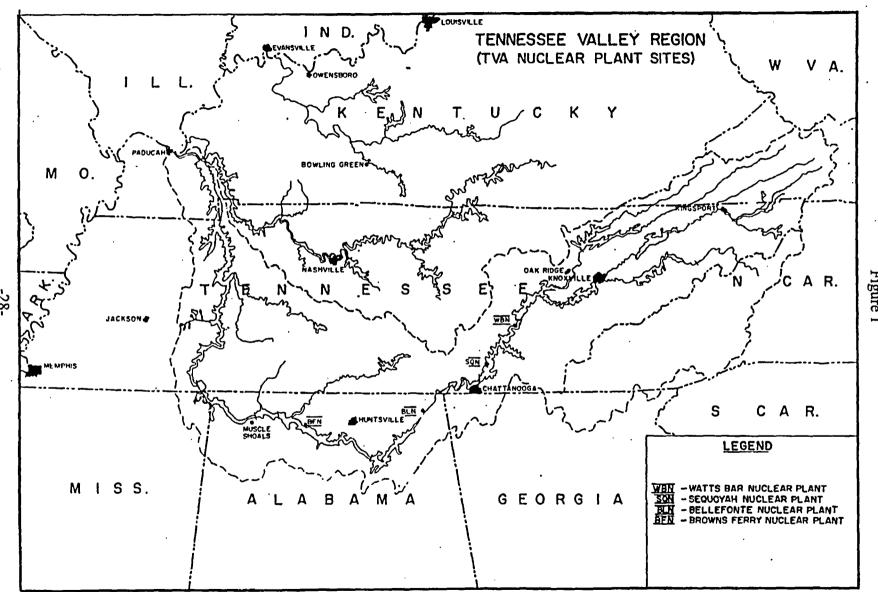
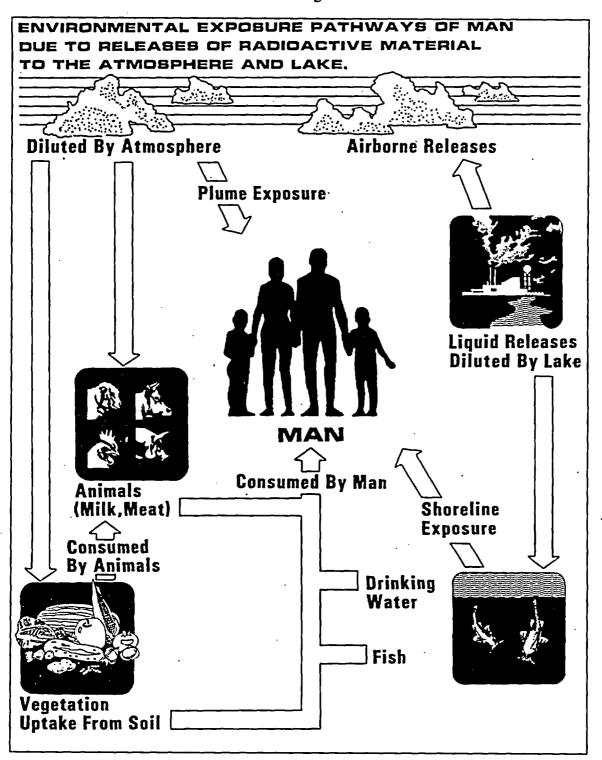


Figure 2



#### APPENDIX A

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM AND SAMPLING LOCATIONS

# WATTS BAR NUCLEAR PLANT RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Exposure Pathway Number of Samples and and/or Sample Locations <sup>b</sup>		Sampling and Collection Frequency	Type and Frequency of Analysis	
1. AIRBORNE				
a. Particulates	4 samples from locations (in different sectors) at or near the site boundary (LM-1, 2, 3, and 4).	Continuous sampler operation with sample collection weekly (more (frequently if required by dust loading).	Analyze for gross beta radioactivity greater than or equal to 24 hours following filter change. Perform gamma isotopic analysis on each sample if gross beta is greater than I times yearly mean of control sample Composite at least once per 31 days (by location) for gamma scan.	
	4 samples from communities approximately 6-10 miles from the plant (PM-2, 3, 4, and 5).	•	·	
	2 samples from control locations greater than 10 miles from the plant (RM-2 and 3).			
b. Radioiodine	Samples from same locations as air particulates.	Continuous sampler operation with filter collection weekly.	I-131 at least once per 7 days. Analysis is performed by gamma spectroscopy.	
c. Atmospheric Moisture	4 samples from locations (in different sectors) at or near the site boundary (LM-1, 2, 3, and 4)	Continuous sampler operation with sample collection biweekly.	Analyze each sample for tritium.	
	2 samples from communities approximately 4-10 miles distance from the plant (PM-2, 5).			

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Table A-1

# WATTS BAR NUCLEAR PLANT RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM<sup>a</sup>

Exposure Pathway Number of Samples and and/or Sample Locations <sup>b</sup>		Sampling and Collection Frequency	Type and Frequency of Analysis		
c. Atmospheric Moisture (Cont.)	2 samples from control location greater than 10 miles from the plant (RM-2 and RM-3).				
d. Rainwater	Samples from same locations as air particulates.	Rainwater collected continuously with composite sample taken monthly.	Analyzed fro gamma activity only if radioactivity in other media indicates the presence of increased levels of fallout.		
e. Soil	Samples from same location as air particulates.	Once per year.	Gamma scan, Sr-89, Sr-90 once per year.		
2. DIRECT	2 or more dosimeters (TLDs) placed At or near the site boundary in each of the 16 sectors.	At least once per 92 days.	Gamma dose at least once per 92 days.		
	2 or more dosimeters placed at stations located approximately 5 miles from the plant in each of the 16 sectors.				
	2 or more dosimeters in at least 8 additional locations of special interest, including at least 2 control stations.				

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# WATTS BAR NUCLEAR PLANT RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM<sup>a</sup>

Exposure Pathway and/or Sample		Number of Samples and <u>Locations</u> <sup>b</sup>	Sampling and Collection Frequency	Type and Frequency of Analysis		
	3. WATERBORNE					
	a. Surface	2 samples downstream from plant discharge (TRM 517.9 and TRM 523.1).	Collected by automatic sequential- type sampler with composite samples collected over a period of approximately 31 days.	Gross beta, gamma scan, and tritium analysis of each sample.		
	·	1 sample at a control location upstream from the plant discharge (TRM 529.3).				
	b. Ground	Five sampling locations from groundwater monitoring wells adjacent to the plant (Wells No. 1, A, B, C, and D).	Collected by automatic sequential- type sampler with composite samples collected over a period of approximately 31 days.	Gross beta, gamma scan, and tritium analysis of each sample.		
	•	1 sample from ground water source up gradient (Well No. 5).	Same as Well No. 1.	Gross beta, gamma scan, and tritium analysis of each sample.		
		l sample from ground water source up gradient (Farm L).	Grab sample at least once per 31 days.	Gross beta, gamma scan, and tritium analysis of each sample.		
	c. Drinking	1 sample at the first two potable surface water supplies, downstream from the plant (TRM 503.8 and TRM 473.0).	Collected by automatic sequential- type sampler with composite sample collected monthly.	Gross beta, gamma scan, and tritium analysis of each sample.		

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# WATTS BAR NUCLEAR PLANT RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM<sup>a</sup>

Exposure Pathway and/or Sample	Number of Samples and <u>Locations<sup>b</sup></u>	Sampling and Collection Frequency	Type and Frequency of Analysis		
c. Drinking (Con't)	1 sample at a control location TRM 529.3 <sup>d</sup> .	·			
d. Sediment from Shoreline	1 sample downstream from plant Discharge (TRM 513.0).	At least once per 184 days.	Gamma scan of each sample.		
	I sample from a control location upstream from plant discharge (TRM 530.2).		•		
e. Pond Sediment	1 sample from at least three locations in the Yard Holding Pond.	At least once per year.	Gamma scan of each sample.		
5. INGESTION			· .		
a. Milk	3 samples from farms and/or dairies in the immediate vicinity of the plant.	Every 2 weeks.	I-131 and gamma analysis on each sample. Sr-89 and Sr-90 once per quarter.		
	1 or more samples from control locations.	•			
b. Fish	One sample of commercially important species and one sample of recreationally important species.  One sample of each species from Chickamauga and Watts Bar Reservoirs.	At least once per 184 days.	Gamma scan on edible portions.		

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#### Table A-1

# WATTS BAR NUCLEAR PLANT RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Exposure Pathway Number of Samples and and/or Sample Locations <sup>b</sup>		Sampling and Collection Frequency	Type and Frequency of Analysis		
c. Vegetation <sup>e</sup> (Pasturage and grass)	Samples from farms producing milk but not providing a milk sample.	At least once per 31 day.	I-131 analysis and gamma scan of each sample.		
d. Food Products	I sample each of principal food products grown at private gardens and/or farms in the immediate vicinity of the plant.	Annually at time of harvest. The types of foods available for sampling will vary. Following is a list of typical foods which may be available:	Gamma scan on edible portion.		
		Cabbage, Lettuce and/or Greens Corn Green Beans Potatoes Tomatoes			

a. The sampling program outlined in this table is that which was in effect at the end of 2004.

b. Sample locations are shown on Figures A-1, A-2, A-3.

c. Samples shall be collected by collecting an aliquot at intervals not exceeding 2 hours.

d. The samples collected at TRMs 503.8 and 473.0 are taken from the raw water supply, therefore, the upstream surface water sample will be considered the control sample for drinking water.

e. Vegetation sampling is applicable only for farms that meet the criteria for milk sampling and when milk sampling cannot be performed.

Table A-2
WATTS BAR NUCLEAR PLANT
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM
SAMPLING LOCATIONS

Map Location Number <sup>a</sup>	Station	Sector	Approximate Distance (Miles)	Indicator (I) or Control (C)	Samples Collected <sup>b</sup>
2	PM-2	NW	7.0°	I	AP,CF,R,SAM
3	PM-3	NNE	10.4	Ī	AP,CF,R,S
4	PM-4	NE/ENE°	7.6	Ī	AP,CF,R,S
	PM-5	S	8.0	I	AP,CF,R,S,AM
5 6	RM-2	SW	15.0	С	AP,CF,R,S,AM
7	RM-3	NNW	15.0	C	AP,CF,R,S,AM
8	LM-1	SSW	0.5	Ī	AP,CF,R,SAM
9	LM-2	NNE	0.4	Ī	AP,CF,R,SAM
10	LM-3	NNE	· 1.9	Ī	AP,CF,R,S,AM
11	LM-4	SE	0.9	I	AP,CF,R,S,AM
12	Farm L	SSW	1.3	I <sub>q</sub>	M,W
15	Farm K	ENE .	11.6	C	M·
18	Well #1	S	0.6	Ī	W
19	Farm Mu	ESE	. 3.7	Ī	M
20	Farm N	ESE	4.1	Ī	M
22	Farm EH	SSW	24.0	Ċ	M
23	Well #5	N	0.5	Ċ	W
25	TRM 517.9		9.9°	Ī	SW
26	TRM 523.1		4.7°	Ī	sw
27	TRM 529.3		1.5°	Ċ	SW,PW <sup>f</sup>
31	TRM 473.0		54.8°	Ī	PW
	(C. F. Industries)				
32	TRM 513.0		14.8°	I	SS
. 33	TRM 530.2		2.4°	C	SS
35	TRM 503.8	••	24.0°	Ī	PW
	(Dayton)			_	_
38	Chickamauga			I	F
	Reservoir				
39	Watts Bar Reservoir	•	•	С	F
81	Yard Pond	SSE/S/SSW	Onsite	Ī	PS
82	Well A	SSE	0.6	Ī	W
83	Well B	SSE	0.5	Ī	W
84	Well C	ESE	0.3	I	W
85	Well D	SSE	0.4	1	W
		<u> </u>			

a. See Figures A-1, A-2, and A-3

b. Sample codes:

AM = Atmospheric Moisture

AP = Air particulate filter F
CF = Charcoal filter F

PW = Public Water PS = Pond Sediment R = Rainwater

SS = Shoreline sediment SW = Surface water

 $W \cdot = \text{Well water}$ 

F = FishM = Milk

M = Milk S = Soil

c. Station located on the boundary between these two sectors.

d. A control for well water.

e. Distance from the plant discharge (TRM 527.8)

f. The surface water sample is also used as a control for public water.

Table A-3 WATTS BAR NUCLEAR PLANT THERMOLUMINESCENT DOSIMETER (TLD) LOCATIONS

Map <sup>a</sup>			Approximate	Onsite (On) <sup>b</sup>
Location			Distance	or
Number Number	<b>Station</b>	Sector	(miles)	Offsite (Off)
2	NW-3	NW	7.0	Off
3	NNE-3	NNE	10.4	Off
4	ENE-3	NE/ENE	7.6 .	Off
5	S-3	S	7.8	Off
6	SW-3	sw	15.0	Off
7	NNW-4	NNW	15.0	Off
10	NNE-1A	NNE	1.9	On
11	SE-1A	SE	0.9	On
12	SSW-2	SSW	1.3	On
14	W-2	W	4.8	Off
15	E-3	Ë ·	15.0	Off
40	N-1	N	1.2	On
41	N-2 ·	N	4.7	Off
42	NNE-I	NNE	1.2	On
43	NNE-2	NNE	4.1	Off.
44	NE-1	NE	0.9	· On
45	NE-2	NE	2.9	Off
46	NE-3	NE	6.1	Off
47	ENE-1	ENE	0.7	On
48	ENE-2	ENE	5.8	. Off
49	E-İ	E	1.3	On
50	E-2	E	5.0	Off
51	ESE-1	ESE	1.2	On
52	ESE-2	ESE	4.4	Off
54 .	SE-2	SE ·	5.3	Off
55	SSE-1A	SSE	0.6	On
56	SSE-2	· SSE	5.8	Off
57	S-1 ·	S	. 0.7	On
58	S-2	S,	4.8	. Off
59	SSW-1	ssw	0.8	On
60	SSW-3	SSW	5.0	Off.
62	SW-1	SS	0.8	On
63	SW-2	sw	5.3	Off
64	WSW-1	wsw	0.9	On
65	WSW-2	wsw	3.9	Ott Ott
66	W-1	w	0.9	. On
67	WNW-1	WNW	0.9	On
68	WNW-2	WNW	4.9	Off
69	NW-1	NW	1.1	On
70	NW-2	NW	4.7	Off
71	NNW-1	NNW	1.0	On
72	NNW-2	NNW	4.5	Off
73	NNW-3	NNW	7.0	Off
74	ENE-2A	ENE	3.5	Off
75	SE-2A	SE ·	3.1	Off
76	S-2A	S	2.0	Off
77	W-2A	w	3.2	Off
78	NW-2A	NW	3.0	Off
79	SSE-1	SE	0.5	On
			- 	

<sup>a. See Figures A-1, A-2, and A-3.
b. TLDs designated "onsite" are located 2 miles or less from the plant; "offsite" are located more than 2 miles from the</sup> 

Figure A-1

Radiological Environmental Sampling Locations

Within 1 Mile of the Plant

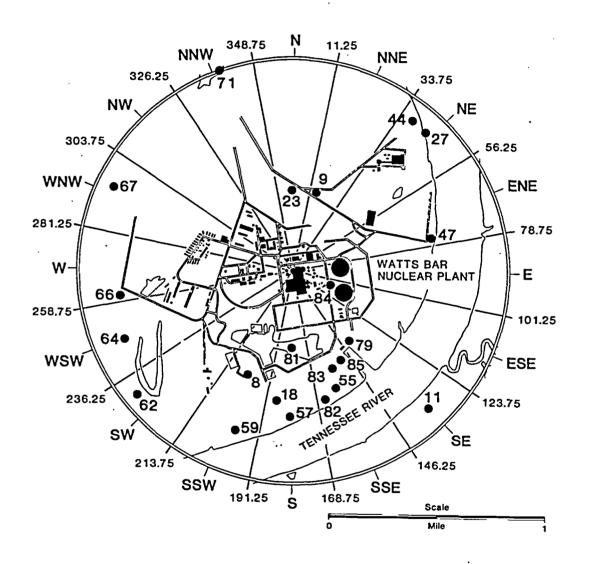


Figure A-2

Radiological Environmental Sampling Locations

From 1 to 5 Miles From The Plant

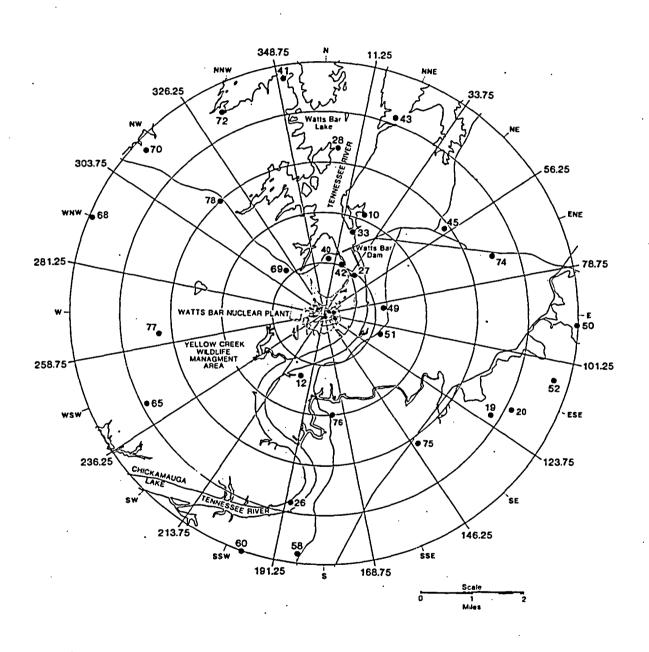
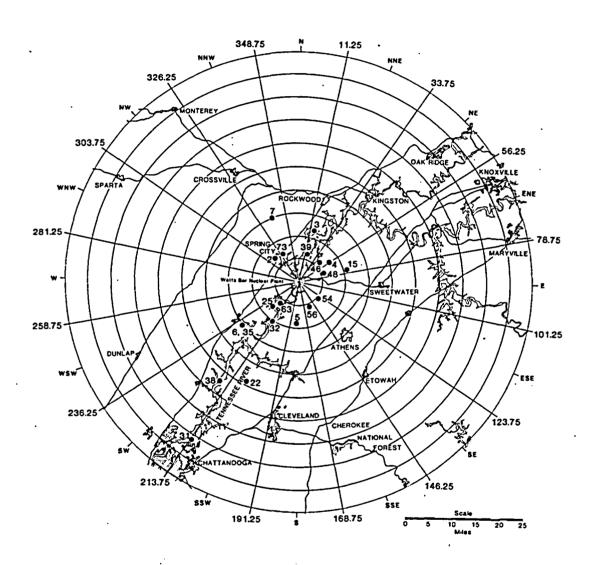


Figure A-3

Radiological Environmental Sampling Locations

Greater Than 5 Miles From the Plant



# . APPENDIX B 2004 PROGRAM MODIFICATIONS

# Appendix B

# Radiological Environmental Monitoring Program Modification

There were nomodifications to the WBN REMP during 2004.

APPENDIX C
PROGRAM DEVIATIONS

## Appendix C

### **Program Deviations**

A milk sample collected from Farm N on May 12, 2004, was not suitable for processing through the chemical separation steps required for the I-131 analysis. The problem with the sample was discussed with the farmer, and there were no other problems with samples from this location following the discussion. The sample was analyzed by gamma spectroscopy, and only naturally occurring radionuclides were identified.

Problems with sampling equipment resulted in sample unavailability or inadequate sample volumes for three sets of air particulate filter and charcoal cartridge samples and one surface water sample during 2004. Table C-1 provides additional details on the missed samples resulting from these equipment problems.

Table C-1

Radiological Environmental Monitoring Program Deviations

	<u>Date</u>	<b>Station</b>	Location	<u>Remarks</u>
	01/27/04	LM-1	0.5 miles SSW	The total sample volume for air filter and charcoal cartridge samples was not adequate due to a problem with the sampling pump. The problem was found to be a bad drive pulley on the pump. Repairs were made and the sampler operated correctly during the next sampling cycle. The missed samples resulting from the equipment problem were documented with PER 1454.
	07/20/04	RM-2	SSW 15.0 miles	The total sample volume for air filter and charcoal cartridge samples was not adequate due to a failure of the sampling pump. The problem was found to be in the drive motor for the pump. The motor was replaced and the system returned to normal operation for the next sampling cycle. The missed samples resulting from the equipment problem were documented with PER 65729.
-45- ·	09/17/04	TRM 523.1	4.7 miles downstream	The sample volume for the monthly composite sample was too low and indicated problems with the sampler. The problem was identified as silt blocking the sampling line. The line was replaced and repositioned. There were no additional problems with this sampler. The missed sample resulting from the equipment problem was documented with PER 68897.
	11/22/04	PM-3	10.4 miles NNE	The total sample volume for air filter and charcoal cartridge samples was not adequate due to loss of power to the sampling pump. Thunderstorms in the area had damaged the circuit box supplying power to the sampler. Repairs were made and the sampler operated normally during the next sampling cycle. The missed samples resulting from the equipment problem were documented with PER 73037.

# APPENDIX D . ANALYTICAL PROCEDURES

### Appendix D .

#### Analytical Procedures

Analyses of environmental samples are performed by the radioanalytical laboratory located at the Western Area Radiological Laboratory facility in Muscle Shoals, Alabama. Analysis procedures are based on accepted methods. A summary of the analysis techniques and methodology follows.

The gross beta measurements are made with an automatic low background counting system.

Normal counting times are 50 minutes. Water samples are prepared by evaporating 500 ml of samples to near dryness, transferring to a stainless steel planchet, and completing the evaporation process. Air particulate filters are counted directly in a shallow planchet.

The specific analysis of I-131 in milk is performed by first isolating and purifying the iodine by radiochemical separation and then counting the final precipitate on a beta-gamma coincidence counting system. The normal count time is 50 minutes. With the beta-gamma coincidence counting system, background counts are virtually eliminated and extremely low levels of activity can be detected.

After a radiochemical separation, samples analyzed for Sr-89, 90 are counted on a low background beta counting system. The sample is counted a second time after a 7-day ingrowth period. From the two counts the Sr-89 and Sr-90 concentrations can be determined.

Water samples are analyzed for tritium content by first distilling a portion of the sample and then counting by liquid scintillation. A commercially available scintillation cocktail is used.

Gamma analyses are performed in various counting geometries depending on the sample type and volume. All gamma counts are obtained with germanium type detectors interfaced with a high resolution gamma spectroscopy system. Spectral data reduction is performed by the computer program HYPERMET.

The charcoal cartridges used to sample gaseous radioiodine are analyzed by gamma spectroscopy using a high resolution gamma spectroscopy system with germanium detectors.

Atmospheric moisture samples are collected on silica gel from a metered air flow. The moisture is released from the silica gel by heating and a portion of the distillate is counted by liquid scintillation for tritium using commercially available scintillation cocktail.

The necessary efficiency values, weight-efficiency curves, and geometry tables are established and maintained on each detector and counting system. A series of daily and periodic quality control checks are performed to monitor counting instrumentation. System logbooks and control charts are used to document the results of the quality control checks.

## APPENDIX E

NOMINAL LOWER LIMITS OF DETECTION (LLD)

### Appendix E

## Nominal Lower Limits of Detection

A number of factors influence the LLD, including sample size, count time, counting efficiency, chemical processes, radioactive decay factors, and interfering isotopes encountered in the sample. The most probable values for these factors have been evaluated for the various analyses performed in the environmental monitoring program. The nominal LLDs calculated from these values, in accordance with the methodology prescribed in the ODCM, are presented in Table E-1. The maximum values for the lower limits of detection specified in the ODCM are shown in Table E-2.

The nominal LLDs are also presented in the data tables. For analyses for which nominal LLDs have not been established, an LLD of zero is assumed in determining if a measured activity is greater than the LLD.

TABLE E-1

Nominal LLD Values

A. Radiochemical Procedures

. •	Air Filters ( <u>pCi/m³)</u>	Water ( <u>pCi/L)</u>	Milk ( <u>pCi/L)</u>	Wet Vegetation (pCi/Kg wet)	Sediment and Soil ( <u>pCi/g dry)</u>
Gross Beta	0.002	1.9		•	
Tritium	3.0	300			
Iodine-131		0.4	0.4	<b>6.0</b> .	
Strontium-89	0.0011	5.0	3.5	31.0	1.6
Strontium-90	0.0004	2.0	2.0	12.0	0.4

Table E-1 Nominal LLD Values B. Gamma Analyses

	Particulate	Charcoal	Water	Vegetation	Wet	Soil and			Foods Tomatoes	
	Filter	Filter	and Milk	and Grain	Vegetation Vegetation	Sediment	Fish	Clam Flesh	Potatoes, etc.	
	pCi/m3	pCi/m3	pCi/L	pCi/g, dry	pCi/kg, wet	pCi/g, dry	pCi/g, dry	pCi/g, dry	pCi/kg, wet	
		positio	1000	Parst art	(	<del></del>	<del></del>		•	
Ce-141	.005	.02	10	.07	35	.10	.07	.35	20	
Ce-144	.01	.07	30	.15	115	.20	.15	.85	60	
Cr-51	.02	0.15	45	.30	200	.35	.30	2.40	95	
I-131	.005	. 0.03	10	.20	60	.25	.20	1.70	20	
Ru-103	.005	0.02	5	.03	25	.03	.03	.25	25	
Ru-106	.02	0.12	40	.15	190	.20	.15	1.25	90	
Cs-134	.005	0.02	5	.03	30	.03	.03	.14	10	
Cs-137	.005	0.02	5	.03	25	.03	.03	.15	10	
Zr-95	.005	0.03	10	.05	45	.05	.05	.45	45	
Nb-95	.005	0.02	. 5	.25	30	.04	.25	.25	10 .	
Co-58	.005	0.02	5	.03	20	.03	.03	.25	10	
Mn-54	.005	0.02	5	.03	20	.03	.03	.20	10	
Zn-65	.005	0.03	-10	.05	45	.05	.05	.40	45	
Co-60	.005	0.02	5	.03	20	.03	.03	.20	10	
K-40	.04	0.30	100	.40	400	.75	.40	3.50	250	
Ba-140	.015	0.07	25	.30	130	.30	.30	2.40	50	
La-140	.01	0.04	10	.20	50	.20	.20	1.40	· 25	
Fe-59	.005	0.04	10	.08	40	.05	.08	.45	25	
Be-7	.02	0.15	45	.25	200	.25	.25	1.90	90·	
Pb-212	.005	0.03	15	.04	40	.10	.04	.30	.40	
Pb-214	.005	0.07	20	.50	80	.15	.50	.10	80	
Bi-214	.005	0.05	20	.10	55	.15	.10	.50	·40	
Bi-212	.02	0.20	50	.25	250	.45	.25	2.00	130	
T1-208	.002	0.02	10	.03	30	.06	.03	.25	30	
Ra-224				••		.75		<b></b> `		
Ra-226					••	.15		. <b></b>	••	
Ac-228	.01	0.07	20	.10	70	.25	.10	.75	50	
-									•	

Table E-2

Maximum Values for the Lower Limits of Detection (LLD)

Specified by the WBN Offsite Dose Calculation Manual

	Airborne Particulate			Food	
Water p <u>Ci/L</u>	or Gases pCi/m <sup>3</sup>	Fish pCi/kg, wet	Milk <u>pCi/L</u>	Products pCi/kg, wet	Sediment pCi/kg, dry
4	$1 \times 10^{-2}$	N.A.	N.A.	. N.A.	N.A.
2000ª	N.A.	N.A.	N.A.	N.A.	N.A.
15	N.A.	130	N.A.	N.A.	N.A.
30	N.A.	260	N.A.	N.A.	N.A.
15	N.A.	130	N.A.	N.A.	N.A.
30	N.A.	. 260	N.A.	N.A.	N.A.
30	N.A.	N.A.	N.A.	N.A.	N.A.
15	N.A.	N.A.	N.A.	N.A.	N.A.
1 b	7 x 10 <sup>-2</sup>	N.A.	1	60	N.A.
15	5 x10 <sup>-2</sup>	130	15	60	150
18	6 x 10 <sup>-2</sup>	150	18	80	180
. 60	N.A.	N.A.	60	N.A.	N.A.
15	N.A.	N.A.	15	N.A.	N.A.
	pCi/L  4  2000 <sup>a</sup> 15  30  15  30  15  1 <sup>b</sup> 15  18  60	Water pCi/L     Particulate or Gases pCi/m³       4     1 x 10-²       2000²     N.A.       15     N.A.       30     N.A.       30     N.A.       30     N.A.       30     N.A.       15     N.A.       15     N.A.       15     N.A.       15     5 x 10-²       15     5 x 10-²       18     6 x 10-²       60     N.A.	Water pCi/L         Particulate or Gases pCi/kg, wet         Fish pCi/kg, wet           4         1 x 10 <sup>-2</sup> N.A.           2000 <sup>a</sup> N.A.         N.A.           15         N.A.         130           30         N.A.         260           15         N.A.         130           30         N.A.         N.A.           15         7 x 10 <sup>-2</sup> N.A.           15         5 x 10 <sup>-2</sup> 130           18         6 x 10 <sup>-2</sup> 150           60         N.A.         N.A.	Water pCi/L         Particulate or Gases pCi/m³         Fish pCi/kg, wet pCi/L         Milk pCi/L           4         1 x 10-²         N.A.         N.A.           2000²         N.A.         N.A.         N.A.           15         N.A.         130         N.A.           30         N.A.         260         N.A.           15         N.A.         130         N.A.           30         N.A.         130         N.A.           30         N.A.         N.A.         N.A.           15         N.A.         N.A.         1           15         5 x 10-²         130         15           18         6 x 10-²         150         18           60         N.A.         N.A.         60	Water pCi/L         Particulate or Gases pCi/kg, wet         Fish pCi/kg, wet         Milk pCi/L         Food Products pCi/kg, wet           4         1 x 10 <sup>-2</sup> N.A.         N.A.         N.A.         N.A.           2000 <sup>a</sup> N.A.         N.A.         N.A.         N.A.           15         N.A.         130         N.A.         N.A.           30         N.A.         260         N.A.         N.A.           30         N.A.         130         N.A.         N.A.           30         N.A.         260         N.A.         N.A.           30         N.A.         N.A.         N.A.         N.A.           15         N.A.         N.A.         N.A.         N.A.           30         N.A.         N.A.         N.A.         N.A.           15         N.A.         N.A.         N.A.         N.A.           15         N.A.         N.A.         N.A.         N.A.           15         7 x 10 <sup>-2</sup> N.A.         1         60           15         5 x 10 <sup>-2</sup> 130         15         60           18         6 x 10 <sup>-2</sup> 150         18         80           60

a. s If no drinking water pathway exists, a value of 3000 pCi/liter may be used.

b. If no drinking water pathway exists, a value of 15 pCi/liter may be used.

## APPENDIX F

QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

#### Appendix F

#### Quality Assurance/Quality Control Program

A thorough quality assurance program is employed by the laboratory to ensure that the environmental monitoring data are reliable. This program includes the use of written, approved procedures in performing the work, a complete training and qualification process, internal self assessments of program performance, audits by various external organizations, and a laboratory quality control program.

The quality control program employed by the radioanalytical laboratory is designed to ensure that the sampling and analysis process is working as intended. The program includes equipment checks and the analysis of quality control samples along with routine samples.

Radiation detection devices can be tested in a number of ways. There are two primary tests which are performed on all devices. In the first type, the device is operated without a sample on the detector to determine the background count rate. The background counts are usually low values and are due to machine noise, cosmic rays, trace amounts of radioactivity in the materials used to construct the detector, or terrestrial sources. Charts of background counts are kept and monitored to ensure that no unusually high or low values are encountered.

In the second test, the device is operated with a known amount of radioactivity present. The number of counts registered from such a radioactive standard should be very reproducible. These reproducibility checks are also monitored to ensure that they are neither higher nor lower than expected. When counts from either test fall outside the expected range, the device is inspected for malfunction or contamination. It is not placed into service until it is operating properly.

In addition to these two general checks, other quality control checks are performed on the variety of detectors used in the laboratory. The exact nature of these checks depends on the type of device and the method it uses to detect radiation or store the information obtained.

Quality control samples of a variety of types are used by the laboratory to verify the performance of different portions of the analytical process. These quality control samples may be blanks, replicate samples, blind samples, or cross-checks.

Blanks are samples which contain no measurable radioactivity or no activity of the type being measured. Such samples are analyzed to determine whether there is any contamination of equipment or commercial laboratory chemicals, cross-contamination in the chemical process, or interference from isotopes other than the one being measured.

Duplicate samples are generated at random by the sample computer program which schedules the collection of the routine samples. For example, if the routine program calls for four milk samples every week, on a random basis each farm might provide an additional sample several times a year. These duplicate samples are analyzed along with other routine samples. They provide information about the variability of radioactive content in the various sample media.

If enough sample is available for a particular analysis, the laboratory personnel can split it into two portions. Such a sample can provide information about the variability of the analytical process since two identical portions of material are analyzed side by side.

Analytical knowns are another category of quality control sample. A known amount of radioactivity is added to a sample medium. Whenever possible, the analytical knowns contain the same amount of radioactivity each time they are run. In this way, the lab staff has immediate knowledge of the quality of the measurement process. A portion of these samples are also blanks.

Blind spikes are samples containing radioactivity which are introduced into the analysis process disguised as ordinary environmental samples. The lab staff does not know the samples contain radioactivity. Since the bulk of the ordinary workload of the environmental

laboratory contains no measurable activity or only naturally occurring radioisotopes, blind spikes can be used to test the detection capability of the laboratory or they can be used to test the data review process. If an analysis routinely generates numerous zeroes for a particular isotope, the presence of a positive result will be brought to the attention of the laboratory supervisor in the daily review process. Blind spikes test this process since they contain radioactivity at levels high enough to be detected. Furthermore, the activity can be put into such samples at the extreme limit of detection (near the LLD) to determine whether or not the laboratory can find any unusual radioactivity whatsoever.

At present, 5 percent of the laboratory workload is in the category of internal cross-checks. These samples have a known amount of radioactivity added and are presented to the lab staff labeled as cross-check samples. This means that the quality control staff knows the radioactive content or "right answer" but the personnel performing the analyses do not. They are aware they are being tested. Such samples test the best performance of the laboratory by determining if the staff can find the "right answer". These samples provide information about the accuracy of the measurement process. Further information is available about the variability of the process if multiple analyses are requested on the same sample. Like blind spikes or analytical knowns, these samples can also be spiked with low levels of activity to test detection limits. During 2003, all analysis results for internal cross-check samples were within agreement limits when compared to the known value.

To provide for interlaboratory comparison program cross-check samples, the laboratory participated in an environmental level cross-check program available through Analytics Incorporated. The results of TVA's participation in this program are presented in Table F-1.

TVA splits certain environmental samples with laboratories operated by the States of Alabama and Tennessee and the EPA National Air and Radiation Environmental Laboratory in Montgomery, Alabama. When radioactivity has been present in the environment in measurable quantities, such as following atmospheric nuclear weapons testing, following the Chernobyl incident, or as naturally occurring radionuclides, the split samples have provided TVA with yet another level of information about laboratory performance. These samples demonstrate performance on actual environmental sample matrices rather than on the constructed matrices used in cross-check programs.

Quality control data are routinely collected, examined, and reported to laboratory supervisory personnel. They are checked for trends, problem areas, or other indications that a portion of the analytical process needs correction or improvement. The end results is a measurement process that provides reliable and verifiable data and is sensitive enough to measure the presence of radioactivity far below the levels which could be harmful to humans.

Table F-1

Results For 2004 External Cross Checks

Test Period	Sample Type / Analysis	<u>Re</u> :	3 Sigma Range			
		Known	TVA			<del></del> .
First Quarter	Water (pCi/L)					
•	Gross Beta	276	263	235	-	317
First Quarter	, Charcoal Filter (pCi/Filter)					
	(131]	97	72	68	•	126
First Quarter	Water (pCi/L)					
		90	89	75		105
	· 141Ce	85	86	70	_	100
	<sup>51</sup> Cr	326	340	228	-	424
	<sup>134</sup> Cs	90	79	75	-	105
	<sup>137</sup> Cs	185	177	157	-	213
	<sup>58</sup> Co	112	114	95	-	129
	· 54Mn	114	116	97	-	131
	<sup>59</sup> Fe	57	75	42	_	. 72
	65Zn	143	153	100	-	186
	. 60°Co	153	154	130	•	176
<b></b>	•	-00	154	150	-	170
First Quarter	Water (pCi/L)					
	. <sup>89</sup> Sr	123	113	105	-	141
	<sup>90</sup> Sr	15	16	0	-	30
Third Quarter	Water (pCi/L)					
	<sup>3</sup> H	12000	11900	8400	-	15600
Third Quarter	Sand (pCi/g)					
-	<sup>141</sup> Ce	0.460	0.406	0.391		0.529
•	<sup>51</sup> Cr	0.411	0.410	0.391	-	0.529
	<sup>134</sup> Cs	0.178	0.176	0.266	-	0.205
	137Cs	0.396	0.365	0.131		0.203
	. 58Co	0.174	0.163	0.148	•	
	<sup>54</sup> Mn	0.334	0.336	0.146	•	0.200
	. 59Fe	0.168	0.165	0.264	-	0.384
	65 <b>Z</b> n	0.328	0.326	0.143	-	0.193 0.426
	<sup>60</sup> Co	0.231	0.228	0.196	-	0.426
		·. <b></b>	0.220	0.170	•	0.200
Third Quarter	Air Filter (pCi/Filter)					
	Gross Beta	196	189	167	-	225
Third Quarter	Air Filter (pCi/Filter)					•
	141Ce	145	145	123	_	167
	31~-	130	122	91	_	169
	<sup>134</sup> Cs	56	47	41	_	71
	137Cs	125	124	106	_	144
	<sup>58</sup> Co	55	55	40.	_	70
	· 54Mn	106	113	90	_	122
	<sup>59</sup> Fe	53	52	38	-	68
	<sup>65</sup> Zn	104	113	73	_	135
	60°Co	73	73	58	-	88
				20	-	00

APPENDÍX G

LAND USE SURVEY

### Appendix G -

#### Land Use Survey

A land use survey was conducted in accordance with the provisions of ODCM Control 1.3.2 to identify the location of the nearest milk animal, the nearest residence, and the nearest garden of greater than 500 square feet producing fresh leafy vegetables in each of 16 meteorological sectors within a distance of 5 miles from the plant.

The land use survey was conducted between April 1 and October 1 using appropriate techniques such as door-to-door survey, mail survey, telephone survey, aerial survey, or information from local agricultural authorities or other reliable sources.

From the data of the surveys, relative radiation doses were projected for individuals near the plant. Doses from air submersion were calculated for the nearest resident in each sector, while doses from drinking milk or eating foods produced near the plant were calculated for the areas with milk producing animals and gardens, respectively. These doses were calculated using design basis source terms and historical meteorological data. They also assume that the effluent releases are equivalent to the design basis source terms. The calculated doses are relative in nature and do not reflect actual exposures received by individuals living near WBN.

In response to the 2004 WBN land use survey, annual doses were calculated for air submersion, vegetable ingestion, and milk ingestion. There were no changes in the location of the nearest resident in 2004.

Doses calculated for ingestion of home grown foods changed in three sectors compared to the results calculated in 2003 due to changes in the locations of the nearest garden.

For milk ingestion, projected doses were consistent with those calculated for 2004. Except for the farm where the owner does not want to participate in the program (Farm Ho), milk samples are being collected from the three farms where the calculated doses are highest. One of the farms providing a milk sample is between Farm Ho and the plant.

The results of the 2004 land use survey and resulting relative projected annual dose calculations documented that there were no significant changes in land use of unrestricted areas. No required changes in the sampling locations for the radiological environmental monitoring program were identified as result of the land use survey.

Tables G-1, G-2, and G-3 compare results of the relative projected annual dose calculations for 2003 and 2004.

Table G-1

Watts Bar Nuclear Plant

Relative Projected Annual Air Submersion Dose to the Nearest Residence

Within 5 Miles of Plant<sup>a</sup>

mrem/year

	2003		2004		
	Approximate		Approximate		
Sector	Distance (Miles)	Annual Dose	Distance (Miles)	Annual Dose	
N	1.3	0.24	1.3	0.24	
NNE	2.3	0.20	2.3	0.20	
NE	2.1	0.19	2.1	0.19	
ENE	1.5	0.31	1.5	0.31	
E	2.0	0.18	. 2.0	0.18	
ESE	2.8	0.12	2.8	0.12	
SE	. <b>0.9</b>	0.76	0.9	0.76	
SSE	1.0	0.38	1.0	0.38	
S	1.0	0.37	1.0	0.37	
SSW	1.2	0.29	1.2	0.29	
SW	. 2.7	0.09	2.7	0.09	
WSW .	1.3	0.38	1.3	0.38	
W	1.8	0.07	. 1.8	0.07	
WNS	1.0	. 0.17	1.0	0.17	
NW	1.3	0.09	1.3	0.09	
NNW	2.7	0.03	2.7	0.03	

a. Assumes the effluent releases are equivalent to design basis source terms.

Table G-2

# Watts Bar Nuclear Plant Relative Projected Annual Ingestion Dose to Child's Bone Organ from Ingestion of Home-Grown Foods Nearest Garden Within 5 Miles of Plant<sup>a</sup>

## mrem/year

	20	2003		2004		
Sector	Approximate <u>Distance (Miles)</u>	Annual Dose	Approximate Distance (Miles)	Annual Dose		
N	4.8	0.50	4.8	0.50		
NNE	3.8	1.68	3.8	1.68		
NE .	2.4	3.36	2.4	3.36		
ENE	3.0	1.98	4.4	1.14		
E	3.4	1.63	3.4	1.63		
ESE	3.0	2.25	3.8	1.57		
SE	2.9	2.17	2.9	2.17		
SSE	3.1	1.40	3.1	1.40		
S	3.1	1.41	2.3			
SSW	1.3	6.86	Ъ			
SW	2.6	2.06	2.6	2.06		
WSW	1.1	7.87	1.1	7.87		
W	2.1	1.20	2.1	1.20		
WNW	3.6	0.26	3.6	0.26		
NW	1.3	1.97	1.3	1.97		
NNW	2.9	0.62	2.9	0.62		

a. Assumes the effluent releases are equivalent to design basis source terms.b. Garden not identified within 5 miles of the plant in this sector.

Table G-3

# Watts Bar Nuclear Plant Relative Projected Annual Dose to Receptor Thyroid from Ingestion of Milk<sup>a</sup> (Nearest Milk-Producing Animal Within 5 Miles of Plant)

#### mrem/year

• .		Approximate Distance	Annua	Annual Dose	
<u>Location</u>	<u>Sector</u>	Miles	2003	2004	X/Q <u>s/m³</u>
Cows	•		•		
Farm Mu <sup>b</sup>	ESE	3.7	0.08	0.08	1.14 E-6
Farm N <sup>b</sup>	ESE	4.1	0.04	0.04	9.44 E-7
Farm L <sup>b</sup>	SSW	1.3	0.27	0.27	2.36 E-6
Farm Ho <sup>c</sup>	SSW	. 1.5	0.33	0.33	1.43 E-6

a. Assumes the plant is operating and effluent releases are equivalent to design basis source terms.

b. Milk being sampled at these locations.

c. Owner unwilling to provide samples or information. The dose calculated assumes consumption of the milk by an adult and a feeding factor equivalent to 33 percent. If milk from this location were to be consumed by teens, children or infants, the estimated doses would be 0.52, 1.07 and 2.53 mrem/year, respectively.

# APPENDIX H DATA TABLES AND FIGURES

· Table H-1

<u>DIRECT RADIATION LEVELS</u>

Average External Gamma Radiation Levels at Various Distances from Watts Bar Nuclear Plant for Each Quarter-2004 mR / Quarter (a)

Distance			•		per annum
Miles	Ave	rage External Gami	ma Radiation Leve	els (b)	mR/yr
	lst qtr	2nd qtr	3rd qtr	4th gtr	-
0 - 1	$16.8 \pm 2.3$	$17.2 \pm 2.1$	$18.0 \pm 2.3$	$15.7 \pm 2.0$	68
1 - 2	$15.5 \pm 1.8$	$15.5 \pm 1.5$	$16.6 \pm 1.8$	$14.5 \pm 1.5$	62
2 - 4	$14.8 \pm 1.3$	$15.2 \pm 1.4$	$16.1 \pm 1.3$	$14.2 \pm 1.2$	60 ,
4 - 6	$15.5 \pm 1.7$	$1.58 \pm 1.5$	$16.7 \pm 1.7$	$14.7 \pm 1.6$	63
>6	$14.2 \pm 1.8$	$14.6 \pm 2.0$	$15.4 \pm 2.0$	$13.8 \pm 1.9$	58
Average,	•				
0 - 2 miles (onsite)	$16.3 \pm 2.3$	$16.6 \pm 2.1$	$17.5 \pm 2.2$	15.3 ± 1.9	66
Average,		•			
>2 miles (offsite)	$15.0 \pm 1.7$	$15.3 \pm 1.7$	$16.2 \pm 1.8$	$14.3 \pm 1.7$	61
` ,	(a)	Field periods no	rmalized to one st	andard quarter (21	90 hours)
	(b)	Average of the in	ndividual measure	ments in the set ±	1 standard

(b) Average of the individual measurements in the set ± 1 standard deviation of the set 

#### **DIRECT RADIATION LEVELS**

#### Individual Stations at Watts Bar Nuclear Plant

				•	]			
					mF	<b>V</b> quarter		_
Map	TLD		Approx	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	3 <sup>rd</sup> Qtr	4 <sup>th</sup> Qtr	Annual
Location	Station	Direction,	Distance,	Feb – Apr	. May – Jul	Aug – Oct	Nov – Jan	Exposure
<u>Number</u>	<u>Number</u>	<u>Degrees</u>	Miles	2004	<u> 2004</u>	<u>2004</u>	<u>2004, 05</u>	mR/year
40	N-1	10	1.2	18.1	18.3	19.3	16.8	72.5
41	N-2	350	4.7	17.5	16.9	17.9	16.0	68.3
42	NNE-1	21	1.2	17.6	16.6 ·	18.7	16.3	69.3
10	NNE-1A	22	1.9	. 13.4	14.4	14.5	13.4	55.7
43	NNE-2	20	4.1	14.4	14.6	15.7	13.9	<b>58.6</b> .
<b>3</b> .	NNE-3	17	10.4	14.4	14.5	15.1	14.1	58.0
44	NE-1	39	.9	19.5	19.1	20.7	17.3	76.7
45	NE-2	54	2.9	15.2	16.3	17.4	15.1	64.0
<b>46</b> .	NE-3	47	6.1	12.8	13.3	14.0	12.0	52.0
47	ENE-1	74	.7	17.9	17.8	18.6	16.5	70.8
48	ENE-2	69	5.8	14.5	15.2	15.9	14.1	59.6
74	ENE-2A	69	3.5	12.5	12.9	13.7	12.1	51.2
4	ENE-3	56	7.6	14.0	14.4	15.9	13.4	57.6
49	E-1	85	1.3	15.2	15.5	16.4	· 13.9	61.1
50	E-2	92	5.0	16.2	. 16.2	17.5	15.5	65.4
15	E-3	90	15.0 ·	17.7	18.6	19.2	17.2 ·	72.7
· 51	ESE-1	109	1.2	13.2	13.2	14.4	12.6	53.3
52	ESE-2	106	4.4	· 17.9	18.3	19.7	17.3	73.2
11	SE-1A	138	.9	14.9	15.6	16.3	14.6 ·	61.4
54	SE-2	128	5.3	13.7	14.3	15.2	13.4	56.5
<b>75</b>	SE-2A	144	3.1	14.3	15.1	16.8	14.4	60.5
79	SSE-1	146	.6	16.0	16.5	16.9	15.1	64.5
55	SSE-1A	161	.6	.14.2	15.0	14.9	13.0	57.0
56	SSE-2	156	. 5.8	15.7	16.6	17.9	15.6	65.8

TABLE H - 2 continued -

#### **DIRECT RADIATION LEVELS**

#### Individual Stations at Watts Bar Nuclear Plant

					vels			
					· mF	Vquarter		
Map	TLD	•	Approx	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	3 <sup>rd</sup> Qtr	4 <sup>th</sup> Qtr	Annual
Location	Station	Direction,	Distance,	Feb – Apr	May - Jul	Aug - Oct	Nov – Jan	Exposure
Number	<u>Number</u>	<b>Degrees</b>	<u>Miles</u>	2004	<u> 2004</u>	<u>2004</u>	<u>2004, 05</u>	mR/year
57	S-1	182	7	14.8	16.0	16.0	14.4	61.2
<b>.</b> 58	S-2	185	4.8	12.3	13.3	13.9	· 11.8	51.2
76 ·	S-2A	177	2.0	16.4	17.2	17.5	15.6	66.8
5	S-3	185	6.2	12.7	13.2	13.8	12.5	52.2
59	SSW-1	199	.8	18.7	20.1	20.4	18.1	77.3
12	SSW-2	200	1.3	14.5	14.7	15.9	<b>13.6</b> .	58.6
60	SSW-3	199	5.0	14.0	13.8	14.5	12.6	55.0
62	SW-1	226	.8	17.8	18.4	19.3	16.6	72.1
63	SW-2	220	5.3	14.7	15.5	15.9	13.9	59.9
6	SW-3	225	15.0	13.7	14.0	14.6	13.6	55.9
64	WSW-1	255	. े.9	14.8	15.1	15.9	13.6	59.3
65	WSW-2	247	4.0	16.5	<b>17.3</b> ·	18.2	16.4	68.4
66	W-1	270	.9	16.0	16.6	17.5	15.1	65.1
14	W-2	277	4.8	14.0	13.6	14.3	12.7	54.6
77	W-2A	268	3.2	15.9	15.6	16.1	14.6	62.2
67	WNW-1	294	.9	22.1	21.5	22.9	20.0	86.5
68	WNW-2	292	4.9	17.8	17.5 ·	18.9	16.6	70.7
69	NW-1	320	1.1	16.7	16.0	17.1	14.8	64.5
70	NW-2	313	4.7	17.5	17.0	17.9	15.7	68.0
78	NW-2A	321	3.0	14.4	14.1	15.4	13.5	57.5
2	NW-3	317	7.0	16.7	17.5	18.4	16.7	56.3
71	NNW-1	340	1.0	14.7	14.4	16.1	14.2	59.5
72	NNW-2	333	4.5	16.4	16.8	17.2	15.5	65.9 ·
73	NNW-3	329	7.0	11.9	12.2	13.0	11.8	49.0
7	NNW-4	337	15.0	13.9	13.5	14.5	12.6	54.4

note (1) Sum of available quarterly data normalized to 1 year for the annual exposure value

Tennessee Valley Authority
Environmental Radiological Monitoring and Instrumentation
Western Area Radiological Laboratory



#### RADIOACTIVITY IN AIR FILTER PCI/M3 - 0.037 BQ/M3

Name of Facility: WATTS BAR NUCLEAR PLANT Location of Facility: RHEA

TENNESSEE

Docket Number: 50-390,391 Reporting Period: 2004

Type and Total Number of Analysis Performed	Lower Limit of Detection (LLD) See Note 1	Indicator Locations Mean (F) Range See Note 2	Location with Highest Name Distance and Direction	Annual Mean Mean (F) Range See Note 2	Control Locations Mean (F) Range See Note 2	Number of Nonroutine Reported Measurements
GROSS BETA	517	. •	•			
	2.00E-03 ·	2.01E-02 (414 / 414) 8.42E-03 - 3.55E-02	PM3 10.4 MILES NNE	2.08E-02 (51 / 51) 1.21E-02 - 3.47E-02	2.02E-02 (103 / 103) 1.15E-02 - 3.75E-02	
GAMMA SCAN (GELI)	130					
BE-7	2.00E-02	1.02E-01 (104 / 104) 7.20E-02 - 1.58E-01	PM3 10.4 MILES NNE	1.12E-01 (13 / 13) 8.88E-02 - 1.58E-01	1.03E-01 (26 / 26) 7.23E-02 - 1.53E-01	•
BI-214	5.00E-03	1.31E-02 (72 / 104) 5.00E-03 - 4.07E-02	LM1 0.5 MILES SSW	1.72E-02 (6 / 13) 7.30E-03 - 3.86E-02	1.48E-02 (13 / 26) 5.10E-03 - 2.86E-02	
PB-214	5.00E-03	1.29E-02 (71 / 104) 5.10E-03 - 4.05E-02	LM1 0.5 MILES SSW	1.76E-02 (5 / 13) 8.90E-03 - 3.87E-02	1.61E-02 (11 / 26) 5.10E-03 - 2.83E-02	

Note: 1. Nominal Lower Level of Detection (LLD) as described in Table E - 1

Tennessee Valley Authority
Environmental Radiological Monitoring and Instrumentation Western Area Radiological Laboratory



#### RADIOACTIVITY IN CHARCOAL FILTER PCI/M3 - 0.037 BQ/M3

Name of Facility: WATTS BAR NUCLEAR PLANT Location of Facility: RHEA

**TENNESSEE** 

Docket Number: 50-390,391 Reporting Period: 2004

Type and Total Number of Analysis Performed	Lower Limit of Detection (LLD) See Note 1	Indicator Locations Mean (F) Range See Note 2	Location with Highest Name Distance and Direction	Annual Mean Mean (F) Range See Note 2	Control Locations Mean (F) Range See Note 2	Number of Nonroutine Reported Measurements
GAMMA SCAN (GELI)	517					
BI-214	5.00E-02	8.27E-02 (44 / 414) 5.04E-02 - 2.56E-01	PM3 10.4 MILES NNE	1.09E-01 (5 / 51) 5.22E-02 - 2.56E-01	8.41E-02 (8 / 103) 5.52E-02 - 1.31E-01	
I-131	3.00E-02	SEE NOTE 3				•
K-40	3.00E-01	3.61E-01 (22 / 414) 3.05E-01 - 5.25E-01	· PM4 · 7.6 MILES NE/ENE	3.88E-01 (3 / 52) 3.15E-01 - 5.25E-01	4.76E-01 (1 / 103) 4.76E-01 - 4.76E-01	
PB-214	7.00E-02	1.09E-01 (28 / 414) 7.07E-02 - 2.82E-01	PM5 DECATUR 6.2 MILES S	1.41E-01 (5 / 52) 8.34E-02 - 2.78E-01	1.15E-01 (8 / 103) 7.19E-02 - 2.38E-01	

Note: 1. Nominal Lower Level of Detection (LLD) as described in Table E - 1

Note: 2. Mean and Range based upon detectable measurements only. Fraction of detectable measurements at specified location is indicated in parentheses (F).

Note: 3. The analysis of Charcoal Filters was performed by Gamma Spectroscopy. No I-131 was detected. The LLD for I-131 by Gamma Spectroscopy was 0.03 pCi/cubic meter.

**Environmental Radiological Monitoring and Instrumentation** 

Western Area Radiological Laboratory



#### RADIOACTIVITY IN ATMOSPHERIC MOISTURE PCI/M3 - 0.037 BQ/M3

Name of Facility: WATTS BAR NUCLEAR PLANT Location of Facility: RHEA

**TENNESSEE** 

Docket Number: 50-390,391

Reporting Period: 2004

Type and Total Number of Analysis Performed	Lower Limit of Detection (LLD) See Note 1	Indicator Locations Mean (F) Range See Note 2	Location with Highest Name Distance and Direction	Annual Mean Mean (F) Range See Note 2	Control Locations Mean (F) Range See Note 2	Number of Nonroutine Reported Measurements
TRITIUM	206	·			•	
	3.00E+00	3.65E+00 (3 / 155) 3.17E+00 - 4.53E+00	LM1 0.5 MILES SSW	4.53E+00 (1 / 26) 4.53E+00 - 4.53E+00	3.23E+00 (1/51) 3.23E+00 - 3.23E+00	

Tennessee Valley Authority
Environmental Radiological Monitoring and Instrumentation Western Area Radiological Laboratory



#### RADIOACTIVITY IN MILK PCI/L - 0.037 BQ/L

Name of Facility: WATTS BAR NUCLEAR PLANT Location of Facility: RHEA

TENNESSEE

Docket Number: 50-390,391 Reporting Period: 2004

	Type and Total Number of Analysis Performed	Lower Limit of Detection (LLD) See Note 1	Indicator Locations Mean (F) Range See Note 2	Location with Highest Name Distance and Direction	Annual Mean Mean (F) Range See Note 2	Control Locations Mean (F) Range See Note 2	Number of Nonroutine Reported Measurements
	IODINE-131	129					
		4.00E-01	77 VALUES < LLD		•	52 VALUES < LLD	
	GAMMA SCAN (GELI)	130			•		
	BI-214	2.00E+01	2.48E+01 (6 / 78) 2.13E+01 - 2.77E+01	NORTON FARM . 4.1 MILES ESE	2.77E+01 (1 / 26) 2.77E+01 - 2.77E+01	2.78E+01 (9 / 52) 2.04E+01 - 4.60E+01	•
	K-40	1.00E+02	1.37E+03 (78 / 78) 8.65E+02 - 1.57E+03	LAYMAN FARM . 1.3 MILES SSW	1.40E+03 (26 / 26) 1.27E+03 - 1.51E+03	1.34E+03 (52 / 52) 1.22E+03 - 1.58E+03	
	PB-214	2.00E+01	2.89E+01 (2 / 78) 2.52E+01 - 3.27E+01	MULLINS FARM 3.7 M. ESE	3.27E+01 (1 / 26) 3.27E+01 - 3.27E+01	2.19E+01 (4 / 52) 2.07E+01 - 2.43E+01	
-7:	SR 89	20					
မ	•	3.50E+00	12 VALUES < LLD			8 VALUES < LLD	
	SR 90 ·	20			•		
		2.00E+00	12 VALUES < LLD			8 VALUES < LLD	•

Note: 1. Nominal Lower Level of Detection (LLD) as described in Table E - 1

Environmental Radiological Monitoring and Instrumentation Western Area Radiological Laboratory



## RADIOACTIVITY IN SOIL PCI/GM - 0.037 BQ/G (DRY WEIGHT)

Name of Facility: WATTS BAR NUCLEAR PLANT Location of Facility: RHEA TENNESSEE

Docket Number: 50-390,391 Reporting Period: 2004

	Type and Total Number of Analysis Performed	Lower Limit of Detection (LLD) See Note 1	Indicator Locations Mean (F) Range See Note 2	Location with Highest Name Distance and Direction	Annual Mean Mean (F) Range See Note 2	Control Locations Mean (F) Range See Note 2	Number of Nonroutine Reported Measurements
G.	AMMA SCAN (GELI)	10					
	AC-228	2.50E-01	1.08E+00 (8 / 8) 8.74E-01 - 1.44E+00	PM5 DECATUR 6.2 MILES S	1.44E+00 (1 / 1) 1.44E+00 - 1.44E+00	6.41E-01 (2 / 2) 5.34E-01 - 7.49E-01	
	BI-212	4.50E-01	1.17E+00 (8 / 8) 9.02E-01 - 1.52E+00	PM5 DECATUR 6.2 MILES S	1.52E+00 (1 / 1) 1.52E+00 - 1.52E+00	7.13E-01 (2 / 2) 6.89E-01 - 7.38E-01	•
	BI-214	1.50E-01	8.39E-01 (8 / 8) 6.20E-01 - 9.44E-01	PM3 10.4 MILES NNE	9.44E-01 (1 / 1) 9.44E-01 - 9.44E-01	6.13E-01 (2 / 2) 5.98E-01 - 6.27E-01	
	CS-137	3.00E-02	2.05E-01 (8 / 8) 6.16E-02 - 4.52E-01	PM2 SPRING CITY 7.0 MILES NW	4.52E-01 (1 / 1) 4.52E-01 - 4.52E-01	2.84E-01 (2 / 2) 3.52E-02 - 5.32E-01	
Ļ	K-40	7.50E-01	1.13E+01 (8 / 8) 3.56E+00 - 2.73E+01	LM-4 WB 0.9 MILES SE	2.73E+01 (1 / 1) 2.73E+01 - 2.73E+01	3.47E+00 (2/2) 2.85E+00 - 4.09E+00	
74-	PB-212	1.00E-01	1.10E+00 (8 / 8) 8.77E-01 - 1.41E+00	PM5 DECATUR 6.2 MILES S	1.41E+00 (1 / 1) 1.41E+00 - 1.41E+00	6.46E-01 (2 / 2) 5.54E-01 - 7.39E-01	
	PB-214	1.50E-01	9.36E-01 (8 / 8) 6.61E-01 - 1.06E+00	PM5 DECATUR 6.2 MILES S	1.06E+00 (1 / 1) 1.06E+00 - 1.06E+00	7.11E-01 (2 / 2) 6.83E-01 - 7.38E-01	•
	RA-224	7.50E-01	1.29E+00 (5 / 8) 1.01E+00 - 1.56E+00	PM5 DECATUR 6.2 MILES S	1.56E+00 (1 / 1) 1.56E+00 - 1.56E+00	2 VALUES < LLD	·
	RA-226	1,50E-01	8.39E-01 (8 / 8) 6.20E-01 - 9.44E-01	PM3 10.4 MILES NNE	9.44E-01 (1/1) 9.44E-01 - 9.44E-01	6.13E-01 (2 / 2) 5.98E-01 - 6.27E-01	•
	TL-208	6.00E-02	3.58E-01 (8 / 8) 2.78E-01 - 4.61E-01	PM5 DECATUR 6.2 MILES S	4.61E-01 (1/1) 4.61E-01 - 4.61E-01	2.00E-01 (2 / 2) 1.88E-01 - 2.11E-01	
SF	₹ 89	10					
		1.60E+00	8 VALUES < LLD			2 VALUES < LLD	
SF	R 90	10					
		4.00E-01	8 VALUES < LLD	LM3 1.9 MILES NNE	·	4.44E-01 (1/2) 4.44E-01 - 4.44E-01	

Note: 1. Nominal Lower Level of Detection (LLD) as described in Table E-1

Tennessee Valley Authority
Environmental Radiological Monitoring and Instrumentation

Western Area Radiological Laboratory



#### **RADIOACTIVITY IN APPLES** PCI/KG - 0.037 BQ/KG (WET WT)

Name of Facility: WATTS BAR NUCLEAR PLANT . Location of Facility: RHEA **TENNESSEE** 

Docket Number: 50-390,391

Reporting Period: 2004

Lower Limit of Detection	Indicator Locations Mean (F)	Location with Highest Name Distance and Direction	Annual Mean Mean (F)	Control Locations Mean (F)	Number of Nonroutine Reported
See Note 1	See Note 2	Distance and Direction	See Note 2	See Note 2	Measurements
		•			
2		•			
2.50E+02	7.41E+02 (1 / 1)	4.5 MILES N	7.41E+02 (1 / 1)	8.61E+02 (1/1)	
	of Detection (LLD) See Note 1	of Detection Mean (F) (LLD) Range See Note 1 See Note 2	of Detection Mean (F) Name (LLD) Range Distance and Direction See Note 1 See Note 2  2 2.50E+02 7.41E+02 (1 / 1) 4.5 MILES N	of Detection Mean (F) Name Mean (F) (LLD) Range Distance and Direction Range See Note 1 See Note 2 See Note 2  2 2.50E+02 7.41E+02 (1 / 1) 4.5 MILES N 7.41E+02 (1 / 1)	of Detection (LLD)         Mean (F) Range         Name Distance and Direction         Mean (F) Range         Mean (F) Range           See Note 1         See Note 2         See Note 2         See Note 2           2         2         2.50E+02         7.41E+02 (1/1)         8.61E+02 (1/1)

TABLE

Docket Number: 50-390,391

Reporting Period: 2004

TABLE H-9

#### Tennessee Valley Authority

Environmental Radiological Monitoring and Instrumentation

Western Area Radiological Laboratory



Number of Nonroutine Reported Measurements

## RADIOACTIVITY IN CABBAGE PCI/KG - 0.037 BQ/KG (WET WT)

Name of Facility: WATTS BAR NUCLEAR PLANT Location of Facility: RHEA TENNESSEE

•

Type and	Lower Limit	Indicator Locations	Location with Highest	Annual Mean	Control Locations
Total Number	of Detection	` Mean (F)	Name	Mean (F)	Mean (F)
of Analysis	(LLD)	Range	Distance and Direction	Range	Range
Performed	See Note 1	See Note 2		See Note 2	See Note 2
GAMMA SCAN (GELI)	2				
K-40	2.50E+02	1.86E+03 (1 / 1) 1.86E+03 - 1.86E+03	MULLINS FARM 3.7 M. ESE	1.86E+03 · (1 / 1) 1.86E+03 - 1.86E+03	1.75E+03 (1 / 1) 1.75E+03 - 1.75E+03

Note: 1. Nominal Lower Level of Detection (LLD) as described in Table E - 1

Tennessee Valley Authority
Environmental Radiological Monitoring and Instrumentation Western Area Radiological Laboratory



RADIOACTIVITY IN CORN PCI/KG - 0.037 BQ/KG (WET WT)

Name of Facility: WATTS BAR NUCLEAR PLANT Location of Facility: RHEA

**TENNESSEE** 

Docket Number: 50-390,391 Reporting Period: 2004

Type and Total Number of Analysis Performed	Lower Limit of Detection (LLD) See Note 1	Indicator Locations Mean (F) Range See Note 2	Location with Highest Name Distance and Direction	Annual Mean Mean (F) Range See Note 2	Control Locations Mean (F) Range See Note 2	Number of Nonroutine Reported Measurements
GAMMA SCAN (GELI) K-40	2 2.50E+02	2.31E+03 (1 / 1) 2.31E+03 - 2.31E+03	NORTON FARM 4.1 MILES ESE	2.31E+03 (1 / 1) 2.31E+03 - 2.31E+03	1.86E+03 (1 / 1) 1.86E+03 - 1.86E+03	

Note: 1. Nominal Lower Level of Detection (LLD) as described in Table E - 1

#### **Tennessee Valley Authority**

**Environmental Radiological Monitoring and Instrumentation** Western Area Radiological Laboratory

#### RADIOACTIVITY IN GREEN BEANS PCI/KG - 0.037 BQ/KG (WET WT)

Name of Facility: WATTS BAR NUCLEAR PLANT · Location of Facility: RHEA **TENNESSEE** 

Docket Number: 50-390,391

Reporting Period: 2004

Type and Total Number of Analysis	Lower Limit of Detection (LLD)	Indicator Locations Mean (F) Range	Location with Highest Name Distance and Direction	Annual Mean Mean (F) Range	Control Locations Mean (F) Range	Number of Nonroutine Reported
Performed	See Note 1	See Note 2		See Note 2	See Note 2	Measurements
GAMMA SCAN (GELI)	2					
K-40	2.50E+02	1.96E+03 (1/1) 1.96E+03 - 1.96E+03	MULLINS FARM 3.7 M. ESE	1.96E+03 (1 / 1) 1.96E+03 - 1.96E+03	1.41E+03 (1 / 1) 1.41E+03 - 1.41E+03	

# TABLE

#### **Tennessee Valley Authority**

**Environmental Radiological Monitoring and Instrumentation** 

Western Area Radiological Laboratory



RADIOACTIVITY IN TOMATOES PCI/KG - 0.037 BQ/KG (WET WT)

Name of Facility: WATTS BAR NUCLEAR PLANT Location of Facility: RHEA TENNESSEE

Docket Number: 50-390,391 Reporting Period: 2004

Type and Total Number of Analysis Performed	Lower Limit of Detection (LLD) See Note 1	Indicator Locations Mean (F) Range See Note 2	Location with Highest Name Distance and Direction	Annual Mean Mean (F) Range See Note 2	Control Locations Mean (F) Range See Note 2	Number of Nonroutine Reported Measurements
GAMMA SCAN (GELI) K-40	2 2.50E+02	2.40E+03 (1 / 1) 2.40E+03 - 2.40E+03	MULLINS FARM 3.7 M. ESE	2.40E+03 (1 / 1) 2.40E+03 - 2.40E+03	2.21E+03 (1 / 1) 2.21E+03 - 2.21E+03	

Note: 1. Nominal Lower Level of Detection (LLD) as described in Table E-1

Environmental Radiological Monitoring and Instrumentation Western Area Radiological Laboratory



## RADIOACTIVITY IN SURFACE WATER(Total) PCI/L - 0.037 BQ/L

Name of Facility: WATTS BAR NUCLEAR PLANT Location of Facility: RHEA TENNESSEE

Docket Number: 50-390,391 Reporting Period: 2004

Type and Total Number of Analysis Performed	Lower Limit of Detection (LLD) See Note 1	Indicator Locations Mean (F) Range See Note 2	Location with Highest Name Distance and Direction	Annual Mean Mean (F) Range . See Note 2	Control Locations Mean (F) Range See Note 2	Number of Nonroutine Reported Measurements
GROSS BETA	38		•	•		
	1.90E+00	3.78E+00 (21 / 25) 2.18E+00 - 1.32E+01	TRM 523.1	4.38E+00 (11 / 12) 2.35E+00 - 1.32E+01	2.56E+00 (11 / 13) 1.99E+00 - 3.66E+00	
GAMMA SCAN (GELI)	38					
BI-214	2.00E+01	6.57E+01 (2/25) 2.01E+01 - 1.11E+02	TRM 517.9	6.57E+01 (2 / 13) 2.01E+01 - 1.11E+02	3.11E+01 (2 / 13) 2.68E+01 - 3.54E+01	
PB-214	2.00E+01	1.04E+02 (1 / 25) 1.04E+02 - 1.04E+02	TRM 517.9	1.04E+02 (1 / 13) 1.04E+02 - 1.04E+02	2.19E+01 (2 / 13) 2.05E+01 - 2.32E+01	
TRITIUM	44 .		•			•
L &	.3.00E+02	29 VALUES < LLD			15 VALUES < LLD	٠.

Note: 1. Nominal Lower Level of Detection (LLD) as described in Table E-1

The sselley sority for Environmental Radiological Monitoring and Instrumentation Western Area Radiological Laboratory



# RADIOACTIVITY IN PUBLIC WATER(Total) PCI/L - 0.037 BQ/L

Name of Facility: WATTS BAR NUCLEAR PLANT Location of Facility: RHEA

TENNESSEE

Docket Number: 50-390,391 Reporting Period: 2004

Type and Total Number of Analysis Performed	Lower Limit of Detection (LLD) See Note 1	Indicator Locations Mean (F) Range See Note 2	Location with Highest Name Distance and Direction	Annual Mean Mean (F) Range See Note 2	Control Locations Mean (F) Range See Note 2	Number of Nonroutine Reported Measurements
GROSS BETA	39					
	1.90E+00	2.44E+00 (15/26) 1.92E+00 - 3.65E+00	TRM 503.8	2.58E+00 (7 / 13) 1.92E+00 - 3.65E+00	2.56E+00 (11 / 13) 1.99E+00 - 3.66E+00	•
GAMMA SCAN (GELI)	39	•				•
BI-214	2.00E+01	3.25E+01 (3 / 26) 2.37E+01 - 4.09E+01	TRM 503.8	4.09E+01 (1 / 13) 4.09E+01 - 4.09E+01	3.11E+01 (2 / 13) 2.68E+01 - 3.54E+01	
PB-214	2.00E+01	3.10E+01 (3 / 26) 2.25E+01 - 3.71E+01	TRM 503.8.	3.71E+01 (1 / 13) 3.71E+013.71E+01	2.19E+01 (2 / 13) 2.05E+01 - 2.32E+01	•
TRITIUM	49		•	•	•	
i co	3.00E+02	34 VALUES < LLD			15 VALUES < LLD	

Note: 1. Nominal Lower Level of Detection (LLD) as described in Table E - 1

Environmental Radiological Monitoring and Instrumentation Western Area Radiological Laboratory



#### RADIOACTIVITY IN WELL WATER(Total) PCI/L - 0.037 BQ/L

Name of Facility: WATTS BAR NUCLEAR PLANT Location of Facility: RHEA TENNESSEE

Docket Number: 50-390,391 Reporting Period: 2004

	Type and Total Number of Analysis Performed	Lower Limit of Detection (LLD) See Note 1	Indicator Locations Mean (F) Range See Note 2	Location with Highest Name Distance and Direction	Annual Mean Mean (F) Range See Note 2	Control Locations Mean (F) Range See Note 2	Number of Nonroutine Reported Measurements
c	ROSS BETA	89	·	•			
		1.90E+00	5.74E+00 (49 / 63) 1.92E+00 - 1.64E+01	WBN MW-B 0.45 MILES SSE)	9.47E+00 (13 / 13) 3.54E+00 - 1.64E+01	2.59E+00 (12/26) 1.90E+00 - 4.16E+00	
	AMMA SCAN (GELI)	89					
	AC-228	2.00E+01	2.60E+01 (1/63) 2.60E+01 - 2.60E+01	WBN MW-D 0.40 MILES SSE)	2.60E+01 (1/11) 2.60E+01 - 2.60E+01	3.43E+01 (1 / 26) 3.43E+01 - 3.43E+01	
	B1-214	2.00E+01	3.74E+01 (9 / 63) 2.21E+01 - 1.02E+02	WBN MW-A 0.58 MILES SSE)	4.96E+01 (3 / 13) 2.30E+01 - 1.02E+02	1.81E+02 (12 / 26) 4.39E+01 - 3.64E+02	
	K-40	1.00E+02	4.38E+02 (1/63) 4.38E+02 - 4.38E+02	WBN MW-D 0.40 MILES SSE)	4.38E+02 (1 / 11) 4.38E+02 - 4.38E+02	6.71E+02 (1 / 26) 6.71E+02 - 6.71E+02	
-82-	PB-212	1.50E+01	1.53E+01 (1 / 63) 1.53E+01 - 1.53E+01	WBN MW-D 0.40 MILES SSE)	1.53E+01 (1 / 11) 1.53E+01 - 1.53E+01	2.14E+01 (1 / 26) 2.14E+01 - 2.14E+01	
	PB-214	2.00E+01	4.09E+01 (5 / 63) 2.20E+01 - 9.30E+01	WBN MW-A 0.58 MILES SSE)	9.30E+01 (1 / 13) 9.30E+01 - 9.30E+01	1.85E+02 (12 / 26) 3.99E+01 - 3.63E+02	
	TL-208	1.00E+01	63 VALUES < LLD	WBN MW-D 0.40 MILES SSE)	11 VALUES < LLD	1.17E+01 (1 / 26) 1.17E+01 - 1.17E+01	
T	RITIUM ·	89		•		•	
		3.00E+02	6.03E+03 (45 / 63) 3.03E+02 - 1.28E+04	WBN MW-B 0.45 MILES SSE)	9.22E+03 (13 / 13) 7.42E+03 - 1.06E+04	26 VALUES < LLD	

Note: 1. Nominal Lower Level of Detection (LLD) as described in Table E - 1

# TABLE H-16

#### Tennessee Valley Authority

Environmental Radiological Monitoring and Instrumentation Western Area Radiological Laboratory



## RADIOACTIVITY IN COMMERCIAL FISH PCI/GM - 0.037 BQ/G (DRY WEIGHT)

Name of Facility: WATTS BAR NUCLEAR PLANT Location of Facility: RHEA TENNESSEE

Docket Number: 50-390,391 Reporting Period: 2004

Type and Total Number of Analysis Performed	Lower Limit of Detection (LLD) See Note 1	Indicator Locations Mean (F) Range See Note 2	Location with Highest Name Distance and Direction	Annual Mean Mean (F) Range See Note 2	Control Locations Mean (F) Range See Note 2	Number of Nonroutine Reported Measurements
GAMMA SCAN (GELI)	6					
CS-137	3.00E-02	3.70E-02 (1 / 4) 3.70E-02 - 3.70E-02	DOWNSTREAM STATION 1 . DOWNSTREAM	3.70E-02 (1 / 2) 3.70E-02 - 3.70E-02	7.74E-02 (1 / 2) 7.74E-02 - 7.74E-02	
K-40	4.00E-01	9.90E+00 (4/4) 9.38E+00 - 1.07E+01	DOWNSTREAM STATION 1' DOWNSTREAM	1.01E+Ö1 (2/2) 9.47E+00 - 1.07E+01	1.13E+01 (2/2) 1.11E+01 - 1.15E+01	

Note: 1. Nominal Lower Level of Detection (LLD) as described in Table E - 1

Tennessee Valley Authority
Environmental Radiological Monitoring and Instrumentation Western Area Radiological Laboratory



#### RADIOACTIVITY IN GAME FISH PCI/GM - 0.037 BQ/G (DRY WEIGHT)

Name of Facility: WATTS BAR NUCLEAR PLANT Location of Facility: RHEA

TENNESSEE

Docket Number: 50-390,391 Reporting Period: 2004

Type and Total Number of Analysis Performed	Lower Limit of Detection (LLD) See Note 1	Indicator Locations Mean (F) Range See Note 2	Location with Highest Name Distance and Direction	Annual Mean Mean (F) Range See Note 2	Control Locations Mean (F) Range See Note 2	Number of Nonroutine Reported Measurements
GAMMA SCAN (GELI)	6	·	•			•
CS-137	3.00E-02	3.61E-02 (3 / 4) 3.01E-02 - 4.02E-02	DOWNSTREAM STATION 1 DOWNSTREAM	3.91E-02 (2 / 2) 3.80E-02 - 4.02E-02	4.96E-02 (2 / 2) 3.45E-02 - 6.47E-02	
K-40	4.00E-01	1.40E+01 (4 / 4) 1.34E+01 - 1.51E+01	DOWNSTREAM STATION 1 DOWNSTREAM	1.45E+01 (2 / 2) 1.38E+01 - 1.51E+01	1.37E+01 (2/2) 1.30E+01 - 1.44E+01	

Note: 1. Nominal Lower Level of Detection (LLD) as described in Table E-1

# TABLE H-18

#### Tennessee Valley Authority

Environmental Radiological Monitoring and Instrumentation
Western Area Radiological Laboratory



## RADIOACTIVITY IN SHORELINE SEDIMENT PCI/GM - 0.037 BQ/G (DRY WEIGHT)

Name of Facility: WATTS BAR NUCLEAR PLANT Location of Facility: RHEA TENNESSEE

Docket Number: 50-390,391 Reporting Period: 2004

	Type and Total Number of Analysis Performed	Lower Limit of Detection (LLD) See Note 1	Indicator Locations Mean (F) Range See Note 2	Location with Highest Name Distance and Direction	Annual Mean Mean (F) Range See Note 2	Control Locations Mean (F) Range See Note 2	Number of Nonroutine Reported Measurements
G/	MMA SCAN (GELI)	4				·	
	AC-228	2.50E-01	1.46E+00 (2/2) 1.43E+00 - 1.48E+00	COTTON PORT MARINA TRM 513	1.46E+00 (2/2) 1.43E+00 - 1.48E+00	2 VALUES < LLD	
	BE-7	, 2.50E-01	3.91E-01 (1 / 2) 3.91E-01 - 3.91E-01	COTTON PORT MARINA TRM 513	3.91E-01 (1 / 2) 3.91E-01 - 3.91E-01	2 VALUES < LLD	. •
	BI-212	4.50E-01	1.60E+00 (2 / 2) 1.56E+00 - 1.63E+00	COTTON PORT MARINA TRM 513	1.60E+00 (2/2) 1.56E+00 - 1.63E+00	2 VALUES < LLD	
	BI-214	1.50E-01	7.27E-01 (2 / 2) 6.59E-01 - 7.96E-01	COTTON PORT MARINA TRM 513	7.27E-01 (2 / 2) 6.59E-01 - 7.96E-01	1.52E-01 (1 / 2) 1.52E-01 - 1.52E-01	
<u>_</u>	CS-137	3.00E-02	6.48E-02 (1 / 2) 6.48E-02 - 6.48E-02	COTTON PORT MARINA TRM 513	6.48E-02 (1 / 2) 6.48E-02 - 6.48E-02	2 VALUES < LLD	
80	K-40	7.50E-01	3.13E+01 (2/2) 3.12E+01 - 3.14E+01	COTTON PORT MARINA TRM 513	3.13E+01 (2 / 2) · 3.12E+01 · 3.14E+01	2 VALUES < LLD	
	PB-212	1.00E-01	1.45E+00 (2 / 2) 1.40E+00 - 1.49E+00	COTTON PORT MARINA TRM 513	1.45E+00 (2 / 2) 1.40E+00 - 1.49E+00	1.06E-01 (1 / 2) 1.06E-01 - 1.06E-01	
	PB-214	1.50E-01	7.65E-01 (2 / 2) 7.11E-01 - 8.20E-01	COTTON PORT MARINA TRM 513	7.65E-01 (2 / 2) 7.11E-01 - 8.20E-01	1.66E-01 (1 / 2) 1.66E-01 - 1.66E-01	
	RA-224	7.50E-01	1.51E+00 (2/2) 1.44E+00 - 1.57E+00	COTTON PORT MARINA TRM 513	1.51E+00 (2/2) 1.44E+00 - 1.57E+00	2 VALUES < LLD	
	RA-226	1.50E-01	7.27E-01 (2 / 2) 6.59E-01 - 7.96E-01	COTTON PORT MARINA TRM 513	7.27E-01 (2 / 2) 6.59E-01 - 7.96E-01	1.52E-01 (1 / 2) 1.52E-01 - 1.52E-01	
	TL-208	6.00E-02	4.66E-01 (2 / 2) 4.59E-01 - 4.72E-01	COTTON PORT MARINA TRM 513	4.66E-01 (2 / 2) 4.59E-01 - 4.72E-01	2 VALUES < LLD	

Note: 1. Nominal Lower Level of Detection (LLD) as described in Table E-1

Environmental Radiological Monitoring and Instrumentation
Western Area Radiological Laboratory



## RADIOACTIVITY IN POND SEDIMENT PCI/GM - 0.037 BQ/G (DRY WEIGHT)

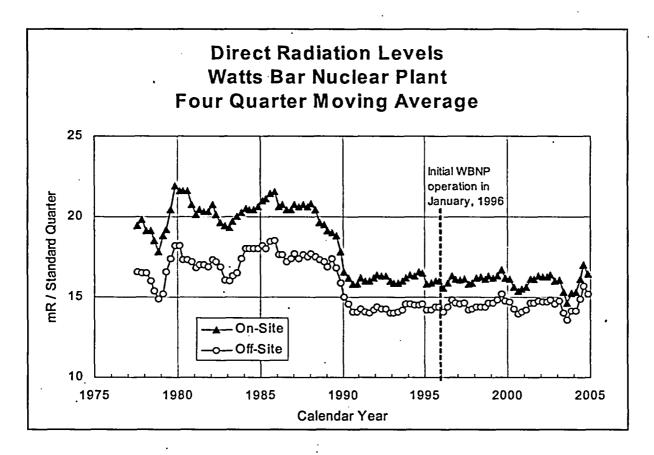
Name of Facility: WATTS BAR NUCLEAR PLANT Location of Facility: RHEA TENNESSEE

Docket Number: 50-390,391 Reporting Period: 2004

	Type and Total Number of Analysis Performed	Lower Limit of Detection (LLD) See Note 1	Indicator Locations Mean (F) Range See Note 2	Location with Highest Name Distance and Direction	Annual Mean Mean (F) Range See Note 2	Control Locations Mean (F) Range See Note 2	Number of Nonroutine Reported Measurements
GA	MMA SCAN (GELI)						
	AC-228	2.50E-01	9.72E-01 (5 / 5) 8.76E-01 - 1.16E+00	YP-13 YARD POND	1.16E+00 (1 / 1) 1.16E+00 - 1.16E+00	VALUES < LLD	
	BE-7	2.50E-01	4.30E-01 (4/5) 2.77E-01 - 5.66E-01	YP-13 YARD POND	5.66E-01 (1 / 1) 5.66E-01 - 5.66E-01	VALUES < LLD	
	BI-212	4.50E-01	1.06E+00 (5 / 5) 8.11E-01 - 1.42E+00	' YP-13 YARD POND	1.42E+00 (1 / 1) 1.42E+00 - 1.42E+00	VALUES < LLD	
	BI-214	1.50E-01	7.44E-01 (5 / 5) 6.59E-01 - 8.85E-01	YP-13 YARD POND	8.85E-01 (1 / 1) 8.85E-01 - 8.85E-01	VALUES < LLD	
<b>-</b>	CO-60	3.00E-02	6.34E-02 (4 / 5) 3.87E-02 - 1.05E-01	YP-16 YARD POND	1.05E-01 (1 / 1) 1.05E-01 - 1.05E-01	VALUES < LLD	
6	CS-137	3.00E-02	8.40E-02 (5 / 5) 4.19E-02 - 1.76E-01	YP-13 YARD POND	1.76E-01 (1 / 1) 1.76E-01 - 1.76E-01	VALUES < LLD	
	K-40	7.50E-01	1.17E+01 (5/5) 9.72E+00 - 1.60E+01	YP-13 YARD POND	1.60E+01 (1/1) 1.60E+01 - 1.60E+01	VALUES < LLD	
	PB-212	1.00E-01	9.79E-01 (5 / 5) 8.66E-01 - 1.21E+00	YP-13 YARD POND	1.21E+00 (1 / 1) 1.21E+00 - 1.21E+00	VALUES < LLD	
	PB-214	1.50E-01	7.96E-01 (5/5) 6.80E-01 - 9.44E-01	YP-13 YARD POND	9.44E-01 (1 / 1) 9.44E-01 - 9.44E-01	VALUES < LLD	
	RA-224	7.50E-01	1.11E+00 (3/5) 9.28E-01 - 1.34E+00	YP-13 YARD POND	1.34E+00 (1 / 1) 1.34E+00 - 1.34E+00	VALUES < LLD	
	SB-125	-1.00E+00	6.36E-02 (2 / 5) 3.87E-02 - 8.84E-02	YP-16 YARD POND	8.84E-02 (1 / 1) 8.84E-02 - 8.84E-02	VALUES < LLD	
	TL-208	6.00E-02	3.16E-01 (5 / 5) 2.85E-01 - 3.70E-01	YP-13 YARD POND	3.70E-01 (1 / 1) 3.70E-01 - 3.70E-01	VALUES < LLD	

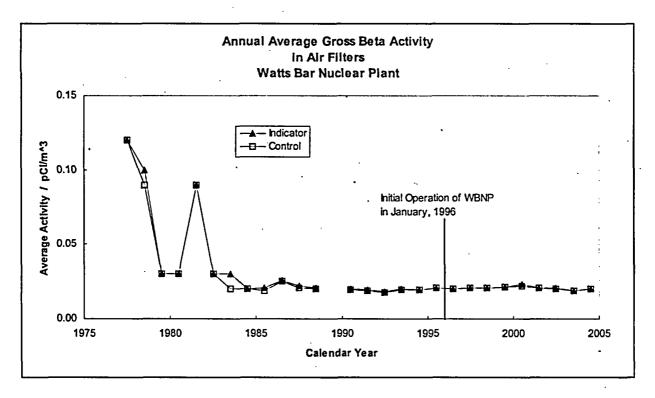
Note: 1. Nominal Lower Level of Detection (LLD) as described in Table E - 1

Figure H-1
Direct Radiation

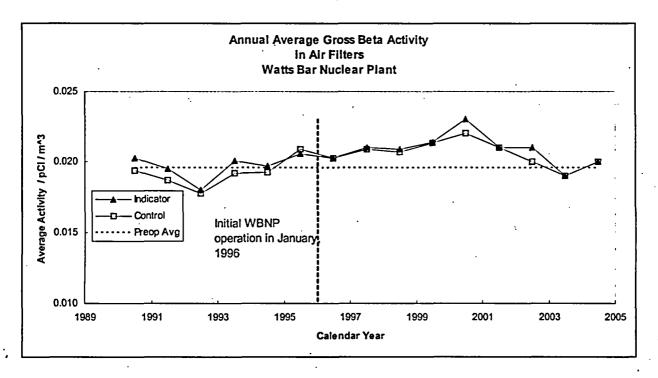


Thermoluminescent dosimeters are processed quarterly. This chart shows trends in the average measurement for all dosimeters grouped as "on-site" or "off-site". The data from preoperational phase, prior to 1996, show the same trend of "on-site" measurements higher than "off-site" measurements that is observed in current data indicating that the slightly higher "on-site" direct radiation levels are not related to plant operations.

Figure H-2
Radioactivity in Air Filters



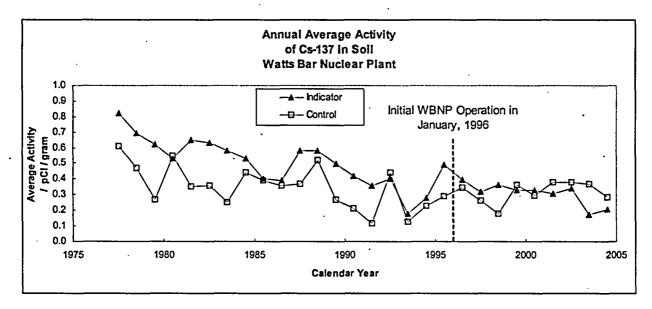
To more clearly show trends developed since the end of atmospheric weapons testing, the data beginning with the resumption of the monitoring program in 1990 is shown in greater detail.



#### Figure H-3

#### Cs-137 in Soil

Cesium-137 was produced by past nuclear weapons testing and is present in almost every environmental sample exposed to the atmosphere. The "control" and "indicator" locations have generally trended downward with year-to-year variation, since the beginning of the monitoring program from the Watts Bar site.



In almost every year, the "indicator" locations have shown greater activity of Cs-137 than the "control" locations. This trend, with its preoperational average is shown below.

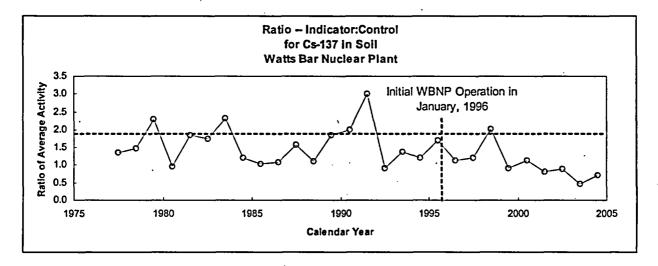
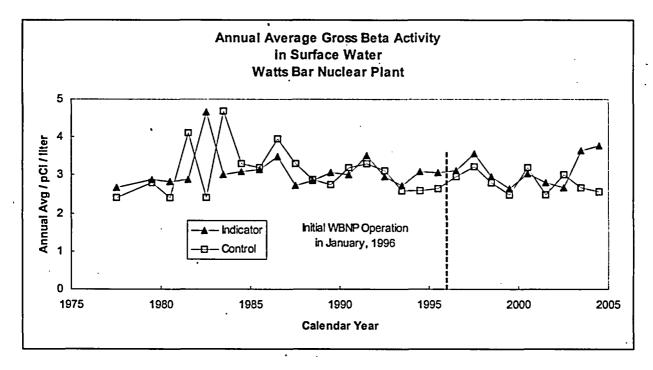


Figure H-4
Gross Beta Activity in Surface and Drinking Water



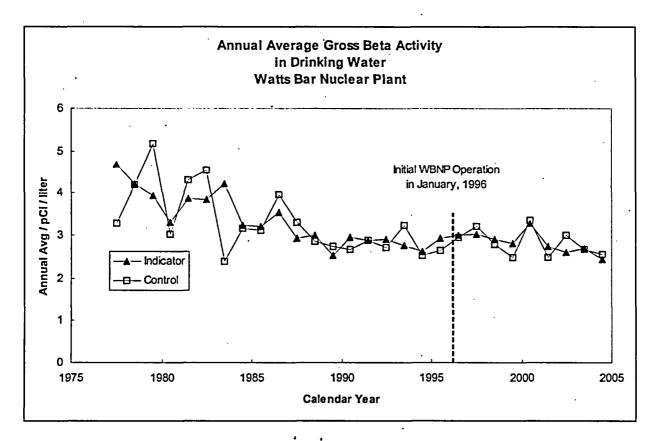
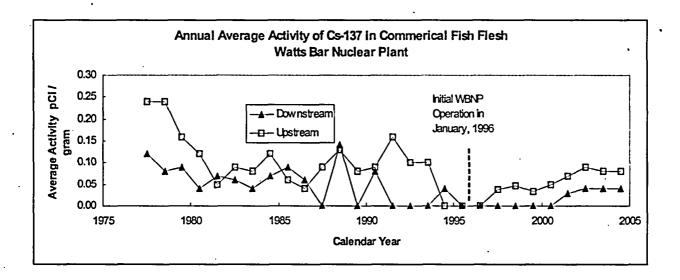
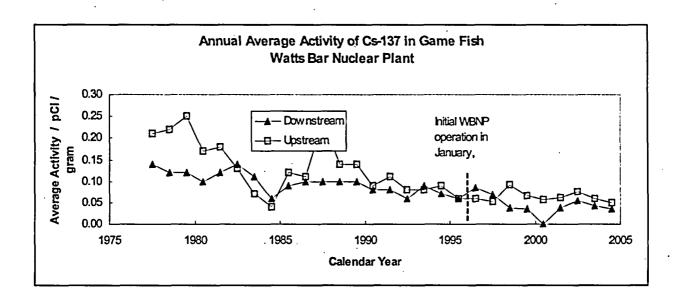


Figure H-5
Radioactivity in Fish

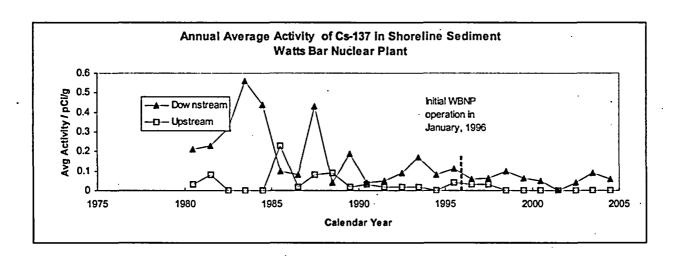




#### Figure H-6

#### Radioactivity in Shoreline Sediment

The Cs-137 present in the shoreline sediments of the Tennessee River system was produced both by testing of nuclear weapons and by related nuclear operations in the upper reaches of the Tennessee River watershed. The amounts of Cs-137 have declined significantly during the course of monitoring for the Watts Bar site, so much so that not all samples contain detectable levels.



# Annual Radiological Environmental Operating Report

Watts Bar Nuclear Plant Data Supplement 2004



# ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT WATTS BAR NUCLEAR PLANT DATA SUPPLEMENT

2004

TENNESSEE VALLEY AUTHORITY

# RADIOLOGICAL ENVIRONMENTAL MONITORING DATA WATTS BAR NUCLEAR PLANT 2004

This supplement to the Watts Bar Nuclear Plant Annual Radiological Environmental Operating Report (AREOR) presents the results of individual sample analyses and radiation measurements. The results are ordered by sample type then by sample location and analysis type. If no gamma activity was detected in a sample, the notation 'NO ACTIVITY DETECTED' is entered. The sample locations are described in Appendix A to the AREOR.

These tables include all results, whether above or below the Lower Limit of Detection.

Negative values are an artifact of counting statistics and do not imply a negative activity.

The uncertainty reported for specific analyses such as gross beta, Sr-89 and 90 and tritium is the one sigma counting error. For gamma analyses, the uncertainty reported is the one-sigma error calculated by the gamma spectral analysis software.

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Station 2116	Location RM-2 DAYTON TN	Description 15.0 MILES SW	<u>Analysis</u>	<u>Nuclide</u>	Activity	Error	Date_Collected	Lab Number
2110	2 5/11 1011 111	10.0 1/11220 017	GROSS I	BETA				•
					.0228	.0025	12/30/03	420046
					.0167	.0019	01/06/04	420154
	•				.0289	.0031	01/13/04	420264
					.0284	.0031	01/20/04	420358
·		•			.0239	.0026	01/27/04	420553
					.0249	.0027	02/03/04	420672
					.0291	.0031	02/10/04	420822
					.0267	.0029	02/17/04	420920
	•	•			.0343	.0036	02/24/04	421081
-2-			-		.0228	.0025	03/02/04	421201
•	•				.0165	.0019	03/09/04	421316
	• •				.0222	.0024	03/16/04	421418
					.0149	.0017	03/23/04	421593
					.0189	.0021	03/30/04	421709
					.0154	.0018	· 04/06/04	421861
		•			.0187	.0021	04/13/04	421955
					.0206	.0023	04/20/04	422120
					.0205	.0023	04/27/04	422297
					.0173	.0020	05/04/04	422440
					.0277	.0030	05/11/04	422536
		,	•		.0227	.0025	05/18/04	422700
•					.0180	.0020	05/25/04	422844
	•				.0129	.0015	06/01/04	422971
					.0190	.0021	06/08/04	423079
					0192	.0021	06/15/04	423231
	•				.0144	.0017	06/22/04	423378

Station 2116	Location RM-2 DAYTON TN	Description 15.0 MILES SW	Analýsis GROSS E	<u>Nuclide</u> BETA	<u>Activity</u>	<u>Error</u>	Date Collected	Lab Number
							•	
		·			.0153	.0018	06/29/04	423511
					.0144	.0017	07/06/04	423636
					.0158	.0018	07/13/04	423793
					.0213	.0025	07/27/04	424081 ·
			•		.0163	.0019	08/03/04	424175
		•	•	•	.0247	.0027	08/10/04	424328
					.0216	.0024	08/17/04	424442
				•	.0291	.0031	08/24/04	424589
					.0211	.0023	08/31/04	424686
မ မ					.0204	.0023	09/07/04	424840
•					.0115	.0014	09/14/04	424957
					.0168	.0019	09/21/04	425077
	·				.0322	.0034	09/28/04	. 425195
					.0359	.0038	10/05/04	425340
			•		.0375	.0039	10/12/04	425457
		•			.0179	.0020	10/19/04	425576
					.0196	.0022	10/26/04	425731
					.0201	.0022	11/02/04	425893
	•				.0193	.0022	11/08/04	426010
					.0194	.0021	11/16/04	426125
				•	.0254	.0028	11/22/04	426223
					.0188	.0021	11/30/04	426391
	•				.0212	.0023	12/07/04	426516
	•				.0184	.0021	12/14/04	426631
					.0227	.0025	12/20/04	426739

Station 2116	Location RM-2 DAYTON TN	Description 15.0 MILES SW	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
	•		GAMMA :	SCAN (GELI)				
				AC-228	2042	00.47	0.1100.10.1	
					.0016	.0017	01/20/04	420433
					.0026	.0019	11/22/04	426299
	•				.0024	.0014	12/20/04	426815
				BE-7	0000	0077	04100104	100100
				•	.0902	.0077	01/20/04	420433
					.0891	.0073	02/17/04	420994
•					.1093	.0097	03/16/04	421494
					.1282	.0147	04/13/04	422030
	•				.1532	.0095	05/11/04	422612
	1 12				.1257	.0126	06/08/04	423155
	•				.0920	.0071	07/06/04	423712
					.0970	.0105	08/03/04	424250
					.1061	.0088	08/31/04	424762
				•	.0970	.0111	09/28/04	425270
					.1094	.0078	10/26/04	425823
	•		•		.1068	.0093	· 11/22/04	426299
			٠		.0772	.0073	12/20/04	426815
				BI-214				
	•				.0123	.0015	01/20/04	420433
					.0286	.0022	02/17/04	420994
					.0265	.0025	03/16/04	421494
					.0260	.0022	04/13/04	422030
•				•	.0233	.0023	05/11/04	422612
			•		.0092	.0013	07/06/04	423712
			•		.0055	.0019	08/03/04	424250
					.0047	.0015	08/31/04	424762
•	•				1400.	.0013	00/3/1/04	424102

Station 2116	Location RM-2 DAYTON TN	Description 15.0 MILES SW	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	<u>Error</u>	<u>Date Collected</u>	<u>Lab Number</u>
			GAMMA :	SCAN (GELI) BI-214	•			
				DI-214	.0044	.0015	09/28/04	425270
					.0044	.0012	10/26/04	425823
					.0073	.0041	11/22/04	426299
					.0093	.0014	12/20/04	426815
•				K-40				
					.0049	.0063	02/17/04	420994
					.0143	.0078	03/16/04	421494
					.0065	.0065	04/13/04	422030
1	•				.0075	.0060	05/11/04	422612
5-					0080	.0056	10/26/04	425823
·				•	.0058	.0062	11/22/04	426299
					.0065	.0065	12/20/04	426815
				PB-212				
					.0004	.0006	01/20/04	420433
					.0012	.0007	· 03/16/04	421494
				,	.0008	.0005	05/11/04	422612
		•			.0006	.0007	08/03/04	424250
					.0007	.0007	09/28/04	425270
		•		PB-214				
					.0141	.0015	01/20/04	420433
			•		.0283	.0018	02/17/04	420994
					.0198	.0022	03/16/04	421494
	•				.0268	.0020	04/13/04	422030
		•			.0217	.0019	05/11/04	422612
					.0105	.0019	07/06/04	423712
	· .				.0051	.0016	08/03/04	424250

GAMMA SCAN (GELI) PB-214	Station 2116	Location RM-2 DAYTON TN	Description 15.0 MILES SW	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	<u>Error</u>	Date Collected	Lab Number
10039   .0013   .08/31/04   .424762   .0036   .0015   .09/28/04   .425270   .0027   .0010   .11/22/04   .426290   .0027   .0010   .11/22/04   .426815   .00207   .0010   .0015   .12/20/04   .426815   .00207   .0010   .0015   .12/20/04   .426815   .00207   .0010   .0015   .12/20/04   .426815   .00207   .0010   .0015   .00207				GAMMA					
10036   0.015   0.09/28/04   425270   0.048   0.0013   1.01/26/04   425823   0.0027   0.010   1.11/22/04   426299   0.0027   0.010   0.0015   1.21/20/04   426815   0.0026   0.0006		·	•		PB-214		0042	00/24/04	404760
Company   Comp		•	•						
11/22/04   426299   12/20/04   426815   12/20/04   426815   12/20/04   426815   12/20/04   426815   12/20/04   426815   12/20/04   426815   12/20/04   426815   12/20/04   42030   12/20/04   42030   12/30/03   12/30/03   42030   12/30/03   12/30/03   12/30/03   12/30/04   42030   12/30/03   1									
TL-208  TL-208  1000									
TL-208   0,0006   0,0004   04/13/04   422030     1									
1006   .0004   04/13/04   422030   3101   LM1   0.5 MILES SSW   GROSS BETA					<del></del>	.0100	.0015	12/20/04	426815
GROSS BETA    1					1L-208	0000	0004	04440404	400000
GROSS BETA	2404		O E MILEO COM			.0000	.0004	04/13/04	422030
.0212 .0023 12/30/03 420076 .0166 .0019 01/06/04 420177 .0269 .0029 01/13/04 420281 .0247 .0027 01/20/04 420387 .0212 .0023 02/03/04 420696 .0265 .0028 02/10/04 420839 .0265 .0028 02/10/04 420839 .0240 .0026 02/17/04 420949 .0273 .0029 02/24/04 421111 .0171 .0019 03/02/04 421121 .0152 .0017 03/09/04 421333 .0215 .0023 03/16/04 421449 .0169 .0019 03/23/04 42149 .0169 .0019 03/23/04 42149 .0168 .0021 03/30/04 421733 .0134 .0016 04/06/04 421878 .0184 .0020 04/13/04 421878	3101	LMT	U.5 MILES 55VV	CPOSS I	DETA		•		
	1			GRUSS	DETA			·	
.0166       .0019       01/06/04       420177         .0269       .0029       01/13/04       420281         .0247       .0027       01/20/04       420387         .0212       .0023       02/03/04       420696         .0265       .0028       02/10/04       420839         .0240       .0026       02/17/04       420949         .0273       .0029       02/24/04       421111         .0171       .0019       03/02/04       421224         .0152       .0017       03/09/04       421333         .0215       .0023       03/16/04       421449         .0169       .0019       03/23/04       421623         .0188       .0021       03/30/04       421733         .0134       .0016       04/06/04       421878         .0184       .0020       04/13/04       421985	Ϋ.			•	•	.0212	.0023	12/30/03	420076
.0247       .0027       01/20/04       420387         .0212       .0023       02/03/04       420696         .0265       .0028       02/10/04       420839         .0240       .0026       02/17/04       420949         .0273       .0029       02/24/04       421111         .0171       .0019       03/02/04       421224         .0152       .0017       03/09/04       421333         .0215       .0023       03/16/04       421449         .0169       .0019       03/23/04       421623         .0188       .0021       03/30/04       421733         .0134       .0016       04/06/04       421878         .0184       .0020       04/13/04       421985						0166	.0019	01/06/04	420177
.0212 .0023 02/03/04 420696 .0265 .0028 02/10/04 420839 .0240 .0026 02/17/04 420949 .0273 .0029 02/24/04 421111 .0171 .0019 03/02/04 421224 .0152 .0017 03/09/04 421333 .0215 .0023 03/16/04 421449 .0169 .0019 03/23/04 421623 .0188 .0021 03/30/04 421733 .0184 .0016 04/06/04 421878 .0184 .0020 04/13/04 421985						.0269	.0029	01/13/04	420281
.0212       .0023       02/03/04       420696         .0265       .0028       02/10/04       420839         .0240       .0026       02/17/04       420949         .0273       .0029       02/24/04       421111         .0171       .0019       03/02/04       421224         .0152       .0017       03/09/04       421333         .0215       .0023       03/16/04       421449         .0169       .0019       03/23/04       421623         .0188       .0021       03/30/04       421733         .0134       .0016       04/06/04       421878         .0184       .0020       04/13/04       421985						.0247	.0027	01/20/04	420387
.0265       .0028       02/10/04       420839         .0240       .0026       02/17/04       420949         .0273       .0029       02/24/04       421111         .0171       .0019       03/02/04       421224         .0152       .0017       03/09/04       421333         .0215       .0023       03/16/04       421449         .0169       .0019       03/23/04       421623         .0188       .0021       03/30/04       421733         .0134       .0016       04/06/04       421878         .0184       .0020       04/13/04       421985						.0212	.0023	02/03/04	
.0240 .0026 02/17/04 420949 .0273 .0029 02/24/04 421111 .0171 .0019 03/02/04 421224 .0152 .0017 03/09/04 421333 .0215 .0023 03/16/04 421449 .0169 .0019 03/23/04 421623 .0188 .0021 03/30/04 421733 .0188 .0021 03/30/04 421878 .0134 .0016 04/06/04 421878 .0184 .0020 04/13/04 421985						·		02/10/04	
.0273 .0029 02/24/04 421111 .0171 .0019 03/02/04 421224 .0152 .0017 03/09/04 421333 .0215 .0023 03/16/04 421449 .0169 .0019 03/23/04 421623 .0188 .0021 03/30/04 421733 .0134 .0016 04/06/04 421878 .0184 .0020 04/13/04 421985						.0240		02/17/04	
.0171 .0019 03/02/04 421224 .0152 .0017 03/09/04 421333 .0215 .0023 03/16/04 421449 .0169 .0019 03/23/04 421623 .0188 .0021 03/30/04 421733 .0134 .0016 04/06/04 421878 .0184 .0020 04/13/04 421985						.0273	.0029	02/24/04	
.0152       .0017       03/09/04       421333         .0215       .0023       03/16/04       421449         .0169       .0019       03/23/04       421623         .0188       .0021       03/30/04       421733         .0134       .0016       04/06/04       421878         .0184       .0020       04/13/04       421985									
. 0215 .0023 03/16/04 421449 . 0169 .0019 03/23/04 421623 . 0188 .0021 03/30/04 421733 . 0134 .0016 04/06/04 421878 . 0184 .0020 04/13/04 421985									
.       .0169       .0019       03/23/04       421623         .0188       .0021       03/30/04       421733         .0134       .0016       04/06/04       421878         .0184       .0020       04/13/04       421985									
.0188 .0021 03/30/04 421733 .0134 .0016 04/06/04 421878 .0184 .0020 04/13/04 421985		·	•						
.0134 .0016 04/06/04 421878 .0184 .0020 04/13/04 421985			•		•				
.0184 .0020 04/13/04 421985							•		
						.0162	.0018	04/20/04	422150

Station 3101	Location LM1	Description 0.5 MILES SSW	Analysis GROSS E	<u>Nuclide</u> BETA	<u>Activity</u>	<u>Error</u>	Date Collected	Lab Number
					.0202	.0022	04/27/04	422337
		•			.0160	.0018	05/04/04	422457
					.0254	.0027	05/11/04	422567
	•				0198	.0022	05/18/04	422730
	·			•	.0186	.0021	05/25/04	422867
					.0148	.0017	06/01/04	422988
					.0190	.0021	06/08/04	423110
					.0156	.0018	06/15/04	423262
	•		•		.0122	.0015	06/22/04	423401
-7-					.0160	.0018	06/29/04	423538
•					.0136	.0016	07/06/04	423667
					.0145	.0017	07/13/04	423824
				•	· .0179	.0020	07/20/04	423946
				•	.0205	· .0023	07/27/04	424098
					.0180	.0020	08/03/04	424205
		•	•		.0219	.0024	• 08/10/04	424359
	·				.0199	.0022	08/17/04	424466
				•	.0253	.0027	08/24/04	424606
					.0214	.0023	08/31/04	424716
					.0171	.0019	09/07/04	424871
					.0138	.0016	09/14/04	424981
					.0139	.0016	09/21/04	425094
				•	.0318	.0034	09/28/04	425225
			• '		.0355	.0037	10/05/04	425371
	•				.0307	.0033	10/12/04	425480
					.0156	.0018	10/19/04	425593

Station 3101	<u>Location</u> LM1	Description 0.5 MILES SSW	Analysis	<del>-</del>		Activity		Error	Date Collected	<u>Lab Number</u>
			GROSS	BEIA						
						.0169		.0019	10/26/04	425771
			•			.0194		0021	11/02/04	425924
						.0191 .		.0022	11/08/04	426034
	•					.0180		.0020	11/16/04	426142
						.0238		.0026	11/22/04	426254
				•		.0137		.0016	11/30/04	426422
			•			.0228		.0025	12/07/04	426539
	•					.0178		.0020	12/14/04	426648
	-					.0227		.0025	12/20/04	426770
. &	•		GAMMA	SCAN (GELI) AC-228						
	•					.0009		.0011	08/03/04	424257
		•	·	BE-7						
						.0827		.0095	01/20/04	420440
						.0870		.0069	02/17/04	421001
					•	.1096	. •	.0098	03/16/04	421501
						.1142		.0083	04/13/04	422037
						.1362		.0115	05/11/04	422619
	•					.1301		.0088	06/08/04	423162
						.0858		.0081	07/06/04	423719
				•		.0886		.0078	08/03/04	424257
	•					.0887		.0074	08/31/04	424769
						.0857		.0088	09/28/04	425277
		•				.1128		.0101	10/26/04	425830
						.0923		.0088	11/22/04	426306
						.0770		.0074	12/20/04	426822

GAMMA SCAN (GELI) BI-214  .0386 .0028 01/20704 420400132 .0025 02/17704 421001 .0142 .0017 03/16/04 4215010027 .0011 04/13/04 422037 .0026 .0094 .0045 .05/11/04 422619 .0017 .0009 06/08/04 423162 .0017 .0009 07/08/04 423162 .0017 .0009 08/31/04 424579 .0020 .0033 .0011 09/28/04 425277 .0018 .0009 08/31/04 425830 .0020 .0023 .0011 09/28/04 425830 .0020 .0023 .0011 09/28/04 425830 .0020 .0023 .0011 09/28/04 425830 .0020 .0023 .0011 09/28/04 425830 .0020 .0023 .0011 09/28/04 425830 .0020 .0023 .0011 09/28/04 425830 .0020 .0023 .0012 12/20/04 425830 .0020 .0023 .0012 12/20/04 425830 .0020 .0023 .0012 12/20/04 425830 .0020 .0023 .0012 12/20/04 425830 .0031 .0064 04/13/04 422037 .0067 .0052 .05/11/04 422037 .0090 .0072 .08/31/04 424257 .0090 .0075 .0050 .0057 10/26/04 425830 .0083 .0065 12/20/04 425830 .0083 .0065 12/20/04 425830 .0083 .0065 12/20/04 425830 .0083 .0065 12/20/04 425830 .0083 .0065 .0050 08/31/04 424769 .0006 .0051 11/22/04 425830 .0083 .0065 .0050 08/31/04 424692 .0090 .0005 .0006 .08/31/04 424692 .0006 .0007 .0004 01/26/04 425830	Station 3101	Location LM1	Description 0.5 MILES SSW	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	<u>Error</u>	Date Collected	Lab Number
1,0386   .0028   .01/20/04   .42040   .0132   .0025   .02/17/04   .421001   .0142   .0017   .03/16/04   .421501   .0027   .0011   .04/13/04   .422037   .0094   .0045   .05/11/04   .422619   .0094   .0045   .05/11/04   .422619   .0017   .0009   .06/08/04   .423162   .0017   .0009   .07/06/04   .423719   .0034   .0008   .08/03/04   .424257   .0034   .0008   .08/03/04   .424257   .0034   .0008   .08/03/04   .424257   .0033   .0011   .09/28/04   .425277   .0018   .0009   .0073   .0012   .0202   .023   .11/22/04   .425306   .0073   .0012   .12/20/04   .425802   .0073   .0012   .12/20/04   .425802   .0073   .0012   .12/20/04   .425802   .0073   .0014   .0058   .0064   .04/13/04   .42267   .0064   .0064   .0067   .0067   .0067   .0067   .0067   .0067   .0067   .0067   .0067   .0068   .0051   .11/22/04   .425803   .0066   .0051   .11/22/04   .0068   .0066   .0051   .11/22/04   .0068   .0066   .0051		•		GAMMA S					
10132		·	,		BI-214		0000	04/00/04	400440
1,0142									
1.0027			•						
1.0094									
1.0012									
10017   0009   07/06/04   423719		•							
1.0034						-			
10020									
No.033			•	•					
1,0018	1								
Note	Υ		•		·				
K-40  K-40    0.0043									
K-40  0.0043		•			·				
PB-212  .0043 .0064 .04/13/04 .422037 .0087 .0052 .05/11/04 .422619 .0114 .0058 .08/03/04 .42457 .0090 .0072 .08/31/04 .424769 .0050 .0057 .0057 .0057 .0056 .0051 .11/22/04 .426306 .0083 .0065 .0051 .11/22/04 .426306 .0083 .0065 .0066 .0051 .0066 .0051 .0066 .0051 .0066 .0051 .0066 .0051 .0066 .0051 .0066 .0051 .0066 .0051 .0066 .0051 .0066 .0051 .0066 .0066 .0051 .0066 .0066 .0051 .0066					V 40	.0073	.0012	12/20/04	420022
PB-212    0.0087   0.0052   0.0051   11/04   422619     0.0090   0.0072   0.0053   0.0057   0.0050     0.0050   0.0057   0.0057   1.0056     0.0083   0.0065   1.0057   1.0058     0.0083   0.0065   1.0057     0.009   0.005   0.0057     0.0009   0.0005   0.0057     0.0009   0.0005   0.0006     0.0005   0.0006   0.00531/04     0.0005   0.0006   0.0006     0.0006   0.0006   0.0006     0.0007   0.0004   1.0026/04     0.0007   0.0004   1.0026/04     0.0005   0.0006   0.0006     0.0006   0.0006     0.0006   0.0006     0.0007   0.0006   0.0006     0.0006   0.0006					N-40	0043	0064	04/13/04	422037
PB-212    .0114									
PB-212    0.0090   0.0072   08/31/04   424769     0.0050   0.0057   10/26/04   425830     0.0066   0.0051   11/22/04   426306     0.0083   0.0065   12/20/04   426822     PB-212    0.0009   0.0005   07/06/04   423719     0.0005   0.0006   08/31/04   424769     0.0007   0.0004   10/26/04   425830									
PB-212  PB-212  .0050 .0057 10/26/04 425830 .0066 .0051 11/22/04 426306 .0083 .0065 12/20/04 426822  PB-212  .0009 .0005 .0005 07/06/04 423719 .0005 .0006 08/31/04 424769 .0007 .0004 10/26/04 425830									
.0066 .0051 11/22/04 426306 .0083 .0065 12/20/04 426822 PB-212 .0009 .0005 07/06/04 423719 .0005 .0006 08/31/04 424769 .0007 .0004 10/26/04 425830									
PB-212 PB-212 .0083 .0065 12/20/04 426822 .0009 .0005 07/06/04 423719 .0005 .0006 08/31/04 424769 .0007 .0004 10/26/04 425830									
PB-212 .0009 .0005 07/06/04 423719 .0005 .0006 08/31/04 424769 .0007 .0004 10/26/04 425830						•			
.0009 .0005 07/06/04 423719 .0005 .0006 08/31/04 424769 .0007 .0004 10/26/04 425830		•			PR-212	.000		12/20/04	420022
.0005 .0006 08/31/04 424769 .0007 .0004 10/26/04 425830		-			1 0-2-12	.0009	.0005	07/06/04	423719
.0007 .0004 10/26/04 425830			•						
						.0002	.0005	12/20/04	426822

Station 3101	Location LM1	Description 0.5 MILES SSW	<u>Analysis</u> GAMMA	Nuclide SCAN (GELI)	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
			<b>O</b>	PB-214			•	
					.0387	.0026	01/20/04	420440
			•		.0105	.0013	02/17/04	421001
					.0123	.0012	03/16/04	421501
		•			.0034	.0010 -	04/13/04	422037
					.0034	.0009	05/11/04	422619
					.0025	.0009	06/08/04	423162
		·			.0009	.0007	07/06/04	423719
					.0048	.0011	08/03/04	424257
					.0014	.0008	08/31/04	424769
-10-					.0029	.0013	10/26/04	425830
0-					.0178	.0017	11/22/04	426306
					.0089	.0014	12/20/04	426822
3102	LM2	0.5 MILES N						
			GROSS	BETA				
					.0212	.0023	12/30/03	420079
					.0156	.0018	01/06/04	420180
	•	•			.0268	.0029	01/13/04	420283
				•	.0246	.0027	01/20/04	420390
					.0229	.0025	01/27/04	420586
					.0220	.0024	02/03/04	420699
					.0263	.0028	02/10/04	420841
	•				.0251	.0027	02/17/04	420952
					.0297	.0032	02/24/04	421114
					.0189	.0021	03/02/04	421227
				•	.0143	.0017	03/09/04	421335

Station 3102	Location LM2	Description 0.5 MILES N	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
0.02		0.5 11122011	GROSS E	BETA			•	
	•				.0218	.0024	03/16/04	421452
			•		.0177	0020	03/23/04	421626
					.0167	.0019	03/30/04	421736
	·				.0140	.0016	04/06/04	421880
					.0200	.0022	04/13/04	421988
				•	.0190	.0021 ·	04/20/04	422153
					.0195	.0022	04/27/04	422340
					.0134	.0016	05/04/04	422459
•					.0254	.0028	05/11/04	422570
-11-					.0217	.0024	05/18/04	. 422733
T	•			•	.0155	.0018	05/25/04	422870
					.0129	.0015	06/01/04	422990
					.0204	.0023	06/08/04	423113
		•			.0158	.0018	06/15/04	423265
					0128	.0016	06/22/04	423404
					.0175	.0020	06/29/04	423541
					.0128	.0015	07/06/04	423670
					.0127	.0015	07/13/04	423827
					.0180	.0020	07/20/04	423949
					.0200	.0022	07/27/04	424100
					.0174	.0020	08/03/04	424208
					.0245	.0027	08/10/04	424362
					.0205	.0023	08/17/04	424469
					.0262	.0028	08/24/04	424608
					.0195	.0022	08/31/04	424719
					.0184	.0021	09/07/04	424874

Station	Location	<u>Description</u>	Analysis	Nuclide	<u>Activity</u>	<u>Error</u>	Date Collected	Lab Number
3102	LM2	0.5 MILES N	GROSS E	BETA	•	<i>:</i>	•	
					.0140	.0016	09/14/04	424984 •
					.0122	.0015	09/21/04	425096
					.0317	.0034	09/28/04	425228
		•	•		.0355	.0037	10/05/04	425374
	•				.0329	.0035	10/12/04	425483
			٠.		.0173	.0020	10/19/04	425595
					.0189	.0021	10/26/04	425774
	-				.0200	.0022	11/02/04	425927
	•				.0190	.0022	11/08/04	426037
-12-				•	.0161	.0018	11/16/04	426144
2-	•				.0249	.0028	11/22/04	426257
••					.0178	.0020	11/30/04	426425
					.0219	.0024	12/07/04	426542
	•				.0167	.0019	12/14/04	426650
					.0221	.0025	12/20/04	426773
			GAMMA S	SCAN (GELI)				
				AC-228				
					.0019	.0010	05/11/04	422620
					.0074	.0034	07/06/04	423720
					.0016	.0013	09/28/04	425278
				BE-7				
					.0776	.0086	01/20/04	420441 .
					.0802	.0072	02/17/04	421002
					.1020	.0089	03/16/04	421502
					.1193	.0097	04/13/04	422038
					.1341	.0098	05/11/04	422620

Station 3102	<u>Location</u> LM2	Description 0.5 MILES N	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
			GAMMA S	SCAN (GELI)		·		
			•	BE-7			•	
					.1291	.0111	06/08/04	423163
					.0874	.0062	07/06/04	423720
					.0966	.0086	08/03/04	424258
					.1017	.0090	08/31/04	424770
			•		.1081	.0079	09/28/04	425278
			•		.1040	.0079	10/26/04	425831
•					.1099	.0119	11/22/04	426307
	•				.0890	.0086	12/20/04	426823
				BI-214				
-13-					.0165	.0016	01/20/04	420441
ĩ					.0225	.0019	02/17/04	. 421002
	•				.0194	.0018	03/16/04	421502
	•				.0098	.0016	04/13/04	422038
					.0142	.0021	05/11/04	422620
					.0010	.0010	06/08/04	423163
		•		·	.0034	.0010	-07/06/04	423720
	•	•			.0057	.0017	08/03/04	424258
					.0080	.0013	08/31/04	424770
				•	.0043	.0011	09/28/04	425278
					.0054	.0015	10/26/04	425831
	•				.0141	.0019	11/22/04	426307
					.0197	.0021	12/20/04	426823
				K-40				
				-	.0050	.0054	01/20/04	420441
					.0064	.0057	03/16/04	421502
		,		•	.0145	.0068	04/13/04	422038

Station 3102	<u>Location</u> LM2	Description 0.5 MILES N	<u>Analysis</u>	Nuclide	<u>Activity</u>	<u>Error</u>	Date Collected	Lab Number
3102	LIVIZ	0.5 WILES IN	GAMMA S	SCAN (GELI)				
	•			K-40				
					.0157	.0056	08/03/04	424258
					.0040	.0056	09/28/04	425278
					.0232	.0067	11/22/04	426307
					.0066	.0057	12/20/04	426823 ·
		•	•	PB-212				•
		•	•		.0013	.0005	06/08/04	423163
					.0002	.0007	08/31/04	424770
		•		PB-214				
					.0191	.0017	01/20/04	420441
-14-					.0212	.0014	02/17/04	421002
1	·				.0214	.0018	03/16/04	421502
		•			.0097	.0015	04/13/04	422038
	•				.0119	.0014	05/11/04	422620
					.0026	.0014	06/08/04	423163
				•	.0024	.0010	07/06/04	423720
		•		•	.0067	.0011	08/03/04	424258
					.0077	.0014	08/31/04	424770
					.0040	.0009	09/28/04	425278
					.0052	.0011	10/26/04	425831
					.0101	.0016	11/22/04	426307
					.0179	.0014	12/20/04	426823
				TL-208		•		
	•				.0003	.0003	08/31/04	424770
3106	PM2 SPRING CITY	7.0 MILES NW						
			GROSS E	BETA				
						0000	40/00/00	400000
•		•			.0237	.0026	12/30/03	420083

Station 3106	Location PM2 SPRING CITY	Description 7.0 MILES NW	Analysis	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
			GROSS	BETA			•	
					.0141	.0017	01/06/04	420184 ·
	•				. <b>02</b> 66 .	.0029	01/13/04	420286
					.0253	.0028	01/20/04	420394
					.0223	.0025	01/27/04	420590
•					.0243	.0026	02/03/04	420703
					.0265	.0029	02/10/04	420844
	•		•		· .0231	.0025	02/17/04	420956
					.0292	.0031	02/24/04	421118
1	•		*		.0192 ·	.0021	03/02/04	421231
15-				•	.0123	.0015	03/09/04	421338
Ī					.0238	.0026	03/16/04	421456
•					.0159	.0018	03/23/04	421630
					.0174	.0020	03/30/04	421740
	•				.0141	.0017	04/06/04	421883
					.0173	.0020	04/13/04	421992
	•				.0178	.0020	04/20/04	422157
•					.0191	.0021	04/27/04	422344
					.0130	.0015	05/04/04	422462
	·				.0264	.0028	05/11/04	422574
					.0202	.0022	05/18/04	422737
					.0154	.0018	05/25/04	422874
					.0134	.0016	06/01/04	422993
					.0197	.0022	06/08/04	423117
					.0164	.0019	06/15/04	423269
					.0139	.0016	06/22/04	423408
					.0157	.0018	06/29/04	423545

Station 3106	Location PM2 SPRING CITY	Description 7.0 MILES NW	Analysis GROSS E	Nuclide	Activity	<u>Error</u>	Date Collected	<u>Lab Number</u>
		•	GROSS	DETA	•			
					.0142	.0017	07/06/04	423674
					.0156	.0018	07/13/04	423831
					.0174	.0020	07/20/04	423953
	•				.0176	.0020	07/27/04	424103
•					.0185	.0021	08/03/04	424212
					.0232	.0025	08/10/04	424366
					.0191	.0021	08/17/04	424473
					.0278	.0030	08/24/04	424611
_	•				.0197	.0022	08/31/04	424723
-16-				•	.0181	.0020	09/07/04	424878
6				•	.0132	.0016	09/14/04	424988
					.0167	.0019	09/21/04	425099
					.0318	.0034	09/28/04	425232
					.0316	.0034	10/05/04	425378
					.0315	.0034	10/12/04	425487
					.0167	.0019	10/19/04	425598 <sub>.</sub>
					.0168	.0019	10/26/04	425778
					.0203	.0022	11/02/04	425931
					.0157	.0018	11/08/04	426041
					.0183	.0020	11/16/04	426147
	•		•		.0237	.0026	11/22/04	426261
					.0165	.0019	11/30/04	426429
	•				.0189	.0021	12/07/04	426546
					.0178	.0020	12/14/04	426653
					.0239	.0026	12/20/04	426777

Station 3106	Location PM2 SPRING CITY	Description 7.0 MILES NW	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA	SCAN (GELI)			•	
				AC-228				
					.0039	.0018	02/17/04	421003
				BE-7	.0773	. 0004	04/00/04	400440
						.0084	01/20/04	420442
					.0720	.0061	02/17/04	421003 ·
					.1109	.0091	03/16/04	421503
	``				.1145	.0103		422039
					.1339	.0101	05/11/04	422621
				•	.1130	.0076	06/08/04	423164
1					.0825	.0074	07/06/04	423721
-17-					.0844	.0077	08/03/04	424259
1					.0991	.0079	08/31/04	424771
			•		.0959	.0081	09/28/04	425279
					.0943	.0079	10/26/04	425832
	•				.0989	.0110	11/22/04	426308 ·
			•		.0774	.0077	12/20/04	426824
		•		BI-214				
	•			·	.0127	.0014	01/20/04	420442
					.0162	.0017	02/17/04	421003
					.0139	.0015	03/16/04	421503
					.0072	.0017	04/13/04	422039
					.0049	.0011	05/11/04	422621
					.0022	.0009	06/08/04	423164
	•			•	.0034	.0011	07/06/04	423721
•					.0073	.0014	08/03/04	424259
					.0079	.0015	08/31/04	424771
					.0085	.0017	09/28/04	425279
•				•		.0017	COLLOIGT	720210

THE REPORT OF THE PERSON OF THE

GAMMA SCAN (GELI) BI-214	Station 3106	Location PM2 SPRING CITY	Description 7.0 MILES NW	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
Note		•		GAMMA					
Note					BI-214				
Note					•				
K-40									
PB-212  PB-214  PB-215  PB-214  PB-214  PB-214  PB-215  PB-214  PB-214  PB-214  PB-215  PB-216  PB-216  PB-217  PB-216  PB-217  PB-218  PB-218  PB-218  PB-218  PB-218  PB-219  PB-219  PB-214  PB-214  PB-214  PB-214  PB-214  PB-214  PB-214  PB-215  PB-214  PB-215  PB-214  PB-216  PB-216  PB-216  PB-217  PB-218  PB-218  PB-218  PB-218  PB-218  PB-219  PB-218  PB-219  PB-219  PB-210	•				.0133	.0022	12/20/04	426824	
PB-212  PB-214  PB-214					K-40			00147/04	404000
PB-212  PB-214  PB-212  PB-214  PB-212  PB-212  PB-212  PB-212  PB-212  PB-212  PB-212  PB-212					· ·				
PB-212 PB-214  PB-214  PB-214									
PB-212  PB-214  PB-212  PB-214  PB-212  PB-212  PB-212  PB-212  PB-212  PB-212  PB-212  PB-214									
PB-212 PB-214 PB-215 PB-214 PB-214 PB-215 PB-215 PB-215 PB-214 PB-215 PB-215 PB-215 PB-215 PB-215 PB-216 PB				•					
PB-212  PB-212  .0000 .0006 .0007 .0									
PB-212  .0000 .0006 .0007 .0008 .0008 .0008 .0008 .0008 .0008 .0009/28/04 .0008 .0008 .0008 .0008 .0008 .0008 .0008 .0008 .0008 .0009 .0008 .0009 .0008 .0009 .0008 .0009 .0008 .0009 .0008 .0009 .0008 .0009 .0008 .0009 .0008 .0009 .000	井								
PB-212  .0000 .0006 09/28/04 425279 .0004 .0006 11/22/04 426308  PB-214  .0144 .0015 01/20/04 420442 .0180 .0014 02/17/04 421003 .0148 .0018 03/16/04 421503 .0045 .0010 04/13/04 422039 .0056 .0011 05/11/04 422621 .0013 .0007 06/08/04 423164 .0027 .0012 07/06/04 423721 .0078 .0010 08/03/04 424259 .0087 .0011 08/31/04 424771	8	•							
.0000 .0006 09/28/04 425279 .0004 .0006 11/22/04 426308  PB-214  .0144 .0015 01/20/04 420442 .0180 .0014 02/17/04 421003 .0148 .0018 03/16/04 421503 .0045 .0010 04/13/04 422039 .0056 .0011 05/11/04 422621 .0013 .0007 06/08/04 423164 .0027 .0012 07/06/04 423721 .0078 .0010 08/03/04 424259 .0087 .0011 08/31/04 424771			•	•		.0028	.0070	11/22/04	426308
PB-214  PB-214  .0144 .0015 01/20/04 420442 .0180 .0014 02/17/04 421003 .0148 .0018 03/16/04 421503 .0045 .0010 04/13/04 422039 .0056 .0011 05/11/04 422621 .0013 .0007 06/08/04 423164 .0027 .0012 07/06/04 423721 .0078 .0010 08/03/04 424259 .0087 .0011 08/31/04 424771					PB-212	0000	0000	00100104	405070
PB-214  .0144 .0015 01/20/04 420442 .0180 .0014 02/17/04 421003 .0148 .0018 03/16/04 421503 .0045 .0010 04/13/04 422039 .0056 .0011 05/11/04 422621 .0013 .0007 06/08/04 423164 .0027 .0012 07/06/04 423721 .0078 .0010 08/03/04 424259 .0087 .0011 08/31/04 424771		• •			•				
.0144 .0015 01/20/04 420442 .0180 .0014 02/17/04 421003 .0148 .0018 03/16/04 421503 .0045 .0010 04/13/04 422039 .0056 .0011 05/11/04 422621 .0013 .0007 06/08/04 423164 .0027 .0012 07/06/04 423721 .0078 .0010 08/03/04 424259 .0087 .0011 08/31/04 424771						.0004	.0006	11/22/04	426308
.0180 .0014 02/17/04 421003 .0148 .0018 03/16/04 421503 .0045 .0010 04/13/04 422039 .0056 .0011 05/11/04 422621 .0013 .0007 06/08/04 423164 .0027 .0012 07/06/04 423721 .0078 .0010 08/03/04 424259 .0087 .0011 08/31/04 424771					PB-214	0144	0015	04/20/04	420442
.0148 .0018 03/16/04 421503 .0045 .0010 04/13/04 422039 .0056 .0011 05/11/04 422621 .0013 .0007 06/08/04 423164 .0027 .0012 07/06/04 423721 .0078 .0010 08/03/04 424259 .0087 .0011 08/31/04 424771					•				
.0045       .0010       04/13/04       422039         .0056       .0011       05/11/04       422621         .0013       .0007       06/08/04       423164         .0027       .0012       07/06/04       423721         .0078       .0010       08/03/04       424259         .0087       .0011       08/31/04       424771									
.0056       .0011       05/11/04       422621         .0013       .0007       06/08/04       423164         .0027       .0012       07/06/04       423721         .0078       .0010       08/03/04       424259         .0087       .0011       08/31/04       424771		•							
.0013 .0007 06/08/04 423164 .0027 .0012 07/06/04 423721 .0078 .0010 08/03/04 424259 .0087 .0011 08/31/04 424771									
.0027 .0012 07/06/04 423721 .0078 .0010 08/03/04 424259 .0087 .0011 08/31/04 424771				•					
.0078 .0010 08/03/04 424259 .0087 .0011 08/31/04 424771					•				
.0087 .0011 08/31/04 424771									
				•					
.0106 .0013 09/28/04 425279									
		•				.0106	.0013	09/28/04	425279

Station 3106	Location PM2 SPRING CITY		Description 7.0 MILES NW	<u>Analysis</u>	Nuclide	Activity	Error	Date Collected	Lab Number
				GAMMA	SCAN (GELI) PB-214				•
						.0031	.0008	10/26/04	425832
						.0085	.0017	11/22/04	426308
						.0117	.0015	12/20/04	426824
3107	PM3		10.4 MILES NNE						
•		•		GROSS I	BETA				
						·			
						.0249	.0027	12/30/03	420086
					-	.0167	.0019	01/06/04	420187
		•				.0285	.0031	01/13/04	420288
-19-	•					.0247	.0027	01/20/04	420397
9			•		•	.0222	.0025	01/27/04	420593
			•			.0252	.0027	02/03/04	420706
						.0296	.0032	02/10/04	420846
						.0260	.0028	02/17/04	420959
						.0307	.0033	. 02/24/04	421121
						.0181	.0021	03/02/04	421234
						.0149	.0018	03/09/04	421340
						.0248	.0027	03/16/04	421459
						.0176	.0020	03/23/04	421633
						.0189	.0021	03/30/04	421743
	•			•		.0134	.0016	04/06/04	421885
						.0191	.0021	04/13/04	421995
	•					.0202	.0022	04/20/04	422160
						.0207	.0023	04/27/04	422347
						.0166	.0019	05/04/04	422464
						.0270	.0029	05/11/04	422577

1.0222	Station 3107	Location PM3	Description 10.4 MILES NNE	<u>Analysis</u>	Nuclide	Activity	<u>Error</u>	Date Collected	Lab Number
1.0182				GROSS E	BETA				
1.0182		· ·				.0222	.0024	05/18/04	422740 .
1.0121			•						
0.0215									
10189   .0021   .06/15/04   .423272   .01122   .0015   .06/22/04   .423411   .0163   .0019   .06/22/04   .423411   .0163   .0019   .06/22/04   .423548   .0133   .0016   .07/06/04   .423677   .0146   .0017   .07/13/04   .423834   .0189   .0021   .07/20/04   .423956   .0207   .0023   .07/27/04   .424105   .0207   .0023   .07/27/04   .424105   .0220   .0024   .08/10/04   .424369   .0190   .0021   .08/17/04   .424369   .0190   .0021   .08/17/04   .424476   .0280   .0030   .08/24/04   .424613   .0208   .0023   .08/31/04   .424726   .0207   .0023   .09/37/04   .424881   .0157   .0018   .09/21/04   .425101   .0328   .0035   .09/28/04   .425381   .0345   .0037   .0018   .09/21/04   .425381   .0345   .0037   .0018   .0019/21/04   .425381   .0347   .0037   .0018   .0019/21/04   .425600   .0159   .0018   .0019/21/04   .425801   .0157   .0028   .0037   .0018   .0019/21/04   .425600   .00159   .0018   .0019/21/04   .425801   .00159   .0018   .0019/21/04   .425801   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .425801   .00177   .0020   .0026/04   .425801   .00177   .0020   .0026/04   .425801   .00177   .0020   .0026/04   .425801   .00177   .0020   .0026/04   .425801   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .42581   .00177   .0020   .0026/04   .0026/04   .0026/04   .0026/04   .0026/04   .0026/04   .0026/04   .0026/04   .0026									
1.0122									
10163   .0019   06/29/04   423548   .0133   .0016   07/06/04   423677   .0146   .0017   07/13/04   423874   .0189   .0021   07/20/04   423956   .0207   .0023   .07/27/04   424105   .0207   .0023   .07/27/04   424105   .0144   .0017   08/03/04   424215   .0220   .0024   08/10/04   424369   .0190   .0021   .08/17/04   424476   .0280   .0030   .08/24/04   424613   .0208   .0033   .08/31/04   424726   .0207   .0023   .09/07/04   424881   .0207   .0023   .09/07/04   424881   .0132   .0016   .09/14/04   424991   .0157   .0018   .09/21/04   425101   .0328   .0035   .09/28/04   425235   .0345   .0037   .0037   .007/20/04   425381   .0347   .0037   .007/20/04   425810   .0347   .0037   .007/20/04   425800   .0159   .0018   .0019/20/04   425781   .0159   .0018   .0019/20/04   425781   .0194   .0022   .002/20/04   425781   .00194   .0022   .002/20/04   425934   .00194   .0022   .002/20/04   .00278   .00378							.0015	06/22/04	
1.0146									
1.0146						.0133	.0016	07/06/04	423677
.0144 .0017 08/03/04 424215 .0220 .0024 08/10/04 424369 .0190 .0021 08/17/04 424476 .0280 .0030 08/24/04 424613 .0208 .0023 08/31/04 424726 .0207 .0023 09/07/04 424881 .0132 .0016 09/14/04 424991 .0157 .0018 09/21/04 425101 .0328 .0035 09/28/04 425235 .0345 .0037 10/05/04 425381 .0347 .0037 10/12/04 425490 .0159 .0018 10/19/04 425600 .0177 .0020 10/26/04 425781 .0194 .0022 11/02/04 425934			•				.0017	07/13/04	423834
.0144 .0017 08/03/04 424215 .0220 .0024 08/10/04 424369 .0190 .0021 08/17/04 424476 .0280 .0030 08/24/04 424613 .0208 .0023 08/31/04 424726 .0207 .0023 09/07/04 424881 .0132 .0016 09/14/04 424991 .0157 .0018 09/21/04 425101 .0328 .0035 09/28/04 425235 .0345 .0037 10/05/04 425381 .0347 .0037 10/12/04 425490 .0159 .0018 10/19/04 425600 .0177 .0020 10/26/04 425781 .0194 .0022 11/02/04 425934	-2				•	0189	.0021	07/20/04	423956
.0144 .0017 08/03/04 424215 .0220 .0024 08/10/04 424369 .0190 .0021 08/17/04 424476 .0280 .0030 08/24/04 424613 .0208 .0023 08/31/04 424726 .0207 .0023 09/07/04 424881 .0132 .0016 09/14/04 424991 .0157 .0018 09/21/04 425101 .0328 .0035 09/28/04 425235 .0345 .0037 10/05/04 425381 .0347 .0037 10/12/04 425490 .0159 .0018 10/19/04 425600 .0177 .0020 10/26/04 425781 .0194 .0022 11/02/04 425934	Õ		•	•		.0207	.0023	07/27/04	424105
.0190       .0021       08/17/04       424476         .0280       .0030       08/24/04       424613         .0208       .0023       08/31/04       424726         .0207       .0023       09/07/04       424881         .0132       .0016       09/14/04       424991         .0157       .0018       09/21/04       425101         .0328       .0035       09/28/04       425235         .0345       .0037       10/05/04       425381         .0347       .0037       10/12/04       425490         .0159       .0018       10/19/04       425600         .0177       .0020       10/26/04       425781         .0194       .0022       11/02/04       425934						.0144	.0017	08/03/04	424215
.0280       .0030       08/24/04       424613         .0208       .0023       08/31/04       424726         .0207       .0023       09/07/04       424881         .0132       .0016       09/14/04       424991         .0157       .0018       09/21/04       425101         .0328       .0035       09/28/04       425235         .0345       .0037       10/05/04       425381         .0347       .0037       10/12/04       425490         .0159       .0018       10/19/04       425600         .0177       .0020       10/26/04       425781         .0194       .0022       11/02/04       425934			•			.0220	.0024	08/10/04	424369
.0208 .0023 08/31/04 424726 .0207 .0023 09/07/04 424881 .0132 .0016 09/14/04 424991 .0157 .0018 09/21/04 425101 .0328 .0035 09/28/04 425235 .0345 .0037 10/05/04 425381 .0347 .0037 10/12/04 425490 .0159 .0018 10/19/04 425600 .0177 .0020 10/26/04 425781 .0194 .0022 11/02/04 425934						.0190	.0021	08/17/04	424476
.0207 .0023 09/07/04 424881 .0132 .0016 09/14/04 424991 .0157 .0018 09/21/04 425101 .0328 .0035 09/28/04 425235 .0345 .0037 10/05/04 425490 .0159 .0018 10/19/04 425600 .0177 .0020 10/26/04 425781 .0194 .0022 11/02/04 425934						.0280	.0030	08/24/04	424613
.0132 .0016 09/14/04 424991 .0157 .0018 09/21/04 425101 .0328 .0035 09/28/04 425235 .0345 .0037 10/05/04 425381 .0347 .0037 10/12/04 425490 .0159 .0018 10/19/04 425600 .0177 .0020 10/26/04 425781 .0194 .0022 11/02/04 425934						.0208	0023	08/31/04	424726
.0157 .0018 09/21/04 425101 .0328 .0035 09/28/04 425235 .0345 .0037 10/05/04 425381 .0347 .0037 10/12/04 425490 .0159 .0018 10/19/04 425600 .0177 .0020 10/26/04 425781 .0194 .0022 11/02/04 425934							.0023	09/07/04	424881
.0328 .0035 09/28/04 425235 .0345 .0037 10/05/04 425381 .0347 .0037 10/12/04 425490 .0159 .0018 10/19/04 425600 .0177 .0020 10/26/04 425781 .0194 .0022 11/02/04 425934						.0132	.0016	09/14/04	424991
.0345 .0037 10/05/04 425381 .0347 .0037 10/12/04 425490 .0159 .0018 10/19/04 425600 .0177 .0020 10/26/04 425781 .0194 .0022 11/02/04 425934						.0157	.0018	09/21/04	425101
.0347 .0037 10/12/04 425490 .0159 .0018 10/19/04 425600 .0177 .0020 10/26/04 425781 .0194 .0022 11/02/04 425934						.0328	.0035	09/28/04	425235
.0347 .0037 10/12/04 425490 .0159 .0018 10/19/04 425600 .0177 .0020 10/26/04 425781 .0194 .0022 11/02/04 425934						.0345	.0037	10/05/04	425381
.0177 .0020 10/26/04 425781 .0194 .0022 11/02/04 425934					•		.0037	10/12/04	425490
.0177 .0020 10/26/04 425781 .0194 .0022 11/02/04 425934				•		.0159	.0018	10/19/04	425600
$\cdot$							.0020	10/26/04	425781
.0179 .0021 11/08/04 426044						.0194	.0022	11/02/04	425934
						.0179	.0021	11/08/04	426044

Station 3107	<u>Location</u> PM3	Description 10.4 MILES NNE	<u>Analysis</u>	Nuclide	Activity	Error	Date Collected	Lab Number
			GROSS E	BETA				
				•	.0195	.0021	11/16/04	426149
					.0209	.0024	11/22/04	426264
					.0213	.0024	12/07/04	426549
					.0186	.0021	12/14/04	426655
				. •	.0253	.0028	12/20/04	426780
			GAMMA S	SCAN (GELI)				
		•		AC-228	• .			
					.0044	.0020	01/20/04	420443
	•			BE-7		•	,	
- 2					.0888	.0094	01/20/04	420443
-21-	•				.0930	.0102	02/17/04	421004
•					.1213	.0115	03/16/04	421504
					.1348	.0093	04/13/04	422040
		•		•	.1575	.0142	05/11/04	422622
					.1500	.0122	06/08/04	423165
			•		.0973	.0077	07/06/04	423722
					.1040	.0083	08/03/04	424260
	•	•		•	.1039	.0089	08/31/04	424772
	•				.1068	.0081	09/28/04	425280
					.1090	.0082	10/26/04	425833
					.0910	.0075	11/22/04	426309
		•		_	.0942	.0081	12/20/04	426825
•				BI-214				
		•			.0171	.0021	01/20/04	420443
					.0120	.0021	02/17/04	421004
					.0189	.0022	03/16/04	421504

Station 3107	<u>Location</u> PM3	Description 10.4 MILES NNE	<u>Analysis</u>	<u>Nuclide</u>	Activity	Error	Date Collected	Lab Number
			GAMMA	SCAN (GELI)				
				BI-214	.0102	.0016	04/13/04	422040
			•		.0018	0010	05/11/04	422622
					.0008	.0010	06/08/04	423165
					.0046	.0010	07/06/04	423722
					.0093	.0011	08/03/04	424260
•			•		.0291	.0015	08/31/04	424772
					.0052	.0033	09/28/04	425280
		•			.0067	.0012	10/26/04	425833
	•				.0138	.0012	11/22/04	426309
1 82					.0082	.0027	12/20/04	426825
-22-		•		K-40	.0002	.0021	12/20/04	420020
				11 40	.0051	.0078	01/20/04	420443
					.0049	.0052	07/06/04	423722
	·				.0012	.0048	08/03/04	424260
			•		.0068	.0057	08/31/04	424772
					.0051	.0104	09/28/04	425280
	`				.0028	.0059	11/22/04	426309
					.0072	.0075	12/20/04	426825
				PB-212				
					.0005	.0006	01/20/04	420443
				PB-214				
				•	.0141	.0017	01/20/04	420443
			-		.0110	.0014	02/17/04	421004
					.0119	.0014	03/16/04	421504
					.0105	.0014	04/13/04	422040
				•	.0011	.0010	05/11/04	422622

Station 3107	Location PM3	Description 10.4 MILES NNE	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	<u>Error</u>	Date Collected	Lab Number
0107	1 1113	10.4 WILLS WILL	GAMMA	SCAN (GELI)	•			
	•			PB-214				
					.0055	.0008	07/06/04	423722 .
		•			.0075	.0009	08/03/04	424260
					.0236	.0020	08/31/04	424772 .
					.0063	.0009	09/28/04	425280
					.0066	.0011	10/26/04	425833
					.0115	.0014	11/22/04	426309
					.0069	.0009	12/20/04	426825
				TL-208				
_		•			.0012	.0005	05/11/04	422622
2 3108 2 3108	PM4 ·	7.6 MILES NE/ENE	•				•	
မှ	•	•	GROSS-I	BETA				
					.0241	.0026	12/20/02	420000
					.0149		12/30/03	420089
						.0017	01/06/04	420189
	·		•		.0273	.0029	01/14/04	420290
					.0215	.0024	01/21/04	420399
					.0203	.0023	01/28/04	420596
					.0257	.0028	02/04/04	420708
					.0242	.0026	02/11/04	420848
					.0230	.0025	02/18/04	420961
					.0301	.0032	02/25/04	421124
		•		•	.0166	.0019	03/03/04	421236
					.0157	.0018	03/10/04	421342
				•	.0223	.0025	03/16/04	421461
					.0150	.0017	03/24/04	421636
				•	.0158	.0018	03/30/04	421745

Station	Location	<u>Description</u>	<u>Analysis</u>	Nuclide	<u>Activity</u>	<u>Error</u>	Date Collected	Lab Number
3108	PM4	7.6 MILES NE/ENE	GROSS I	BETA				• .
					.0144	.0017	04/06/04	421887
					.0156	.0018	04/13/04	421997
	• •				.0172	.0019	04/20/04	422163
					.0218	.0024	04/28/04	422349
					· .0147	.0017	05/05/04	422466
			•		.0266	.0029	05/12/04	422579
			•		.0240	.0026	05/19/04	422743
		• .			.0171	.0020	05/26/04	422879
	•				.0141	.0016	06/02/04	422997
-24-					.0203	.0022	06/09/04	423122
4					.0166	.0019	06/16/04	423275
					.0116	.0014	06/23/04	423413
					.0186	.0021	06/30/04	423551
					.0118	.0014	07/07/04	423679
					.0171	.0019	07/14/04	· 423837
					.0194	.0022	.07/21/04	423958
		•			· .0202	.0022	07/28/04	424107 .
			•		.0184	.0021	08/04/04	424217
				•	.0234	.0025	08/11/04	424372
					.0228	.0025	08/18/04	424478
					.0273	.0029	08/25/04	424615
					.0213	.0023	09/01/04	424728
		•			.0177	.0020	09/08/04	424884
					.0114	.0022	09/15/04	424993
					.0144	.0017	09/22/04	425103
					.0354	.0037	09/29/04	425237

Station 3108	Location PM4	Description 7.6 MILES NE/ENE	Analysis Nuclide	<u>Activity</u>	<u>Error</u>	Date Collected	Lab Number
			GROSS BETA				
		·		.0317	.0034	09/06/04	425384
			•	.0324	0034	10/13/04	425492
				.0155	.0018	10/20/04	425602
				.0207 ·	.0023	10/27/04	425783
				.0192	.0021	11/03/04	425937
			•	.0191	.0022.	11/09/04	426046
				.0178	.0020	11/17/04	426151
				.0228	.0025	11/22/04	426266
				.0149	.0017	12/01/04	426435
-25-			•	.0194	.0021	12/08/04	426551
51				.0178	.0020	12/15/04	426657
				.0216	.0024	12/20/04	426782
			GAMMA SCAN (GELI)				
			BE-7	0000	0000	04/04/04	400444
				.0868	.0080	01/21/04	420444
				.0839	.0093	02/18/04	421005
				.1121	.0125	03/16/04	421505
				.1097	.0093	04/13/04	422041
				.1399	.0108	05/12/04	422623
				.1269	.0095	06/09/04	423166
				.0785	.0086	07/07/04	423723
				.1052	.0109	08/04/04	424261
				.1064	.0094	09/01/04	424773
				.1064	.0083	09/29/04	425281
				.1099	.0077	10/27/04	. 425834
	•	•		.0947	.0078	11/22/04	426310

BE-7   .0808   .0081   .12/20/04   .426826   .0081	Station 3108	Location PM4	Description 7.6 MILES NE/ENE	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
BI-214  BI-214  D202 D016 D1/21/04 D139 D017 D2/18/04 D139 D016 D3/16/04 D198 D018 D018 D018 D018 D018 D018 D018 D01				GAMMA S				•	
1,0202					<del></del>	.0808	.0081	12/20/04	426826
1.0139			•		BI-214	•			
1.0098						•			420444
1.0198				•		.0139	.0017	02/18/04	421005
1.0089						.0098	.0016	03/16/04	421505
1.0054			•	•		.0198	.0018	04/13/04	422041
1.0050		•				.0089	.0014	05/12/04	422623
1.0057						.0054	.0015	06/09/04	423166
1.0119		•	•			.0050	.0033	07/07/04	423723
1.0119	2					.0057	.0011	08/04/04	424261
10072	9,					.0057	.0012	09/01/04	424773
1/22/04   426310   1/22/04   426310   1/22/04   426826   1/22/04   426826   1/22/04   426826   1/22/04   426826   1/22/04   426826   1/22/04   420444   1/22/04   420444   1/22/04   1/2	•					.0119	.0019	09/29/04	425281
K-40  K-40  0.006				•		.0072	.0014	10/27/04	425834
K-40  .0006 .0074 01/21/04 420444  .0067 .0052 02/18/04 421005  .0021 .0095 03/16/04 421505  .0086 .0052 05/12/04 422623  .0063 .0066 07/07/04 423723  .0081 .0060 09/01/04 424773  .0081 .0067 12/20/04 426826  PB-212		•				.0165	.0020	11/22/04	426310
.0006 .0074 01/21/04 420444 .0067 .0052 02/18/04 421005 .0021 .0095 03/16/04 421505 .0086 .0052 05/12/04 422623 .0063 .0066 07/07/04 423723 .0081 .0060 09/01/04 424773 .0081 .0067 12/20/04 426826 PB-212 .0011 .0005 01/21/04 420444						.0086	.0014	12/20/04	426826
.0006 .0074 01/21/04 420444 .0067 .0052 02/18/04 421005 .0021 .0095 03/16/04 421505 .0086 .0052 05/12/04 422623 .0063 .0066 07/07/04 423723 .0081 .0060 09/01/04 424773 .0081 .0067 12/20/04 426826 PB-212 .0011 .0005 01/21/04 420444					K-40				
.0067 .0052 02/18/04 421005 .0021 .0095 03/16/04 421505 .0086 .0052 05/12/04 422623 .0063 .0066 07/07/04 423723 .0081 .0060 09/01/04 424773 .0081 .0067 12/20/04 426826  PB-212 .0011 .0005 01/21/04 420444						.0006	.0074	01/21/04	420444
.0086 .0052 05/12/04 422623 .0063 .0066 07/07/04 423723 .0081 .0060 09/01/04 424773 .0081 .0067 12/20/04 426826 PB-212 .0011 .0005 01/21/04 420444			•			.0067	.0052	02/18/04	421005
.0063 .0066 07/07/04 423723 .0081 .0060 09/01/04 424773 .0081 .0067 12/20/04 426826 PB-212 .0011 .0005 01/21/04 420444						.0021	.0095	03/16/04	421505
.0081 .0060 09/01/04 424773 .0081 .0067 12/20/04 426826 PB-212 .0011 .0005 01/21/04 420444						.0086	.0052	05/12/04	422623
.0081 .0067 12/20/04 426826 PB-212 .0011 .0005 01/21/04 420444						.0063	.0066	07/07/04	423723
PB-212 .0011 .0005 01/21/04 420444			,			.0081	.0060	09/01/04	424773 ·
PB-212 .0011 .0005 01/21/04 420444					•	.0081		12/20/04	
.0011 .0005 01/21/04 420444					PB-212			•	
.0004 .0005 03/16/04 421505						.0011	.0005	01/21/04	420444
				÷		.0004	.0005	03/16/04	421505

Station 3108	<u>Location</u> PM4	Description 7.6 MILES NE/ENE	<u>Analysis</u>	Nuclide	<u>Activity</u>	<u>Error</u>	Date Collected	<u>Lab Number</u>
			GAMMA	SCAN (GELI)				
				PB-214	.0179	.0015	01/21/04	420444
					.0143	.0015	02/18/04	421005
					.0078	.0012	03/16/04	421505
		•			.0191	.0012	04/13/04	422041
					.0056	.0010	05/12/04	422623
•					.0034	.0012	06/09/04	423166
	•		·		.0018	.0009	07/07/04	423723
				•	.0086	.0016	08/04/04	424261
	·	•		•	.0055	.0010	09/01/04	424773
-27-					.0152	.0015	09/29/04	425281
7-					.0061	.0010	10/27/04	425834
					.0166	.0019	11/22/04	426310
					.0084	.0014	12/20/04	426826
	·			TL-208				
					.0002	.0004	03/16/04	421505
3109	PM5 DECATUR	6.2 MILES S					•.	
	•	•	GROSS I	BETA				•
					.0236	.0025	12/30/03	420092
					.0173	.0019	01/07/04	420191
					.0296	.0032	01/14/04	420292
	•				.0234	.0026	01/21/04	420401
					.0230	.0025	01/28/04	420599
					.0232	.0025	02/04/04	420710
	·				.0246	.0027	02/11/04	420850
			·	•	.0223	.0024	02/18/04	420963

Station	Location	Description	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
3109	PM5 DECATUR	6.2 MILES S		<del></del>	<del></del>			•
			GROSS I	BETA				
					.0278	.0030	02/25/04	421127
					.0159	.0018	03/03/04	421238
					.0140	.0017	03/10/04	421344
					.0199	.0022	03/17/04	421463 ·
			•		.0198	.0022	03/24/04	421639
	•		•		.0168	.0019	03/31/04	421747
					.0180	.0020	04/07/04	421889
					.0187	.0021 <sup>-</sup>	04/14/04	421999
					.0219	.0024	04/21/04	422166
-28-		-			.0226	.0025	04/28/04	422351
φ	•				.0155	.0018	05/05/04	422468
	•	,			.0249	.0027	05/12/04	422581
					.0209	.0023	05/19/04	422746
					.0188	.0021	05/26/04	422881
			•		.0162	.0019	06/02/04	422999
		•			.0193	.0022	06/09/04	423124
	•				.0159	.0018	06/16/04	423278
					.0145	.0017	06/23/04	423415
					.0172	.0019	06/30/04	423554
	•				.0122	.0015	07/07/04	423681
					.0159	.0018	07/14/04	423840
					.0191	.0021	07/21/04	423960
	•				.0198	.0022	07/28/04	424109
	•				.0199	.0022	08/04/04	424219
					.0212	.0023	08/11/04	424375
					.0219	.0024	08/18/04	424480

GROSS BETA    .0249	<u>Station</u> . 3109	Location PM5 DECATUR	Description 6.2 MILES S	Analysis	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
10222				GROSS I	BETA			•	
0184   .0021   09/08/04   424887   .0154   .0018   .09/15/04   424995   .0134   .0016   .09/12/04   425105   .00322   .0034   .009/29/04   425387   .00322   .0037   .006/04   425387   .00321   .0034   .0016/04   425387   .0021   .0034   .00170   .0019   .0020/04   425604   .00170   .0019   .0020/04   425604   .00170   .0019   .0020/04   425785   .0021   .0023   .0023   .0025   .11/03/04   425940   .00184   .0021   .11/03/04   425940   .00184   .0021   .11/03/04   425940   .00184   .0021   .0023   .0025   .11/22/04   426658   .0023   .0025   .11/22/04   426658   .00184   .0019   .0025   .12/20/04   426659   .00184   .0020   .0021   .0025   .0026   .0021   .0026   .0021   .0026   .0021   .0026				•		.0249	.0027	08/25/04	424617
1,0154						.0222	.0024	09/01/04	424730
1,0154						.0184	.0021	09/08/04	424887
10322   .0034   .09/29/04   .425239     .00352   .0037   .10/06/04   .425387     .00321   .0034   .10/13/04   .425494     .00170   .0019   .10/20/04   .425604     .00211   .0023   .10/27/04   .425785     .00177   .0020   .11/03/04   .425404     .0184   .0021   .11/08/04   .426183     .0184   .0021   .11/17/04   .426183     .0196   .0021   .11/17/04   .426183     .0196   .0021   .11/17/04   .426183     .0193   .0025   .11/22/04   .42688     .0199   .0022   .12/08/04   .426533     .0181   .0020   .12/15/04   .426593     .0181   .0020   .12/15/04   .426689     .0181   .0020   .12/15/04   .426689     .0181   .0020   .12/15/04   .426689     .0181   .0020   .12/15/04   .426689     .0181   .0020   .0025   .12/20/04   .426784     .0181   .0020   .0025   .12/20/04   .426784     .0013   .0015   .01/21/04   .426485     .0013   .0016   .01/21/04   .426487     .0023   .0014   .12/20/04   .426827     .0023   .0014   .12/20/04   .426827     .0023   .0016   .01/21/04   .426458     .0023   .0016   .01/21/04   .426458     .0023   .0016   .01/21/04   .426458     .0023   .0016   .01/21/04   .426458     .0023   .0016   .01/21/04   .426458     .0023   .0026   .01/21/04   .426458     .0026   .0027   .0027   .0027     .0027   .0028   .0028   .0028   .0028     .0028   .0028   .0028   .0028   .0028     .0029   .0029   .0028   .0028   .0028     .0029   .0029   .0028   .0028   .0028     .0029   .0029   .0028   .0028   .0028     .0029   .0029   .0028   .0028   .0028     .0029   .0029   .0028   .0028   .0028     .0029   .0029   .0028   .0028   .0028     .0029   .0029   .0028   .0028   .0028     .0029   .0029   .0028   .0028   .0028     .0029   .0029   .0028   .0028   .0028     .0029   .0029   .0028   .0028   .0028     .0029   .0029   .0028   .0028   .0028     .0029   .0029   .0028   .0028   .0028   .0028     .0029   .0029   .0028   .0028   .0028   .0028     .0029   .0029   .0028   .0028   .0028   .0028   .0028     .0029   .0029   .0029   .0028   .0028   .0028   .0028   .0028   .0028   .0028   .0028   .0028   .0028   .0028   .0028   .0028				·			.0018	09/15/04	424995
1,0352   1,0037   10/06/04   425387     1,0321   1,0034   10/13/04   425494     1,0170   1,0019   10/20/04   425604     1,0211   1,0023   10/27/04   425785     1,0177   1,0020   11/03/04   425940     1,0184   1,0021   11/08/04   426048     1,0196   1,0021   11/17/04   426153     1,0223   1,0025   11/22/04   426268     1,0143   1,0016   12/01/04   426438     1,0199   1,0022   12/08/04   426553     1,0181   1,0020   12/15/04   426659     1,0219   1,0025   12/20/04   426659     1,0219   1,0025   12/20/04   426784     1,0020   1,0025   1,0026     1,0021   1,0026   1,0026     1,0021   1,0026   1,0026     1,0021   1,0026   1,0026     1,0021   1,0026   1,0026     1,0021   1,0026   1,0026     1,0021   1,0026   1,0026     1,0022   1,0026   1,0026     1,0023   1,0026   1,0026     1,0023   1,0026   1,0026     1,0026   1,0026   1,0026     1,0027   1,0027   1,0026     1,0027   1,0027   1,0027     1,0027   1,0027						.0134	.0016	09/22/04	425105
1,0352   1,0037   10/06/04   425387     1,0321   1,0034   10/13/04   425494     1,0170   1,0019   10/20/04   425604     1,0211   1,0023   10/27/04   425785     1,0177   1,0020   11/03/04   425940     1,0184   1,0021   11/08/04   426048     1,0196   1,0021   11/17/04   426153     1,0223   1,0025   11/22/04   426268     1,0143   1,0016   12/01/04   426438     1,0199   1,0022   12/08/04   426553     1,0181   1,0020   12/15/04   426659     1,0219   1,0025   12/20/04   426659     1,0219   1,0025   12/20/04   426784     1,0020   1,0025   1,0026     1,0021   1,0026   1,0026     1,0021   1,0026   1,0026     1,0021   1,0026   1,0026     1,0021   1,0026   1,0026     1,0021   1,0026   1,0026     1,0021   1,0026   1,0026     1,0022   1,0026   1,0026     1,0023   1,0026   1,0026     1,0023   1,0026   1,0026     1,0026   1,0026   1,0026     1,0027   1,0027   1,0026     1,0027   1,0027   1,0027     1,0027   1,0027				•		.0322	.0034	09/29/04	425239
10170   1019   10120/04   425604     10211   10023   10127/04   425785     10177   10020   111/03/04   425940     10184   10021   111/08/04   426048     10196   10021   111/17/04   426153     10223   10025   111/22/04   426268     10193   10020   121/104   426438     10199   10020   121/15/04   426659     10199   10020   121/15/04   426659     10199   10020   121/15/04   426659     10199   10020   121/15/04   426659     10199   10020   121/15/04   426659     10199   10020   121/15/04   426659     10199   10020   121/15/04   426659     10199   10020   121/15/04   426659     10199   10020   121/15/04   426659     10199   10020   121/15/04   426659     10199   10020   121/15/04   426659     10199   10199   10199   10199     10190   10190   10190     10190   10190		•				.0352		10/06/04	425387
10170   1019   10120/04   425604     10211   10023   10127/04   425785     10177   10020   11/03/04   425940     10184   10021   11/08/04   426048     10196   10021   11/17/04   426153     10223   10025   11/22/04   426268     10193   10020   12/15/04   426638     10199   10020   12/15/04   426553     10181   10020   12/15/04   426659     10219   10025   12/20/04   426784     10199   10025   12/20/04   426784     10199   10020   12/15/04   426659     10219   10025   12/20/04   426784     10199   10020   12/15/04   426659     10219   10025   12/20/04   426784     1013   1015   01/21/04   420445     1019   10220   10220   12/20/04   426827     1019   10220   10220   12/20/04   426827     1019   10220   10220   10220   10220     1019   10220   10220   10220     1019   10220   10220   10220     1019   10220   10220   10220     1019   10220   10220   10220     1019   10220   10220   10220     1019   10220   10220   10220     1019   10220   10220   10220     1019   10220   10220   10220     1019   10220     1019   10220   10220     1019   10220   10220     1019   10220   10220     1019   10220   10220     1019   10220   10220     1019   10220   10220     1019   10220   10220     1019   10220   10220     1019   10220   10220     1019   10220   10220     10						.0321	.0034	10/13/04	425494
10211   10023   10/27/04   425785     10177   10020   11/03/04   425940     10184   10021   11/08/04   426048     10196   10021   11/17/04   426153     10223   10025   11/22/04   42668     10143   10016   12/01/04   426438     10199   10022   12/08/04   426553     10181   10020   12/15/04   426659     10181   10020   12/15/04   426659     10219   10025   12/20/04   426784     10228   10013   10015   101/21/04   420445     10023   10014   12/20/04   426827     10024   10026   101/21/04   42045     10025   10026   101/21/04   42045     10026   10027   10027     10027   10028   10027     10028   10028   10028     10029   10028   10028     10029   10028   10028     10029   10028   10028     10029   10028   10028     10029   10028   10028     10029   10028   10028     10029   10028   10028     10029   10028   10028     10029   10028   10028     10029   10028   10028     10029   10028		. •				.0170		10/20/04	425604
11/08/04   426048	-20					.0211		10/27/04	425785
11/08/04   426048   11/17/04   426153   10/18   10/18   10/18   10/18   10/18   10/18   11/17/04   426153   10/18	Ť							11/03/04	425940
11/17/04   426153   11/22/04   426268   11/22/04   426268   11/22/04   426268   11/22/04   426268   11/22/04   426438   11/24/04   426438   11/24/04   426438   11/24/04   426553   11/24/04   426553   11/24/04   426559   11/24/04   426784   11/24/04   11/	•					.0184	.0021	11/08/04	426048
.0143						.0196		11/17/04	426153
.0199						.0223	.0025	11/22/04	426268
.0181 .0020 12/15/04 426659 .0219 .0025 12/20/04 426784  GAMMA SCAN (GELI) AC-228  .0013 .0015 01/21/04 420445 .0023 .0014 12/20/04 426827  BE-7  .0731 .0062 01/21/04 420445 .0863 .0076 02/18/04 421006						.0143	.0016	12/01/04	426438
.0219 .0025 12/20/04 426784  GAMMA SCAN (GELI) AC-228  .0013 .0015 01/21/04 420445 .0023 .0014 12/20/04 426827  BE-7  .0731 .0062 01/21/04 420445 .0863 .0076 02/18/04 421006						.0199	.0022	12/08/04	426553
GAMMA SCAN (GELI) AC-228  .0013 .0015 01/21/04 420445 .0023 .0014 12/20/04 426827  BE-7  .0731 .0062 01/21/04 420445 .0863 .0076 02/18/04 421006		•				.0181	.0020	12/15/04	426659
GAMMA SCAN (GELI) AC-228  .0013 .0015 01/21/04 420445 .0023 .0014 12/20/04 426827  BE-7  .0731 .0062 01/21/04 420445 .0863 .0076 02/18/04 421006						.0219	.0025	12/20/04	426784
0013 .0015 01/21/04 420445 .0023 .0014 12/20/04 426827 .0030 .0014 12/20/04 426827 .0031 .0062 01/21/04 420445 .0063 .0076 02/18/04 421006				GAMMA S					
.0023 .0014 12/20/04 426827 BE-7 .0731 .0062 01/21/04 420445 .0863 .0076 02/18/04 421006						.0013	.0015	01/21/04	420445
BE-7 .0731 .0062 01/21/04 420445 .0863 .0076 02/18/04 421006						.0023	.0014	12/20/04	
.0731 .0062 01/21/04 420445 .0863 .0076 02/18/04 421006					BE-7		•		
·						.0731	.0062	01/21/04	420445
						.0863		02/18/04	421006
						.1075	.0126	03/17/04	

Station 3109	Location PM5 DECATUR	Description 6.2 MILES S	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
			GAMMA S	SCAN (GELI) BE-7	•			
					.1324	.0128	04/14/04	422042
	•				.1490	.0098	05/12/04	422624
					.1255	.0078	06/09/04	423167
					.0828	.0086	07/07/04	423724
•					.1022	.0337	08/04/04	424262
	·				.0970	.0094	09/01/04	424774
					.0953	.0079	09/29/04	425282
					.0904	.0077	10/27/04	425835
1					.0932	.0070	11/22/04	426311
-30-		•			.0736	.0068	12/20/04	426827
Ī				BI-214 ·				
					.0161	.0017	01/21/04	420445
		•			.0077	.0014	02/18/04	421006
·					.0144	.0018	03/17/04	421506
					.0007	8000.	· 04/14/04	422042
					.0224	.0026	05/12/04	422624
					.0044	.0010	06/09/04	423167 <sup>°</sup>
	•				.0057	.0009	07/07/04	423724
		•			.0037	.0011	08/04/04	424262
•					.0054	.0012	09/01/04	424774
	•		•		.0120	.0014	09/29/04	425282
	•				.0032	.0010	10/27/04	425835
	<b>.</b>	•			.0218	.0022	11/22/04	426311
	,				.0060	.0010	12/20/04	426827
			•	K-40				
	•			•	.0077	.0048	01/21/04	420445

Station 3109	Location PM5 DECATUR	Description 6.2 MILES S	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
			GAMMA	SCAN (GELI)				
		•		K-40				
					.0123	.0068	02/18/04	421006
					.0007	.0055	03/17/04	421506
					.0030	.0058	08/04/04	424262
					.0012	.0055	09/01/04	424774
			•		.0083	.0063	11/22/04	426311
					.0087	.0061	12/20/04	426827
				PB-212				
				•	.0008	.0006	06/09/04	423167
					.0006	.0004	09/29/04	425282
-31-				PB-214				•
H	•	•			.0153	.0014	01/21/04	420445
	·	;			.0064	.0014	02/18/04	. 421006
		•			.0160	.0018	03/17/04	421506
	•				.0035	.0010	04/14/04	422042
	•				.0233	.0020	05/12/04	422624
					.0044	.0012	06/09/04	423167
		•			.0066	.0012	07/07/04	423724
		•			.0030	.0007	08/04/04	424262
					.0045	.0012	09/01/04	424774
					.0122	.0014	09/29/04	425282
					.0058	.0012	10/27/04	425835
				•	.0209	.0018	11/22/04	426311
	•				.0042	.0009	12/20/04	426827
3203	LM3	1.9 MILES NNE						
			GROSS E	BETA			•	•
•					.0226	.0025	12/30/03	420098

Station 3203	<u>Location</u> LM3	Description 1.9 MILES NNE	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	<u>Error</u>	<u>Date Collected</u>	Lab Number
	•		GROSS E	BETA				
					.0168	.0019	01/06/04	420204
					.0281	.0030	01/13/04	· 420294
					.0266	.0029	01/20/04	420408
	•				.0224	.0025	01/27/04	420606
	-			•	.0248	.0027	02/03/04	420722
					.0279	.0030	02/10/04	420852
	•	•			.0252	.0027	02/17/04	420969
	·				.0313	.0033	02/24/04	421133
		•			.0170	.0019	03/02/04	421250
-32-				•	.0148	.0017	03/09/04	421346
T					.0212	.0023	03/16/04	421469
					.0167	.0019	03/23/04	421645
				•	.0181	.0020	03/30/04	421759
				•	.0144	.0017	04/06/04	421891
					.0175	.0020	04/13/04	422005
			•		.0189	.0021	• 04/20/04	422172
				i	.0214	.0023	04/27/04	422366
					.0138	.0016	05/04/04	422470
	•				.0258	.0028	05/11/04	422587
					.0219	.0024	05/18/04	422752 .
					.0152	.0018	05/25/04	422893
				•	.0134	.0016	06/01/04	423001
					.0221	.0024	06/08/04	423130
			•		.0159	.0018	06/15/04	423284
					.0129	.0015	06/22/04	423428
					.0173	.0020	06/29/04	423557

Station Location	<u>Description</u>	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
3203 · LM3	1.9 MILES NNE	GROSS	BETA				·
				.0119	.0015	07/07/04	423687
		•		.0153	.0020	07/14/04	423846
				.0187	.0021	07/20/04	423972
•				.0195	.0022	07/27/04	424111
				.0167	.0019	08/03/04	424225
				.0238	.0026	08/10/04	424381
				.0215	.0024	08/17/04	424492
·				.0271	.0029	08/24/04	424619
	•			.0222	.0024	08/31/04	424737
မ ယ ယ				.0181	.0020	09/08/04	424893
~ ·				.0139	.0017	09/14/04	425007
				.0156	.0018	09/22/04	425107
				.0348	.0037	09/28/04	425245
· .				.0337	.0035	10/06/04	425394
				.0297	.0032	10/12/04	425506
				.0153	.0017	10/20/04	425606
				.0187	.0021	10/26/04	425794
•				.0205	.0023	11/02/04	425946
				.0182	.0021	11/09/04	426060
. •				.0201	.0022	11/17/04	426155
	•			.0242	.0027	11/22/04	426274
				.0156	.0017	12/01/04	426444
•				.0219	.0024	12/07/04	426565
				.0210	.0023	12/15/04	426661
				.0219	.0025	12/20/04	426790

Station 3203	<u>Location</u> LM3	Description 1.9 MILES NNE	<u>Analysis</u>	Nuclide	<u>Activity</u>	<u>Error</u>	Date Collected	Lab Number
	•		GAMMA S	SCAN (GELI)	•			
	•	•		AC-228	•			
					.0029	.0016	07/07/04	423725 ·
				BE-7	2005	0004	0.4.00.10.4	400440
					.0805	.0084	01/20/04	420446 .
					.0752	.0075	02/17/04	421007
					.1240	.0082	03/16/04	421507
					.1193	.0077	04/13/04	422043
					.1398	.0110	05/11/04	422625
			•		.1309	.0097	06/08/04	423168
					.0769	.0075	07/07/04	423725
-34-	•			•	.1026	.0091	08/03/04	424263
T			•	•	.1037	.0080	08/31/04	424775
	•				<b>.</b> 1160 .	.0088	09/28/04	425283
		•			.1117	.0092	10/26/04	425836
					.0990	.0068	11/22/04	426312
					.0784	.0088	12/20/04	426828
				BI-214				
					0304	.0021	01/20/04	420446
		•			.0042	.0014	02/17/04	421007
				•	.0348	.0026	03/16/04	421507
					.0072	.0013	04/13/04	422043
					.0139	.0017	05/11/04	422625
		,		• •	.0041	.0012	06/08/04	423168
					.0059	.0012	07/07/04	423725
		•			.0055	.0014	08/03/04	424263
				•	.0023	.0010	08/31/04	424775
				•	.0058	.0014	09/28/04	425283

Station 3203	Location LM3	Description 1.9 MILES NNE	Analysis	Nuclide	<u>Activity</u>	<u>Error</u>	Date Collected	<u>Lab Number</u>
	•		GAMMA S	SCAN (GELI)			•	
				BI-214				
					.0037	.0011	10/26/04	425836
					.0127	.0013	11/22/04	426312
	•				.0035	.0009	12/20/04	426828
				K-40	•			
				. •	.0084	.0065	02/17/04	421007
					.0040	.0048	05/11/04	422625
		•			.0092	.0053	06/08/04	423168
					.0146	.0081	08/31/04	424775
					.0156	.0060	09/28/04	425283
မ					.0065	.0061	11/22/04	426312
- ယ -					.0076	.0062	12/20/04	426828
•		•		PB-212				•
					.0003	.0006	02/17/04	421007
				PB-214	•	•		
					.0325	.0024	01/20/04	420446
			•		.0028	.0010	. 02/17/04	421007
					.0320	.0025	03/16/04	421507
		•	•	•	.0075	.0013	04/13/04	422043
	•				.0131	.0014	05/11/04	422625
					.0039	.0010	06/08/04	423168
		•			.0062	.0012	07/07/04	423725
					.0044	.0013	08/03/04	424263
				•	.0032	.0008	08/31/04	424775
			•		.0084	.0014	09/28/04	425283
			•		.0038	.0009	10/26/04	425836
					.0126	.0019	11/22/04	426312
	•							

Station 3203	Location LM3	Description 1.9 MILES NNE	<u>Analysis</u>		<u>Activity</u>	<u>Error</u>	Date Collected	Lab Number
			GAMMA	SCAN (GELI)				
				PB-214	.0021	.0008	12/20/04	426828 ·
			•	TL-208	.0021	.0000	12,20,04	420020
•		•			.0002	.0005	10/26/04	425836
3204	LM-4 WB	0.9 MILES SE			•			
			GROSS	BETA				
			•		.0222	.0024	12/30/03	420101
					.0153	.0018	01/06/04	420207
					.0282	.0030	01/14/04	420296
J.				•	.0202	.0023	01/20/04	420411
-36-					.0196	.0022	01/28/04	420609
1		·			.0215	.0024	02/03/04	420725
			•		.0249	.0027	02/11/04	420854
		•			.0258	.0028	02/17/04	420972
		•			.0254	.0027	02/24/04	421136
		•			.0165	.0019	03/02/04	421253
					.0132	.0015	03/10/04	421348
	·	·			.0236	.0026	03/16/04	421472
	•				.0172	.0019	03/23/04	421648
					.0176	.0020	03/30/04	421762
					.0136	.0016	04/06/04	421893
	•				.0171	.0019	04/13/04	422008
					.0165	.0018	04/20/04	422175
					.0198	.0022	04/27/04	422369
					.0147	.0017	05/05/04	422472
	•				.0267	.0029	05/11/04	422590

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Station 3204	<u>Location</u> LM-4 WB	Description 0.9 MILES SE	<u>Analysis</u>	<u>Nuclide</u>	Activity	Error	Date Collected	<u>Lab Number</u>
0204		0.5 MILLS OL	GROSS E	BETA				
		•			.0211	.0023	05/18/04	422755
		•			.0166	.0019	05/25/04	422896
					.0157	.0018	06/02/04	423003 ·
					.0193	.0022	06/08/04	423133
		•			.0156	.0018	06/16/04	423287
	•				.0084	.0022	06/22/04	423431
					.0175	.0019	06/30/04	423561
		•	•		.0120	.0015	07/06/04	423690
		•			.0176	.0020	07/14/04	423849
-37-				•	· .0192	.0022	07/20/04	423975
ĭ		·	•		.0213	.0023	07/28/04	424113
					.0154	.0018	08/03/04	424228
	•	•		•	.0238	.0026	08/11/04	424384
					.0183	.0021	08/17/04	424495
					.0269	.0029	08/24/04	424621
					.0207	.0023	08/31/04	424740
				• .	.0160	.0018	09/08/04	424896
					.0123	.0015	. 09/14/04	425010
					.0163	.0019	09/22/04	425109
					.0345	.0037	09/28/04	425248
		•			.0350	.0037	10/06/04	425397
				•	.0291	.0031	10/12/04	425509
					.0157	.0018	10/20/04	425608
	٠.				.0195	.0022	10/26/04	425797
					.0199	.0022	11/03/04	425949
					.0200	.0023	11/09/04	426063

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Station 3204	Location LM-4 WB	Description 0.9 MILES SE	<u>Analysis</u>	<u>Nuclide</u>	Activity	<u>Error</u>	Date Collected	<u>Lab Number</u>
0204		0.5 MILLO OL	GROSS E	BETA				•
					.0195	.0021	11/17/04	426157
				•	.0228	.0026	11/22/04	426277
		•			.0145	.0016	12/01/04	426447
•					.0212	.0024 ·	12/07/04	426568
					.0162	.0018	12/15/04	426663
			•		.0250	.0028	12/20/04	426793
			GAMMA S	SCAN (GELI)				
	•	•		AC-228				
					.0018	.0016	10/26/04	425837
-38-	•			BE-7	0750	0004	0.4.100.10.4	
Ĩ,					.0752	.0084	01/20/04	420447
			•		.0772	.0080	02/17/04	421008
		,		•	.0986	.0082	03/16/04	421508
					.1140	.0093	04/13/04	422044
					.1329	.0095	05/11/04	422626
		•			.1324	.0117	<sub>,</sub> 06/08/04	423169
		•			.0831	.0091	07/06/04	423726 .
					.0949	.0080	08/03/04	424264
		•		•	.0858	.0085	08/31/04	424776
		•			.0916	.0093	09/28/04	425284
					.1012	.0085	10/26/04	425837
					.1057	.0074	11/22/04	426313
			•		.0771	.0072	12/20/04	426829
				BI-214				
					.0407	.0035	01/20/04	420447
			•		.0119	.0016	02/17/04	421008

Station 3204	Location LM-4 WB	<u>Description</u> 0.9 MILES SE	<u>Analysis</u>	<u>Nuclide</u>	Activity	Error	Date Collected	Lab Number
0204	Ziii 4 113	0,5 Miles 02	GAMMA S	CAN (GELI)				
				BI-214				•
					.0290	.0023	03/16/04	421508
					.0057	.0010	04/13/04	422044
					.0100	.0014	05/11/04	422626
	,				.0025	.0010	06/08/04	423169
			•		.0057	.0012	07/06/04	423726
	•			•	.0046	.0011 -	08/03/04	424264
					.0029	.0012	08/31/04	424776
					.0019	.0011	09/28/04	425284
		•			.0030	.0010	10/26/04	425837
မ					.0120	.0014	11/22/04	426313
-39-					.0049	.0013	12/20/04	426829
				K-40				
					.0067	.0064	02/17/04	421008
					.0009	.0058	04/13/04	422044
					.0062	.0052	05/11/04	422626
					.0048	.0069	06/08/04	423169
	•				.0105	.0061	08/31/04	424776
•					.0024	.0059	11/22/04	426313
		•	•	PB-212				•
					.0003	.0005	03/16/04	421508
					.0006	.0005	09/28/04	425284
				PB-214				
					.0405	.0028	01/20/04	420447
					.0118	.0013	02/17/04	421008
					.0310	.0031	03/16/04	421508
					.0064	.0010	04/13/04	422044

Station 3204	<u>Location</u> LM-4 WB	Description 0.9 MILES SE	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
3204	FIA14 44 D	0.5 MILLO OL	GAMMA	SCAN (GELI) PB-214	·		•	
					.0114	.0013	05/11/04	422626
					.0041	.0011	06/08/04	423169
					.0058	.0011	07/06/04	423726
•	·		•		.0051	.0011	08/03/04	424264
					.0038	.0008	08/31/04	424776
			•		.0052	.0010	10/26/04	425837
	•				.0113	.0015	11/22/04	426313
					.0054	.0014	12/20/04	426829
3205	RM-3 WB	15 MILES NNW						
1			GROSS E	BETA				
-40-	<u>.</u>		,		0.404	0004	40/00/00	100101
•					.0191	.0021	12/30/03	420104
					.0131	.0015	01/06/04	420210
	•				.0265	.0028	01/13/04	420298
					.0235	.0026	01/20/04	420414
					.0219	.0024	01/27/04	420612
٠					.0212	.0023	02/03/04	420728
		•			.0257	.0028	02/10/04	420856
					.0236	.0026	02/17/04	420975
					.0271	.0029	02/24/04	421139
			•		.0167	.0019	03/02/04	421256
		•			.0143	.0017	03/09/04	421350 ·
					.0198	.0022	03/16/04	421475
					.0155	.0018	03/23/04	421651
					.0160	.0018	03/30/04	421765
				•	.0137	.0016	04/06/04	421895

Station	Location	Description	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
3205	RM-3 WB	15 MILES NNW			- <del> </del>			
0200	11110 110	1012201	GROSS E	BETA				
					.0155	.0018	04/13/04	422011
					.0182	.0020	04/20/04	422178
					.0206	.0023	04/27/04	422372
					.0127	.0015 ·	05/04/04	422474
					.0261	.0028	05/11/04	422593
					.0218	.0024	05/18/04	422758
	•				.0137	.0016	05/25/04	422899
	•				.0141	.0016	06/01/04	423005
					.0184	.0021	06/08/04	423136
-4					.0167	.0019	06/15/04	423290
41-					.0132	.0016	06/22/04	423434
					.0152	.0018	06/29/04	423564
					.0136	.0016	07/06/04	423693
					.0127	.0015	07/13/04	423852
	,				.0153	.0018	07/20/04	423978
					.0202	.0022	·07/27/04	424115
		•			.0155	.0018	08/03/04	424231 ·
					.0217	.0024	08/10/04	424387
				•	.0195	.0022	08/17/04	424498
					.0277	.0030	08/24/04	424623
					.0205	.0023	08/31/04	424743
					.0180	.0020	09/07/04	424899
					.0130	.0016	09/14/04	425013
	•				.0160	.0019	09/21/04	425111
					0307	.0033	09/28/04	425251
				•	.0328	.0035	10/05/04	425400

Station 3205	Location RM-3 WB	Description 15 MILES NNW	Analysis Nuclide	Activity	Error	Date Collected	<u>Lab Number</u>
			GROSS BETA				
				.0290	.0031	10/12/04	425512
	• .			.0167	.0019	10/19/04	425610
				.0181	.0021	10/26/04	425800
	•			.0179	.0020	11/02/04	425952
			•	.0176	.0020	11/08/04	426066
			•	.0182	.0020	11/16/04	426159
		•	·	.0201	.0023	11/22/04	426280
				.0139	.0016	11/30/04	426450
				.0181	.0020	12/07/04	426571
-42-				.0173	.0020	12/14/04	426665
۲	· ·			.0229	.0025	12/20/04	426796
		•	GAMMA SCAN (GELI)	•		•	
			AC-228	.0045	.0021	08/31/04	. 404777 .
				.0045			424777
			BE-7	.0073	.0019	09/28/04	425285
			BE-7	.0790	.0067	01/20/04	420448
				.0723	.0080	02/17/04	421009
				.1164	.0087	03/16/04	421509
•				.1095	.0109	04/13/04	422045
				.1497 .	.0103	05/11/04	422627
				4040	.0124	06/08/04	423170
	•			•			
				.0833	.0076	07/06/04	423727
	•			.0955	.0075	08/03/04	424265
				.0793	.0074	08/31/04	424777
			•	.1060 ·	.0092	09/28/04	425285

Station 3205	Location RM-3 WB	Description 15 MILES NNW	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA S	SCAN (GELI) BE-7	•		•	
	•			DC-1	.1000	.0089	10/26/04	425838-
					.1040 ·	.0108	11/22/04	426314
					.0807	.0089	12/20/04	426830
				BI-214	,.0007	.0003	12/20/04	420000
				DI-2.14	.0170	.0020	01/20/04	420448
					.0019	.0011	02/17/04	421009
					.0153	.0016	03/16/04	421509
	•				.0034	.0012	05/11/04	422627
	•				.0016	.0010	06/08/04	423170
1			•		.0026	.0012	07/06/04	423727
-43-					.0011	.0012	08/03/04	424265
					.0015	.0011	08/31/04	424777
					.0051	.0012	09/28/04	425285
	•				.0066	.0010	10/26/04	425838
					.0041	.0010	11/22/04	426314
					.0011	.0012	12/20/04	426830
				K-40			1-1-1-1	
•					.0095	.0066	01/20/04	420448
					.0074	.0062	02/17/04	421009
	•				.0063	.0061	09/28/04	425285
					.0056	.0052	10/26/04	425838
				PB-212				•
					.0001	.0006	04/13/04	422045
				PB-214				
					.0173	.0017	01/20/04	420448
					.0006	.0009	02/17/04	421009

Station 3205	Location RM-3 WB	Description 15 MILES NNW	<u>Analysis</u>	<u>Nuclide</u>	Activity	Error	Date Collected	<u>Lab Number</u>
			GAMMA	SCAN (GELI)	•			
		·		PB-214				
					.0189	.0016	03/16/04	421509
				•	.0025	.0010	05/11/04	422627
	•				.0036	.0012	06/08/04	423170
					.0011	.0008	08/03/04	424265
	•				.0031	.0010	08/31/04	424777
					.0042	0011	09/28/04	425285
	•	•			.0051	.0009	10/26/04	425838
					.0037	.0016	11/22/04	426314
ı					.0010	.0008	12/20/04	426830

Station 2116	<u>Location</u> RM-2 DAYTON TN	Description 15.0 MILES SW	<u>Analysis</u>		<u>Activity</u>	<u>Error</u>	Date Collected	<u>Lab Number</u>
		•	GAMMA	SCAN (GELI)				
				BI-214	.0153	.0054	12/30/03	420048
					.0448	.0100	01/13/04	420046
					.0153	.0069	01/20/04	420200
					.0414	.0089	01/27/04	420555
			•		.1310	.0166	02/03/04	420555
			•		.0294	.0095	02/10/04	420873
				•	.0266	.0033	02/17/04	420923
				•	.0990	.0155	02/17/04	421083
					.0209	.0087	03/02/04	421204
14					.0381	.0104	03/09/04	421318
-45-	• •				.0304	.0098	03/16/04	421421
	*	·			.0451	.0115	03/23/04	421595
					.0590	.0114	03/30/04	· 421712 .
					.0244	.0109	04/06/04	421863
	·		•		.0332	.0084	05/11/04	422539
		•			.0286	.0086	05/18/04	422702
					.0146	.0080	06/01/04	422973
					.0180	.0093	06/15/04	423233
			•		.0234	.0089	11/08/04	426013
					.0154	.0091	11/22/04	426226
					.0671	.0176	12/14/04	426633
				K-40	.0071	.0170	12/14/04	420033
	•			11 40	.2170	.0703	01/13/04	420266
					.2564	.0565	01/20/04	420361
					.1628	.0573	01/27/04	420555
					.2085	.0775	02/24/04	421083
								121000

Station 2116	Location RM-2 DAYTON TN	Description 15.0 MILES SW	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA	SCAN (GELI) K-40				
					.2670	.0561	03/09/04	421318
					.1358	.0468	03/16/04	421421
					.2359	.0443	05/11/04	422539
	•				.1777	.0541	05/18/04	422702
				. •	.2611	.0551	06/15/04	423233
					.2573	.0476	11/02/04	425895
		•			.4759	.0804	11/08/04	426013
				NO ACTIVIT	Y DETECTED			
	•				.0000	.0000	04/27/04	422300
-46-					.0000	.0000	05/25/04	422847
ij					.0000	.0000	06/08/04	423082
	•				.0000	.0000	06/22/04	423381
,	•			•	.0000	.0000	07/06/04	423639
				•	.0000	.0000	07/13/04	423795
			•		.0000	.0000	08/24/04	424591
			•		.0000	.0000	· 08/31/04	424689
					.0000	.0000	09/07/04	424842
				•	.0000	.0000	09/28/04	425198
	•		·		.0000	.0000	10/19/04	425578
					.0000	.0000	10/26/04	425734
					.0000	.0000	11/16/04	426127
					.0000	.0000	11/30/04	426393
•		•		PB-212	-			
			•		.0033	.0042	09/21/04	425079
					.0021	.0037	10/12/04	425460

GAMMA SCAN (GELI) PB-214  .0306 .0104 .01404 .0091 .0113/04 .420266 .0274 .0081 .012704 .0081 .012704 .0081 .012704 .0081 .0356 .0093 .0172704 .420555 .02383 .0210 .020304 .420675 .0517 .0122 .02/110/04 .420824 .0455 .0125 .0217 .0422 .0455 .0125 .0217/04 .420823 .1282 .0156 .02/24/04 .421083 .0281 .0077 .0302/04 .421204 .0408 .0121 .03790/04 .421318 .0524 .0117 .03/23/04 .421595 .0886 .0118 .03/30/04 .421712 .0886 .0118 .03/30/04 .421712 .0886 .0188 .0195 .0076 .04/06/04 .421863 .0195 .0076 .04/06/04 .421863 .0195 .0076 .04/06/04 .422122 .0251 .0080 .05/04/04 .422122 .0251 .0080 .05/04/04 .422122 .0251 .0080 .05/04/04 .422122 .0251 .0080 .05/04/04 .422122 .00845 .0133 .05/11/04 .422539 .0157 .0079 .0050 .06/15/04 .422333 .0079 .0050 .06/29/04 .422333 .0079 .0050 .06/29/04 .423513 .0046 .0129 .07/27/04 .424083 .0105 .0071 .08/03/04 .424178 .0123 .0057 .08/10/04 .424350 .0046 .0085 .08/17/04 .424456	Station 2116	Location RM-2 DAYTON TN		Description 15.0 MILES SW	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	<u>Date Collected</u>	<u>Lab Number</u>
.0444					GAMMA :					
1.0274							.0306	.0104	01/06/04	420157
1.0356   .0093   01/27/04   420555     2383   .0210   02/03/04   420675     .0517   .0122   02/10/04   420824     .0455   .0125   02/17/04   420923     .1282   .0156   02/24/04   421083     .1282   .0156   02/24/04   421083     .0281   .0077   03/02/04   421204     .0408   .0121   03/09/04   421308     .0524   .0117   03/23/04   421595     .0886   .0118   03/30/04   421712     .0256   .0076   04/06/04   421863     .0195   .0070   04/13/04   421958     .0185   .0056   04/20/04   422122     .0251   .0080   05/04/04   422422     .0251   .0080   05/04/04   422422     .0251   .0080   05/04/04   422422     .0645   .0133   05/11/04   422539     .0157   .0079   05/18/04   422702     .0152   .0058   06/01/04   422973     .0119   .0056   06/15/04   423233     .0079   .0050   06/29/04   423513     .0079   .0050   06/29/04   423513     .0079   .0050   06/29/04   423513     .0016   .0071   08/03/04   424178     .0105   .0071   08/03/04   424178     .0105   .0077   08/03/04   424178     .0106   .0085   08/17/04   424351							.0444	.0091	01/13/04	420266
1.2383   .0210   02/03/04   420675     .0517   .0122   02/10/04   420824     .0455   .0125   02/17/04   420923     .1282   .0156   02/24/04   421083     .0281   .0077   03/02/04   421204     .0408   .0121   03/09/04   421318     .0524   .0117   03/23/04   421595     .0886   .0118   03/30/04   421712     .0256   .0076   04/06/04   421863     .0195   .0070   04/13/04   421958     .0185   .0056   04/20/04   422122     .0251   .0080   05/04/04   42242     .0645   .0133   05/11/04   42242     .0645   .0133   05/11/04   422539     .0157   .0079   05/18/04   422702     .0158   .0056   06/15/04   42233     .0079   .0050   06/29/04   423513     .0079   .0050   06/29/04   423513     .0079   .0050   06/29/04   423513     .0079   .0050   06/29/04   423513     .0070   .0071   08/03/04   424178     .0123   .0057   08/10/04   424330     .0046   .0085   08/17/04   42445     .0046   .0085   08/17/04   42445     .0046   .0085   08/17/04   424330     .0046   .0085   08/17/04   42445     .0046   .0085   08/17/04   42445     .0046   .0085   08/17/04   42445     .0046   .0085   08/17/04   424330     .0046   .0085   08/17/04   42445     .0046   .0086   .0085   08/17/04     .0086   .0086   .0086   .0086     .0085   .0086   .0086     .0086   .0086   .0086     .0086   .008		•					.0274	.0081	01/20/04	420361
1.0517							.0356	.0093	01/27/04	420555
1,0455	•						.2383	.0210	02/03/04	420675
1.1282 .0156 02/24/04 421083 .0281 .0077 03/02/04 421204 .0408 .0121 03/09/04 421318 .0524 .0117 03/23/04 421595 .0886 .0118 03/30/04 421712 .0256 .0076 04/06/04 421863 .0195 .0070 04/13/04 421958 .0185 .0056 04/20/04 422122 .0251 .0080 05/04/04 422122 .0251 .0080 05/04/04 422422 .0251 .0080 05/04/04 422422 .0645 .0133 05/11/04 422539 .0157 .0079 05/18/04 422702 .0152 .0058 06/01/04 422973 .0119 .0056 06/15/04 42323 .0079 .0050 06/29/04 423513 .0079 .0050 06/29/04 423513 .0079 .0050 06/29/04 423513 .0079 .0050 06/29/04 423513 .00105 .0071 08/03/04 424178 .0103 .0057 08/10/04 424330 .00123 .0057 08/10/04 424330							.0517	.0122	02/10/04	420824
.0281 .0077 03/02/04 421204 .0408 .0121 03/09/04 421318 .0524 .0117 03/23/04 421595 .0886 .0118 03/30/04 421712 .0256 .0076 04/06/04 421863 .0195 .0070 04/13/04 421958 .0185 .0056 04/20/04 422122 .0251 .0080 05/04/04 422422 .0251 .0080 05/04/04 422422 .0251 .0080 05/04/04 422422 .0251 .0080 05/04/04 422422 .0251 .0070 05/18/04 422539 .0157 .0079 05/18/04 422702 .0152 .0058 06/01/04 422973 .0119 .0056 06/15/04 423233 .0079 .0050 06/29/04 423513 .0046 .0129 07/27/04 424083 .0105 .0071 08/03/04 424178 .0123 .0057 08/10/04 424330 .0046 .0085 08/17/04 424330							.0455	.0125	02/17/04	420923
.0408 .0121 03/09/04 421318 .0524 .0117 03/23/04 421595 .0886 .0118 03/30/04 421712 .0256 .0076 04/06/04 421863 .0195 .0070 04/13/04 421958 .0185 .0056 04/20/04 422122 .0251 .0080 05/04/04 422422 .0251 .0080 05/04/04 422422 .0251 .0080 05/04/04 422539 .0157 .0079 05/18/04 422539 .0152 .0058 06/01/04 422973 .0152 .0058 06/01/04 422973 .0119 .0056 06/15/04 423233 .0079 .0050 06/29/04 423513 .0009 .0050 06/29/04 423513 .0009 .0050 06/29/04 423513 .0006 .0129 07/27/04 424083 .0105 .0071 08/03/04 424178 .0123 .0057 08/10/04 424330 .0046 .0085 08/17/04 424435			•				.1282	.0156	02/24/04	421083
.0524 .0117 03/23/04 421595 .0886 .0118 03/30/04 421712 .0256 .0076 04/06/04 421863 .0195 .0070 04/13/04 421958 .0185 .0056 04/20/04 422122 .0251 .0080 05/04/04 422422 .0645 .0133 05/11/04 422539 .0157 .0079 05/18/04 422702 .0152 .0058 06/01/04 422973 .0119 .0056 06/15/04 42333 .0079 .0050 06/29/04 423513 .0079 .0050 06/29/04 423513 .00406 .0129 07/27/04 424083 .0105 .0071 08/03/04 424178 .0123 .0057 08/10/04 424330 .0046 .0085 08/17/04 42435			•	•			.0281	.0077	03/02/04	421204
.0886 .0118 03/30/04 421712 .0256 .0076 04/06/04 421863 .0195 .0070 04/13/04 421958 .0185 .0056 04/20/04 422122 .0251 .0080 05/04/04 422442 .0645 .0133 05/11/04 422539 .0157 .0079 05/18/04 422702 .0152 .0058 06/01/04 422973 .0119 .0056 06/15/04 423233 .0079 .0050 06/29/04 423513 .0406 .0129 07/27/04 424083 .0123 .0057 08/10/04 424330 .0046 .0085 08/17/04 42445	44.					•	.0408	.0121	03/09/04	421318
.0256 .0076 04/06/04 421863 .0195 .0070 04/13/04 421958 .0185 .0056 04/20/04 422122 .0251 .0080 05/04/04 422442 .0645 .0133 05/11/04 422539 .0157 .0079 05/18/04 422702 .0152 .0058 06/01/04 422973 .0119 .0056 06/15/04 423233 .0079 .0050 06/29/04 423513 .0079 .0050 06/29/04 423513 .0406 .0129 07/27/04 424083 .0105 .0071 08/03/04 424178 .0123 .0057 08/10/04 424330 .0046 .0085 08/17/04 42445	7						.0524	.0117	03/23/04	421595
.0195 .0070 04/13/04 421958 .0185 .0056 04/20/04 422122 .0251 .0080 05/04/04 422442 .0645 .0133 05/11/04 422539 .0157 .0079 05/18/04 422702 .0152 .0058 06/01/04 422973 .0119 .0056 06/15/04 423233 .0079 .0050 06/29/04 423513 .0406 .0129 07/27/04 424083 .0105 .0071 08/03/04 424178 .0123 .0057 08/10/04 424330 .0046 .0085 08/17/04 424445		•					.0886	.0118	03/30/04	421712
.0185 .0056 04/20/04 422122 .0251 .0080 05/04/04 4224420645 .0133 05/11/04 422539 .0157 .0079 05/18/04 422702 .0152 .0058 06/01/04 422973 .0119 .0056 06/15/04 423233 .0079 .0050 06/29/04 423513 .00406 .0129 07/27/04 424083 .0105 .0071 08/03/04 424178 .0123 .0057 08/10/04 424330 .0046 .0085 08/17/04 424445							.0256	.0076	04/06/04	421863
.0185 .0056 04/20/04 422122 .0251 .0080 05/04/04 4224420645 .0133 05/11/04 422539 .0157 .0079 05/18/04 422702 .0152 .0058 06/01/04 422973 .0119 .0056 06/15/04 423233 .0079 .0050 06/29/04 423513 .0406 .0129 07/27/04 424083 .0105 .0071 08/03/04 424178 .0123 .0057 08/10/04 424330 .0046 .0085 08/17/04 424445					•		.0195	.0070	04/13/04	421958
.0645       .0133       05/11/04       422539         .0157       .0079       05/18/04       422702         .0152       .0058       06/01/04       422973         .0119       .0056       06/15/04       423233         .0079       .0050       06/29/04       423513         .0406       .0129       07/27/04       424083         .0105       .0071       08/03/04       424178         .0123       .0057       08/10/04       424330         .0046       .0085       08/17/04       424445					1		.0185	.0056	. 04/20/04	422122
.0157       .0079       05/18/04       422702         .0152       .0058       06/01/04       422973         .0119       .0056       06/15/04       423233         .0079       .0050       06/29/04       423513         .0406       .0129       07/27/04       424083         .0105       .0071       08/03/04       424178         .0123       .0057       08/10/04       424330         .0046       .0085       08/17/04       424445							.0251	.0080	05/04/04	422442.
.0152 .0058 06/01/04 422973 .0119 .0056 06/15/04 423233 .0079 .0050 06/29/04 423513 .0406 .0129 07/27/04 424083 .0105 .0071 08/03/04 424178 .0123 .0057 08/10/04 424330 .0046 .0085 08/17/04 424445							.0645	.0133	05/11/04	422539
.0119 .0056 06/15/04 423233 .0079 .0050 06/29/04 423513 .0406 .0129 07/27/04 424083 .0105 .0071 08/03/04 424178 .0123 .0057 08/10/04 424330 .0046 .0085 08/17/04 424445							.0157	.0079	05/18/04	422702
.0119 .0056 06/15/04 423233 .0079 .0050 06/29/04 423513 .0406 .0129 07/27/04 424083 .0105 .0071 08/03/04 424178 .0123 .0057 08/10/04 424330 .0046 .0085 08/17/04 424445							.0152	.0058	06/01/04	422973 .
.0406 .0129 07/27/04 424083 .0105 .0071 08/03/04 424178 .0123 .0057 08/10/04 424330 .0046 .0085 08/17/04 424445							.0119	.0056	06/15/04	
.0406 .0129 07/27/04 424083 .0105 .0071 08/03/04 424178 .0123 .0057 08/10/04 424330 .0046 .0085 08/17/04 424445			•		•		.0079	.0050	06/29/04	423513
.0123 .0057 08/10/04 424330 .0046 .0085 08/17/04 424445							.0406	.0129	07/27/04	424083
.0123 .0057 08/10/04 424330 .0046 .0085 08/17/04 424445		•					.0105	.0071	08/03/04	
.0046 .0085 08/17/04 424445						•	.0123	.0057		•
$\cdot$				•						
					•		.0257	.0081	09/14/04	

Station	Location	<u>Description</u>	Analysis Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
2116	RM-2 DAYTON TN	15.0 MILES SW		•			
			GAMMA SCAN (GELI)				
	•	. •	PB-214	0.400			
			·	.0120	.0048	10/05/04	425342
				.0160	.0058	10/12/04	425460
				.0269	.0103	11/08/04	426013 ·
				.0236	.0109	· 11/22/04	426226
				.0719	.0129	12/07/04	426519
			•	.0675	.0139	12/14/04	426633
	•	•		.0493	.0129	12/20/04	426742
3101	LM1	0.5 MILES SSW	•		•		
			GAMMA SCAN (GELI)				
-48-			BI-214	.0718	0147	40100100	
ĩ			•		.0117	12/30/03	420077
•		•		.0316	.0068	01/20/04	420389
		·		.0411	.0123	02/03/04	420698
				.0510	.0114	02/10/04	420840
				.0597	.0117	02/24/04	421112
		•		.0453	.0108	03/09/04	421334
				.0306	.0093	03/23/04	421624
				.0389	.0082	04/06/04	421879
		•		.0077	.0044	05/04/04	422458
				.0184	.0062	05/11/04	422569
				.0151	.0074	05/18/04	422731
			•	.0143	.0065	11/16/04	426143
				.0415	.0124	12/07/04	426541
				.0279	.0070	12/14/04	426649
			K-40	•			
		•	•	.2757	.0529	05/04/04	422458

Station 3101	<u>Location</u> LM1	Description 0.5 MILES SSW	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA	SCAN (GELI)				
				K-40				
					.2061	.0472	05/11/04	422569 .
					.2060	.0540	05/18/04	422731
	•				.2813	.0628	07/13/04	423825
					.1889	.0539	07/27/04	424099
				•	.2166	.0294	11/16/04	426143
				NO ACTIVITY				•
	•				.0000	.0000	02/17/04	420951
					.0000	.0000	05/25/04	422869
•					.0000	.0000	06/08/04	423112
-49-		•			.0000	.0000	06/15/04	423263
Ŷ			•		.0000	.0000	06/22/04	423403
					.0000	.0000	07/06/04	423669
					.0000	.0000	07/20/04	423948
				•	.0000	.0000	08/03/04	424207
					.0000	.0000	08/10/04	424360
	•				.0000	.0000	08/17/04	424468
					.0000	.0000	09/14/04	424983
					.0000	.0000 .	09/28/04	425227
	•				.0000	.0000	10/05/04	425372
					.0000	.0000	10/19/04	425594
					.0000	.0000	10/26/04	425773
				•	.0000	.0000	11/02/04	425925
					.0000	.0000	11/30/04	426423
			•	PB-212				
					.0107	.0057	07/13/04	423825
					.0033	.0037	09/21/04	425095

Station 3101	Location LM1	Description 0.5 MILES SSW	Analysis	<u>Nuclide</u>	Activity	Error	Date Collected	Lab Number
			GAMMA :	SCAN (GELI) PB-214				
				1 0-214	.0744	.0126	12/30/03	420077
					.0432	.0128	01/06/04	420179
					.0515	.0107	01/13/04	420282
					.0315	.0062	01/20/04	420389
			•		.0262	.0118	02/03/04	420698
				•	.0634	.0097	02/10/04	420840
	-				.0715	.0108	02/24/04	421112
					.0184	.0055	03/02/04	421226
	·.				.0631	.0135	03/09/04	421334
-50-	·				.0167	.0069	03/16/04	421451
Ÿ					.0289	.0079	03/23/04	421624
			•		.0117	.0070	03/30/04	421735
					.0205	.0060	04/13/04	421987
					.0211	.0063	04/20/04	422151
					.0105	.0056	04/27/04	422339
					.0314	.0073	05/11/04	422569
					.0048	.0032	05/18/04	422731
					.0064	.0045	06/01/04	422989
					.0147	.0056	06/29/04	423539
					.0152	.0057	08/24/04	424607
					.0173	.0063	08/31/04	424718
					.0155	.0081	09/07/04	424872
					.0302	.0091	10/12/04	425482
					.0288	.0073	11/08/04	426036
					.0547	.0118	11/22/04	426256
					.0542	.0111	12/07/04	426541

Station 3101	<u>Location</u> LM1	Description 0.5 MILES SSW	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA	SCAN (GELI)				
	•	. •		PB-214	•			
					.0338	.0101	12/14/04	426649 -
		•	•		.0303	.0058	12/20/04	426772
3102	LM2	0.5 MILES N						•
			GAMMA	SCAN (GELI)				
				BI-214	0000	,	40100100	400004
					.0202	.0063	12/30/03	420081
	·				.0139	.0062	01/06/04	420183
				•	.0242	.0077	01/13/04	420285
i					.1607	.0182	01/20/04	420393
-51-				•	.0609	.0139	01/27/04	420588
ī			•	•	.0921	.0134	02/03/04	420702
				•	.0493	.0110	02/10/04	420843
		•			.0637	.0115	02/17/04	420955
					.0298	.0090	03/02/04	421230
					.0481	.0108	03/09/04	421337
					.0589	.0120	03/30/04	421739
					.0104	.0068	04/20/04	422155
				·	.0145	.0079	05/25/04	422873
					.0223	.0031	06/29/04	423543
				•	.0125	.0077	10/26/04	425777
					.0039	.0069	11/16/04	426146
				•	.0296	.0070	11/30/04	426427
		•			.0594	.0149	12/07/04	426545
	·				.0471	.0122	12/14/04	426652
				K-40				
				•	.2345	.0403	12/30/03	420081

Station 3102	Location LM2		Description 0.5 MILES N	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
		•		GAMMA	SCAN (GELI)				
					K-40	0755	0545	04/00/04	400202
				•		.2755 .2562	.0545 .0784	01/20/04	420393 420702
						.2562 .1749		02/03/04 03/09/04	
						.3048	.0395		421337
							.0493 ·	03/30/04 04/20/04	421739 422455
				•		.2635	0551		422155
				•		.3445 .1475	.0523	05/25/04 06/29/04	422873 423543
							.0220		
	•		•			.3258	.0718	08/03/04	424211
1						.2623	.0443	10/05/04	425376
1 55 29						.1144	.0487	10/26/04	425777
1						.2747	.0462	11/16/04	426146
	•					.3393	.0545	11/30/04	426427
					NO ACTIVITY	.2792	.0674	12/14/04	426652
					NO ACTIVITY	.0000	.0000	04/13/04	421991
				•		.0000	.0000	.05/04/04	421991
						.0000	.0000	.05/04/04	422573 ·
	.•					.0000	.0000	05/11/04	422735
						.0000		06/01/04	
				•	•		.0000		422992
						.0000	.0000	06/08/04	423116
						.0000	.0000	06/15/04	423267
						.0000	.0000	06/22/04	423407
						.0000	.0000	07/13/04	423829
						.0000	.0000	07/20/04	423952
						0000	.0000	07/27/04	424102
					•	.0000	.0000	08/10/04	424364

Station 3102	Location LM2	Description 0.5 MILES N	<u>Analysis</u>	Nuclide	<u>Activity</u>	<u>Error</u>	Date Collected	<u>Lab Number</u>
			GAMMA S	SCAN (GELI)				
				NO ACTIVITY DE				•
	•		•		.0000	.0000	08/17/04	424472
	•				.0000	0000	08/24/04	424610
					.0000	.0000	09/07/04	424876
		•			.0000	.0000	09/14/04	424987
		•		•	.0000	.0000	09/21/04	425098
				•	.0000	.0000	09/28/04	425231
					.0000	.0000	11/02/04	425929
					.0000	.0000	11/08/04	426040
				PB-212				
- - - -					.0081	.0045	12/30/03	420081
ĩ					.0031	.0046	02/17/04	420955
	· ·				.0006	.0013	06/29/04	423543
				•	.0021	.0046	12/20/04	426776
				PB-214				·•
					.0310	.0091	12/30/03	420081
					.0099	.0062	01/06/04	420183
					.0361	.0090	01/13/04	420285
					.1571	.0169	.01/20/04	420393
					.0474	.0126	01/27/04	420588
				•	.0666	.0100	02/03/04	420702
					.0526	.0097	02/10/04 .	420843
	•				.0753	.0132	02/17/04	420955
					.0233	.0075	02/24/04	421116
					.0238	.0069	03/02/04	421230
					.0477	.0105	03/09/04	421337
					.0237	.0111	03/16/04	421455

Statiòn 3102	Location LM2	Description 0.5 MILES N	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	<u>Error</u>	Date Collected	<u>Lab Number</u>
			GAMMA	SCAN (GELI)			•	
				PB-214				
					.0326	.0099	03/23/04	421628
					.0473	.0110	03/30/04	421739
					0217	.0072	04/06/04	421882
			•		.0382	.0117	04/27/04	422343
					.0240	.0028	06/29/04	423543
			•	•	.0077	.0058	07/06/04	423673
	•			•	.0126	.0063	08/31/04	424722
					.0223	.0091	10/12/04	425486
1	•				.0203	.0083	10/19/04	425597
-54- ·					.0179	.0096	11/16/04	426146
	•				.0240	.0065	11/22/04	426260
•					.0334	.0088	11/30/04	426427
	_		•		.0750	.0127	12/07/04	426545
	·				.0304	.0088	12/14/04	426652
					.0509	.0174	12/20/04	426776
				TL-208				
,					.0011	.0013	06/29/04	423543
3106	PM2 SPRING CITY	7.0 MILES NW						
			GAMMA	SCAN (GELI)	•			•
				BI-214	0004	0.407	40100100	
					.0324	.0107	12/30/03	420084
					.1050	.0168	01/06/04	420186 ·
					.0840	.0150	01/13/04	420287
					.0345	.0105	01/27/04	420591
					.0486	.0117	02/03/04	420705
	•				.0566	.0099	02/10/04	420845

Station 3106	Location PM2 SPRING CITY	Description 7.0 MILES NW	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA S	SCAN (GELI)				
			•	BI-214				
					.0515	.0102	02/17/04	420958
					.0237	.0080	02/24/04	421119
					.0429	.0104	03/02/04	421233
					.0393	.0072 ·	03/30/04	421742
				•	.0381	.0105	04/27/04	422346
					.0272	.0102	05/18/04	422738
	•				.0316	.0090	06/22/04	423410
	•	•			.0065	.0053	08/10/04	424367
					.0167	.0063	08/31/04	424725
					.0349	.0075	09/14/04	424990
					.0110	.0070	09/21/04	425100
-55-					.0106 ·	.0085	11/08/04	426043
ĭ					.0211	.0060	11/16/04	426148
					.0257	.0105	11/22/04	426263
					.0340	.0098	11/30/04	426430
					.0539	.0127	·12/07/04	426548
	•	•		K-40				•
					.1733	.0480	02/17/04	420958
				•	.2086	.0471	02/24/04	421119
		•			.3298	.0760	07/20/04	423955
					.1911	.0428	08/31/04 .	424725
					.1763	.0548	09/14/04	424990
					.2190	.0485	09/21/04	425100
					.3486	.0461	11/08/04	426043
	·				.2405	.0521	11/22/04	426263
				•	.2626	.0718	12/20/04	426779

GAMMA SCAN (GELI) NO ACTIVITY DETECTED	Station 3106	Location PM2 SPRING CITY	Description 7.0 MILES NW	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
10000		• • • • • • • • • • • • • • • • • • • •		GAMMA S					
1,0000					NO ACTIVIT				
10000   .0000   .04/13/04   421994   .0000   .0000   .05/11/04   422463   .0000   .0000   .05/11/04   422576   .0000   .0000   .05/25/04   422876   .0000   .0000   .05/25/04   422876   .0000   .0000   .05/25/04   422876   .0000   .0000   .0000   .05/25/04   422876   .0000   .0000   .0000   .0000   .06/15/04   423119   .0000   .0000   .0000   .07/06/04   423676   .0000   .0000   .0000   .07/27/04   424104   .0000   .0000   .0000   .07/27/04   424104   .0000   .0000   .0000   .08/37/04   424214   .0000   .0000   .0000   .08/24/04   424612   .0000   .0000   .0000   .0000   .09/28/04   425379   .00000   .0000   .0000   .0000   .0000   .00000   .0000   .0000   .0000   .0000   .0000   .0000   .0000   .000									
1,0000	•								
1,0000						.0000	.0000	04/13/04	
10000   0000   05/25/04   422876   0000   0000   06/08/04   423119   0000   0000   06/08/04   423119   0000   0000   06/15/04   423270   0000   0000   07/06/04   423676   0000   0000   07/07/04   424104   0000   0000   08/03/04   42414   0000   0000   08/03/04   42414   0000   0000   08/17/04   42415   0000   0000   08/17/04   424612   0000   0000   08/24/04   424612   0000   0000   09/28/04   425234   0000   0000   09/28/04   425379   00000   00000   00000   00000   00000   00000   00000   00000   00000						.0000	.0000	05/04/04	422463
10000   0000   06/08/04   423119   0000   0000   06/15/04   423270   0000   0000   07/06/04   423676   0000   0000   07/27/04   424104   0000   0000   08/03/04   424214   0000   0000   08/03/04   424214   0000   0000   08/17/04   424475   0000   0000   08/17/04   424475   0000   0000   08/24/04   424612   0000   0000   09/28/04   425234   0000   0000   09/28/04   425234   0000   0000   09/28/04   425379   0000   0000   0000   10/15/04   42589   0000   0000   10/15/04   42589   0000   0000   10/15/04   42589   0000   0000   10/26/04   425780   0000   0000   11/02/04   42580   0000   0000   12/14/04   426654   0000   0000   12/14/04   426654   0000   0000   12/14/04   426654   0000   0000   12/14/04   426654   0000   0000   0000   12/14/04   426654   0000							.0000	05/11/04	422576
1,0000		·	•			.0000	.0000	05/25/04	422876
10000						.0000	.0000	06/08/04	423119
1,0000					•	.0000	.0000	06/15/04	423270
.0000 .0000 08/17/04 424475 .0000 .0000 08/24/04 424612 .0000 .0000 .0000 09/07/04 424879 .0000 .0000 .0000 09/28/04 425234 .0000 .0000 .0000 10/05/04 425379 .0000 .0000 .0000 10/12/04 425489 .0000 .0000 .0000 10/12/04 425599 .0000 .0000 .0000 10/19/04 425599 .0000 .0000 .0000 10/26/04 425780 .0000 .0000 .0000 11/02/04 425932 .0000 .0000 .0000 12/14/04 426654 .0000 .0000 .0000 12/14/04 426654 .0000 .0000 .0000 12/14/04 426654 .0000 .0000 .0000 12/14/04 426654 .0000 .0000 .0000 12/14/04 426654 .0000 .0000 .0000 12/14/04 426654 .0000 .0000 .0000 12/14/04 426654 .0000 .0000 .0000 12/14/04 426654		•				.0000	.0000	07/06/04	423676
.0000 .0000 08/17/04 424475 .0000 .0000 08/24/04 424612 .0000 .0000 .0000 09/07/04 424879 .0000 .0000 .0000 09/28/04 425234 .0000 .0000 .0000 10/05/04 425379 .0000 .0000 .0000 10/12/04 425489 .0000 .0000 .0000 10/12/04 425599 .0000 .0000 .0000 10/19/04 425599 .0000 .0000 .0000 10/26/04 425780 .0000 .0000 .0000 11/02/04 425932 .0000 .0000 .0000 12/14/04 426654 .0000 .0000 .0000 12/14/04 426654 .0000 .0000 .0000 12/14/04 426654 .0000 .0000 .0000 12/14/04 426654 .0000 .0000 .0000 12/14/04 426654 .0000 .0000 .0000 12/14/04 426654 .0000 .0000 .0000 12/14/04 426654 .0000 .0000 .0000 12/14/04 426654	ວ່າ ຕ					.0000	.0000	. 07/27/04	424104
PB-214  .00000  .00000  .00000  .0000  .0000  .0000  .0000  .0000  .0000  .0000  .0000  .0000	ĩ			_		.0000	.0000	08/03/04	424214
1,0000						.0000	.0000	08/17/04	424475
PB-214  .0000 .000		·				.0000	.0000	08/24/04	· 424612 .
PB-214  .0000 .000						.0000	.0000	09/07/04	424879
PB-214  .0000 .000				•		.0000	.0000	09/28/04	425234
PB-214  .0000 .000						.0000	.0000	10/05/04	425379
.0000 .0000 10/26/04 425780 .0000 .0000 11/02/04 425932 .0000 .0000 12/14/04 426654  PB-214  .0365 .0081 12/30/03 420084 .1140 .0156 01/06/04 420186 .0773 .0147 01/13/04 420287						.0000	.0000	. 10/12/04	425489
.0000 .0000 11/02/04 425932 .0000 .0000 12/14/04 426654 PB-214 .0365 .0081 12/30/03 420084 .1140 .0156 01/06/04 420186 .0773 .0147 01/13/04 420287						.0000	.0000	10/19/04	425599
.0000 .0000 12/14/04 426654  PB-214  .0365 .0081 12/30/03 420084  .1140 .0156 01/06/04 420186  .0773 .0147 01/13/04 420287						0000	.0000	10/26/04	425780
PB-214  .0365 .0081 12/30/03 420084  .1140 .0156 01/06/04 420186  .0773 .0147 01/13/04 420287						.0000	.0000	11/02/04	425932
.0365 .0081 12/30/03 420084 .1140 .0156 01/06/04 420186 .0773 .0147 01/13/04 420287						.0000	.0000	12/14/04	426654
.1140 .0156 01/06/04 420186 .0773 .0147 01/13/04 420287		•			PB-214				
.0773 .0147 01/13/04 420287						.0365	.0081	12/30/03	420084
·		•				.1140	.0156	01/06/04	420186
.0152 .0058 01/20/04 420396	•		•			.0773	.0147	01/13/04	420287
						.0152	.0058	01/20/04	420396

Station 3106	Location PM2 SPRING CITY	Description 7.0 MILES	=	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
				SCAN (GELI) PB-214			•	
					.0161	.0049	01/27/04	420591 -
					.0432	.0115	02/03/04	420705
					.0633	.0117	02/10/04	420845
				•	.0604	.0133	02/17/04	420958
					.0391	.0096	02/24/04	421119
		•	•		.0479	.0123	03/02/04	421233
	•				· .0220	.0087	03/16/04	421458
					.0298	.0088	03/30/04	421742
,	•				.0386	.0119	04/06/04	421884
-57–					.0272	.0070	04/20/04	422158
ı					.0618	.0122	04/27/04	422346
•	•				.0564	.0140	05/18/04	422738
					.0056	.0049	06/01/04	422994
	•			·	.0168	.0069	06/22/04	423410
					.0012	.0056	06/29/04	423546
		•			.0008	.0052	07/13/04	423832
					.0167	.0059	07/20/04	423955
					.0250	.0065	08/31/04	424725
					.0285	.0099	09/14/04	424990
					.0175	.0070	09/21/04	425100
					.0138	.0100	11/08/04	426043
	•				.0432	.0113	11/22/04	426263 ·
					.0320	.0065	11/30/04	426430
					.0824	.0123	12/07/04	426548
					.0445	.0151	12/20/04	426779

Station 3107	Location PM3	Description 10.4 MILES NNE	<u>Analysis</u>	<u>Nuclide</u>	Activity	<u>Error</u>	Date Collected	Lab Number
			GAMMA	SCAN (GELI)				•
				BI-214	- 4			
					.0173	.0087	12/30/03	420087
					.0478	.0118	01/06/04	420188
					.0351	.0079	01/13/04	420289
					.0433	.0123	01/20/04	420398
	· .				.0375	.0093	01/27/04	420594
					.0931	.0181	02/03/04	420707
					.0713	.0158	02/10/04	420847
					.2555	.0230	02/17/04	420960
1	•			•	.0317	.0098	03/02/04	421235
-58-				•	.0471	.0102	04/06/04	421886
Ī		•		•	.0489	.0123	05/18/04	422741
					.0042	.0083	08/17/04	424477
					.0190	.0076	08/31/04	424727
	•			•	.0169	.0072	10/05/04	425382
					.0476	.0121	· 11/22/04	426265
					.0522	.0121	12/07/04	426550
	·				.0750	.0133	12/20/04	426781
				K-40				
					.1959	.0476	01/27/04	420594
					.2580	.0765	02/17/04	420960
	·	•	• .		.2860	.0634	08/31/04	424727
				•	.3816	.0654	11/22/04	426265
	•	·		•	.2722	.0570	12/07/04	426550
				NO ACTIVITY DETECTE				
					.0000	.0000	04/27/04	422348
					.0000	.0000	05/11/04	422578
	•					.0000	00/11/07	722010

Station 3107	Location PM3	Description 10.4 MILES NNE	<u>Analysis</u>	<u>Nuclide</u>	Activity	Error	Date Collected	<u>Lab Number</u>
			GAMMA S	SCAN (GELI)				
				NO ACTIVITY				
					.0000	.0000	05/25/04	422878
					.0000	.0000	06/01/04	422996
					.0000	.0000	06/08/04	423121
					.0000	.0000	06/15/04	423273
			•		.0000	.0000	07/06/04	423678
	•		•		.0000	.0000	07/13/04	423835
					.0000	.0000	07/20/04	423957
					.0000	.0000	08/03/04	424216
					.0000	.0000	08/10/04	424370
-59-		•			.0000	.0000	09/07/04	424882
9					.0000	.0000	09/28/04	. 425236
					.0000	.0000	10/19/04	425601
					.0000	.0000	10/26/04	425782
					.0000	.0000	11/16/04	426150
					.0000	.0000	12/14/04	426656
		•		PB-212			•	
					.0045	.0045	04/20/04	422161
					.0068	.0048	08/24/04	424614
				•	.0038	.0025	09/21/04	425102
				PB-214				
					.0151	.0076	12/30/03	420087
					.0707	.0119	01/06/04	420188
	•	•			.0279	.0096	01/13/04	420289
					.0430	.0061	01/20/04	420398
					.0462	.0106	01/27/04	420594
	•				.1157 ·	.0177	02/03/04	420707
							•	

Station 3107	Location PM3	Description 10.4 MILES NNE	Analysis GAMMA	Nuclide SCAN (GELI)	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
				PB-214	.0618	.0124	02/10/04	420847
					.2823	.0262	02/17/04	420960
					.0240	.0090	02/24/04	421122
	•				.0406	.0037	03/02/04	421235
					.0542	.0111	03/02/04	421341
				-	.0143	.0072	03/05/04	421460
					.0111	.0072	03/23/04	421634
					.0363	.0033	03/30/04	421744
					0554	.0132	04/06/04	421886
<u></u>		•			.0163	.0059	04/13/04	421996
-60-				•	.0111	.0059	04/20/04	422161
•				•	.0253	.0073	05/04/04	422465
					.0541	.0073	05/18/04	422741
		•		•	.0227	.0113	06/22/04	423412
					.0243	.0074	06/29/04	423412
					.0171		• 07/27/04	424106
•	•				.0076	.0102	08/17/04	424100
				•	.0159			
			,			.0086		424727
					.0367	.0120	09/14/04	424992
					.0144	.0070	10/05/04	425382
					.0144	.0054	10/12/04	425491
	•			•	.0066	.0051	11/02/04	425935
			•		.0226	.0048	11/08/04	426045
			•		.0358	.0089	11/22/04	426265
					.0709	.0115	12/07/04	426550
					.0933	.0087	12/20/04	426781

GAMMA SCAN (GELI) BI-214  .0379 .0129 01/06/04 420190 .0680 .0124 01/14/04 420291 .0223 .0081 02/11/04 420849 .1009 .0163 02/18/04 420962 .0327 .0095 03/16/04 421662 .0327 .0095 03/16/04 4216637 .0362 .0097 03/30/04 421746 .0400 .0119 04/06/04 421848 .0578 .0119 04/20/04 422164 .0578 .0119 04/20/04 422164 .0397 .0114 05/12/04 422580 .0397 .0114 05/12/04 422580 .0397 .0114 05/12/04 425888 .0578 .0199 04/06/04 421888 .0578 .0199 04/06/04 421888 .0578 .0190 0075 09/29/04 42538 .0095 .0057 11/17/04 426152 .0236 .0092 .0152 12/20/04 426162 .0236 .0092 .0152 12/20/04 426163 .0236 .0092 .0152 12/20/04 426163 .0236 .0092 .0152 12/20/04 426163 .0236 .0092 .0152 12/20/04 426163 .0236 .0092 .0152 12/20/04 426163 .0236 .0092 .0152 12/20/04 426163 .0236 .0092 .0152 12/20/04 426163 .0236 .0092 .0152 12/20/04 426163 .0236 .0092 .0152 12/20/04 426163 .0236 .0092 .0152 12/20/04 426183 .0092 .0152 12/20/04 426183 .0092 .0152 .01620 04/06/04 421888 .0092 .0152 .0090 .0454 04/20/04 422164 .0092 .0090 .0454 04/20/04 422164 .0090 .0454 04/20/04 422164 .0090 .0454 04/20/04 422164 .0090 .0454 04/20/04 422164 .0090 .0454 04/20/04 422164 .0090 .0454 04/20/04 422164 .0090 .0090 .0090 .00916/04 422164 .0090 .0090 .0090 .00916/04 422164 .0090 .0090 .0090 .00916/04 422164 .0090 .0090 .0090 .00916/04 422164 .0090 .0090 .0090 .00916/04 422164 .0090 .0090 .0090 .00916/04 422164 .0090 .0090 .0090 .00916/04 422164 .0090 .0090 .0090 .00916/04 422164 .0090 .0090 .0090 .00916/04 422164 .0090 .0090 .0090 .00916/04 422164 .0090 .0090 .0090 .00916/04 422164 .0090 .0090 .00916/04 422164 .0090 .0090 .0090 .00916/04 422164 .0090 .0090 .0090 .00916/04 422164 .0090 .0090 .00916/04 422164 .0090 .0090 .00916/04 422164 .0090 .0090 .00916/04 422164 .0090 .0090 .00916/04 422164 .0090 .0090 .00916/04 422164 .0090 .0090 .00916/04 422164 .0090 .0090 .00916/04 422164 .0090 .0090 .00916/04 422164 .0090 .0090 .00916/04 422164 .0090 .0090 .00916/04 422164 .0090 .0090 .00916/04 422164 .0090 .0090 .0090 .0090 .00916/04 422164 .0090 .0090 .0090 .0090 .0090 .0090 .0090 .0	Station 3108	Location PM4	Description 7.6 MILES NE/ENE	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
1.0680				GAMMA :		•			
1,0023						.0379	.0129	01/06/04	420190
1,009						.0680	.0124	01/14/04	420291
1.0327						.0223	.0081	02/11/04	420849
1.0196   .0095   03/24/04   421637     .0362   .0097   03/30/04   421746     .0440   .0119   04/06/04   421888     .0578   .0119   04/20/04   422164     .0578   .0119   04/20/04   422350     .0142   .0073   04/28/04   422350     .0397   .0114   05/12/04   422580     .1281   .0191   09/15/04   42494     .0196   .0075   09/29/04   42538     .0905   .0057   11/17/04   426152     .0236   .0092   11/22/04   426527     .0902   .0152   12/20/04   426783     .0902   .0152   12/20/04   426783     .2523   .0590   02/11/04   420849     .2637   .0639   04/06/04   421888     .2090   .0454   04/20/04   422164     .2637   .0629   04/28/04   422164     .2637   .0629   04/28/04   422350     .3250   .0603   05/19/04   422580     .3250   .0603   05/19/04   422580     .3250   .0603   05/19/04   422580     .3250   .0603   05/19/04   422744     .2637   .0629   .04503   05/19/04   422580     .3250   .0603   .05/19/04   422580     .3250   .0603   .05/19/04   422744     .5252   .0901   .09/15/04   422744     .42494				•		.1009	.0163	02/18/04	· 420962
1,0362   .0097   03/30/04   421746   .0440   .0119   04/06/04   421888   .0578   .0119   04/20/04   422164   .0578   .0119   04/20/04   422164   .0142   .0073   04/28/04   422350   .0397   .0114   05/12/04   422580   .0397   .0114   05/12/04   422580   .0996   .0075   .091/5/04   424994   .0196   .0075   .092/9/04   425238   .0095   .0057		•				.0327	.0095	03/16/04	421462
1.0440			•			.0196	.0095	03/24/04	421637
10578   .0119   04/20/04   422164   .0142   .0073   04/28/04   422350   .0397   .0114   05/12/04   422580   .0397   .0114   05/12/04   424994   .0196   .0075   09/29/04   425238   .0096   .0075   .0097   .0117/04   426152   .0236   .0092   .0152   .0270/04   426267   .0902   .0152   .0152   .0270/04   426783   .0902   .0152   .0097   .009						.0362	.0097	03/30/04	421746
1						.0440	.0119	04/06/04	421888
10142   .0073   .04/28/04   .422350   .0397   .0114   .05/12/04   .422580   .1281   .0191   .09/15/04   .424994   .0196   .0075   .09/29/04   .425238   .0095   .0057   .11/17/04   .426152   .0236   .0092   .11/22/04   .426267   .0902   .0152   .12/20/04   .426783   .0902   .0152   .12/20/04   .426783   .0902   .0152   .12/20/04   .426783   .0902   .0152   .0236   .0092   .0152   .00904	1	•				.0578	.0119	04/20/04	422164
K-40  K-40  K-40  1.281  1.0191  1.0191  1.0191  1.0196  1.0075  1.0075  1.0092  1.0095  1.0097  1.0095  1.0097  1.00902  1.0152  1.0204  1.0204  1.0204  1.0204  1.0204  1.0204  1.0204  1.0204  1.0200  1.0204  1.0200  1.02	-61					.0142	.0073	04/28/04	422350
1.0196	1				•	.0397	.0114	05/12/04	422580
11/17/04   426152		•				.1281	.0191	09/15/04	424994
.0236 .0092 11/22/04 426267 .0902 .0152 12/20/04 426783  K-40  .2523 .0590 02/11/04 420849 .2674 .0432 03/24/04 421637 .2221 .0469 04/06/04 421888 .2090 .0454 04/20/04 422164 .2637 .0629 04/28/04 422350 .3152 .0669 05/12/04 422580 .3250 .0603 05/19/04 422744 .5252 .0901 09/15/04 424994						.0196	.0075	09/29/04	425238
K-40  K-40  1.2523						.0095	.0057	11/17/04	426152
K-40  2523 .0590 02/11/04 420849  .2674 .0432 03/24/04 421637  .2221 .0469 04/06/04 421888  .2090 .0454 04/20/04 422164  .2637 .0629 04/28/04 422350  .3152 .0669 05/12/04 422580  .3250 .0603 05/19/04 422744  .5252 .0901 09/15/04 424994						.0236	.0092	11/22/04	426267
.2523       .0590       02/11/04       420849         .2674       .0432       03/24/04       421637         .2221       .0469       04/06/04       421888         .2090       .0454       04/20/04       422164         .2637       .0629       04/28/04       422350         .3152       .0669       05/12/04       422580         .3250       .0603       05/19/04       422744         .5252       .0901       09/15/04       424994						.0902	.0152	12/20/04	426783
.2674       .0432       03/24/04       421637         .2221       .0469       04/06/04       421888         .2090       .0454       04/20/04       422164         .2637       .0629       04/28/04       422350         .3152       .0669       05/12/04       422580         .3250       .0603       05/19/04       422744         .5252       .0901       09/15/04       424994					K-40				٠
.2221 .0469 04/06/04 421888 .2090 .0454 04/20/04 422164 .2637 .0629 04/28/04 422350 .3152 .0669 05/12/04 422580 .3250 .0603 05/19/04 422744 .5252 .0901 09/15/04 424994		-				.2523	.0590	02/11/04	420849
.2090 .0454 04/20/04 422164 .2637 .0629 04/28/04 422350 .3152 .0669 05/12/04 422580 .3250 .0603 05/19/04 422744 .5252 .0901 09/15/04 424994						.2674	.0432	03/24/04	421637
.2637 .0629 04/28/04 422350 .3152 .0669 05/12/04 422580 .3250 .0603 05/19/04 422744 .5252 .0901 09/15/04 424994						.2221	.0469	04/06/04	421888
. 3152 .0669 05/12/04 422580 .3250 .0603 05/19/04 422744 .5252 .0901 09/15/04 424994		•		•		.2090	.0454	04/20/04	422164
.3250 .0603 05/19/04 422744 .5252 .0901 09/15/04 424994						.2637	.0629	04/28/04	422350
.5252 .0901 09/15/04 424994		•				.3152	.0669	05/12/04	422580
			•			.3250	.0603	05/19/04	422744
						.5252	.0901	09/15/04	424994
						.2093	.1290	11/03/04	425938

Station 3108	<u>Location</u> PM4	Description 7.6 MILES NE/ENE	<u>Analysis</u>		Activity	Error	Date Collected	Lab Number
			GAMMA S	SCAN (GELI)	ETEOTED			
		•		NO ACTIVITY D	.0000	.0000	12/30/03	420090 ·
					.0000	.0000	01/21/04	420400
		·			.0000	.0000	01/28/04	420597 ·
					.0000	.0000	02/04/04	420709
					.0000	.0000	04/13/04	421998
					.0000	.0000	06/02/04	422998
					.0000	.0000	06/09/04	423123
					.0000		06/16/04	423276
					.0000	.0000	06/23/04	423414
-62-	-				· .0000	.0000	07/07/04	423680
2	•		•		.0000	.0000	07/14/04	423838
					.0000	.0000	07/21/04	423959
		•			.0000	.0000	07/28/04	424108
		•			.0000	.0000	08/04/04	424218
					.0000	.0000	08/11/04	424373
					.0000	.0000	08/25/04	424616
				•	.0000	.0000	09/01/04	424729
		•			.0000	.0000	09/22/04	425104
					.0000	.0000	10/13/04	425493
				•	.0000	.0000	10/20/04	425603
					.0000	.0000	10/27/04	425784
				• .	.0000	.0000	11/09/04	426047
					.0000	.0000	12/01/04	426436
					.0000	.0000	12/15/04	426658
				PB-212 .				
					.0039	.0045	06/30/04 .	423552

Station 3108	Location PM4	Description 7.6 MILES NE/ENE	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
			GAMMA	SCAN (GELI) PB-214				
					.0515	.0077	01/06/04	420190
					.0662	.0139	01/14/04	420291
	•				.0439	.0087	02/11/04	420849
					· .1191	.0172	02/18/04	420962
				. •	.0233	.0092	02/25/04	421125
					.0262	.0101	03/03/04	421237
					.0310	.0109	03/10/04	421343
					.0334	.0087	03/16/04	421462
		•			.0126	.0049	03/24/04	421637
-63-		•		•	.0649	.0110	04/06/04	421888
Ĩ		•			.0376	.0088	04/20/04	422164
		•			.0189 ·	.0081	04/28/04	422350
				•	.0308	.0070	05/05/04	422467
				•	.0376	.0105	05/12/04	422580
					.0138	.0074	05/26/04	422880
	•				.0144	.0070	08/18/04	424479
				•	.0067	.0075	09/08/04	424885
		•			.1219	.0203	09/15/04	424994
	•				.0136	.0072	09/29/04	425238 .
					.0294	.0081	09/06/04	425385 -
	•			•	.0206	.0068	11/03/04	425938
				•	.0218	.0089	11/22/04	426267
	•	•	•		.0152	.0074	12/08/04	426552
			•		.0933	.0122	12/20/04	426783
			•	TL-208				
					.0008	.0040	09/15/04	424994

Station 3109	Location PM5 DECATUR	Description 6.2 MILES S	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA	SCAN (GELI)				
				BI-214				
			·		.0516 .	.0106	01/14/04	420293
					.0507	.0132	01/21/04	420403
					.0237	.0090	01/28/04	420600
					.2484	.0256	02/04/04	420712
					<b>.</b> 0409 .	.0099	02/11/04	420851
				•	.1247	.0179	02/18/04	420965
					.1123	.0147	02/25/04	421128
					.0270	.0101	03/03/04	421240
ı		•			.0833	.0171	03/10/04	421345
-64-					.0108	.0062	03/17/04	421465
ı	·				.0518	.0152	03/24/04	421640
					.0496	.0097	04/07/04	421890
	•				.0819	.0160	04/14/04	422001
	·			•	.0169	.0080	04/28/04	422353
					0217	.0091	05/12/04	422583
					.0301	.0077	06/23/04	423417
					.0107	.0053	08/25/04	424618
					.0241	.0076	09/15/04	424997
•					.0132	.0072	09/22/04	425106
					.0118	.0066	10/06/04	425388
					.0108	.0060	12/01/04	426439
					.0336	.0119	12/08/04	426555
					.0190	.0086	12/15/04	426660
					.0332	.0123	12/20/04	426786
				K-40				
					.2629	.0497	01/28/04	420600

Station 3109	Location PM5 DECATUR	Description 6.2 MILES S	<u>Analysis</u>	Nuclide	<u>Activity</u>	<u>Error</u>	Date Collected	Lab Number
	•	•	GAMMA	SCAN (GELI)		•		
•	•			K-40	.1331	.0432	03/03/04	421240 ·
		•			.1937	.0432	03/17/04	421240
					.3420	.0525	04/07/04	421403 ·
					.2814	.0525	04/28/04	421090
						.0397	05/12/04	422583
					.1314	.0397	06/23/04	422363 423417
					.1612		09/22/04	425417 425106
					.1710	.0375	10/06/04	425100
					.1357	.0471		
+				NO ACTIVITY	.3063	.0830	12/20/04	426786
-65-			•	NO ACTIVITY	.0000	.0000	12/30/03	420093
					.0000	.0000	01/07/04	420193
					.0000	.0000	05/05/04	422469
	·				.0000	.0000	05/19/04	422747
					.0000	.0000	. 05/26/04	422883
					.0000	.0000	06/02/04	423000
					.0000	.0000	06/16/04	423000
					.0000	.0000	06/30/04	423555
	•				.0000	.0000	07/07/04	423533
		•			.0000	.0000	07/14/04	423841
					.0000	.0000	07/21/04	423962
				•	.0000	.0000		423902 424110
		•					07/28/04	
					.0000	.0000	08/18/04	424482
					.0000	.0000	09/01/04	424732
				•	.0000	.0000	10/20/04	425605
					.0000	.0000	10/27/04	425787

GAMMA SCAN (GELI) NO ACTIVITY DETECTED 1,0000 1,0000 111/17/04 426154  PB-212 1,0095 1,0081 12/08/04 426555  PB-214 1,0574 1,0113 101/14/04 420800 1,0991 1,0107 101/21/04 420800 1,0991 1,0107 101/21/04 420800 1,0991 1,0107 1,0121/04 420800 1,0991 1,0107 1,0121/04 420800 1,0991 1,0107 1,0121/04 420800 1,0991 1,0107 1,021/04 420800 1,0991 1,0107 1,021/04 420800 1,0991 1,0107 1,01400 420805 1,0894 1,0140 1,0141 1,0161 1,0074 1,0161 1,0074 1,0161 1,0074 1,0161 1,0074 1,0161 1,0086 1,013/1,004 421465 1,0491 1,049	Station 3109	Location PM5 DECATUR	<u>Description</u> 6.2 MILES S	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
PB-212 PB-214 PB				GAMMA	SCAN (GELI)	•			
PB-212   10029		•			NO ACTIVITY				
PB-214  PB-214  PB-214  1.0574						.0000	.0000	11/17/04	426154
PB-214  PB-214  0.095 0.081 12/08/04 426555  0.061 0.0574 0.0113 01/14/04 420293 0.0491 0.0107 01/21/04 420403 0.0381 0.0122 01/28/04 420600 0.2781 0.0422 02/04/04 420712 0.0834 0.0129 02/25/04 421128 0.0161 0.074 03/03/04 421240 0.118 0.170 03/10/04 421345 0.0349 0.076 03/17/04 421465 0.0491 0.091 0.0325 0.0411 0.086 0.0331/04 421749 0.0881 0.0325 0.047 0.0421 0.0364 0.100 0.0428/04 422167 0.0364 0.100 0.04/28/04 422167 0.0168 0.066 06/23/04 423165 0.0098 0.0099 08/11/04 423165					PB-212				
PB-214    1.0574									
1.0574						.0095	.0081	12/08/04	426555
1.0491					PB-214	0574	0440	0444404	
1.0381   .0122   .01/28/04   .420600   .2781   .0242   .02/04/04   .420712   .1456   .0143   .02/18/04   .420965   .0834   .0129   .02/25/04   .421128   .0161   .0074   .03/03/04   .421240   .1118   .0170   .03/10/04   .421465   .0349   .0076   .03/17/04   .421465   .0349   .0076   .03/17/04   .421640   .0411   .0086   .03/31/04   .421749   .0482   .0080   .04/07/04   .421890   .0881   .0133   .04/14/04   .422001   .0325   .0047   .04/21/04   .422167   .0364   .0100   .04/28/04   .422353   .0206   .0078   .05/12/04   .422353   .0206   .0078   .05/12/04   .422353   .0206   .0078   .05/12/04   .422353   .0206   .0078   .05/12/04   .422353   .0206   .0078   .05/12/04   .422353   .0206   .0078   .005/12/04   .422353   .0206   .0078   .005/12/04   .422353   .0206   .0078   .005/12/04   .422353   .0206   .0078   .005/12/04   .422353   .0206   .0078   .005/12/04   .422353   .0206   .0078   .005/12/04   .422353   .0206   .0078   .005/12/04   .422353   .0206   .0078   .005/12/04   .005				•					
1.2781									
1,1456		•							
.0161       .0074       03/03/04       421240         .1118       .0170       03/10/04       421345         .0349       .0076       03/17/04       421465         .0491       .0091       03/24/04       421640         .0411       .0086       03/31/04       421749         .0482       .0080       04/07/04       421890         .0881       .0133       04/14/04       422001         .0325       .0047       04/21/04       422167         .0364       .0100       04/28/04       422353         .0206       .0078       05/12/04       422583         .0202       .0124       06/09/04       423126         .0168       .0066       06/23/04       423417         .0146       .0054       08/04/04       424221         .0098       .0029       08/11/04       424376			_						
.0161       .0074       03/03/04       421240         .1118       .0170       03/10/04       421345         .0349       .0076       03/17/04       421465         .0491       .0091       03/24/04       421640         .0411       .0086       03/31/04       421749         .0482       .0080       04/07/04       421890         .0881       .0133       04/14/04       422001         .0325       .0047       04/21/04       422167         .0364       .0100       04/28/04       422353         .0206       .0078       05/12/04       422583         .0202       .0124       06/09/04       423126         .0168       .0066       06/23/04       423417         .0146       .0054       08/04/04       424221         .0098       .0029       08/11/04       424376	-66	·	•						
.1118       .0170       03/10/04       421345         .0349       .0076       03/17/04       421465         .0491       .0091       03/24/04       421640         .0411       .0086       03/31/04       421749         .0482       .0080       04/07/04       421890         .0881       .0133       04/14/04       42201         .0325       .0047       04/21/04       422167         .0364       .0100       04/28/04       422353         .0206       .0078       05/12/04       422583         .0202       .0124       06/09/04       423126         .0168       .0066       06/23/04       423417         .0146       .0054       08/04/04       424221         .0098       .0029       08/11/04       424376	Ť								
.0349       .0076       03/17/04       421465         .0491       .0091       03/24/04       421640         .0411       .0086       .03/31/04       421749         .0482       .0080       04/07/04       421890         .0881       .0133       04/14/04       422001         .0325       .0047       04/21/04       422167         .0364       .0100       04/28/04       422353         .0206       .0078       05/12/04       422583         .0202       .0124       06/09/04       423126         .0168       .0066       06/23/04       423417         .0146       .0054       08/04/04       424221         .0098       .0029       08/11/04       424376									
.0491       .0091       03/24/04       421640         .0411       .0086       .03/31/04       421749         .0482       .0080       04/07/04       421890         .0881       .0133       04/14/04       422001         .0325       .0047       04/21/04       422167         .0364       .0100       04/28/04       422353         .0206       .0078       05/12/04       422583         .0202       .0124       06/09/04       423126         .0168       .0066       06/23/04       423417         .0146       .0054       08/04/04       424221         .0098       .0029       08/11/04       424376								03/10/04	421345
.0411 .0086 03/31/04 421749 .0482 .0080 04/07/04 421890 .0881 .0133 04/14/04 422001 .0325 .0047 04/21/04 422167 .0364 .0100 04/28/04 422353 .0206 .0078 05/12/04 422583 .0202 .0124 06/09/04 423126 .0168 .0066 06/23/04 423417 .0146 .0054 08/04/04 424221 .0098 .0029 08/11/04 424376						.0349	.0076	03/17/04	421465
.0482 .0080 04/07/04 421890 .0881 .0133 04/14/04 422001 .0325 .0047 04/21/04 422167 .0364 .0100 04/28/04 422353 .0206 .0078 05/12/04 422583 .0202 .0124 06/09/04 423126 .0168 .0066 06/23/04 423417 .0146 .0054 08/04/04 424221 .0098 .0029 08/11/04 424376					•	.0491	.0091	03/24/04	421640
.0881 .0133 04/14/04 422001 .0325 .0047 04/21/04 422167 .0364 .0100 04/28/04 422353 .0206 .0078 05/12/04 422583 .0202 .0124 06/09/04 423126 .0168 .0066 06/23/04 423417 .0146 .0054 08/04/04 424221 .0098 .0029 08/11/04 424376						.0411	.0086	.03/31/04	421749
.0325 .0047 04/21/04 422167 .0364 .0100 04/28/04 422353 .0206 .0078 05/12/04 422583 .0202 .0124 06/09/04 423126 .0168 .0066 06/23/04 423417 .0146 .0054 08/04/04 424221 .0098 .0029 08/11/04 424376						.0482	.0080	04/07/04	421890 .
.0364 .0100 04/28/04 422353 .0206 .0078 05/12/04 422583 .0202 .0124 06/09/04 423126 .0168 .0066 06/23/04 423417 .0146 .0054 08/04/04 424221 .0098 .0029 08/11/04 424376						.0881	.0133	04/14/04	422001
.0206       .0078       05/12/04       422583         .0202       .0124       06/09/04       423126         .0168       .0066       06/23/04       423417         .0146       .0054       08/04/04       424221         .0098       .0029       08/11/04       424376		•		•		.0325	.0047	04/21/04	422167
.0202 .0124 06/09/04 423126 .0168 .0066 06/23/04 423417 .0146 .0054 08/04/04 424221 .0098 .0029 08/11/04 424376						.0364	.0100	04/28/04	422353
.0202 .0124 06/09/04 423126 .0168 .0066 06/23/04 423417 .0146 .0054 08/04/04 424221 .0098 .0029 08/11/04 424376						.0206	.0078	05/12/04	422583
0168 .0066 06/23/04 423417 .0146 .0054 08/04/04 424221 .0098 .0029 08/11/04 424376								06/09/04	
.0146 .0054 08/04/04 424221 .0098 .0029 08/11/04 424376				•					
.0098 .0029 08/11/04 424376				•					
						•			

Station 3109	Location PM5 DECATUR	Description 6.2 MILES S	Analysis	<u>Nuclide</u>	Activity	Error	Date Collected	<u>Lab Number</u>
			GAMMA	SCAN (GELI)				
				PB-214				
					.0213	.0080	09/08/04	424888
					.0360	0082	09/15/04	424997
					.0146 .	.0058	09/22/04	425106
					.0087	.0067	09/29/04	425241
			•		.0121	.0056	10/06/04	425388
				•	.0025	.0048 .	10/13/04	425496
	•				.0179	.0094	11/03/04	425941
					.0133	.0095	11/08/04	426050
					.0202	.0107	11/22/04	426270
-67-					.0549	.0103	12/08/04	426555
7-					.0299	.0110	12/15/04	426660
					.0520	.0111	12/20/04	426786
3203	LM3	1.9 MILES NNE						
			GAMMA	SCAN (GELI) BI-214				
				D1 2 14	.0300	.0089	01/06/04	420206
					.0439	.0113	01/20/04	420410
		•			.0509	.0117	02/03/04	420724
					.0504	.0094	02/17/04	420971
		·			.0546	.0120	03/09/04	421347
					.0120	.0082	03/16/04	421471
					.0288	.0077	03/30/04	421761
					.0346	.0100	04/06/04	421892
					.0131	.0086	05/04/04	422471
					.0212	.0064	05/11/04	422589
					.0090	.0068	07/14/04	423847
					.0030	.0000	01117107	423041

Station 3203	Location LM3	Description 1.9 MILES NNE	Analysis	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA :	SCAN (GELI)			•	
	•	•		BI-214	•			
	·				.0129	.0050	11/02/04	425947
					.0162	.0067	11/17/04	426156
					0616	.0138	11/22/04	426276
	·		•		.0725	.0130	12/01/04	426445
					.0690	.0134	12/07/04	426567
			•	K-40				•
	•	•			.2576	.0578	01/13/04	420295
					.2375	.0533	02/17/04	420971
•	•			·	.2889	.0484	04/06/04	421892
-68-	·				.3379	.0604	05/11/04	422589
Ϋ́					.4541	.0858	07/14/04	423847
•					.3647	.0684	07/20/04	423974
					.4463	.0606	07/27/04	424112
	•				.3867	.0732	10/12/04	425508
					.2531	.0465	11/02/04	425947
					.3151	.0511	11/17/04	426156
·					.4036	.0853	11/22/04	426276
				NO ACTIVITY DET				
	·				.0000	.0000	12/30/03	420099
			•		.0000	.0000	02/24/04	421134 .
					.0000	.0000	03/02/04	421252
				•	.0000	.0000	03/23/04	421646 ·
					.0000	.0000	04/13/04	422007
					.0000	.0000	04/27/04	422368
	•				.0000	.0000	05/18/04	422753
					.0000	.0000	05/25/04	422895

Station 3203	Location LM3	Description 1.9 MILES NNE	Analysis	Nuclide SCAN (GELI)	Activity	<u>Error</u>	Date Collected	Lab Number
			GAIVIIVIA		/ DETECTED		•	
				NO ACTIVITY	.0000	.0000	06/01/04	423002
					.0000	.0000	06/08/04	423132
					.0000	.0000	06/15/04	423285
					.0000	.0000	06/29/04	423558
					.0000	.0000	07/07/04	423689
		•	•		.0000	.0000	08/24/04	424620
					.0000	.0000	08/31/04	424739
					.0000	.0000	09/08/04	424894
		•			.0000	.0000	09/14/04	425009
-69-	•	•		•	.0000	.0000	09/22/04	425108
9-					.0000	.0000	09/28/04	425247
					.0000	.0000	10/06/04	425395
					.0000	.0000	10/26/04	425796
	•				.0000	.0000	11/09/04	426062
					.0000	.0000	12/15/04	426662
				PB-212			٠.	
		•			.0036	.0048	01/06/04	420206 ·
					.0034	.0040	02/10/04	420853
				PB-214				
					.0368	.0091	01/06/04	420206
					.0268	.0087	01/13/04	420295
					.0739	.0130	01/20/04	420410
					.0211	.0063	01/27/04	420607
	•				.0568	.0137	02/03/04	420724
	•				0446	.0107	02/10/04	420853
				•	.0822	.0150	02/17/04	420971

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Station 3203	Location LM3	Description 1.9 MILES NNE	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA :	SCAN (GELI)				
•				PB-214	0047	0404	00/00/04	404047
					.0617	.0104	03/09/04	421347
					.0119	.0074	03/16/04	421471
					.0148	.0068	03/30/04	421761
			•		.0356	.0105	04/06/04	421892
					.0214	.0085	04/20/04	422173
					.0204	.0079	05/04/04	422471
					.0298	.0094	05/11/04	422589
				•	.0134	.0072	06/22/04	423430
1_					.0094	.0054	07/14/04	423847
-70-					.0458	.0103	08/03/04	424227
1					.0196	.0094	08/10/04	424382
	•	•	•		.0039	.0062	08/17/04	424494
	•				.0067	.0054	10/20/04	425607
					.0179	.0069	11/02/04	425947
					.0167	.0066	11/17/04	426156
	•				.0666	.0168	11/22/04	426276
					.0544	.0091	12/01/04	426445
					.0779	.0101	12/07/04	426567
					.0468	.0143	12/20/04	426792
3204	LM-4 WB	0.9 MILES SE						
-			GAMMA S	SCAN (GELI)				
	•			BI-214	.0407	.0071	12/30/03	420102
	•				.0323	.0093	01/06/04	
					.0523 .0662	.0093	01/14/04	420209
								420297
				,	.1063	.0162	01/20/04	420413

GAMMA SCAN (GELI) BI-214  .0415 .0102 01/28/04 4206100616 .0122 02/03/04 420727 .0370 .0077 02/11/04 420855 .0.0655 .0.104 02/17/04 420874 .0.0655 .0.104 02/17/04 420874 .0.0616 .0089 02/24/04 421137 .0.093 .0079 03/02/04 421137 .0.093 .0079 03/02/04 421137 .0.093 .0079 03/02/04 421137 .0.088 .0.100 03/30/04 421764 .0.0518 .0.121 04/06/04 421894 .0.0518 .0.121 04/06/04 421894 .0.0518 .0.121 04/06/04 422894 .0.0253 .0.081 05/05/04 422473 .0.0253 .0.081 05/05/04 422473 .0.0255 .0.0122 05/11/04 422592 .0.141 .0.054 06/16/04 423288 .0.0414 .0.172 06/22/04 423433 .0.040 .0.076 07/14/04 423850 .0.024 .0.082 09/14/04 425012 .0.0379 .0.104 11/22/04 426579 .0.0379 .0.104 11/22/04 426579 .0.0379 .0.104 11/22/04 426579 .0.0379 .0.104 11/22/04 426579 .0.0379 .0.104 11/22/04 426579 .0.0379 .0.104 11/22/04 426579 .0.0379 .0.104 11/22/04 426579 .0.0389 .0.082 12/07/04 426579 .0.0467 .0.110 12/15/04 426579 .0.0467 .0.110 12/15/04 426579 .0.0467 .0.110 12/15/04 426579 .0.0467 .0.110 12/15/04 426579 .0.0467 .0.010 12/15/04 420579 .0.0467 .0.010 12/15/04 420579 .0.0467 .0.010 12/15/04 420579 .0.0467 .0.010 12/15/04 420579 .0.0467 .0.010 12/15/04 420579 .0.0467 .0.010 12/15/04	Station 3204	Location LM-4 WB	Description 0.9 MILES SE	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	<u>Error</u>	Date Collected	<u>Lab Number</u>
0.415				GAMMA S				•	
1.0616				·	BI-214				
1.0370									
10655									
1.0261						· ·			
1.0293				•					420974
1.0268						.0261	.0089	02/24/04	421137
1-1		•		•		.0293	.0079	03/02/04	421255
1.0253   .0081   05/05/04   422473     .0295   .0122   .05/11/04   422592     .0141   .0054   .06/16/04   423288     .0414   .0172   .06/22/04   423433     .0040   .0076   .07/14/04   423850     .0224   .0082   .09/14/04   425012     .0379   .0104   .11/22/04   426279     .0130   .0058   12/01/04   42648     .0230   .0082   12/07/04   426570     .0467   .0110   12/15/04   426664     .1005   .0159   12/20/04   426795     K-40						.0268	.0100	03/30/04	421764
1.0295			•			.0518	.0121	04/06/04	421894
1.0414		•	•			.0253	.0081	05/05/04	422473
1.0414	-7					.0295	.0122	05/11/04	422592
1.0040	ī	·			-	.0141	.0054	06/16/04	423288
1.0224   1.0082   1.09/14/04   425012     1.0379   1.0104   1.1/22/04   426279     1.0130   1.0058   1.2/01/04   426448     1.0230   1.0082   1.2/07/04   426570     1.0467   1.0110   1.2/15/04   426664     1.005   1.0159   1.2/20/04   426795     1.005   1.0567   0.1/20/04   420413     1.2893   1.0831   0.2/03/04   420727     1.1664   1.0453   0.2/17/04   420974     1.2586   1.043   0.2/24/04   421137     1.3091   1.0605   0.5/11/04   422592	•	•				.0414	.0172	06/22/04	423433
1.0379						.0040	.0076	07/14/04	423850
.0130		•				.0224	.0082	09/14/04	425012
12/07/04   426570		•				.0379	.0104	11/22/04	426279
12/07/04   426570						.0130	.0058	12/01/04	426448
.1005 .0159 12/20/04 426795  K-40  .2071 .0567 01/20/04 420413 .2893 .0831 02/03/04 420727 .1664 .0453 02/17/04 420974 .2586 .0443 02/24/04 421137 .3091 .0605 05/11/04 422592					•	.0230		12/07/04	426570
.1005 .0159 12/20/04 426795  K-40  .2071 .0567 01/20/04 420413 .2893 .0831 02/03/04 420727 .1664 .0453 02/17/04 420974 .2586 .0443 02/24/04 421137 .3091 .0605 05/11/04 422592			•			.0467	.0110	12/15/04	426664
K-40  2071 .0567 01/20/04 420413 2893 .0831 02/03/04 420727 .1664 .0453 02/17/04 420974 .2586 .0443 02/24/04 421137 .3091 .0605 05/11/04 422592						.1005		12/20/04	426795
.2071 .0567 01/20/04 420413 .2893 .0831 02/03/04 420727 .1664 .0453 02/17/04 420974 .2586 .0443 02/24/04 421137 .3091 .0605 05/11/04 422592					K-40	•			
.1664 .0453 02/17/04 420974 .2586 .0443 02/24/04 421137 .3091 .0605 05/11/04 422592						.2071	.0567	01/20/04	420413
.2586 .0443 02/24/04 421137 .3091 .0605 05/11/04 422592						.2893	.0831	02/03/04	420727 ·
.2586 .0443 02/24/04 421137 .3091 .0605 05/11/04 422592						.1664	.0453	02/17/04	420974
.3091 .0605 05/11/04 422592					•	.2586		02/24/04	421137
		·				.3091	.0605	05/11/04	422592
			•					06/16/04	

Station 3204	Location LM-4 WB	Description 0.9 MILES SE	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA S	SCAN (GELI)				•
				K-40				
					.3808	.1266	06/22/04	423433
					.2295	.0385	07/14/04	423850
	•				.3513	.0558	08/11/04	424385
					.2804	.0649	09/14/04	425012
•		•		NO ACTIVIT	Y DETECTED			
	·				.0000	.0000	03/10/04	421349
					.0000	.0000	04/13/04	422010
					.0000	.0000	05/18/04	422756
	•	•			.0000	.0000	05/25/04	422898
-72-					.0000	.0000	06/02/04	423004
2-	•				.0000	.0000	06/08/04	423135
					.0000	.0000	06/30/04	423562
					.0000	.0000	07/06/04	423692
					.0000	.0000	07/20/04	423977
	·				.0000	.0000	07/28/04	424114 .
					.0000	.0000	08/03/04	424230
		•			.0000	.0000	08/17/04	424497 <sup>°</sup>
				•	.0000	.0000	08/31/04	424742
					.0000	.0000	09/08/04	424897
					.0000	.0000	10/20/04	425609
	•		,		.0000	.0000	10/26/04	425799
					.0000	.0000	11/03/04	425950
	•	•		PB-212				
					.0069	.0055	04/27/04	422371
					.0032	.0032	09/22/04	425110
					.0081	.0044	10/06/04	425398

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Station 3204	Location LM-4 WB	Description 0.9 MILES SE	<u>Analysis</u>	Nuclide .	Activity	<u>Error</u>	Date Collected	Lab Number
			GAMMA	SCAN (GELI)	• _	•		
				PB-212				
					.0075	.0044	10/12/04	425511
					.0014	.0052	11/09/04	426065
	·			PB-214				
					.0422	.0090	12/30/03	420102
					.0356	.0066	01/06/04	420209
	•				.0910	.0131	01/14/04	420297
					.1222	.0173	01/20/04	420413
				•	.0530	.0089	01/28/04	420610
					.0430 、	.0103	02/03/04	420727
-73-					.0312	.0073	02/11/04	420855
٣					.0736	.0153	02/17/04	420974
				•	.0355	.0074	02/24/04	421137
			•		.0582	.0095	03/02/04	. 421255
	•				.0228	.0075	03/16/04	421474
		•	٠.		.0108	.0051	03/23/04	421649
		•			.0252	.0076	03/30/04	421764
					.0424	.0078	04/06/04	421894
					.0174	.0055	04/20/04	422176
					.0201	.0082	04/27/04	422371
					.0401	.0092	05/05/04	422473
					.0276	.0101	05/11/04	422592
					.0519	.0129	06/22/04	423433
	•				.0167	.0085	07/14/04	423850
					.0175	.0066	08/11/04	424385
	•	•			.0124	.0068	08/24/04	424622
					.0328	.0103	09/14/04	425012

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Station 3204	Location LM-4 WB	<u>Description</u> 0.9 MILES SE	Analysis Nuclide	<u>Activity</u>	<u>Error</u>	Date Collected	<u>Lab Number</u>
020.	<u></u>	0.020 02	GAMMA SCAN (GELI) PB-214				
			FB-214 .	.0086	.0040	09/28/04	425250
				.0170	.0062	10/06/04	425398
				.0163	.0344	11/09/04	426065
				.0091	.0049	11/17/04	426158
			. •	.0429	.0118	11/22/04	426279
			•	.0208	.0060	12/01/04	426448
			·	.0692	.0152	12/07/04	426570
				.0478	.0076	12/15/04	426664
				.1166	.0200	12/20/04	426795
<del>-</del> 3205	RM-3 WB	15 MILES NNW				•	
44			GAMMA SCAN (GELI)				
		•	BI-214				•
				.0224	.0069	12/30/03	420105
			•	.1254	.0176	01/06/04	420212
				.0552	.0098	01/13/04	420299
			·	.0259	.0081	• 01/20/04	420416
				.0225	.0078	01/27/04	420613
				.0497	.0134	02/03/04	420730
		•		.0777	.0130	02/17/04	420977
				.0035	.0083	02/24/04	421140
		·	•	.0458	.0114	03/02/04	421258
			•	.0372	.0081	03/09/04	421351
				.0233	.0073	03/16/04	421477
		•	•	.0274	.0082	03/23/04	421652
				.0212	.0065	05/11/04	422595
				.0171	.0079	07/20/04	423980
		•					

Station 3205	Location RM-3 WB	Description 15 MILES NNW	<u>Analysis</u>	<u>Nuclide</u>	Activity	Error	Date Collected	<u>Lab Number</u>
			GAMMA S	SCAN (GELI)	•			
				BI-214	oro4	0400	40/07/04	
					.0581	.0109	12/07/04	426573
					.0240	.0077	12/14/04	426666
				14.40	.0448	.0105	12/20/04	426798
•				K-40	.2566	.0583	01/06/04	420212
	·				.1339	.0396	01/20/04	420416
				•	.2706	.0390	01/27/04	420410
					.2319	.0429	02/03/04	420730
•					.2374	.0656	02/24/04	421140
1					.1242	.0292	03/09/04	421351
-75-				•	.2708	.0680	05/11/04	422595
t					.2520	.0609	07/20/04	423980
				NO ACTIVITY DE		.0005	01120104	, 420300
	•			NO AONANTI DE	.0000	.0000	04/20/04	422179
	•				.0000	.0000	04/27/04	422374
					.0000	.0000	05/18/04	422759
	•			·	.0000	.0000	05/25/04	422901 <sup>°</sup>
,		•			.0000	.0000	06/01/04	423006
					.0000	.0000	06/08/04	423138
					.0000	.0000	06/15/04	423291
	• •				.0000	.0000	07/06/04	423695
					.0000	.0000	07/27/04	424116
	•				.0000	.0000	08/03/04	424233
					.0000	.0000	08/10/04	424388
					.0000	.0000	08/24/04	424624
					.0000	.0000	08/31/04	424745
	•							

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Station 3205	Location RM-3 WB	Description 15 MILES NNW	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA S	SCAN (GELI)				
	•			NO ACTIVIT	Y DETECTED	0000	00107104	40.4000
			•		.0000	.0000	09/07/04	424900 -
					.0000	.0000	09/14/04	425015
		•			.0000	.0000	09/21/04	425112
	•				.0000	.0000	09/28/04	425253
					.0000	.0000	10/05/04	425401
					.0000	.0000	10/26/04	425802
					.0000	.0000	11/02/04	425953
			•		.0000	.0000	11/08/04	426068
1					.0000	.0000	11/16/04	426160
-76-		,		•	.0000	.0000	11/22/04	426282
7		•	•		.0000	.0000	11/30/04	426451
				PB-212			•	
		•.			.0080	.0054	07/13/04	423853
					.0068	.0062	12/20/04	426798
	•			PB-214				
					.0297	.0070	12/30/03	420105
					.1483	.0146	01/06/04	420212
	·				.0481	.0105	01/13/04	420299
			•		.0305	.0096	01/20/04	420416
					.0292	.0107	01/27/04	420613
	_				.0838	.0135	02/03/04	420730
	·			•	.0227	.0067	02/10/04	420857
		·			.0846	.0123	02/17/04	420977
					.0491	.0073	03/02/04	421258
					.0322	.0070	03/09/04	421351
				•	.0046	.0045	03/16/04	421477

Station 3205	Location RM-3 WB	Description 15 MILES NNW	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
			GAMMA S	SCAN (GELI) PB-214		•		
				•	.0173	.0052	03/23/04	421652
					.0142	.0044	03/30/04	421767
					.0348	.0106	04/06/04	421896
					.0165	.0056	04/13/04	422013
		\		· •	.0298	.0072	05/04/04	422475
•		• •			.0366	.0082	05/11/04	422595
				•	.0112	.0063	06/22/04	423436
				,	.0403	.0098	06/29/04	423565
					.0288	.0073	08/17/04	424500
-77		•			.0201	.0088	10/12/04	425514
7					.0281	.0112	10/19/04	425611
					.0567	.0170	12/07/04	426573
					.0519	.0111	12/14/04	426666
				•	.0751	.0121	12/20/04	426798

## Table 3 RADIOACTIVITY IN ATMOSPHERIC MOISTURE WATTS BAR NUCLEAR PLANT PCI/M3 - 0.037 BQ/M3 12/29/2003 - 12/24/2004

Station 2116	Location RM-2 DAYTON TN	Description 15.0 MILES SW	Analysis			Activity	<u>Error</u>	Date Collected	Lab Number
			TRITIUM						
		•			-	.0622	.4327	01/06/04	420156
			•			.3379	· .3198	01/20/04	420360
	•					.2155 .	.3689	02/03/04	420674
					•	.1641	.3708	02/17/04	420922
		•	•		-	.0276	.4950	03/02/04	421203
				•		.7087	.5755 ·	03/16/04	421420
						.8173	.5634	03/30/04	421711
					-	.0786	.6184	04/27/04	422299
			•		•	.3633	.6382	05/11/04	422538
-78-		•				1.5617	.8939	05/25/04	422846
ĩ		•				1.2560	1.0174	06/08/04	423081
		•			•	.6912	1.3196	06/22/04	423380
		•				.8062	1.2303	07/06/04	423638
				•		2.1741	1.1556	07/20/04	423924
					•	3.2346	1.2175	08/03/04	424177
						1.3619	.9577	08/17/04	424444
						2.6445	1.3288	08/31/04	424688
		•				1.3747	1.1331	09/14/04	424959 <sup>°</sup>
	•				-	.7047	.9535	09/28/04	425197
						1.3500	.8274	10/12/04	425459
					-	.1696	.7425	10/26/04	425733
						.0813	.8137	11/08/04	426012
						.4772	.5940	11/22/04	426225
		•			-	.0286	.4900	12/07/04	426518
						.3844	.4871	12/20/04	426741

## Table 3° RADIOACTIVITY IN ATMOSPHERIC MOISTURE WATTS BAR NUCLEAR PLANT PCI/M3 - 0.037 BQ/M3 12/29/2003 - 12/24/2004

Station 3101	Location LM1	Description 0.5 MILES SSW	Analysis · TRITIUM	Nuclide	Activity	<u>Error</u>	Date Collected	<u>Lab Number</u>
	•	•			.3517	.4368	01/06/04	420178
		•			.5335	.3329	01/20/04	420388
					.2498	.3530	02/03/04	420697 -
					.8488	.3983	02/17/04	420950
	·				1.4694	.5180	03/02/04	421225
		•			1.1537	.5676	03/16/04	421450
					1477	.5381	03/30/04	421734
			•		.5516	.4796	04/13/04	421986
		• '			.9641	.6441	04/27/04	422338
-79-				٠.	<b>-</b> . <b>.</b> 2526	.6423	05/11/04	422568
Ψ		•	•		1.8056	.8718	05/25/04	422868
	,				.4850	1.0478	06/08/04	423111
	•	•			1954	1.2604	06/22/04	423402
					2035	1.1981	07/06/04	423668
					1.8517	1.1961	07/20/04	423947
					2.5779	1.1832	08/03/04	424206
					8537	.9065	08/17/04	424467
					1.9588	1.2848	08/31/04	424717
					1.4943	1.1305	09/14/04	424982
					2.7091	1.5577	09/28/04	425226
					4.5279	1.2022	10/12/04	425481
				•	3058	.8221	10/26/04	425772
					1.6964	.9482	11/08/04	426035
					1.1446	.8353	11/22/04	426255
					.4240	.5283	12/07/04	426540
					1.2607	.5989	12/20/04	426771

## Table 3 RADIOACTIVITY IN ATMOSPHERIC MOISTURE WATTS BAR NUCLEAR PLANT PCI/M3 - 0.037 BQ/M3 12/29/2003 - 12/24/2004

Station 3102	<u>Location</u> LM2	<u>Description</u> 0.5 MILES N	Analysis TRITIUM	<u>Nuclide</u>	<u>Activity</u>	Error .	Date Collected	<u>Lab Number</u>
					.7603	.4357	01/06/04	420182
					.1655	.3195	01/20/04	420392
					.1943	.3326	02/03/04	420701
		•			1111	.3658 .	02/17/04	420954
	•				.4882	.4789	03/02/04	421229
			•		1.0981	.5652	03/16/04	421454
			•		.8127	.5293	03/30/04	421738
	·				.8863	.4577	04/13/04	421990
				•	.5779	.6330	04/27/04	422342
, 60					.6809	.6582	05/11/04	422572
-80-					1.6332	.8735 ·	05/25/04	422872
					1.8315	1.0418	06/08/04	423115
	,				.6372	1.3062	06/22/04	423406
				•	3412	1.2037	07/06/04	423672
					2.0077	1.1306	07/20/04	423951
					2.2349	1.1821	.08/03/04	424210
					1.6883	.9795	08/17/04	424471 .
	•				2.5390	1.3561	08/31/04	424721
				•	.2097	1.1167	09/14/04	424986
		·			1.5998	.9726	09/28/04	425230
				•	2.6985	.9060	10/12/04	425485
					1.0044	.7731	10/26/04	425776
			•		1.8370	.8331	11/08/04	426039
					2.1205	.6763	11/22/04	426259
					.3333	.4932	12/07/04	426544
		•		•	1.0358	.5580	12/20/04	426775

Station 3106	Location PM2 SPRING CITY	Description 7.0 MILES NW	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
			TRITIUM					
	•				.3901	.4326	01/06/04	420185
			•		0389	.3139	01/20/04	420395
	•				.3874	.3659	02/03/04	420704
					1243	.3748	02/17/04	420957
					1523	.4689	03/02/04	421232
			•		.6597	.5547	03/16/04	421457
•					.0786	.53 <u>,</u> 13	03/30/04	421741
					.4052	.4663	04/13/04	421993
r					2412	.5869	04/27/04	422345
-81-					.4165	.6330	05/11/04	422575
Ťt.					1.3958	.8316	05/25/04	422875
	•				1.3048	1.0121	06/08/04	423118
			•		1.2629	1.2908	06/22/04	423409
					.9823	1.1791	07/06/04	423675
					.4034	1.0592	07/20/04	423954
					1.5838	1.0971	08/03/04	424213
					1.7427	.9515	08/17/04	424474
		•			1.0821	1.2028	08/31/04	424724
					.9661	.9243	09/28/04	425233
			•		1.3521	.7722	10/12/04	425488
					2051	.7175	10/26/04	425779
					.8233	.7755	11/08/04	426042
					.6877	.5799	11/22/04	426262
					3188	.4716	12/07/04	426547
					.8294	.5143	12/20/04	426778

Station 3109	Location PM5 DECATUR	Description 6.2 MILES S	<u>Analysis</u>	<u>Nuclide</u>		Activity	Error	Date Collected	<u>Lab Number</u>
0105	T MO DEO/TOTO	o.z wieco o	TRITIUM					•	
			·			.0427	.3724	01/07/04	420192.
					, <b>-</b>	.1161 ·	.3110	01/21/04	420402
						.2290	.4695	02/04/04	420711
						<sup>1</sup> .0314	.3811	02/18/04	420964
					-	.0945	.4694	03/03/04	421239
						1.1870	.5647	03/17/04	421464
						.1952	.5330	03/31/04	421748
	•				-	.0991	.4691	04/14/04	422000
	•	•			-	.8230	.6341	04/28/04	422352
-82-				•	•	.5826	.6933	05/12/04	422582
ij	•					1.3917	.9038	05/26/04	422882
•		•				.7252	1.1186	06/09/04	423125
•					-	1.2948	1.3602	06/23/04	423416 .
	•				-	1.2865	1.2697	07/07/04	423682
	•					.9992	1.2087	07/21/04	423961
						1.4471	1.1852	08/04/04	424220
						2.2754	.9770	08/18/04	424481
		•				.4588	1.3011	09/01/04	424731
					-	.3730	1.0668	09/15/04	424996
						1.0466	1.0013	09/29/04	425240
						2.8109	1.0905	10/13/04	425495
						.0710	.7142	10/27/04	425786 ·
						1.1757	.8106	11/08/04	426049
				•		.4478	.5575	11/22/04	426269
					-	.6641	.4454	12/08/04	426554
		•			-	.0429	.4620	. 12/20/04	426785

Station 3203	Location LM3	Description 1.9 MILES NNE	<u>Analysis</u>	<u>Nuclide</u>	Activity	Error	Date Collected	Lab Number
			TRITIUM					
					.1842	.4174	01/06/04	420205
					1521	.3232	01/20/04	420409
		•			.0822	.3453	02/03/04	420723
		•			2575	.3714	02/17/04	420970
		•			.4051	.4722	03/02/04	421251
					.1031	.4638	03/16/04	421470
					.5925	.4671	03/30/04	421760
					.6758	.4075	04/13/04	422006
					.3394	.5188	04/27/04	422367
-83-	•				.4033	.4965	05/11/04	422588
ĩ					1.4954	.6409	05/25/04	422894
		•			.0350	1.1989	06/08/04	423131
					1.1140	1.0521	06/22/04	423429
					.7710	1.1525	07/07/04	423688
			•		1.9392	1.2417	07/20/04	423973
	: ·				.4265	1.0647	08/03/04	424226
		•			1.9108	.9058	08/17/04	424493
					1.2004	1.1084	08/31/04	424738
				•	.4537	.9570	09/14/04	425008
					.3368	· .8905	09/28/04	425246
				•	3.2633	1.1429	10/12/04	425507
					1.1414	.5937	10/26/04	425795
					.7362	.6597	11/09/04	426061
					1.1560	.5939	11/22/04	426275
					5637	.4572	12/07/04	426566
	•			•	.6369	.4742	12/20/04	426791

Station 3204	Location LM-4 WB		Description 0.9 MILES SE	Analysis TRITIUM	Nuclide	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
						.2243	.4506	01/06/04	420208
			•			- 1.6816	1.0691	01/20/04	420412
						1803	.3538	02/03/04	420726
						2948	.4088	02/17/04	420973
				•		.2071	.5047	03/02/04	421254
				•		.6129	.5832	03/16/04	421473
		•		•	·	.4544	.5689	03/30/04	421763
					•	.1854	.4588	04/13/04	422009
•					· ·	2420	.6327	04/27/04	422370
-84-			•			.5039	.7056	05/11/04	422591
T		•				~ 2.4034	.8942	05/25/04	422897
			•			1.3921	1.1534	06/08/04	423134
						1.9209	1.4654	06/22/04	423432
						.4301	1.3922	07/06/04	423691
				•		1.3876	1.3928	07/20/04	423976
			•			2.4275	1.2574	08/03/04	424229
						1.3857	1.0353	08/17/04	424496
						1.7545	1.3161	08/31/04	424741
						1.6915	1.1405	09/14/04	425011
,						.0884	1.0071	09/28/04	425249
						3.1653	1.0865	10/12/04	425510
	• •					.7898	.7664	10/26/04	425798
						.6127	.8061	11/09/04	426064
		•				1.6848	.7004	11/22/04	426278
						2443	.4898	12/07/04	426569
						.9950	.5157	12/20/04	426794

Station 3205	Location RM-3 WB	Description 15 MILES NNW	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
			TRITIUM				•	
			•		.1079	.3976	01/06/04	420211.
					5665	.2951	01/20/04	420415
					.0777	.3262	02/03/04	420729
					1194	.3324	02/17/04	420976
					.7838	.4752	03/02/04	421257
					.6904	.5289	03/16/04	421476
			•		0172	.5028	03/30/04	421766
	•			•	.1683	.4471	04/13/04	422012
	•	,			1863	.7750	04/27/04	422373
-85-					0443	.6110	05/11/04	422594
51					.1905	.7847	05/25/04	422900
•					.2806	1.0170	06/08/04	423137
•	•				.2225	1.2210	06/22/04	423435
•	•				6542	1.1501	07/06/04	423694
					2.1454	1.0947	07/20/04	423979
					1.4014	1.0739	08/03/04	424232
					.1149	.8519	08/17/04	424499
•					.3167	1.1956	08/31/04	424744
					.9699	1.0495	09/14/04	425014
					.6197	· .9124	09/28/04	425252
					1.0849	.7446	10/12/04	425513
					3984	.6946	10/26/04	425801 ·
					.5851	.7428	11/08/04	426067
					.7877	.5734	11/22/04	426281
					.1044	.4495	12/07/04	426572
					.5269	.5037	12/20/04	426797

Station 2215	Location KYLE FARM	Description 11.6 MILES ENE	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
			IODINE-1	131	•			
					.0563	.0679	01/07/04	420161
					.0303	.0506	01/21/04	420371
					.0651	.0679	02/03/04	420679
					.0650	.0678	02/17/04	420933
					.0346	.0578	03/02/04	421208
	•				.0001	.0695	03/16/04	421433
					.0897	.1082	03/30/04	421717
					.0733	.0885	04/13/04	421969
	grave .				.0001	.0899	04/27/04	422309
-86-					.0136	.0508	05/11/04	422550
ĭ			•		0211	.0495	05/25/04	422851
		•			0245	.0735	06/08/04	423094
					.0075	.0479	06/22/04	423385
					.0075	.0483	07/06/04	423650
		•			.0001	.0723	07/20/04	423930
					.0250	.0750	08/03/04	424188.
					.0575	.0600	08/17/04	424450
					.0001	.0625	09/01/04	424700
					.0071	.0456	09/14/04	424965
	•				.0605	.0631	09/28/04	425208
	•				.0629	.0656	10/12/04	425464
					.0608	.0634	10/26/04	425750
	•				.0067	.0432	11/09/04	426017
					.0719	.0867	11/22/04	426238
	·				.0079	.0508	12/07/04	426523
	•				.0118	.0440	12/20/04	426754

Station 2215	Location KYLE FARM	Description 11.6 MILES ENE	<u>Analysis</u>	<u>Nuclide</u>	. <u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
•			GAMMA :	SCAN (GELI) AC-228				
				AO-220	8.4011	3.7461	09/28/04	425208
			•	BI-214				
					22.4381	4.1762	01/07/04	420161
					9.5438	3.1048	01/21/04	420371
		,			25.4461	4.0112	02/03/04	420679
•		•	•		20.8468	3.5659	02/17/04	420933
		•			21.4425	4.3122	03/02/04	421208
					19.0315	4.1598	03/16/04	421433
					12.6222	3.7516	03/30/04	421717
-87-		•			5.8139	2.3109	04/13/04	421969
7-					7.5039	2.7791	04/27/04	422309
					1.0225	9.9988	05/11/04	422550
					.6773	2.6776	05/25/04	422851
					.0155	3.7573	06/08/04	423094
					6.2848	2.9607	08/03/04	424188
					.6276	2.8413	09/01/04	424700
					5.8867	3.1914	09/14/04	424965
					7.6786	3.3872	09/28/04	425208
	•				.3223	2.5972	10/12/04	425464
					5.0575	2.6946	11/09/04	426017
					12.6326	3.3245	11/22/04	426238
					45.9720	4.9817	12/07/04	426523
					15.2818	3.9223	12/20/04	426754
	•			K-40				
					1297.4833	90.3850	01/07/04	420161
`					1286.8109	106.8290	01/21/04	420371

Station 2215	Location KYLE FARM	Description 11.6 MILES ENE	Analysis	<u>Nuclide</u>	<u>Activity</u>	<u>Error</u>	Date Collected	<u>Lab Number</u>
			GAMMA :	SCAN (GELI) K-40				
				K-40	1301.0713	101.4530	02/03/04	420679
					1284.6746	84.9415	02/17/04	420933
					1300.4766	89.1478	03/02/04	421208
					1336.7333	82.4498	03/16/04	421433
					1250.8291	79.3276	03/30/04	421717
	• •				1341.3776	84.9932	04/13/04	421969
					1262.9793	105.1056	04/27/04	422309
					1274.7544	• 92.1559	05/11/04	422550
•	•				1226.9035	87.0960	05/25/04	422851
-88-					1410.0203	93.9395	06/08/04	423094
8					1314.6889	93.5920	06/22/04	423385
					1227.6095	86.7247	07/06/04	423650
					1470.4886	86.6989	07/20/04	423930
				•	1315.1769	82.6776	08/03/04	424188
	•				1435.3056	89.5343	08/17/04	424450
	•				1397.2562	90.3469	09/01/04	424700
					1432.6417	91.0389	09/14/04	424965
					1409.9649	92.6788	09/28/04	425208
					1464.8740	96.3334	10/12/04	425464
	•				1315.5942	91.3659	10/26/04	425750
		•			1346.3547	93.5593	11/09/04	426017
	•				1318.8877	86.5334	11/22/04	426238
					1215.2269	85.6365	12/07/04	426523
					1293.7830	87.1207	12/20/04	426754
				PB-212				
	•				1.7422	2.0279	01/21/04	420371

Station 2215	Location KYLE FARM	Description 11.6 MILES ENE	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
	, , , , <u> </u>	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	GAMMA :	SCAN (GELI)				
				PB-212	•			
					.6227	3.8394	02/17/04	420933
					.0839	2.3052	03/02/04	421208
					3.1966	2.9564	05/11/04	422550
					2.3932	1.6325	05/25/04	422851
	•		•	PB-214				
		_			11.2755	2.6264	01/07/04	420161
					3.2487	2.8409	01/21/04	420371
•				•	19.3249	2.8919	02/03/04	420679
	•	•			20.8275	4.9503	02/17/04	420933
-89-					13.8513	4.2051	03/02/04	421208
Ψ.					15.6015	3.4641	03/16/04	421433
					11.9549	3.3077	03/30/04	421717
					3.2754	2.6514	04/13/04	. 421969
					1.8373	3.0280	04/27/04	422309
			•		1.3390	3.6448	08/03/04	424188
		•			5.1577	4.7002	09/14/04	424965
					2.0537	2.7278	09/28/04	425208
•					1.9830	3.0709	11/09/04	426017
	·				10.8460	3.5779	11/22/04	426238
					21.8903	3.3602	12/07/04	426523
		•			3.9265	2.3330	12/20/04	426754
				TL-208				
	•				.4740	.8426	06/22/04	423385
	•				.1600	.9902	07/20/04	423930
					.5909	1.5762	08/17/04	424450

				•			
Station	Location	Description	Analysis Nuclide	. <u>Activity</u>	Error	Date Collected	Lab Number
. 2215	KYLE FARM	11.6 MILES ENE	SR 89				
				2595	.7672	03/16/04	421433
				.3041	.7524	05/25/04	422851
				0305	1.2062	08/17/04	424450
	•			• 1.7343	.7984	11/09/04	426017
			SR 90			. ,,	
	•			.8467	.5051	03/16/04	421433
				.4420	.4910	05/25/04	422851
				.9272	.7601	08/17/04	424450
-9			•	0820	.4286	11/09/04	426017
6 - 2263	E. HOUSLEY FARM	24 MILES SSW				•	
	•		IODINE-131				
		•	•	.0065	0414	01/07/04	420176
			•	.0407	.0706	01/21/04	420386
			•	.0471	.0818	. 02/04/04	420694
	•			0722	.0871	02/18/04	420948
			•	.0617	.0582	03/03/04	421223
	. •			.0579	.0546	03/17/04	421448
		•		.0455	.0789	03/31/04	421732 ·
				.0118	.0440	04/14/04	421984
		•		0178	.0417	04/28/04	422329
			•	.0109	.0407	05/12/04	422566
		,	•	0164	.0517	05/26/04	422866
			•	.0001	.0785	06/09/04	423109
				.0442	.0767	06/23/04	423400
	•			0309	.0927	07/07/04	423665
	•						

Station 2263	Location E. HOUSLEY FARM	Description 24 MILES SSW	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error '	Date Collected	<u>Lab Number</u>
2200	L. 11000LL 1 7 1 1 1 1	24 WILLO 00W	IODINE-1	31	•			
					.0001	.0706	07/21/04	423945
					.0071	.0454	08/04/04	424204
					.0224	.0744	08/18/04	424465
ē					.0339	.0481	09/01/04	424715
	•				.0649	.0783	09/15/04	424980
					0177	.0416	09/29/04	425224
					0488	.0692	10/13/04	425479
		•			.0389	.0551	10/27/04	425769
	·				.0327	.0463	11/08/04	426033
-91-					0115	.0257	11/22/04	426253
Ť					.0421	.0730	12/08/04	426538
		~			.0317	.0530	12/20/04	426769
	·		GAMMA S	SCAN (GELI)		•		
				AC-228	4.8704	3.7858	10/27/04	425769 <sup>°</sup>
				BI-214	4.6704	3.7000	10/2/104	423709
				DI-2 14	41.7595	5.6106	01/07/04	420176
	·				9.2678	2.6815	01/21/04	420386
					16.6096	3.3526	02/04/04	420694
		•			29.1213	4.5721	02/18/04	420948
		•	•		13.8569	3.6412	03/03/04	421223
	-	•		•	23.2093	3.8504	03/17/04	421448
	•				14.3795	3.2341	03/31/04	421732
					7.1294	3.1926	04/14/04	421984
					6.0774	3.2564	04/28/04	422329
					3.7601	2.4419	06/09/04	423109
	•							

							•	
Station 2263	Location E. HOUSLEY FARM	Description 24 MILES SSW	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
			GAMMA	SCAN (GELI)				
	•			BI-214	•			
					1.3138	3.0117	07/07/04	423665 .
					4.6936	3.2707	08/04/04	424204
					9.2597	8.3693	08/18/04	424465
	•				4.9609	3.1668	09/01/04	424715
					5.1386	2.2826	09/15/04	424980
					10.2104	3.2405	09/29/04	425224
					9.7090	3.7121	10/13/04	425479
					3.2539	2.3860	10/27/04	425769
					8.8750	3.2803	11/08/04	426033
-92-	• ,			•	20.3954	4.2804	11/22/04	426253
ĭ	•		_	•	8.4441	3.1571	12/08/04	426538
				•	6.7886	3.1845	12/20/04	426769
		•		K-40	•			•
		•			1280.5754	91.6613	01/07/04	420176
	•				1386.1444	76.9279	01/21/04	420386
					1326.4385	104.2654	02/04/04	420694
	•			•	1528.3446	103.1929	02/18/04	420948
_					1244.8401	92.0604	03/03/04	421223
					1454.3677	89.8009	03/17/04	421448
					1577.2895	92.9392	03/31/04	421732
					1291.8704	96.0581	04/14/04	421984
				•	1308.1196	95.7495	04/28/04	422329
	•				1504.5008	97.4206	05/12/04	422566
					1320.9812	107.4028	05/26/04	422866
			•	•	1264.7742	80.6096	06/09/04	423109
				•	1340.2490	91.1931	06/23/04	423400
	•							

Station 2263	Location E. HOUSLEY FARM	Description 24 MILES SSW	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA S	SCAN (GELI) K-40				
		•		10-40 .	1324.0087	80.1163	07/07/04	423665
					1274.6155	92.9097	07/21/04	423945
	•				1422.8002	102.0936	08/04/04	424204
					1290.2631	90.9036	08/18/04	424465
				. •	1429.2564	95.7306	09/01/04	424715
					1230.8033	74.3679	09/15/04	424980
					1297.9839	90.1159	09/29/04	425224
•					1385.4414	88.2823	10/13/04	425479
		•			1379.8627	95.3823	10/27/04	425769
-93-				•	1358.0068	90.4082	11/08/04	426033
Ť					1448.8072	87.8910	11/22/04	426253
					1343.6409	109.3563	12/08/04	426538
				•	1344.4232	84.0392	12/20/04	426769
•	•			PB-212				
					1.1236	2.2926	02/04/04	420694
	•	·			.7301	1.5698	07/21/04	423945
				•	2.5518	1.9692	08/18/04	424465
	_			PB-214				
	·				24.3053	5.4171	01/07/04	420176
					10.4647	3.1619	01/21/04	420386
	•				13.1189	3.7925	02/04/04	420694
				•	19.7801	4.0919	02/18/04	420948
					13.7568	3.8922	03/03/04	421223
	•		•		20.6740	4.2380	03/17/04	421448
					7.3003	3.0701	03/31/04	421732
	•				4.7998	3.2685	04/14/04	421984

Station 2263	Location E. HOUSLEY FARM	Description 24 MILES SSW	<u>Analysis</u>	Nuclide	Activity	Error	Date Collected	Lab Number
		•	GAMMA	SCAN (GELI) PB-214				
•				FD-214	3.4233	2.9133	04/28/04	422329
			•		6.9326	2.9790	06/09/04	423109
					3.4521 .	2.8694	08/04/04	424204
					.0627	2.9817	08/18/04	424465
					4.0508	3.0302	09/01/04	424715
		•	•		8.7542	4.2763 ·	09/15/04	424980
					7.2420	2.8085	09/29/04	425224
					6.8426	3.0260	10/13/04	425479
	·		•	•	.9629	3.2006	10/13/04	425769
1					.0859	2.4864	11/08/04	426033
-94-	•				11.6959	2.2554	11/22/04	426253
r					7.1333	2.9430	12/08/04	426538
	•				2.9854 ·	3.6210	12/20/04	426769
				TL-208	2.3054	3.0210	12/20/04	420103
				14-200	, 1.1350	1.1358	11/08/04	426033
	•		SR 89		, 1.1000	. 1.1000	11700704	420000
			011 03	•				
	•				<i>-</i> .1245	.7371	03/17/04	421448
					.9021	1.2404	05/26/04	422866
					2327	.9481	08/18/04	424465
					1.3337	.8900	11/08/04 .	426033
			SR 90					
			•		.7538	.4886	03/17/04	421448
					.2385	.7291	05/26/04	422866
	•				1.0571	.6321	08/18/04	424465
					.7626	.4851	11/08/04	426033
	•						•	

Station 3115	Location LAYMAN FARM	<u>Description</u> 1.3 MILES SSW	Analysis Nuclide	Activity	Error	Date Collected	Lab Number
			IODINE-131				
		•		0113	.0357	01/06/04	420194 ·
		•		0215	.0646	01/20/04	420404
				.0515	.0730	02/03/04	420713 ·
				.0124	.0464	02/17/04	420966
	•			.0001	.0759	03/02/04	421241
				.0716	.0863	03/16/04	421466
				.0572	.0540	03/30/04	421750
•		·	•	.0249	.0825	04/13/04	422002
				.0131	.0489	04/27/04	422354
1 (0			•	· .0342	.0484	05/11/04	422584
-95-		·	•	.0093	.0597	05/25/04	422884
·		•	•	0513	.0727	06/08/04	423127
				.0330	.0551	06/22/04	423418
		·		.0562	.0586	07/06/04	423684
		• .		0136	.0432	07/20/04	423963
				.0712	.0859	08/03/04	424222
		•		0119	.0376	08/17/04	424483
				0123	.0388	08/31/04	424733
				.0574	.0598	09/14/04	424998
				.0685	.0826	09/28/04	425242
				.0141	.0527	10/12/04	425497
			•	.0722	.0871	10/26/04	425788
				.0368	.0522	11/09/04	426051
		•		.0611	.0737	11/22/04	426271
				0121	.0381	12/07/04	426556
			•	.0331	.0470	12/20/04 .	426787

							•	
Station 3115	Location LAYMAN FARM	Description 1.3 MILES SSW	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA S	GCAN (GELI) AC-228				
					8.3555	4.7348	02/03/04	420713
					5.8060	4.5120	03/02/04	421241
					4.3517	3.2917	06/08/04	423127
					7.7923	4.5173 ·	07/20/04	423963
					4.9887	4.1298	09/28/04	425242
		•	·.	BI-214			•	
			•		24.6570	4.1918	01/06/04	420194
				•	26.3071	5.4767	01/20/04	420404
					21.3366	3.8730	02/03/04	420713
-96-	•		•		22.1284	4.4379	02/17/04	420966
6-					13.8283	9.0504	03/02/04	421241
					12.4312	3.7601	03/16/04	421466
					19.1467	4.2301	03/30/04	421750
					3.7950	2.3294	04/13/04	422002
					9.5171	2.7890	04/27/04	422354
	•				9.0771	3.5748	-05/11/04	422584
	•	•			.2749	7.9429	06/08/04	423127
					2.4801	9.2588	06/22/04	423418
				•	1.8787	3.5132	08/03/04	424222
					3.0602	2.9292	08/17/04	424483
					1.7779	9.5517	08/31/04	424733
					7.1897	3.1812	09/14/04	424998
	•		•		2.4925	3.8332	10/12/04	425497
					2.1809	2.5796	10/26/04	425788
					. 4.0098	3.3267	11/09/04	426051
				•	7.0652	3.6768	11/22/04	426271
								•

Station 3115	Location LAYMAN FARM	Description 1.3 MILES SSW	<u>Analysis</u>	Nuclide	Activity	<u>Error</u>	Date Collected	<u>Lab Number</u>
			GAMMA S	SCAN (GELI) BI-214				•
				DI-214	12,7003	3.9425	12/07/04	426556
			•		4.3543	3.5396	12/20/04	426787
		•	•	K-40				
	,				1449.6373	98.4345	01/06/04	420194
	·		•		1292.1436	95.4047	01/20/04	420404
					1423.7212	87.5770 ·	02/03/04	420713
					1401.0197	95.8081	02/17/04	420966
					1332.6429	87.8398	03/02/04	421241
					1472.8322	95.1783	03/16/04	421466
1		•			1446.9852	92.8202	03/30/04	421750
-97-	•				1504.8396	117.9663	04/13/04	422002
•					1326.0247	97.4637	04/27/04	422354
					1400.7105	97.5951	05/11/04	422584
					1377.0620	103.5756	05/25/04	422884
			•		1420.7543	94.1244	06/08/04	423127
					1294.8493	99.6041	06/22/04	423418
					1371.5760	96.2175	07/06/04	423684
		•			1293.7567	90.3905	07/20/04	423963
					1273.3333	99.5356	08/03/04	424222
		•			1366.0467	94.8735	08/17/04	424483
					1418.3152	88.4783	08/31/04	424733
					1477.5047	90.6713	09/14/04	424998
		•			1509.9497	92.2226	09/28/04	425242
					1342.2178	82.7881	10/12/04	425497
					1491.8341	108.9000	10/26/04	425788
					1420.2082	90.2270	11/09/04	426051

Station 3115	Location LAYMAN FARM	Description 1.3 MILES SSW	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA S	SCAN (GELI) K-40			•	
				•	1433.9658	84.6843	11/22/04	426271·
					1434.8509	98.8745	12/07/04	426556
	•				1392.3953	80.7874	12/20/04	426787
				PB-214		•		
					16.8838	3.9511	01/06/04	420194
			•		13.1603	3.3079	01/20/04	. 420404
	•				· 25.2315	3.4895	02/03/04	420713
	•		•		16.5311	4.8803	02/17/04	420966
	•	•			5.4497	3.3419	03/02/04	421241
1 6					8.8240	3.0491	03/16/04	421466
-98-					13.8068	2.7858	03/30/04	421750
•				•	5.1712	3.4794	04/13/04	422002
			• •		10.5910	3.9934	04/27/04	422354
	•				3.9266	2.8939	05/11/04	422584
					.7876	2.0043	06/08/04	423127
					1.7440	3.5602	08/03/04	424222
					3.6787	3.2547	08/17/04	424483
					.5025	3.3949	08/31/04	424733
					5.3591	2.5625	09/14/04	424998
					1.9476	2.6570	09/28/04	425242
	•				.7678	2.4418	10/12/04	425497
					2.0356	4.2822	11/09/04	426051 ·
					15.2594	3.5406	12/07/04	426556
					5.6572	2.3928	12/20/04	426787

Station 3115	Location LAYMAN FARM	Description	Analysis Nuclide	Activity	Error	Date Collected	Lab Number
3115	LATMAN FARM	1.3 MILES SSW	SR 89				
	·			.4956	.8108	03/16/04	421466
				8254	.7573	05/25/04	422884
				1.5945	1.0156	08/17/04	424483
			-	1957	1.1100 -	11/09/04	426051
			SR 90 <sub>.</sub>				
			•	.2647	.5273	03/16/04	421466
				1.0494	.5108	05/25/04	422884
	•			0449	.6469	. 08/17/04	424483
1.				1.6199	.6148	11/09/04	426051
چۇ 3116	<b>MULLINS FARM</b>	3.7 Miles ESE				•	
'			IODINE-131		•		
				.0001	.0647	01/07/04	420196
		•		.0115	.0432	01/21/04	420405
				0130	.0412	02/04/04	420715
				.0768	.0801	02/18/04	420967
	•			.0644	.0608	03/03/04	421243
			_	.0126	.0471	03/17/04	421467
			•	.0587	.0554	03/31/04	421752
				.0638	.0602	04/14/04	422003
				0074	.0329	04/28/04	422356
			•	0166	.0389	05/12/04	422585
			•	.0770	.0727	05/26/04	422886
				.0577	.0601	06/09/04	423128
			•	0412	.0584	06/23/04	423420
			•	.0124	.0464	07/07/04	423685

	•							
Station	Location	Description	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
3116	MULLINS FARM	3.7 Miles ESE	IODINE-13	31 .		•		•
•					.0219	.0725	07/21/04	423965
			•		.0306	.1014	08/04/04	424223
					.0074	.0471	08/18/04	424485
					0165	.0388	09/01/04	424734 ·
			•		.0222	.0736	09/15/04	425000
					.0707	.0667	09/29/04	425243
					.0701	.0731	10/13/04	425499
		ě		•		0440	10/13/04	425499 425789
				•	10.00			
					.0136	.0508	11/08/04	426053
10	• •				0200	.0470	11/22/04	426272
-100-		•			.0109	.0409	12/08/04	426558
•	•				.0316	.0529	12/20/04	426788
				SCAN (GELI)				
			•	AC-228	.5.5831	4.8809	03/31/04	421752
			•		4,0777	4.3014	04/28/04	421752
								423420
					4.4793	3.7395	06/23/04	
				DI 040	5.7353	3.8527	11/22/04	426272
				BI-212	38.7311	11.7684	05/12/04	422585
				DI 044	30.7311	11.7004	03/12/04	422303
				BI-214	16.2252	3.6406	01/07/04	420196
•	• •				1.4411	4.1344	01/21/04	420405
	•				18.4006	5.6035	02/04/04	420405
	·					3.5494	02/04/04 02/18/04	420715 420967
				•	14.5265			
				•	<b>7.0482</b> ·	3.2287	03/03/04	421243

Station 3116	Location MULLINS FARM	Description 3.7 Miles ESE	<u>Analysis</u>	Nuclide	<u>Activity</u>	<u>Error</u>	Date Collected	Lab Number
			GAMMA :	SCAN (GELI)			•	
				BI-214			******	
				•	3.6147	2.6817	03/17/04	421467
					4.9997	4.8537	03/31/04	421752
					6.5764	3.0733	04/14/04	422003
					9.3569	3.1729	04/28/04	422356
					3.4264	3.1860	05/12/04	422585
	•		•		6.4211	10.1221	05/26/04	422886
	•				.0364	2.8780	06/09/04	423128
	•				.5158	11.1429	06/23/04	423420
	•	•	•		3.4088	7.2150	07/21/04	423965
-101-	•				4.1704	3.4641	08/18/04	424485
01					6.8658	. 2.5662	09/15/04	425000
١.					9.1366	2.5476 ·	09/29/04	425243
		•			2.9607	2.4350	11/08/04	426053
	•				14.5334	4.4990	11/22/04	426272
		•			26.8999	4.3486	12/08/04	426558
					18.5282	3.9921	12/20/04	426788
				K-40				
			•		1456.4646	89.3230	01/07/04	420196
					1346.9763	104.3911	01/21/04	420405
					1371.8355	86.5962	02/04/04	420715
					1363.4524	89.6216	02/18/04	420967
					1404.9898	86.2506	03/03/04	421243 ·
					1353.7573	106.1062	03/17/04	421467
					1354.8087	111.5110	03/31/04	421752
•					1329.1881	87.8324	04/14/04	422003
					1371.5893	84.4960	04/28/04	422356

Station	Location	<u>Description</u>	<b>Analysis</b>	<u>Nuclide</u>	Activity	Error	Date Collected	Lab Number
3317	YP-17	YARD POND			•			•
			GAMMA S	SCAN (GELI)	•			
				SB-125				
					.0387	.0098	12/02/04	422383
				TL-208			•	
					.2963	.0181	12/02/04	422383

Station 3316	Location YP-16	Description YARD POND	Analysis Nuc	<u>clide</u>	Activity	Error	Date Collected	Lab Number
	11-10	TARD I GIVD	GAMMA SCAN	N (GELI) -214				
					.6801	.0614	12/02/04	422381
			RA-	-224	.9280	.1352	12/02/04	422381
•			. SB-	-125	.0884	.0115	12/02/04	422381
			TL-	208	•			
3317	YP-17	YARD POND			.2851	.0168	12/02/04	422381
33.,			GAMMA SCAN	N (GELI) -228				
-103-					.9318	.0642	12/02/04	422383
$\frac{3}{2}$			BE-	.7	.3755	.0666	12/02/04	422383
•			BI-2	212	.8987	.0897	12/02/04	422383
			Bl-2	214	•			
			CO-	-60	.7265	.0403	12/02/04	422383
	•			-137	.0552	.0072	12/02/04	422383
					.0527	.0066	12/02/04	422383
			K-4	0	10.5791	.5439	12/02/04	422383
	•		PB-	212	.9695	.0507	12/02/04	422383
	•		PB-	214			·	
					.7970 ·	.0411	12/02/04	422383

Station	Location	<u>Description</u>	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
3313	YP-13	YARD POND	GAMMA	SCAN (GELI) PB-212				
					1.2064	.0618	12/02/04	422380
				PB-214	.9437	.0491	12/02/04	422380
				RA-224	1.3429	.1966	12/02/04	422380
				TL-208				
3316	YP-16	YARD POND			.3696	.0203	12/02/04	422380
	•		GAMMA	SCAN (GELI) AC-228	•			•
-104-					.8758	.0586	12/02/04	422381
1	•		,	BE-7	.5019	.0637	12/02/04	422381
			•	BI-212	.8113	.0806	12/02/04	422381
				BI-214	.6590	.0405	. 12/02/04	422381
				CO-58	•			
	•			CO-60	.0112	.0042	12/02/04	<b>422381</b>
				CS-137	.1053	.0143	12/02/04	422381
				•	.0613	.0074	12/02/04	422381
			•	K-40	10.2062	.4789	12/02/04	422381
				PB-212	.8660	.0434	12/02/04	422381

Station 3305	Location YP-5	Description YARD POND	Analysis Nuclide	Activity	Error	Date Collected	Lab Number
3303	11-5	TAND FOND	GAMMA SCAN (GEI	LI) .			•
	•		CS-137	.0419	.0075	12/02/04	422379
			K-40				
			PB-212	9.7235	.5146	12/02/04	422379
•				.9030	.0526	12/02/04	422379
	·		PB-214	.7194	.0413	12/02/04	422379
			RA-224				
		•	TL-208	1.0705	.1881	12/02/04	422379
11 05 3313			12-200	3087	.0172	12/02/04	422379
र् <b>न</b> 3313	YP-13	YARD POND	GAMMA SCAN (GEI	LD			•
			AC-228	·			400000
			BE-7	1.1636	.0847	12/02/04	422380
	,			.5663	.0798	12/02/04	422380
		•	BI-212	1.4178	.1344	12/02/04	422380
			BI-214	.8848	.0479	12/02/04	422200
	•		· CO-60	.0040	.0479	12/02/04	422380
	•		CS-137	.0544	.0077	12/02/04	422380
	•		CS-137	.1764	.0155	12/02/04	422380
			K-40	16.0032	.8056	12/02/04	422380
				10.0002	.0000	120204	722000

Station	Location	<u>Description</u>	<u>Analysis</u>	Nuclide	Activity	<u>Error</u>	Date Collected	Lab Number
3303	LV-3	LOW VOL WASTE POND	GAMMA	SCAN (GELI) AC-228				
					.9742	.0892	12/02/04	422378 -
				BI-212	1.1679	.1655	12/02/04	422378
				BI-214	.7919	.0593	12/02/04	422378
				CS-137				
				. K-40	.0879	.0144	12/02/04	422378
	·		•	•	12.1644	.7053	12/02/04	422378
-106-			•	PB-212	· .9477	.0694	12/02/04	422378
-9	•			PB-214	.8373	.0762	12/02/04	422378
		•		TL-208				
3305	YP-5	YARD POND			.3191	.0263	12/02/04	422378
			GAMMA	SCAN (GELI) AC-228 .				
					.9141	.0557	12/02/04	422379
•				BE-7	.2772	.0508	12/02/04	422379
				BI-212	1.0230	.0984	12/02/04	422379
		•		BI-214				
			• .	CO-60	.6585	.0389	12/02/04	422379
			•		.0387	.0061	12/02/04	422379

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Station	Location	<u>Description</u>	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	<u>Error</u>	<b>Date Collected</b>	Lab Number
3193	COTTON PORT MARINA	TRM 513						
			GAMMA S	SCAN (GELI)				
				RA-226				
				•	.6587	.0362	04/21/04	422364
					.7960	.0451	11/03/04	425792
	•			TL-208				
					.4589	.0259	04/21/04	422364
					.4723	.0240	11/03/04	425792

Station 3193	Location COTTON PORT MARINA	Description TRM 513	<u>Analysis</u>	<u>Nuclide</u>	. <u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA :	SCAN (GELI)				
				AC-228				
					1.4832	.0884	04/21/04	422364
					1.4344	· .1034	11/03/04	425792
				BE-7	•			•
					.3913	.0488	04/21/04	422364
	•			•	.2288	.0408	11/03/04	425792
				BI-212		•		
					1.6308	.1333	04/21/04	422364
		•	•		1.5624	.1814	11/03/04	425792
				BI-214				
Ĺ					.6587	.0362	04/21/04	422364
-108-					.7960	.0451	11/03/04	425792
<b>α</b>				CS-137				
					.0278	.0061	04/21/04	422364
					.0648	.0086	11/03/04	425792
	•			K-40				
•			•		01.2001	1.3784	04/21/04	422364
					31.3660	1.2883	11/03/04	425792
				PB-212				
					1.3979	.0710	04/21/04	422364
	-				1.4936	.0695	11/03/04	425792
				PB-214				
					.7107	.0351	04/21/04	422364
					.8201	.0481	11/03/04	425792
				RA-224				
					1.4447	.2200	04/21/04	422364
					1.5665	.1477	11/03/04	425792

GAMMA SCAN (CELI) AC-228  1.1370 .0190 04/20/04 422363 .0925 .0156 11/02/04 425791  BE-7  BE-7  BI-212 1.1437 .0403 .0407 .04070 422363 .1890 .0697 11/02/04 425791  BI-214 1.1389 .0138 .04/20/04 4225791  BI-214 1.1389 .0138 .04/20/04 4225791  K-40  K-40  A107 .0742 .04/20/04 4225791  PB-212  PB-212  .0965 .0111 .04/20/04 4225791  PB-214 .0965 .0111 .04/20/04 422363 .0967	Station 3191	Location WATTS BAR RESORT	Description TRM 530	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
BE-7  BE-7  BB-1212  BB-214  CARPED PB-212  PB-212  R-40  R-40  R-2584			GAMMA :	SCAN (GELI)					
BE-7 BE-7 BB-212 BB-214 BB-212 BB-214 BB-212 BB-214 BB-212 BB-214 BB-214 BB-212 BB-214 BB-214 BB-214 BB-212 BB-214 BB-214 BB-214 BB-214 BB-212 BB-214 BB-214 BB-212 BB-214 BB-215 BB-214		·	. •		AC-228				
BE-7  1995 0.350 04/20/04 422363 1,1256 0.0275 11/02/04 425791  BI-212  1,1437 0.403 04/20/04 422363 1,1890 0.697 11/02/04 425791  BI-214  1,1389 0.138 04/20/04 422363 1,518 0.126 11/02/04 425791  K-40  4,107 0.742 04/20/04 425791  FB-212  1,5284 0.526 11/02/04 425791  PB-214  1,1351 0.125 04/20/04 425791  PB-215  1,1389 0.138 04/20/04 425791  TL-208							.0190	04/20/04	422363 ·
BI-212  BI-212			•			.0925	.0156	11/02/04	425791
BI-212 BI-214 BI-216 BI-214 BI-216 BI-214 BI-216 BI-214 BI-216 BI-217 BI-218 BI-214 BI-218 BI				٠	BE-7				•
BI-212  1437							.0350	04/20/04	422363
BI-214 BI-214  K-40  PB-212  PB-212  PB-212  PB-212  PB-214  PB-214  1389  10138  104/20/04  422363  1,518  10126  11/02/04  422363  425791  422363  425791  422363  425791  422363  425791  422363  425791  422363  42363						.1256	.0275	11/02/04	425791
BI-214 BI-214  .1389 .0138 .0138 .04/20/04 422363 .1518 .0126 .11/02/04 422363 .1518 .0126 .11/02/04 422363 .2584 .0526 .11/02/04 422363 .2584 .0526 .11/02/04 422363 .2584 .0526 .0111 .04/20/04 422363 .1062 .0965 .0111 .04/20/04 422363 .1062 .0965 .0111 .04/20/04 425791  PB-214 .1351 .0125 .04/20/04 425791  PB-214 .1351 .0125 .0158 .11/02/04 425791  RA-226 .1389 .0138 .0126 .11/02/04 422363 .1518 .0126 .11/02/04 422363 .1518 .0126 .01102/04 422363					BI-212				
BI-214  .1389 .0138 .014/20/04 422363 .1518 .0126 .11/02/04 425791  K-40  .2584 .0526 .11/02/04 422363 .2584 .0526 .11/02/04 422363 .2584 .0526 .0111 .04/20/04 422363 .0965 .0111 .04/20/04 422363 .1062 .0094 .11/02/04 422363 .1052 .0158 .11/02/04 422363 .1655 .0158 .11/02/04 422363 .1389 .0138 .04/20/04 42363 .1518 .0126 .11/02/04 422363 .1518 .0126 .11/02/04 422363 .1518 .0044 .04/20/04 422363							.0403	04/20/04	422363
Here the second		•		•		.1890	0697	11/02/04	425791
Here the second state of t					BI-214			·	
A107	.1.					<sub>.</sub> .1389		- 04/20/04	422363
A107	10		,	•		.1518	.0126	11/02/04	425791
PB-212 PB-212  .0965 .0111 .04/20/04 422363 .1062 .0094 11/02/04 425791  PB-214 .1351 .0125 .04/20/04 422363 .1655 .0158 11/02/04 422363 .1655 .0158 11/02/04 422363 .1389 .0138 .04/20/04 422363 .1518 .0126 .11/02/04 422363 .1518 .0126 .0140 .04/20/04 422363 .0526 .0526 .11/02/04 425791  TL-208	9				K-40				
PB-212			•				.0742	04/20/04	422363
PB-214 PB-214 .1351 .1062 .1055 .0111 .0125 .04/20/04 .42363 .1655 .0158 .11/02/04 .42363 .1655 .0158 .11/02/04 .425791  RA-226 .1389 .0138 .04/20/04 .42363 .1518 .0126 .11/02/04 .42363 .1518 .0126 .0136 .0140 .04/20/04 .42363			•			.2584	.0526	11/02/04	425791
PB-214 PB-214  .1062 .0094 .11/02/04 425791  .1351 .0125 04/20/04 422363 .1655 .0158 .11/02/04 425791  RA-226  .1389 .0138 04/20/04 422363 .1518 .0126 .11/02/04 425791  TL-208  .0315 .0044 04/20/04 422363					PB-212				
PB-214  .1351 .0125 04/20/04 422363 .1655 .0158 11/02/04 425791  RA-226  .1389 .0138 04/20/04 422363 .1518 .0126 11/02/04 425791  TL-208  .0315 .0044 04/20/04 422363			•						
.1351 .0125 04/20/04 422363 .1655 .0158 11/02/04 425791  RA-226  .1389 .0138 04/20/04 422363 .1518 .0126 11/02/04 425791  TL-208  .0315 .0044 04/20/04 422363						.1062	.0094	11/02/04	425791
RA-226  1.1389 1.1518 1.102/04 425791 1.1389 1.1518 1.102/04 422363 1.1518 1.0126 1.1/02/04 425791 1.1518 1.0044 1					PB-214 ·	•			
RA-226  .1389 .0138 04/20/04 422363 .1518 .0126 11/02/04 425791  TL-208 .0315 .0044 04/20/04 422363		·						04/20/04	422363
.1389 .0138 04/20/04 422363 .1518 .0126 11/02/04 425791 TL-208 .0315 .0044 04/20/04 422363						.1655	.0158	11/02/04	425791
.1518 .0126 11/02/04 425791 TL-208 .0315 .0044 04/20/04 422363					RA-226				
TL-208 .0126								04/20/04	422363
.0315 .0044 04/20/04 422363			•		•	.1518	.0126	11/02/04	425791
$oldsymbol{\cdot}$					TL-208				
.0255 .0051 11/02/04 425791					•				
						.0255	.0051	11/02/04	425791

Station 2161	Location . WATTS BAR RES	Description TRM 530-602	<u>Analysis</u> <u>Nu</u>	clide Activi	<u>Error</u>	Date Collected	<u>Lab Number</u>
	WATTO BARRES	11(W 330-002	GAMMA SCA	N (GELI) -214			
	·	•	, 5	.037	7 .0128	05/04/04	422304
				.080.		11/02/04	425746
3261	DOWNSTREAM STATION 1	DOWNSTREAM	•				_
			GAMMA SCA	N (GELI) 214			·
				.009	5 .0137	05/04/04	422375
	•			.097	3 .0223	10/28/04	425803
			CS	-137			
				.038	0 .0073	05/04/04	422375
				.040	2 .0081	10/28/04	425803
<u> </u>			K-4	10	•		
110				13.822	7 .8187	05/04/04	422375
!		,		15.136	6 .7755	10/28/04	425803
	•		PB	-214	•		
				.108	3 .0276	10/28/04	425803

Station 2160	Location CHICKAMAUGA RES	Description TRM 471-530	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA S	SCAN (GELI)				
			•	BI-214				•
					.0890	.0115	05/05/04	422301
					.0882	0163	10/29/04	425743
				CS-137	•			
					.0299	.0073	05/05/04	422301
					.0301	.0061	10/29/04	425743
				K-40			•	
	·				13.3611	.755़4	05/05/04	422301
					13.6683	.7249	10/29/04	425743
				PB-212				
t					.0001	.0058	05/05/04	422301
-111-				PB-214				
7					.0755	.0117	05/05/04	422301
					.0959	.0135	10/29/04	425743
				TL-208				
					.0113	.0070	05/05/04	422301
2161	WATTS BAR RES	TRM 530-602			•	•		
	·		GAMMA S	SCAN (GELI)				
				BI-214	0.450	2422	0.000	
					.0458	.0122	05/04/04	422304
		•			.0666	.0162	11/02/04	425746
				CS-137				
					.0647	.0091	05/04/04	422304
					.0345	.0045	11/02/04	425746
		•		K-40				
					14.3959	1.1594	05/04/04	422304
					13.0352	.6665	11/02/04	425746

Table 16
RADIOACTIVITY IN COMMERCIAL FISH
WATTS BAR NUCLEAR PLANT
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/29/2003 - 12/24/2004

Station 3261	Location  DOWNSTREAM STATION 1	Description DOWNSTREAM	Analysis Nuclide	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
3201	DOWNSTREAM STATION T	DOWNSTREAM	GAMMA SCAN (GELI) BI-214			•	
		•	J. 2	.0214	.0135	05/04/04	422376.
				.0803	.0165	10/28/04	425805
			CS-137				
			,	`.0370	.0085	05/04/04	422376
			K-40				
				10.7109	.6128	05/04/04	422376
				9.4730	.4940	10/28/04	425805
	-		PB-212			•	
	•			0074	.0113	10/28/04	425805
			PB-214				
1				.0309	.0158	05/04/04	422376
112-			•	.0637	.0122 .	10/28/04	425805

Table 16
RADIOACTIVITY IN COMMERCIAL FISH
WATTS BAR NUCLEAR PLANT
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/29/2003 - 12/24/2004

Station 2160	Location CHICKAMAUGA RES	Description TRM 471-530	Analysis Nuclide	Activity	Error	Date Collected	Lab Number
2100	CHICKAWAOGA RES	1 KW 47 1-550	GAMMA SCAN (GELI)				•
			BI-214			•	
				.0559	.0130	05/05/04	422302
				.0814	.0141	10/29/04	425744
			CS-137				
				.0195	.0053	05/05/04	422302
			K-40				
				9.3816	.5165	05/05/04	422302
	•			10.0477	10.0040	10/29/04	425744
			PB-212				
				.0151	.0071	05/05/04	422302
-113-				.0070	.0064	10/29/04	425744
13			PB-214	0404		. 05/05/04	400000
1				.0461	.0123	05/05/04	422302
0404	WATTO DAD DEO	TD14 500 000		.0553	.0142	10/29/04	425744
2161	WATTS BAR RES	TRM 530-602	GAMMA SCAN (GELI)				
			BI-214				
			51-214	.0214	.0129	105/04/04	422305
	•		CS-137				
				.0774	.0086	05/04/04	422305
			<b>K</b> -40				
				11.5397	.7722	05/04/04	422305
				11.0911	.6017	11/02/04	425747
			PB-212				
				.0106	.0087	05/04/04	422305
	•		PB-214				
				.0151	.0113	05/04/04	422305

# Table 15 RADIOACTIVITY IN GRAB WELL WATER(Total) WATTS BAR NUCLEAR PLANT PCI/L - 0.037 BQ/L 12/29/2003 - 12/24/2004

Station 3115	Location LAYMAN FARM	Description 1.3 MILES SSW	<u>Analysis</u>	Nuclide	Activity	Error	Date Collected	<u>Lab Number</u>
0110	BATTIN AT PARKE	1.0 WILLS 0077	GAMMA	SCAN (GELI) PB-214				
	•				197.3366	13.0130	11/03/04	425943
					305.8253	16.4181	12/01/04	426441
				TL-208				•
					11.6731	2.1649	09/08/04	424890 ·
			TRITIUM					
					44.7986	54.9768	12/30/03	420095
*					- 33.5766	64.9629	01/28/04	420602
			•		77.1446	65.6052	02/24/04	421130
•					- 5.4497	55.5019	03/23/04	421642
.114-	·				- 45.1597	70.2769	04/20/04	422169
4	•		•		39.7330	71.5962	05/18/04	.422749
•		•			- 49.3817	66.3615	06/16/04	423281
					<b>51.1686</b> ·	66.9736	07/14/04	423843
	•				53.7312	73.6700	08/11/04	424378
		•			11.2279	64.8843	09/08/04	424890
					68.5013	66.3109	10/06/04	425390
			•		43.3850	66.2707	11/03/04	425943
					94.5098	67.2993	12/01/04	426441

Table 15
RADIOACTIVITY IN GRAB WELL WATER(Total)
WATTS BAR NUCLEAR PLANT
PCI/L - 0.037 BQ/L
12/29/2003 - 12/24/2004

Station 3115	Location LAYMAN FARM	Description 1.3 MILES SSW	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA :	SCAN (GELI) BI-214			•	
	•			DI-214	113.7641	8.5027	08/11/04	424378 ·
					70.0742	7.6320	09/08/04	424890
	·				258.0873	19.8573	10/06/04	425390
					183.8487	11.3456	11/03/04	425943
			•		300.1840	17.7861	12/01/04	426441
		•	•	K-40		•		•
	•				· 3.3117	13.7073	05/18/04	422749
					.8385	16.6673	06/16/04	423281
	•			•	6.1035	13.7794	07/14/04	423843
1		•			670.5899	68.6513	09/08/04	424890
-115-					18.8594	21.5865	10/06/04	425390
ij.					1.0924	20.8960	11/03/04	425943
				PB-212	•			
•	•	•			21.4165	4.4744	09/08/04	424890
				PB-214				
					78.7589	9.5642	12/30/03	420095
			•		247.8805	17.6720	01/28/04	420602 .
		·.			175.9486	10.1508	02/24/04	421130
	_				362.5689	21.3629	03/23/04	421642
	-				248.8730	19.2306	04/20/04	422169
					. 101.0521	7.4415	05/18/04	422749
	•				<b>39.8602</b> .	6.2349	06/16/04	423281 .
				•	8.7097	3.1111	07/14/04	423843
					118.8735	10.8255	08/11/04	424378
	•				67.1649	6.6885	09/08/04	424890
					272.0723	17.8946	10/06/04	425390

# Table 15 RADIOACTIVITY IN GRAB WELL WATER(Total) WATTS BAR NUCLEAR PLANT PCI/L - 0.037 BQ/L 12/29/2003 - 12/24/2004

Station 3115	Location LAYMAN FARM	Description 1.3 MILES SSW	<u>Analysis</u>	<u>Nuclide</u>	Activity	Error	Date Collected	<u>Lab Number</u>
			GROSS E	BETA	•			
					2.5634	.7017	12/30/03	420095
					2.7139	.7213	01/28/04	420602
					.7169	.6058	02/24/04	421130
					1.5906	.6478	03/23/04	421642
					.6752	.5661	04/20/04	422169
					.6504	.5976	05/18/04	422749
					1.3792	.6040	06/16/04	423281
					6337	.5789	07/14/04	423843
	•				1.0228	.5843	08/11/04	424378
,1,					.7370	.5734	09/08/04	424890
-116-				•	.6067	.5689	10/06/04	425390
Ÿ,		•			1.0233	.5921	11/03/04	425943
					1.8522	.6303	12/01/04	426441
			GAMMA S	SCAN (GELI)	•			
				AC-228			•	
					5.7330	3.6190	02/24/04	421130 <sub>.</sub>
					34.2629	8.3501	09/08/04	424890·
				BI-214		0.4400	40/00/00	400005
		•			81.0995	9.1463	12/30/03	420095
	•			,	238.7984	16.0824	01/28/04	420602
	•	•			190.8151	13.2715	02/24/04	421130
					363.8874	21.3742	03/23/04	421642
	•				230.9207	14.8928	04/20/04	422169
					95.6179	8.0081	05/18/04	422749
					43.8992	5.4667	06/16/04	423281
					3.6147	2.4770	07/14/04	423843

<b>Station</b>	Location	<u>Description</u>	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	<u>Error</u>	<b>Date Collected</b>	Lab Number
3266	WBN MW-D	0.40 MILES SSE						•
	•		TRITIUM					
					2338.6002	147.7127	09/07/04	424905
					1978.9538	131.9284	10/05/04	425406
			•		1927.2877	130.0414	11/02/04	425958
					1983 9143	132 6394	11/30/04	426456

יתו ניתו בת וְנוֹנוֹ מונוֹי בונוֹ נוֹנוֹ מת ניתו כתו כתו לתו ולתו מתו בת לתו ולתו כת לתו

Station 3266	Location WBN MW-D	Description 0.40 MILES SSE	<u>Analysis</u>	<u>Nuclide</u>	Activity .	<u>Error</u>	Date Collected	<u>Lab Number</u>
0200	WBR IIIV B	0.10 MILLO 00L	GAMMA	SCAN (GELI) K-40				
	•				· 26.7697	20.7549	12/30/03	420110
					4.6498	15.3433	05/18/04	422764
					437.8109	42.1899	09/07/04	424905
					5.6547	16.8150	11/02/04	425958
				•	21.2321	19.2920	11/30/04	426456
		•		PB-212				
		•			1.6294	1.8462	06/15/04	423296
					3.3194	1.9032	07/13/04	423858
					15.2524	3.0452	09/07/04	424905
<u>1</u>				PB-214				•
-118-					22.5130	4.4080	03/23/04	421657
ĩ				•	2.4031	2.6873	06/15/04	423296
					4.0604	1.8959	08/10/04	424393
		•		•	43.1338	·4.8202	09/07/04	424905
					8.9985	3.0095	11/30/04	426456
		,	•	TL-208			•	
					1.2651	1.2677	06/15/04	423296
					7.1599	1.5230	09/07/04	424905
	•		TRITIUM					•
					2750.3082	166.3668	12/30/03	420110
					3955.2658	223.8566	02/24/04	421145
	•			•	3078.4467	190.3101	03/23/04	421657
				•	6964.1751	373.6085	05/18/04	422764
			•		6993.1343	372.9463	06/15/04	423296
					3972.2794	224.8828	07/13/04	423858
	•				2432.8661	157.2872	08/10/04	424393 .
					•			

							•	•
Station	Location	Description	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
3266	WBN MW-D	0.40 MILES SSE	GROSS I	BETA				•
					3.6730	.8372	12/30/03	420110
					3.2325	.8600	02/24/04	421145
					3.2571	.8765	03/23/04	421657
					4.4786	1.0074	05/18/04	422764
					1.6410	.8130	06/15/04	423296
				•	2.9241	.8859	07/13/04	423858
					3.1191	.8264	08/10/04	424393
					2.0247	.8203	09/07/04	424905
	•				1.5233	.7881	10/05/04	425406
<u>.</u>		•			3.2845	.8684	11/02/04	425958
-119-	-			•	2.7643	.7936	11/30/04	426456
ĭ			GAMMA	SCAN (GELI) AC-228				
				AU-220	3.4857	4.8926	03/23/04	421657
					2.6994	4.0028	. 05/18/04	422764
					26.0174	6.8302	09/07/04	424905
				BI-214	40.0	0.000		,
					9.8597	4.4672	12/30/03	420110
					2.6432	2.5592	02/24/04	421145
	•		•		31.8190	5.2401	03/23/04	421657
	· · · · · ·		•		.8695	2.2907	07/13/04	423858
		•			4.1673	3.0022	08/10/04	424393
	•				53.6042	5.0289	09/07/04	424905
					4.8776	2.8915	10/05/04	425406
					1.1122	3.2986	11/02/04	425958
					7.0205	2.9106	11/30/04	426456

Station 3265	Location WBN MW-C	Description 0.25 MILES ESE	Analysis Nuclide	Activity	<u>Error</u>	Date Collected	<u>Lab Number</u>
			GAMMA SCAN (GELI) PB-214		•		
			, = 2, ,	9.7589	3.4872	04/20/04	422183 ·
	•	•		4.2459	2.4978	05/18/04	422763
				5.1426	3.8359	08/10/04	424392 ·
				3.4019	2.3535	09/07/04	424904
				2.0451	2.4609	10/05/04	425405
				3.6818	2.6429	11/02/04	425957
				23.5965	3.8347	11/30/04	426455
			· TL-208		•		
			•	.9498	1.1396	05/18/04	422763
1			TRITIUM	•		•	•
-120-			•	12751.7922	658.0621	12/30/03	420109
				10684.7956	555.0926	01/27/04	420617
				8127.5164	428.1752	02/24/04	421144
	•			6886.3248	369.4310	03/23/04	421656
				8645.8582	456.2435	04/20/04	422183
				9374.6453	492.3393	05/18/04	422763
			•	9713.9343	507.4031	06/15/04	423295
				8676.9279	455.9488	07/13/04	423857
		•		8844.7143	466.9036	08/10/04	424392
				7554.3352	400.2338	09/07/04	424904
			•	6379.2332	341.9437	10/05/04	425405
				8118.9839	428.0746	11/02/04	425957
				4907.7271	270.1592	11/30/04	426455

Station 3265	Location WBN MW-C	Description 0.25 MILES ESE	Analysis	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA :	SCAN (GELI) AC-228				
					3.8752	3.4936	07/13/04	423857
				BI-214				
					3.0947	2.5354	12/30/03	420109
					· 12.1634	3.3417	01/27/04	420617
		-		· •	7.7379	2.4558	02/24/04	421144
			•		7.8137	3.5383	03/23/04	421656
		·			15.4012	3.2198	04/20/04	422183
					4.9388	2.8829	05/18/04	422763
					2.2837	2.6337	06/15/04	423295
L				,	7.1973	2.8733	08/10/04	424392
-121-			_ •		2.3145	2.6080	09/07/04	424904
Ĭ.					6.3734	2.8065	10/05/04	425405
					9.7090	3.2836	11/02/04	425957
				•	33.4839	5.2276	11/30/04	426455
				K-40				
	•				1.5494	16.1000	· 12/30/03	420109
				•	14.1324	13.7229	02/24/04	421144
		·			24.5711	14.2560	06/15/04	423295
	•				8.2400	15.6735	08/10/04	424392
	•			PB-212				
			,	•	2.2166	2.3734	12/30/03	420109
			•	PB-214				
			_		1.8116	2.6604	12/30/03	420109
			•		6.6858	2.4613	01/27/04	420617
					3.4137	3.1452	02/24/04	421144
	•				5.4478	2.8177	03/23/04	421656

Station 3264	Location WBN MW-B	Description 0.45 MILES SSE	<u>Analysis</u>	<u>Nuclide</u>	. <u>Activity</u>	Error	Date Collected	Lab Number
0204	WBIT IIIV-B	0.40 MILLO 00L	TRITIUM	l				
					10338.9887	540.3050	04/20/04	422182
					9732.3062	510.0964	05/18/04	422762
					8454.7540.	444.8085	06/15/04	423294
•					8786.3459	461.2691	07/13/04	423856
					10178.8773	532.9993	08/10/04	424391
					9123.8061	478.0564 ·	09/07/04	424903
	•				8551.6144	449.3037	10/05/04	425404
					7423.3204	393.5180	11/02/04	425956
		·			7738.3828	409.3226	11/30/04	426454
3265	WBN MW-C	0.25 MILES ESE						
	·		GROSS I	BETA				
<u>.</u>				•	5.9703	.9247	12/30/03	420109
-122-					5.6673	.9044	01/27/04	420617
1					3.6691	.7993	02/24/04	421144
					11.2064	1.2431	03/23/04	421656
					5.3222	.8834	04/20/04	422183
					5.4874	.9166	05/18/04	422763
	•		•		7.2602	1.0207	06/15/04	423295
					6.3275	.9534	07/13/04	423857
					6.4876	.9415	08/10/04	424392
		•			7.5411	.9979	09/07/04	424904
					6.4947	.9513	10/05/04	425405
					5.5866	.8848	11/02/04	425957
					6.5051 ·	.9485	11/30/04	426455

Station 3264	Location WBN MW-B	Description 0.45 MILES SSE	Analysis	Nuclide	Activity	<u>Error</u>	Date Collected	<u>Lab Number</u>
			GAMMA :	SCAN (GELI)				
	•	. •		BI-214				
					6.0574	2.8106	10/05/04	425404 -
		•			1.4028	2.9295	11/02/04	425956
					2.8795	3.2459	11/30/04	426454 -
				K-40				
					19.1462	15.5757 <sub>.</sub>	01/27/04	420616
					5.2017	12.9179	02/24/04	421143
					1.9363	15.0802	04/20/04	422182
			•		22.8398	. 17.7764	06/15/04	423294
					8.2004	11.0730	10/05/04	425404
1	-	•		•	20.0824	11.8492	11/30/04	426454
-123-		•	•	PB-212			•	
t				,	.2381	1.4006	08/10/04	424391
				PB-214				
					7.5476	2.8921	12/30/03	420108
					16.2631	4.5853	01/27/04	420616
					1.0284	2.7149	02/24/04	421143
		•			15.2826	2.9555	03/23/04	421655
				•	8.3170	2.6716	05/18/04	422762
					4.4789	3.5322	08/10/04	424391
					2.8728	2.3891	09/07/04	424903
					2.8572	3.2081	11/30/04	426454
			TRITIUM	•	•			
					10643.2827	552.8978	12/30/03	420108
					9529.1128	497.4883	01/27/04	420616
				•	9531.1045	497.7312	02/24/04	421143
					9822.2668	514.6748	03/23/04	421655

Station	Location	<u>Description</u>	Analysis	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
3264	WBN MW-B	0.45 MILES SSE	GROSS I	BETA	•			
					6.0484	1.0012	12/30/03	420108
					7.3782	1.0711	01/27/04	420616
					8.2427	1.1121	02/24/04	421143
					11.0219	<b>1.2926</b> .	03/23/04	421655
					7.0194	1.0506	04/20/04	422182
	•.				10.9869	1.3253	05/18/04	422762
			•		16.4254	1.6246	06/15/04	423294
					11.8090	1.3774	07/13/04	423856
					7.6599	1.1220	08/10/04	424391
<u> </u>					11.1536	1.3102	09/07/04	424903
-124-					8.0736	1.1422	10/05/04	425404
T	,				3.5428	:8784	11/02/04	425956
					13.8059	1.4643	11/30/04	426454
			GAMMA	SCAN (GELI) AC-228	•			
					3.7110	3.4525	01/27/04	420616
		•		BI-214			•.	
	•				10.5084	2.5824	12/30/03	420108
					17.6799	4.2785	01/27/04	420616
					4.2991	2.4053	02/24/04	421143
					22.0968	4.4324	03/23/04	421655
					6.3716	3.3941	04/20/04	422182
					7.9820	3.4831	05/18/04	422762
				•	2.0248	2.4666	06/15/04	423294
					1.6790	2.2578	07/13/04	423856
					7.3523	2.2692	08/10/04	424391

GAMMA SCAN (CELI) PB-214  93.0297 7.1603 01/27/04 420615 19.1763 3.6733 02/24/04 421142 14.5788 3.0861 03/23/04 421654 9.2607 2.5621 04/20/04 422181 6.8920 2.2747 05/18/04 422261 5.2997 2.6996 06/15/04 423293 9.3096 2.6846 09/07/04 424900 9.3096 2.6846 09/07/04 424900 9.3096 2.6846 09/07/04 424900 7.0930 3.0891 10/05/04 425955 15.4625 3.9951 11/30/04 425955 15.4915 6.55548 01/27/04 420615 183.3397 68.3592 02/24/04 421142 8.8562 5.66644 03/23/04 421142 8.8562 5.66644 03/23/04 421142 8.8562 5.66644 03/23/04 421142 8.8562 5.66644 03/23/04 421142 8.8562 5.66644 03/23/04 421142 8.8562 5.66644 03/23/04 421142 8.8562 5.66644 03/23/04 421142 8.8562 5.66644 03/23/04 42181 66.9348 72.2173 04/20/04 422181 66.9348 72.2173 04/20/04 422181 66.9348 72.5760 06/15/04 42393 100.1229 67.7176 07/13/04 42393 100.1229 67.7176 07/13/04 42393 100.1229 67.7176 07/13/04 42390 95.0122 67.5663 10/05/04 424902 95.0122 67.5663 10/05/04 424902 95.0122 67.5663 10/05/04 424902 95.0122 67.5663 10/05/04 425955 1118.6783 68.3046 11/30/04 425453	Station 3263	Location WBN MW-A	Description 0.58 MILES SSE	<u>Analysis</u>	<u>Nuclide</u>	. <u>Activity</u>	Error	Date Collected	Lab Number
19.1763 3.6733 02/24/04 421142 14.5788 3.0861 03/23/04 421654 9.2607 2.5621 04/20/04 422181 6.8820 2.2747 05/18/04 422761 5.2927 2.8996 06/15/04 423293 5.0970 4.3059 08/10/04 424390 9.3096 2.6846 09/07/04 424902 7.0930 3.0891 10/05/04 425403 17.4667 4.5360 11/02/04 425955 15.4625 3.9951 11/30/04 426453  TRITIUM  132.6536 57.4105 12/30/03 420107 15.4915 65.5548 01/27/04 420615 183.3397 68.3592 02/24/04 421142 8.8562 56.6644 03/23/04 42615 183.3397 68.3592 02/24/04 421142 8.8562 56.6644 03/23/04 421654 46.9948 72.2173 04/20/04 422181 61.5355 72.5643 05/18/04 422761 46.4384 67.5355 06/15/04 423293 100.1229 67.7176 07/13/04 423855 110.5382 72.5620 08/10/04 423895 199.0224 68.7994 09/07/04 424902 95.0122 67.5663 10/05/04 425403 11.2607 66.5256 11/02/04 425955				GAMMA	• •				
14.5788 3.0861 03/23/04 421654 9.2607 2.5621 04/20/04 422181 6.8920 2.2747 05/18/04 422761 5.2927 2.8996 06/15/04 423293 5.0970 4.3059 08/10/04 424902 9.3096 2.6846 09/07/04 424902 7.0930 3.0891 10/05/04 425403 17.4667 4.5360 11/02/04 425955 15.4625 3.9951 11/30/04 426453  TRITIUM  132.6536 57.4105 12/30/03 420107 15.4915 65.5548 01/27/04 420615 183.3397 68.3592 02/24/04 421142 8.8562 56.6644 03/23/04 421654 46.9948 72.2173 04/20/04 421654 46.9948 72.2173 04/20/04 421654 46.4948 72.2173 04/20/04 422181 61.5355 72.5643 05/18/04 422761 46.4384 67.5355 06/15/04 423293 100.1229 67.7176 07/13/04 423855 110.5382 72.5620 08/10/04 423895 110.5382 72.5620 08/10/04 423895 110.5382 72.5620 08/10/04 423895 110.5382 72.5663 10/05/04 423895 110.5382 72.5663 10/05/04 423895 111.2607 66.5256 11/02/04 425403						93.0297	7.1603	01/27/04	420615
9.2607   2.5621   04/20/04   422181     6.8920   2.2747   05/18/04   422761     5.2927   2.8996   06/15/04   42393     5.0970   4.3059   08/10/04   424390     9.3096   2.6846   09/07/04   424902     7.0930   3.0891   10/05/04   425403     17.4667   4.5360   11/02/04   425955     17.4667   4.5360   11/02/04   425955     18.30397   68.3592   02/24/04   421142     18.30397   68.3592   02/24/04   421142     8.8562   56.6644   03/23/04   421654     46.9948   72.2173   04/20/04   422181     61.5355   72.5643   05/18/04   422761     46.4384   67.5355   06/15/04   42390     100.1229   67.7176   07/13/04   423855     110.5362   72.5620   08/10/04   42390     199.0224   68.7994   09/07/04   424902     95.0122   67.5663   10/05/04   425403     11.2607   66.5256   11/02/04   425955				•		19.1763	3.6733	02/24/04	421142
12-2747						14.5788	3.0861	03/23/04	421654
1						9.2607	2.5621	04/20/04	422181
100,1229   100,1020						6.8920	2.2747	05/18/04	422761
9,3096 2,6846 09/07/04 424902 7,0930 3,0891 10/05/04 425403 17,4667 4,5360 11/02/04 425955 15,4625 3,9951 11/30/04 426453  TRITIUM  132,6536 57,4105 12/30/03 420107 15,4915 65,5548 01/27/04 420615 183,3397 68,3592 02/24/04 421142 8,8562 56,6644 03/23/04 421142 48,8562 56,6644 03/23/04 421654 46,948 72,2173 04/20/04 422181 61,5355 72,5643 05/18/04 422181 61,5355 72,5643 05/18/04 422761 46,4384 67,5355 06/15/04 423293 100,1229 67,7176 07/13/04 423855 110,5382 72,5620 08/10/04 424902 199,0224 68,7994 09/07/04 424902 95,0122 67,5663 10/05/04 425403 11,2607 66,5256 11/02/04 425955		·		•		5.2927	2.8996.	06/15/04	423293
TRITIUM  132.6536 57.4105 12/30/03 420107 15.4915 65.5548 01/27/04 425955 183.3397 68.3592 02/24/04 421142 8.8562 56.6644 03/23/04 421654 46.9948 72.2173 04/20/04 422181 61.5355 72.5643 05/18/04 422181 61.5355 72.5643 05/18/04 422181 61.5355 72.5643 05/18/04 422181 61.5355 72.5643 05/18/04 422181 61.5355 72.5643 05/18/04 422761 46.4384 67.5355 06/15/04 42393 100.1229 67.7176 07/13/04 423855 -110.5382 72.5620 08/10/04 424390 199.0224 68.7994 09/07/04 424902 95.0122 67.5663 10/05/04 424902 95.0122 67.5663 10/05/04 425403						5.0970	4.3059	08/10/04	424390
TRITIUM  17.4667 4.5360 11/02/04 425955 15.4625 3.9951 11/30/04 426453  TRITIUM  132.6536 57.4105 12/30/03 420107 15.4915 65.5548 01/27/04 420615 183.3397 68.3592 02/24/04 421142 8.8562 56.6644 03/23/04 421654 46.9948 72.2173 04/20/04 422181 61.5355 72.5643 05/18/04 422761 46.4384 67.5355 06/15/04 423293 100.1229 67.7176 07/13/04 423903 100.1229 67.7176 07/13/04 423855 - 110.5382 72.5620 08/10/04 424390 199.0224 68.7994 09/07/04 424902 95.0122 67.5663 10/05/04 425903 11.2607 66.5256 11/02/04 425955		·				9.3096	2.6846	09/07/04	424902
132.6536 57.4105 12/30/03 420107 15.4915 65.5548 01/27/04 420615 183.3397 68.3592 02/24/04 421142 8.8562 56.6644 03/23/04 421654 46.9948 72.2173 04/20/04 422181 61.5355 72.5643 05/18/04 422761 46.4384 67.5355 06/15/04 423293 100.1229 67.7176 07/13/04 423855 - 110.5382 72.5620 08/10/04 424390 199.0224 68.7994 09/07/04 424902 95.0122 67.5663 10/05/04 425403 11.2607 66.5256 11/02/04 425955						7.0930	3.0891	10/05/04	425403
132.6536 57.4105 12/30/03 420107 15.4915 65.5548 01/27/04 420615 183.3397 68.3592 02/24/04 421142 8.8562 56.6644 03/23/04 421654 46.9948 72.2173 04/20/04 422181 61.5355 72.5643 05/18/04 422761 46.4384 67.5355 06/15/04 423293 100.1229 67.7176 07/13/04 423855 - 110.5382 72.5620 08/10/04 424390 199.0224 68.7994 09/07/04 424902 95.0122 67.5663 10/05/04 425403 11.2607 66.5256 11/02/04 425955	<u>_</u>					17.4667	4.5360	11/02/04	425955
132.6536 57.4105 12/30/03 420107 15.4915 65.5548 01/27/04 420615 183.3397 68.3592 02/24/04 421142 8.8562 56.6644 03/23/04 421654 46.9948 72.2173 04/20/04 422181 61.5355 72.5643 05/18/04 422761 46.4384 67.5355 06/15/04 423293 100.1229 67.7176 07/13/04 423855 - 110.5382 72.5620 08/10/04 424390 199.0224 68.7994 09/07/04 424902 95.0122 67.5663 10/05/04 425403 11.2607 66.5256 11/02/04 425955	23				•	15.4625	3.9951	11/30/04	426453
15,4915 65,5548 01/27/04 420615 183,3397 68,3592 02/24/04 421142 8,8562 56,6644 03/23/04 421654 46,9948 72,2173 04/20/04 422181 61,5355 72,5643 05/18/04 422761 46,4384 67,5355 06/15/04 423293 100,1229 67,7176 07/13/04 423855 - 110,5382 72,5620 08/10/04 424390 199,0224 68,7994 09/07/04 424902 95,0122 67,5663 10/05/04 425403 11,2607 66,5256 11/02/04 425955	ī	•		TRITIUM					
183.3397       68.3592       02/24/04       421142         8.8562       56.6644       03/23/04       421654         46.9948       72.2173       04/20/04       422181         61.5355       72.5643       05/18/04       422761         46.4384       67.5355       06/15/04       423293         100.1229       67.7176       07/13/04       423855         - 110.5382       72.5620       08/10/04       424390         199.0224       68.7994       09/07/04       424902         95.0122       67.5663       10/05/04       425403         11.2607       66.5256       11/02/04       425955				•		132.6536	57.4105	12/30/03	420107
8.8562       56.6644       03/23/04       421654         46.9948       72.2173       04/20/04       422181         61.5355       72.5643       05/18/04       422761         46.4384       67.5355       06/15/04       423293         100.1229       67.7176       07/13/04       423855         - 110.5382       72.5620       08/10/04       424390         199.0224       68.7994       09/07/04       424902         95.0122       67.5663       10/05/04       425403         11.2607       66.5256       11/02/04       425955		•				15.4915	65.5548	01/27/04	420615
46.9948       72.2173       04/20/04       422181         61.5355       72.5643       05/18/04       422761         46.4384       67.5355       06/15/04       423293         100.1229       67.7176       07/13/04       423855         - 110.5382       72.5620       08/10/04       424390         199.0224       68.7994       09/07/04       424902         95.0122       67.5663       10/05/04       425403         11.2607       66.5256       11/02/04       425955						183.3397	68.3592	02/24/04	421142
61.5355 72.5643 05/18/04 422761 46.4384 67.5355 06/15/04 423293 100.1229 67.7176 07/13/04 423855 - 110.5382 72.5620 08/10/04 424390 199.0224 68.7994 09/07/04 424902 95.0122 67.5663 10/05/04 425403 11.2607 66.5256 11/02/04 425955					•	8.8562	56.6644	03/23/04	421654
46.4384       67.5355       06/15/04       423293         100.1229       67.7176       07/13/04       423855         - 110.5382       72.5620       08/10/04       424390         199.0224       68.7994       09/07/04       424902         95.0122       67.5663       10/05/04       425403         11.2607       66.5256       11/02/04       425955						46.9948	72.2173	04/20/04	422181
100.1229 67.7176 07/13/04 423855 - 110.5382 72.5620 08/10/04 424390 199.0224 68.7994 09/07/04 424902 95.0122 67.5663 10/05/04 425403 11.2607 66.5256 11/02/04 425955			•			61,5355	72.5643	05/18/04	422761
- 110.5382 72.5620 08/10/04 424390 199.0224 68.7994 09/07/04 424902 95.0122 67.5663 10/05/04 425403 11.2607 66.5256 11/02/04 425955						46.4384	67.5355	06/15/04	423293
199.0224     68.7994     09/07/04     424902       95.0122     67.5663     10/05/04     425403       11.2607     66.5256     11/02/04     425955						100.1229	67.7176	07/13/04	423855
95.0122 67.5663 10/05/04 425403 11.2607 66.5256 11/02/04 425955						- 110.5382	72.5620	08/10/04	424390
11.2607 66.5256 11/02/04 425955						199.0224	68.7994	09/07/04	424902
11.2607 66.5256 11/02/04 425955						95.0122	67.5663	10/05/04	425403
						•	66.5256	11/02/04	
						118.8783	68.3046	11/30/04	426453

Station 3263	Location WBN MW-A	Description 0.58 MILES SSE	<u>Analysis</u>	<u>Nuclide</u>	Activity	Error	Date Collected	Lab Number
			GROSS	BETA			•	
					1.5055	.7203	10/05/04	425403-
		•			1.0364	.6854	11/02/04	425955
					1.8484	.7437	11/30/04	426453
			GAMMA	SCAN (GELI)	•			
				AC-228	4.0050	0.0007	40/00/00	400407
		•	•		1.0858	3.2827	12/30/03	420107
	•			BI-214	6.1104	3.1654	12/30/03	420107
	•				101.6476	8.9405	01/27/04	420615
	•				18.3033	4.5975	02/24/04	421142
占	•				19.1017	4.9406	03/23/04	421654
-126-					9.5806	2.3957	04/20/04	422181
1 .					7.7094	2.8720	05/18/04	422761
					6.3688	2.9313	06/15/04	423293
					1.0557	1.9793	07/13/04	423855
					10.5882	3.4646	08/10/04	424390
				•	11.2739	2.8909	09/07/04	424902
٠					4.7976	2.3477	10/05/04	425403
		•			24.0851	4.2365	11/02/04	425955
					22.9876	3.7394	11/30/04	426453
	•			K-40			,	
				,, ,,	25.1558	16.8204	02/24/04	421142 .
					35.6149	16.4678	07/13/04	423855
				PB-212				
					3.1141	2.4971	06/15/04	423293
				PB-214				
					6.9138	3.3115	12/30/03	420107

Station 3125	Location WBN WELL #5	<u>Description</u> 0.5 Miles N	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
3120	WON WELL#3	O.5 Willes IN	TRITIUM					
					14.3511	55.3215	12/30/03	420097
					- 51.5498	65.6878	01/27/04	420605
					40.1176	65.7262	02/24/04	421132
					47.8661	73.0201	03/23/04	421644
					67.5017	72.6392	04/20/04	422171
					23.6999	72.3792	05/18/04	422751
	•				- 51.5480	67.2986	06/15/04	423283
					12.9902	67.4578	07/13/04	423845
					18.4207	74.2235	08/10/04	424380
t	•			•	56.1455	65.5225	09/07/04	424892
-127-		•	•		161.8960	68.7376	10/05/04	425393
7-					75.1520	67.7731	11/02/04	425945
					117.2730	68.4595	11/30/04	426443
3263	WBN MW-A	0.58 MILES SSE						
		•	GROSS	BETA				
	_				4.3105	.8793	12/30/03	420107 .
	·				4.1325	.8627	01/27/04	420615
			•		3.5242	.8278	02/24/04	421142
					1.4996	.7115	03/23/04	421654
					1.2484	.7113	04/20/04	422181
					1.9168	.7818	05/18/04	422761
			•		5.7667	.9593	06/15/04	423293
					1.6053	.6900	07/13/04	423855
					1.0089	.7097	08/10/04	424390
				•	.6121	.6799	09/07/04	424902

Station 3125	Location WBN WELL #5	Description 0.5 Miles N	Analysis	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA	SCAN (GELI)				
				BI-214				
					4.0106	2.5077	11/30/04	426443
				K-40	40.0007	04 440	4040040	100007
			•		13.0297	21.4105	12/30/03	420097
			•		18.5550	10.4333	01/27/04	420605
					18.6922	18.2512	02/24/04	421132
	•			•	24.1592	14.3751	03/23/04	421644
					8.8609	18.4277	05/18/04	422751
				NO ACTIVITY E				
		•			.0000	.0000	04/20/04	422171
ᇈ		•		PB-212	2407	0.0040	40100100	100007
-128-					.3137	2.2810	12/30/03	420097
~~~					.2094	1.7552	06/15/04	423283
					2.4861	1.8513	08/10/04	424380
					1.9610	2.3045	11/02/04	425945
			•	PB-214		0.0704	40,000,00	100007
		•			.7087	2.9504	12/30/03	420097
					7.3064	2.8503	01/27/04	420605
					.8785	2.4734	02/24/04	421132
					7.7522	3.1525	03/23/04	421644
					4.2694	2.0088	08/10/04	424380
			•		9.5961	3.1937	09/07/04	424892
					3.4782	2.6221	11/30/04	426443
	•	•		TL-208				
					1.4056	1.2453	12/30/03	420097
					1.0632	1.0251	05/18/04	422751
					.8897 ·	1.1370	08/10/04	424380
•	•				2.6241	1.5566	11/02/04	425945

Station 3125	Location WBN WELL #5	Description 0.5 Miles N	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
3123	WDN WELL#3	U.5 ivines iv	GROSS	BETA			•	
					1.3657	.6270	04/20/04	422171
					2.8619	.7230	05/18/04	422751
					1.9595	.6662	06/15/04	423283
			•		2.2352	.6918	07/13/04	423845
					2.2050	.6782	08/10/04	424380
			•		1.9037	.6537	09/07/04	424892
	•	•			1.8457	.6584	10/05/04	425393
	•				1.7900	.6386	11/02/04	425945
	•	•			3.4356	.7314	11/30/04	426443
-129-			GAMMA	SCAN (GELI) AC-228				
φ.		•			5.4467	4.6861	12/30/03	420097
					5.4233	4.0964	03/23/04	421644
	•				6.5491	5.0689	08/10/04	424380
					5.3143	3.7312	09/07/04	424892
					3.1719	3.2784	10/05/04	425393
	·			BI-214				
•					1,9720	2.2367	12/30/03	420097
					7.7718	3.3266	01/27/04	420605
					3.8455	2.4563	02/24/04	421132
					18.1388	4.2627	03/23/04	421644
					.5449	2.4419	07/13/04	423845 -
					4.5383	2.4657	08/10/04	424380
					14.5771	2.1361	09/07/04 .	424892
					2.1371	3.1791	10/05/04	425393
					2.0312	3.2586	11/02/04	425945

Station	Location	<u>Description</u>	Analysis Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
3121	WBN WELL #1	0.6 MILES S	041444 0041405111				•
			GAMMA SCAN (GELI) PB-214	•			
			FD-214	12.8081	2.5993	11/30/04	426442
			TL-208	12.0001	2.0000	11700704	420442
			200	.3661	1.0275	02/24/04	421131
ė				.7961	1.3455	03/23/04	421643
				2.5974	1.8136	05/18/04	422750
			TRITIUM	<b></b> , .			
•		•		290.2173	61.4719	12/30/03	420096
		•		164.9801	68.1756	01/27/04	420604
				322.5680	70.8948	02/24/04	421131
<u> </u>			•	313.3860	77.6554	03/23/04	421643
-130-				349.1400	78.3821	04/20/04	422170
•		•		303.1949	77.2129	05/18/04	422750
				360.1644	74.2563	06/15/04	423282
				308.1271	72.3405	· 07/13/04	423844
				195.6733	76.7774	08/10/04	424379
				283.2624	70.4241	09/07/04	424891
				338.0325	72.3275	10/05/04	425392
				233.4731	70.1816	11/02/04	425944
				320.8015	72.4205	11/30/04	426442
3125	WBN WELL#5	0.5 Miles N	•				
			GROSS BETA				
	•		·	4.1550	7574	. 40/20/02	420007
					.7574	12/30/03	420097
			•	2.3438	.6959	01/27/04	420605
	•			2.7056	.6877	02/24/04	421132
				1.9415	.6443	03/23/04 -	421644

3121 WBN WELL #1 0.6 MILES S  GAMMA SCAN (GELI)	424891
	424804
BI-214	A2A8Q1
6.3609 3.0648 09/07/04	424031
14.4344 3.1919 10/05/04	425392
7.2603 4.9485 11/02/04	425944
15.8779 3.7176 11/30/04	426442
. K-40	
18.9832 27.5223 02/24/04	421131
14.5814 17.3353 04/20/04	422170
11.1789 12.3380 09/07/04	424891
17.5669 17.0525 10/05/04	425392
6.4679 14.3137 11/30/04	426442
1 0.4679 14.3137 17/30/04	
.0000 .0000 07/13/04	423844
PB-212	
2.6205 2.3957 03/23/04	421643
.5168 1.8994 10/05/04	425392
2.7629 2.3280 11/02/04	425944
PB-214	
8.2190 3.3605 12/30/03	420096
<b>22.0486</b> 5.4859 01/27/04	420604
13.4329 3.6514 02/24/04	421131
17.2745 4.2164 03/23/04	421643
4.3420 2.9857 04/20/04	422170
1.0053 2.2916 06/15/04	423282
4.3141 3.1274 08/10/04	424379
4.9857 2.8386 09/07/04	424891
10.9998 3.4080 10/05/04	425392

Station 3121	Location WBN WELL #1	Description 0.6 MILES S	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
			GROSS E	BETA				
					4.2293	.8110	12/30/03	420096
					2.8680	.7626	01/27/04	420604
					1.0952	.6641	02/24/04	421131
	•				2.1250	.7023	03/23/04	421643
					1.8444	.7105	04/20/04	422170
					2.0390	.7428	05/18/04	422750
		٠			3.5412	.8150	06/15/04	423282
					1.6376	.7213	07/13/04	423844
					3.0575	.7853	08/10/04	424379
,t,	•				.9838	.6788	09/07/04	424891
-132-	•			•	2.7508	.7418	10/05/04	425392
2					2.5772	.7307	11/02/04	425944
	·				2.9923	.7881	11/30/04	426442
			GAMMA:	SCAN (GELI) AC-228		•		
			•	A0-220	5.4649	4.0316	. 10/05/04	425392
	•				· 7.2110	4.3773	11/30/04	426442
				BI-214				
	•			_,_,	12.2883	4.5819	12/30/03	420096
					24.0558	3.6887	01/27/04	420604
					14.4132	3.6775	02/24/04	421131
		•			22.9288	4.2501	03/23/04	421643
				•	4.8899	2.4026	04/20/04	422170
					.1025	3.2125	05/18/04	422750
			•		6.0247	3.1241	06/15/04	423282
			•		4.5900	3.8157	08/10/04	424379
	_							

Station 3133	Location TRM 529.3	<u>Description</u>	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	<u>Error</u>	Date Collected	<u>Lab Number</u>
			TRITIUM		•			
					112.1450	67.5316	10/12/04	425501
		•			119.0263	67.3718	11/08/04	426055
					173.4417	66.7897	12/07/04	426560

Station 3133	Location TRM 529.3	<u>Description</u>	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
	•		GAMMA	SCAN (GELI)				
		•		PB-214				
					7.7763	3.1989	01/06/04	420199
			,		17.2072	3.7738	02/03/04	420717
					20.5380	4.7933	03/02/04	421245 ·
					15.7361	2.5989	03/30/04	421754
		•			23.1710	4.8630	04/27/04	422358
					7,4537	2.7894	05/25/04	422888
					12.5084	3.6378	12/07/04	426560
	·		•	TL-208		•	•	•
				•	.8114	1.2273	01/06/04	420199
1		_		• •	3153	1.1358	05/25/04	422888
-134-			•		2.0443	1.1790	07/20/04	423967
T					.4021	.8007	12/07/04	426560
		•	TRITIUM	l		•		
					147.0057	57.4099	01/06/04	420199
					19.1370	60.9975	02/03/04	420717
					- 44.8705	74.0341	03/02/04	421245
					142.3381	74.0883	03/02/04	421259
					149.4331	73.2530	03/30/04	421754
					170.6873	75.2471	04/27/04	422358
					137.4733	68.2652	05/25/04	422888
				•	156.7048	74.7896	05/25/04	422902
		•			42.7019	68.9394	06/22/04	423423
					203.4031	74.1185	07/20/04	423967
					191,4291	76.4925	08/17/04	424487
	•			•	84.2957	66.9039	09/14/04	425002

Station 3133	Location TRM 529.3	Description	<u>Analysis</u>	<u>Nuclide</u>	Activity	<u>Error</u>	Date Collected	<u>Lab Number</u>
0.00			GROSS	BETA				
		•		•	2.1454	.6468	12/07/04	426560
		•	GAMMA	SCAN (GELI)	2.1101	.0 100	1207701	120000
	•			BI-214				
					· 10.0513	3.2532	01/06/04	420199
					16.7733	3.9670	02/03/04	420717
					26.8493	4.2452	03/02/04	421245
	•				14.9110	3.7018	03/30/04	421754
					35.3749	5.4146	04/27/04	422358
	•		•		2.0430	2.5707	06/22/04	423423
					3.2643	3.1089	08/17/04	424487
<u> </u>					6.4984	2.8375	10/12/04	425501
-135-		•			16.2465	3.3800	12/07/04	426560
•				K-40		•		
				. •	12.0031	17.4375	01/06/04	420199
					35.4165	21.8851	02/03/04	420717
	. •		•		43.1676	16.9070	• 03/02/04	421245
				•	29.1644	42.5002	04/27/04	422358
					10.6458	15.9392	07/20/04	423967
	•				1.5729	13.8165	08/17/04	424487
	·				7.7601	9.4284	09/14/04	425002
				NO ACTIVITY	DETECTED			
				•	.0000	.0000	11/08/04	426055
				PB-212				
			•		2.1336	2.2328	02/03/04	420717
	•				1.9422	1.7593	06/22/04	423423
	_				.6759	1.4022	07/20/04	423967
	·			PB-214				

Station 2140	Location CF INDUSTRIES	Description TRM 473.0	Analysis Nuclide	Activity	Error	Date Collected	<u>Lab Number</u>
2140	CF INDUSTRIES	1 KW 475.0	TRITIUM				
				190.6551	70.8700	06/07/04	423085
				140.1485	74.2333	06/07/04	423173
•				182.2009 .	70.5697	07/07/04	423642
				209,4505	76.3138	08/04/04	424181
			•	184.3603	67.7756	08/31/04	424692
				157.8317	67.5579 ·	08/31/04	424780
				206.3279	68.1828	09/29/04	425201
•	•	•	•	114.8538	67.4376	10/26/04	425737
			·	204.8074	69.3223	11/22/04	426230
.1.				183.5626	66.8937	12/16/04	426745
1 <u>1</u> 3133		•		· 170.5575	68.5858	12/16/04	426833
3133	TRM 529.3			•			
			GROSS BETA				
			·	3.0616	.7083	01/06/04	420199
				3.6628	.7570	02/03/04	420717
				2.7110	.6843	03/02/04	421245
				2.2890	.6651	03/30/04	421754
		•		1.6142	.6291	04/27/04	422358
•			·	1.9900	.6894	05/25/04	422888
		•		1.8757	.6588	06/22/04	423423
				2.2505	.6957	07/20/04	423967
				2.6575	.6949	08/17/04	424487
		•		2.7741	.7176	09/14/04	425002
				2.0678	.6568	10/12/04	425501
				2.5666	.6705	11/08/04	426055
						•	

Station 2140	Location CF INDUSTRIES	Description TRM 473.0	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
2140	Or INDOOTTIES	11111 475.0	GAMMA	SCAN (GELI)				
			C/ IIIII//	BI-214		•		
		·			.6889	2.5897	12/16/04	426745 -
		•		K-40				
					21.0020	13.4332	02/18/04	420926.
					8.7144	12.2193	04/13/04	421962
					5.4145	16.8819	07/07/04	423642
					21.1956	14.9123	09/29/04	425201
				NO ACTIVITY DI	ETECTED			
				•	.0000	.0000	08/31/04	424692
					.0000	.0000	10/26/04	425737
1				PB-212			•	
-137-	·		•		5.6960	2.6993	06/07/04	423085
7-				PB-214				
		•			22.4864	3.9614	01/20/04	420364
					33.4042	4.7799	02/18/04	420926
					4.3562	3.2081	03/15/04	421424
	•				1.3951	2.2712	04/13/04	421962
					6.3983	3.4312	08/04/04	424181
				•	9.4552	2.8378	09/29/04	425201
					5.5768	3.5346	11/22/04	426230
			TRITIUM					
				·	- 9.4187	66.3080	01/20/04	420364
				•	36.4512	61.1481	02/18/04	420926
	•			•	95.1015	57.3161	03/15/04	421424
					193.0845	74.0076	03/15/04	421512
					133.8401	73.6159	04/13/04	421962
					154.3578	73.4668	05/10/04 ·	422542

Station 2140	Location CF INDUSTRIES	Description TRM 473.0	<u>Analysis</u>	Nuclide	Activity	Error	Date Collected	<u>Lab Number</u>
2140	CF INDUSTRIES	TRW 475.0	GROSS	BETA				
					2.4199	.6645	03/15/04	421424
					2.0930	.6519	04/13/04	421962
					1.5986	.6272	05/10/04	422542
					1.2844	.6445	06/07/04	423085
	•				2.0363	.6884	07/07/04	423642
					2.2840	.6769	08/04/04	424181
	•		•		1.7748	.6514	08/31/04	424692
					2.4939	.6718	09/29/04	425201
	•				· 2.2694	.6486	10/26/04	425737
<u>.</u>					2.9732	.6854	11/22/04	426230
-138-					1.5623	.6243	12/16/04	426745
ĩ	• •		GAMMA	SCAN (GELI)	•	•		
				AC-228		•		•
				,	4.1681	3.4740	04/13/04	421962
		•			8.3664	4.7315	07/07/04	423642
					6.3540	3.9838	11/22/04	426230
				BI-214		4		
	•				23.6808	4.8738	01/20/04	420364
•				ē	33.0196	4.5415	02/18/04	420926
					1.6388	2.7265	03/15/04	421424
					5.8040	2.6179	04/13/04	421962
					5.2339	2.9171	05/10/04	422542
			•		3.8072	4.0434	07/07/04	423642
	•				7.5984	2.3293	08/04/04	424181
					11.3331	3.5525	09/29/04	425201
		•		•	• 1.5326	2.4523	11/22/04	426230

Station 2116	<u>Location</u> Dayton, TN	<u>Description</u>	<u>Analysis</u>	<u>Nuclide</u>	. <u>Activity</u>	Error	Date Collected	Lab Number
2110	Dayton, IN	TRM 503.8	GAMMA S	SCAN (GELI) TL-208				
					1.2232	.9820	02/17/04	420924
			•		1.3910	1.4769	07/06/04	423640
		•			.6011	.9334	09/28/04	425199
			TRITIUM					
			•		5.0715	66.4805	01/20/04	420362
					107.6311	62.4541	02/17/04	420924
					94.5809	58.0598	03/16/04	421422
		•			97.9459	73.0288	03/16/04	421511
					116.2103	73.3941	04/13/04	421959
-139-					60.4620	71.9674	05/11/04	422540
9-		•			104.2843	68.9580	06/08/04	423083
					72.2669	73.0191	06/08/04	423172
					97.9402	69.7832	07/06/04	423640
					133.3738	75.7828	08/03/04	424179
					· 54.7213	66.4769	08/31/04	424690
					179.0004	68.8271	08/31/04	424779
		•			176.4932	<b>68.3248</b> .	09/28/04	425199
		•			94.8186	68.0849	10/26/04	425735
		·			141.2174	68.1586	11/22/04	426227
					129.3628	66.5628	12/20/04	426743
					139.9146	68.7183	12/20/04	426832
2140	<b>CF INDUSTRIES</b>	TRM 473.0						
			GROSS E	BETA				
					1.9936	.6738	01/20/04	420364
					1.2120	.6058	02/18/04	420926
	*					•		

Station 2116	<u>Location</u> Dayton, TN	Description TRM 503.8	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
	22,10	11/W 303.0	GAMMA S	SCAN (GELI)			•	
				BI-214				
					.1217	2.5116	10/26/04	425735 ·
					7.7663	3.1970	12/20/04	426743
				K-40	•			•
					10.2304	21.6550	01/20/04	420362
					8.5381	17.8549	03/16/04	421422
			•		11.6859	14.7035	04/13/04	421959
	•				46.6868	22.5872	05/11/04	422540
					7.8821	15.6799	06/08/04	423083
	•			•	11.6332	17.6266	08/03/04	424179
L		•			16.3061	11.0904	11/22/04	426227
-140-					10.7017	22.9649	12/20/04	426743
Υ.				PB-212		-		
					1.1397	1.4836	01/20/04	420362
	•				.1527	2.1819	05/11/04	422540
					.8172	1.4918	06/08/04	423083
	•				.5031	2.0361	07/06/04	423640
					1.2953	1.2805	09/28/04	425199
				PB-214				
					9.1339	3.0321	01/20/04	420362
					37.1045	4.8366	02/17/04	420924
					2.1135	1.9025	05/11/04	422540
					1.7194	3.1492	07/06/04	423640 ·
					4.5255	4.7797	08/03/04	424179
					4.0427	3.6886	08/31/04	424690
					14.2662	2.4335	09/28/04	425199
					7.3504	2.0472	12/20/04	426743

Station 2116	<u>Location</u> Dayton, TN	Description TRM 503.8	<u>Analysis</u>	<u>Nuclide</u>	Activity	Error	Date Collected	Lab Number
	•		GROSS I	BETA				
					3.6462	.7621	01/20/04	420362
					2.2097	.6557	02/17/04	420924
					1.2066	.6004	03/16/04	421422
					1.6003	.6530 -	04/13/04	421959
	•				2.5768	.6745	05/11/04	422540
			•		1.0645	.6362	06/08/04	423083
	•				2.2338	.7051	07/06/04	423640
	_				2.5128	.6915	08/03/04	424179
	•				1.3293	.6281	08/31/04	424690
1					1.8483	.6453	09/28/04	425199
-141-					2.9667	.6869	10/26/04	425735
7					1.2095	.6032	11/22/04	426227
		•	,÷		1.9186	.6358	12/20/04	426743
		•	GAMMA	SCAN (GELI)				
	·	•		AC-228				
•					7.2855	3.4208	,08/03/04	424179
		·.			.7946	3.4223	12/20/04	426743 .
				BI-214				
				•	19.7547	3.6857	01/20/04	420362
					40.9096	5.6345	02/17/04	420924
					7.6194	3.5938	03/16/04	421422
					7.4967	3.1407	04/13/04	421959
			•		5.8378	3.0840	05/11/04	422540
					<b>4.4913</b> .	4.2042	08/03/04	424179
					.9497	2.7170	08/31/04	424690
	•			•	16.0517	3.4144	09/28/04	425199

Station 3135	Location	Description	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
3135	TRM 523.1		TRITIUM					
					30.734 <del>6</del>	60.6291	02/03/04	420720
					50.2365	74.3986	03/02/04	421248
					114.1544	72.9711	03/02/04	421261
					116.8445	72.7096	03/30/04	421757
			•		53.5962	69.0453	04/27/04	422361
			•		92.1448	67.5219	05/25/04	422891
					50.8868	72.2000	05/25/04	422904
				•	51.4716	69.3130	06/22/04	. 423426
					209.1800	75.1840	07/20/04	423970
1					162.5108	77.3080	08/17/04	424490
142	-				101.6721	68.0292	10/12/04	425504
2-					127.1759	68.4684	11/08/04	. 426058
					163.8796	67,1897	12/07/04	426563

Station 3135	Location TRM 523.1	Description	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
3133	,111M 323.1		GAMMA S	SCAN (GELI)				
			•	BI-214				. •
					4.4932	3.2138	03/30/04	421757·
		-			12.1834	3.1583	04/27/04	422361
					.0816	2.6474	08/17/04	424490
					1.4126	2.5476	10/12/04	425504
					2.3357	2.4775	11/08/04	426058
			•		14.8832	4.0659	12/07/04	426563
	-			K-40	•			
					1.0082	15.1779	03/30/04	421757
	• •			NO ACTIVITY				
1	•				.0000	.0000	05/25/04	. 422891
14		•			.0000	.0000	06/22/04	423426
-143-				PB-212				
					2.1636	1.4615	07/20/04	423970
	•				1.8641	1.6070	08/17/04	424490
					.4072	1.5311	10/12/04	425504
				PB-214	44.0570	4.0754	04100104	400000
					11.2573	4.3751	01/06/04	420202
•					1.8051	2.1937	02/03/04	420720
		•			9.8680	4.4140	03/02/04	421248
					12.7733	3.1426	04/27/04	422361
					1.4239	3.4677	10/12/04	425504
					6.7897	3.9071	12/07/04	426563 .
				TL-208				
					.7115	.7564	03/30/04	421757
			TRITIUM			•		
					66.3551	55.3092	01/06/04	420202

Station	Location	Description	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
3134	TRM 517.9	•	TRITIUM					·
		•	_		102.9862	67.9892	10/12/04	425503
					90.0012	67.5720	11/08/04	426057
					154.9124	66.4462	12/07/04	426562
3135	TRM 523.1							
•			GROSS B	ETA				
					3.0781	.7016	01/06/04	420202
					3.3138	.7378	02/03/04	420720
	•				3.0128	.6952	03/02/04	421248
		•			6.7606			421757
.1.						.9531	03/30/04	
-144-					2.7758	.6902	04/27/04	422361
11					2.9938	.7447	05/25/04	422891
					2.6105	.7047	06/22/04	423426
		•			5.4256	:8817	07/20/04	423970
					13.1792	1.3113	. 08/17/04	424490
					2.3510	.6726	10/12/04	425504
					2.6405	.6756	11/08/04	426058
					1.4612	.6222	12/07/04	426563
			GAMMA S	SCAN (GELI)				
				AC-228				
·	•		•		5.4312	4.5066	03/02/04	421248
					2.2996	3.0306	04/27/04	422361
	•				4.5042	4.5518	11/08/04	426058
				BI-214	•			
					15.8849	4.5422	01/06/04	420202
					3.5565	2.8805	02/03/04	420720
	•				17.6625	6.2791	03/02/04	421248

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Station 3134	Location TRM 517.9	Description	<u>Analysis</u>	<u>Nuclide</u>	Activity	Error	Date Collected	Lab Number
0.01			GAMMA	SCAN (GELI) PB-214				
					103.6281	10.0051	01/06/04	420201
					12.8711	3.6092	02/03/04	420719
					8.6002	2.9892	03/02/04	421247
		,			7.3831	3.0218	03/30/04	421756
•			•		1.9472	3.0424	04/27/04	422360
					4.0574	3.4037	09/14/04	425004
		1			8.0680	3.1251	10/12/04	425503
	•	1 .		•	3.3134	2.1534	11/08/04	426057
•		•			8.4221	3.2162	12/07/04	426562
1.	•			TL-208	,			
145 5					.8144	1.2926	04/27/04	422360
ĭ					1.3526	1.4004	06/22/04	423425
			TRITIUM		•	•		•
					91.1512	59.2479	01/06/04	420201
		•			63.2152	62.0312	02/03/04	420719
					52.7851	75.1204	03/02/04	421247
					172.7478	76.5564	03/02/04	421260
				•	- 19.4371	71.4700	03/30/04	421756
					94.2394	72.9607	04/27/04	422360
					47.2932	67.7174	05/25/04	422890
•					138.2072	74.4099	05/25/04	422903
	•				115.2548	69.3938	06/22/04	423425
					136.9375	72.9280	07/20/04	423969
					133.0843	75.6183	08/17/04	424489
					196.4951	68.1383	09/14/04	425004

Station 3134	Location TRM 517.9	Description	<u>Analysis</u>	<u>Nuclide</u>	Activity	Error	Date Collected	Lab Number
3134	1KW 317.9		GROSS E	BETA				
	•				3.0426	.7115	08/17/04	424489
					3.1825	.7462	09/14/04	425004
					1.6864	.6354	10/12/04	425503
	•				1.7769	.6329	11/08/04	426057
				. •	2.5559	.6786	12/07/04	426562
			GAMMA:	SCAN (GELI) BI-214				
				DI-214	111.2994	9.1873	01/06/04	420201
					9.9306	4.9205	02/03/04	420719
					20.0813	4.1819	03/02/04	421247
<u> </u>		•			12.9038	9.5490	03/30/04	421756
-146-					1.2992	3.0524	04/27/04	422360
					7.3956	4.5001	06/22/04	423425
				:	2.4101	·2.0389	08/17/04	424489
		•			. 3.0404	2.9197	09/14/04	425004
			•		10.7095	3.6661	. 10/12/04	425503
•	•				3.6966	2.8960	11/08/04	426057
				•	14.3858	4.0290	12/07/04	426562
		•		K-40		•		
				•	19.9480	14.6074	02/03/04	420719
			,		36.9527	16.7363	03/30/04	421756
				_	4.0912	14.8312	07/20/04	423969
				NO ACTIVIT	TY DETECTED		,	
			•		.0000	.0000	05/25/04	422890
				PB-212				
					1.2911	1.5569	07/20/04	423969

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Station 3133	Location TRM 529.3	Description	Analysis N	<u>Nuclide</u>	<u>Activity</u>	<u>Error</u>	Date Collected	Lab Number
0100	11(11) 020.0		TRITIUM		•		•	•
					147.0057	57.4099	01/06/04	420199
	•				19.1370	60.9975	02/03/04	420717
					- 44.8705	74.0341	03/02/04	421245
		•			142.3381	74.0883	03/02/04	421259
·					149.4331	73.2530	03/30/04	421754
					170.6873	75.2471	04/27/04	422358
					137.4733	68.2652	05/25/04	422888
		·			156.7048	74.7896	05/25/04	422902
		•			42.7019	68.9394	06/22/04	423423
1					203.4031	74.1185	07/20/04	423967
-147-				•	191.4291	76.4925	08/17/04	424487
1					84.2957	66.9039	09/14/04	425002
		•			112.1450	67.5316	10/12/04	425501
•					119.0263	67.3718	11/08/04	426055
					173.4417	66.7897	12/07/04	426560
3134	TRM 517.9				•			•
		•	GROSS BE	TA				
					5.0732	.8249	01/06/04	420201
		•			4.6454	.8095	02/03/04	420719
	•		•		2.3164	.6635	03/02/04	421247
					2.6177	.7069	03/30/04	421756
	•				2.1791	.6602	04/27/04	,422360
					2.3334	.7065	05/25/04	422890
			•		1.6478	.6443	06/22/04	423425
					3.3802	.7593	07/20/04	423969

Station 3133	Location TRM 529.3	<u>Description</u>	<u>Analysis</u>	<u>Nuclide</u>	Activity	<u>Error</u>	Date Collected	<u>Lab Number</u>
			GAMMA :	SCAN (GELI)		•		
	•			K-40				
					35.4165	21.8851	02/03/04	420717 ·
		•			43.1676	16.9070	03/02/04	421245
					29.1644	42.5002	04/27/04	422358 -
					10.6458	15.9392	07/20/04	423967
					1.5729	13.8165	08/17/04	424487
· 、					7.7601	9.4284	09/14/04	425002
	•			NO ACTIVITY	DETECTED			
			•		.0000	.0000	11/08/04	426055
		•		PB-212	•			
1				•	2.1336	2.2328	02/03/04	420717
-148-	•	•	•		1.9422	1.7593	06/22/04	423423
ĩ					.6759	1.4022	07/20/04	423967
		•		PB-214	•			
					7.7763	3.1989	01/06/04	420199
					17.2072	3.7738	02/03/04	420717
					20.5380	4.7933	03/02/04	421245
					15.7361	2.5989	03/30/04	421754
				•	23.1710	4.8630	04/27/04	422358
					7.4537	2.7894	05/25/04	422888
					12.5084	3.6378	12/07/04	426560
				TL-208				
					.8114	1.2273	01/06/04	420199
		· .			.3153	1.1358	05/25/04	422888
	•				2.0443	1.1790	07/20/04	423967
			•		.4021	.8007	12/07/04	426560

Station	Location	Description	<u>Analysis</u>	Nuclide	Activity	Error	Date Collected	<u>Lab Number</u>
3133	TRM 529.3		GROSS E	BETA				
				•	3.0616	.7083	01/06/04	420199
					3.6628	.7570	02/03/04	420717
		·	•		2.7110	.6843	03/02/04	421245
	•				2.2890	.6651	03/30/04	421754
					1.6142	.6291	04/27/04	422358
					1.9900	.6894	05/25/04	422888
		· ·			1.8757	.6588	06/22/04	423423
		·			2.2505	.6957	07/20/04	423967
					2.6575	.6949	08/17/04	424487
					2.7741	.7176	09/14/04	425002
1					2.0678	.6568	10/12/04	425501
-149-					2.5666	.6705	11/08/04	426055
ı					2.1454	.6468	12/07/04	426560
			GAMMA	SCAN (GELI)	2.1454	, .0400	12/01/04	420300
			OAWWA.	BI-214				
	_		•	5. 4	10.0513	3.2532	01/06/04	420199
	·				16.7733	3.9670	02/03/04	420717
				•	26.8493	4.2452		421245
		•			14.9110	3.7018	03/30/04	421754
					35.3749	5.4146	04/27/04	422358
					2.0430	2.5707	06/22/04	423423
				•	3.2643	3.1089	08/17/04	424487
					6,4984	2.8375	10/12/04	425501
			•		16.2465	3.3800	12/07/04	426560
				K-40		<del>-</del>		
				-	12.0031	17.4375	01/06/04	420199

Table 11

RADIOACTIVITY IN TOMATOES

WATTS BAR NUCLEAR PLANT

PCI/KG - 0.037 BQ/KG (WET WT)

12/29/2003 - 12/24/2004

Station 2116	Location RM-2 DAYTON TN	Description 15.0 MILES SW	Analysis Nuclide	. <u>Activity</u>	<u>Error</u>	Date Collected	Lab Number
			GAMMA SCAN (GELI) BI-214				
				7.4425	9.4820	07/20/04	422282
			K-40	2206.1218	178.7456	07/20/04	422282
3116	MULLINS FARM	3.7 M. ESE		,			
		•	GAMMA SCAN (GELI) BI-214				
			• .	6.3831	7.5628	07/21/04	422333
	•		K-40	2395.7962	179.6531	07/21/04	422333

Table 10

RADIOACTIVITY IN POTATOES

WATTS BAR NUCLEAR PLANT
PCI/KG - 0.037 BQ/KG (WET WT)
12/29/2003 - 12/24/2004

<b>Station</b>	Location	Description	Analysis 1	<u>Vuclide</u>	<u>Activity</u>	<u>Error</u>	Date Collected	Lab Number
2116	RM-2 DAYTON TN	15.0 MILES SW					·	
			GAMMA SC	CAN (GELI)				
	•		E	BI-214				
					13.4299	12.2850	09/14/04	422279
	,	•	ŀ	K-40				
					3598.8787	259.2368	09/14/04	422279 ·
			F	PB-214	7.7954	8.0488	09/14/04	422279

Table 9
RADIOACTIVITY IN GREEN BEANS
WATTS BAR NUCLEAR PLANT
PCI/KG - 0.037 BQ/KG (WET WT)
12/29/2003 - 12/24/2004

Station	<u>Location</u>	<b>Description</b>	Analysis Nuclide	<u>Activity</u>	Error	<b>Date Collected</b>	Lab Number
2116	RM-2 DAYTON TN	15.0 MILES SW					
			. GAMMA SCAN (GELI)				
			BI-214			•	
				1.7021	7.2270	07/06/04	422281
			K-40				
			•	1414.5674	122.9931	07/06/04	422281
			PB-214				•
				.4503	5.6583	07/06/04	422281
3116	MULLINS FARM	3.7 M. ESE					
		•	GAMMA SCAN (GELI)				
			BI-214				
•	•	•		12.7061	7.6963	06/23/04	422332
•			K-40				
ㅗ				1957.8103	159.1234	06/23/04	422332
152			PB-214		•		
Ť				32.9846	8.1999	06/23/04	422332

Table 8
• RADIOACTIVITY IN CORN
WATTS BAR NUCLEAR PLANT
PCI/KG - 0.037 BQ/KG (WET WT)
12/29/2003 - 12/24/2004

<b>Station</b>	Location	<b>Description</b>	Analysis Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
2116	RM-2 DAYTON TN	15.0 MILES SW		•			
			GAMMA SCAN (GELI)				•
			BI-214		•		
				8.5289	4.5345	07/20/04	422280
			K-40		•		
				1857.4948	163.0002	07/20/04	422280
	•		PB-214				
				14.0686	6.1243	07/20/04	422280
3119	NORTON FARM	4.1 MILES ESE	•				
			GAMMA SCAN (GELI)				
			BI-214		•		
				13.7564	7.3080	07/07/04	422331
			K-40				
<u> </u>				2305.0657	181.6820	07/07/04	422331
153.			PB-214				
•				4.6230	6.9547	07/07/04	422331

Table 7
RADIOACTIVITY IN CABBAGE
WATTS BAR NUCLEAR PLANT
PCI/KG - 0.037 BQ/KG (WET WT)
12/29/2003 - 12/24/2004

<u>Station</u>	<u>Location</u>	Description	Analysis Nuclide	<b>Activity</b>	Error	<b>Date Collected</b>	Lab Number
2116	RM-2 DAYTON TN	15.0 MILES SW					
			GAMMA SCAN (GELI)			•	
			BI-214				
	•			15.0785	7.8635	06/22/04	422278
			K-40	•			
			•	1750.6873	160.4478	06/22/04	422278
			PB-214	•			
		•		5.8428	7.6898	06/22/04	422278
			. TL-208				•
				. 1.3193	2.8255	06/22/04	422278
3116	MULLINS FARM	3.7 M. ESE				•	
	•	•	GAMMA SCAN (GELI)				
	·		K-40				
-154				1862.7023	163.4469	06/09/04	422330
4.							
, •							

Table 6
RADIOACTIVITY IN APPLES
WATTS BAR NUCLEAR PLANT
PCI/KG - 0.037 BQ/KG (WET WT)
12/29/2003 - 12/24/2004

Station	Location	<u>Description</u>	Analysis Nucli	de <u>Activity</u>	Error	Date Collected	Lab Number
2116	RM-2 DAYTON TN	15.0 MILES SW	GAMMA SCAN BI-21	·			
	•		K-40	5.3406	6.8532	07/06/04	422283
	•			860.7740	115.6645	07/06/04	422283
0.40.4			PB-2	14 10.3525	<b>7.</b> 6549 ·	07/06/04	422283
3184	4.5 MILES N		GAMMA SCAN	•			
		•	AC-2	6.0099	10.5848	07/13/04	422335
1			BI-21	19.8949	11.1425	07/13/04	422335
155-			K-40	740.8818	76.6275	07/13/04	422335
	· .		PB-2	14 7.1737	6.4724	07/13/04	422335

Station 3205	Location RM-3 WB	Description 15 MILES NNW	<u>Analysis</u>	Nuclide	Activity	Error	Date Collected	Lab Number
3203	LIM-2 AAD	13 MILES MAY	GAMMA	SCAN (GELI)				
				CS-137	.5318 ·	.0283	06/29/04	423566
				K-40	4.0911	.2125	06/29/04	423566
•				PB-212	5535	.0433	06/29/04	423566
				PB-214	.6830	.0377	06/29/04	423566
	,			RA-226	.5979	.0333	06/29/04	423566
,	•			TL-208				
-156			SR 89		.1884	.0135	06/29/04	423566
1	,				6950	.4257	06/29/04	423566
•			SR 90					•
		•			.4436	.1629	06/29/04	423566

Station	<u>Location</u>	Description	Analysis	Nuclide	Activity	Error	Date Collected	Lab Number
3204	LM-4 WB	0.9 MILES SE	GAMMA	SCAN (GELI) K-40			-	
•					<b>27.2</b> 566	1.2182	06/30/04	423563
				PA-234M	3.9675	1.2218	06/30/04	423563
				PB-212	1.3012	.0597	06/30/04	423563
			٠.	PB-214	.9400	.0475	06/30/04	<i>-</i> 423563
	•	•		RA-224	1,4292	.1715	06/30/04	423563
1	•	· .		RA-226	.8671	.0450	06/30/04	423563
-157-				TL-208	.4252	.0214	06/30/04	423563
			SR 89		.4232	.0214	00/30/04	423303
					2027	.3955	06/30/04	423563
			SR 90					
3205	RM-3 WB	15 MILES NNW			.2373	.1486	06/30/04	423563
			GAMMA :	SCAN (GELI) AC-228				
	·			BI-212	.5344	.0434	06/29/04	<b>423566</b> .
				BI-214	.6889	.0891	06/29/04	423566
				DI-2 14	.5979	.0333	06/29/04	423566

Station 3203	Location LM3	Description 1.9 MILES NNE	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	<u>Error</u>	Date Collected	<u>Lab Number</u>
	LINO	1.0 11112		SCAN (GELI)				•
			•	K-40	7.5112	.4546	06/29/04	423559
				PB-212	1.1116	.0580	06/29/04	423559
				PB-214				
·				RA-224	.9743	.0491	06/29/04	423559
					1.0072	.2180	06/29/04	423559
				RA-226	.8512	.0463	06/29/04	423559
1	·			TL-208		.0205	06/29/04	423559
-158-	•		SR 89	•	.3537	.0203	00/29/04	423339
1				•	.0007	.3397	06/29/04	423559
			SR 90		10001			,
				•	.0870	.1224	06/29/04	423559
3204	LM-4 WB	0.9 MILES SE	041414	0044/0513				
			GAMMA	SCAN (GELI) AC-228				
				BI-212	1.3027	.0789	06/30/04	423563
	•	•			1.3426	.1336	06/30/04	423563
	•			BI-214	.8671	.0450	06/30/04	423563
				CS-137				
					.1256	.0152	06/30/04	423563

Station 3109	Location PM5 DECATUR	<u>Description</u> . 6.2 MILES S	Analysis Nuclide	Activity	Error	Date Collected	<u>Lab_Number</u>
3109	PMS DECATOR	. 0.2 MILES 5	GAMMA SCAN (GELI)	·			
			K-40	11.1337	.6585	06/30/04	423556
			PB-212	1.4125	.0640	06/30/04	423556
			PB-214	1.0624	.0437	06/30/04	423556
			RA-224	1.5605	.1761	06/30/04	423556
	,		RA-226				
			TL-208	.9371	.0525	06/30/04	423556
-159-			SR 89	.4608	.0275	06/30/04	423556
9			511.00	.2831	.3770	06/30/04	423556
	,		SR 90	.2001	.0770	00/00/04	. 420000
			•	.0362	.1353	06/30/04	423556
3203	LM3	1.9 MILES NNE	GAMMA SCAN (GELI)				
			AC-228	1.0669	.0629	06/29/04	423559
			BI-212	1,1571	.1259	06/29/04	423559
	•		BI-214				
			CS-137	.8512	.0463	06/29/04	423559
		•		.1285	.0163	06/29/04	423559

Station 3108	Location PM4	Description 7.6 MILES NE/ENE	<u>Analysis</u>	<u>Nuclide</u>	Activity	Error	Date Collected	Lab Number
3100	E. 1A144	7.0 MILLS NE/ENE	GAMMA	SCAN (GELI)				
				CS-137	.1020	.0118	06/30/04	423553
				K-40	5.5020	.3240	06/30/04	423553
	•	,		PB-212	•			
				PB-214	.8816	.0537	06/30/04	423553
				RA-226	.9643	0452	06/30/04	423553
	·.		·		.8297	.0452	06/30/04	423553
-160-				TL-208	.3043 ~	0169	06/30/04	423553
٩.			SR 89			•		
			SR 90		.1160	.3650	06/30/04	423553
			SK 90					
3109	PM5 DECATUR	6.2 MILES S			0009	.1287	• 06/30/04	423553
			GAMMA	SCAN (GELI) AC-228			•	
	,				1.4369	.0822	06/30/04	423556
				BI-212	1.5192	.1517	06/30/04	423556
				BI-214	.9371	.0525	06/30/04	423556
		•	٠	CS-137				
					.0616	.0078	06/30/04	423556

Station 3107	Location PM3	Description 10.4 MILES NNE	Analysis	Nuclide '	Activity	Error	Date Collected	Lab Number
3107	1 1913	10.4 WILLS WILL	GAMMA	SCAN (GELI)				·
		•		CS-137	.2380	.0199	06/29/04	423550
				K-40	3.5649	.2404	06/29/04	423550
				PB-212	3.3049	.2404		
·	•			PB-214	.9418	.0504	06/29/04	423550
		•			1.0600	.0579	06/29/04	423550
	_			RA-224	1.0586	.1677	06/29/04	423550
.1.	·			RA-226				
-161-		•		TL-208	.9444	.0498	06/29/04	423550
•			SR 89		.2969	.0158	06/29/04	423550
			SK 09					
			SR 90		2724	.3550	06/29/04	423550
		•	Circo		0007	4054	00/00/04	400550
3108	PM4	7.6 MILES NE/ENE			.0667	.1254	06/29/04	423550
	•		GAMMA	SCAN (GELI) AC-228				
					.8794	.0628	06/30/04	423553
	•			BI-212	1.0319	.0886	06/30/04	423553
				BI-214				
			•		.8297	.0452	06/30/04	423553

Station 3106	Location	Description	<u>Analysis</u>	<u>Nuclide</u>	Activity	Error	Date Collected	Lab Number
3100	PM2 SPRING CITY	7.0 MILES NW	GAMMA	SCAN (GELI) BI-214				
	·	•			.6204	.0414	06/29/04	423547 ·
				CS-137	.4516	.0343	06/29/04	423547 -
				K-40	10.4802	.5906	06/29/04	423547
		•		PB-212	.8769	.0584	06/29/04	423547
			•	PB-214	.6605	.0387	06/29/04	423547
-162-			•	RA-226	.6204	.0414	06/29/04	423547
52 <u>-</u>	•			TL-208	.2784	.0188	06/29/04	423547
		·	SR 89					
			SR 90		2748	.3552	06/29/04	423547
			5.1.00		.1950	.1293	06/29/04	423547
3107	PM3	10.4 MILES NNE	041044	00441/05111		V		
			GAMMA	SCAN (GELI) AC-228				
				DI 040	.8973	.0682	06/29/04	423550
				BI-212	1.0398	.1068	06/29/04	423550
				BI-214	.9444	.0498	06/29/04	.423550

Station 3102	Location LM2	Description 0.5 MILES N	<u>Analysis</u>	<u>Nuclide</u>	Activity	Error	Date Collected	Lab Number
0102	6	0.0 11112011	GAMMA	SCAN (GELI)				
				BI-212	1.0932	.1456	06/29/04	423544
				BI-214	.7919	.0430	06/29/04	423544
	•	•		CS-137	•			
				K-40	.4335	.0246	06/29/04	423544
				PB-212	10.7356	.5538	06/29/04	423544
	•				1.0034	.0582	06/29/04	423544
<u>_</u>	•	•	•	PB-214	.8615	.0446	06/29/04	423544
-163-				RA-226	.7919	.0430	06/29/04	423544
				TL-208	•			
			SR 89.		.3341	.0199	06/29/04	423544
					.2991	.3258	06/29/04	423544
			SR 90	•	.2991	.3230		423344
	•				0216	.1143	06/29/04	423544
3106	PM2 SPRING CITY	7.0 MILES NW	GAMMA	SCAŅ (GELI)				
			OAMINA	AC-228				
			•	BI-212	.8739	.0575	06/29/04	423547
					.9024	.1089	06/29/04	423547

Station	Location	Description	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
3101	LM1 .	0.5 MILES SSW	GAMMA	SCAN (GELI) BI-212				
					1.2880	.1222	06/29/04	423540
				BI-214	.8677	.0495	06/29/04	423540
				CS-137	.1022	.0125	06/29/04	423540
			•	K-40		•	·	
				PB-212	14.2111	.63 <u>.</u> 86	06/29/04	423540
	•			PB-214	1.2652	.0630	06/29/04	423540
-164-					.9675	.0465	06/29/04	423540
4				RA-224	1.4092	.2444	06/29/04	423540
				RA-226	.8677	.0495	06/29/04	423540
				TL-208	•			
			SR 89		.4096	.0225	06/29/04	423540
					.3146	.3114	06/29/04	423540
			SR 90					,,
					0131	.1101	06/29/04	423540
3102	LM2	0.5 MILES N	GAMMA	SCAN (GELI)	·			
				AC-228	.9513	.0610	06/29/04	423544

Station 2116	Location RM-2 DAYTON TN	Description 15.0 MILES SW	Analysis Nuclide	<u>Activity</u>	<u>Error</u>	Date Collected	Lab Number
			GAMMA SCAN (GE	:LI)			
•		•	AC-228	.7485	.0484	06/29/04	423514 ·
		•	BI-212	.7379	.0768	06/29/04	423514
			BI-214	.6272	.0426	06/29/04	423514
		•	CS-137	•			
			. K-40	0352	.0055	06/29/04	423514
1			PB-212	2.8483	.2034	06/29/04	423514
-165-			PB-214	.7392	.0433	06/29/04	423514
•			RA-226	.7381	.0440	06/29/04	423514
	•			.6272	.0426	06/29/04	423514
			TL-208	2110	.0120	06/29/04	423514
		•	SR 89	• •			
				0433	.3913	06/29/04	423514
			SR 90 ~.				
3101	LM1	0.5 MILES SSW	•	.0270	.1307	06/29/04	423514
3101	LIVI I	U.S MILLS SSVV	GAMMA SCAN (GE AC-228	ELI)	•		
		·	AU-220	1.2265	.0753	06/29/04	423540

Station 3119	Location NORTON FARM	<u>Description</u> 4.1 MILES ESE	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	Date Collected	Lab Number
			GAMMA :	SCAN (GELI)				
				PB-214				
					14.2713	3.1801	12/08/04	426559
					9.6032	2.3246	12/20/04	426789
	•			TL-208				
					2.9182	1.4976 ·	02/18/04	420968
•					.2060	.6604	05/12/04	422586
					6.3448	2.4325	06/09/04	423129
	· •				.4021	1.0427	06/23/04	423422
•			SR 89					
					2932	.9516	03/17/04	421468
-166					7711	.8516	05/26/04	422887
6-					.9123	1:1385	08/18/04	424486
•	`				1.5476	1.1118	11/08/04	426054
			SR 90					•
	•				.9620	.6247	03/17/04	421468
		•			1.4672	.5761	05/26/04	422887
	•				.1639	.7255	08/18/04	424486
				•	1.1967	.6039	11/08/04	426054

Station 3119	Location NORTON FARM	Description 4.1 MILES ESE	<u>Analysis</u>	Nuclide	Activity	Error	Date Collected	Lab Number
			GAMMA S	SCAN (GELI) K-40			•	
				N-40	1346.9286	83.7166	09/15/04	425001
			•		1216.4957	102.2450	09/29/04	425244
		,			1316.9622	96.5497	10/13/04	425500
					1245.8868	79.7215	10/27/04	425790
•					1340.7148	96.8139	11/08/04	426054
			•		1348.7874	85.6006	11/22/04	426273
					1101.8146	75.7405	12/08/04	426559
					865.4410	72.3638	12/20/04	426789
		•		PB-212				
	•				.0181	1.2854	01/21/04	420406
-167-	•	•			2.2814	2.1861	02/18/04	420968
1					1.3807	2.1370	03/17/04	421468
					2.9927	1.9666	05/12/04	422586
					1.6961	3.1189	06/09/04	423129
					.3818	2.1943	06/23/04	423422
					.2595	1.3725	07/07/04	423686
					7.1710	3.8296	07/21/04	423966
				PB-214 ·				
					6.2296	3.3726	01/21/04	420406
					14.5023	4.7253	02/04/04	420716 ·
					11.1060	4.0396	02/18/04	420968
					6.4400	3.1148	03/31/04	421753
					2.1222	3.2393	04/28/04	422357
					1.6503	2.0259	07/07/04	423686
					1.0714	2.4418	10/13/04	425500
					6.7056	2.7856	11/22/04	426273

3119 NORTON FARM 4.1 MILES ESE  GAMMA SCAN (GELI)  BI-214  1.3082 3.5511 09/01/04  11.9708 5.7324 09/29/04	424736 425244 425500 426054 426273 426559
1.3082 3.5511 09/01/04	425244 425500 426054 426273
11.9708 5.7324 09/29/04	425500 426054 426273
THE TOTAL TO	426054 426273
3,9074 2.3954 10/13/04	426273
10.8792 4.7531 11/08/04	
7.8727 3.6749 11/22/04	£26559
· 27.6576 4.2792 12/08/04	420000
- 11.6682 3.9717 12/20/04	426789
K-40	
1432.4234 109.5322 01/07/04	420198
1320.4553 80.3805 01/21/04	420406
1320.4553 80.3805 01/21/04 1309.4485 99.1054 02/04/04 1440.3162 98.4137 02/18/04	420716
1440.3162 98.4137 02/18/04	420968
1310.5794 97.7654 03/03/04	421244
1301.2219 91.9105 03/17/04	421468
928.8805 83.5352 03/31/04	421753
1494.0262 105.5287 04/14/04	422004
. 1505.1355 104.9935 04/28/04	422357
1422.9553 76.9865 05/12/04	422586
. 1493.5264 97.8333 05/26/04	422887
1468.0510 105.6977 06/09/04	423129
1319.7298 105.2803 06/23/04	423422
1297.9003 85.0030 07/07/04	423686
1375.0412 100.4756 07/21/04	423966
1401.8423 444.2447 08/04/04	424224
1318.5845 104.9551 08/18/04	424486
1265.2476 96.3194 09/01/04	424736

Station 3119	Location NORTON FARM	Description 4.1 MILES ESE	<u>Analysis</u>	<u>Nuclide</u>	Activity	Error	Date Collected	Lab Number
0110	TOTAL STATE	4.1 111120 202	IODINE-	131				
					0269	.0302	11/08/04	426054
					0131	.0414	11/22/04	426273
					.0119	.0765	12/08/04	426559
					.0349	.0495	12/20/04	426789
				SCAN (GELI)	•			
			•	AC-228	11.1429	6.7370	03/03/04	421244
					5.0855	3.8975	05/12/04	421244
	•				6.5118	5.5476	06/23/04	423422
	•				2.9550	5.1274	12/08/04	426559
-16				BI-214	2.9330	0.1214	12/00/04	420555
-169-				DI-2 14	6.0567	3.9439	01/07/04	420198
•					8.1178	3.4053	01/21/04	420406
					17.3637	5.5461	02/04/04	420716
					18.5620	6.2488	02/18/04	420968
					1.8399	3.5415	.03/03/04	421244
		•			8.4636	3.8473	03/17/04	421468 ·
	•				15.0286	3.5123	03/31/04	421753
	•				2.1753	3.7845	04/14/04	422004
					1.1288	2.6141	04/28/04	422357
					2.0719	2.1672	05/12/04	422586
		,			1.4165	3.2538	05/26/04	422887
			•		4.1600	3.0716	06/09/04	423129
					7.4569	2.0805	07/07/04	423686
					3.1726	4.0001	07/21/04	423966
,	1	•		•	2.6559	2.7452	08/04/04	424224

Station	Location	Description	Analysis Nuclide	<u>Activity</u>	Error	Date Collected	Lab Number
3116	MULLINS FARM	3.7 Miles ESE	SR 90			•	
				1.3074	.8178	08/18/04	424485
				1.5316	.5633	11/08/04	426053
3119	NORTON FARM	4.1 MILES ESE					•
			IODINE-131				•
	·		•	.0284	.0475	01/07/04	420198
			•	.0281	.0470	01/21/04	420406
			•	.0678	.0640	02/04/04	420716
	•		·	.0253	.0839	02/18/04	420968
•				.0325	.0542	03/03/04	421244
-170-				.0682	.0822	03/17/04	421468
-0				0172	.0405	03/31/04	421753
				.0153	.0571	04/14/04	422004
				.0352	.0589	04/28/04	422357
				.0323	.0539	05/26/04	422887
		•		0183	.0431	06/09/04	423129
				.0522	.0544	06/23/04	423422
				.0339	.0567	07/07/04	423686
				.0583	.0550	07/21/04	423966 .
				.0071	.0455	08/04/04	424224
				.0345	.0489	08/18/04	424486
				.0417	.0696	09/01/04	424736
	•			0171	.0402	09/15/04	425001
	:			.0343	.0573	09/29/04	425244
				0159	.0502	10/13/04	425500
				.0082	.0528	10/27/04	425790

Station 3116	Location MULLINS FARM	<u>Description</u> 3.7 Miles ESE	<u>Analysis</u>	<u>Nuclide</u>	<u>Activity</u>	Error	<u>Date Collected</u>	<u>Lab Number</u>
			GAMMA	SCAN (GELI)	•		•	
			•	PB-214				
		•		·	11.8020	4.4272	02/04/04	420715·
					13.8697	3.5831	02/18/04	420967
					3.0478	4.5152	03/03/04	421243
		•			6.5932	3.1544	03/17/04	421467
					3.7922	2.5836	04/14/04	422003
	•		•		6.1354	2.0505	04/28/04	422356
	•				.8656	1.9306	05/12/04	422585
	•				.4160	3.0402	06/09/04	423128
	•				.6534	2.2637	09/15/04	425000
1					6.1973	3.9597	09/29/04	425243
-171-					.9272	2.0077	11/08/04	426053
1.		•			13.0184	3.9009	11/22/04	426272
					32.6525	4.6151	12/08/04	426558
	•			•	10.0990	3.7096	12/20/04	426788
				TL-208				
					1.7436	1.3528	10/13/04	425499
					1.0852	1.1552	10/27/04	425789
·			SR 89					
					.4083	.7960	03/17/04	421467
					.0363	.8396	05/26/04	422886
					.2231	1.2569	08/18/04	424485 -
					1.0205	1,0133	11/08/04	426053
			SR 90					
					.9048	.5336	03/17/04	421467
					.9177	.5605	05/26/04	422886
		•			*= * * *			·

Station 3116	Location MULLINS FARM	<u>Description</u> 3.7 Miles ESE	<u>Analysis</u>	Nuclide	<u>Activity</u>	Error	Date Collected	<u>Lab Number</u>
0,,0			GAMMA	SCAN (GELI) K-40	•			
					1380.1596	99.1964	05/12/04	422585
					1404.1655	89.0445	05/26/04	422886
					1384.6946	89.4275	06/09/04	423128
•					1484.9800	101.4954	06/23/04	423420
		•			1571.9855	91.3726	07/07/04	423685
					1507.9876	96.8667	07/21/04	423965
				•	1463.0237	96.0587	08/04/04	424223
	•				1398.1543	92.4291	08/18/04	424485
		·			1361.6581	84.8309	09/01/04	424734
1	•				. 1363.6702	87.2457	09/15/04	425000
-172-					1315.8625	93.4017	09/29/04	425243
2-					1478.6994	103.9297	10/13/04	425499
					1285.3583	102.2307	10/27/04	425789
		•			1505.9854	92.4944	. 11/08/04	426053
					1325.9154	86.7328	11/22/04	426272
					1331.5601	90.3455	12/08/04	426558 <sup>°</sup>
				•	1297.0909	91.3536	12/20/04	426788
				PB-212	•			
					1.0357	2.1339	01/21/04	420405
	•		•		.9740	1.3562	07/21/04	423965
		·			1.8521	1.5274	09/15/04	425000
	•				6.3597	2.2495	10/13/04	425499
					1.6496	2.2011	10/27/04	425789
	•				1.5820	1.7905	12/08/04	426558
				PB-214				
	•				11.9648	3.8264	01/07/04	420196