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RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM
1992 ANNUAL REPORT

References: 1) WNP-2 (Operating License No. NPF-21), Technical Specification 6.9.1.10
2) EFSEC Resolution No. 260, January 13, 1992

Enclosed are copies of the subject report which are submitted per the referenced requirements.

Sincerely,

JW Parrish (Mail Drop 1023)
Assistant Managing Director, Operations

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FROM: J. V. Parrish, Assistant Managing Director, Operations (1023)

SUBJECT: DELEGATION OF AUTHORITY

REFERENCE:

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- JW Baker for WNP-2 matters
- MM Monopoli for all other Operations Directorate matters

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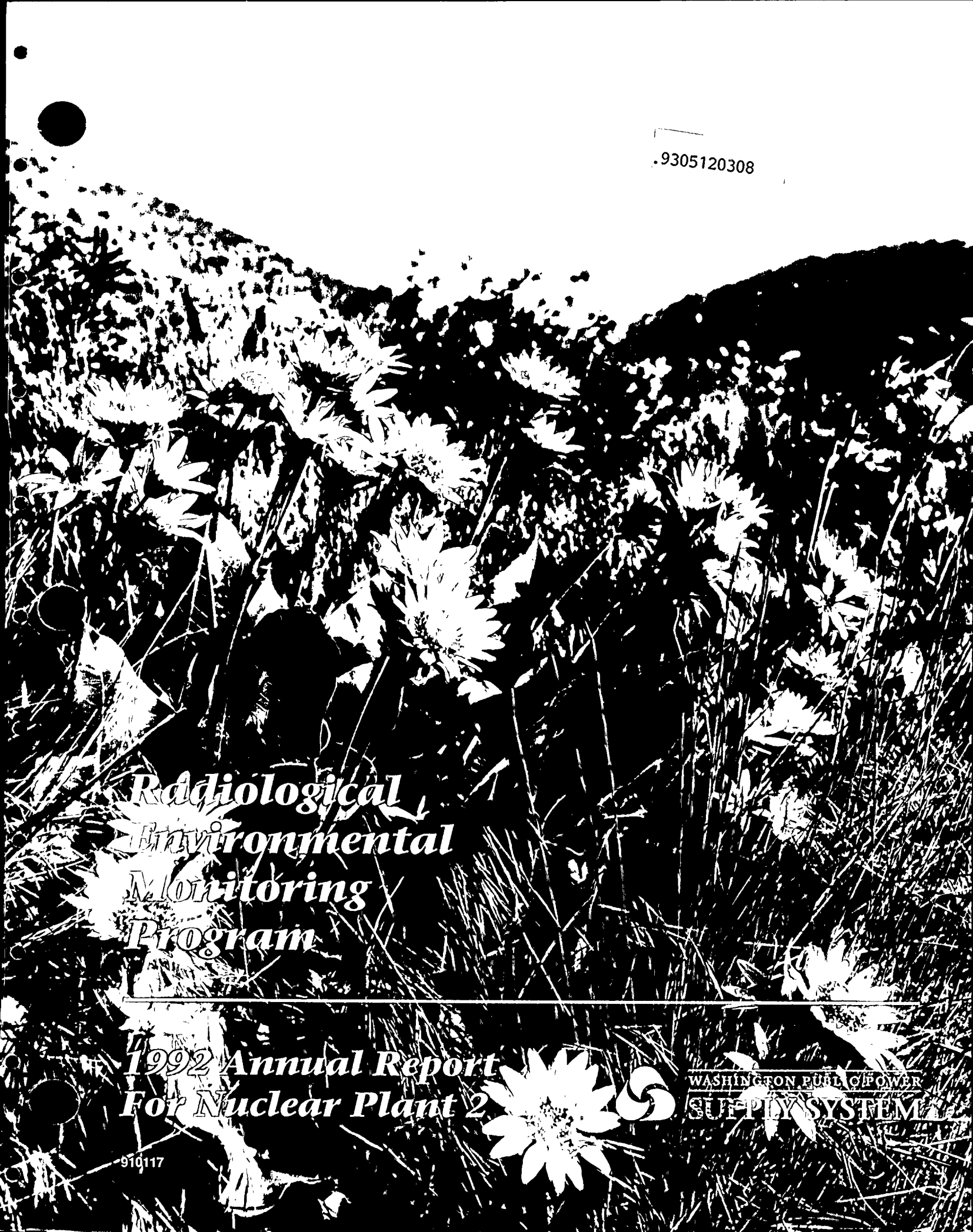

Radiological Environmental Monitoring Program

1992 Annual Report For Nuclear Plant 2

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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NUCLEAR PLANT NUMBER 2

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

1992 ANNUAL REPORT

April 1993

Technical Specification 6.9.1.10

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

NUCLEAR PLANT NUMBER 2

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

1992 ANNUAL REPORT

April 1993

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1.0 EXECUTIVE SUMMARY

The Washington Public Power Supply System Radiological Environmental Monitoring Program (REMP) activities during 1992 are discussed in this report. The objective of the REMP is to determine the radiological impact, if any, of Plant 2 operations on the environment. To accomplish that objective, air, water, milk, soil, sediment, fish and garden produce samples were collected on a regular basis from the region surrounding the plant. In addition, direct radiation from the plant and plant effluents was measured using thermoluminescent dosimeters (TLDs).

Determining whether plant operations significantly affected the environment involved comparison of samples taken in areas near the plant and in other regions which could be potentially impacted by Plant 2 effluents to samples taken in areas that are highly unlikely to be affected. In addition, a comparison of the samples taken during 1992 at locations of potential impact to samples taken at the same location prior to plant operation and during previous periods of operation provided another mechanism for detecting any changes in the environmental radioactivity attributable to Plant 2 operations. Other methods used to evaluate the REMP results and to bring the results into perspective included comparison of the 1992 results to the lower limits of detection (LLDs) determined for each radionuclide, to the preoperational averages and to the applicable State of Washington or U.S. Nuclear Regulatory Commission investigation or reporting levels or other standards.

Intercomparison programs or studies, through which the accuracy of the REMP analytical results and TLD results are demonstrated, were an important part of the quality assurance activities during 1992. Such intercomparisons tested the performance of the Supply System monitoring program against other monitoring programs and also against known values. The Supply System REMP performed well in the Environmental Measurements Laboratory (EML) and Environmental Protection Agency Intercomparison Studies conducted during 1992.

The 1992 results for the routine REMP sampling locations are consistent with the results for previous years. No significant new trends or changes in the environmental levels around the plant were evident at these locations. The data from two of the special interest stations, the storm drain and the sanitary waste treatment facility, reflect the problems which occurred at those locations during 1992. The Sanitary Waste Treatment Facility received sewage from the U.S. Department of Energy's Fast Flux Test Facility (FFTF). The radionuclides accumulating in its stabilization ponds, cobalt-60, cesium-137, and tritium, remained at low levels and did not exceed any state or federal regulations or standards. The Plant 2 storm drain pond, however, received radioactive effluents from the plant during the year and the levels of several radionuclides exceeded state and federal limits. A special report was submitted to the Nuclear Regulatory Commission (NRC) in July 1992, documenting the release of radioactivity to the pond in May. Subsequent notifications were made to the State of Washington and to the NRC when additional radioactivity or changes in the levels were observed. Corrective actions were taken by the plant to prevent a recurrence of the May release and to isolate potential sources of radioactivity to the storm drain. Although the levels of radioactivity at the storm drain exceeded some state and federal limits, the radioactivity at the site has no impact on the exposure rate at the site or to members of the public off-site. The storm drain outfall and pond is within the Plant 2 restricted area and is fenced, so access is limited. The release in May and the accumulation of

radioactivity at the storm drain pond have no impact upon the radiation dose to the public from plant operations.

The other special interest location, the containerized storage area, consisting of large metal containers holding low pressure turbine parts removed during the 1992 maintenance outage, showed no detectable radioactivity, aside from that which is naturally-occurring.

2.0 TERMINOLOGY

Becquerel (Bq): One disintegration per second. One picocurie (pCi) equals 0.037 becquerel.

Blank Sample: A sample of the same media as the field sample being analyzed but without the radionuclide(s) being measured. It enables correction for the inherent sample background.

Composite Sample: A series of single collected portions (aliquots) analyzed as one sample. The aliquots making up the sample are collected at time intervals that are very short compared to the composite period.

Control Station: A background sampling location, i.e., a location not likely to be affected by plant effluents due to its distance and/or direction from Plant 2.

Curie (Ci): 3.7×10^{10} disintegrations per second.

DOH: Washington State Department of Health.

EFSEC: Energy Facility Site Evaluation Council.

FFTF: U.S Department of Energy's Fast Flux Test Facility west of Plant 2.

Flow - Proportional Sampling: Sample collection volume or frequency determined as a function of the flow rate of the water being sampled.

Grab Sample: A single discrete sample drawn at one point in time.

Indicator Station: A sampling location that could be affected by plant effluents due to its proximity and/or direction from Plant 2.

Lower Limit of Detection (LLD): Detection capability. The smallest concentration of radioactive material in a sample that will yield a net count (above system background) that will be detected with 95% probability and a 5% probability of a false conclusion that a blank observation represents a "real" signal.

Mean: The average, i.e., the sum of results divided by the number of results.

Milliroentgen (mR): 1/1000 Roentgen; a unit of exposure to X or gamma radiation.

NIST: National Institute of Standard and Technology.

NRC: U.S. Nuclear Regulatory Commission.

ODCM: Offsite Dose Calculation Manual, which contains the program requirements formerly contained in the Technical Specifications.

Picocurie (pCi): 1×10^{-12} Curie or 2.22 disintegrations per minute; one millionth of a microcurie.

REMP: Radiological Environmental Monitoring Program.

Range: The difference between the smallest and largest results.

Restricted Area: Any area to which access is controlled for purposes of protection of individuals from exposure to radiation and radioactive materials.

Roentgen: Unit of exposure to X or gamma radiation in air.

Site Certification Agreement (SCA): The Plant 2 licensing agreement with the State of Washington.

Spike Sample: A sample containing a known concentration of the radionuclide(s) being measured.

Standard Deviation: A measure of the scatter of a set of observations (or samples) around their mean value.

Standard Error: An estimate of the uncertainty associated with the mean of observation (or sample) averages.

SWTF: Sanitary Waste Treatment Facility; sanitary waste processing facility for Plant 2 and WNP-1 and WNP-4 sites.

TLD: Thermoluminescent dosimeter; a TLD contains a phosphor which stores energy from exposure to radiation and emits that energy in the form of light when heated.

TL: Thermoluminescence.

3.0 INTRODUCTION

The Radiological Environmental Monitoring Program (REMP) for Washington Public Power Supply System Plant 2 provides for the collection and analysis of samples of various environmental media, in order to assess the radiological impact of plant operations. The environmental media routinely sampled by the REMP include air, water, milk, soil, river sediment, fish, vegetables, fruits, and root crops. Other sample media, such as vegetation and animal products (for example, eggs and meat) are also sampled under special circumstances when additional information about particular radionuclides is needed. The direct radiation near the plant and at various distances from the plant is assessed through the use of thermoluminescent dosimeters. Although no longer a routine requirement of the REMP, pressurized ionization chambers are also used to assess the direct radiation at various locations.

This annual report is written to satisfy the requirements of Plant 2 Technical Specification 6.9.1.10. The results of environmental measurements made during CY 1992 are presented in the report. The results are discussed and interpreted by comparing them to similar measurements made during the preoperational and previous operational periods and to the detection capabilities associated with the current methods of analysis. The quality assurance and quality control aspects of the program are also discussed in this report.

3.1 Site Description

Washington Public Power Supply System Plant 2 is located in a sparsely populated shrub-steppe region within the Department of Energy-operated Hanford Site in southeastern Washington. The plant is approximately three miles west of the Columbia River and is surrounded on all sides by uninhabited desert land. The nearest population centers are Richland, Kennewick and Pasco, which are 12 miles south, 21 miles southeast, and 18 miles southeast, respectively. The nearest privately-owned lands are located approximately four miles ENE of the plant, across the Columbia River. Given the prevailing wind directions, shown in the 1992 wind frequency distribution in Figure 3-1, the focus of REMP sampling is this farming region across the river.

Because Plant 2 is located on the Hanford Site, other sources of radioactive effluents are in relatively close proximity to Plant 2. For this reason, sampling locations near the plant (near-plant locations) provide useful information for separating the potential environmental effects of Plant 2 from the effects of the other effluent sources on the Hanford Site.

3.2 Program Background

The REMP is designed to conform to the regulatory guidance provided by Regulatory Guides 4.1[1] and 4.8[2], including the Radiological Assessment Branch Technical Position (BTP)[3], while taking into account site specific characteristics. The quality assurance aspects of the program and the thermoluminescent dosimetry are conducted in accordance with Regulatory Guides 4.15[4] and 4.13[5]. The REMP also must adhere to the requirements of the Site Certification Agreement (SCA)[6] with the State of Washington and the Plant 2 Technical Specifications[7] and the Offsite Dose Calculation Manual (ODCM)[8]. These requirements cover not only the environmental sampling and sample analysis aspects of the program, but also the reporting and quality assurance aspects of the program.

The preoperational phase of the program, which extended from March 1978 to January 19, 1984, the date of initial criticality, provided a baseline of environmental data. Variability in the background levels of radioactivity due to differences in geologic composition, nuclear weapons test fallout, meteorological conditions and seasonal changes is reflected in that preoperational data.

REMP environmental samples have always been analyzed by a contract analytical laboratory. Since June 1986, Teledyne Isotopes, Inc. in Westwood, New Jersey, has performed the analysis of REMP samples. The thermoluminescent dosimeters used in the REMP to assess the direct radiation are processed by the Supply System External Dosimetry Laboratory within the Health Physics Department.

3.3 Program Objectives

The REMP is the final stage in a series of monitoring programs that characterize and analyze the liquid and gaseous effluents from Plant 2. Figure 3-2 presents this monitoring hierarchy from the generation of the waste liquids and gases to the calculation of doses from these effluents and the measurement of radioactivity in the environment.

The REMP provides a mechanism for determining whether the levels of radioactivity in the plant environs are within established limits and for ensuring that the accumulation of radionuclides in the environment will not become significant as a result of plant operations. While in-plant monitoring programs are used to ensure that 10CFR20[9] and 10CFR50[10] criteria for releases of radioactive effluents are met, the REMP provides supplemental verification that the concentrations of radionuclides in the environment are not greater than anticipated.

Any radiological effect of Plant 2 on the environment must be distinguished from the normal variation in background radiation levels and from the effects of other sources of radioactive effluents in the area. The monitoring results obtained during each year of the plant's operation are compared to the preoperational data and to data from previous operating years, in order to determine whether a significant accumulation of plant-produced radionuclides has occurred in the environment. Quarterly averages of the results are also compared to the Nuclear Regulatory Commission (NRC) non-routine reporting levels listed in the ODCM. In addition to evaluating the environmental concentrations against federal standards or limits, the REMP also compares the results to state standards[11][12][13].

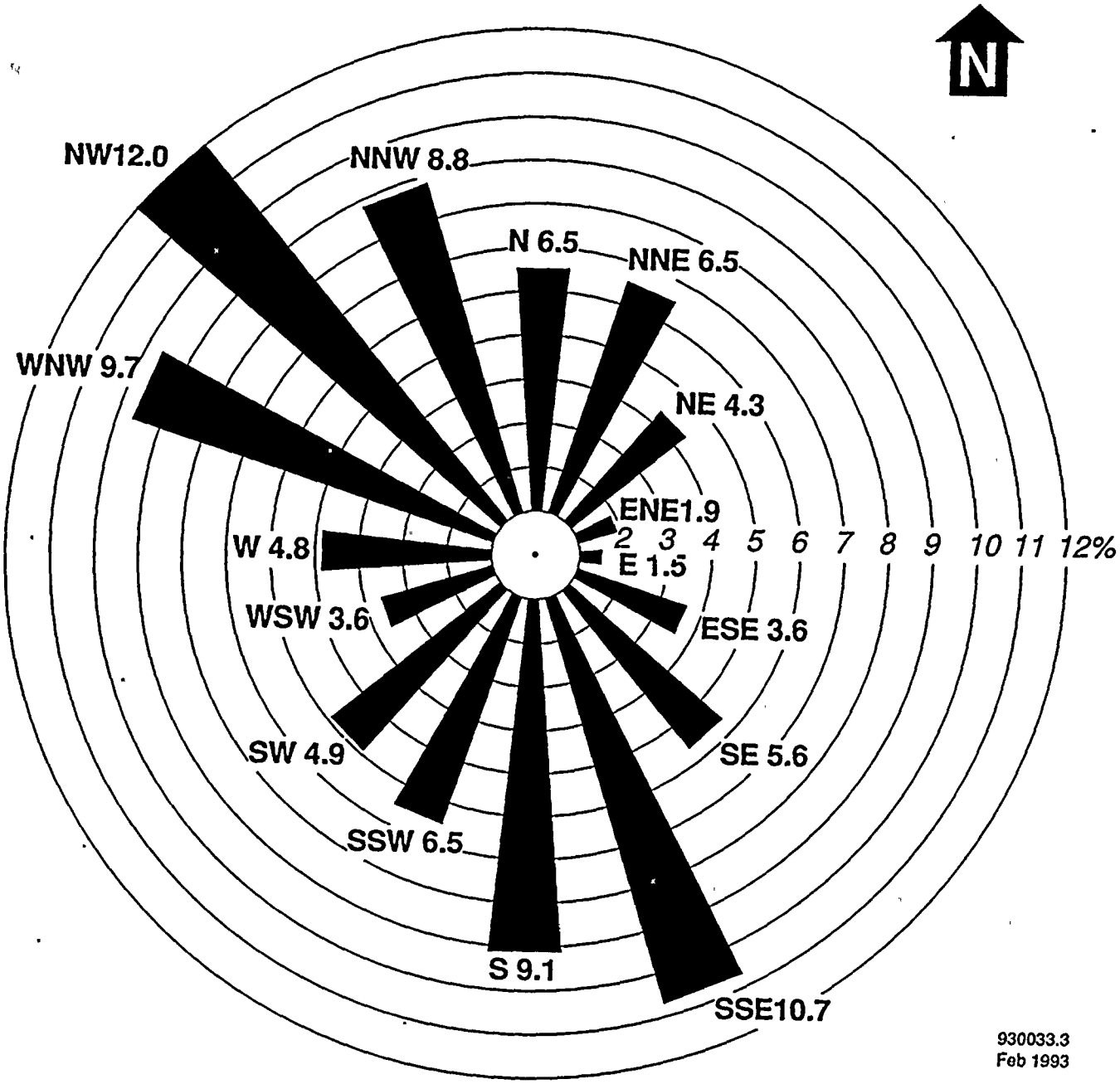

FIGURE 3-1
1992 WIND FREQUENCY DISTRIBUTION IN PERCENT FROM EACH DIRECTION
RELATIVE TO PLANT 2

Monitoring Hierarchy

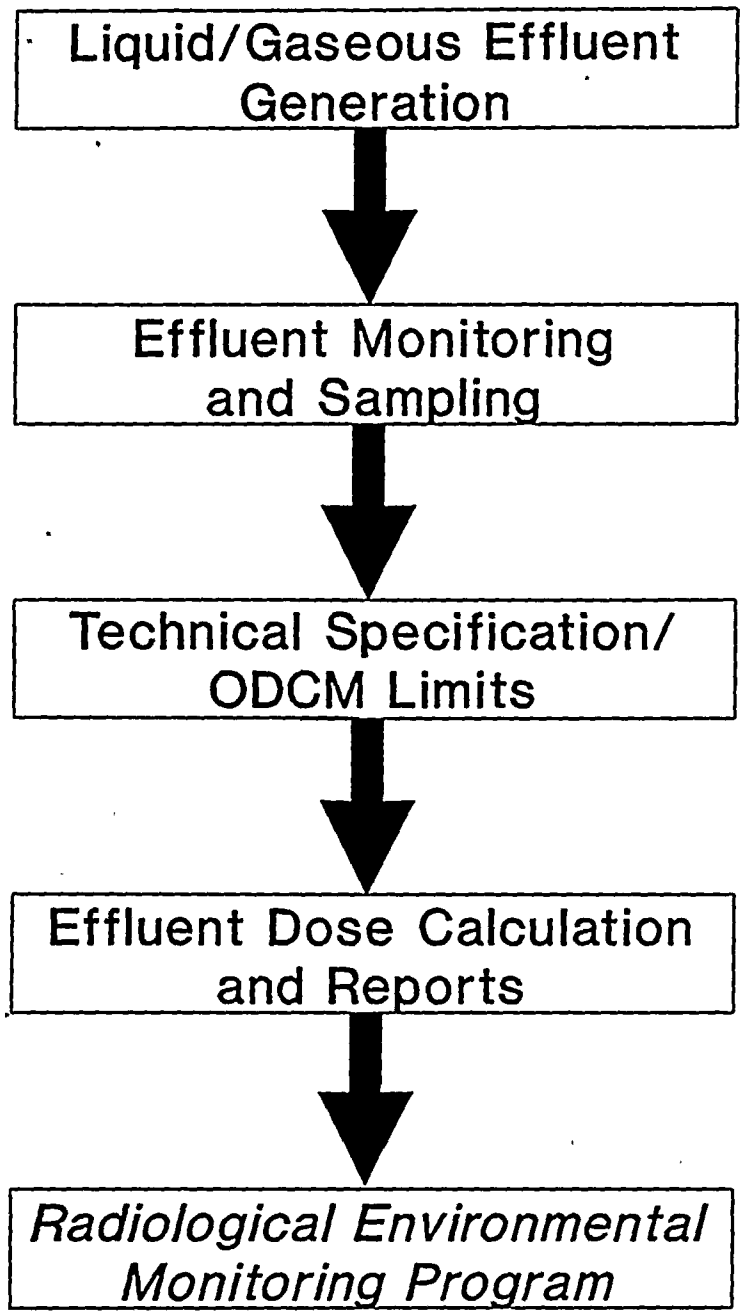

FIGURE 3-2
THE MONITORING HIERARCHY FROM THE GENERATION OF LIQUID AND GASEOUS EFFLUENTS TO THE MEASUREMENT OF RADIOACTIVITY TO THE ENVIRONMENT

4.0 PROGRAM DESCRIPTION

The REMP plan for Plant 2 is presented in Table 4-1. It summarizes the sample locations, collection frequency and types of analysis performed on the sample media. The methods of sampling and sampling frequencies utilized in the program have been determined by such factors as the half-lives and major exposure pathways for the radionuclides potentially released from the plant to the surrounding environment.

4.1 Sample Locations

Eighty sample locations were included in the 1992 monitoring program. Seventy three indicator and two control, i.e. background, locations were within 10 miles (16 kilometers) of the Plant 2 containment. Three additional control stations and two indicator stations were outside the 10-mile radius from the plant. Sample stations are listed in Table 4-2 by meteorological sector, sample media and approximate distance from the plant. The numbers and locations of sample stations are based not only on factors such as population distribution and meteorological conditions, but also on station accessibility, security throughout the year and the requirements of applicable regulations. Other factors such as the need to monitor locations which potentially could be impacted by Plant 2 operations, influence the location of REMP sampling sites.

The REMP sampling locations described in Tables 4-1 and 4-2 are presented in Figure 4-1 for sampling locations within the 10-mile radius, except the special interest stations, and in Figure 4-2 for locations outside the 10-mile radius. Figure 4-3 provides a more detailed map of sampling locations in the Sunnyside/Grandview area. Figure 4-4 shows the locations of the storm drain (Station 101), the Sanitary Waste Treatment Facility (Station 102) and the containerized storage area (Station 118), which are special interest stations. Detailed drawings of sampling locations at the storm drain and the containerized storage area are presented in Figures 4-5 and 4-6. The sampling locations for each specific type of sample media are shown in Figures 4-7 through 4-15.

4.2 Land Use Census

The annual land use census within 5 miles of Plant 2 was performed in August. The objectives of the land use census are to identify the locations of the nearest milk animal, residence and garden greater than 50 m^2 (500 ft^2) producing broadleaf vegetation and to determine whether any site located during the census has a calculated dose or dose commitment greater than the sites currently monitored for the same exposure pathway. If a new location with a higher dose commitment is found, routine sampling of that dose pathway would be initiated at that new site.

The results of the 1992 land use census within 5 miles are given in Table 4-3. No significant changes from the 1991 census were observed, except that the garden at 4.9 miles E was discontinued. No milk animals are located within the 5-mile radius. The closest milk locations were at 6.4 miles SE and 7.2 miles ESE. Sheep were located at 4.5 miles NE and cattle are no longer at 4.7 miles ENE.

4.3 Sampling Methods

The collection of environmental samples for the REMP was performed according to the schedule in Table 4-1. All samples were collected by Supply System personnel. Documented procedures contained in the Environmental Program Instruction Manual were used for sample collection and preparation. The following sections describe the Supply System's sampling and preparation methods.

4.3.1 Direct Radiation

During 1992, thermoluminescent dosimeters (TLDs) were used to determine the direct radiation levels at the fifty-seven (57) monitoring locations shown in Figures 4-7, 4-8 and 4-9. No new TLD locations were added to the program this year, however, the special interest TLD station located at the Haymaker Farm (Station 61) in Franklin County was discontinued in June. The TLD located at Station 9A in Sunnyside served as the control, or background, TLD. The other 56 TLDs served as indicator TLDs.

The environmental dosimeter consists of a card containing $CaSO_4$:Dy (25%) phosphor in a Teflon matrix. Following oven annealing at 250°C for 2 hours, the 31.75 mm x 44.75 mm x 0.4 mm thick card was loaded into a plastic case (Teledyne Model EB-2) lined with 0.58 mm copper (520 mg/cm^2) to lessen the TLD's over-response to low energy photons[14]. The TLD was prepared for the field by first wrapping the case with aluminum foil, sealing it in two plastic bags and finally placing it in a cotton bag, which was hung from a metal post at each site. The TLDs were hung approximately three feet above the ground.

Two sets of TLDs were employed at each location. One set was exchanged on a quarterly basis and the other exchanged on an annual basis. Exposure of the field TLDs during transport to the TLD sites was monitored by a set of field control, or trip control, dosimeters that accompanied the field dosimeters to and from the field locations. Another set of TLDs was used as building control TLDs which were used to determine the exposure of the TLDs if they remained in the lead cave during the entire quarter. The TLD exposure during transport to and from the field was determined by subtracting the difference between the building control results and the trip control results.

The environmental dosimeters were processed on a Teledyne Isotopes Model 9100 Automatic Reader. Following the initial processing, the field dosimeters were annealed and given a calibration exposure of 100 mR of cesium-137 gamma, in order to determine response (i.e, calibration) factors for each dosimeter. The calibration factors were then used to determine the total exposure received by each TLD.

The exposure values determined for calibration exposures, as well as the exposures of the QA dosimeters (processing control dosimeters) and audit dosimeters (spiked dosimeters), were based on the calculated field strength of the encapsulated cesium-137 source. The calculated field strength of the source was determined from National Institute of Standards and Technology (NIST)-traceable ionization chamber measurements made over a period of several years during the routine use and calibration of the source. Ionization chamber measurements made during TLD calibration were used to confirm the calculated exposure. If the calculated exposure and the ionization chamber reading differed by 5% or more, an investigation was performed into the calibration exposure.

Three Reuter Stokes pressurized ionization chambers (PICs) provide an additional capability for measuring direct radiation exposure. These units are no longer part of the routine monitoring program, but they are used in special monitoring situations and maintained as back-up monitoring systems. Solar panels provide the power sources for the units in order to prevent equipment problems and damage caused by power surges and lightning.

4.3.2 Airborne Particulate/Iodine

Air particulate and air iodine (I-131) samples were obtained through the use of portable, low volume (1.5 cfm) constant flow-rate sampling units at each of twelve locations. The samples drawn at Station 9A (Figure 4-3) were considered control samples; the ones drawn at the other locations (Figure 4-10) were indicator samples. Air particulates were collected by drawing air through a 47mm-diameter glass fiber filter. Air iodine was collected by drawing air through a 57mm-diameter TEDA*-impregnated charcoal cartridge. The particulate air filter and charcoal cartridge were placed in tandem, particulate filter first, in a holder that attached to the air inlet of the sampler unit. The sampler units were placed in ventilated metal weatherproof housings mounted on elevated platforms at each air sample location.

The air sampler units were run continuously, with the filter and charcoal cartridge exchanged weekly for analysis. The total sample time for each filter and cartridge was recorded from the elapsed time indicator and the sample volume was calculated and recorded. The filters and cartridges were shipped or delivered to the analytical contractor within one or two days of collection.

4.3.3 Water

The water sampling network consisted of nine sampling locations: three for the evaluation of river/drinking water, one for discharge water, three for ground water, one for the storm drain water, and one for the sanitary waste water. The locations of these sampling sites are shown in Figures 4-4, 4-5, 4-11, and 4-12. The sampling locations at the storm drain and the sanitary waste treatment facility are shown in Figures 4-12 and 5-17. One river/drinking water location, Station 26, was used for evaluation of the plant intake water, i.e., the river water taken upstream of the plant discharge point. This Station 26 sample can be considered a drinking water sample since the site draws its drinking water from the intake water. It is considered the river/drinking water control sample because of its upstream location. Two additional locations, Stations 28 and 29, were used to evaluate the water at the two nearest drinking water locations, the Department of Energy 300 Area and the Richland Water Treatment Plant. These two stations were considered indicator stations.

The ODCM requirement for a downstream water sample "near but beyond the mixing zone" was met by sampling water from Station 27, the plant discharge line to the Columbia River. This sample reflects the radioactivity present in the plant discharge prior to any river dilution, rather than the concentrations that would be found after dilution in the mixing zone. Water is drawn at this location because it was not feasible to perform flow-proportional composite sampling in the mixing zone area of the river downstream from the plant discharge point. This Station 27 sample is also considered an indicator sample.

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*TEDA: Triethylene diamine

Composite samplers are installed at the two drinking water locations (Stations 28 and 29) and the control location (Station 26) to periodically collect 25-ml aliquots of water at a regular time interval. These aliquots are added to large collection bottles. At the prescribed intervals, the sampler collects, alternately, an aliquot for the sample designated for gross beta and gamma isotopic analyses and an aliquot for the sample designated for tritium analysis. Two composite samplers draw samples from the discharge line (Station 27). They operate in a flow-proportional mode through a complex system that adjusts the sampling frequency relative to the flow rate in the discharge line. Only one of the samplers operates at any given time, while the other sampler is maintained ready to use when needed.

Prior to the start of each monthly sampling period, concentrated nitric acid was added to the large collection bottles receiving the gross beta and gamma isotopic water samples to inhibit biological growth and plateout of dissolved ions on the bottle wall. Acid was not added to the collection bottles receiving the water samples for tritium analysis. One gallon of each of the gross beta samples was poured into a clean plastic cubitainer each month. A 250-ml cubitainer was used to hold the monthly sample submitted for the quarterly tritium composite.

Nonroutine analyses on the drinking water samples include strontium-90 analysis, when the gross beta activity exceeds 8 pCi/liter or ten times the mean of the previous three months' activity for a specific location, and iodine-131 analysis, when the dose calculated for the consumption of water exceeds one mrem per year. Neither of these analyses were required during 1992.

The three groundwater stations are located on Supply System property: one well on the Plant 2 site (0.1 mile north of the Reactor Building) and two wells on the WNP-1 site (1.2 miles downgradient from Plant 2). These locations are shown in Figure 4-12. Water from the Plant 2 well can be used as a backup source for drinking and fire protection. Water from the WNP-1 wells supplies the drinking and fire protection water for the WNP-1 site. All three groundwater samples are considered indicator samples.

Quarterly grab samples were taken from each of these wells. One gallon was collected from each well for gamma analysis and 250 ml was drawn for tritium analysis. The gamma analysis samples were acidified with nitric acid. The tritium samples were left unacidified.

Water samples were also collected from two special interest locations, the storm drain, Station 101, and the Sanitary Waste Treatment Facility (SWTF), Station 102. Until November, grab samples were taken from the water at these two locations on a frequency ranging from daily to quarterly, depending upon sampling need. In November a composite water sampler was installed at the outfall of the storm drain pipe, so aliquots were collected on an hourly basis to form a daily composite sample. These aliquots were collected hourly regardless of flow through the pipe. Flow measurement devices will be installed at the pipe outfall during 1993, so that aliquots can be collected on a flow-proportional basis. Sanitary pond water samples, however, have continued to be grab samples. Storm drain and sanitary waste water samples were acidified and handled as described above for the other types of water.

4.3.4 Soil

Soil samples were collected once during 1992, from four locations required by the Site Certification Agreement. The four locations (Stations 1, 7, 21 and 23) are shown in Figure 4-13. One sample was taken at the control location, Station 9A (Figure 4-3). Quarterly soil samples were collected at two special interest locations, Station 101 and Station 118, as shown in Figures 4-4, 4-5 and 4-6. Two additional samples were collected at the Haymaker Farm (Station 61) located at 6.5 miles southeast of Plant 2. This sampling was performed at the owner's request.

Each sample was taken from an area of approximately one square foot and a depth of approximately one inch. Approximately two kilograms of soil were used in each sample. Soil samples were shipped to the analytical contractor within ten working days after collection and analyzed for gamma activity.

If the gamma isotopic analysis indicated that cesium levels in any of the indicator samples exceeded ten (10) times the level in the control sample, a strontium analysis was performed on the sample(s). During 1992, strontium analysis was required for Station 23 soil sample only.

4.3.5 Sediment

Sediment samples were collected twice during 1992 from two sampling locations along the Columbia River. The upstream sediment sample (Station 33) was collected from a location approximately two miles up the Columbia River from the plant discharge point. The downstream sample location (Station 34) was collected from a location approximately one mile downstream of the discharge point (Figure 4-14). Samples were scooped from under water near the river shoreline. Each sample consisted of approximately two kilograms of the shallow surface sediment. The samples were placed in clean plastic bags and shipped to the analytical contractor within a day or two of collection.

Sediment samples were also taken from the outfall and pond bed of the storm drain pond and the settling ponds, dosing pond, percolation bed, and overflow basin at the Sanitary Waste Treatment Facility. Sediment sampling in these locations was performed in a similar manner to river sediment sampling. Special care was taken to prevent loss of the fine particulates in the sediment. In addition, formalin was added to the sanitary pond sediment prior to shipping, to inhibit gas formation within the sample container.

4.3.6 Fish

Fish sampling was performed during May and October, when the likelihood of obtaining anadromous** species was high. Fish samples collected from the Columbia River (Station 30 in Figure 4-1) were indicator samples, while the fish collected on the Snake River (Stations 38 and 38A in Figure 4-2) were control samples.

Four separate fish samples, consisting of an anadromous species and three other species generally considered edible or potentially edible (such as carp, catfish and whitefish), were collected at each location. Most of the fish were collected

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**Fish, such as salmonids, which ascend rivers from the sea for breeding.

through the use of electro-shock, but samples of the anadromous species were also collected from the Lyons Ferry Fish Hatchery on the Snake River. The fish were filleted to obtain one kilogram of edible flesh per sample. The fillets were placed in clean plastic bags and frozen until shipment to the analytical contractor. Fish samples were shipped within 14 days of collection.

During 1992, the Site Certification Agreement was changed to require only annual fish sampling, unless a plant impact was observed. If that were to happen, semiannual sampling would be resumed.

4.3.7 Milk

Milk samples were collected monthly during January, February, March, October, November and December and semimonthly during the remaining six months when the cows were likely to be grazing. One gallon of raw milk was collected from each sampling location. The milk samples were chilled thoroughly and shipped to the analytical contractor within a day of collection.

Routine samples were collected from five indicator locations (Stations 36, 40, 59, 62 and 64) across the Columbia River in Franklin County, as shown in Figure 4-15. Milk samples were taken from Station 59 for only the last half of the year, since milk production resumed at this location in June.

Samples were also collected at one indicator station (Station 9B) and one control location (Station 96) in the Sunnyside/Grandview area (in Figure 4-3). Station 9B in Grandview continued to serve as an indicator station in 1992 because a portion of the feed for the cows at that location is hay from the north Pasco area of Franklin County. That factor makes it unsuitable for use as a control location.

4.3.8 Garden Produce

Samples of local garden produce were collected monthly from April to September, when the produce was readily available. When possible, three types of produce samples--a root crop, fruit and a leafy vegetable--were collected at each location. The indicator samples were collected from a region in a predominant downwind direction (Station 37 in Figure 4-2) where crops are irrigated with Columbia River water. The control samples were obtained from produce stands in the Sunnyside area (Station 9C in Figure 4-3), the direction least likely to be affected by plant effluents. In addition, apples were collected in September from Station 91, the Rio Vista Farms orchard, which is irrigated with Columbia River water and cherries were collected in June from Station 61, the Haymaker Farm. These produce samples were shipped to the analytical contractor within two days of collection.

4.3.9 Vegetation

Samples of vegetation growing in the storm drain pond bed were collected periodically during 1992. Cattails and grasses were the principal types of vegetation collected. Approximately two kilograms of sample were collected each time. Care was taken to avoid including the roots or soil from around the roots in the samples. The vegetation samples were then shipped to the analytical contractor within two days of collection.

4.3.10 Snow

Snow is not routinely sampled by the REMP. During 1992, however, snow samples were taken in order to gather information concerning tritium levels in the environment around Plant 2. Each sample consisted of fresh snow collected in a plastic or teflon container placed outside during snowfalls or collected by shoveling all the snow, from ground level to the top, in a designated area. The volume of snow collected was sufficient to provide at least a one-liter water sample for analysis. The samples were shipped to the analytical contractor within two days of collection.

4.4 Analytical Procedures

The analytical procedures used for the 1992 REMP samples are described below. Teledyne Isotopes performed all routine analyses of REMP samples during 1992.

4.4.1 Gross Beta Activity on Particulate Filters

The particulate filters were counted in a gas-flow proportional counter after a delay of five or more days to allow for the radon-222 and radon-220 (thoron) daughter products to decay. An unused air particulate filter was counted as the blank with each weekly set of filters.

4.4.2 Measurement of Gamma Emitters

Milk and Water
A 1-liter Marinelli beaker was filled with a representative aliquot of the sample. The sample was then counted for at least 1000 minutes (16.7 hours) with a shielded Ge(Li) detector.

Foodstuff
As much of the edible portion of the sample as possible was loaded into a tared Marinelli beaker and weighed. The sample was then counted for at least 1000 minutes (16.7 hours) with a shielded Ge(Li) detector.

Vegetation
As much sample as possible is placed in a 1-liter Marinelli beaker and counted for approximately 16 hours with a shielded Ge(Li) detector. The sample is not dried prior to counting, so the results are given in terms of wet weight.

Soils and Sediments
A large quantity of the sample was dried at a temperature below 100°C. As much sample as possible was loaded into a tared 1-liter Marinelli beaker and weighed. The sample was then counted for at least 360 minutes (6 hours) with a shielded Ge(Li) detector.

Charcoal Cartridges (Air Iodine)
Charcoal filters were counted up to five at a time, with one positioned on the face of a Ge(Li) detector and up to four on the side of the Ge(Li) detector. Each Ge(Li) detector was calibrated for both positions. The detection limit for iodine-131 on each charcoal cartridge was determined (assuming no positive iodine-131) uniquely from the volume of air which passed through it. In the event that iodine-131 would have been observed in the initial counting of a set, each charcoal cartridge in the set was then positioned separately on the face of the detector and counted.

Air Particulate Filters
Four air particulate filters for a quarterly composite for each field station were aligned one in front of another and then counted for at least 360 minutes (6 hours) with a shielded Ge(Li) detector.

The shielded Ge(Li) detector was coupled to a mini-computer-based data acquisition system which performed pulse height analysis. A mini-computer software program defined peaks by certain changes in the slope of the spectrum. The program also compared the energy of each peak with a library of peaks for isotope identification and then performed the radioactivity calculation using the appropriate fractional gamma ray abundance, half-life, detector efficiency, and net counts in the peak region.

4.4.3 Gross Beta Activity in Water

A one-liter aliquot of each sample was evaporated to a small volume and transferred to a stainless steel planchet. The sample was dried under heat lamps, cooled, then counted on an automatic beta proportional counter. The results were calculated using empirical self-absorption curves which enabled the correction of effective counting efficiency, based on the sample residue mass.

4.4.4 Iodine-131 in Water

Two liters of sample were first equilibrated with stable iodide carrier. A batch treatment with anion exchange resin was used to remove iodine from the sample. The iodine was then stripped from the resin with sodium hypo-chlorite solution, reduced with hydroxylamine hydrochloride and extracted into carbon tetrachloride as free iodine. It was then back-extracted as iodide into sodium bisulfite solution and precipitated as palladium iodide. The precipitate was weighed for chemical yield and mounted on a nylon planchet for low level beta counting. The chemical yield was corrected by measuring the stable iodide content of the water with a specific ion electrode. During 1992, this procedure was used only on intercomparison samples, since the doses calculated via ODCM methodology for the consumption of drinking water did not exceed 1 mrem per year (Table 4-1, footnote n).

4.4.5 Tritium in Water

During the first half of 1992, the tritium analyses were performed using gas counting techniques. Approximately two milliliters of water were converted to hydrogen by passing the water, heated to its vapor state, over a granular zinc conversion column heated to 400°C. The hydrogen was loaded into a one-liter proportional detector and the volume was determined by recording the pressure.

The proportional detector was passively shielded by lead and steel and an electronic, anti-coincidence system provided additional shielding from cosmic rays.

From July to the end of the year, Supply System samples were analyzed for tritium using liquid scintillation. Liquid scintillation requires 10 milliliters of water mixed with 10 milliliters of liquid scintillation "cocktail". The mixture is then counted in an automatic liquid scintillation detector.

4.4.6 Strontium-89 and 90 in Water, Milk and Soil

During 1992, strontium analyses were not required for any routine REMP water or milk samples. Strontium analysis was required for one routine soil sample (Station 23) which had cesium-137 levels ten times greater than those measured for Station 9A, the control location. It was also used for special and intercomparison water and sediment analyses. The techniques used to analyze for strontium in the various media are described below.

Water
Stable strontium carrier was added to one liter of sample and the volume was reduced by evaporation. Strontium was precipitated as $Sr(NO_3)_2$ using fuming (90%) nitric acid.

Milk
Stable strontium carrier was added to one liter of sample. The sample was then evaporated and ashed in a muffle furnace. The ash was dissolved and strontium was precipitated as a phosphate. It was then redissolved and strontium was precipitated as $Sr(NO_3)_2$ using fuming (90%) nitric acid.

Soil and Sediment
The sample was first dried under heat lamps and a 10-gram aliquot was taken. Stable strontium carrier was added and the sample was leached in hydrochloric acid. The mixture was filtered. Phosphates were then precipitated, collected by filtration and dissolved in nitric acid. Strontium was precipitated as $Sr(NO_3)_2$ using fuming (90%) nitric acid. A barium chromate scavenge and an iron (ferric hydroxide) scavenge were then performed. Stable yttrium carrier was added and the sample was allowed to stand for 5 days or more for yttrium ingrowth. Yttrium was then precipitated as hydroxide, dissolved and reprecipitated as oxalate. The yttrium oxalate was mounted on a nylon planchet and counted in a low-level beta counter to infer strontium-90 activity. Strontium-89 activity was determined by precipitating $SrCO_3$ from the sample after yttrium separation. This precipitate was mounted on a nylon planchet and covered with an 80 mg/cm^2 aluminum absorber for low-level beta counting.

4.4.7 Iodine-131 in Milk

Two liters of sample were first equilibrated with stable iodide carrier. A batch treatment with anion exchange resin was used to remove iodine from the sample. The iodine was then stripped from the resin with sodium hypochlorite solution, reduced with hydroxylamine hydrochloride and extracted into carbon tetrachloride as free iodine. It was then back-extracted as iodide into sodium bisulfite solution and precipitated as palladium iodide. The precipitate was weighed for chemical yield and mounted on a nylon planchet for low-level beta counting. The

chemical yield was corrected by measuring the stable iodide content of the milk with a specific ion electrode.

4.5 Data Analysis Methods

Since mid-1984, the results of the REMP analyses have been given as net results calculated from the gross or total counts determined for each radionuclide minus the background counts of the counting or detection instrument. Consequently, for several sample types, the results range from negative to positive numbers. This manner of presenting environmental data prevents the bias and loss of individual results inherent in the use of "less than" (<) values, where the "less than" numbers can have a variety of meanings, such as "less than the lower limit of detection (LLD)" or "less than the two sigma uncertainty."

The net results for REMP samples are presented with an asterisk (*) in front, if the results are less than the LLD. A listing of the LLDs determined for each analysis is provided in Table 5-2 as a reference when reviewing the sample results.

Plots of the sample results versus time are used to represent the results for analyses such as gross beta on air particulate filters, where the results are normally above the lower limits of detection. In such cases, the indicator station results are plotted with the control station results for easy comparison. Other data analysis techniques, such as frequency distributions, are also used to represent the data and to determine whether trends that could be attributed to Plant 2 operations are evident.

Thermoluminescent dosimeter (TLD) data is presented in terms of the net mR/day exposure rate. These results are determined from the total exposure (in mR) calculated for each TLD from its total thermoluminescent output minus the TLD background, minus any transit (or trip) exposure received during distribution and retrieval, and divided by the number of days the TLD was in the field. Circular plots, frequency distributions and graphs of TLD data by meteorological sector and distance from the plant are used to interpret trends in the results.

TLD data summaries include the term "standard error," along with "standard deviation." The standard error, which is the estimate of the precision of the mean, is used for the means of quarterly and annual data. The standard deviation is used for the TLD data involving a single dosimeter result that has been determined from the four reader areas of the TLD. Both terms simply provide an indicator of the uncertainty associated with the results.

TABLE 4-1

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM PLAN

SAMPLE TYPE[a]	SAMPLE STATION[b] NUMBER	SAMPLING AND COLLECTION FREQUENCY[c]	TYPE AND FREQUENCY OF ANALYSIS
1. AIRBORNE			
Particulates and radioiodine (6/12)[d]	1, 4-9A, 21, 23, 40, 48, and 57	Continuous sampling; weekly collection	Particulate: Weekly gross beta[e]; gamma isotopic[f] of quarterly composite (by location) Iodine: Weekly gamma analysis.
Soil[g](0/7)	9A, 1,7,21 and 23, 101, 118	Annually Quarterly or more often as needed.	Gamma isotopic[f]; strontium-90[h] Gamma isotopic
2. DIRECT RADIATION			
TLD[i](34/57)	1-9A, 10-25, 40-47, 49-51, 53-56, 61, 71-86 (1S-16S)[j]	Quarterly, annually	Thermoluminescent output; quarterly and annual processing.
PIC	Various locations, as needed [k]	Continuous recording, as needed	Exposure rate accumulated on mag card and in internal memory
3. WATERBORNE			
River/Drinking Water[l] (3/4)	26, 27, 28 and 29	Composite aliquots[m]; monthly collection	Gamma isotopic[f], gross beta, quarterly; tritium composite; strontium-90[n]: iodine-131[o]
Storm Drain Water (1/1)	101	Composite aliquots[m], daily collection; grab samples	Gamma isotopic[f], tritium
Sanitary Waste Treatment Facility Water (1/1)	102	Monthly, annually, pre-discharge and as needed.	Gamma isotopic[f], gross beta, gross alpha, strontium-90[n], tritium
Ground Water (2/3)[p]	31, 32, and 52	Quarterly	Gamma isotopic[f]; quarterly tritium grab sample
River Sediment (1/2)[q]	33 and 34	Semiannually	Gamma isotopic[f]
Sanitary Waste Treatment Facility Sediment (1/1)	102	Monthly or more often as needed	Gamma Isotopic[f]

TABLE 4-1 (Cont.)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM PLAN

SAMPLE TYPE[a]	SAMPLE STATION[b] NUMBER	SAMPLING AND COLLECTION FREQUENCY[c]	TYPE AND FREQUENCY OF ANALYSIS
4. INGESTION			
Milk[r] (4/6)	9B, 36, 40, 59, 62, 64 and 96[s]	Semimonthly during grazing season, monthly at other times	Gamma isotopic[f]; iodine-131; strontium-90[t]
Fish[u] (2/2)	30 and 38	Semiannually [v]	Gamma isotopic[f]
Garden Produce[w] (1/3)	9C, 61[x], 91[x] and 37	Monthly during growing season in the Riverview area of Pasco and a control near Grandview; annual collection at Station 91.	Gamma isotopic[f]
Vegetation	101	Quarterly, as available	Gamma isotopic[f]

(a) The fraction in parentheses for each sample type indicates the ratio of ODCM-required sample locations to the total number of sample locations currently being monitored in the surveillance program. The SCA also requires certain numbers of sampling stations for each type of media.

(b) The underlined sample location designates a control station.

(c) Deviations are permitted if samples are unobtainable due to hazardous conditions, seasonal availability, malfunction of automatic sampling equipment, or other legitimate reasons. Such deviations are documented in Appendix D.

(d) The SCA requires nine or more air sampling stations.

(e) Particulate sample filters will be analyzed for gross beta after at least 24 to 48 hours to allow for the decay of radon daughter products. If gross beta activity is greater than 10 times the mean of the result for the control, Station 9A, gamma isotopic analysis shall be performed on the individual sample.

(f) Gamma isotopic means identification and quantification of gamma-emitting radionuclides that may be attributable to the effluents of Plant 2.

(g) Soil samples are collected to satisfy the requirements of the Site Certification Agreement (SCA)[6] for Plant 2. The SCA requires that soil samples be collected at five air sampling locations.

(h) Strontium-90 analysis shall be performed on any indicator soil sample having cesium results greater than ten times the results for the control location. During 1992, strontium 90 analysis was performed on the Station 23 soil.

(i) TLD refers to thermoluminescent dosimeter. For purposes of the REMP, a TLD is a phosphor card (31.75mm x 44.75mm x 0.4mm) with eight individual read-out areas (four main dosimeter areas and four back-up dosimeter areas) in each badge case. TLDs used in the REMP meet the requirements of Regulator Guide 4.13[5] and ANSI N545-1975[6], except for specified energy-dependence response. Correlation factors are available for energy ranges with response outside of specified tolerances.

(j) TLD Stations 71-86 are special interest stations and are not included among the 34 routine TLD stations required by the Plant Technical Specification Table 3.12-1. Their alternate designations are 1S-16S. Station 61, a special interest location, was discontinued in June. The SCA requires that 25 or more TLD stations are located within a 10-mile radius of the plant.

(k) Pressurized ion chambers (PICs) are not required as part of the routine monitoring program, but they are required by the SCA to be maintained as a supplemental or backup system. PICs were used routinely at various locations during 1992 to provide supplemental information.

(l) The term "river/drinking water," instead of "surface/drinking water", is used throughout this report because the surface water is taken from the Columbia River. Station 26, Plant 2 makeup water intake from the Columbia River is both an upstream surface, or river, water sample and the drinking water control sample location. Station 28 (300 Area) and Station 29 samples are drinking water samples. The Station 27 sample, which is drawn from the plant discharge line, is taken in place of a "downstream" water sample near but beyond the mixing zone. It reflects the radioactivity present in the plant discharge prior to any river dilution. The SCA requires two drinking water locations downstream from the plant discharge and requires sampling from the plant intake and discharge water. Station 101, the storm drain pond, and Station 102, the Sanitary Waste Treatment Facility, are represented individually because they are unique sampling locations requiring special attention.

(m) Composite (integrated grab) samples are collected with equipment which collects an aliquot at time intervals that are short relative to the compositing period.

(n) When the gross beta activity in drinking water exceeds 8 pCi/liter, a strontium-90 analysis is performed.

TABLE 4-1 (Cont.)

(o) When the dose calculated via ODCM methodology for consumption of water exceeds 1 mrem per year, iodine-131 analyses are performed on the drinking water samples.

(p) The SCA requires sampling from wells used for fire protection and as backup drinking water sources.

(q) The SCA requires sediment sample collection upstream and downstream of the plant discharge.

(r) Milk samples will be obtained from farms or individual milk animals which are located in the most prevalent wind directions from Plant 2. Routine milk samples are collected in areas of high dose potential instead of within 5 kilometers, due to the locations of milk animals. The SCA requires at least three milk locations within the 10-mile radius of the plant and one in a control location.

(s) Station 96 is the control station for milk samples because it was determined that the cows at Station 9B in Sunnyside were given feed grown in the Franklin County area across the Columbia River from Plant 2. Station 59 was reestablished as a milk location in June 1992.

(t) If cesium-134 or cesium-137 is measured in an individual milk sample in excess of 30 pCi/l, then the strontium-90 analysis will be performed.

(u) There are no commercially important species in the Hanford Reach of the Columbia River. Most recreationally important species in the area are anadromous (primarily salmonids), which ascend rivers from the sea for breeding. Four fish specimen will normally be collected by electroshock technique in the vicinity of the plant discharge (Station 30) and from the Snake River (Station 38). If electroshocking produces insufficient anadromous fish samples from the Snake River, samples may be obtained from the fish trap at Ice Harbor Dam, Lyons Ferry Fish Hatchery, or other similar facility (Station 38A). If insufficient anadromous fish samples are produced through electroshocking on the Columbia River, samples may be obtained at the Ringold Fish Hatchery (Station 39).

(v) The SCA requirement for semiannual fish sampling was changed to annual sampling. This change will be implemented in 1993.

(w) Garden produce will routinely be obtained from farms or gardens using Columbia River water for irrigation. One sample of a root crop, leafy vegetable, and a fruit is collected each sample period, if available. The variety of the produce obtained will be dependent on seasonal availability.

(x) Station 61 is the Haymaker Farm, which has a large cherry orchard. A cherry sample is collected in June each year. Station 91 is an apple orchard irrigated by the Columbia River. The apple crop from Station 91 is sampled annually.

TABLE 4-2

REMP SAMPLE LOCATIONS BY SECTOR

SECTOR[a]		STATION[b] NUMBER	ESTIMATED MILES	DISTANCE[c] METERS	SAMPLE TYPE[d]
N	(1)	52	0.1	161	GW
		71(1S)	0.3	483	TLD
		47	0.5	805	TLD
		57	0.8	1201	AP/AI
		18	1.1	1770	TLD
		53	7.5	12068	TLD
NNE	(2)	72(2S)[e]	0.4	644	TLD
		2	1.8	2896	TLD
		54	6.5	10459	TLD
NE	(3)	73(3S)	0.5	805	TLD
		19	1.8	2896	TLD
		48	4.5	7241	AP/AI
		39	4.4	7084	FI
		46	5.0	8045	TLD
ENE	(4)	74(4s)	0.4	644	TLD
		21	1.5	2414	AP/AI/SO/TLD
		20	1.9	3057	TLD
		11	3.1	4988	TLD
		33	3.6	5792	SE
		45	4.3	6919	TLD
		44	5.8	9332	TLD
		101	0.3	483	SDW/SE/SO/VE
E	(5)	75(5S)	0.4	644	TLD
		22	2.1	3379	TLD
		10	3.1	4988	TLD
		26	3.2	5149	PW

TABLE 4-2

REMP SAMPLE LOCATIONS BY SECTOR

SECTOR[a]	STATION[b] NUMBER	ESTIMATED MILES	DISTANCE[c] METERS	SAMPLE TYPE[d]
E (5) (Cont.)	27[e]	3.2	5149	DW
	30	3.3	5311	FI
	43	5.8	9332	TLD
ESE (6)	76(6S)	0.4	644	TLD
	31	1.1	1770	GW
	32	1.2	1931	GW
	51	2.1	3379	TLD
	23	3.0	4827	AP/AI/TLD
	34	3.5	5632	SE
	8	4.5	7241	AP/AI/TLD
	42	5.6	9010	TLD
	36[e]	7.2	11585	MI
	5	7.7	12389	AP/AI/TLD
	38	26.5	42639	FI
	91	4.4	7079	FR
	64	9.7	15610	MI
SE (7)	77(7S)	0.5	805	TLD
	24	1.9	3057	TLD
	3	2.0	3218	TLD
SE (7)	41	5.8	9332	TLD
	40	6.4	10298	AP/AI/MI/TLD
	59	9.6	15443	MI
	61	6.5	10456	TLD
	62	10.9	16730	MI
	102	0.3	483	SWW/SE
SSE (8)	78(8S)	0.7	1126	TLD
	25	1.6	2574	TLD

TABLE 4-2

REMP SAMPLE LOCATIONS BY SECTOR

SECTOR[a]	STATION[b] NUMBER	ESTIMATED MILES	DISTANCE[c] METERS	SAMPLE TYPE[d]
SSE (8) (Cont.)	55	7.0	11263	TLD
	28	7.4	11907	PW
	4	9.3	14964	AI/AP/TLD
	29	11.0	17699	PW
	37[e]	16.0	25744	GP
S (9)	79(9S)	0.7	1126	TLD
	1	1.3	2092	AP/AI/SO/TLD
	6	7.7	12389	AP/AI/TLD
	118	0.3	483	SO
SSW (10)	80(10S)	0.8	1287	TLD
	50	1.2	1931	TLD
	56	7.0	11263	TLD
SW (11)	81(11S)	0.7	1126	TLD
	13	1.4	2253	TLD
	96	36.0	49250	MI
WSW (12)	82(12S)	0.5	805	TLD
	14	1.4	2253	TLD
	9A, 9B, 9C[e]	30.0	48270	AP/AI/MI/GP/ TLD/SO
W (13)	83(13S)	0.5	805	TLD
	15	1.4	2253	TLD
WNW (14)	84(14S)	0.5	805	TLD
	16	1.4	2253	TLD
	7	2.7	4344	AP/AI/SO/TLD

TABLE 4-2

REMP SAMPLE LOCATIONS BY SECTOR

SECTOR[a]		STATION[b] NUMBER	ESTIMATED MILES	DISTANCE[c] METERS	SAMPLE TYPE[d]
NW	(15)	85(15S)	0.5	805	TLD
		49	1.2	1931	TLD
NNW	(16)	86(16S)	0.4	644	TLD
		17	1.2	1931	TLD
		12	3.1	9815	TLD

(a) The area in the vicinity of Plant 2 is separated into 16 separate sectors for reporting purposes. The 16 sectors cover 360 degrees in equal 22.5 degree sections, beginning with Sector 1 (N) at 348.75 to 11.25 degrees and continuing clockwise through Sector 16 (NNW).

(b) The alternate designations for TLD Stations 71-86 are given in parentheses, i.e., 1S-16S.

(c) Distances are estimated from map positions for each location as a radial distance from Plant 2 containment.

(d) Sample Type Key:

TLD	-	Thermoluminescent Dosimeter	MI	-	Milk
AP	-	Air Particulate	PW	-	Surface (River)/ Drinking Water
AI	-	Air Iodine	GW	-	Ground Water
SE	-	Sediment	DW	-	Discharge Water
FI	-	Fish	SDW	-	Storm Drain Water
SO	-	Soil	SWW	-	Sanitary Waste Water
			GP	-	Garden Produce
			FR	-	Fruit
			VE	-	Vegetation

Station 9 designates the Sunnyside-Grandview control area. It is actually three separate stations (Stations 9A for TLD, AI/AP and SO, 9B for milk, and 9C for GP) within a few miles of each other and all within 30-35 miles of Plant 2. Station 96, which is the control station for milk, is also located within the control area. It is 36 miles from Plant 2. Station 9B, which was the control location for milk until 1986, is now an indicator milk location.

(e) Duplicate samples, i.e., samples drawn at the same time as the routine samples and submitted for analysis as a quality assurance check, are collected at this location. The station designation for the duplicate of Station 27 is Station 72. The station designation for the duplicate of Station 36 is Station 37.

TABLE 4-3

DISTANCES[a] IN MILES TO NEAREST POINTS OF INTEREST WITHIN FIVE MILES OF PLANT 2 CONTAINMENT

SECTOR[b] PARAMETER	NEAREST RESIDENT	GARDEN (>50M^2)	DAIRY[c] ANIMALS	LIVESTOCK
NE	4.3	0	0	4.5
ENE	4.1	4.1[d]	0	0
E	4.5	4.9[d]	0	0
ESE	4.1	0	0	0

(a) These are estimated distances; slight variations occur when the map used for the land use census is changed.

(b) Eleven of the sixteen meteorological sectors within the five-mile radius of Plant 2 are on the federally-owned Hanford Site; the remaining land is comprised of 4.48 sq. miles of privately-owned farm land. Only those sectors containing points of interest are presented here.

(c) The closest dairy animal locations are at 6.4, 8.3, 9.6 (reestablished in June) and 10.9 miles SE and 7.2 and 9.7 miles ESE. The dairy at 8.3 miles SE is not used for milk sample collection due to the owner's reluctance to participate in the sampling program.

(d) Small garden with broadleaf; samples were not available due to the small amounts grown.

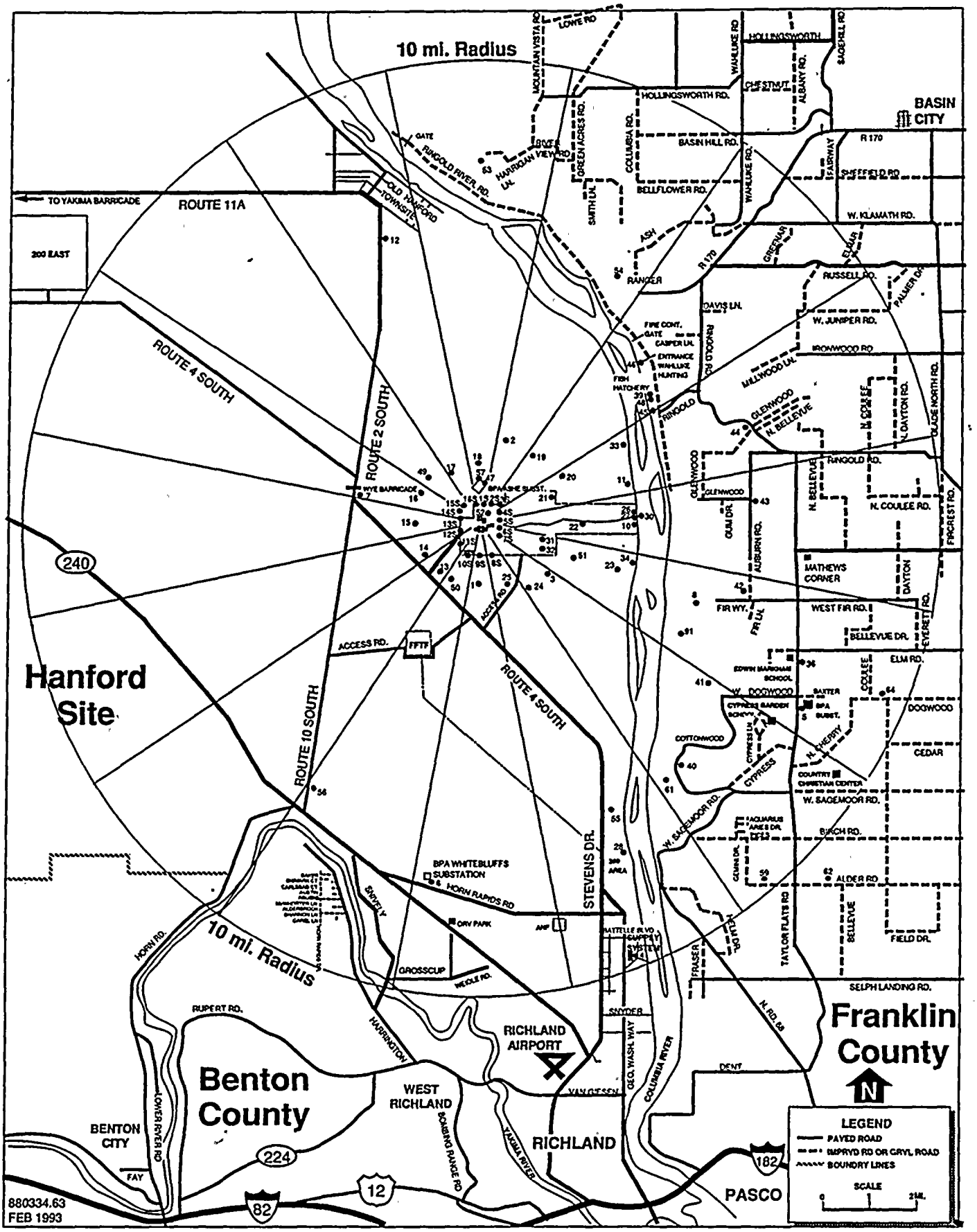

FIGURE 4-1
REMP SAMPLING LOCATIONS WITHIN THE 10-MILE RADIUS

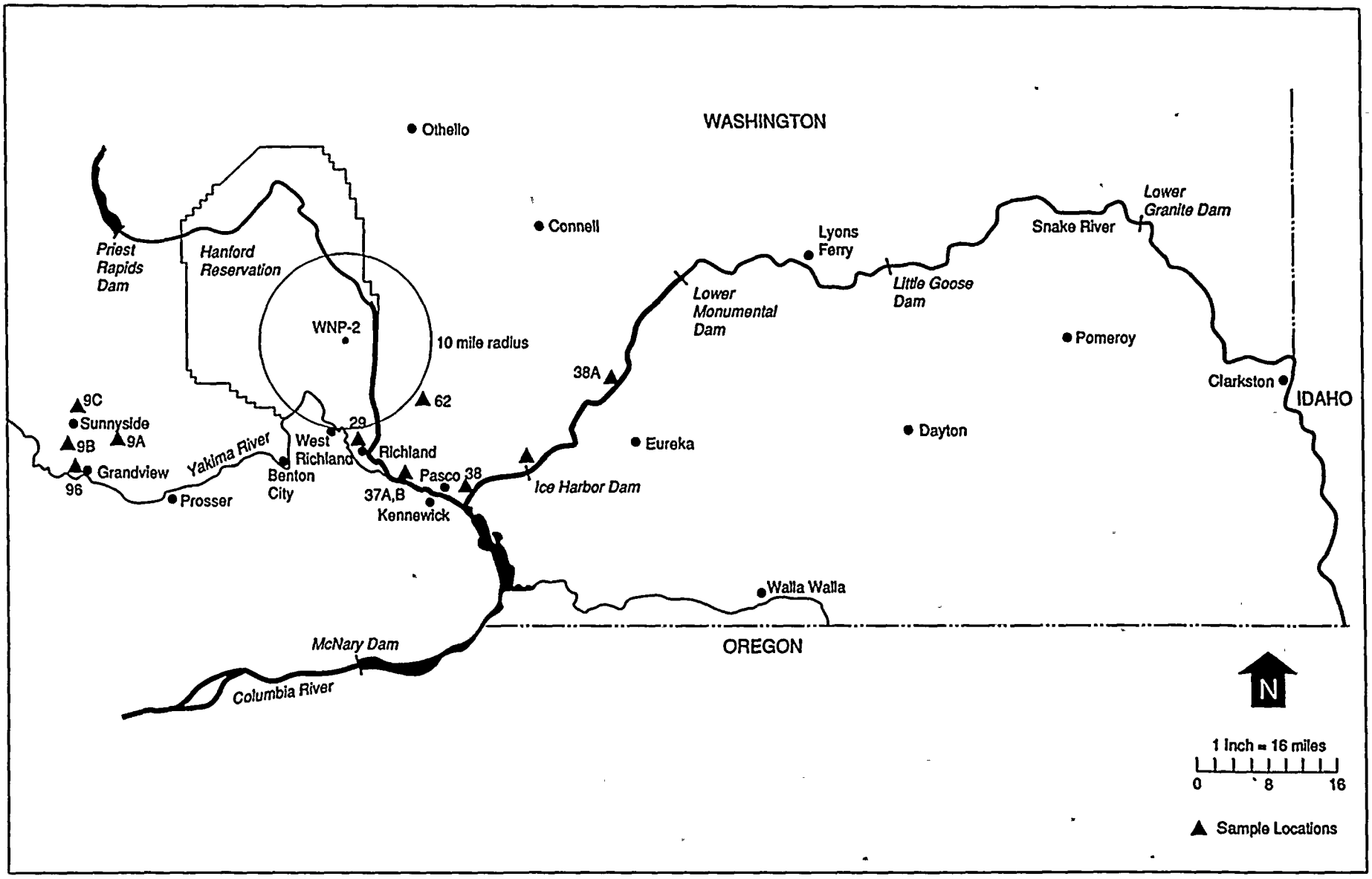

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FIGURE 4-2
REMP SAMPLING LOCATIONS OUTSIDE THE 10-MILE RADIUS

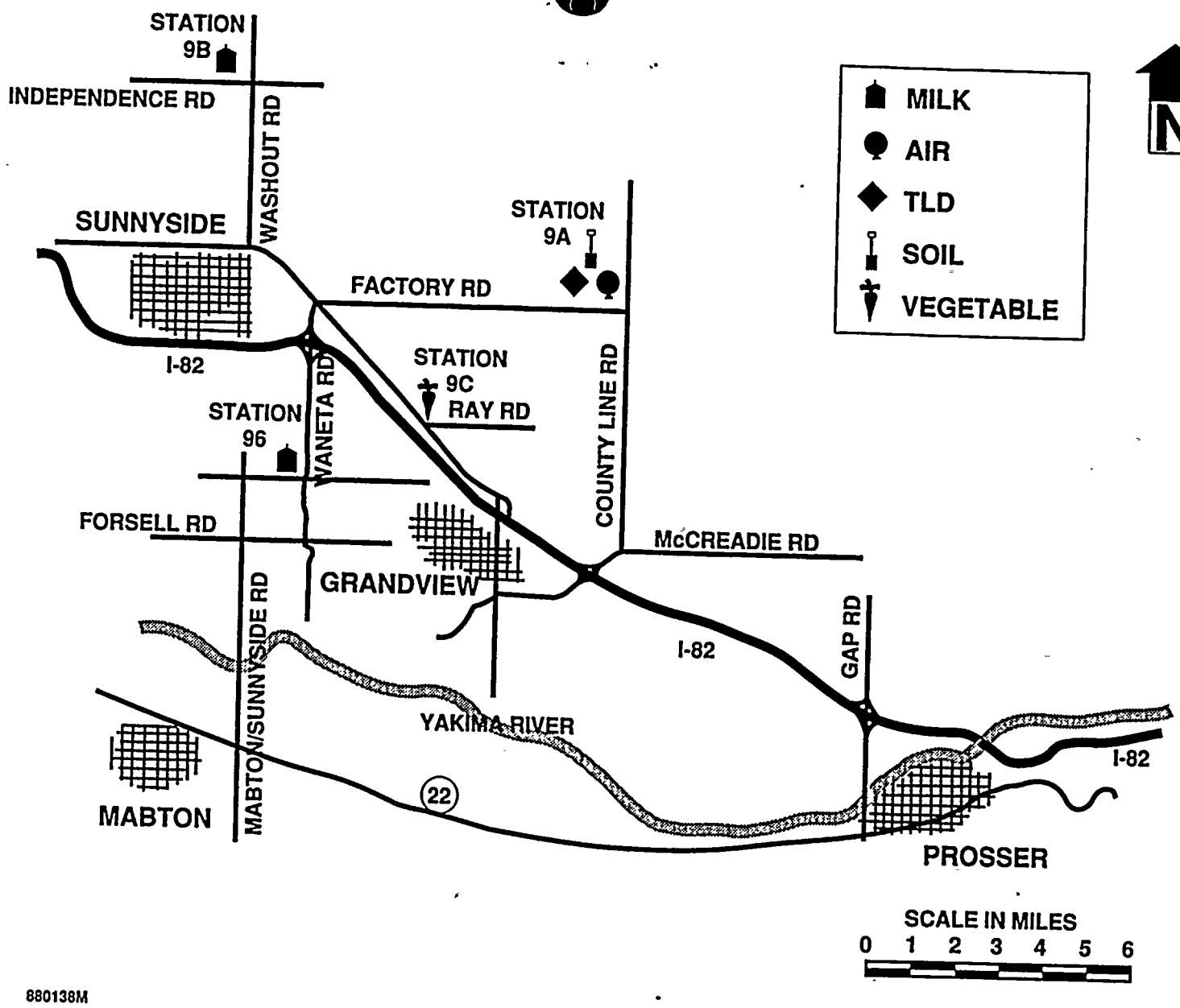

FIGURE 4-3
REMP SAMPLING LOCATIONS SUNNYSIDE/GRANDVIEW AREA

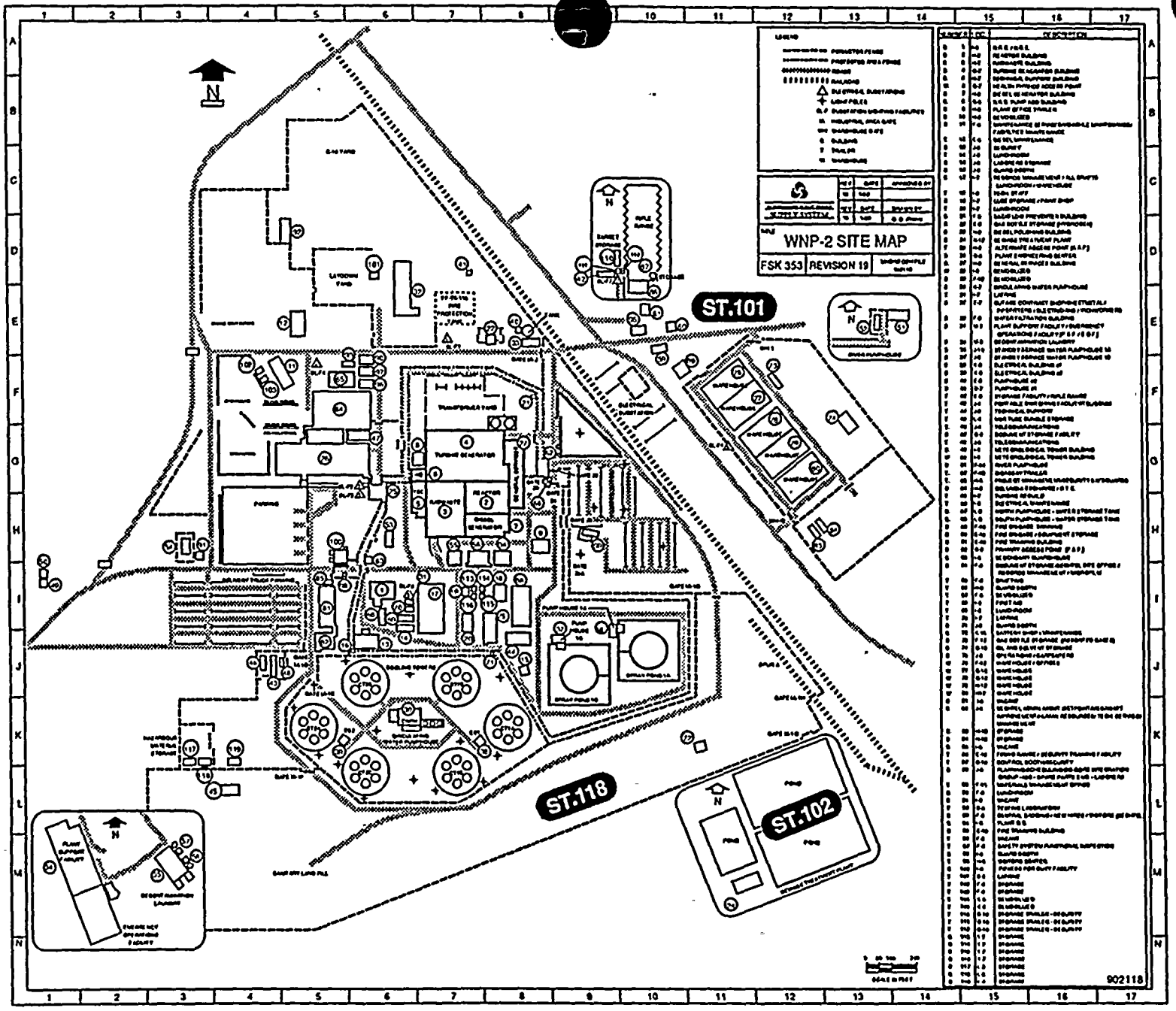

FIGURE 4-4
REMP SPECIAL INTEREST SAMPLING LOCATIONS

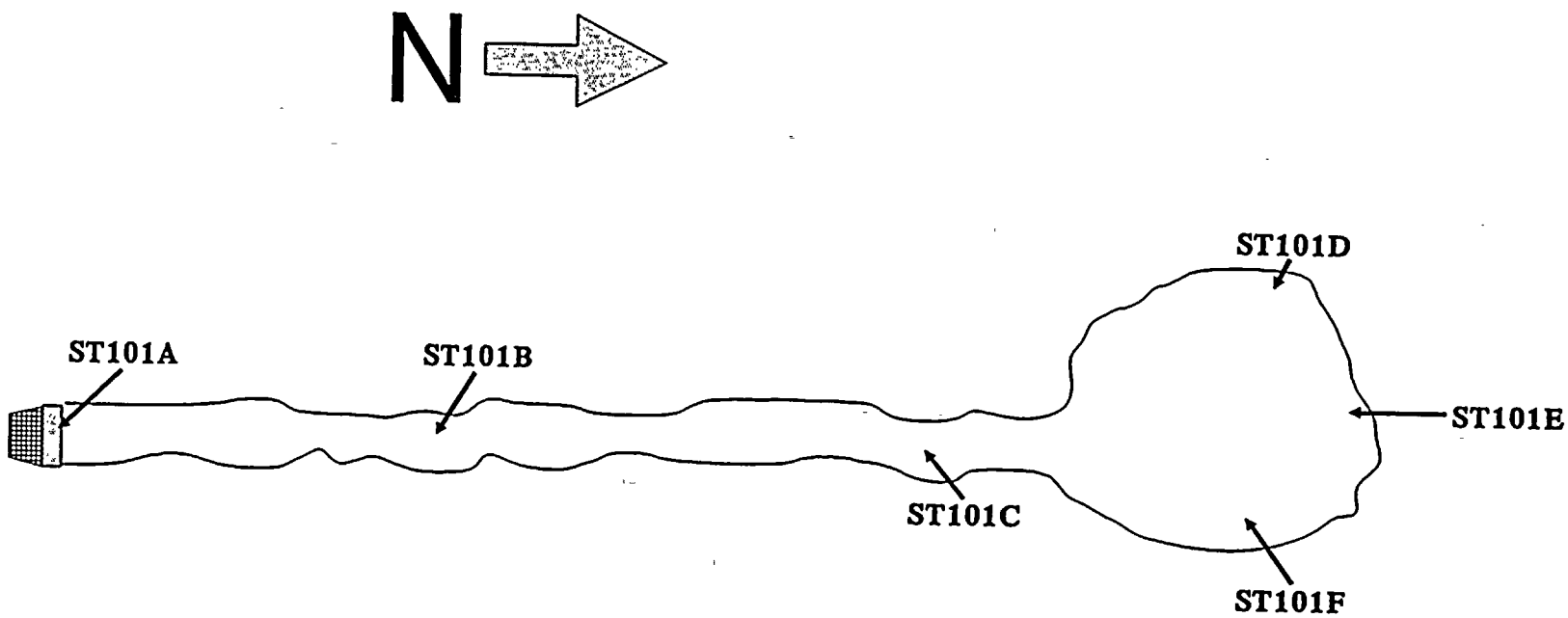

FIGURE 4-5
STORM DRAIN SAMPLING LOCATIONS

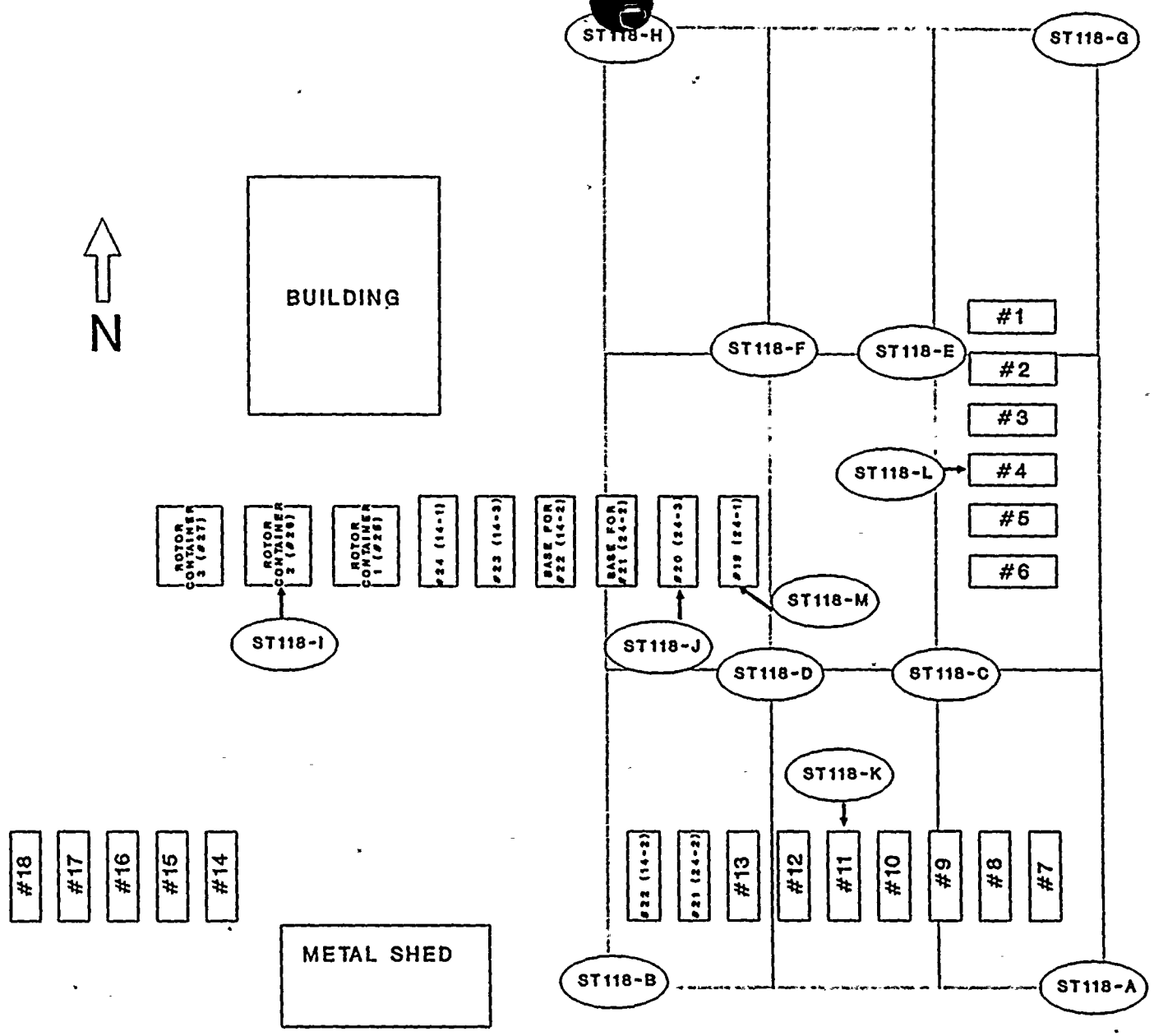

FIGURE 4-6
STATION 118 SOIL SAMPLING LOCATIONS

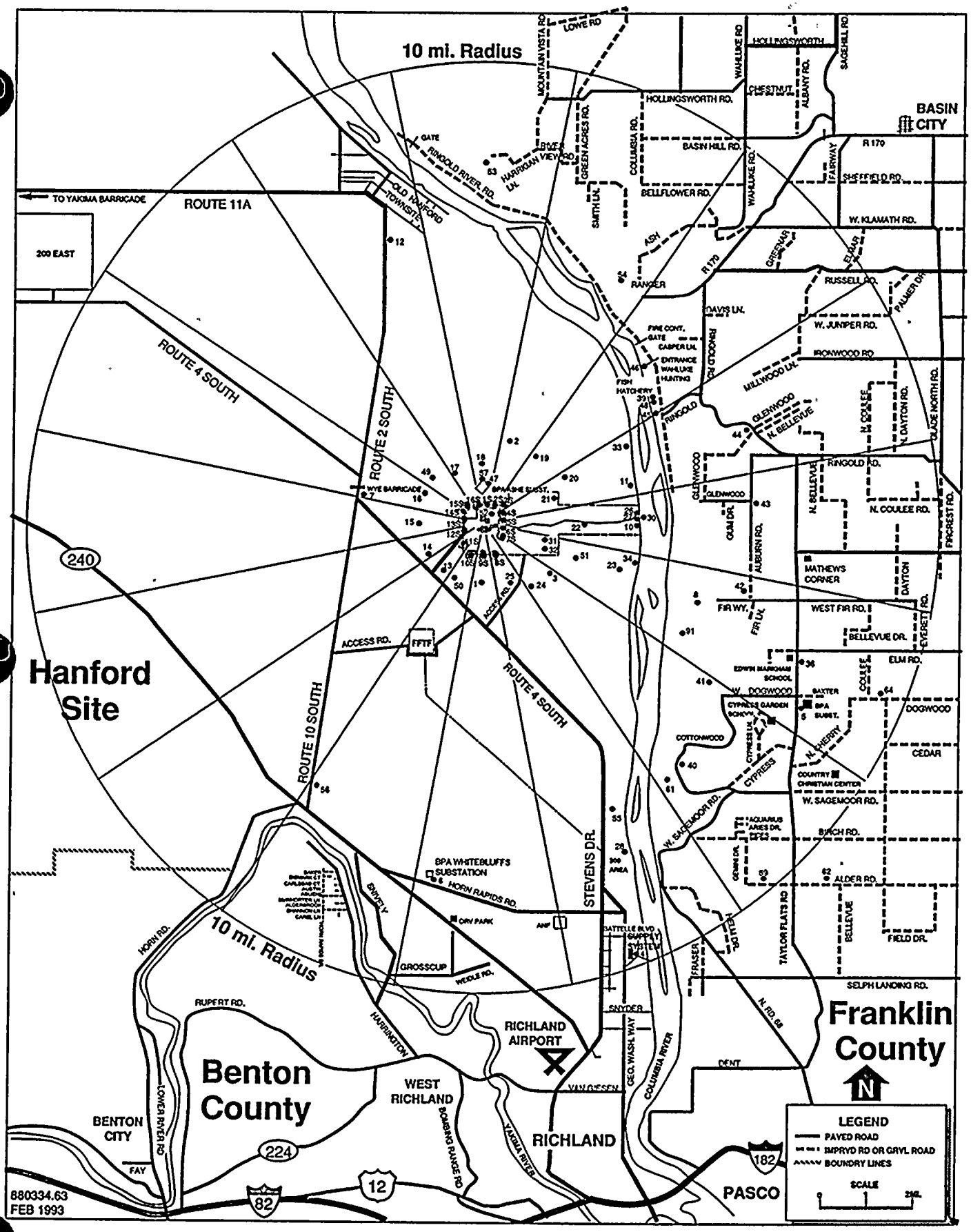

FIGURE 4-7
INNER CIRCLE TLD LOCATIONS

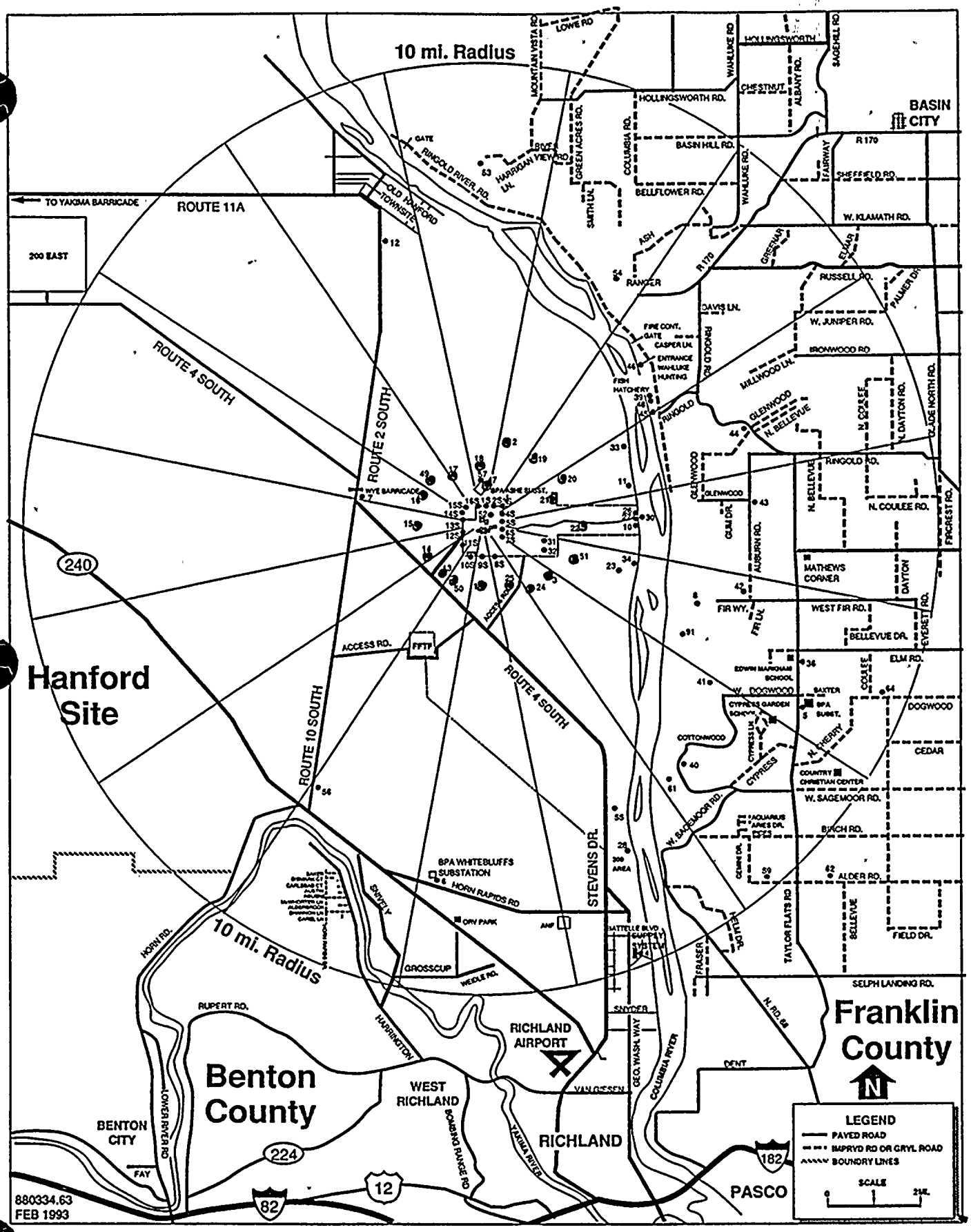

FIGURE 4-8
NEAR-PLANT TLD LOCATIONS

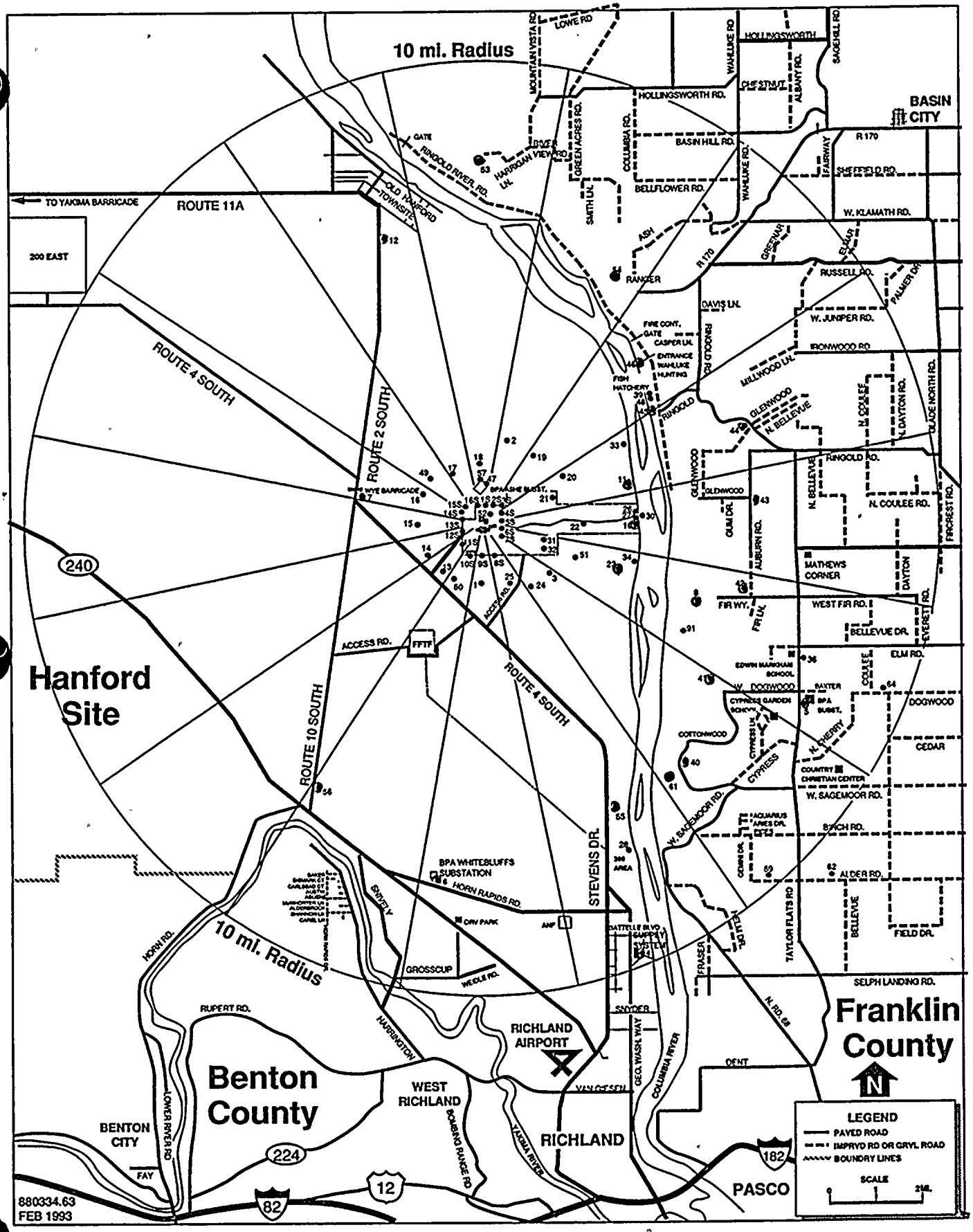

FIGURE 4-9
OUTLYING TLD LOCATIONS WITHIN THE 10-MILE RADIUS

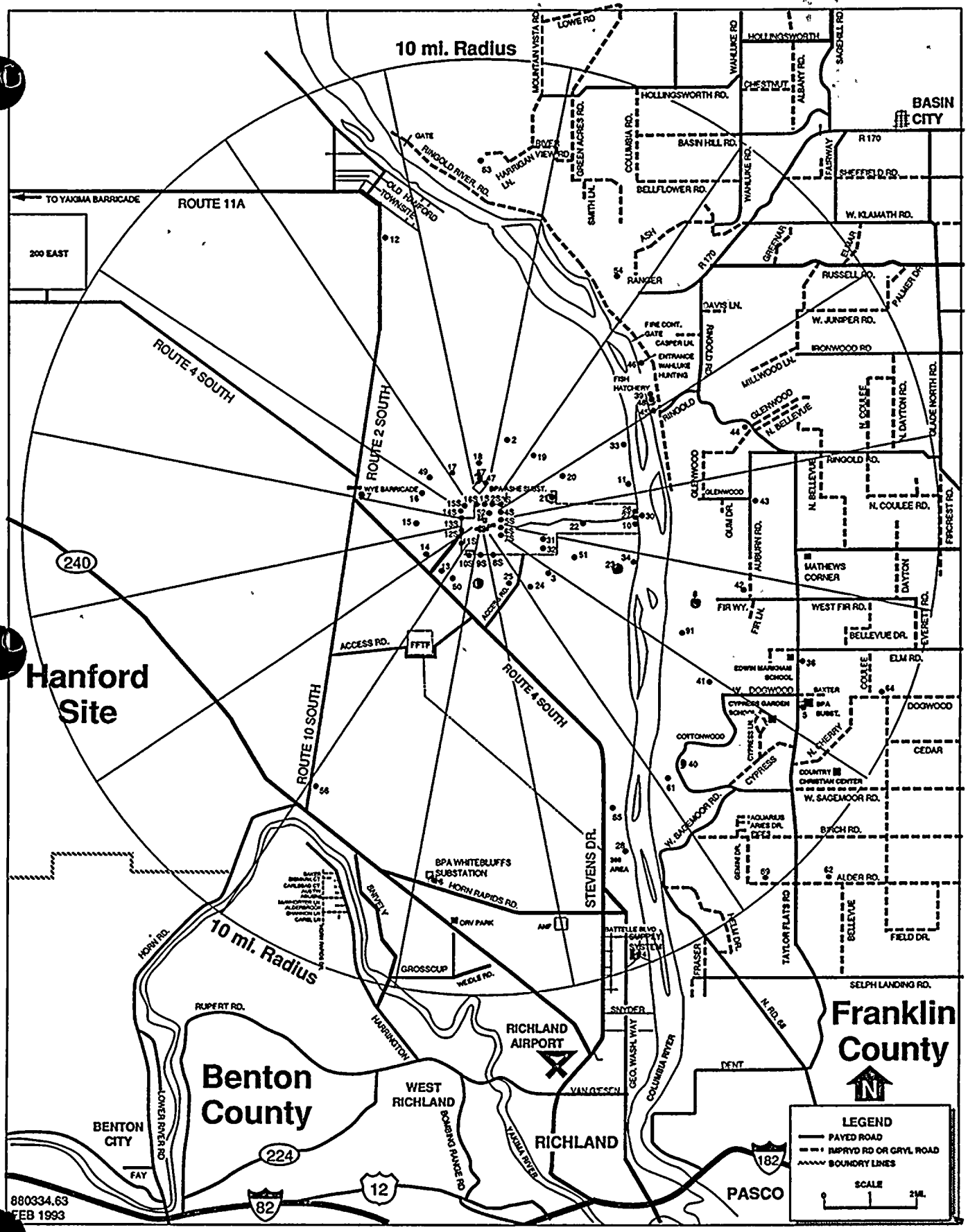

FIGURE 4-10
AIR SAMPLING LOCATIONS WITHIN THE 10-MILE RADIUS

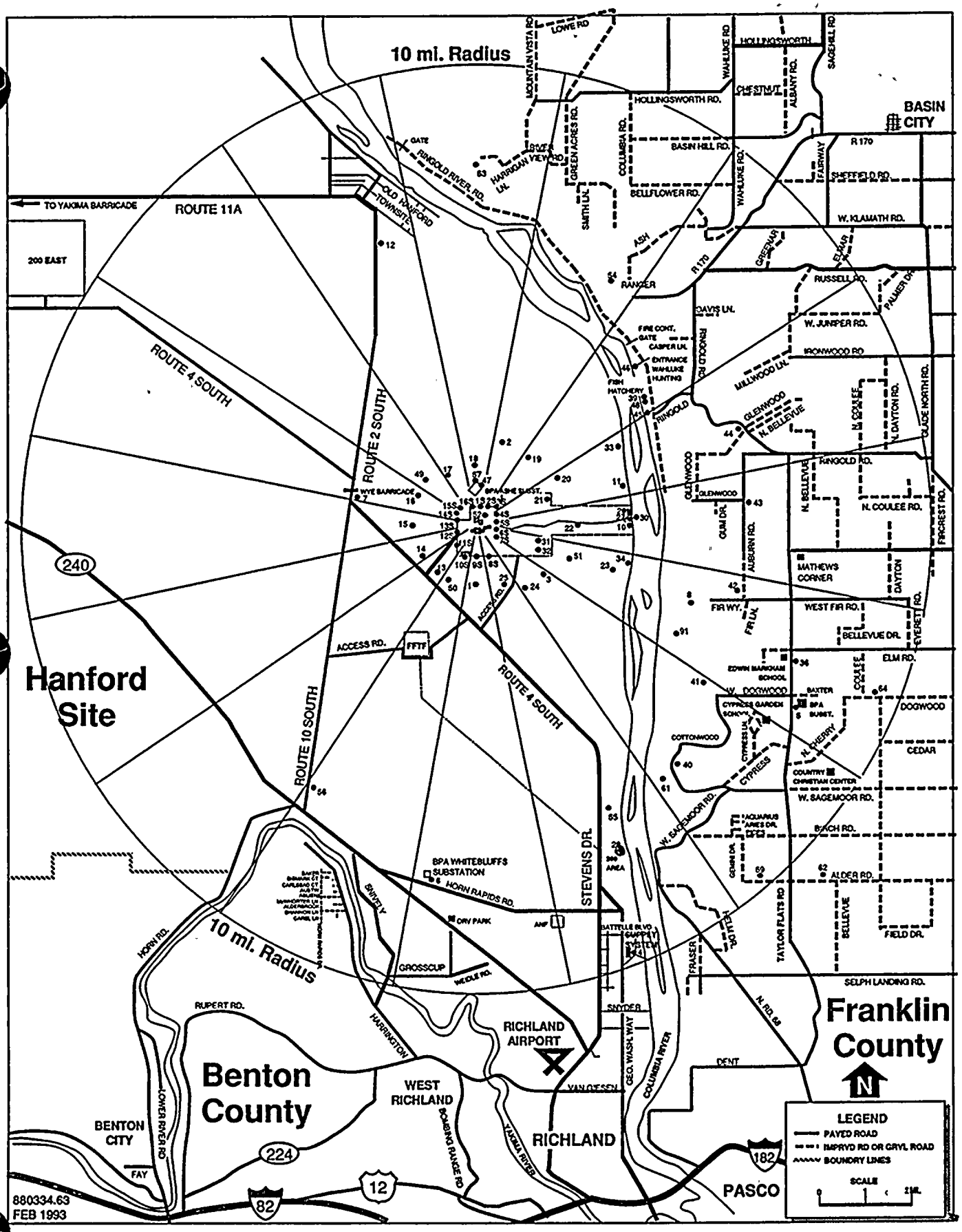

FIGURE 4-11
RIVER/DRINKING AND DISCHARGE WATER SAMPLING LOCATIONS
WITHIN THE 10-MILE RADIUS

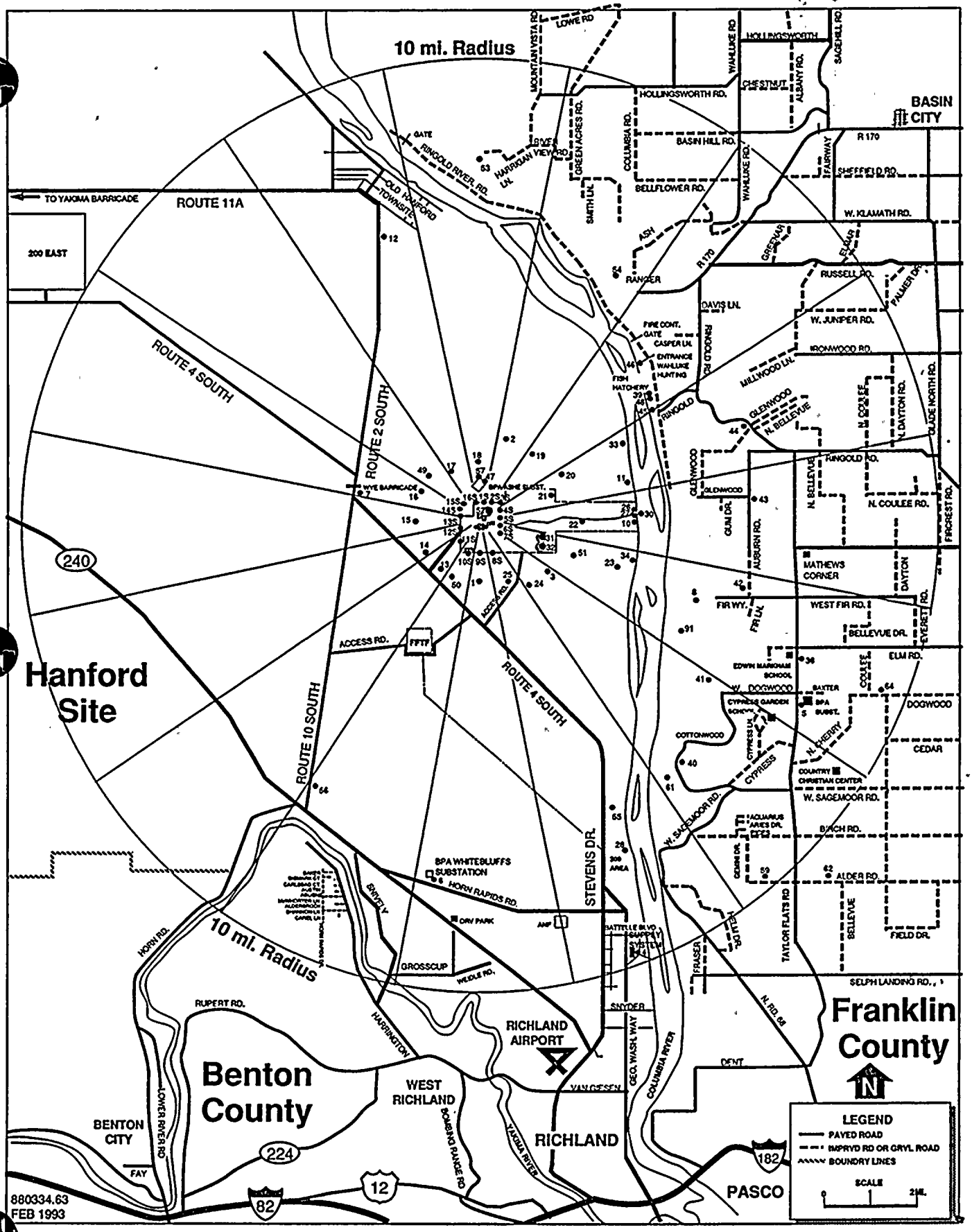

FIGURE 4-12
GROUNDWATER SAMPLING LOCATIONS

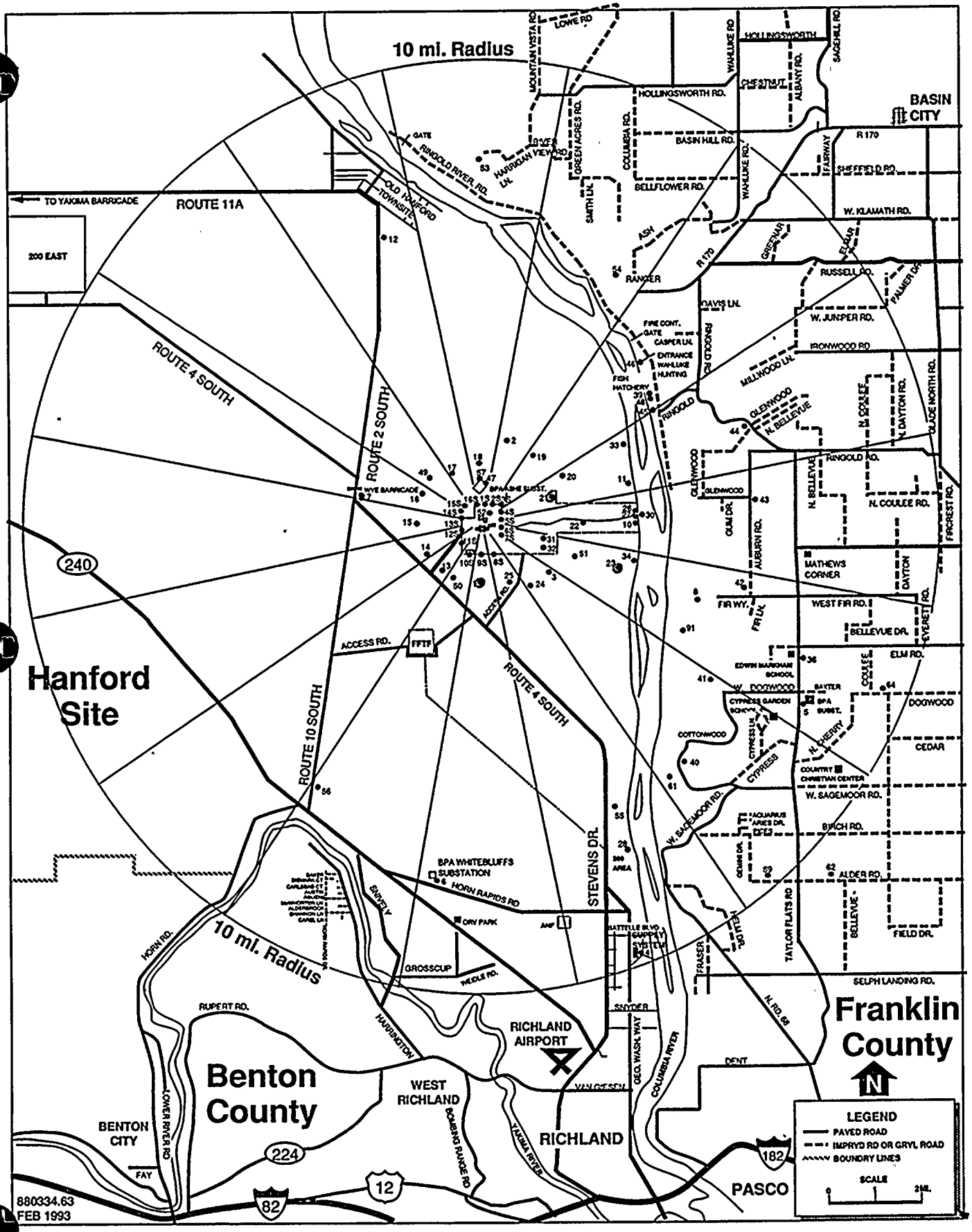

FIGURE 4-13
SOIL SAMPLING LOCATIONS WITHIN THE 10-MILE RADIUS

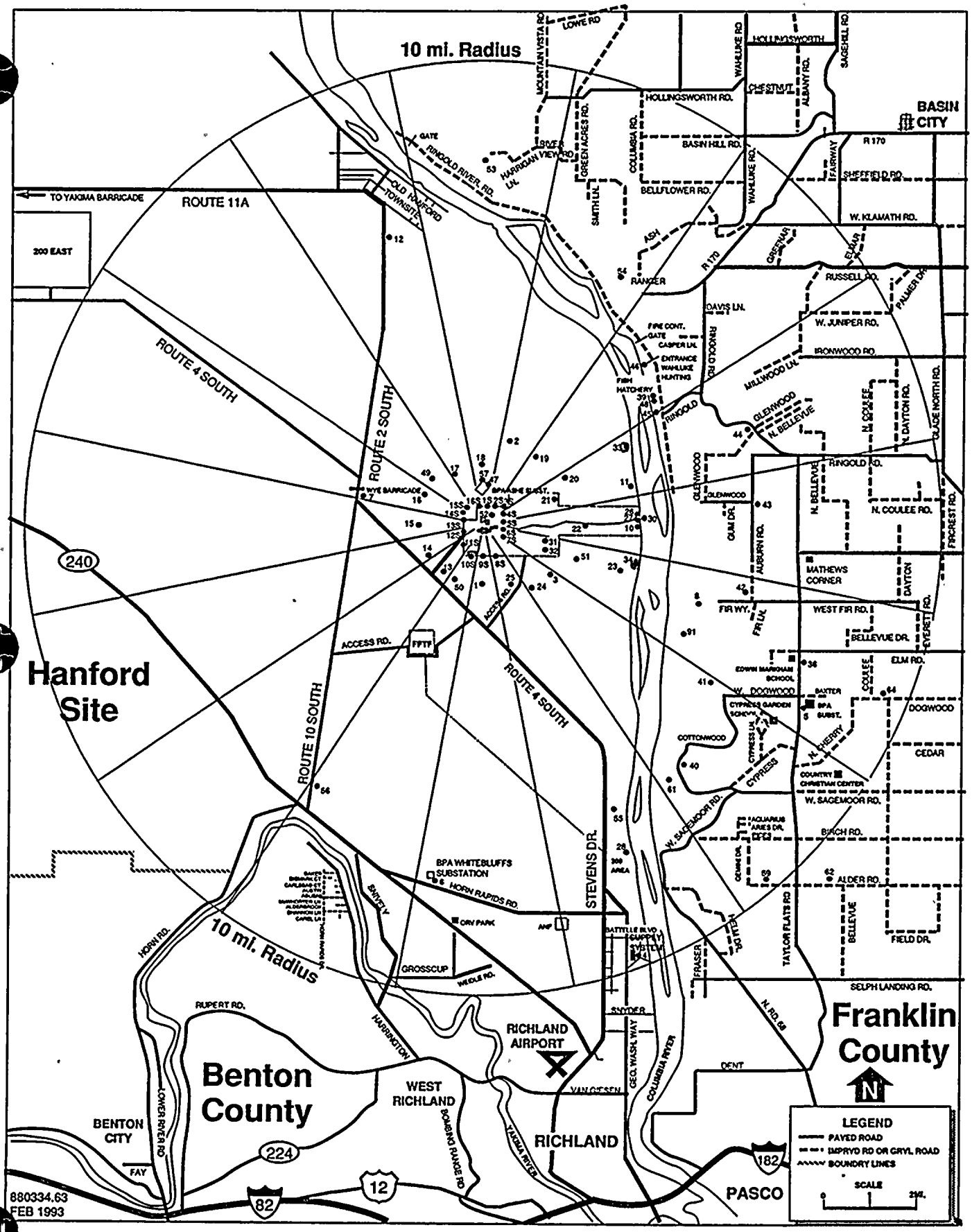

FIGURE 4-14
SEDIMENT SAMPLING LOCATIONS

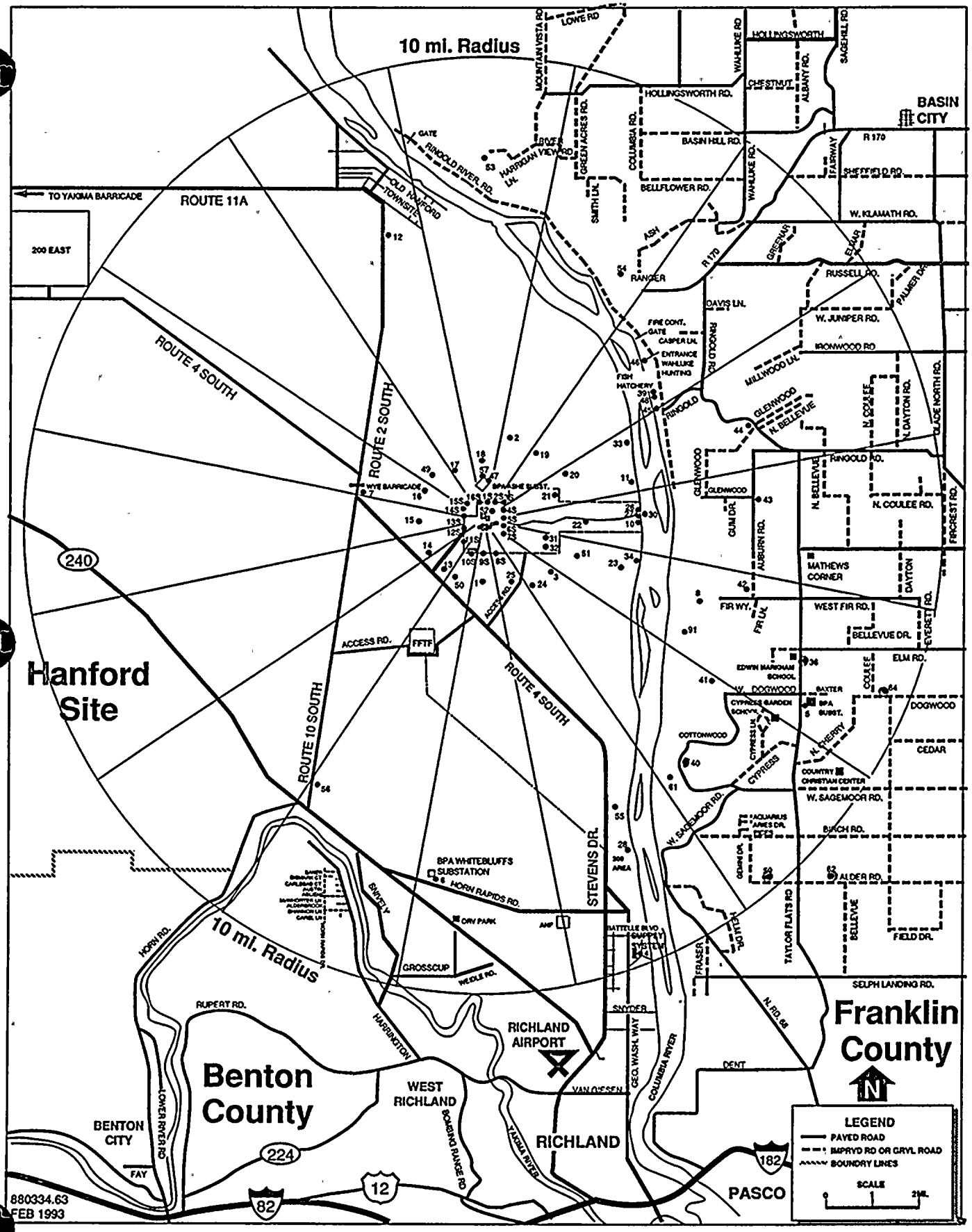

FIGURE 4-15
MILK SAMPLING LOCATIONS WITHIN THE 10-MILE RADIUS

5.0 RESULTS AND DISCUSSION

During 1992 the analyses of REMP samples were performed by Teledyne Isotopes in Westwood, New Jersey. The thermoluminescent dosimeters were processed by the Supply System External Dosimetry Laboratory. Table 5-1 presents the means and ranges of the 1992 results for each type of sample collected. The means and ranges of the preoperational and the previous operational data from 1984 to 1991 are also included in the table for comparison.

The data for the preoperational period and the first six months of 1984 included "less than" (<) designations for results below the actual LLD, the contractual LLD or the two sigma error, depending upon the convention employed by the analytical contractor. Consequently, the data averages using "less than" values are biased high. The use of the "less than" values was discontinued in mid 1984. Since then, REMP data have been reported as net results (total) results minus the detector counting background).

Since the primary focus of the REMP is to determine whether Plant 2 operations have impacted the environment, the 1992 results are compared in this report to the results during the preoperational period and the results obtained during the previous years of Plant 2 operation. They are compared, as well, to state and federal regulatory limits. Because of the use of "less than" values, rather than net results, during the preoperational period and during the first year of operation and because of the impact of the 1986 Chernobyl accident on environmental radiation levels, the interpretation of the 1992 measurements relative to previous measurements must be done carefully. Some of the parameters considered in the evaluations discussed in this report are the means, ranges and standard deviations or standard errors of the results. Comparative plots and frequency distributions of the data are some of the tools that have been employed in the interpretation of the 1992 REMP data.

The 1992 analytical results for the REMP sampling locations established since the preoperational period are very similar to the results reported for previous years. The 1992 annual and quarterly TLD results were also very much like those observed previously. No significant trends indicating an environmental impact or unexpected change in the environmental concentrations or exposure rates at these stations was observed.

At two of the special interest locations, Station 101 and Station 102, there were significant changes observed. At Station 101, the storm drain, there has been some environmental impact, the most significant of which is the contamination of the sediment and soil in and beneath the pond. The changes observed at Station 102, the Sanitary Waste Treatment Facility, were very low level and were considered to have no impact on the environment. At Station 118, the containerized storage area, radionuclide concentrations were at normal background levels.

The LLDs generally determined by Teledyne Isotopes for each analysis performed and each radionuclide of interest are listed in Table 5-2. Presented alongside the Teledyne LLDs are the LLDs required by the NRC Branch Technical Position (BTP).[3] The LLDs determined for analyses at Teledyne Isotopes have met the NRC requirements in all cases.

A summary of the 1992 results that were detectable is presented in Table 5-3. If a particular radionuclide of interest was not detected in the 1992 samples the term "LLD" is noted in the data mean and range columns.

5.1 Direct Radiation

Summaries of the environmental radiation exposure rates, determined by thermoluminescent dosimeters (TLDs) are presented in Tables 5-4 and 5-5. The individual quarterly and annual results for each TLD station are given in Tables A-1.1 and A-1.2 of Appendix A. Figures 5-1 and 5-2 show the mean quarterly results for near-plant and remote TLD locations for the preoperational period, 1984-1991 and 1992. Figures 5-3 and 5-4 show the annual TLD results for near-plant and remote locations for the same periods. The quarterly and annual results for the control location (Station 9A) show similar fluctuations over time as the indicator locations and the relationships between the different locations remain very consistent over the three periods.

Figure 5-5 presents a circular plot of the mean 1992 quarterly TLD results for each of the sixteen meteorological sectors, compared to the sector means for the preoperational and previous operational periods. The relationship of the mean 1992 results to the results for the preoperational and previous operational periods is very similar for each sector. This indicates that there were no significant directional effects observed in the 1992 TLD results. The apparent increase in the mean 1992 TLD results over the means of the preoperational and previous operational periods is due to the effect of averaging only the four quarters of 1992 data, versus averaging numerous quarters for the other two sets of results. The differences between the data sets are generally within 10%, which is within the range of variation normally expected for TLD systems. The annual TLD results for each sector also follow the same pattern as the mean quarterly results, except they are approximately 5% lower.

Station 46 in the Wahluke Reserve remained the location with the highest mean exposure rate, 0.31 mR/day. This is the same mean exposure rate determined for that station for 1989, 1990, and 1991. Since the preoperational measurement phase, the results for this location have exceeded the results for all other locations. Variations in the ambient background due to differences in the soil and underlying rock composition account for such local differences in the TLD results.

A comparison of the 1992 annual and mean quarterly TLD results is presented in Table 5-6. The 1992 annual TLD results are generally 5-10% lower than the mean quarterly results because of the signal fading characteristics of calcium sulfate ($CaSo_4$). This difference is not significant, in light of the variability commonly observed in TLD results. In most cases, the annual result is within the uncertainty associated with the quarterly TLD results.

Frequency distribution plots of the 1992 quarterly TLD results are presented in Figure 5-6. The plots are very similar from quarter to quarter, with 0.26 mR/day being the most frequent result and with the Station 46 results being upscale and separate from the main distribution. The frequency distributions for the quarterly preoperational, previous operational and 1992 TLD results are compared in Figure 5-7. The three distributions agree well.

The 1992 annual TLD results are also consistent with results observed for the past monitoring periods. This is evident in the comparison of the current results with preoperational and previous operational results presented in Table 5-5.

The above comparisons of 1992 TLD results to preoperational and previous operational data and the analysis of results by meteorological sector and distance from the plant demonstrate that Plant 2 operations have not impacted the direct radiation levels in the environment around the plant.

5.2 Airborne Particulate/Iodine

The results of the 1992 gross beta in air analyses are presented in Tables A-2.1 and A-2.2 of Appendix A. The 1992 mean weekly results of all indicator stations are plotted in Figure 5-8. The gross beta in air results for 1992 were within the ranges observed during the preoperational period and during previous operational periods, as shown in Table 5-1. In Figure 5-9 the similarity between results from near-plant locations and those from remote locations can be seen. The control location (Station 9A) results follow a very similar pattern to the remote and near-plant indicator locations. As observed previously, gross beta levels increased during periods of inversion occurring in the fall and winter months. In fact, the gross beta results plotted over a period of several years show a cyclic pattern of fall and winter increases. The increase, which was evident in the results of all the air sampling locations is due to an increase in radon and radon daughter concentrations during the inversions.

The quarterly gamma analyses of the particulate filter composites indicated only the presence of two naturally-occurring radionuclides, beryllium-7 and potassium-40, at levels above detection limits at indicator locations and the control location. The results of the gamma analysis of particulate filter composites are presented in Table A-3.1 and A-3.2 of Appendix A. The results of the gamma analyses of charcoal cartridges for iodine-131 are presented in Table A-4.1. All iodine-131 in air results for 1992 were less than the 0.01 pCi/cubic meter LLD.

No evidence of any impact of plant operations on the environment was apparent in the particulate filter and charcoal cartridge results for 1992.

5.3 Water

The gross beta in river/drinking (including intake) and discharge water results are given in Tables A-5.1 and A-5.2 of Appendix A. All river/drinking water results were within the ranges normally observed and less than 8 pCi/liter, the level at which a strontium analysis is performed to verify compliance with the Washington State drinking water standard for strontium-90*. The 1992 gross beta concentrations in river/drinking water, relative to the state annual average concentration limit[11], are presented in Figure 5-10. The mean gross beta results in river/drinking water and discharge water, for 1984 to 1992 are compared to the state annual average concentration limit (8 pCi/liter) and the DOH investigation level (75 pCi/liter), respectively, in Figure 5-11. The current average results compare well to the averages from previous periods.

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*Strontium-90 is assumed to account for the gross beta result.

The mean gross beta levels in the discharge water were slightly lower in 1991 and 1992 than the previous levels observed during the period of 1984-1990, as shown in Figure 5-11. This lower gross beta level resulted from the current mode of plant operations using less concentrated circulating water (lower cycles of concentration). The gross beta levels in the discharge sample reflect the concentrations of naturally-occurring radionuclides, principally potassium-40, and any radionuclides from upstream sources of past Hanford activities present in the makeup water, in addition to radionuclides from Plant 2 discharges. The discharge sample results are representative of the radioactivity present in plant discharges before any mixing with river water occurs. Therefore, the sample is not indicative of the actual radionuclide concentrations in the river water downstream from Plant 2. Flow-proportional composite sampling from the discharge line was considered to be the most feasible option for meeting the ODCM requirement for sampling from the river near the downstream edge of the mixing zone. However, careful interpretation of the results from this sampling point is necessary, since they do not represent true environmental samples.

The tritium results for river/drinking water, discharge water and groundwater are presented in Tables A-6.1 and A-6.2 of Appendix A. The tritium levels in the river/drinking water were all below the LLD, except two results which were at the detection level. The mean results for 1992 are compared to previous periods in Figure 5-12. All the tritium results for the quarterly groundwater samples were below the LLD.

Tritium levels in the discharge water were higher than the levels observed for the river/drinking water samples because of plant releases and because discharge water samples are taken prior to the water reaching the river and becoming diluted. As shown in Figure 5-13, the mean result was much higher than the mean levels observed for 1991 and the 1984-1990 period. The tritium concentration in the discharge water ranged from 1800 to 5400 pCi/liter, which is still low, when compared to the NRC reporting level of 20,000 pCi/liter for a quarterly average concentration in drinking water.

Cobalt-60, zinc-65 and cesium-137 were detected in some discharge samples during and following the plant outage. The detectable cobalt-60 results ranged from 6.6 to 20.5 pCi/liter, the zinc-65 results ranged from 14.3 to 27.9 pCi/liter, and the cesium-137 results ranged from 5.1 to 9.9 pCi/liter. Although above detection levels, these results were low and did not exceed any reporting levels.

5.4 Soil

Gamma spectrometry was performed on five soil samples collected in May. The detectable cesium-137 levels in the samples ranged from 35.9 pci/kilogram to 489.0 pCi/kilogram. As shown in Table 5-1, the cesium-137 levels in the soil samples were well within the range observed during preoperational and previous operational sampling. However, the cesium-137 levels measured in one of the soil samples, Station 23, exceeded the cesium-137 measured in the control sample, Station 9A, by more than a factor of 10. A strontium analysis was, therefore, performed on that sample, as required by the Site Certification Agreement. The strontium concentration in the sample was below the detection level and below the range previously observed, as shown in Table 5-1. Aside from cesium-137, the only radionuclides detected in the samples were potassium-40, radium-226 and thorium-228. These are part of the natural radioactivity typically found in soils.

The gamma spectrometry results for the soil samples are given in Tables A-8.1 and A-8.2 in Appendix A. No indication of impact of Plant 2 operations on the environment was evident in these results.

5.5 River Sediment

The results of gamma spectrometry of river sediment are presented in Tables A-9.1 and A-9.2 in Appendix A. Aside from the naturally-occurring radionuclides (potassium-40, radium-226 and thorium-228), only cesium-137 was detected downstream of the plant (Station 34). Cesium-137 was also detected in the control location (Station 33) sample. The cesium-137 concentrations upstream from the plant discharge point were 64.0 and 98.7 pCi/kilogram; the concentrations downstream from the discharge point were 198.0 and 221.0 pCi/kilogram. These are consistent with the concentrations observed previously, as shown in Figure 5-14.

Cesium-137 has been detected in preoperational samples and in samples taken since plant operation began. It has also been previously identified as a component of the Columbia River sediment originating from the operation of the old Hanford Reservation reactors.[16]

5.6 Fish

The gamma spectrometry results of fish samples collected in the vicinity of the Plant 2 discharge and at the control location on the Snake River are presented in Tables A-10.1 and A-10.2 of Appendix A. All results were below detection limits, except for potassium-40, a naturally-occurring radionuclide, and cesium-137. The detectable cesium-137 levels for the fish taken from the Columbia River were low and within the range observed during the preoperational and previous operational periods.

5.7 Milk

All the results of iodine-131 analyses of milk samples collected during 1992 were less than detection limits. The routine iodine-131 in milk results are listed in Tables A-11.1 and A-11.2 of Appendix A. The gamma spectrometry results for the same milk samples are listed in Tables A-12.1 and A-12.2. All results for the indicator and control locations were less than the detection limits, except for potassium-40, which is naturally-occurring.

5.8 Garden Produce

The gamma isotopic analysis results for all root, fruit and leafy vegetables were below detection limits. The results of all produce samples, including the apples collected from Station 91 and the cherries collected from Station 61, are listed in Tables A-13.1 through A-15.2 of Appendix A.

5.9 Special Interest Samples

Three special interest sampling locations were incorporated into the REMP during 1992. Discussions of the results from each of the three locations are given in the following sections.

None of these locations, the storm drain, the Sanitary Waste Treatment Facility (SWTF), and the containerized storage area, were a part of the routine sampling

program for the REMP until 1992. Until incorporated into the REMP, the sediment samples collected during previous years at the storm drain and SWTF were analyzed in the Support Services radiochemical laboratory in-house. The storm drain and SWTF sediment samples were analyzed wet, so the results were in terms of wet weight, instead of the dry weight concentrations determined by Teledyne. So direct comparison of the wet sample results with the dried sample results is difficult since the percent solids can vary from sample to sample. This report includes only the samples collected during 1992.

The data for containerized storage area, Station 118, consists of twenty-nine large metal storage containers holding the low pressure turbine rotor parts removed from the plant during the 1992 maintenance outage. Soil samples and ionization chamber readings were taken at Station 118.

5.9.1 Storm Drain Pond (Station 101)

The storm drain pond is the drain field formed by the liquid discharges leaving Plant-2 via the storm drain pipe. The storm drain pond is located approximately 1500 feet east northeast of Plant-2, within the Plant-2 restricted area. The storm drain receives water from several sources, including building roof drains, the Service Building floor drain sump, the Diesel Generator Building floor drains, air handling unit drains, backwash effluent from gravity and carbon filters in the Service Building, and Turbine Building nonradioactive floor drains.

The water released through the 18-inch diameter storm drain pipe flows into a 300-foot long earthen channel and then into the pond, which is approximately 100 feet in diameter. The pond is a shallow, unlined percolation/evaporation basin. Although not a part of the REMP sampling plan until early 1992, the storm drain sediment and water were periodically sampled by the REMP in the past. Periodically, cesium-137, cesium-134, cobalt-60 and zinc-65 were observed in the sediment and investigated, but the source(s) of the activity was never resolved. Then in February 1992, the storm drain became a part of the REMP sampling plan and the water, sediment, soil and vegetation samples collected there were sent to Teledyne Isotopes for analysis.

On April 29 and May 13, 1992, the REMP staff observed milky and red-colored water coming from the storm drain. A water sample collected at the storm drain outfall on April 29 contained detectable iodine-131 (12.6 pCi/liter). A water sample collected on May 13 also contained detectable iodine-131 (21.1 pCi/liter), as well as cobalt-60 (124.7 pCi/liter), antimony-125 (20.8 pCi/liter), and cerium-141 (707 pCi/liter). The tritium concentration measured in the water was 270,000 pCi/liter. Problem Evaluation Request (PER) 292-0531 was submitted to plant management on May 22. Because the iodine-131 and tritium levels in these samples resulted in the quarterly average concentrations for tritium and iodine-131 exceeding the NRC reporting levels, a Radiological Environmental Monitoring Program special report was submitted to the NRC on July 30, 1992. The sediment and water sampling frequency at the storm drain increased to daily, in order to characterize the extent of the release in April and May and to track the radioactivity levels. The radionuclide concentrations in the storm drain water on May 13 are compared to the NRC Reporting Levels, given in terms of quarterly averages, and the Washington State DOH investigation levels, given in terms of a single result, in Table 5-7.

In order to characterize the impact of the radioactivity released on the storm drain sediment, a special set of surface sediment samples were taken at six locations in

the channel and pond on May 22. Significant concentrations of cobalt-60, zinc-65, cesium-137, cesium-134, cerium-141 and manganese-54 were found at these locations. A listing of the May 22 sample results and the results for sediment samples taken again at these locations on November 19 are given in Table 5-8. Although elevated levels of cobalt-60 and zinc-65 had periodically been observed in the past in the storm drain sediment, the levels were less than the concentrations following the May 13 incident.

On July 9, core samples were taken at three locations to a depth of approximately five feet. The results of these core samples are presented in Table B-6.1 in Appendix B. Cobalt-60 was the most significant radionuclide found in these samples. The highest concentration of cobalt-60 was 2,410 pCi/kilogram, which was found at a depth of three feet at the storm drain pipe outfall. Samples at the other locations and depths contained much lower concentrations and some low concentrations of the other radionuclides observed in surface samples.

Cattail samples taken at the storm drain outfall on June 17 and September 16 showed detectable levels of cobalt-60, zinc-65, cesium-134, cesium-137, and manganese-54 (Tables 5-9 and B-8.1). An earlier cattail sample taken on May 22 and a grass sample taken on March 19 did not contain detectable concentrations of these radionuclides.

The root cause analysis resulting from PER 292-0531 concluded that the event occurred as a result of a transfer of water from a radioactive Turbine Building sump to a nonradioactive Turbine Building sump which was discharged to the storm drain. Corrective actions included evaluating potential leak paths from radioactive drain systems to nonradioactive systems, evaluating the sensitivity of monitoring equipment used on the floor drain sumps to determine whether it can be improved significantly, reporting the results of core samples used to characterize the storm drain radioactivity and exploring alternate methods of treating the high conductivity water historically discharged via the storm drain.

In October an inspection by the NRC resulted in two notices of violation concerning the storm drain: (1) The Supply System disposed of radioactive liquid from a Turbine Building sump by discharge to the storm drain, a method not authorized by 10CFR20.301[a]; (2) The Supply System had not maintained in the updated Final Safety Analysis Report (UFSAR) a description of the change to the facility resulting from the demonstration that nonradioactive Turbine Building sumps are now used as radioactive sumps and no written safety evaluation of this change was performed.

Following the May incident, tritium levels at the storm drain remained near the lower limit of detection until mid-June when a gradual increase was observed. By September the tritium levels were approaching 30,000 pCi/liter, the NRC reporting level for a quarterly average concentration.

On November 6 PER 292-1255 was written to inform plant management that tritium levels at the storm drain continued to be significant. Response to this PER included isolation of in-plant sources to the storm drain and the processing of water in the Turbine Building sumps through radwaste.

On November 11, PER 292-1274 was submitted to alert plant management that the total radioactivity, particularly cobalt-60, in the storm drain sediment may exceed the 10CFR20 Appendix C values for designating a radioactive materials area. Response to this PER included posting the storm drain area as a radioactive materials area,

making provisions for fencing the area and upgrading security surveillance of the area to prevent unauthorized access.

Finally, because tritium levels both in the pond and at the outfall continued to be elevated, despite the isolation of the sources of input, PER 292-1339 was submitted on November 24. Response to this PER included performing a thorough walkdown to identify additional sources of input to the storm drain and continuing to isolate sources of contamination. On November 25, a portable composite sampler was installed at the storm drain outfall. This sampler collects a 35-milliliter aliquot hourly and combines these into a daily composite. Work will continue into 1993 to upgrade this sampling system to permit flow-proportional sampling.

Snow samples were taken on December 18 at a location southwest of the cooling towers, in order to determine the tritium in the environment around the plant. The fresh snowfall at that location contained 410-430 pCi/liter (of water), which is above the detection level of 100 pCi/l. On the same day, a sample was taken from the water in cooling tower 2B and analyzed for tritium. The tritium concentration in that water was 460 pCi/liter.

As shown in Figure 5-15 and Table B-3.1 in Appendix B, the tritium levels continued to fluctuate from near detection level (100 pCi/liter) to 30,000 or 40,000 pCi/liter. Then on December 31, the tritium concentration rose to 110,000 pCi/liter. Investigation into the sources of the tritium revealed that meteorological conditions such as the cold temperatures and the wind direction were apparently causing the Turbine Building gaseous effluents containing tritium to condense on the adjacent building roofs and enter the storm drain.** An evaluation of the tritium results for the fourth quarter of 1992 indicated that the quarterly average tritium concentration was about 16,000 pCi/liter, which is well below the 30,000 pCi/liter average concentration requiring an NRC special report.

5.9.2 Sanitary Waste Treatment Facility (Station 102)

The Sanitary Waste Treatment Facility (SWTF), located approximately 0.3 mile south of Plant 2 processes the sanitary waste from Plant 2, the WNP-1 and WNP-4 sites and the Plant Support Facility (PSF). In 1991 a pipeline was installed from the Department of Energy's Fast Flux Test Facility (FFTF) to the Supply System SWTF to permit sanitary waste from FFTF to be processed there at some point in the future. The arrangements for this processing of FFTF wastes were never finalized, however. A valve was to have been installed at the FFTF end of the pipe to prevent the flow of wastes from FFTF. In November of 1991 EFSEC approved Resolution No. 259[17], which approved the introduction of FFTF wastes into the Supply System SWTF and outlined discharge standards and monitoring requirements. Until April 1992, the SWTF sediment was sampled semiannually and analyzed in the Support Services radiation laboratory and the radionuclide concentrations were given in terms of wet weight.

In April 1992, the sampling routine to satisfy Resolution No. 259 was begun and the SWTF became a part of the REMP sampling plan. Water samples were taken at least monthly and sediment samples, which were not required by the resolution, were taken from the northern settling pond on a quarterly basis. Both the sediment and water

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*Tritium concentrations in water on the Service Building roof on December 25 and 26, for example, were 2,470,000 and 2,950,000 pCi/liter.

samples were sent to Teledyne Isotopes for analysis, like all the other routine REMP samples.

No detectable gamma activity was found in the April 1992 sediment sample or in the monthly water samples. In the July sediment sample however, cobalt-60 was detected in the sediment, so the sampling frequency increased to monthly. In the next sediment sample taken August 12, both cobalt-60 and cesium-137 were detectable and present at concentrations far above levels that had been previously observed. Additional sampling was performed in September and October to determine the radionuclide levels in both stabilization/settling ponds. Water samples were also taken from both ponds and analyzed for tritium, as well as gamma emitters. When the results were received in late October, Problem Evaluation Request (PER) 292-1206 was written, because the sediment in the north stabilization pond showed elevated levels of cobalt-60 (245-728 pCi/kilogram) and cesium-137 (169-248 pCi/kilogram) and the tritium concentrations (1400 and 1000 pCi/liter) in the two ponds were at and above the state investigations level of 1000 pCi/liter. The Washington State Department of Health (DOH) and the Nuclear Regulatory Commission (NRC) were notified of the results. Water samples taken from the aeration ponds, which had not received sanitary waste for several years did not contain detectable tritium or gamma emitters. Samples of water found in the pipeline on October 30 from FFTF, however, contained 6,400 pCi/liter of tritium.

On November 6, water and sludge samples were taken from the FFTF septic tank and sediment was taken from the drain field into which the FFTF septic tank had overflowed for several years. In addition, the pipeline leading from the septic tank to the SWTF was observed to have no valve to prevent FFTF wastes from entering the pipe. Tritium levels found in the septic tank water were 6,200 to 6,700 pCi/liter. The septic tank sludge sample contained 400 pCi/kilogram of cobalt-60. The soil taken from the drain field contained 359 pCi/kilogram of cobalt-60 and 284 pCi/kilogram of cesium-137.

Additional sampling at various SWTF locations indicated that water containing elevated tritium levels had been flowing into the facility since at least May 1992. Water samples taken before that were not available for reanalysis so the exact period of time the FFTF waste had been entering the SWTF could not be determined. Samples of soil/sludge taken from a percolation bed, the dosing pond and the nearby lift station overflow basin showed no detectable gamma activity, indicating that the present gamma activity found in the stabilization pond sediment had not been present long enough to impact the levels of radioactivity in the beds to which settling pond discharges are made.

The root cause analysis report concerning this incident concluded that the radioactivity found in the stabilization ponds most likely originated at the FFTF and that the "failure to perform detailed testing of the FFTF sewage effluent prior to entering into an agreement to install the pipeline between FFTF and the SWTF was a basic reason for the incident to occur." To prevent recurrence, a concrete plug was installed in the pipeline from FFTF.

The results of all the samples taken at the SWTF during 1992 are given in Appendix B. Graphs of the sediment concentrations of cesium-137 and cobalt-60 from 1987 through 1992 are presented in Figure 5-16. A drawing of the facility showing the sample locations and the most significant analytical results from the investigation into the detectable sediment and water radioactivity is presented in Figure 5-17. 1992 tritium concentrations in the headworks and the north stabilization pond are presented in Figure 5-18.

5.9.3 Containerized Storage Area (Station 118)

Soil samples taken at Station 118 before and after storage of the low pressure turbine rotor parts contained no detectable radioactivity except that from naturally-occurring radionuclides, such as potassium-40 and radium-226. In May, a small amount of water leaked from the storage container at location M at Station 118. The soil sample taken at the location contained no detectable radioactivity. All the soil results for Station 118 are contained in Table B 19.1 and B 19.2 in Appendix B.

TABLE 5-1

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM COMPARATIVE SUMMARY

MEDIA/ ANALYSIS	PREOPERATIONAL[a]		PREVIOUS OPERATIONAL[b][c]		1992[d]	
	MEAN	(RANGE)	MEAN	(RANGE)	MEAN	(RANGE)
Air:. pCi/m^3						
Gross Beta	<0.02	(<0.003 - 0.130)	0.02	(0.00 - 0.74)	0.02	(0.00 - 0.04)
I-131[e]	<0.05	(<0.01 - 0.11)	0.00	(-0.07 - 0.82)	0.00	(-0.02 - 0.02)
Gamma						
Cs-134	<0.01	(<0.001 - 0.040)	0.000	(-0.002 - 0.015)	-0.000	(0.000 - 0.000)
Cs-137	<0.01	(<0.001 - 0.040)	0.001	(-0.001 - 0.036)	0.000	(0.000 - 0.000)
Ru-103	Not Reported		0.001	(-0.001 - 0.019)	0.000	(-0.001 - 0.001)
River/Drinking Water: pCi/l						
Gross Beta	<3.0	(<1.0 - <6.0)	2.0	(-0.2 - 9.1)	1.7	(0.3 - 3.3)
Gamma						
Cs-134	<3.8	(<1.0 - <12.0)	0.4	(-5.4 - 5.2)	0.2	(-2.6 - 3.1)
Cs-137	<4.1	(<1.0 - <13.0)	1.1	(-5.7 - 6.2)	0.5	(-3.2 - 4.1)
Co-58	<5.1	(<1.0 - <25.0)	-0.1	(-3.3 - 2.9)	0.0	(-1.6 - 2.3)
Co-60	<4.7	(<1.0 - <13.0)	1.0	(-4.9 - 7.1)	0.6	(-1.5 - 2.2)
Fe-59	<13.3	(<2.0 - <93.0)	0.7	(-8.9 - 6.9)	0.7	(-6.3 - 4.9)
Zn-65	<8.3	(<2.0 - <27.0)	-2.0	(-16.2 - 8.2)	1.0	(-4.4 - 5.7)
H-3	<481.7	(220 - <820)	153.9	(-52.0 - 596.0)	14.0	(-500 - 190).
Sr-90	<2.0		0.4	(0.3 - 0.7)	Analysis Not Performed	
Groundwater: pCi/l						
Gamma						
Cs-134	<4.0	(<1.0 - <12.0)	0.5	(-4.1 - 5.4)	-0.1	(-2.1 - 1.8)
Cs-137	<3.8	(0.8 - <8.0)	1.1	(-3.1 - 4.9)	1.2	(-0.1 - 2.9)
Co-58	<4.7	(<1.0 - <12.0)	-0.2	(-2.8 - 1.9)	-0.2	(-1.7 - 1.2)
Co-60	<4.1	(0.1 - <9.0)	1.3	(-2.4 - 8.4)	0.8	(-1.2 - 3.0)
Fe-59	<11.6	(<2.0 - <33.0)	0.6	(-4.5 - 5.7)	0.8	(-0.8 - 2.5)
Zn-65	<8.6	(<2.0 - 17.0)	-1.8	(-46.8 - 15.0)	0.8	(-24.0 - 14.0)
H-3	<467.8	(<10.0 - 2600.0)	57.3	(-516.0 - 470.0)	-38.6	(-220 - 77.0)
Sr-90	<0.4	(<0.1 - 0.7)	Analysis Not Performed		Analysis Not Performed	

(a) All stations, all years.
(b) Indicator stations only for the years 1984 to 1991. Some of the data means and ranges are biased high due to the effects of the Chernobyl accident in 1986.
(c) The data used for these averages does not include the "less than" values reported in 1984.
(d) Indicator stations only.
(e) Charcoal cartridge results.

TABLE 5-1 (Cont.)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM COMPARATIVE SUMMARY

MEDIA/ ANALYSIS	PREOPERATIONAL[a] MEAN	(RANGE)	PREVIOUS OPERATIONAL[b][c] MEAN	(RANGE)	1992[d] MEAN	(RANGE)
Discharge						
Gross Beta	<2.8	(<1.9 - 4.0)	17.3	(0.6 - 48.0)	13.1	(7.5 - 30.0)
Gamma						
Cs-134	<3.7	(<1.0 - <8.0)	0.5	(-3.9 - 5.4)	0.9	(-1.5 - 3.9)
Cs-137	<4.7	(<1.0 - 16.0)	1.6	(-3.3 - 7.9)	2.5	(-5.3 - 10.0)
Co-58	<1.4	(1.0 - 13.0)	0.0	(-2.6 - 4.6)	-0.3	(-1.0 - 1.6)
Co-60	<5.0	(<1.9 - <13.0)	3.6	(-8.7 - 57.6)	5.9	(-1.5 - 20.5)
Fe-59	<11.9	(<3.0 - <38.0)	0.8	(-4.1 - 6.0)	1.2	(-1.9 - 4.7)
Zn-65	<8.6	(<2.0 - 27.0)	3.0	(-8.2 - 86.7)	4.4	(-2.9 - 27.9)
H-3	<420.0	(<80.0 - 700.0)	158.9	(55.0 - 4400.0)	3400.0	(1800.0 - 5400.0)
Sr-90	<3.0		0.8	(0.5 - 1.1)	Analysis Not Performed	
Storm Drain Water: pCi/l						
Gross Beta	Analysis Not Performed		Analysis Not Performed		37.9	(1.6 - 1100.0)
Gamma	Analysis Not Performed		Analysis Not Performed			
Cs-134					0.0	(-4.8 - 8.3)
Cs-137					1.0	(-6.2 - 6.4)
Co-58					-0.3	(-4.9 - 3.4)
Co-60					2.6	(-1.9 - 125.0)
Fe-59					0.5	(-14.0 - 8.3)
Zn-65					1.6	(-13.0 - 53.0)
Mn-54					0.5	(-3.2 - 6.5)
I-131					0.8	(-6.0 - 21.1)
Ce-141					6.4	(-11.0 - 707.0)
Sb-124					11.5	
Sb-125					20.8	
I-131[e]					0.4	(-0.2 - 8.3)
H-3	Analysis Not Performed		Analysis Not Performed		13,045	(-93.0 - 270,000)
Sr-89	Analysis Not Performed		Analysis Not Performed		0.9	(-0.1 - 1.8)
Sr-90	Analysis Not Performed		Analysis Not Performed		0.4	(-0.1 - 0.9)
Sanitary Waste Water; pCi l						
Gross Alpha	Analysis Not Performed		Analysis Not Performed		0.2	(-0.4 - 0.6)
Gross Beta	Analysis Not Performed		Analysis Not Performed		45.4	(41.0 - 51.0)
Cs-134					-0.3	(-4.9 - 2.1)
Cs-137					0.4	(-5.1 - 4.2)
Co-58					-0.3	(-2.7 - 1.7)
Co-60					0.8	(-1.1 - 4.0)
H-3	Analyses Not Performed		Analyses Not Performed		666.6	(50.0 - 1700.0)

(a) All stations, all years.
(b) Indicator stations only for the years 1984 to 1991. Some of the data means and ranges are biased high due to the effects of the Chernobyl accident in 1986.
(c) The data used for these averages does not include the "less than" values reported in 1984.
(d) Indicator stations only.

TABLE 5-1 (Cont.)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM COMPARATIVE SUMMARY

MEDIA/ ANALYSIS	PREOPERATIONAL[a] MEAN	(RANGE)	PREVIOUS OPERATIONAL[b][c] MEAN	(RANGE)	1992[d] MEAN	(RANGE)
River Sediment: pCi/kg (dry)						
Gamma						
Cs-134	<112.5	(<50.0 - <150.0)	55.6	(7.0 - 172.0)	16.7	(10.6 - 22.8)
Cs-137	<287.0	(<50.0 - <560.0)	351.6	(153.0 - 1890.0)	210.0	(198.0 - 221.0)
Co-60	<254.6	(130.0 - 610.0)	47.5	(14.8 - 129.0)	12.3	(11.0 - 13.0)
Co-57	Not Reported		31.4	(-11.6 - 54.0)	17.4	(15.0 - 20.0)
Eu-152	Not Reported		128.9	(5.6 - 279.0)	101.0	(78.0 - 123.0)
Storm Drain Sediment: pCi/kg (dry)						
Gamma:	Analysis Not Performed[e]		Analyses Not Performed[e]			
Cs-134					95.3	(4.1 - 1140)
Cs-137					242.0	(-3.6 - 2900.0)
Co-58					1.8	(-27.0 - 58.0)
Co-60					1370.0	(-6.4 - 25400.0)
Fe-59					1.3	(-44.0 - 37.0)
Zn-65					270.0	(-25.0 - 4650.0)
Mn-54					46.9	(-9.6 - 670.0)
Ce-141					96.3	(-29.0 - 3740.0)
Sanitary Waste Sediment: pCi/kg (dry)						
Gamma:	Analysis Not Performed[e]		Analyses Not Performed			
Cs-134					31.0	(-11.0 - 55.2)
Cs-137					121.9	(0.0 - 254.0)
Co-60					158.3	(-3.4 - 728.0)
Zn-65					1.3	(-69.0 - 60.0)
Mn-54					12.9	(5.7 - 25.0)
Sr-90	Analysis Not Performed		Analysis Not Performed		83.0	(26.0 - 130.0)
Soil: pCi/kg (dry)						
Gamma						
Cs-134	<65.3	(<20.0 - <150.0)	27.7	(1.0 - 53.2)	26.9	(22.6 - 33.2)
Cs-137	364.3	(<20.0 - <1880.0)	304.6	(-7.3 - 735.0)	180.0	(11.9 - 489.0)
Sr-90	Analysis Not Performed		178.8	(0.2 - 455.0)	0.4	

(a) All stations all years.
(b) Indicator stations only for the years 1984 to 1991. Some of the data means and ranges are based high due to the effects of the Chernobyl accident in 1986.
(c) The Data Indicator Stations only used for these averages does not include the "less the" values reported in 1984.
(d) Indicator stations only.
(e) Prior to February 1992, these samples were analyzed as wet weight. These numbers are for the samples analyzed as dry weight.

TABLE 5-1 (Cont.)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM COMPARATIVE SUMMARY

MEDIA/ ANALYSIS	PREOPERATIONAL[a]		PREVIOUS OPERATIONAL[b][c]		1992[d]	
	MEAN	(RANGE)	MEAN	(RANGE)	MEAN	(RANGE)
St. 118 Soil pCi/kg (dry)						
Gamma	Analysis Not Performed		Analysis Not Performed			
Cs-134					23.2	(-2.9 - 46.0)
Cs-137					14.9	(-8.8 - 48.0)
Storm Drain Soil: pCi/kg (dry)						
Gamma	Analysis Not Performed		Analysis Not Performed			
Cs-134					20.5	(0.7 - 38.0)
Cs-137					60.2	(49.3 - 77.3)
Sr-90	Analysis Not Performed		Analysis Not Performed		Analysis Not Performed	
Milk: pCi/l						
Gamma						
Cs-134	<3.7	(<0.9 - <14.0)	1.1	(-7.4 - 22.6)	0.1	(-6.1 - 2.8)
Cs-137	<3.8	(<1.0 - <12.0)	3.1	(-7.4 - 47.3)	0.8	(-5.4 - 4.3)
Ba-140	<72.1	(<6.0 - <2000.0)	0.2	(-44.3 - 55.0)	-0.1	(-9.5 - 11.0)
La-140	<33.3	(<5.0 - 1000.0)	-0.5	(-24.2 - 9.7)	-0.4	(-6.7 - 5.6)
I-131[e]	<0.5	(<0.1 - <1.0)	1.2	(-0.8 - 143.6)	0.0	(-0.7 - 0.2)
Sr-90	Analysis Not Performed		1.9	(1.3 - 3.9)	Analysis Not Performed	
Fish: pCi/kg (wet)						
Gamma						
Cs-134	<61.2	(<6.0 - <130.0)	2.1	(-20.4 - 24.0)	1.9	(-2.5 - 8.8)
Cs-137	<88.8	(<10.0 - <130.0)	15.2	(-35.1 - 57.0)	20.2	(2.1 - 50.7)
Co-58	<87.7	(<9.0 - <130.0)	0.7	(-16.8 - 25.8)	1.9	(-3.7 - 9.7)
Co-60	<80.6	(<9.0 - <130.0)	0.7	(-18.4 - 21.0)	7.2	(0.0 - 21.0)
Fe-59	<130.0	(<30.0 - <260.0)	-1.1	(-34.2 - 30.0)	3.1	(-7.8 - 22.0)
Mn-54	<88.3	(<8.0 - <130.0)	1.2	(-20.0 - 30.9)	1.9	(-2.3 - 14.0)
Produce: pCi/kg (wet)						
Gamma						
Cs-134	<49.1	(<10.0 - < 140.0)	1.5	(-24.8 - 19.8)	0.8	(-4.9 - 2.1)
Cs-137	<69.8	(<10.0 - < 140.0)	4.1	(-9.8 - 20.9)	2.0	(-0.5 - 5.1)
I-131	<105.6	(<10.0 - <1000.0)	-0.4	(-26.0 - 59.0)	-0.7	(-9.2 - 6.9)

(a) All stations, all years.
(b) Indicator stations only for the years 1984 to 1991. Some of the data means and ranges are biased high due to the effects of the Chernobyl accident in 1986.
(c) The data used for these averages does not include the "less than" values reported in 1984.
(d) Indicator stations only.
(e) Resin method

TABLE 5-1 (Cont.)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM COMPARATIVE SUMMARY

MEDIA/ ANALYSIS	PREOPERATIONAL[a]		PREVIOUS OPERATIONAL[b][c]		1992[d]	
	MEAN	(RANGE)	MEAN	(RANGE)	MEAN	(RANGE)
Storm Drain Vegetation[d] pCi/kg (wet)						
Gamma	Analysis Not Performed		Analysis Not Performed			
Mn-54					17.7	(4.7 - 32.2)
Co-60					19.1	(-3.7 - 46.1)
Zn-65					34.6	(4.1 - 57.4)
Cs-134					10.4	(-6.5 - 45.8)
Cs-137					29.5	(3.9 - 93.5)
TLD: mR/day						
Quarterly	0.24	(0.11 - 0.32)	0.25	(0.16 - 0.35)	0.26	(0.22 - 0.32)
Annual	0.23	(0.20 - 0.31)	0.23	(0.18 - 0.32)	0.24	(0.21 - 0.27)

(a) All stations, all years.
(b) Indicator stations only for the years 1984 to 1991. Some of the data means and ranges are biased high due to the effects of the Chernobyl accident in 1986.
(c) The data used for these averages does not include the "less than" values reported in 1984.
(d) Routine samples from the outfall only.

TABLE 5-2

COMPARISON OF TELEDYNE NOMINAL LOWER LIMITS OF DETECTION WITH BRANCH TECHNICAL POSITION REQUIREMENTS

MEDIA (UNITS)	ANALYSIS	TELEDYNE LLDs	BTP REQUIRED LLDs
Air Particulates: (pCi/m^3)	Gross Beta	0.003	0.01
	Gamma Spectrometry		
	Cs-134	0.001	0.05
	Cs-137	0.001	0.06
Air Iodine: (pCi/m^3)	I-131	0.01	0.07
Water: (pCi/l)	Gross Beta	4	4
	Tritium	100-200	2000
	I-131	1	1
	Sr-90	1	---
	Gamma Spectrometry		
	Mn-54	10	15
	Fe-59	20	30
	Co-58	10	15
	Co-60	10	15
	Zn-65	20	30
	Zr-95	20	30
	Nb-95	10	15
	Cs-134	10	15
	Cs-137	10	18
	Ba-140	20	60
	La-140	10	15
Soil/Sediment: (pCi/kg dry)	Gamma Spectrometry		
	Co-57	120	---
	Co-60	30	---
	Zn-65	100	---
	Cs-134	30	150
	Cs-137	40	180
	Sr-90	10	---
Fish: (pCi/kg wet)	Gamma Spectrometry		
	Mn-54	20	130
	Fe-59	30	260
	Co-58	20	130
	Co-60	20	130
	Zn-65	30	260
	Cs-134	20	130
	Cs-137	20	150

TABLE 5-2

COMPARISON OF TELEDYNE NOMINAL LOWER LIMITS OF DETECTION WITH BRANCH TECHNICAL POSITION REQUIREMENTS

MEDIA (UNITS)	ANALYSIS	TELEDYNE LLDs	BTP REQUIRED LLDs
Milk: (pCi/l)	I-131	0.5	1
	Gamma Spectrometry		
	Cs-134	10	15
	Cs-137	10	18
	Ba-140	20	60
	La-140	10	15
	Sr-90	1	---
Garden Produce: (pCi/kg wet)	Gamma Spectrometry		
	Cs-134	20	60
	Cs-137	20	80
	I-131	30	60

TABLE 5-3

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

WASHINGTON PUBLIC POWER SUPPLY SYSTEM WNP-2
HANFORD WASHINGTON

DOCKET NO. 50-397
JANUARY 1 TO DECEMBER 31, 1992

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	ANALYSIS AND TOTAL NUMBER OF ANALYSES PERFORMED		LOWER LIMIT OF DETECTION (LLD)	ALL INDICATOR LOCATIONS MEAN (RATIO)[a] (RANGE)	LOCATION WITH HIGHEST MEAN NAME DISTANCE AND DIRECTION		MEAN (RATIO)[a] (RANGE)	CONTROL LOCATION MEAN (RATIO)[a] (RANGE)	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
Air Particulates (pCi/m^3)	Gross Beta	623	0.003	0.016(571/571) (0.004-0.044)	48	4.5 mi NE	0.018(52/52) (0.006-0.039)	0.015(52/52) (0.004-0.037)	0
	Gamma (Quarterly)	48							
	Be-7		0.01	0.119(44/44) (0.068-0.178)	4	9.3 mi SSE	0.134(4/4) (0.087-0.175)	0.120(4/4) (0.062-0.171)	0
	K-40		0.01	0.007(15/44) (0.001-0.002)	6	7.7 mi S	0.012(2/4) (0.005-0.0190)	0.005(1/4)	0
	Cs-137		0.01	LLD				LLD	0
	Cs-134		0.001	LLD				LLD	0
Air Iodine ((pCi/m^3)	I-131	623	0.01	LLD				LLD	0
Soil (pCi/kg dry)	Gamma	5							
	K-40		700	12925(4/4) (12400-13300)	23	3.0 mi ESE	13300(1/1)	12800(1/1)	0
	Cs-134		30	LLD				LLD	0
	Cs-137		40	180(2/4) (12-489)	23	3.0 mi ESE	489(1/1)	36(1/1)	0
	Ra-226		400	998(3/4) (953-1040)	23	3.0 mi ESE	1040(1/1)	702(1/1)	0
	Th-228		50	526(4/4) (405-586)	1	1.3 mi S	586(1/1)	605(1/1)	0
	Sr-90		50	LLD				LLD	0

(a) The ratio of positive results above the LLD to the number of samples analyzed for the parameter of interest.

TABLE 5-3 (Cont.)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

WASHINGTON PUBLIC POWER SUPPLY SYSTEM WNP-2 — DOCKET NO. 50-397
HANFORD WASHINGTON — JANUARY 1 TO DECEMBER 31, 1992

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	ANALYSIS AND TOTAL NUMBER OF ANALYSES PERFORMED		LOWER LIMIT OF DETECTION (LLD)	ALL INDICATOR LOCATIONS MEAN (RATIO)[a] (RANGE)	LOCATION WITH HIGHEST MEAN NAME DISTANCE AND DIRECTION	MEAN (RATIO)[a] (RANGE)	CONTROL LOCATION MEAN (RATIO)[a] (RANGE)	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
Water (River/Drinking) (pCi/liter)	Gross Beta	36	4	1.87(19/24) (1.1-3.3)	26 3.2 mi SSE	1.98(10/12) (1.5-2.7)	1.98(10/12) (1.5-2.7)	0
	Tritium	12	200	-(0/8)	28 7.4 mi SSE	155(2/4) (120-190)	155(2/4) (120-190)	0
	Gamma	36						
	K-40		200	-(0/24)	26 3.2 mi E	49(2/12) (45-52)	49(2/12) (45-52)	0
	Mn-54		10	LLD			LLD	0
	Fe-59		20	LLD			LLD	0
	Co-58		10	LLD			LLD	0
	Co-60		10	LLD			LLD	0
	Zn-65		20	LLD			LLD	0
	Zr-95		20	LLD			LLD	0
	Nb-95		10	LLD			LLD	0
	Cs-134		10	LLD			LLD	0
	Cs-137		10	LLD			LLD	0
	Ba-140		20	LLD			LLD	0
	La-140		10	LLD			LLD	0

(a) The ratio of positive results above the LLD to the number of samples analyzed for the parameter of interest.

TABLE 5-3 (Cont.)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

WASHINGTON PUBLIC POWER SUPPLY SYSTEM WNP-2
HANFORD WASHINGTON

DOCKET NO. 50-397
JANUARY 1 TO DECEMBER 31, 1992

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	ANALYSIS AND TOTAL NUMBER OF ANALYSES PERFORMED		LOWER LIMIT OF DETECTION (LLD)	ALL INDICATOR LOCATIONS MEAN (RATIO)[a] (RANGE)	LOCATION WITH HIGHEST MEAN NAME DISTANCE AND DIRECTION	MEAN (RATIO)[a] (RANGE)	CONTROL LOCATION MEAN (RATIO)[a] (RANGE)	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
Water (Discharge) (pCi/liter)	Gross Beta	36	12	13(12/12) (8-30)	27 3.2 mi E	13(12/12) (8-30)	None	0
	Tritium	4	200	3425(4/4) (1800-5400)	27 3.2 mi E	3425(4/4) (1800-5400)	None	0
	Gamma	10						
	Mn-54		10	LLD			LLD	0
	Fe-59		20	LLD			LLD	0
	Co-58		10	LLD			LLD	0
	Co-60		10	14(4/12) (7-21)	27 3.2 mi E	14(4/12) (7-21)	None	0
	Zn-65		10	21(2/12) (14-28)	27 3.2 mi E	21(2/12) (14-28)	None	0
	Zr-95		20	LLD			LLD	0
	Nb-95		10	LLD			LLD	0
	Cs-134		10	LLD			LLD	0
	Cs-137		10	8(2/12) (5-10)	27 3.2 mi E	8(2/12) (5-10)	None	0
	Ba-140		20	LLD			LLD	0
	La-140		10	LLD			LLD	0

(a) The ratio of positive results above the LLD to the number of samples analyzed for the parameter of interest.

TABLE 5-3 (Cont.)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

WASHINGTON PUBLIC POWER SUPPLY SYSTEM WNP-2
HANFORD WASHINGTON

DOCKET NO. 50-397
JANUARY 1 TO DECEMBER 31, 1992

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	ANALYSIS AND TOTAL NUMBER OF ANALYSES PERFORMED		LOWER LIMIT OF DETECTION (LLD)	ALL INDICATOR LOCATIONS MEAN (RATIO)[a] (RANGE)	LOCATION WITH HIGHEST MEAN NAME DISTANCE AND DIRECTION	MEAN (RATIO)[a] (RANGE)	CONTROL LOCATION MEAN (RATIO)[a] (RANGE)	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
Water (Ground) (pCi/liter)	Tritium	12	200	LLD			None	0
	Gamma	12						
	Mn-54		10	LLD			LLD	0
	Fe-59		20	LLD			LLD	0
	Co-58		10	LLD			LLD	0
	Co-60		10	LLD			LLD	0
	Zn-65		20	LLD			LLD	0
	Zr-95		20	LLD			LLD	0
	Nb-95		10	LLD			LLD	0
	Cs-134		10	LLD			LLD	0
	Cs-137		10	LLD			LLD	0
	Ba-140		20	LLD			LLD	0
	La-140		10	LLD			LLD	0

(a) The ratio of positive results above the LLD to the number of samples analyzed for the parameter of interest.

TABLE 5-3 (Cont.)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

WASHINGTON PUBLIC POWER SUPPLY SYSTEM WNP-2
HANFORD WASHINGTON

DOCKET NO. 50-397
JANUARY 1 TO DECEMBER 31, 1992

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	ANALYSIS AND TOTAL NUMBER OF ANALYSES PERFORMED	LOWER LIMIT OF DETECTION (LLD)	ALL INDICATOR LOCATIONS MEAN (RATIO)[a] (RANGE)	LOCATION WITH HIGHEST MEAN NAME DISTANCE AND DIRECTION	MEAN (RATIO)[a] (RANGE)	CONTROL LOCATION MEAN (RATIO)[a] (RANGE)	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
Sediment (pCi/kg dry)	Gamma 4						
	K-40	700	16200(2/2) (15900-16500)	34 3.5 mi ESE	16200(2/2) (15900-16500)	15850(2/2) (15100-16600)	0
	Co-60	30	LLD			LLD	0
	Cs-134	30	LLD			LLD	0
	Cs-137	40	210(2/2) (198-221)	34 3.5 mi ESE	210(2/2) (198-221)	81(2/2) (64-99)	0
	Ra-226	400	1150(2/2) (1130-1170)	34 3.5 mi ESE	1150(2/2) (1130-1170)	1053(2/2) (926-1180)	0
	Th-228	50	740(2/2) (726-753)	34 3.5 mi ESE	740(2/2) (726-753)	682(2/2) (644-720)	0

(a) The ratio of positive results above the LLD to the number of samples analyzed for the parameter of interest.

TABLE 5-3 (Cont)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

WASHINGTON PUBLIC POWER SUPPLY SYSTEM WNP-2
HANFORD WASHINGTON

DOCKET NO. 50-397
JANUARY 1 TO DECEMBER 31, 1992

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	ANALYSIS AND TOTAL NUMBER OF ANALYSES PERFORMED		LOWER LIMIT OF DETECTION (LLD)	ALL INDICATOR LOCATIONS MEAN (RATIO)[a] (RANGE)	LOCATION WITH HIGHEST MEAN NAME DISTANCE AND DIRECTION	MEAN (RATIO)[a] (RANGE)	CONTROL LOCATION MEAN (RATIO)[a] (RANGE)	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
Fish (pCi/kg wet)	Gamma	17						
	K-40		1000	3580(9/9) (2870-4310)	30 3.3 mi E	3580(9/9) (2870-4310)	3450(8/8) (2790-4050)	0
	Mn-54		20	LLD			LLD	0
	Fe-59		30	LLD			LLD	0
	Co-58		20	LLD			LLD	0
	Co-60		20	LLD			LLD	0
	Zn-65		30	LLD			LLD	0
	Cs-134		20	LLD			LLD	0
	Cs-137		20	35(2/9) (19-51)	30 3.3 mi E	35(2/9) (19-51)	31(2/8) (26-37)	0
Milk (pCi/liter)	I-131	118	1	LLD			LLD	0
	Gamma	118						
	K-40	118	200	1370(100/100) (777-1730)	96 36.0 mi SW	1410(18/18) (1220-1540)	1410(18/18) (1220-1540)	0
	Cs-134	118	10	LLD			LLD	0
	Cs-137	118	10	LLD			LLD	0

(a) The ratio of positive results above the LLD to the number of samples analyzed for the parameter of interest.

TABLE 5-3 (Cont.)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

WASHINGTON PUBLIC POWER SUPPLY SYSTEM WNP-2
HANFORD WASHINGTON

DOCKET NO. 50-397
JANUARY 1 TO DECEMBER 31, 1992

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	ANALYSIS AND TOTAL NUMBER OF ANALYSES PERFORMED	LOWER LIMIT OF DETECTION (LLD)	ALL INDICATOR LOCATIONS MEAN (RATIO)[a] (RANGE)	LOCATION WITH HIGHEST MEAN NAME DISTANCE AND DIRECTION	MEAN (RATIO)[a] (RANGE)	CONTROL LOCATION MEAN (RATIO)[a] (RANGE)	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
Roots (pCi/kg wet)	Gamma 8						
	I-131	50	LLD			LLD	0
	Cs-134	50	LLD			LLD	0
	Cs-137	50	LLD			LLD	0
Fruits (pCi/kg wet)	Gamma 11						
	I-131	50	LLD			LLD	0
	Cs-134	50	LLD			LLD	0
	Cs-137	50	LLD			LLD	0
Vegetables (pCi/wet)	Gamma 12						
	I-131	50	LLD			LLD	0
	Cs-134	50	LLD			LLD	0
	Cs-137	50	LLD			LLD	0
Direct Radiation Quarterly TLD's (mR/day)	TLD 224	-	0.26(220/220) (0.22-0.32)	46 5.0 mi NE	0.31(3/3) (0.31-0.32	0.24(4/4) (0.23-0.24)	0
Direct Radiation Annual TLD's (mR/day)	TLD 57	-	0.24(56/56) (0.21-0.27)	86 0.4 mi NNW	0.27(1/1)	0.22(1/1)	0

(a) [illegible]tio of positive results above the LLD to the number of samples anal[illegible]r the parameter of interest.

TABLE 5-3 (Cont.)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

WASHINGTON PUBLIC POWER SUPPLY SYSTEM WNP-2 DOCKET NO. 50-397
HANFORD WASHINGTON JANUARY 1 TO DECEMBER 31, 1992

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	ANALYSIS AND TOTAL NUMBER OF ANALYSES PERFORMED		LOWER LIMIT OF DETECTION (LLD)	ALL INDICATOR LOCATIONS MEAN (RATIO)[a] (RANGE)	LOCATION WITH HIGHEST MEAN NAME	DISTANCE AND DIRECTION	MEAN (RATIO)[a] (RANGE)	CONTROL LOCATION MEAN (RATIO)[a] (RANGE)	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
Storm Drain Water (pCi/liter)	Gr-Beta	37		37(37/37) (2-1100)	101	0.3 mi ENE	37(37/37) (2-1100)	None	1
	Tritium	98	200	16740(82/98) (100-27000)	101	0.3 mi ENE	16740(82/98) (100-27000)	None	0
	I-131 (Resin)	27	1	3.5(3/27) (0.3-8.3)	101	0.3 mi ENE	3.5(3/27) (0.3-8.3)	None	3
	Gamma	97							
	K-40		200	97(4/97) (44-204)	101	0.3 mi ENE	97(4/97) (44-204)	None	0
	Mn-54		10	6(1/97)	101	0.3 mi ENE	6(1/97)		1
	Co-60		10	39(4/97) (7-125)	101	0.3 mi ENE	39(4/97) (7-125)		4
	Zn-65		20	36(2/97) (19-53)	101	0.3 mi ENE	36(2/97) (19-53)		2
	Sb-124		10	12(1/97)	101	0.3 mi ENE	12(1/97)		1
	Sb-125		10	21(1/97)	101	0.3 mi ENE	21(1.97)		1
	I-131		10	17(2/97) (12.6-21.1)	101	0.3 mi ENE	17(2/97) (12.6-21.1)		2
	Cs-137		10	6(1/97)	101	0.3 mi ENE	6(1/97)		1
	Sr-89		3	LLD				LLD	0
	Sr-90		0.8	LLD				LLD	0

(a) The ratio of positive results above the LLD to the number of samples analyzed for the parameter of interest.

TABLE 5-3 (Cont.)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

WASHINGTON PUBLIC POWER SUPPLY SYSTEM WNP-2
HANFORD WASHINGTON

DOCKET NO. 50-397
JANUARY 1 TO DECEMBER 31, 1992

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	ANALYSIS AND TOTAL NUMBER OF ANALYSES PERFORMED	LOWER LIMIT OF DETECTION (LLD)	ALL INDICATOR LOCATIONS MEAN (RATIO)[a] (RANGE)	LOCATION WITH HIGHEST MEAN NAME	DISTANCE AND DIRECTION	MEAN (RATIO)[a] (RANGE)	CONTROL LOCATION MEAN (RATIO)[a] (RANGE)	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
Storm Drain Sediment (pCi/kg)								
	Gamma 71							
	K-40	700	10608(71/71) (6560-16600)	101	0.3 mi ENE	10608(71/71) (6560-16600)	None	0
	Mn-54	40	146(15/71) (39-670)	101	0.3 mi ENE	146(15/71) (39-670)		2
	Co-58	30	15(1/71)	101	0.3 mi ENE	15(1/71)		1
	Co-60	30	1596(61/71) (82-25400)	101	0.3 mi ENE	1596(61/71) (82-25400)		15
	Zn-65	100	439(40/71) (55-4650)	101	0.3 mi ENE	439(40/71) (55-4650)		7
	Cs-134	30	190(25/71) (47-1140)	101	0.3 mi ENE	190(25/71) (47-1140)		8
	Cs-137	40	297(57/71) (40-2900)	101	0.3 mi ENE	297(57/71) 40-2900)		9
	Ce-141	50	572(11/71) (89-3740)	101	0.3 mi ENE	572(11/71) (89-3740)		11
	Ra-226	400	1278(55/71) (221-4960)	101	0.3 mi ENE	1278(55/71) 221-4960)		0
	Th-228	50	491(70/71) (379-1080)	101	0.3 mi ENE	491(70/71) (379-1080)		0

(a) The ratio of positive results above the LLD to the number of samples analyzed for the parameter of interest.

TABLE 5-3 (Cont.)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

WASHINGTON PUBLIC POWER SUPPLY SYSTEM WNP-2
HANFORD WASHINGTON

DOCKET NO. 50-397
JANUARY 1 TO DECEMBER 31, 1992

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	ANALYSIS AND TOTAL NUMBER OF ANALYSES PERFORMED	LOWER LIMIT OF DETECTION (LLD)	ALL INDICATOR LOCATIONS MEAN (RATIO)[a] (RANGE)	LOCATION WITH HIGHEST MEAN NAME	DISTANCE AND DIRECTION	MEAN (RATIO)[a] (RANGE)	CONTROL LOCATION MEAN (RATIO)[a] (RANGE)	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
Storm Drain Soil(pCi/kg)								
	Gamma 6						None	
	K-40	700	16000(6/6) (15300-17300)	101	0.3 mi ENE	16000(6/6) (15300-17300)		0
	Cs-137	40	60(6/6) (49-77)	101	0.3 mi ENE	60(6/6) (49-77)		0
	Ra-226	400	999(6/6) (778-1260)	101	0.3 mi ENE	999(6/6) (778-1260)		0
	Th-228	50	569(6/6) (518-667)	101	0.3 mi ENE	569(6/6) (518-667)		
Storm Drain Vegetation (pCi/kg wet)								
	Gamma 7						None	
	Be-7		456(4/7) (337-690)	101	0.3 mi ENE	456(4/7) (337-690)		0
	K-40		4055(6/7) (2950-5330)	101	0.3 mi ENE	4055(6/7) (2950-5330)		0
	Mn-54		25(3/7) (21-32)	101	0.3 mi ENE	25(3/7) (21-32)		4
	Co-60		37(3/7) (26-46)	101	0.3 mi ENE	37(3/7) (26-46)		4
	Zn-65		49(3/7) (40-57)	101	0.3 mi ENE	49(3/7) (40-57)		4
	Cs-134		33(2/7) (20-46)	101	0.3 mi ENE	33(2/7) (20-46)		4

(a) The ratio of positive results above the LLD to the number of samples analyzed for the parameter of interest.

TABLE 5-3

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

WASHINGTON PUBLIC POWER SUPPLY SYSTEM WNP-2 — DOCKET NO. 50-397
HANFORD WASHINGTON — JANUARY 1 TO DECEMBER 31, 1992

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	ANALYSIS AND TOTAL NUMBER OF ANALYSES PERFORMED	LOWER LIMIT OF DETECTION (LLD)	ALL INDICATOR LOCATIONS MEAN (RATIO)[a] (RANGE)	LOCATION WITH HIGHEST MEAN NAME DISTANCE AND DIRECTION	MEAN (RATIO)[a] (RANGE)	CONTROL LOCATION MEAN (RATIO)[a] (RANGE)	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
Sanitary Waste Treatment Facility Water (pCi/l)							
	Gross Alpha	3	LLD	LLD	LLD	None	0
	Gross Beta	1	5(5/5) (41-51)	102 0.3 mi SE	5(5/5) (41-51)	None	0
	Tritium	200	800(19/24) (120-1700)	102 0.3 mi SE	800(19/24) (120-1700)		
	Gamma			102 0.3 mi SE			0
	Be-7	27	79(5/27)		79(5/27)	None	0
	K-40		(50-144)		(50-144)		0
	Co-60		LLD		LLD		0
	Cs-137		LLD		LLD		0
	Ra-226		LLD		LLD		0
	Th-228		LLD		LLD		
			LLD		LLD		
Sanitary Waste Treatment Facility Sediment (pCi/kg dry)	Sr-90 8	50	99(6/8) (80-130)	102 3.0 mi SE	99(6/8) (80-130)	None	0
	Gamma 21						
	K-40	700	11377(20/21) (5750-15200)	102 3.0 mi SE	11377(20/21) (5750-15200)	None	0
	Co-60	30	420(7/21) (186-728)	102 3.0 mi SE	420(7/21) (186-728)		0
	Cs-137	40	170(15/21) (100-254)	102 3.0 mi SE	170(15/21) (100-254)		0
	Ra-226	400	1451(11/21) (741-2500)	102 3.0 mi SE	1451(11/21) (741-2500)		0
	Th-228	50	608(19/21) (428-823)	102 3.0 mi SE	608(19/21) (428-823)		0

[a] The ac[illegible] detection level can be as low as 100; this is the nominal detection [illegible]

TABLE 5-3 (Cont.)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

WASHINGTON PUBLIC POWER SUPPLY SYSTEM WNP-2
HANFORD WASHINGTON

DOCKET NO. 50-397
JANUARY 1 TO DECEMBER 31, 1992

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	ANALYSIS AND TOTAL NUMBER OF ANALYSES PERFORMED	LOWER LIMIT OF DETECTION (LLD)	ALL INDICATOR LOCATIONS MEAN (RATIO)[a] (RANGE)	LOCATION WITH HIGHEST MEAN NAME DISTANCE AND DIRECTION	MEAN (RATIO)[a] (RANGE)	CONTROL LOCATION MEAN (RATIO)[a] (RANGE)	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
St 118 Soil (pCi/kg dry)							
	Gamma 33					None	
	K-40	700	12100(33/33) (11300-15000)	118 0.3 mi S	12100(33/33) (11300-15000)		0
	Ra-226	400	775(25/33) (146-1090)	118 0.3 mi S	775(25/33) (1460-1090)		0
	Th-228	50	527(33/33) (109-696)	118 0.3 mi S	527(33/33) (109-696)		0

TABLE 5-4

MEAN QUARTERLY TLD DATA SUMMARY FOR THE PREOPERATIONAL AND OPERATIONAL PERIODS
Results in mR/day

	PREOPERATIONAL		1984 - 1991 OPERATIONAL		1992 OPERATIONAL	
STATION	MEAN[a]	STANDARD ERROR	MEAN	STANDARD ERROR	MEAN	STANDARD ERROR
1	0.24	0.02	0.25	0.01	0.26	0.01
2	0.23	0.02	0.24	0.00	0.26	0.01
3	0.22	0.01	0.24	0.01	0.24	0.01
4	0.22	0.02	0.22	0.01	0.24	0.01
5	0.23	0.01	0.23	0.01	0.24	0.01
6	0.22	0.01	0.23	0.01	0.24	0.01
7	0.23	0.01	0.24	0.01	0.25	0.01
8	0.26	0.01	0.27	0.01	0.28	0.01
9	0.22	0.01	0.23	0.01	0.24	0.01
10	0.23	0.01	0.24	0.01	0.25	0.01
11	0.24	0.01	0.24	0.01	0.25	0.00
12	0.25	0.01	0.26	0.01	0.27	0.01
13	0.24	0.01	0.25	0.01	0.26	0.01
14	0.24	0.02	0.24	0.01	0.25	0.00
15	0.25	0.01	0.26	0.01	0.27	0.01
16	0.24	0.01	0.25	0.01	0.26	0.01
17	0.25	0.01	0.25	0.01	0.26	0.01
18	0.24	0.01	0.25	0.01	0.26	0.01
19	0.24	0.01	0.25	0.01	0.25	0.01
20	0.24	0.01	0.24	0.01	0.25	0.01
21	0.23	0.01	0.23	0.01	0.23	0.01
22	0.24	0.01	0.24	0.01	0.25	0.01
23	0.24	0.01	0.24	0.01	0.25	0.01
24	0.24	0.01	0.25	0.01	0.26	0.01
25	0.25	0.01	0.26	0.01	0.27	0.01
40	0.22	0.01	0.24	0.01	0.23	0.01
41	0.26	0.02	0.26	0.01	0.27	0.01
42	0.25	0.01	0.25	0.01	0.26	0.01
43	0.25	0.01	0.26	0.01	0.27	0.01
44	0.23	0.01	0.24	0.01	0.25	0.01
45	0.23	0.01	0.24	0.01	0.25	0.01
46	0.28	0.02	0.30	0.02	0.31	0.01
47	0.22	0.02	0.23	0.01	0.24	0.01
49	0.24	0.00	0.25	0.01	0.26	0.01
50	0.22	0.00	0.25	0.01	0.25	0.01
51	0.23	0.01	0.24	0.01	0.25	0.01

[a] This preoperational mean is for the 1982-1983 data only.

TABLE 5-4 (Cont.)

MEAN QUARTERLY TLD DATA SUMMARY FOR THE PREOPERATIONAL AND OPERATIONAL PERIODS

Results in mR/day

	PREOPERATIONAL		1984 - 1991 OPERATIONAL		1992 OPERATIONAL	
STATION	MEAN[a]	STANDARD ERROR	MEAN	STANDARD ERROR	MEAN	STANDARD ERROR
53	0.27	0.00	0.27	0.01	0.29	0.01
54	0.26	0.00	0.26	0.01	0.26	0.01
55	0.23	0.00	0.24	0.01	0.25	0.01
56	0.24	0.00	0.25	0.01	0.26	0.01
61	(b)		0.28	0.01	0.27	0.03
71(1S)	0.24	0.02	0.27	0.01	0.29	0.02
72(2S)	0.25	0.01	0.27	0.01	0.28	0.01
73(3S)	0.23	0.01	0.24	0.01	0.25	0.01
74(4S)	0.26	0.01	0.27	0.01	0.28	0.01
75(5S)	0.22	0.02	0.25	0.01	0.26	0.02
76(6S)	0.24	0.01	0.25	0.01	0.25	0.01
77(7S)	0.25	0.01	0.25	0.01	0.26	0.01
78(8S)	0.25	0.01	0.24	0.01	0.25	0.01
79(9S)	0.25	0.01	0.25	0.01	0.26	0.01
80(10S)	0.24	0.01	0.24	0.01	0.25	0.01
81(11S)	0.24	0.02	0.24	0.01	0.25	0.01
82(12S)	0.25	0.02	0.25	0.01	0.26	0.01
83(13S)	0.25	0.01	0.25	0.01	0.27	0.01
84(14S)	0.24	0.01	0.25	0.01	0.26	0.01
85(15S)	0.26	0.01	0.26	0.01	0.27	0.01
86(16S)	0.25	0.01	0.27	0.01	0.29	0.02
All	0.24	0.00	0.25	0.00	0.26	0.02

(a) This preoperational mean is for 1982-1983 data only.
(b) Station 61 was added in 1989 and discontinued in 1992.

TABLE 5-5

ANNUAL TLD DATA SUMMARY FOR THE PREOPERATIONAL AND OPERATIONAL PERIODS

Results in mR/day

	PREOPERATIONAL		1984 - 1991 OPERATIONAL		1992 OPERATIONAL	
STATION	MEAN[a]	STANDARD ERROR	MEAN	STANDARD ERROR	MEAN	STANDARD DEVIATION(2σ
1	0.23	0.04	0.23	0.02	0.24	0.01
2	0.22	0.04	0.23	0.02	0.24	0.01
3	0.21	0.04	0.22	0.02	0.23	0.01
4	0.22	0.06	0.20	0.02	0.22	0.01
5	0.22	0.04	0.21	0.02	0.22	0.00
6	0.21	0.04	0.21	0.02	0.23	0.01
7	0.22	0.02	0.23(b)	0.01	0.24	0.01
8	0.25	0.04	0.25(b)	0.02	0.26	0.01
9	0.20	0.02	0.21	0.02	0.22	0.01
10	0.22	0.04	0.22	0.02	0.23	0.01
11	0.22	0.04	0.22	0.02	0.24	0.01
12	0.24	0.04	0.24	0.02	0.26	0.01
13	0.22	0.04	0.23	0.01	0.24	0.01
14	0.22	0.04	0.22	0.02	0.23	0.01
15	0.23	0.06	0.24	0.02	0.26	0.01
16	0.23	0.04	0.23	0.02	0.25	0.01
17	0.23	0.02	0.23(b)	0.02	0.25	0.01
18	0.25	0.02	0.23	0.02	0.24	0.01
19	0.22	0.04	0.23	0.01	0.24	0.01
20	0.23	0.04	0.23	0.02	0.23	0.01
21	0.23	0.02	0.21	0.02	0.22	0.01
22	0.22	0.02	0.23	0.02	0.24	0.01
23	0.24	0.02	0.22	0.02	0.23	0.01
24	0.22	0.02	0.23	0.02	0.24	0.01
25	0.24	0.02	0.24	0.02	0.25	0.01
40	0.21(c)	0.02	0.22	0.02	0.21	0.00
41	0.26(c)	0.04	0.24	0.02	0.25	0.01
42	0.24(c)	0.02	0.23	0.02	0.25	0.00
43	0.24(c)	0.02	0.24	0.02	0.25	0.01
44	0.24	0.02	0.22	0.02	0.23	0.01
45	0.24	0.01	0.22	0.02	0.23	0.01
46	0.29	0.01	0.28	0.02	(e)	
47	0.22(c)	0.03	0.21	0.02	0.22	0.01
49	(d)		0.22	0.01	0.24	0.01

(a) This preoperational mean is for 1982 - 1983 data only.
(b) 1985 TLD missing
(c) There was only one annual exchange during the preoperational period.
(d) Stations 49-56 were first monitored during Fourth Quarter 1983. Station 61 was added in 1989.
(e) TLD missing.

TABLE 5-5 (Cont.)

ANNUAL TLD DATA SUMMARY FOR THE PREOPERATIONAL AND OPERATIONAL PERIODS
Results in mR/day

	PREOPERATIONAL		1984 - 1991 OPERATIONAL		1992 OPERATIONAL	
STATION	MEAN[a]	STANDARD ERROR	MEAN	STANDARD ERROR	MEAN	STANDARD DEVIATION(2σ)
50	(d)		0.23	0.02	0.22	0.00
51	(d)		0.22	0.02	0.23	0.01
53	(d)		0.25	0.02	0.23	0.01
54	(d)		0.24	0.02	0.23	0.01
55	(d)		0.22	0.02	0.23	0.01
56	(d)		0.23	0.02	0.24	0.01
61	(d)		0.27[d]	0.02	0.26[a]	0.01
71	0.24[c]	0.02	0.25	0.02	0.27	0.01
72	0.25[c]	0.02	0.25	0.02	0.27	0.01
73	0.23[c]	0.01	0.22	0.02	0.23	0.01
74	0.24[c]	0.01	0.24	0.02	0.26	0.01
75	0.24[c]	0.01	0.23	0.02	0.24	0.01
76	0.24[c]	0.02	0.23	0.02	0.24	0.01
77	0.25[c]	0.02	0.23	0.02	0.24	0.01
78	0.25[c]	0.04	0.23	0.02	0.23	0.00
79	0.25[c]	0.02	0.23	0.02	0.24	0.01
80	0.23[c]	0.05	0.22	0.02	0.23	0.01
81	0.23[c]	0.02	0.23	0.02	0.24	0.00
82	0.25[c]	0.03	0.24	0.01	0.24	0.01
83	0.25[c]	0.02	0.24	0.02	0.24	0.01
84	0.23[c]	0.02	0.23	0.02	0.25	0.01
85	0.26[c]	0.02	0.24	0.02	0.26	0.01
86	0.24	0.02	0.26	0.02	0.27	0.01
All	0.23	0.02	0.23	0.01	0.24	0.01

(a) This preoperational mean is for 1982 - 1983 data only.
(b) 1985 TLD missing
(c) There was only one annual exchange during the preoperational period.
(d) Stations 49-56 were first monitored during Fourth Quarter 1983. Station 61 was added in 1989.
(e) Station 61 discontinued on June 29, 1992 - This result is for the first six months of 1992.

TABLE 5-6

1992 MEAN QUARTERLY VERSUS ANNUAL TLD DATA
Results in mR/day

	QUARTERLY TLDS		ANNUAL TLDS	
STATION	MEAN[a]	STANDARD ERROR	MEAN[b]	STANDARD DEVIATION(2σ)
1	0.26	0.01	0.24	0.01
2	0.26	0.01	0.24	0.01
3	0.24	0.01	0.23	0.01
4	0.24	0.01	0.22	0.01
5	0.24	0.01	0.22	0.00
6	0.24	0.01	0.23	0.01
7	0.25	0.01	0.24	0.01
8	0.28	0.01	0.26	0.01
9	0.24	0.01	0.22	0.01
10	0.25	0.01	0.23	0.01
11	0.25	0.00	0.24	0.01
12	0.27	0.01	0.26	0.01
13	0.26	0.01	0.24	0.01
14	0.25	0.00	0.23	0.01
15	0.27	0.01	0.26	0.01
16	0.26	0.01	0.25	0.01
17	0.26	0.01	0.25	0.01
18	0.26	0.01	0.24	0.01
19	0.25	0.01	0.24	0.01
20	0.25	0.01	0.23	0.01
21	0.23	0.01	0.22	0.01
22	0.25	0.01	0.24	0.01
23	0.25	0.01	0.23	0.01
24	0.26	0.01	0.24	0.01
25	0.27	0.01	0.25	0.01
40	0.23	0.01	0.21	0.00
41	0.27	0.01	0.25	0.01
42	0.26	0.01	0.25	0.00
43	0.27	0.01	0.26	0.01
44	0.25	0.01	0.24	0.01
45	0.25	0.01	0.24	0.01
46	0.31	0.01	(c)	
47	0.24	0.01	0.23	0.01
49	0.26	0.01	0.24	0.01
50	0.25	0.01	0.24	0.00

(a) Mean of the quarterly results.
(b) Mean of four readout areas on each TLD.
(c) TLD missing.

TABLE 5-6 (Cont.)

1992 MEAN QUARTERLY VERSUS ANNUAL TLD DATA
Results in mR/day

	QUARTERLY TLDS		ANNUAL TLDS	
STATION	MEAN[a]	STANDARD ERROR	MEAN[b]	STANDARD DEVIATION(2σ)
51	0.25	0.01	0.23	0.01
53	0.29	0.02	0.26	0.01
54	0.26	0.01	0.25	0.01
55	0.25	0.01	0.23	0.01
56	0.26	0.01	0.24	0.01
61	0.27	0.03	0.26[c]	0.01
71 (1S)	0.29	0.02	0.27	0.01
72 (2S)	0.28	0.01	0.27	0.01
73 (3S)	0.25	0.01	0.23	0.01
74 (4S)	0.28	0.01	0.26	0.01
75 (5S)	0.26	0.02	0.24	0.01
76 (6S)	0.25	0.01	0.24	0.01
77 (7S)	0.26	0.01	0.24	0.01
78 (8S)	0.25	0.01	0.23	0.00
79 (9S)	0.26	0.01	0.24	0.01
80 (10S)	0.25	0.01	0.23	0.01
81 (11S)	0.25	0.01	0.24	0.00
82 (12S)	0.26	0.01	0.24	0.01
83 (13S)	0.27	0.01	0.24	0.01
84 (14S)	0.26	0.01	0.25	0.01
85 (15S)	0.27	0.01	0.26	0.01
86 (16S)	0.29	0.02	0.27	0.01

(a) Mean of the quarterly mean results.
(b) Mean of four readout areas on each TLD.
(c) Station 61 was discontinued on June 29, 1992. This result is for the first six months of 1992.

TABLE 5-7

MAY 13, 1992, STORM DRAIN WATER SAMPLE RESULTS
COMPARED TO REGULATORY LEVELS
(pCi/liter)

NUCLIDE	SAMPLE RESULT ± 2σ	NRC REPORTING LEVELS QUARTERLY AVERAGE	DOH INVESTIGATION LEVEL [a]
Iodine - 131	21.1 ± 5.0	2	1
Manganese - 54	5.8 ± 3.6	1000	100
Cobalt - 60	124.7 ± 7.7	300	100
Zinc - 65	52.9 ± 10.2	300	100
Antimony - 125	20.8 ± 9.6	(b)	100
Cesium - 137	5.7 ± 3.3	50	100
Cerium - 141	707.0 ± 11.6	(b)	100
Tritium	270,000 ± 10,000	30,000	1000

(a) The DOH investigation levels are for comparison to single results, not quarter averages. They require the Supply System to perform an investigation and to notify t State of Washington within 24 hours.

(b) Not given.

TABLE 5-8

SEDIMENT CHARACTERIZATION AT VARIOUS LOCATIONS
AT THE STORM DRAIN
(pCi/kilogram dry)

RADIONUCLIDE CONCENTRATIONS

	May 22	November 19	Sample Locations
Cobalt-60			
	200	326	Location A (near pipe)
	18,000	19,700	Location B (mid-channel)
	25,400	3,500	Location C (mouth of channel)
	483	5,410	Location D (west side of pond)
	935	3,470	Location E (north side of pond)
	1,920	Not Sampled	Location F (east side of pond)
Zinc-65			
	184	153	Location A (near pipe)
	4,650	1,710	Location B (mid-channel)
	2,870	516	Location C (mouth of channel)
	150	1,110	Location D (west side of pond)
	130	1,220	Location E (north side of pond)
	300	Not Sampled	Location F (east side of pond)
Cesium-134			
	64	54	Location A (near pipe)
	1,140	839	Location B (mid-channel)
	737	79	Location C (mouth of channel)
	81	218	Location D (west side of pond)
	98	304	Location E (north side of pond)
	202	Not Sampled	Location F (east side of pond)
Cesium-137			
	94	134	Location A (near pipe)
	2,900	2,800	Location B (mid-channel)
	2,500	458	Location C (mouth of channel)
	270	981	Location D (west side of pond)
	275	657	Location E (north side of pond)
	500	Not Sampled	Location F (east side of pond)

TABLE 5-8 (Cont)

SEDIMENT CHARACTERIZATION AT VARIOUS LOCATIONS
AT THE STORM DRAIN (Continued)
(pCi/kilogram dry)

RADIONUCLIDE CONCENTRATIONS

May 22	November 19	Sample Locations
Cerium-141		
144	ND	Location A (near pipe)
3,474	ND	Location B (mid-channel)
1,390	19.0	Location C (mouth of channel)
67	ND	Location D (west side of pond)
31	56	Location E (north side of pond)
98.6	Not Sampled	Location F (east side of pond)
Manganese-54		
23	21	Location A (near pipe)
670	309	Location B (mid-channel)
448	30	Location C (mouth of channel)
4.2	120	Location D (west side of pond)
16	20	Location E (north side of pond)
51	Not Sampled	Location F (east side of pond)
Antimony-125		
ND	ND	Location A (near pipe)
ND	ND	Location B (mid-channel)
ND	ND	Location C (mouth of channel)
ND	1,540	Location D (west side of pond)
ND	ND	Location E (north side of pond)
ND	ND	Location F (east side of pond)

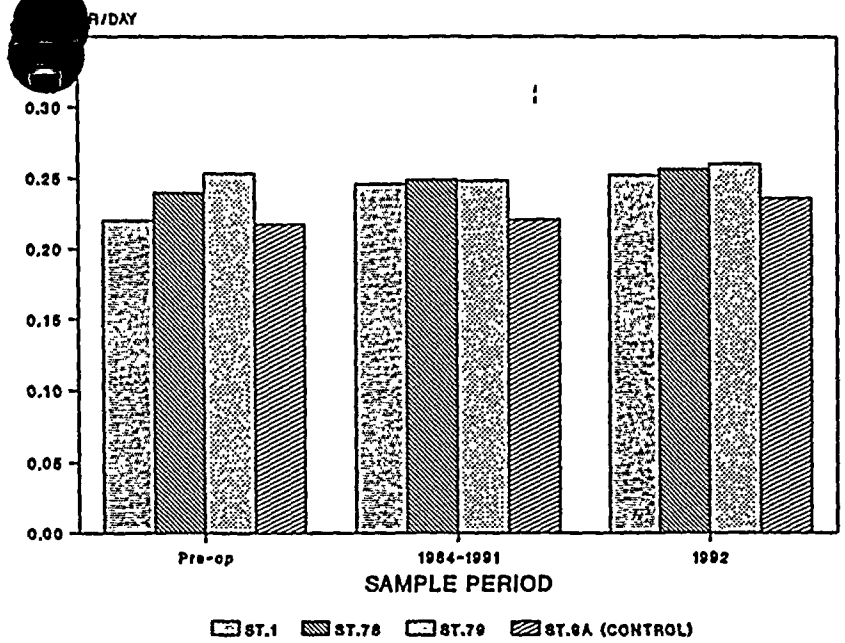
ND=Not Detected

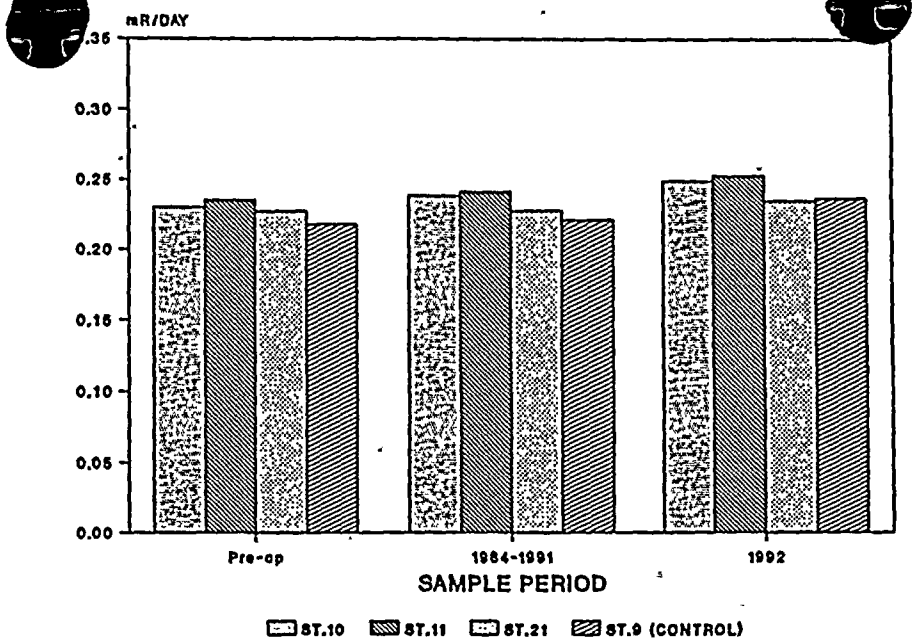
TABLE 5-9

RADIONUCLIDE CONCENTRATIONS IN STORM DRAIN VEGETATION
(pCi/Kilogram wet)

SAMPLE DATE	NUCLIDE CONCENTRATIONS				
	Mn-54	Co-60	Zn-65	Cs-134	Cs-137
May 22	ND	ND	ND	ND	ND
June 17	32.2	26.3	57.4	45.8	93.5
September 16	21.4	39.5	48.3	ND	34.0
October 14	ND	ND	ND	ND	ND

ND = Not Detected





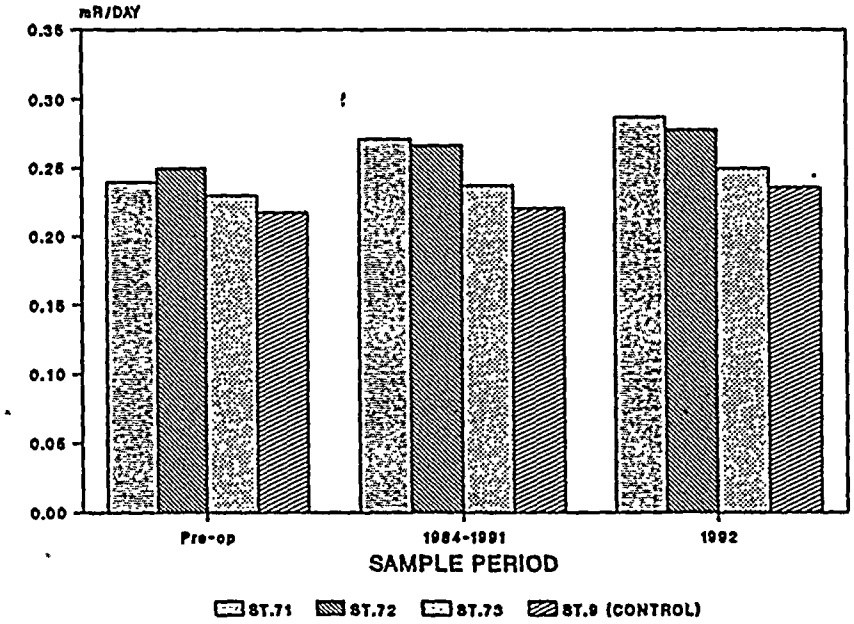
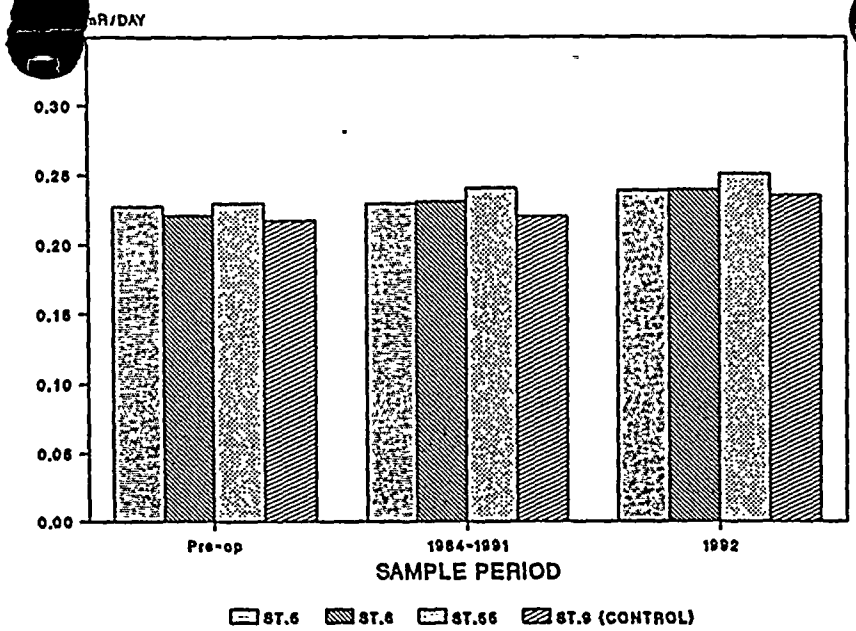
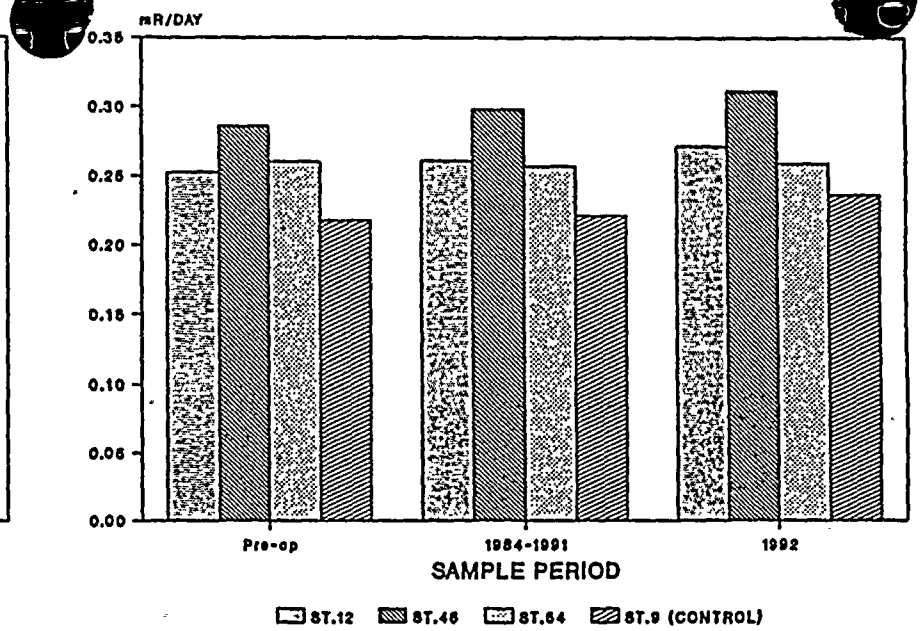


FIGURE 5-1
MEAN QUARTERLY TLD RESULTS FOR NEAR-PLANT LOCATIONS
AND THE CONTROL LOCATION (STATION 9A) FOR THE PREOPERATIONAL PERIOD, 1984-1991, AND 1992





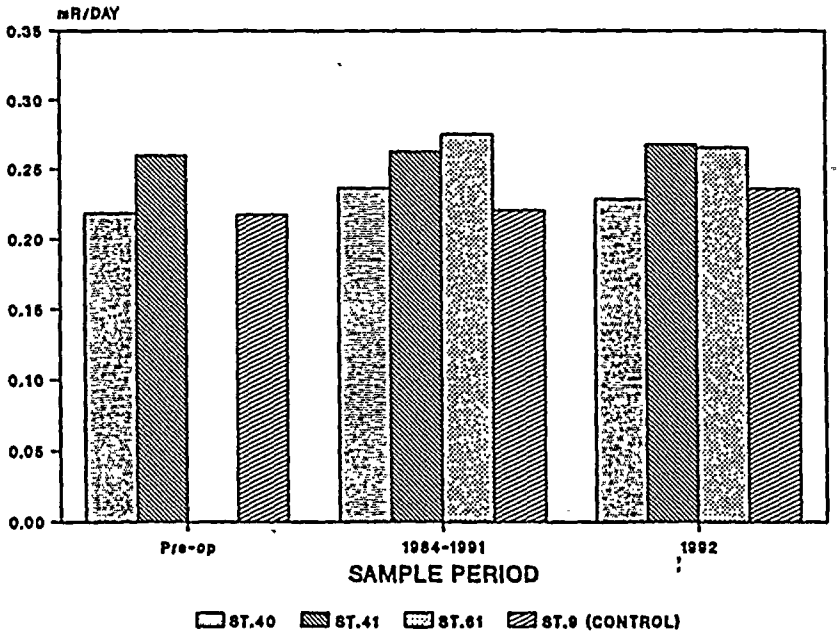
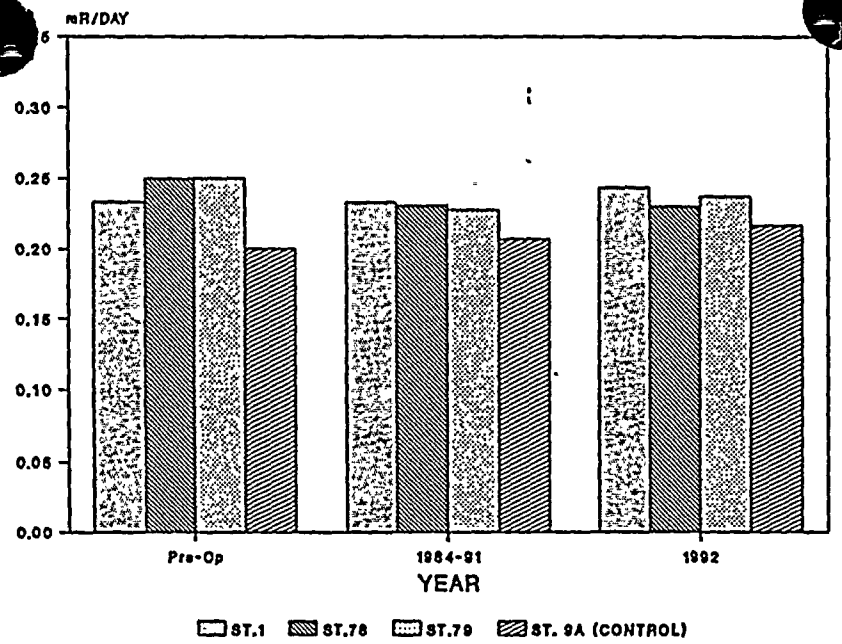
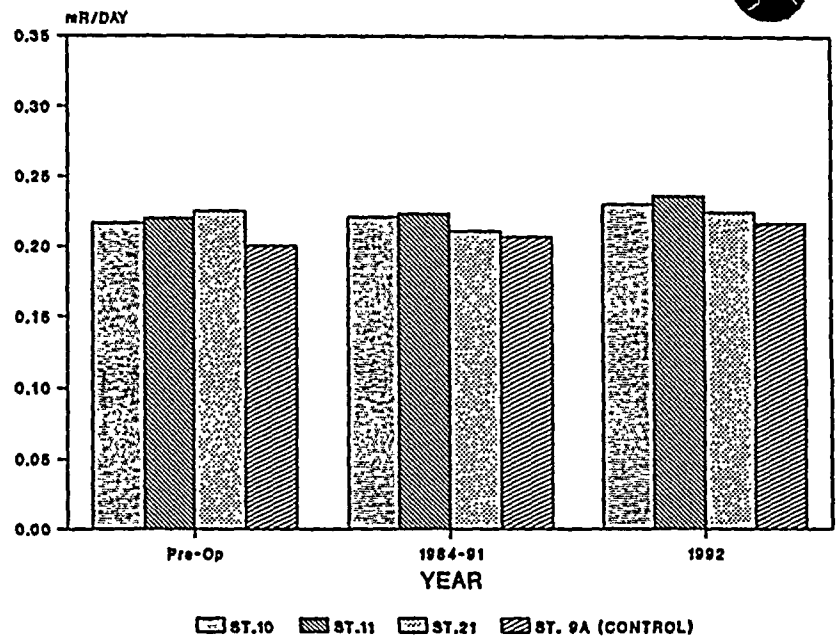


FIGURE 5-2
MEAN QUARTERLY TLD RESULTS FOR REMOTE LOCATIONS
AND THE CONTROL LOCATION (STATION 9A) FOR THE PREOPERATIONAL PERIOD, 1984-1991, AND 1992





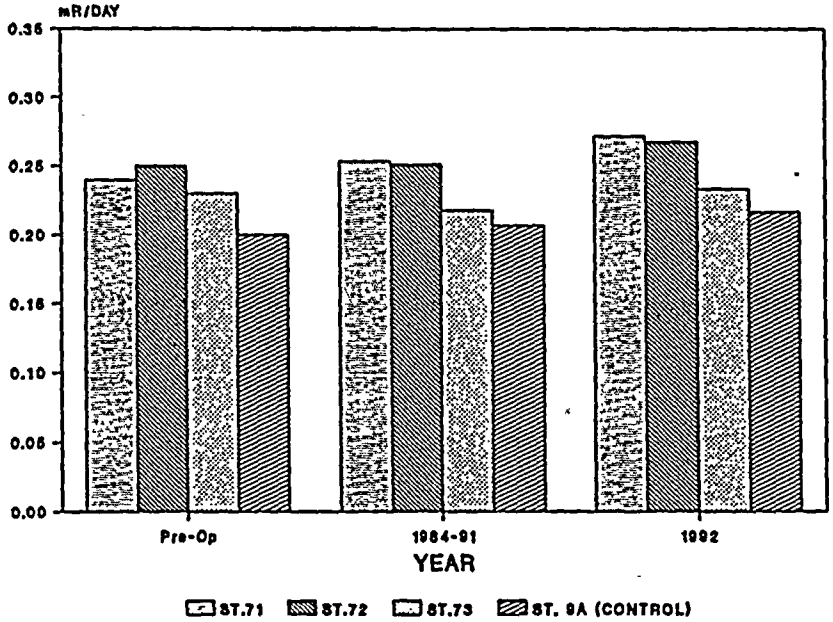
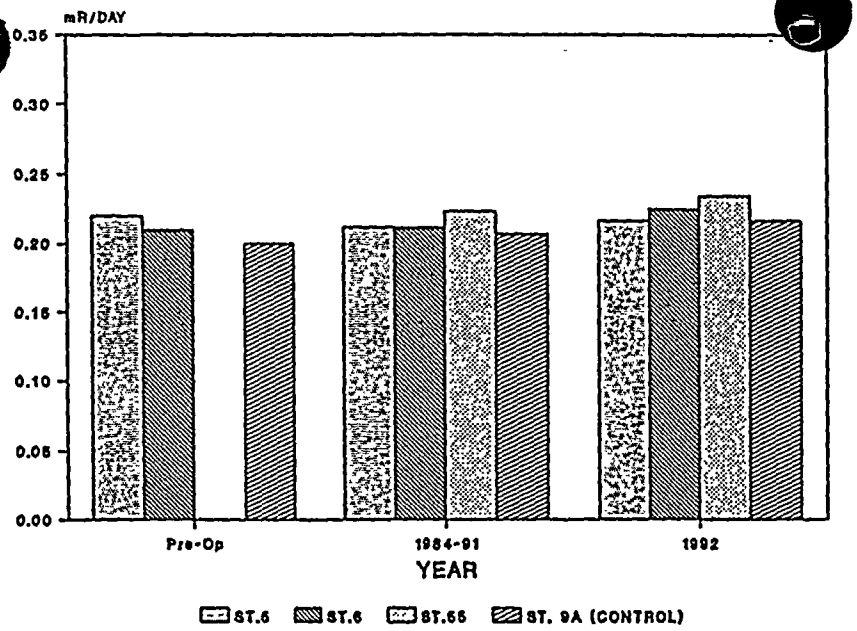
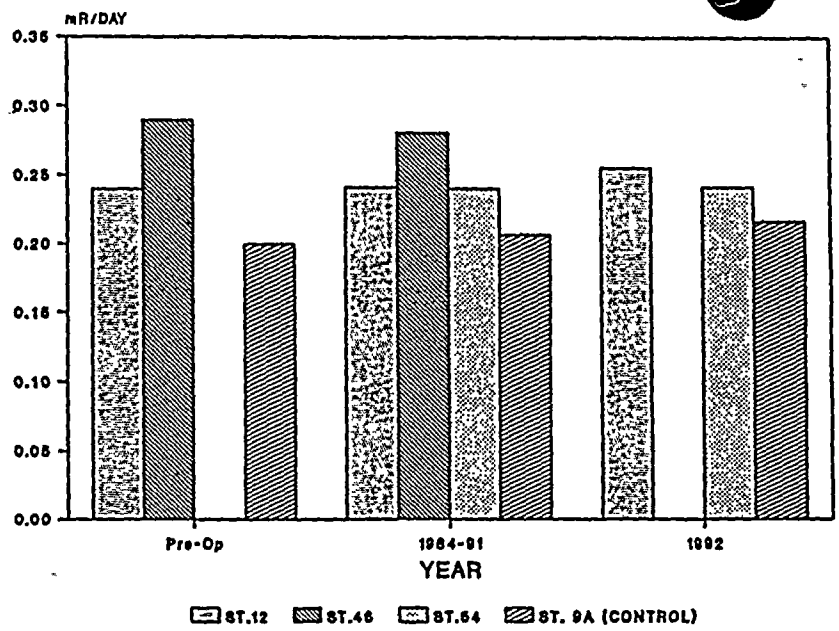


FIGURE 5-3
ANNUAL TLD RESULTS FOR NEAR-PLANT LOCATIONS
AND THE CONTROL LOCATION (STATION 9A) FOR THE PREOPERATIONAL PERIOD, 1984-1991, AND 1992





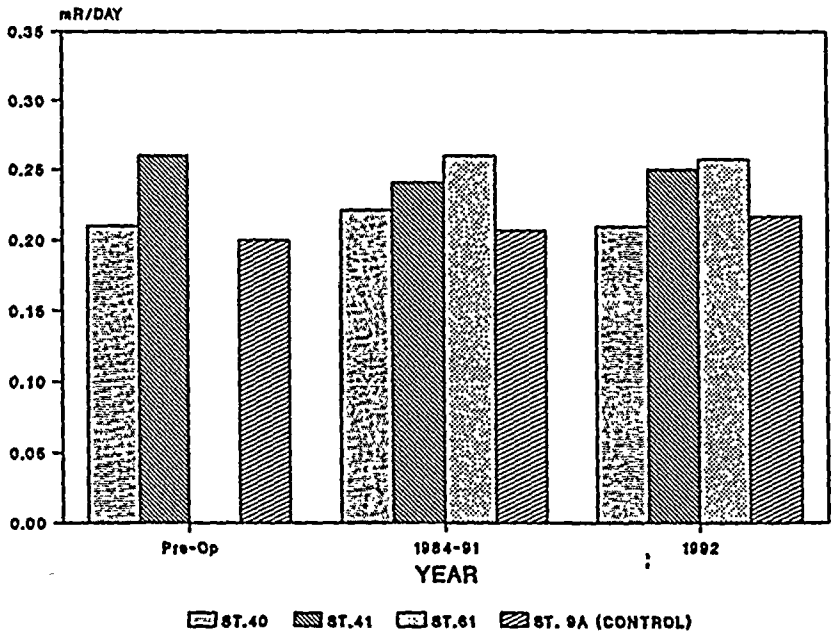


FIGURE 5-4
ANNUAL TLD RESULTS FOR REMOTE LOCATIONS
AND THE CONTROL LOCATION (STATION 9A) FOR THE PREOPERATIONAL PERIOD, 1984-1991, AND 1992

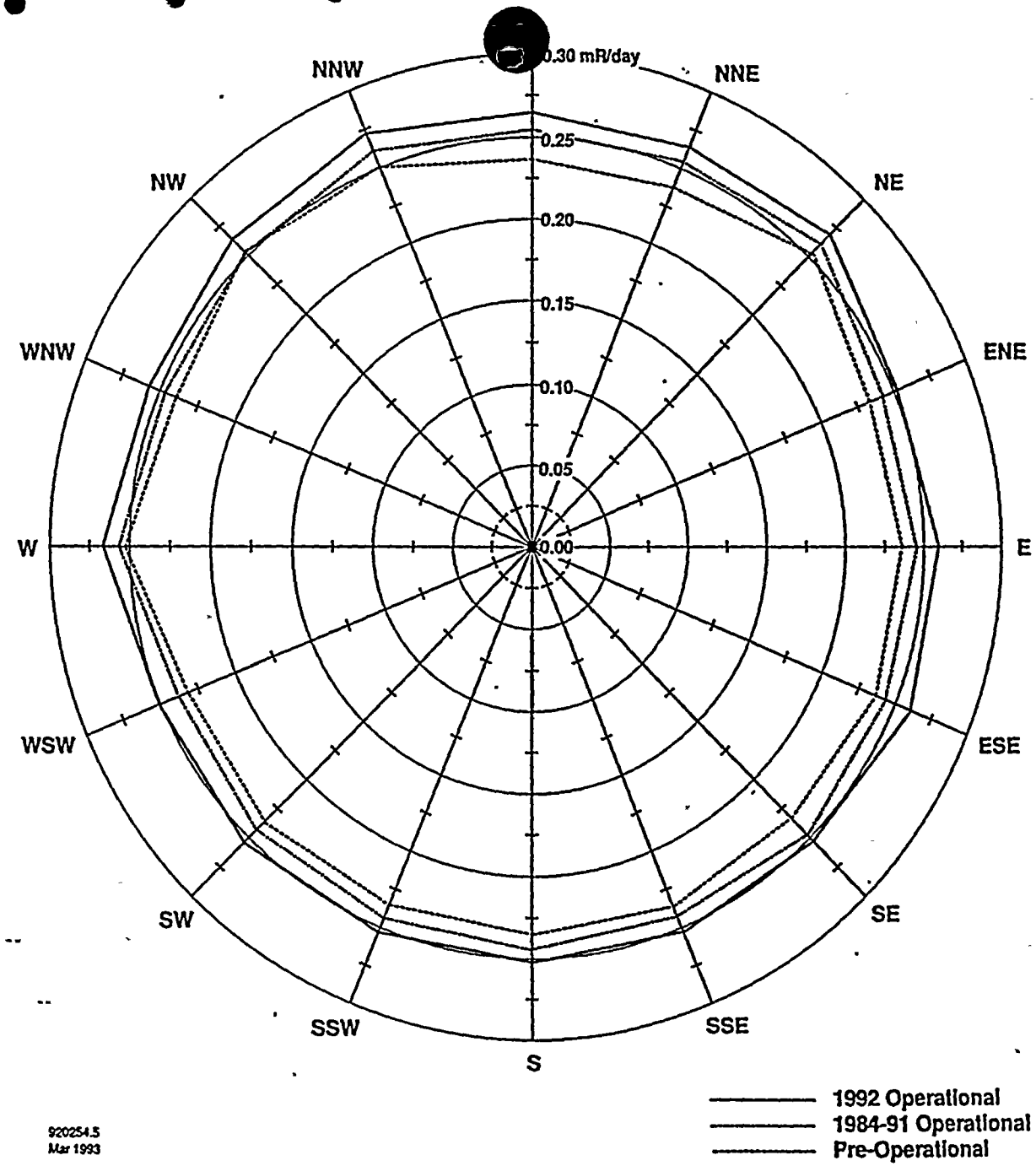
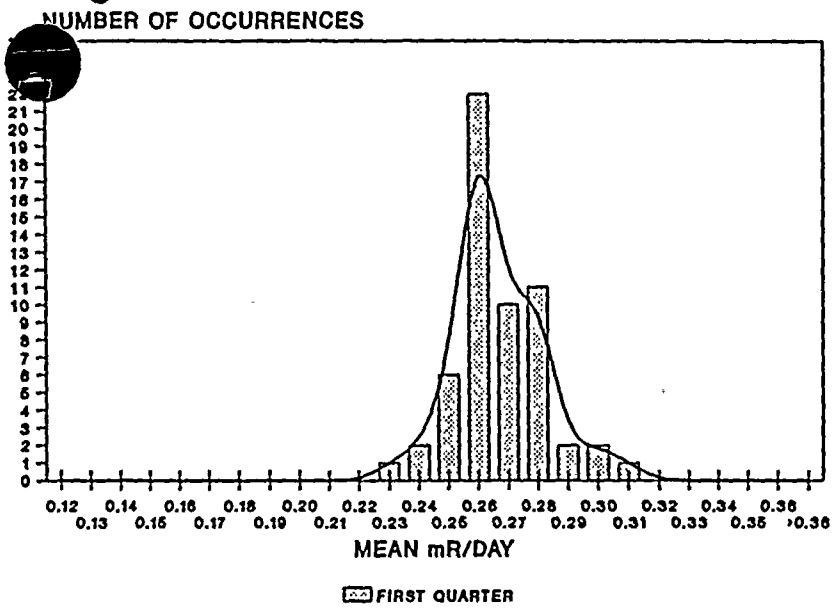
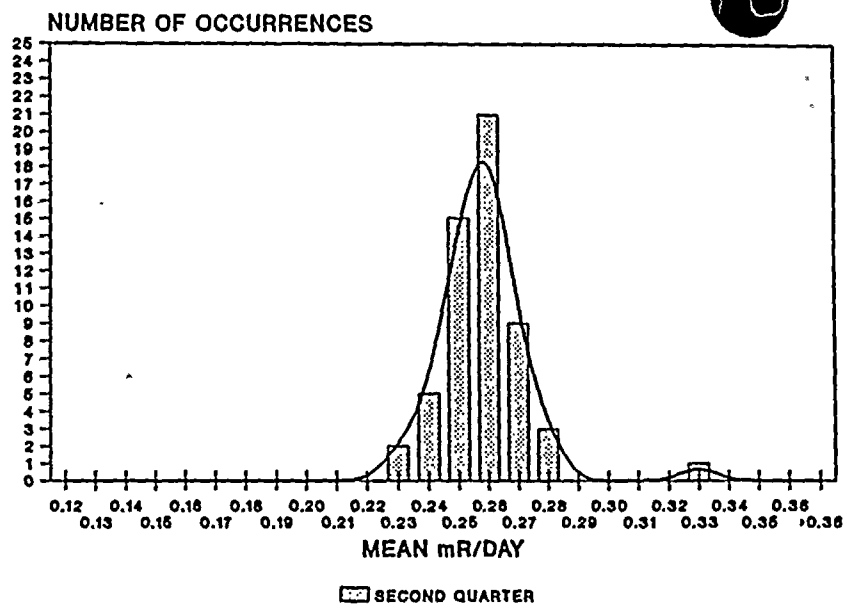
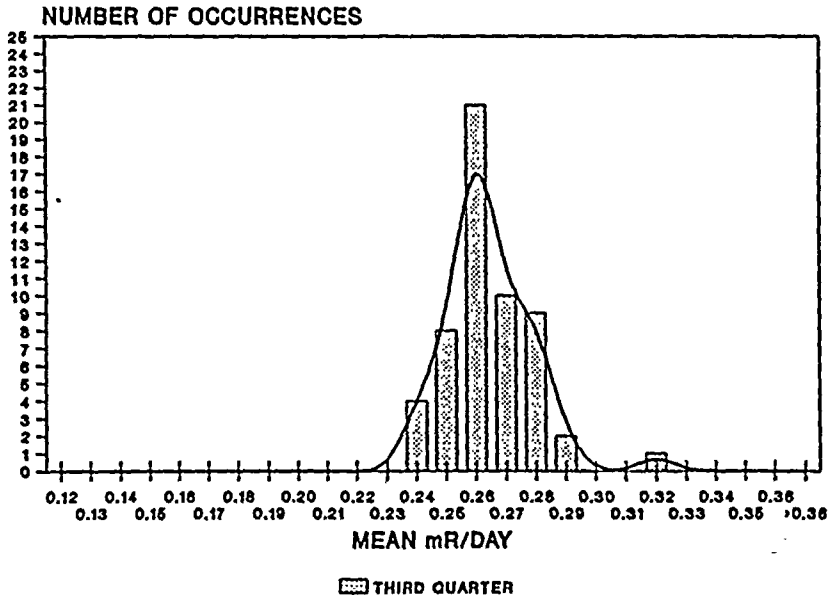


FIGURE 5-5
MEAN 1992 QUARTERLY TLD RESULTS FOR LOCATIONS IN EACH METEOROLOGICAL SECTOR COMPARED TO THE MEAN PREOPERATIONAL AND PREVIOUS OPERATIONAL RESULTS







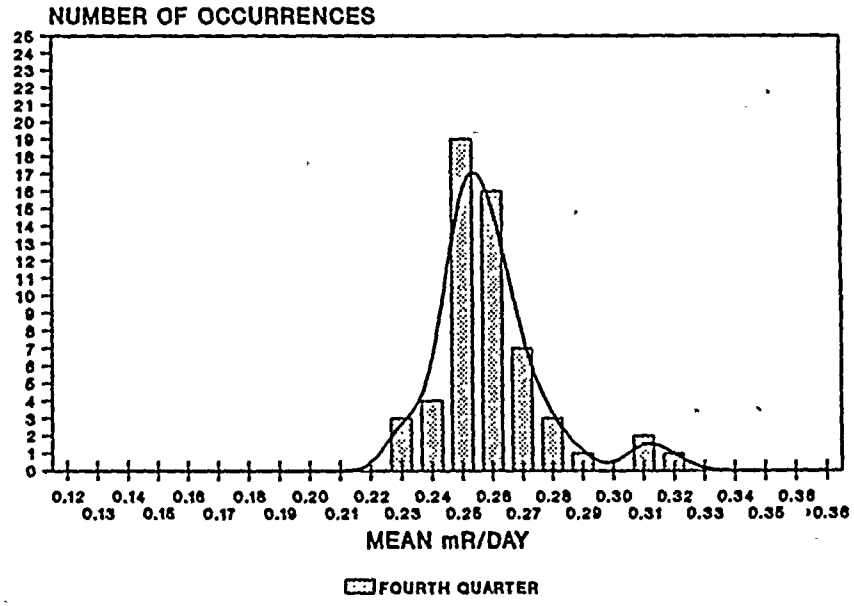


FIGURE 5-6
FREQUENCY DISTRIBUTIONS OF THE 1992 QUARTERLY TLD RESULTS

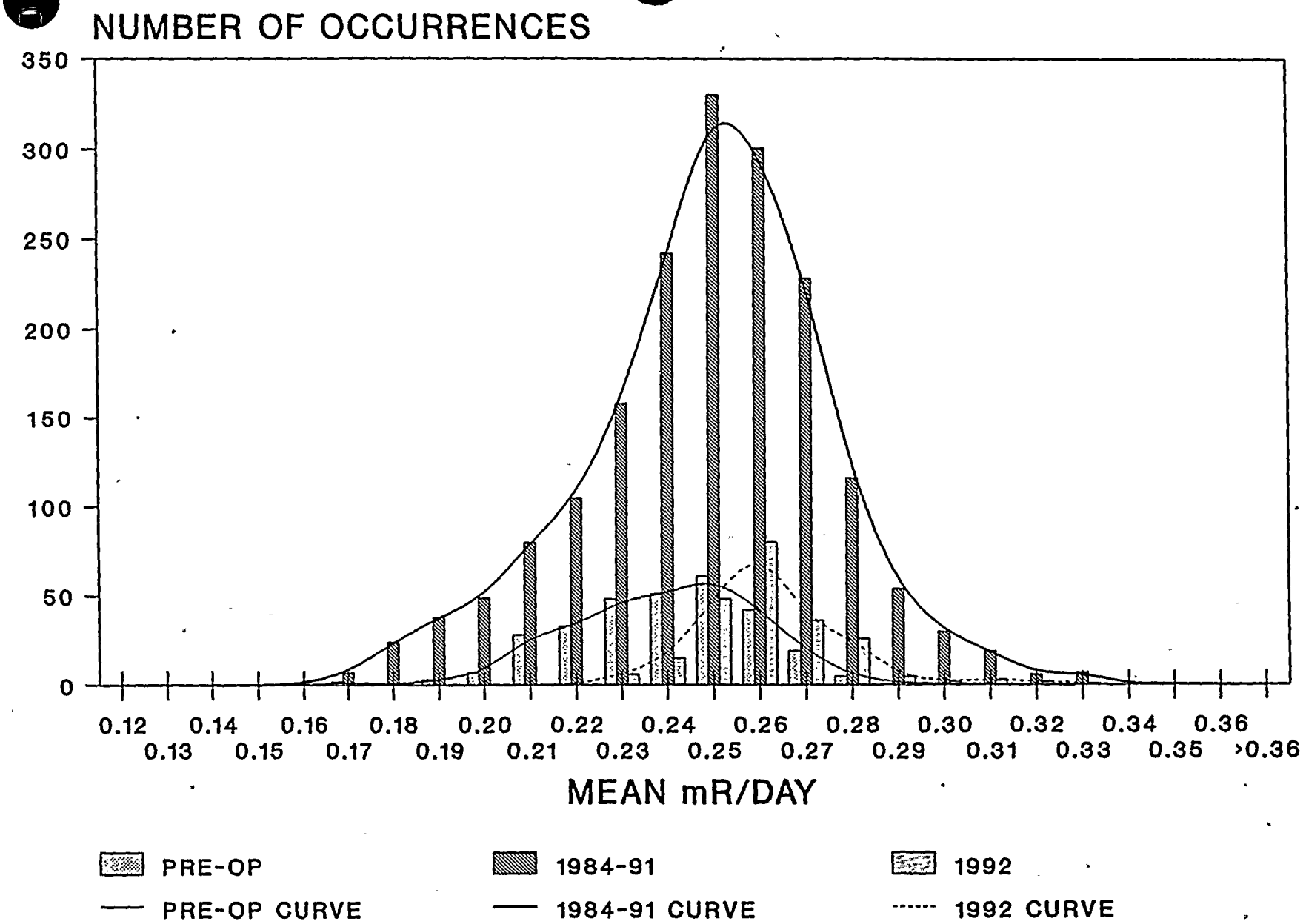


FIGURE 5-7
FREQUENCY DISTRIBUTIONS OF THE 1992 TLD
RESULTS VERSUS THE RESULTS FOR THE PREOPERATIONAL AND PREVIOUS OPERATIONAL PERIODS

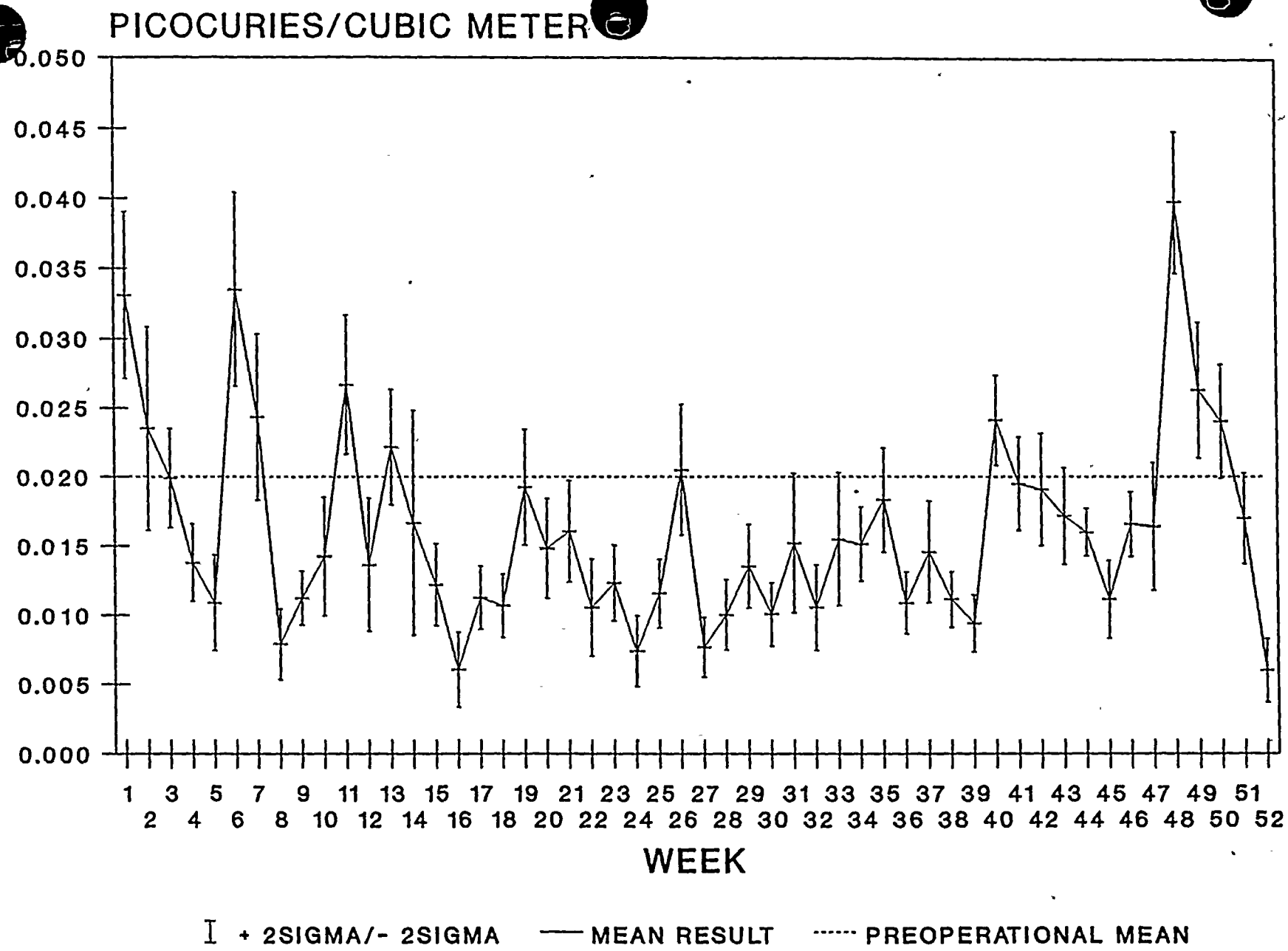
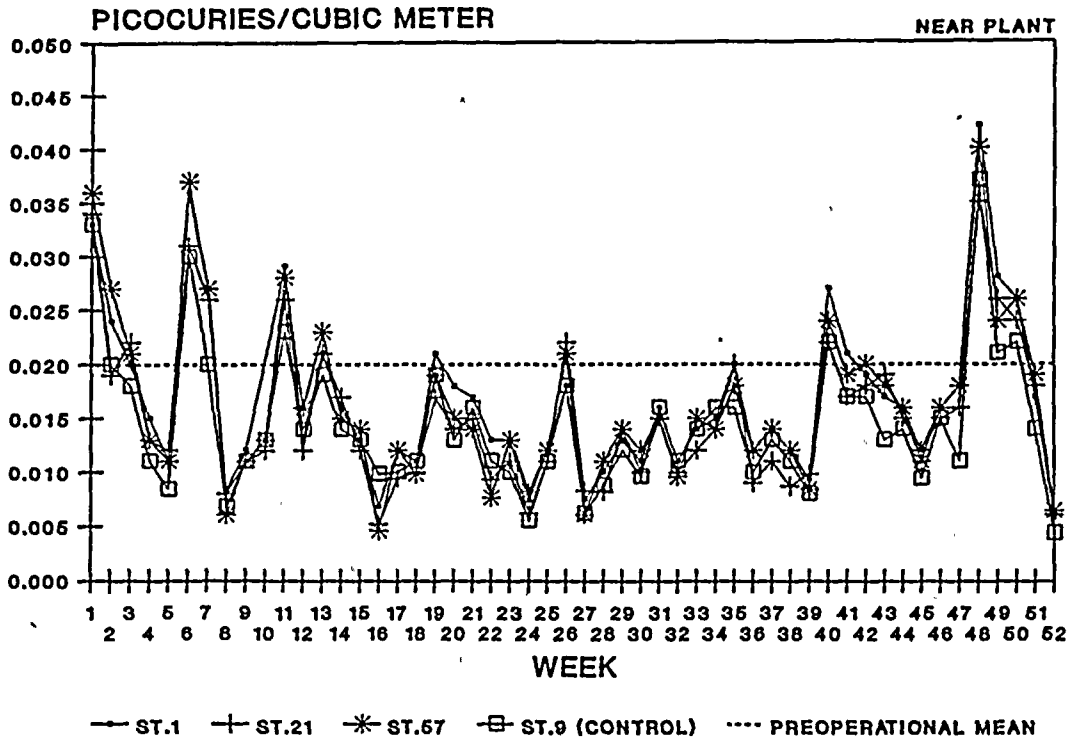


FIGURE 5-8
MEAN WEEKLY 1992 GROSS BETA IN AIR RESULTS



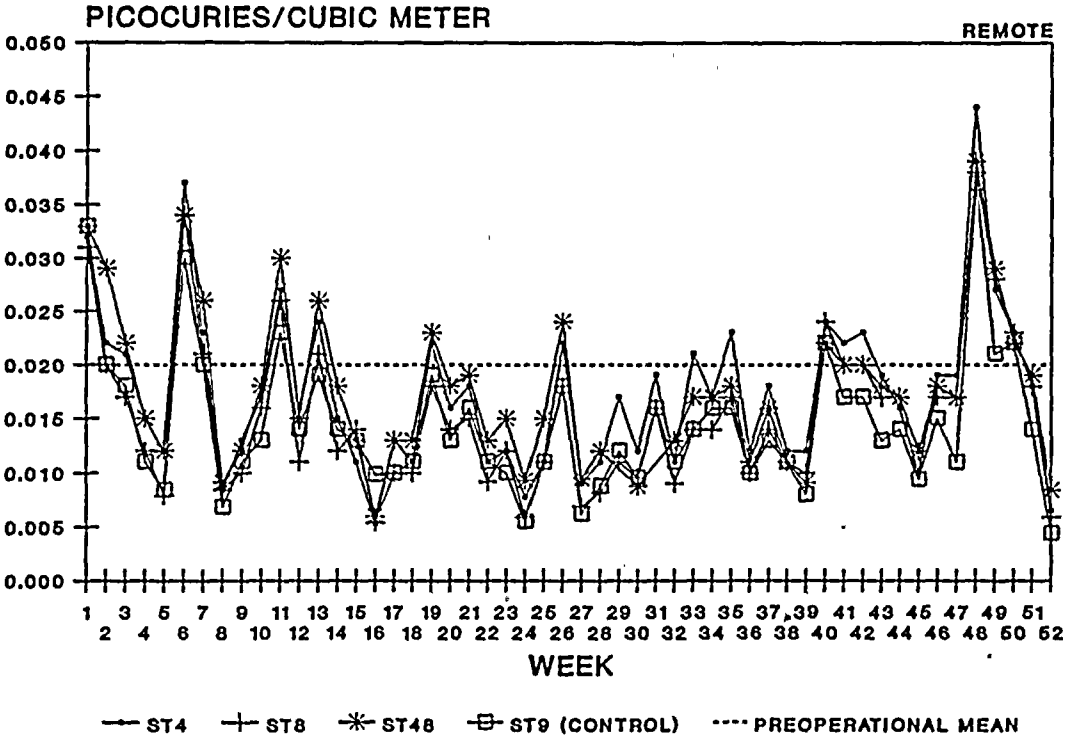


FIGURE 5-9
1992 WEEKLY GROSS BETA IN AIR RESULTS FOR NEAR-PLANT AND REMOTE SAMPLING LOCATIONS VERSUS THE RESULTS FOR THE CONTROL LOCATION (STATION 9A)

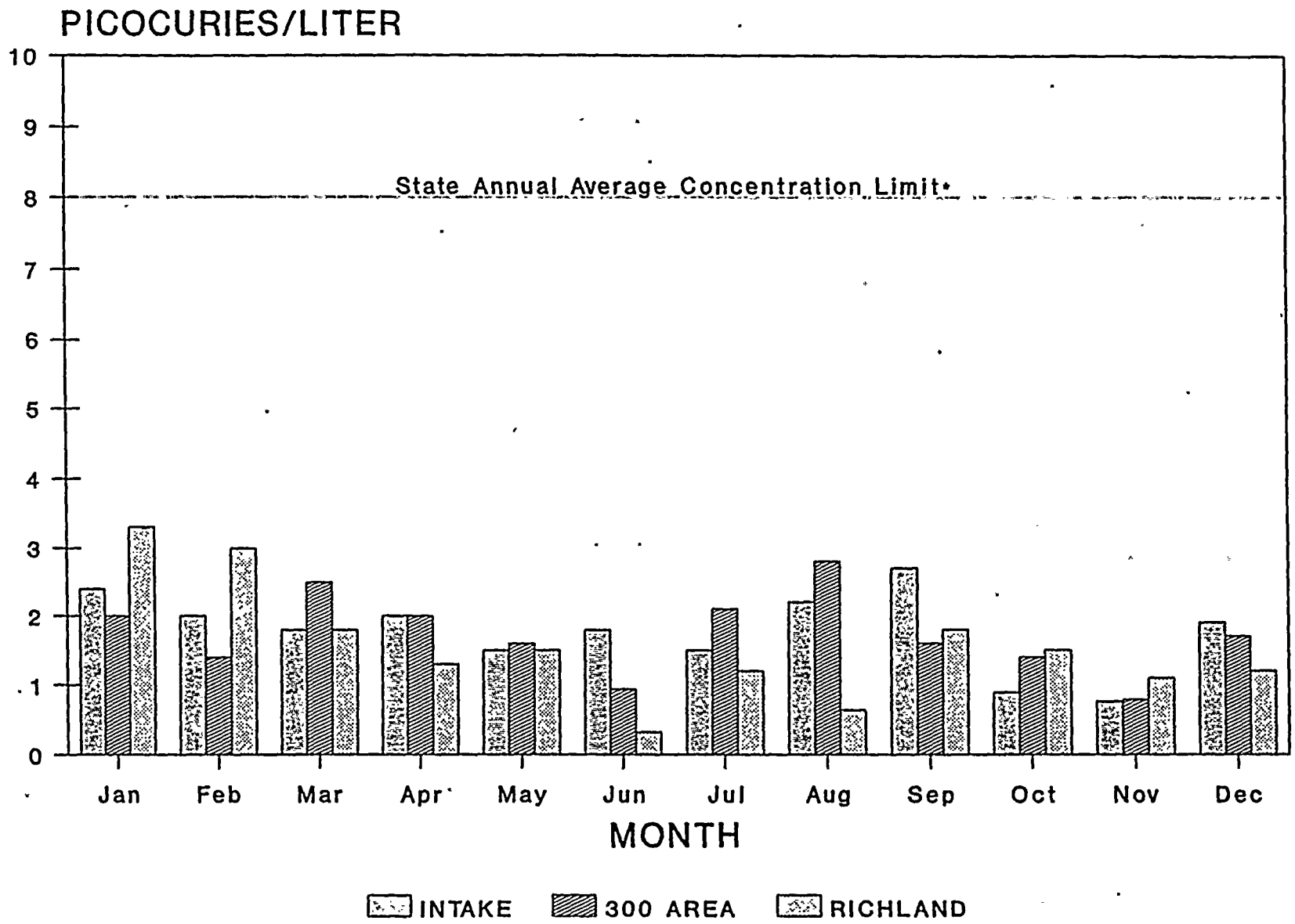
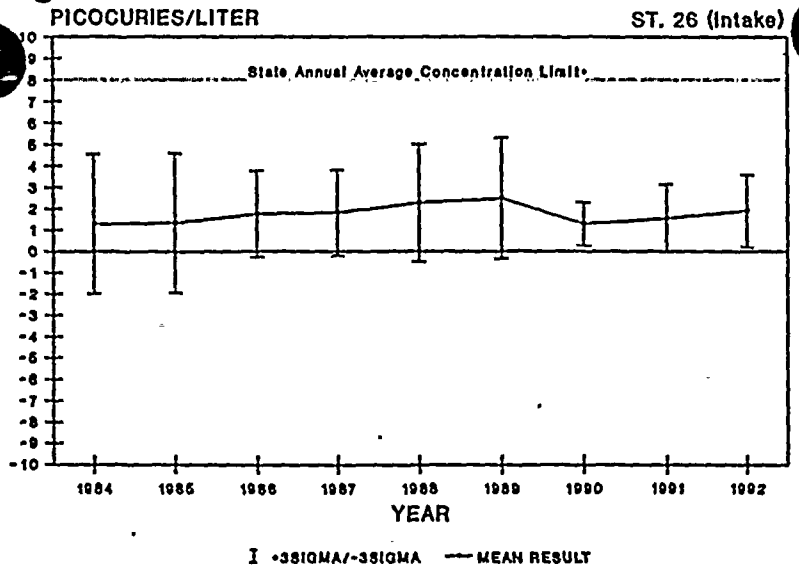
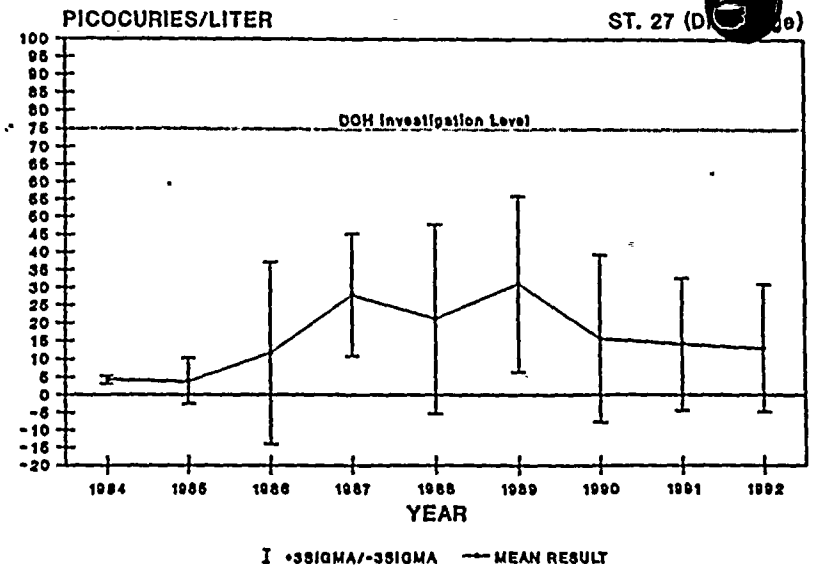
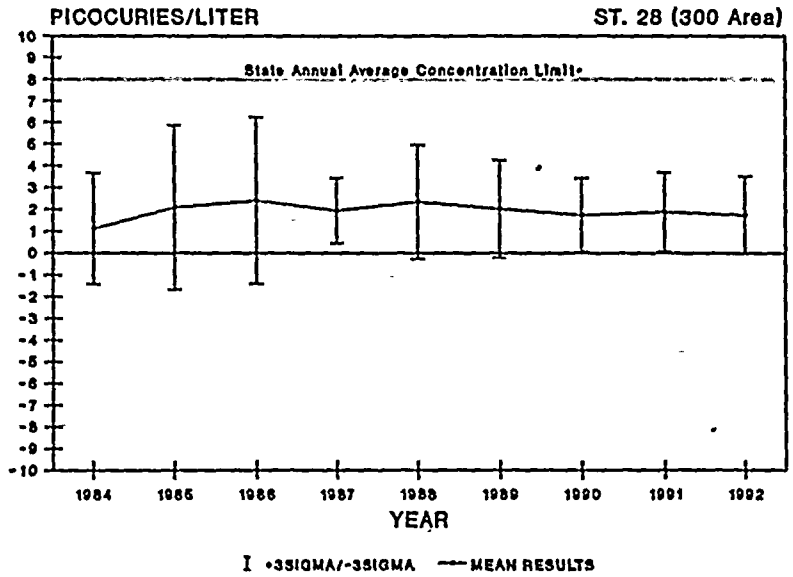
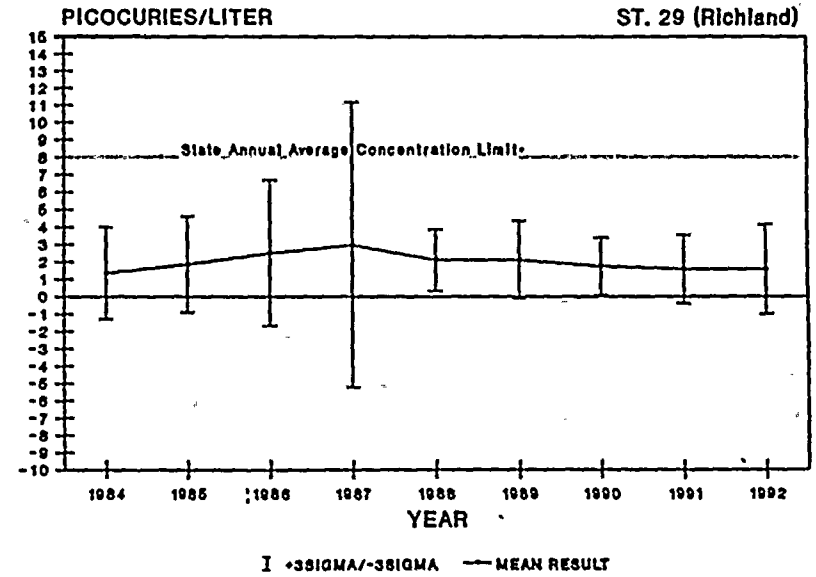


FIGURE 5-10
1992 GROSS BETA IN RIVER/DRINKING WATER



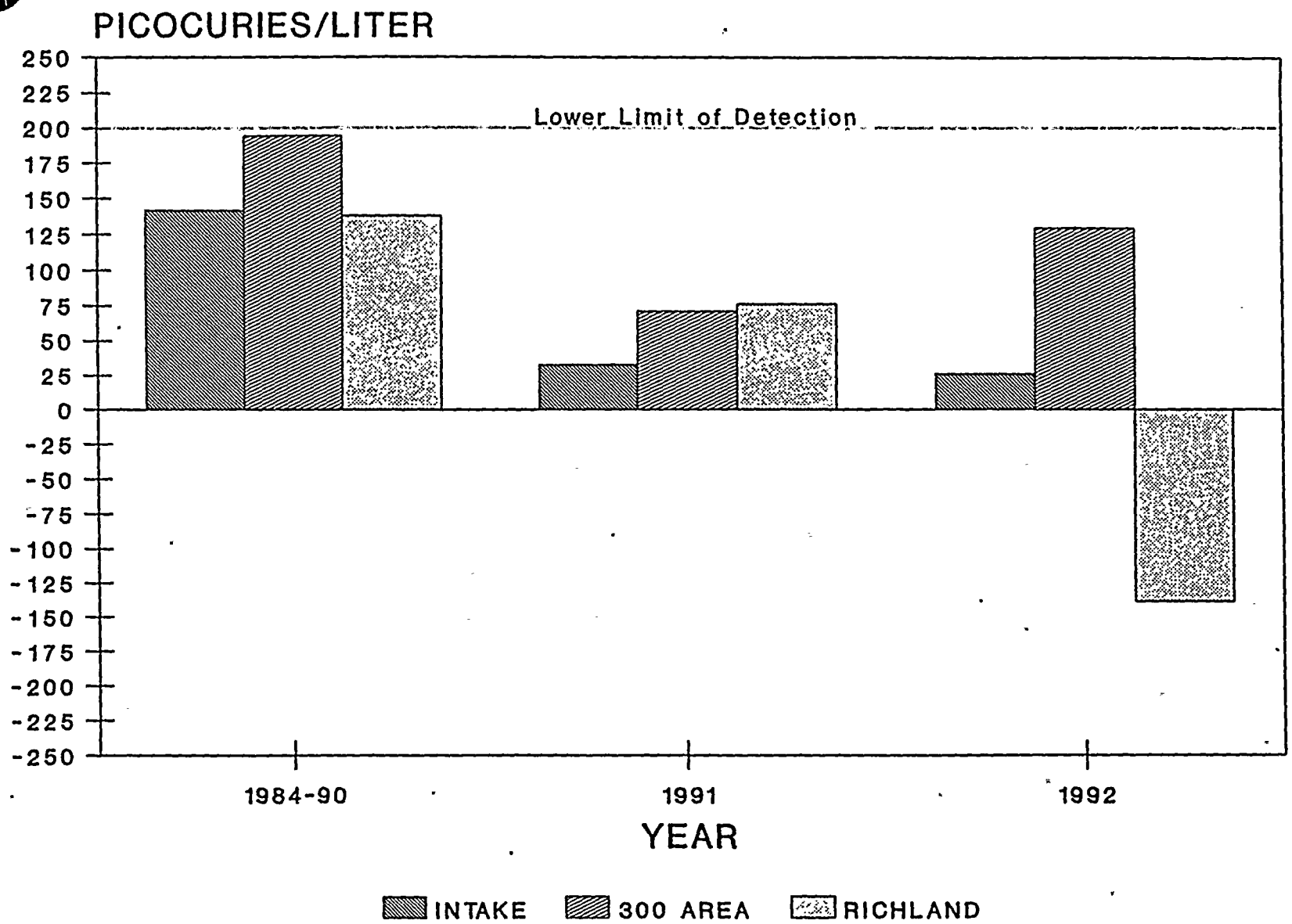






* Assuming strontium-90, the maximum average concentration for compliance to state dose limitations is 8 pCi/liter.

FIGURE 5-11
MEAN GROSS BETA IN RIVER/DRINKING WATER AND DISCHARGE WATER (± 3 SIGMA) FOR 1984 THROUGH 1992



*NOTE: For compliance to the 4 mrem/year state dose limitation, the annual average concentration of gross beta in drinking water is 50 pCi/liter.

FIGURE 5-12
1992 MEAN TRITIUM IN RIVER/DRINKING WATER

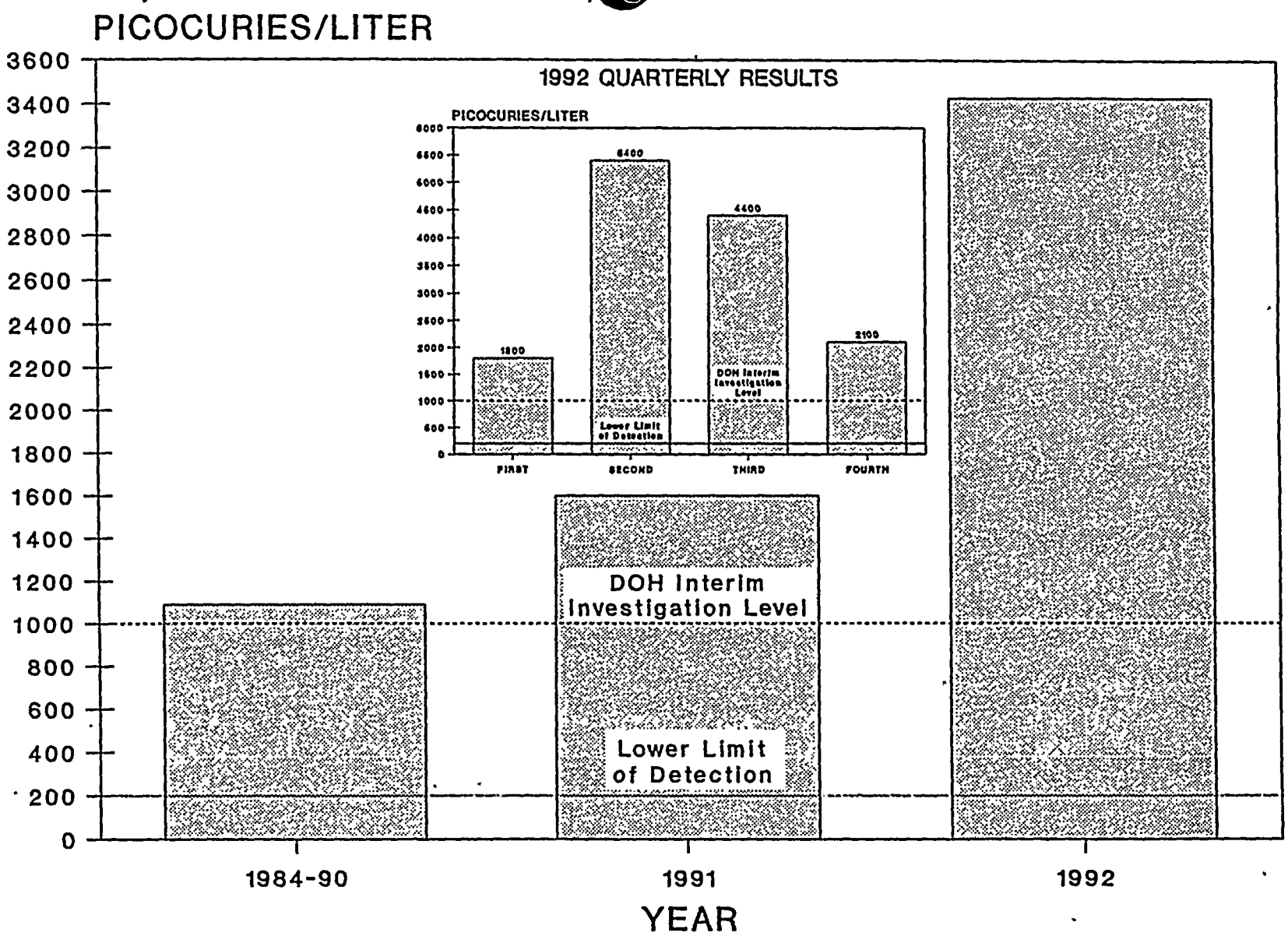


FIGURE 5-13
MEAN TRITIUM IN DISCHARGE WATER FOR 1984 - 1990, 1991 AND 1992

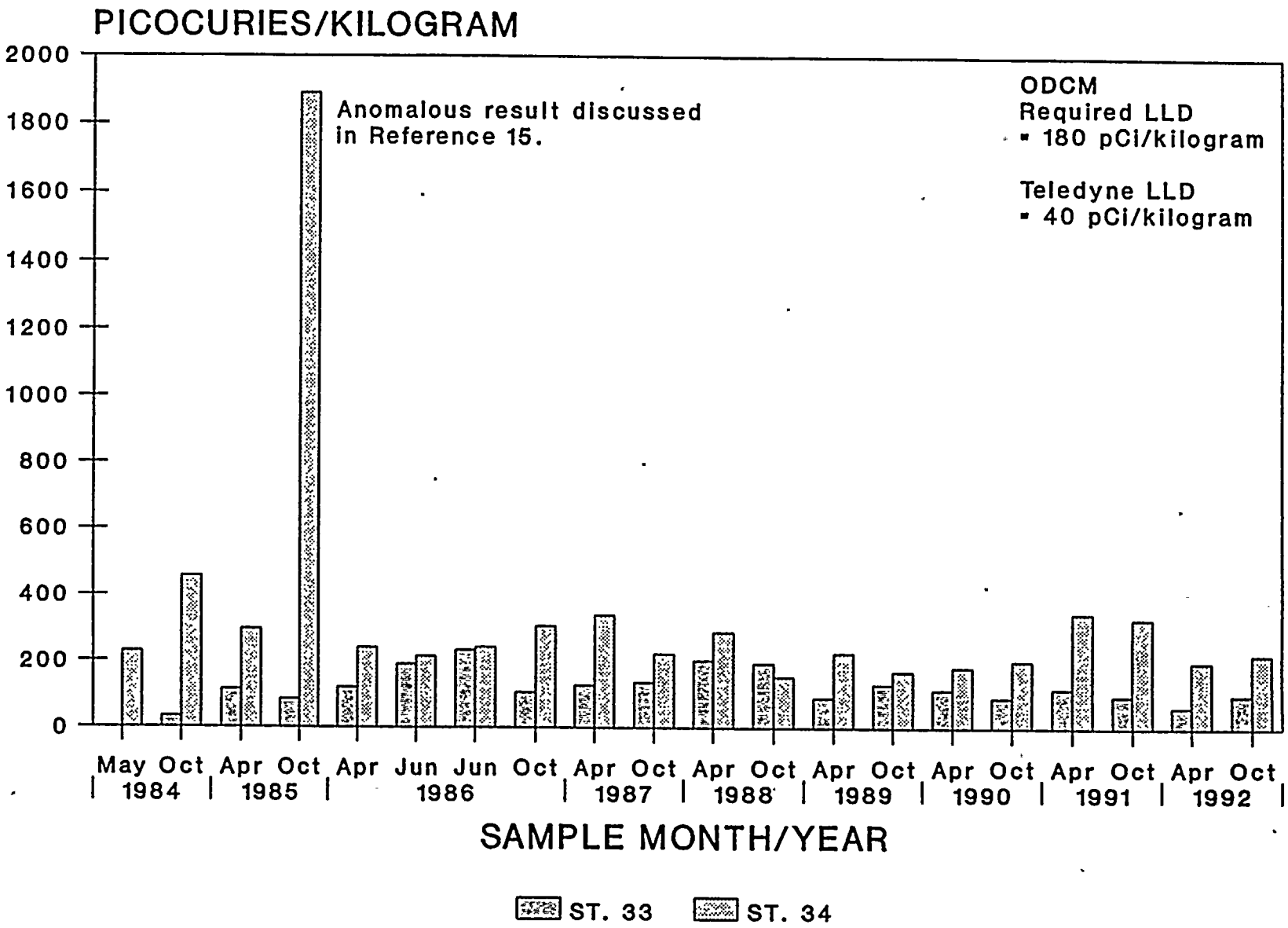
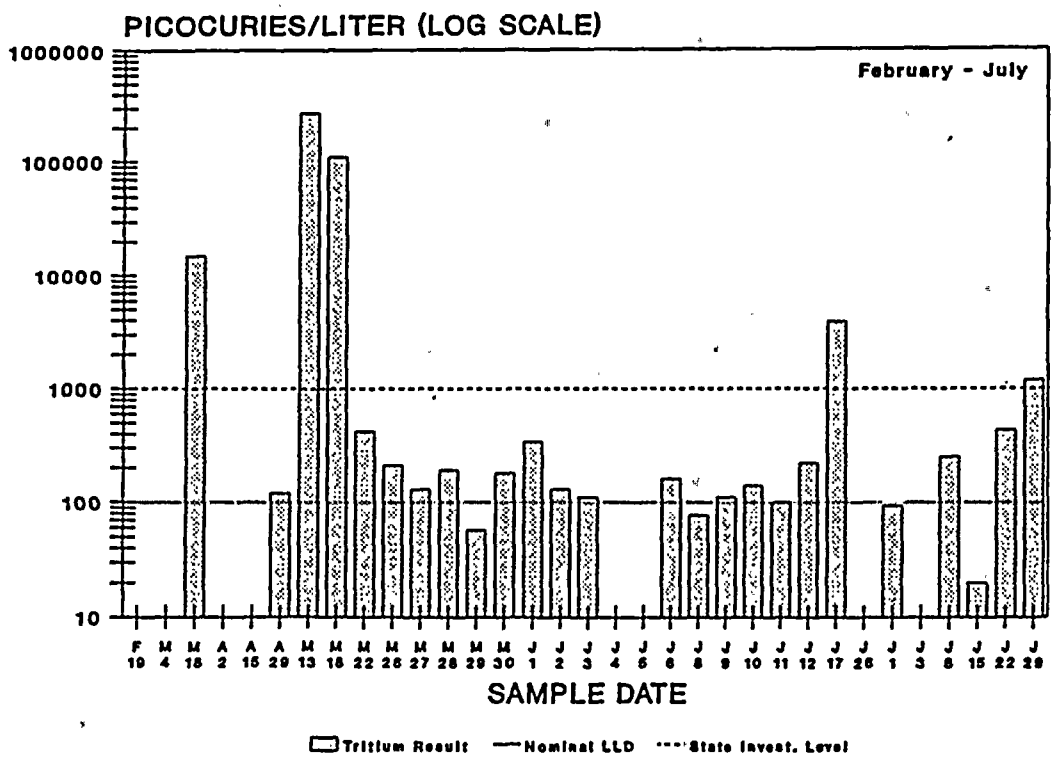


FIGURE 5-14
CESIUM-137 IN SEDIMENT FROM 1984 TO 1992



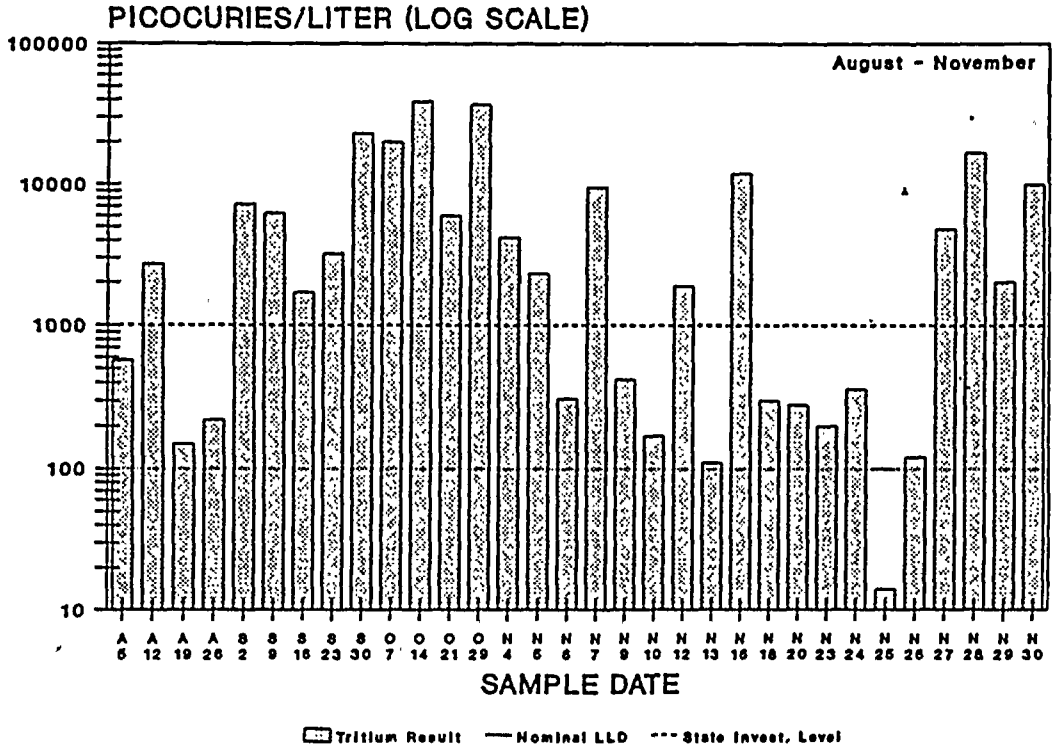
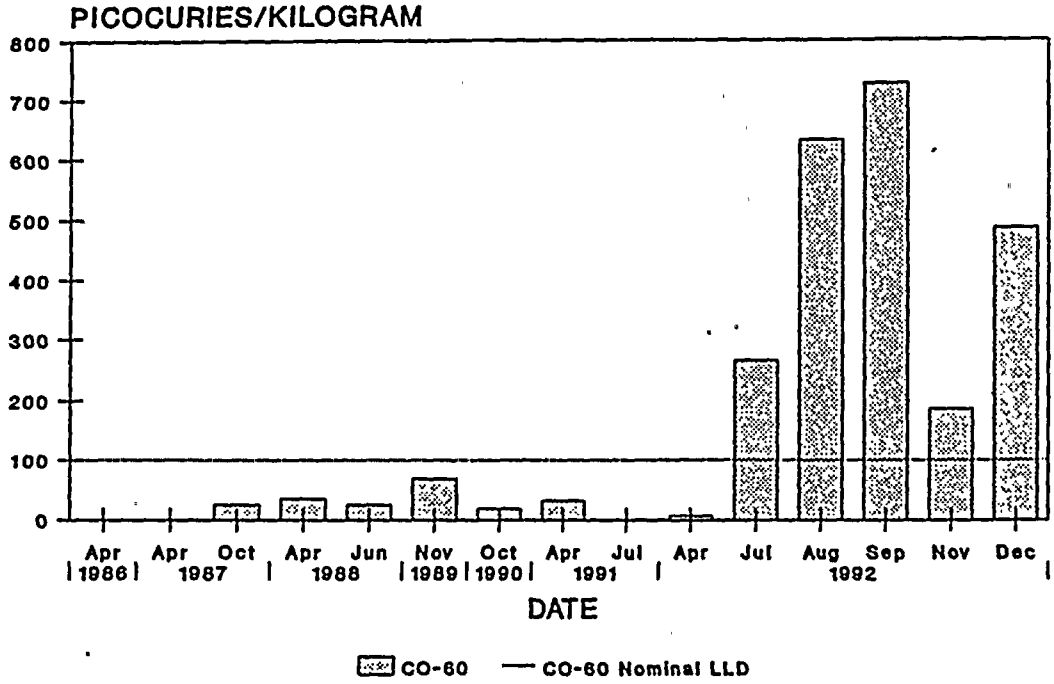


FIGURE 5-15
TRITIUM CONCENTRATIONS AT THE STORM DRAIN OUTFALL DURING 1992



NOTE: Samples results prior to 1992 are in picocuries/kilogram wet.

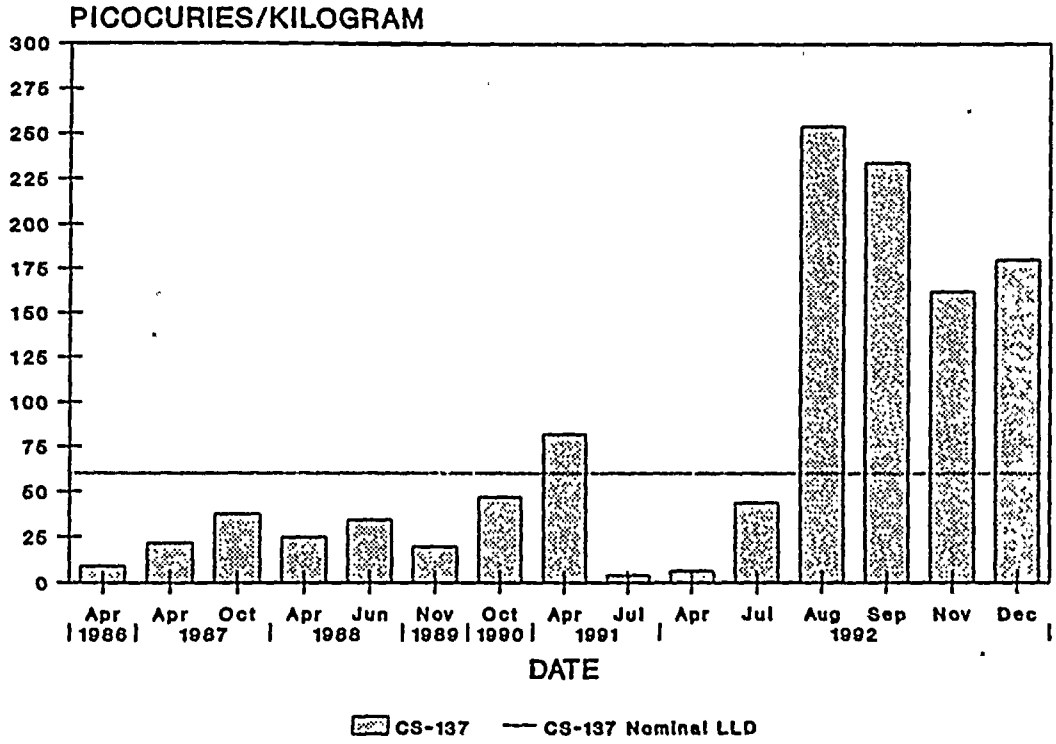


FIGURE 5-16
CESIUM-137 AND COBALT-60 RESULTS FOR SWTF (STATION 102) SEDIMENT FROM 1987 THROUGH 1992

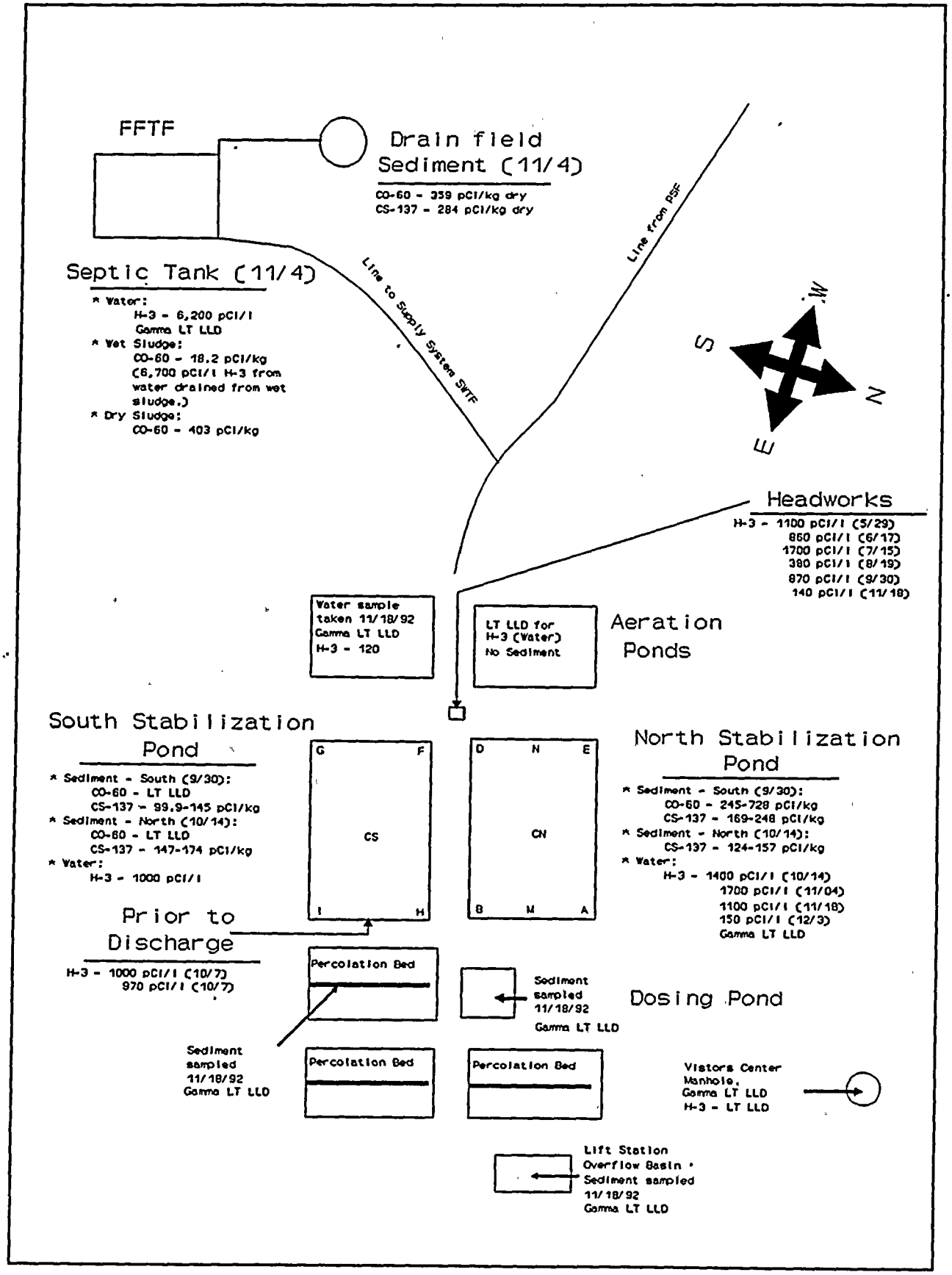
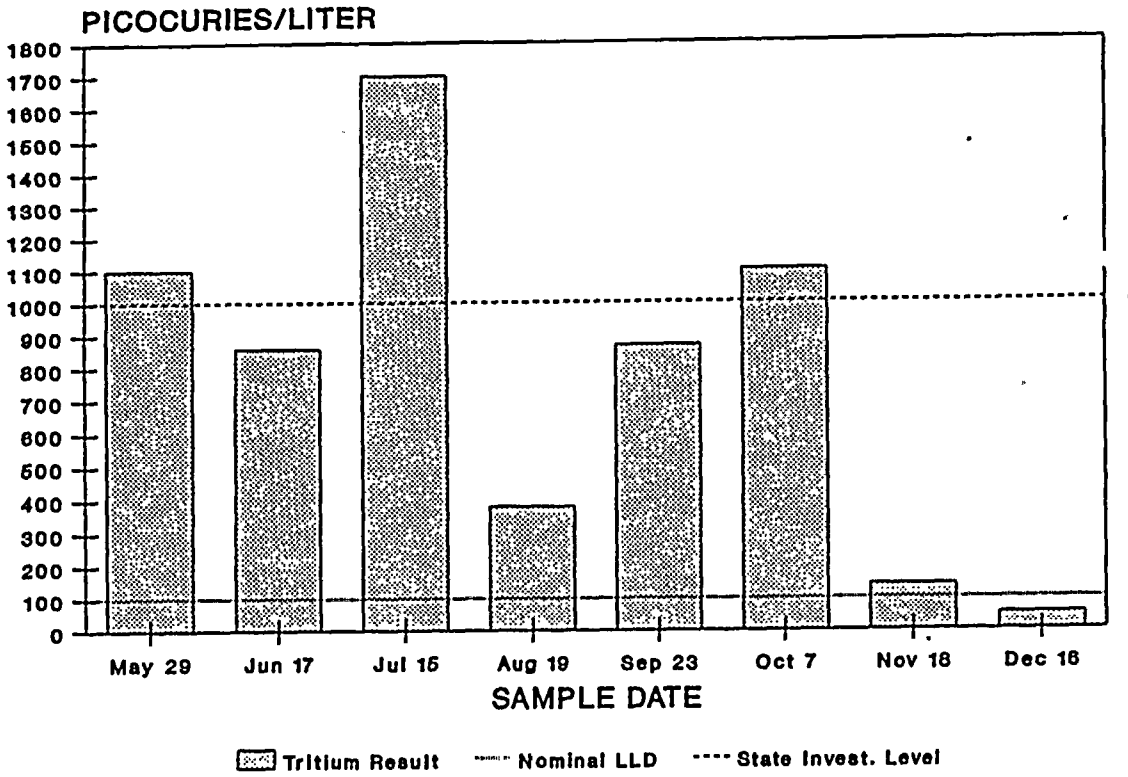
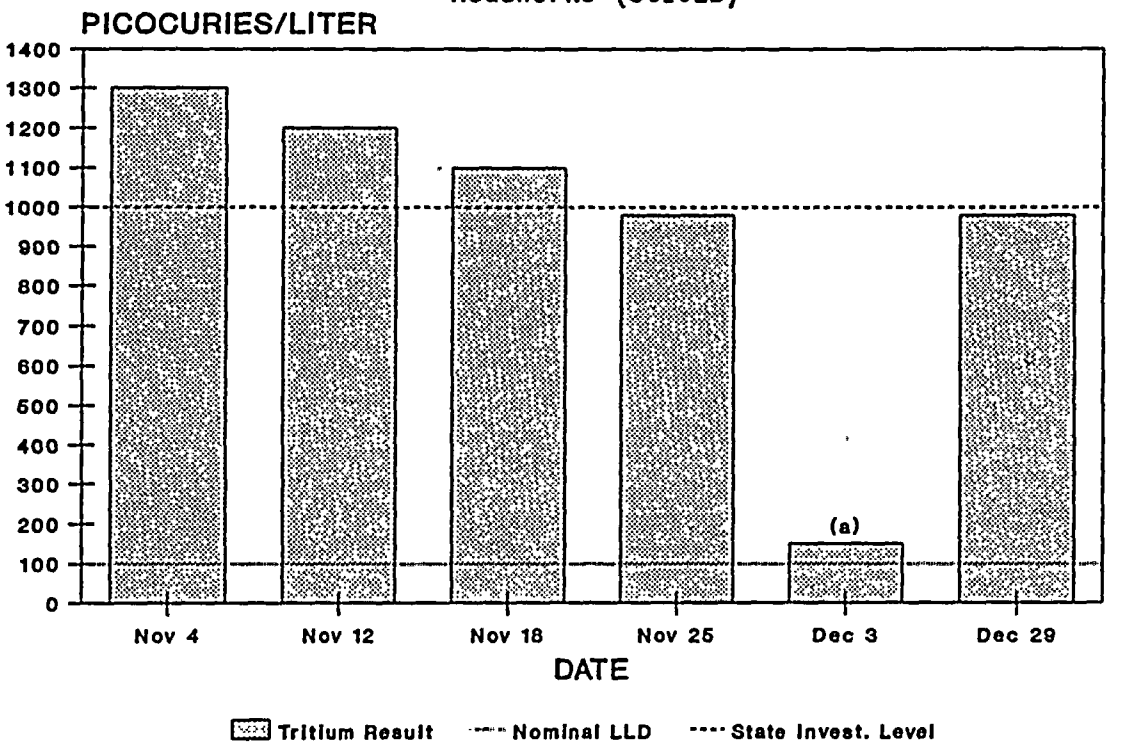


FIGURE 5-17
SAMPLING LOCATIONS AND MOST SIGNIFICANT RESULTS IN THE INVESTIGATION OF ELEVATED CESIUM-137 AND COBALT-60 IN THE SWTF STABILIZATION PONDS



Headworks (St102B)



(a) - Reanalysis confirmed this result.

North Stablization Pond (St102D)

FIGURE 5-18
1992 TRITIUM IN THE MONTHLY HEADWORKS SAMPLE (ST102B)
AND THE NORTH STABILIZATION POND (ST102D)

6.0 QUALITY ASSURANCE AND QUALITY CONTROL

The REMP is designed to meet the quality assurance and quality control criteria of Regulatory Guide 4.15. To accomplish this, the REMP requires that its analytical contractors meet these criteria also. In-depth audits are performed of the REMP records and activities and the records and activities of its support organizations at least annually by the Supply System Quality Assurance group.

Quality assurance and technical audits of the analytical contractor, Teledyne Isotopes, are also conducted annually to verify their compliance to regulatory and contractual requirements. The adequacy of their quality assurance program is also assessed during the audits.

Intercomparison programs, which involve the comparison of Supply System analytical results for samples containing known concentrations of various radionuclides with the known values and with the results reported by other monitoring programs, are also a major component of the quality assurance activities of the REMP. The program participates in the Environmental Protection Agency (EPA) and Environmental Measurements Laboratory (EML) intercomparison programs. It also participates in local and regional intercomparison studies. The following sections summarize the quality assurance and quality control aspects of the TLD and analytical components of the REMP.

6.1 Quality Control For the Supply System Environmental TLD Program

The Quality Control Program for the environmental TLD preparation, processing and evaluation is described in Figures 6-1 and 6-2. QA dosimeters, which are annealed just prior to being given a known exposure to 100 mR of cesium-137 gamma radiation and processed among the field dosimeters, serve as indicators that the readout, calibration and evaluation of the field dosimeters were properly performed. The number of QA dosimeters used during each processing is generally 10% of the number of field dosimeters. Since 1987 the same QA dosimeters have been used repeatedly throughout the year in order to track their sensitivity and to provide consistency from run to run.

If the mean QA dosimeter results are greater than ± 5% (or 5 mR) of the given exposure, an investigation into the source of the discrepancy is initiated. Evaluation of the 1992 QA dosimeter results indicated only small biases for the four quarters.

Control dosimeters (trip controls) are used for each set of field dosimeters to monitor the contribution of the exposure received by the field TLDs while in transit. The radiation background in the storage area is also monitored by a separate set of control dosimeters (building controls). If the trip control results are significantly greater than the building control results, the difference between the two is subtracted from the field dosimeters.

Spiked dosimeters, which are exposed to known levels of radiation below the 100 mR given to the QA dosimeters, were processed with the field dosimeters during each run to verify the accuracy of the environmental TLD evaluations. The results of these audit dosimeters processed during 1992 are presented in Table 6-1. All results were well within ±5% of the given exposure.

During each environmental TLD processing, individual calibration factors are determined for each TLD by exposing the TLDs to 100 mR from an encapsulated cesium-137 source. The calibration exposure is determined from the exposure duration and the assessed source strength at 55 centimeters. As a quality control check for each calibration exposure, an NIST-traceable ionization chamber is also used to determine the calibration exposure. If the ionization chamber measurement does not agree with the calibration exposure to within ± 5% of the calculated value, an investigation is performed into the discrepancy and the TLD calibration is repeated, if necessary.

6.2 Quality Control For the Analytical Program

Quality control for the analytical program involves two components: the quality control activities performed by the Supply System and the quality control program of the analytical contractor, Teledyne Isotopes. Both of these components are described in the following sections.

6.2.1 Supply System Quality Control Activities

The Supply System has participated in the U.S. Department of Energy Environmental Measurements Laboratory (EML) Quality Assessment Program since 1987. The Supply System results for the samples sent out in March and September of 1992 are listed on Table 6-2. The Teledyne cesium-137 results showed the slight high bias (20 - 30%) in some media that has been evident in previous years. In general, however, the Teledyne results agreed with the EML values.

In addition to participating in the EML Intercomparison Program, the Supply System participates in the Environmental Radiation Quality Assurance Task Force of the Pacific Northwest (QATF) intercomparison program. During October 1992 three types of samples, groundwater from the Hanford Site, sediment from Bull Run Lake in Oregon and an EPA reference water sample, were distributed to participants. The Supply System results for the QATF samples are given in Table 6-3 along with those for the other participants.

Duplicate samples were also submitted to Teledyne for analysis during 1992. These duplicates consisted of two sets of milk samples and one set of air filters from EML. The milk duplicates were marked Station 37 and were submitted for analysis at the same time as the milk samples from Station 36.

6.2.2 Teledyne Isotopes Quality Control Program

The goal of the quality control program at Teledyne Isotopes is to produce analytical results which are accurate, precise and supported by adequate documentation. The program is based on the requirements of 10CFR50, Appendix B, Regulatory Guide 4.15 and the program, as described in Teledyne's Quality Assurance Manual IWL-0032-395 and Quality Control Manual IWL-0032-365.

All measuring equipment is calibrated for efficiency at least annually using standard reference material traceable to the National Institute of Standards and Technology (NIST). For alpha and beta counting, check sources are prepared and counted every week day except holidays. Control charts are maintained with three-sigma limits specified. Backgrounds are usually measured at least once per week.

The efficiency of the gamma spectrometers is calibrated annually with a NIST traceable standard reference material selected to cover the energy range of the nuclides to be monitored and to include all of the geometries measured. Backgrounds are determined every other week and check sources are counted weekly. The energy resolution and efficiency are plotted at two energy levels (125.1 and 1274.4 kev) on charts and held within three-sigma control limits.

The efficiency of the tritium gas counters was determined every month by counting a NIST traceable standard which had been diluted in a known amount of distilled water so that the activity level loaded into the counter is sufficient to provide good counting statistics but not so active as to contaminate the counter. If the efficiency measurement does not agree within two standard deviations of the average of the previous six measurements, corrective action is taken. The background of each counter is measured after each sample measurement. A control chart is maintained for the background measurements as a stability check. This procedure is described in PRO-052-50 "Calibration of Gas Counters for Tritium Analysis".

During the month of August the tritium gas counters were removed from service. The Supply System then approved use of liquid scintillation method of tritium analysis. Included in the tables for the Teledyne QA blanks and spikes is data for tritium analysis by liquid scintillation counting.

Control of sample identity is maintained by the assignment of a unique five-digit number which is maintained throughout the sample's history from sample receipt, log-in number assignment and designation of analysis to reporting the final analytical result. Besides ensuring sample accountability, Teledyne procedures also ensure the maintenance of sample integrity by controlling sample storage and taking steps to prevent contamination of samples.

Results are reviewed for reasonableness before being entered into the data system. Any results which are suspect, i.e., which are higher or lower than results in the past, are returned to the laboratory for recount. If a longer count, decay check, recount on another system or recalculation does not give acceptable results based on experience, a new aliquot is analyzed. The complete information about the sample is contained on the worksheets accompanying the sample results.

No deviations from written procedures occurred during 1992. Summaries of the results of internal blanks and spiked samples used for quality control are presented in Tables 6-5 and 6-6. A summary of the EPA cross-check sample results is presented in Table C-1 of Appendix C.

Iodine-131 Cartridges

One blank charcoal cartridge was analyzed on a weekly basis with each set of cartridges, for a total of fifty-three blanks. The average result was 6.4±7.9E-01 pCi per cartridge. This was calculated without considering detection limits.

Gross-Beta - Filters

One blank filter was measured with each set of filters analyzed. Fifty-three blanks were counted. The average activity in total pCi was 9.3±1.8E-01, which indicated a relatively stable background for the filters, including the background of the gross beta proportional counters.

I-131 - Milk

A blank milk was analyzed with each group of samples analyzed. The results showed that there was no contamination in the laboratory or counting area. The measurements of the blank samples (Table 6-5) indicated that there was no bias on the low background counters. The average activity for twenty samples in 1992 was 2.6±5.3E-01 pCi/liter. This was calculated from quality control samples, without considering detection limits. A total of fifty-three in-house blank milk samples were processed throughout 1992. The average result was 3.9±5.1 E-02 pCi/liter.

Sr-90 - Milk and Water

Blank water samples were analyzed on a weekly basis. The average result of fifty-three blank water samples was 1.5±2.2E-01 pCi/liter. Fifty-three spiked water samples were analyzed. The average result was 3.7±0.2E+01 pCi/liter, compared with a spike level of 4.0±0.6E+01 pCi/liter. A total of twenty-three milk samples were spiked to a level of 4.0±0.6E+01 pCi/liter. The average activity determined for the spikes was 3.6±0.4E+01 pCi/liter. These results were within the limits specified by the EPA Intercomparison Studies Program. A total of twenty-four blank milk samples were analyzed, with an average activity of 1.4±0.5E+00 pCi/liter of strontium-90.

Gross Beta - Water

Fifty-three blanks were prepared from distilled water. The average result, without considering detection limits, was 2.7±1.7E-01 pCi/liter. No contamination was indicated and the background level was low and stable. During 1992 fifty-three gross beta spike samples were analyzed during 1992, with a spike level of 2.2± 0.5 pCi/liter. The average result was 2.2±1.7E+01 pCi/liter. This was well within the guidelines outlined in Table 2 of EPA-600/4-81-004.

Tritium in Water

Thirty-six blank samples were analyzed by gas counting. The average result was -5.0±7.8E-01 pCi/liter. Thirty-seven tritium samples with a spike level of 1.5±0.2E+03 pCi/liter were analyzed by gas counting during 1992. The average result was 1.4±0.1E+03 pCi/liter.

Fifty-three blank samples were analyzed by liquid scintillation. The average result without considering detection limits was 3.2±3.0E+02 pCi/liter. Fifty-three tritium samples with a spike level of 1.5±0.2E+04 pCi/liter were analyzed by liquid scintillation during 1992. The average result was 1.4±0.1E+04 pCi/liter.

Gamma Spectroscopy

A blank water sample was analyzed on a weekly basis in the gamma spectroscopy laboratory. All nuclides were less than the normal level of detection, indicating no contamination. Spike samples were measured weekly using the Eu-154 peak at 1274.5 KeV. The average activity of fourteen measurements was 1.44±0.02E+05 pCi/liter, compared with a spike level of 1.40±0.20E+05 pCi/liter.

TABLE 6-1

1992 ENVIRONMENTAL SPIKED DOSIMETER RESULTS

TLD DISTRIBUTION	GIVEN EXPOSURE (mR)	REPORTED EXPOSURE (mR)	BIAS (%)
First Quarter	25.0	25.2	1.0
		25.2	1.0
		25.2	1.0
Second Quarter	22.0	22.3	0.9
		22.2	0.9
		22.2	0.9
Third Quarter	55.0	55.1	0.1
		54.5	-0.9
		54.9	-0.2
Fourth Quarter	25.0	25.7	2.8
		25.4	1.6
		24.9	0.4
Annual	65.0	65.2	0.3
		64.9	-0.2
		66.7	2.6

TABLE 6-2

1992 ENVIRONMENTAL MEASUREMENTS LABORATORY (EML)
QUALITY ASSESSMENT PROGRAM RESULTS

DATE	SAMPLE TYPE	NUCLIDE	TELEDYNE REPORTED RESULT	PERCENT ERROR (2σ)	EML VALUE	RATIO REPORTED/EM
9203	Particulate Filter (total Bq)[1]	Be-7	2.89E+01	10	2.86E+01	1.01
		Mn-54	6.22E+00	10	5.97E+00	1.04
		Co-57	7.36E+00	10	7.93E+00	0.93
		Co-60	5.55E+00	10	5.81E+00	0.96
		Cs-137	5.99E+00	9	5.76E+00	1.04
		Cs-134	4.14E+00	9	4.44E+00	0.93
		Ce-144	6.51E+01	10	6.39E+01	1.02
9203	Soil (Bq/kg)	K-40	7.73E+02	6	7.19E+02	1.08
		Cs-137	5.62E+00	12	5.23E+00	1.07
		Sr-90	6.66E+00	55	4.50E+00	1.48
9203	Vegetation (Bq/kg)	K-40	3.37E+02	10	2.94E+02	1.15
		Cs-137	3.00E+01	9	2.46E+01	1.22
		Sr-90	3.15E+02	4	3.76E+02	0.84
9203	Water (Bq/l)	H-3	2.33E+02	3	2.27E+02	1.03
		Mn-54	5.69E+02	9	5.66E+02	1.01
		Co-60	9.36E+01	9	9.40E+01	1.00
		Sr-90	1.78E+00	10	2.13E+00	0.84
		Cs-137	9.03E+01	9	8.46E+01	1.07
		Ce-144	1.81E+02	10	1.89E+02	0.96
9209	Particulate Filter (total Bq)	Be-7	2.59E+02	10	3.08E+02	0.84
		Mn-54	2.26E+01	10	2.59E+01	0.87
		Co-57	4.70E+00	10	6.40E+00	0.73
		Co-60	2.78E+00	10	3.06E+00	0.91
		Cs-137	4.93E+00	9	5.82E+00	0.85
		Ce-144	3.02E+01	9	4.33E+01	0.70
9209	Soil (Bq/kg)	K-40	4.63E+02	10	3.84E+02	1.21
		Sr-90	8.90E+00	21	9.57E+00	0.93
		Cs-137	3.61E+02	9	2.85E+02	1.27
9209	Vegetation (Bq/kg)	K-40	1.26E+03	10	1.01E+03	1.25
		Cs-137	3.85E+01	9	2.92E+01	1.32
9209	Water (Bq/l)	H-3	1.40E+02	5	1.18E+02	1.19
		Mn-54	3.29E+02	10	3.33E+02	0.99
		Co-60	2.84E+01	10	2.78E+01	1.02
		Sr-90	2.30E+00	6	2.20E+00	1.05
		Cs-137	2.96E+01	10	2.90E+01	1.02
		Ce-144	4.40E+01	10	5.12E+01	0.86

(1) Bq = becquerel; the EML results are reported in becquerels instead of picocuries. One picocurie equals 0.037 becquerel.

TABLE 6-3

1992 ENVIRONMENTAL RADIATION QUALITY ASSURANCE TASK FORCE OF THE PACIFIC NORTHWEST INTERCOMPARISON RESULTS

SAMPLE/ NUCLIDE	WA	OR	PNL	WHC	SS	ID	USE
Bull Run Lake Sediment (pCi/g dry)							
Sr-90	0.32 ± 0.02	0.52 ± 0.14	0.34 ± 0.02	0.46 ± 0.03	0.43 ± 0.08	---	0.47 ± 0.01
	0.27 ± 0.02	0.54 ± 0.12	0.29 ± 0.02	0.68 ± 0.04	0.44 ± 0.08	---	0.33 ± 0.04
	0.27 ± 0.01	0.54 ± 0.12	0.26 ± 0.02	0.55 ± 0.03	0.44 ± 0.07	---	0.80 ± 0.08
Cs-134	---	0.048 ± 0.02	0.023 ± 0.022	<0.11	0.037 ± 0.03	---	<0.025
	---	0.045 ± 0.01	0.009 ± 0.023	<0.11	0.020 ± 0.03	---	<0.041
	---	0.030 ± 0.01	0.020 ± 0.024	<0.12	0.029 ± 0.03	---	<0.028
Cs-137	8.6 ± 0.4	9.97 ± 0.01	9.32 ± 0.174	9.8 ± 0.29	9.65 ± 0.97	10.4 ± 0.1	15.1 ± 0.1
	9.3 ± 0.6	10.14 ± 0.09	9.12 ± 0.180	9.7 ± 0.28	9.67 ± 0.98	10.3 ± 0.1	11.8 ± 0.2
	8.2 ± 0.6	9.96 ± 0.09	8.70 ± 0.163	10.0 ± 0.28	9.53 ± 0.95	10.6 ± 0.1	12.2 ± 0.1
K-40	4.9 ± 0.5	5.72 ± 0.36	5.14 ± 0.641	2.81 ± 2.80	5.10 ± 0.77	5.77 ± 0.31	6.26 ± 0.36
	5.5 ± 0.3	5.26 ± 0.33	4.31 ± 0.683	5.34 ± 2.76	4.56 ± 0.61	5.84 ± 0.30	5.26 ± 0.56
	4.6 ± 0.4	5.17 ± 0.33	4.98 ± 0.542	4.16 ± 2.76	5.02 ± 0.74	4.20 ± 0.37	5.52 ± 0.38
Hanford Groundwater 1-N-56 (pCi/l)							
Sr-90	254 ± 21	194 ± 1	242 ± 14.0	221 ± 2.7	190 ± 10	24.6 ± 2.6	191.2 ± 5.2
	277 ± 22	---	202 ± 11.4	234 ± 2.6	200 ± 10	110 ± 10.0	185.5 ± 5.3
	267 ± 22	---	236 ± 13.0	244 ± 2.7	180 ± 10	---	175.3 ± 5.9
H-3	14702 ± 155	---	16900 ± 411	15200 ± 750	15000 ± 1000	18540 ± 380	15379 ± 348
	14918 ± 256	---	16500 ± 408	15900 ± 770	15000 ± 1000	19130 ± 380	15341 ± 342
	14464 ± 253	---	16300 ± 404	15200 ± 750	15000 ± 1000	19450 ± 400	15853 ± 343
Co-60	2 ± 1	3.15 ± 1.10	7.43 ± 5.25	<18.4	2.3 ± 2.4	3.1 ± 1.6	<4.5
	2 ± 1	2.56 ± 0.81	7.89 ± 5.26	<15.6	3.7 ± 2.2	2.6 ± 2.8	<3.4
	3 ± 2	---	6.33 ± 6.17	<16.3	3.2 ± 1.9	---	<4.2

WA = State of Washington
OR = State of Oregon
PNL = Battelle Pacific Northwest Laboratory
SS = Washington Public Power Supply System
WHC = Westinghouse Hanford Company
ID = State of Idaho
USE = US Ecology

TABLE 6-3 (Cont.)

1992 ENVIRONMENTAL RADIATION QUALITY ASSURANCE TASK FORCE
OF THE PACIFIC NORTHWEST INTERCOMPARISON RESULTS

SAMPLE/ NUCLIDE	WA	OR	PNL	WHC	SS	ID	USE
EPA Reference Water (pCi/l)							
SR-90	50 ± 5	37 ± 1	36.8 ± 2.29	---	40 ± 4	6.3 ± 2	36.8 ± 2.7
(known value = 48)	47 ± 5	---	32.8 ± 2.11	---	48 ± 3	340.0 ± 4	38.5 ± 2.7
	52 ± 5	---	37.2 ± 2.33	---	42 ± 40	---	42.6 ± 2.8
H-3	16908 ± 270	18900 ± 400	18400 ± 269	---	18000 ± 1000	21950 ± 400	18439 ± 373
(known value =	17494 ± 276	19200 ± 400	18600 ± 270	---	18000 ± 1000	22140 ± 400	18126 ± 370
19455)	16726 ± 271	19300 ± 400	18700 ± 272	---	18000 ± 1000	21830 ± 400	18029 ± 369
Cs-137	22 ± 4	30 ± 12	28.2 ± 15.0	---	21.9 ± 3.4	21.6 ± 4.6	23.4 ± 5.2
(known value = 22)	22 ± 2	35 ± 15	18.7 ± 10.4	---	19.5 ± 3.5	20.0 ± 4.4	22.3 ± 4.9
	20 ± 2	---	24.6 ± 10.8	---	23.4 ± 3.9	21.2 ± 4.8	19.6 ± 5.0

WA = State of Washington
OR = State of Oregon
PNL = Battelle Pacific Northwest Laboratory
SS = Washington Public Power Supply System
WHC = Westinghouse Hanford Company
ID = State of Idaho
USE = US Ecology

TABLE 6-4

1992 DUPLICATE SAMPLE RESULTS

DATE	SAMPLE TYPE		ROUTINE STATION RESULTS	DUPLICATE STATION NAME RESULTS
920901	Air Particulate (total pCi)		Station 88 (EML filter)	Station 68 (EML filter)[a]
		Be-7	7000 ± 700	5870 ± 5900
		Mn-54	610 ± 61	633 ± 63
		Co-57	127 ± 13	127 ± 13
		Co-60	89.0 ± 8.9	75.0 ± 7.5
		Cs-134	78.1 ± 7.8	65.9 ± 6.6
		Cs-137	148 ± 15	133 ± 13
		Ce-144	826 ± 83	815 ± 82
920310	Milk (pCi/l)		Station 36	Station 37[b]
		I-131	* -0.08 ± 0.097	* -0.012 ± 0.099
		K-40	1250 ± 130	1290 ± 130
		Cs-137	* 1.5 ± 2.3	* 1.8 ± 2.7
920915	Milk (pCi/l)		Station 36	Station 37[b]
		I-131	* -0.034 ± 0.096	* 0.056 ± 0.096
		K-40	1310 ± 130	1480 ± 150
		Cs-137	* 1.7 ± 2.4	* 1.8 ± 2.5
921007	Water (pCi/l)		Station 102	Station 102
		Gr. Alpha	* -0.00 ± 1.55	* 0.38 ± 1.33
		Gr. Beta	48.0 ± 4.0	51.0 ± 4.0
		K-40	* 14.0 ± 32.0	* -65.0 ± 45.0
		Co-60	* 2.2 ± 2.0	* 0.7 ± 2.1

*Less than detection limits

(a) Two EMLA intercomparison filters were sent to Teledyne for analyses on different days.
(b) Station 37 is the designation used for the duplicate of Station 36
(c) SWTF is the Sanitary Waste Treatment Facility.

TABLE 6-5

SUMMARY OF 1992 QUALITY CONTROL DATA: BLANKS

NUCLIDE	MEDIUM	SAMPLES NUMBER		AVERAGE BLANK	UNITS
I-131	Milk	53	(a)	3.9 ± 5.1 E-02	pCi/l
		20	(a)	2.6 ± 5.3 E-01	pCi/l
Sr-90	Milk	24	(d)	1.4 ± 0.5 E+00	pCi/l
Sr-90	Water	53	(a)	1.5 ± 2.2 E-01	pCi/l
H-3 (Gas Counting)	Water	36	(a)	-5.0 ± 7.8 E-01	pCi/l
H-3 (LS Counting)	Water	53	(a)	3.2 ± 3.0 E 02	pCi/l
Gross Beta	Water	53	(a)	2.7 ± 1.7 E-01	pCi/l
Gamma	Water	37		*	pCi/l
Gross Beta	AP Filter	53	(c)(b)	9.3 ± 1.8 E-01	Total pCi
I-131	Charcoal	53	(a)(b)	6.4 ± 7.9 E-01	Total pCi

*All nuclides less than minimum detection level.

(a) This average is calculated from the Supply System quality control samples, without considering detection limits.

(b) The in-house weekly quality control blanks for AP filters and charcoals are calculated in total pCi.

(c) This average includes only the blank AP filters analyzed for the Supply System. A blank planchet (counter background) and a blank filter are counted with each set of filters analyzed (approximately 10 sets per week).

(d) This is the natural Sr-90 content in milk.

TABLE 6-6

SUMMARY OF 1992 QUALITY CONTROL DATA: SPIKES

NUCLIDE	MEDIUM	SPIKED SAMPLES NUMBER	AVERAGE RESULT (pCi/l)	AVERAGE SPIKE LEVEL (pCi/l)
Gross Beta	Water	53	2.2 ± 1.7 E+01	2.2 ± 0.5 E+01
H-3 (Gas Counting)	Water	37	1.4 ± 0.1 E+03	1.5 ± 0.2 E+03
H-3 (LS Counting)	Water	53	1.4 ± 0.1 E+04	1.5 ± 0.2 E+04
Sr-90	Water	53	3.7 ± 0.2 E+01	4.0 ± 0.6 E+01
Sr-90	Milk	23	3.6 ± 0.4 E+01	4.0 ± 0.6 E+01
Gamma	Water	53	1.44 ± 0.02 E+05	1.4 ± 0.2 E+05

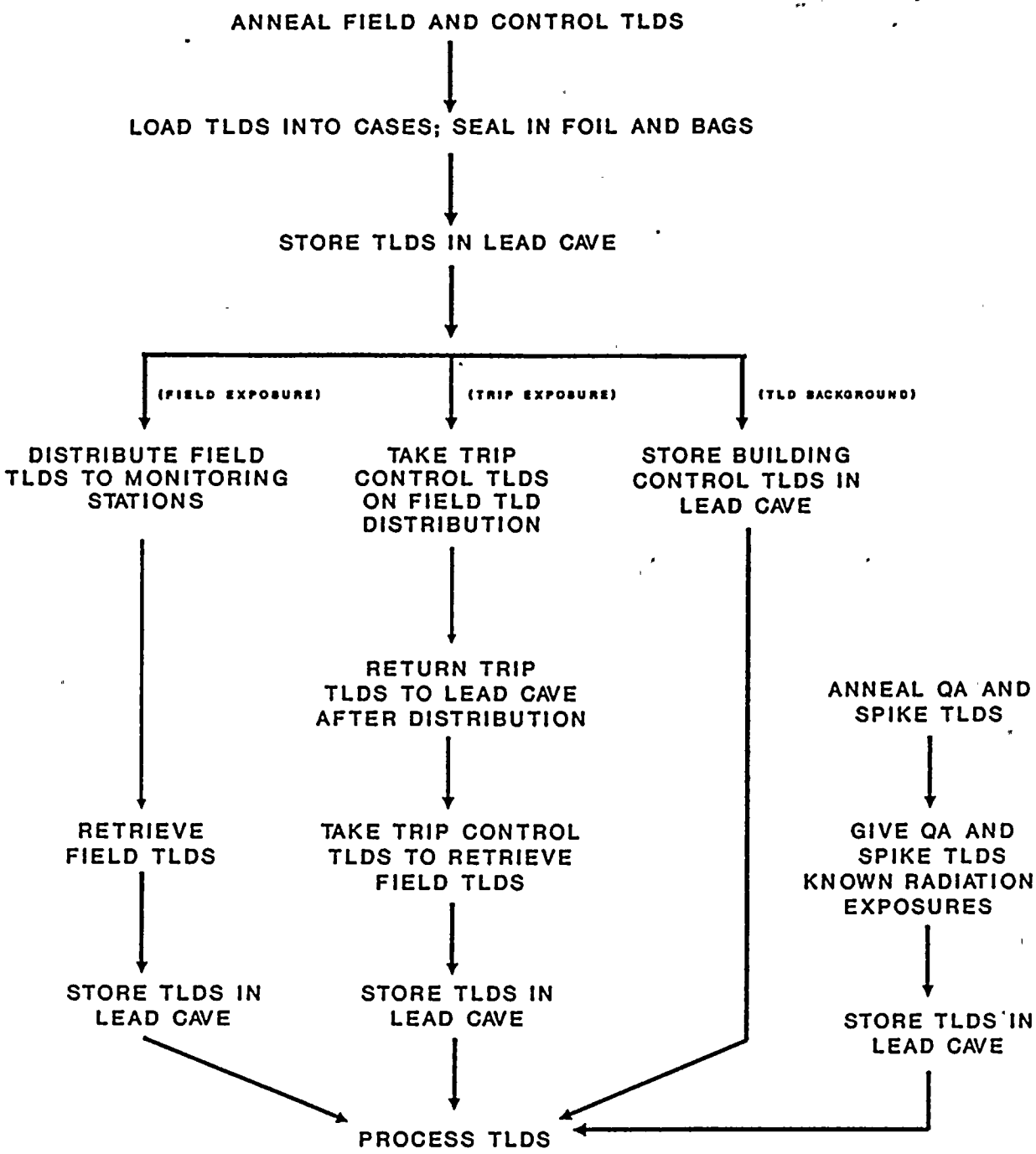


FIGURE 6-1
SUPPLY SYSTEM ENVIRONMENTAL TLD PREPARATION - USE CYCLE

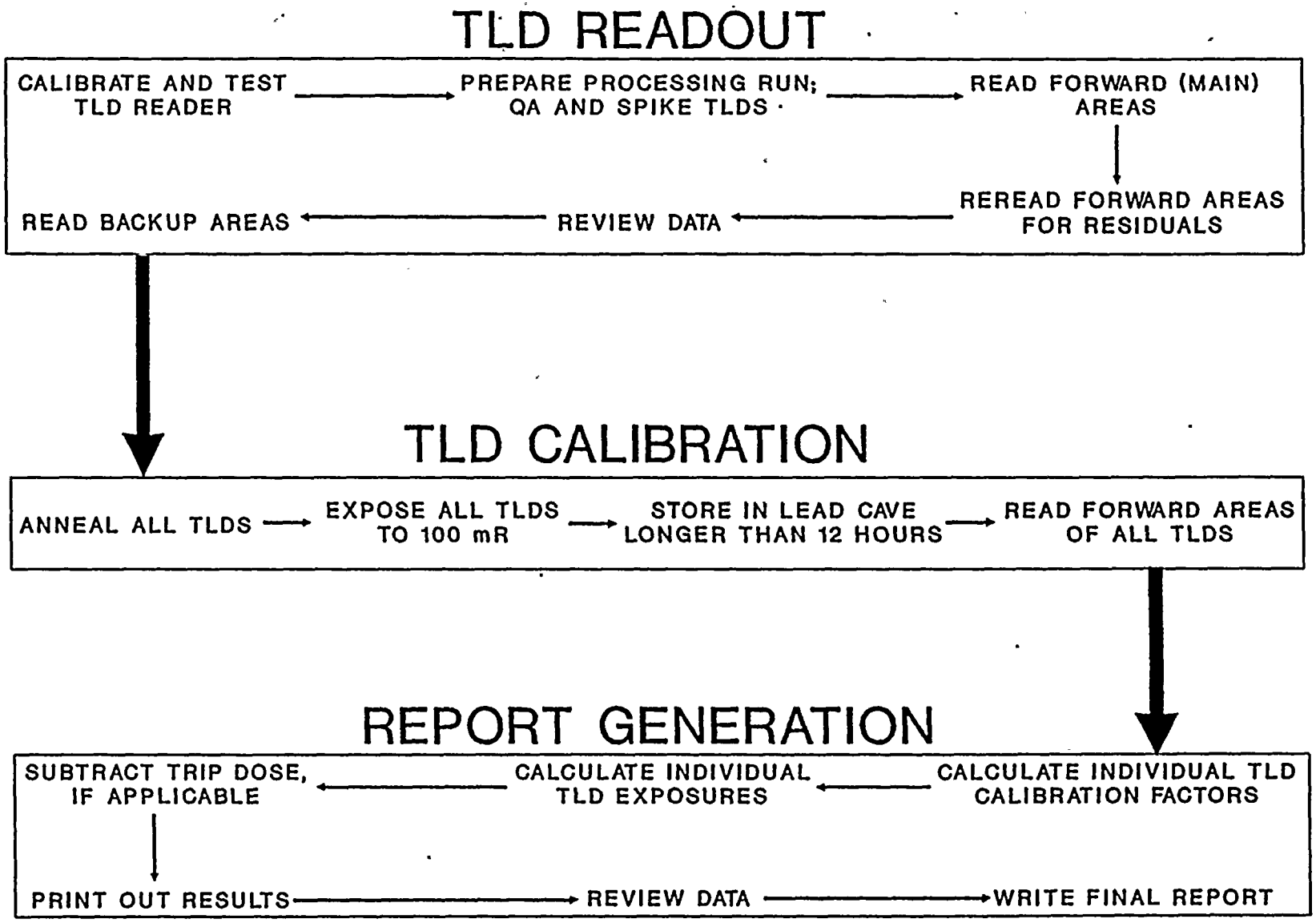


FIGURE 6-2
SUPPLY SYSTEM TLD EVALUATION

7.0 REFERENCES

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2. U.S. Nuclear Regulatory Commission, "Environmental Technical Specifications For Nuclear Power Plants," Regulatory Guide 4.8, December 1975.

3. U.S. Nuclear Regulatory Commission, "An Acceptable Radiological Environmental Monitoring Program," Assessment Branch Technical Position; Revision 1, November 1979.

4. U.S. Nuclear Regulatory Commission, "Quality Assurance For Radiological Environmental Monitoring Program (Normal Operations), Effluent Streams and the Environment," Regulatory Guide 4.15, Revision 1, February 1979.

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6. Energy Facility Site Evaluation Council Resolution No. 260, January 1992.

7. Washington Public Power Supply System Nuclear Plant No. 2, Operating License NSF-21, Technical Specifications 3/4.12.1, Table 3.13.1.

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9. Code of Federal Regulations, Title 10 Part 20, Standards For Protection Against Radiation.

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11. Washington Administrative Code 246-290, Public Water Supplies, 1992.

12. Washington Administrative Code 173-200, Water Quality Standards for Ground Water of the State of Washington

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14. "Teledyne Isotopes TLD System For Personnel and Environmental Monitoring," Teledyne Isotopes, Westwood, New Jersey, February 2, 1981.

15. Washington Public Power Supply System, Radiological Environmental Monitoring Program Annual Report Plant 2, 1985, April 1986.

16. Robertson, D. E., and J. J. Fix, Association of Hanford Origin Radionuclides With Columbia River Sediment, BNWL-2305, August 1977.

17. Energy Facility Site Evaluation Council Resolution 259, November 1991.

TABLE A-1.1

1992 QUARTERLY TLD RESULTS

Results in mR/day

LOCATION	COLLECTION PERIOD	RESULT	UNCERTAINTY 2σ
1	911226 to 920326	0.26	0.01
	920326 to 920625	0.25	0.00
	920625 to 920924	0.27	0.01
	920924 to 921230	0.25	0.01
2	911226 to 920326	0.26	0.01
	920326 to 920625	0.25	0.01
	920625 to 920924	0.26	0.01
	920924 to 921230	0.26	0.04
3	911226 to 920326	0.25	0.01
	920326 to 920625	0.24	0.01
	920625 to 920924	0.25	0.01
	920924 to 921230	0.24	0.01
4	911226 to 920326	0.24	0.01
	920326 to 920625	0.23	0.01
	920625 to 920924	0.24	0.01
	920924 to 921230	0.23	0.01
5	911226 to 920326	0.24	0.01
	920326 to 920625	0.24	0.00
	920625 to 920924	0.24	0.01
	920925 to 930104	0.23	0.00
6	911226 to 920326	0.25	0.00
	920326 to 920625	0.24	0.01
	920625 to 920924	0.24	0.01
	920924 to 921230	0.24	0.01
7	911226 to 920326	0.25	0.01
	920326 to 920625	0.25	0.01
	920625 to 920924	0.26	0.01
	920924 to 921230	0.25	0.01
8	911226 to 920326	0.28	0.01
	920326 to 920625	0.28	0.02
	920625 to 920924	0.29	0.01
	920925 to 930104	0.28	0.01

TABLE A-1.1 (Cont.)

1992 QUARTERLY TLD RESULTS

Results in mR/day

LOCATION	COLLECTION PERIOD	RESULT	UNCERTAINTY 2σ
9A	911226 to 920326	0.24	0.00
	920326 to 920625	0.23	0.01
	920625 to 920924	0.24	0.00
	920925 to 930104	0.23	0.01
10	911226 to 920326	0.25	0.01
	920326 to 920625	0.25	0.01
	920625 to 920924	0.25	0.01
	920924 to 921230	0.25	0.02
11	911226 to 920326	0.26	0.01
	920326 to 920625	0.25	0.01
	920625 to 920924	0.26	0.00
	920924 to 921230	0.25	0.01
12	911226 to 920326	0.27	0.01
	920326 to 920625	0.27	0.01
	920625 to 920924	0.28	0.01
	920924 to 921230	0.27	0.01
13	911226 to 920326	0.25	0.00
	920326 to 920625	0.26	0.01
	920625 to 920924	0.25	0.00
	920924 to 921230	0.25	0.01
14	911226 to 920326	0.26	0.01
	920326 to 920625	0.25	0.01
	920625 to 920924	0.26	0.01
	920924 to 921230	0.25	0.00
15	911226 to 920326	0.28	0.01
	920326 to 920625	0.26	0.01
	920625 to 920924	0.27	0.01
	920924 to 921230	0.26	0.01
16	911226 to 920326	0.26	0.01
	920326 to 920625	0.25	0.02
	920625 to 920924	0.26	0.01
	920924 to 921230	0.26	0.02

TABLE A-1.1 (Cont.)

1992 QUARTERLY TLD RESULTS

Results in mR/day

LOCATION	COLLECTION PERIOD	RESULT	UNCERTAINTY 2σ
17	911226 to 920326	0.26	0.01
	920326 to 920625	0.26	0.00
	920625 to 920924	0.27	0.01
	920924 to 921230	0.26	0.01
18	911226 to 920326	0.26	0.01
	920326 to 920625	0.26	0.01
	920625 to 920924	0.26	0.01
	920924 to 921230	0.25	0.01
19	911226 to 920326	0.26	0.02
	920326 to 920625	0.25	0.01
	920625 to 920924	0.25	0.01
	920924 to 921230	0.26	0.01
20	911226 to 920326	0.26	0.01
	920326 to 920625	0.26	0.00
	920625 to 920924	0.26	0.01
	920924 to 921230	0.25	0.01
21	911226 to 920326	0.24	0.00
	920326 to 920625	0.23	0.01
	920625 to 920924	0.24	0.01
	920924 to 921230	0.23	0.01
22	911226 to 920326	0.26	0.01
	920326 to 920625	0.25	0.01
	920625 to 920924	0.26	0.01
	920924 to 921230	0.25	0.01
23	911226 to 920326	0.25	0.00
	920326 to 920625	0.25	0.01
	920625 to 920924	0.25	0.00
	920924 to 921230	0.25	0.00
24	911226 to 920326	0.26	0.01
	920326 to 920625	0.26	0.01
	920625 to 920924	0.26	0.00
	920924 to 921230	0.26	0.01

TABLE A-1.1 (Cont.)

1992 QUARTERLY TLD RESULTS

Results in mR/day

LOCATION	COLLECTION PERIOD	RESULT	UNCERTAINTY 2σ
25	911226 to 920326	0.27	0.01
	920326 to 920625	0.27	0.01
	920625 to 920924	0.27	0.01
	920924 to 921230	0.26	0.01
40	911226 to 920326	0.23	0.01
	920326 to 920625	0.23	0.01
	920625 to 920924	0.23	0.01
	920925 to 930104	0.22	0.01
41	911226 to 920326	0.28	0.01
	920326 to 920625	0.27	0.01
	920625 to 920924	0.27	0.00
	920925 to 930104	0.26	0.01
42	911226 to 920326	0.27	0.01
	920326 to 920625	0.27	0.01
	920625 to 920924	0.27	0.01
	920925 to 930104	0.25	0.01
43	911226 to 920326	0.27	0.00
	920326 to 920625	0.27	0.01
	920625 to 920924	0.27	0.00
	920925 to 930104	0.27	0.01
44	911226 to 920326	0.25	0.01
	920326 to 920625	0.25	0.01
	920625 to 920924	0.25	0.01
	920925 to 930104	0.25	0.00
45	911226 to 920326	0.25	0.00
	920326 to 920625	0.24	0.01
	920625 to 920924	0.26	0.01
	920925 to 930104	0.25	0.01
46	911226 to 920326	0.31	0.00
	920326 to 920625 (a)		
	920625 to 920924	0.32	0.01
	920925 to 930104	0.31	0.01

(a) TLD missing.

TABLE A-1.1 (Cont.)

1992 QUARTERLY TLD RESULTS

Results in mR/day

LOCATION	COLLECTION PERIOD	RESULT	UNCERTAINTY - 2σ
47	911226 to 920326	0.25	0.01
	920326 to 920625	0.23	0.02
	920625 to 920924	0.24	0.01
	920924 to 921230	0.24	0.01
49	911226 to 920326	0.26	0.01
	920326 to 920625	0.25	0.01
	920625 to 920924	0.26	0.00
	920924 to 921230	0.25	0.01
50	911226 to 920326	0.26	0.01
	920326 to 920625	0.25	0.01
	920625 to 920924	0.25	0.01
	920924 to 921230	0.25	0.01
51	911226 to 920326	0.25	0.01
	920327 to 920626	0.25	0.01
	920625 to 920924	0.26	0.02
	920924 to 921230	0.25	0.01
53	911226 to 920326	0.28	0.01
	920326 to 920625	0.32	0.06
	920625 to 920924 (a)		
	920925 to 930104	0.26	0.01
54	911226 to 920326	0.27	0.02
	920326 to 920625	0.26	0.01
	920625 to 920924 (b)	0.26	0.01
	920925 to 930104	0.25	0.01
55	911226 to 920326	0.25	0.01
	920326 to 920625	0.25	0.01
	920625 to 920924	0.26	0.01
	920924 to 921230	0.25	0.01
56	911226 to 920326	0.26	0.00
	920326 to 920625	0.25	0.01
	920625 to 920924	0.26	0.01
	920924 to 921230	0.25	0.00

(a) TLD missing.
(b) TLD left in office for two weeks before processing.

TABLE A-1.1 (Cont.)

1992 QUARTERLY TLD RESULTS

Results in mR/day

LOCATION	COLLECTION PERIOD	RESULT	UNCERTAINTY 2σ
61	911226 to 920326	0.27	0.01
	920326 to 920625	0.27	0.01
	920625 to 920924 (a)		
	920924 to 921230 (a)		
71	911226 to 920326	0.30	0.01
	920326 to 920625	0.27	0.01
	920625 to 920924	0.28	0.00
	920924 to 921230	0.30	0.01
72	911226 to 920326	0.29	0.01
	920326 to 920625	0.27	0.01
	920625 to 920924	0.27	0.01
	920924 to 921230	0.29	0.01
73	911226 to 920326	0.26	0.00
	920326 to 920625	0.24	0.01
	920625 to 920924	0.25	0.01
	920924 to 921230	0.25	0.01
74	911226 to 920326	0.28	0.01
	920326 to 920625	0.26	0.01
	920625 to 920924	0.28	0.01
	920924 to 921230	0.28	0.01
75	911226 to 920326	0.27	0.01
	920326 to 920625	0.25	0.01
	920625 to 920924	0.26	0.00
	920924 to 921230	0.26	0.01
76	911226 to 920326	0.26	0.01
	920326 to 920625	0.25	0.01
	920625 to 920924	0.25	0.01
	920924 to 921230	0.25	0.01
77	911226 to 920326	0.27	0.00
	920326 to 920625	0.26	0.01
	920625 to 920924	0.26	0.01
	920924 to 921230	0.26	0.01

(a) Station dropped from the program 06/29/92.

TABLE A-1.1 (Cont.)

1992 QUARTERLY TLD RESULTS

Results in mR/day

LOCATION	COLLECTION PERIOD	RESULT	UNCERTAINTY 2σ
78	911226 to 920326	0.25	0.01
	920326 to 920625	0.25	0.01
	920625 to 920924	0.26	0.01
	920924 to 921230	0.25	0.01
79	911226 to 920326	0.26	0.01
	920326 to 920625	0.26	0.01
	920625 to 920924	0.27	0.01
	920924 to 921230	0.26	0.00
80	911226 to 920326	0.25	0.01
	920326 to 920625	0.25	0.00
	920625 to 920924	0.25	0.01
	920924 to 921230	0.25	0.01
81	911226 to 920326	0.26	0.00
	920326 to 920625	0.25	0.01
	920625 to 920924	0.26	0.01
	920924 to 921230	0.25	0.00
82	911226 to 920326	0.27	0.01
	920326 to 920625	0.26	0.01
	920625 to 920924	0.27	0.00
	920924 to 921230	0.26	0.01
83	911226 to 920326	0.27	0.01
	920326 to 920625	0.26	0.01
	920625 to 920924	0.27	0.01
	920924 to 921230	0.27	0.01
84	911226 to 920326	0.26	0.01
	920326 to 920625	0.25	0.01
	920625 to 920924	0.26	0.01
	920924 to 921230	0.26	0.01
85	911226 to 920326	0.27	0.01
	920326 to 920625	0.26	0.01
	920625 to 920924	0.27	0.01
	920924 to 921230	0.28	0.01

TABLE A-1.1 (Cont.)

1992 QUARTERLY TLD RESULTS

Results in mR/day

LOCATION	COLLECTION PERIOD	RESULT	UNCERTAINTY 2σ
86	911226 to 920326	0.30	0.02
	920326 to 920625	0.27	0.01
	920625 to 920924	0.28	0.01
	920924 to 921230	0.31	0.01

TABLE A-1.2

1992 ANNUAL TLD RESULTS

Results in mR/day

LOCATION	COLLECTION PERIOD	RESULT	UNCERTAINTY 2σ
1	911229 to 921230	0.24	0.01
2	911229 to 921230	0.24	0.01
3	911229 to 921230	0.23	0.01
4	911229 to 921230	0.21	0.01
5	911227 to 930104	0.22	0.00
6	911229 to 921230	0.23	0.01
7	911229 to 921230	0.24	0.01
8	911227 to 930104	0.26	0.01
9A	911227 to 930104	0.22	0.01
10	911229 to 921230	0.23	0.01
11	911229 to 921230	0.24	0.01
12	911229 to 921230	0.26	0.01
13	911229 to 921230	0.24	0.01
14	911229 to 921230	0.23	0.01
15	911229 to 921230	0.26	0.01
16	911229 to 921230	0.25	0.01
17	911229 to 921230	0.25	0.01
18	911229 to 921230	0.24	0.01
19	911229 to 921230	0.24	0.01
20	911229 to 921230	0.23	0.01
21	911229 to 921230	0.22	0.01
22	911229 to 921230	0.24	0.01
23	911229 to 921230	0.23	0.01
24	911229 to 921230	0.24	0.01
25	911229 to 921230	0.25	0.01
40	911227 to 930104	0.21	0.00
41	911227 to 930104	0.25	0.01
42	911227 to 930104	0.25	0.00
43	911227 to 930104	0.25	0.01

TABLE A-1.2

1992 ANNUAL TLD RESULTS

Results in mR/day

LOCATION	COLLECTION PERIOD	RESULT	UNCERTAINTY 2σ
44	911227 to 930104	0.23	0.01
45	911227 to 930103	0.23	0.01
46	911229 to 921230 (a)		
47	911229 to 921230	0.23	0.01
49	911229 to 921230	0.24	0.01
50	911229 to 921230	0.24	0.00
51	911229 to 921230	0.23	0.01
53	911227 to 930104	0.23	0.01
54	911227 to 930104	0.23	0.01
55	911229 to 921230	0.23	0.01
56	911229 to 921230	0.24	0.01
61	911227 to 920629 (b)	0.26	0.01
71	911229 to 921230	0.27	0.01
72	911229 to 921230	0.27	0.01
73	911229 to 921230	0.23	0.01
74	911229 to 921230	0.26	0.01
75	911229 to 921230	0.24	0.01
76	911229 to 921230	0.24	0.01
77	911229 to 921230	0.24	0.01
78	911229 to 921230	0.23	0.00
79	911229 to 921230	0.24	0.01
80	911229 to 921230	0.23	0.01
81	911229 to 921230	0.24	0.00
82	911229 to 921230	0.24	0.01
83	911229 to 921230	0.24	0.01
84	911229 to 921230	0.25	0.01
85	911229 to 921230	0.26	0.01
86	911229 to 921230	0.27	0.01

(a) TLD missing.
(b) Station dropped from the program 06/29/92.

TABLE A-1.3

1992 TLD RESULTS - SUMMARY

Results in mR/day

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
			QUARTERLY TLD RESULTS			
TLD	(I)	0.26	0.22	0.32	220	220
TLD	(C)	0.24	0.23	0.24	4	4
			ANNUAL TLD RESULTS			
TLD	(I)	0.24	0.21	0.27	56	56
TLD	(C)	0.22	0.22	0.22	1	1

(I) Indicator Station only.

TABLE A-2.1

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
1	911230 to 920106	3.3 E-02	3.0 E-03
	920106 to 920113	2.4 E-02	3.0 E-03
	920113 to 920120	2.0 E-02	3.0 E-03
	920120 to 920127	1.5 E-02	2.0 E-03
	920127 to 920203	1.1 E-02	2.0 E-03
	920203 to 920210	3.6 E-02	3.0 E-03
	920210 to 920218	2.7 E-02	2.0 E-03
	920218 to 920224	8.3 E-03	2.4 E-03
	920224 to 920302	1.2 E-02	2.0 E-03
	920302 to 920309 (a)	2.0 E-02	6.0 E-03
	920309 to 920316	2.9 E-02	3.0 E-03
	920316 to 920323	1.3 E-02	2.0 E-03
	920323 to 920330	2.1 E-02	2.0 E-03
	920330 to 920406	1.6 E-02	2.0 E-03
	920406 to 920413	1.3 E-02	2.0 E-03
	920413 to 920420	6.8 E-03	1.9 E-03
	920420 to 920427	1.2 E-02	2.0 E-03
	920427 to 920504	1.1 E-02	2.0 E-03
	920504 to 920511	2.1 E-02	2.0 E-03
	920511 to 920518	1.8 E-02	2.0 E-03
	920518 to 920526	1.7 E-02	2.0 E-03
	920526 to 920601	1.3 E-02	2.0 E-03
	920601 to 920608	1.3 E-02	2.0 E-03
	920608 to 920615	7.4 E-03	2.0 E-03
	920615 to 920622	1.2 E-02	2.0 E-03
	920622 to 920629	1.8 E-02	3.0 E-03
	920629 to 920706	7.5 E-03	1.8 E-03
	920706 to 920713	1.0 E-02	2.0 E-03
	920713 to 920720	1.3 E-02	2.0 E-03
	920720 to 920727	1.1 E-02	2.0 E-03
	920727 to 920803	1.6 E-02	2.0 E-03
	920803 to 920810	1.1 E-02	2.0 E-03
	920810 to 920817	1.4 E-02	2.0 E-03
	920817 to 920824	1.5 E-02	2.0 E-03
	920824 to 920831	2.0 E-02	2.0 E-03
	920831 to 920908	1.2 E-02	2.0 E-03
	920908 to 920914	1.4 E-02	3.0 E-03
	920914 to 920921	1.2 E-02	2.0 E-03
	920921 to 920928	9.3 E-03	2.0 E-03

(a) Unit failure; not included in averages.

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
1	920928 to 921005	2.7 E-02	3.0 E-03
	921005 to 921012	2.1 E-02	2.0 E-03
	921012 to 921019	1.9 E-02	2.0 E-03
	921019 to 921026	1.7 E-02	2.0 E-03
	921026 to 921102	1.6 E-02	2.0 E-03
	921102 to 921109	1.2 E-02	2.0 E-03
	921109 to 921116	1.6 E-02	2.0 E-03
	921116 to 921123	1.8 E-02	2.0 E-03
	921123 to 921130	4.2 E-02	3.0 E-03
	921130 to 921207	2.8 E-02	3.0 E-03
	921207 to 921214	2.6 E-02	3.0 E-03
	921214 to 921221	1.7 E-02	2.0 E-03
	921221 to 921228	5.8 E-03	1.7 E-03

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
4	911230 to 920106	3.2 E-02	3.0 E-03
	920106 to 920113	2.2 E-02	3.0 E-03
	920113 to 920120	2.1 E-02	3.0 E-03
	920120 to 920127	1.5 E-02	2.0 E-03
	920127 to 920203	1.2 E-02	2.0 E-03
	920203 to 920210	3.7 E-02	3.0 E-03
	920210 to 920218	2.3 E-02	2.0 E-03
	920218 to 920224	8.4 E-03	2.4 E-03
	920224 to 920302	1.3 E-02	2.0 E-03
	920302 to 920309	1.7 E-02	2.0 E-03
	820309 to 920316	2.7 E-02	3.0 E-03
	920316 to 920323	1.6 E-02	2.0 E-03
	920323 to 920330	2.4 E-02	3.0 E-03
	920330 to 920406	1.5 E-02	2.0 E-03
	920406 to 920413	1.1 E-02	2.0 E-03
	920413 to 920420	5.3 E-03	1.8 E-03
	920420 to 920427	1.3 E-02	2.0 E-03
	920427 to 920504	1.1 E-02	2.0 E-03
	920504 to 920511	2.2 E-02	2.0 E-03
	920511 to 920518	1.6 E-02	2.0 E-03
	920518 to 920526	1.8 E-02	2.0 E-03
	920526 to 920601	1.1 E-02	2.0 E-03
	920601 to 920608	1.2 E-02	2.0 E-03
	920608 to 920615	7.8 E-03	2.0 E-03
	920615 to 920622	1.1 E-02	2.0 E-03
	920622 to 920629	2.2 E-02	3.0 E-03
	920629 to 920706	9.0 E-03	1.9 E-03
	920706 to 920713	1.1 E-02	2.0 E-03
	920713 to 920720	1.7 E-02	2.0 E-03
	920720 to 920727	1.2 E-02	2.0 E-03
	920727 to 920803	1.9 E-02	2.0 E-03
	920803 to 920810	1.1 E-02	2.0 E-03
	920810 to 920817	2.1 E-02	3.0 E-03
	920817 to 920824	1.7 E-02	2.0 E-03
	920824 to 920831	2.3 E-02	3.0 E-03
	920831 to 920908	1.2 E-02	2.0 E-03
	920908 to 920914	1.8 E-02	3.0 E-03
	920914 to 920921	1.2 E-02	2.0 E-03
	920921 to 920928	1.2 E-02	2.0 E-03

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
4	920928 to 921005	2.4 E-02	3.0 E-03
	921005 to 921012	2.2 E-02	2.0 E-03
	921012 to 921019	2.3 E-02	3.0 E-03
	921019 to 921026	1.9 E-02	2.0 E-03
	921026 to 921102	1.6 E-02	2.0 E-03
	921102 to 921109	1.0 E-02	2.0 E-03
	921109 to 921116	1.9 E-02	2.0 E-03
	921116 to 921123	1.9 E-02	2.0 E-03
	921123 to 921130	4.4 E-02	3.0 E-03
	921130 to 921207	2.7 E-02	3.0 E-03
	921207 to 921214	2.3 E-02	2.0 E-03
	921214 to 921221	1.8 E-02	2.0 E-03
	921221 to 921228	6.5 E-03	1.7 E-03

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
5	911230 to 920106	2.9 E-02	3.0 E-03
	920106 to 920113	2.2 E-02	3.0 E-03
	920113 to 920120	1.9 E-02	3.0 E-03
	920120 to 920127	1.4 E-02	2.0 E-03
	920127 to 920203 (a)	1.1 E-02	3.0 E-03
	920203 to 920210	3.1 E-02	3.0 E-03
	920210 to 920218	2.1 E-02	2.0 E-03
	920218 to 920224	7.1 E-03	2.3 E-03
	920224 to 920302	1.0 E-02	2.0 E-03
	920302 to 920309	1.1 E-02	2.0 E-03
	920309 to 920316	2.3 E-02	3.0 E-03
	920316 to 920323	9.9 E-03	2.1 E-03
	920323 to 920330	1.9 E-02	2.0 E-03
	920330 to 920406	1.3 E-02	2.0 E-03
	920406 to 920413	8.7 E-03	1.9 E-03
	920413 to 920420	5.0 E-03	1.8 E-03
	920420 to 920427	1.1 E-02	2.0 E-03
	920427 to 920504	1.1 E-02	2.0 E-03
	920504 to 920511	1.6 E-02	2.0 E-03
	920511 to 920518	1.3 E-02	2.0 E-03
	920518 to 920526	1.4 E-02	2.0 E-03
	920526 to 920601	8.9 E-03	2.1 E-03
	920601 to 920608	1.2 E-02	2.0 E-03
	920608 to 920615	7.0 E-03	2.0 E-03
	920615 to 920622 (a)	1.1 E-02	3.0 E-03
	920622 to 920629	1.7 E-02	3.0 E-03
	920629 to 920706	8.1 E-03	1.8 E-03
	920706 to 920713 (b)	2.7 E-03	1.5 E-03
	920713 to 920720	1.4 E-02	2.0 E-03
	920720 to 920727	1.0 E-02	2.0 E-03
	920727 to 920803	1.5 E-02	2.0 E-03
	920803 to 920810	1.1 E-02	2.0 E-03
	920810 to 920817	1.7 E-02	3.0 E-03
	920817 to 920824	1.4 E-02	2.0 E-03
	920824 to 920831	1.8 E-02	2.0 E-03
	920831 to 920908	1.1 E-02	2.0 E-03
	920908 to 920914	1.5 E-02	3.0 E-03
	920914 to 920921	1.1 E-02	2.0 E-03
	920921 to 920928	8.8 E-03	2.0 E-03

(a) Unit failure; reduced sampling time.
(b) Unit failure; not included in averages.

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
5	920928 to 921005	2.5 E-02	3.0 E-03
	921005 to 921012	1.7 E-02	2.0 E-03
	921012 to 921019	1.6 E-02	2.0 E-03
	921019 to 921026	1.5 E-02	2.0 E-03
	921026 to 921102	1.6 E-02	2.0 E-03
	921102 to 921109	8.3 E-03	1.8 E-03
	921109 to 921116	1.6 E-02	2.0 E-03
	921116 to 921123	1.4 E-02	2.0 E-03
	921123 to 921130	3.9 E-02	3.0 E-03
	921130 to 921207	2.6 E-02	3.0 E-03
	921207 to 921214	2.1 E-02	2.0 E-03
	921214 to 921221	1.5 E-02	2.0 E-03
	921221 to 921228	4.2 E-03	1.6 E-03

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
6	911230 to 920106	3.4 E-02	3.0 E-03
	920106 to 920113	2.4 E-02	3.0 E-03
	920113 to 920120	2.0 E-02	3.0 E-03
	920120 to 920127	1.4 E-02	2.0 E-03
	920127 to 920203	1.1 E-02	2.0 E-03
	920203 to 920210	2.7 E-02	2.0 E-03
	920210 to 920218	2.5 E-02	2.0 E-03
	920218 to 920224	1.0 E-02	2.0 E-03
	920224 to 920302	9.9 E-03	2.0 E-03
	920302 to 920309	1.3 E-02	2.0 E-03
	920309 to 920316	2.9 E-02	3.0 E-03
	920316 to 920323	1.4 E-02	2.0 E-03
	920323 to 920330	2.3 E-02	3.0 E-03
	920330 to 920406	1.8 E-02	2.0 E-03
	920406 to 920413	1.3 E-02	2.0 E-03
	920413 to 920420	5.9 E-03	1.9 E-03
	920420 to 920427	1.2 E-02	2.0 E-03
	920427 to 920504	1.1 E-02	2.0 E-03
	920504 to 920511	1.9 E-02	2.0 E-03
	920511 to 920518	1.4 E-02	2.0 E-03
	920518 to 920526	1.5 E-02	2.0 E-03
	920526 to 920601	9.9 E-03	2.1 E-03
	920601 to 920608	1.2 E-02	2.0 E-03
	920608 to 920615	6.2 E-03	1.9 E-03
	920615 to 920622	1.0 E-02	2.0 E-03
	920622 to 920629	2.0 E-02	3.0 E-03
	920629 to 920706	8.6 E-03	1.8 E-03
	920706 to 920713	9.3 E-03	2.0 E-03
	920713 to 920720	1.3 E-02	2.0 E-03
	920720 to 920727	9.9 E-03	1.9 E-03
	920727 to 920803	1.5 E-02	2.0 E-03
	920803 to 920810	7.2 E-03	1.9 E-03
	920810 to 920817	1.4 E-02	2.0 E-03
	920817 to 920824	1.6 E-02	2.0 E-03
	920824 to 920831	1.7 E-02	2.0 E-03
	920831 to 920908	9.6 E-03	1.7 E-03
	920908 to 920914	1.5 E-02	3.0 E-03
	920914 to 920921	1.1 E-02	2.0 E-03
	920921 to 920928	9.7 E-03	2.0 E-03

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
6	920928 to 921005	2.5 E-02	3.0 E-03
	921005 to 921012	2.0 E-02	2.0 E-03
	921012 to 921019	1.6 E-02	2.0 E-03
	921019 to 921026	1.7 E-02	2.0 E-03
	921026 to 921102	1.6 E-02	2.0 E-03
	921102 to 921109	1.0 E-02	2.0 E-03
	921109 to 921116	1.7 E-02	2.0 E-03
	921116 to 921123	1.4 E-02	2.0 E-03
	921123 to 921130	4.1 E-02	3.0 E-03
	921130 to 921207	2.6 E-02	3.0 E-03
	921207 to 921214	2.3 E-02	3.0 E-03
	921214 to 921221	1.5 E-02	2.0 E-03
	921221 to 921228	5.6 E-03	1.7 E-03

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
7	911230 to 920106	3.9 E-02	3.0 E-03
	920106 to 920113	3.0 E-02	3.0 E-03
	920113 to 920120	2.1 E-02	3.0 E-03
	920120 to 920127	1.6 E-02	2.0 E-03
	920127 to 920203	1.3 E-02	2.0 E-03
	920203 to 920210	3.6 E-02	3.0 E-03
	920210 to 920218	2.9 E-02	3.0 E-03
	920218 to 920224	8.4 E-03	2.4 E-03
	920224 to 920302	1.2 E-02	2.0 E-03
	920302 to 920309	1.5 E-02	2.0 E-03
	920309 to 920316	2.8 E-02	3.0 E-03
	920316 to 920323	1.4 E-02	2.0 E-03
	920323 to 920330	2.2 E-02	3.0 E-03
	920330 to 920406	1.7 E-02	2.0 E-03
	920406 to 920413	1.2 E-02	2.0 E-03
	920413 to 920420	6.8 E-03	1.9 E-03
	920420 to 920427	1.1 E-02	2.0 E-03
	920427 to 920504	1.0 E-02	2.0 E-03
	920504 to 920511	2.0 E-02	2.0 E-03
	920511 to 920518	1.6 E-02	2.0 E-03
	920518 to 920526	1.8 E-02	2.0 E-03
	920526 to 920601	1.3 E-02	2.0 E-03
	920601 to 920608	1.4 E-02	2.0 E-03
	920608 to 920615	8.2 E-03	2.0 E-03
	920615 to 920622	1.2 E-02	2.0 E-03
	920622 to 920629	2.1 E-02	3.0 E-03
	920629 to 920706	7.8 E-03	1.8 E-03
	920706 to 920713	1.1 E-02	2.0 E-03
	920713 to 920720	1.3 E-02	2.0 E-03
	920720 to 920727	9.9 E-03	1.9 E-03
	920727 to 920803	1.8 E-02	2.0 E-03
	920803 to 920810	1.2 E-02	2.0 E-03
	920810 to 920817	1.5 E-02	2.0 E-03
	920817 to 920824	1.6 E-02	2.0 E-03
	920824 to 920831	1.8 E-02	2.0 E-03
	920831 to 920908	1.2 E-02	2.0 E-03
	920908 to 920914	1.6 E-02	3.0 E-03
	920914 to 920921	1.2 E-02	2.0 E-03
	920921 to 920928	9.8 E-03	2.0 E-03

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
7	920928 to 921005	2.3 E-02	3.0 E-03
	921005 to 921012	2.0 E-02	2.0 E-03
	921012 to 921019	2.0 E-02	2.0 E-03
	921019 to 921026	1.7 E-02	2.0 E-03
	921026 to 921102	1.7 E-02	2.0 E-03
	921102 to 921109	1.2 E-02	2.0 E-03
	921109 to 921116	1.7 E-02	2.0 E-03
	921116 to 921123	1.7 E-02	2.0 E-03
	921123 to 921130	4.0 E-02	3.0 E-03
	921130 to 921207	2.6 E-02	3.0 E-03
	921207 to 921214	2.5 E-02	3.0 E-03
	921214 to 921221	1.7 E-02	2.0 E-03
	921221 to 921228	7.1 E-03	1.8 E-03

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
8	911230 to 920106	3.1 E-02	3.0 E-03
	920106 to 920113	2.0 E-02	3.0 E-03
	920113 to 920120	1.7 E-02	2.0 E-03
	920120 to 920127	1.2 E-02	2.0 E-03
	920127 to 920203	7.9 E-03	1.9 E-03
	920203 to 920210	3.4 E-02	3.0 E-03
	920210 to 920218	2.1 E-02	2.0 E-03
	920218 to 920224	8.4 E-03	2.4 E-03
	920224 to 920302	1.0 E-02	2.0 E-03
	920302 to 920309	1.6 E-02	2.0 E-03
	920309 to 920316	2.6 E-02	3.0 E-03
	920316 to 920323	1.1 E-02	2.0 E-03
	920323 to 920330	2.1 E-02	2.0 E-03
	920330 to 920406	1.2 E-02	2.0 E-03
	920406 to 920413	1.4 E-02	2.0 E-03
	920413 to 920420	5.4 E-03	1.9 E-03
	920420 to 920427	1.0 E-02	2.0 E-03
	920427 to 920504	1.0 E-02	2.0 E-03
	920504 to 920511	1.8 E-02	2.0 E-03
	920511 to 920518	1.4 E-02	2.0 E-03
	920518 to 920526	1.5 E-02	2.0 E-03
	920526 to 920601	9.2 E-03	2.1 E-03
	920601 to 920608	1.2 E-02	2.0 E-03
	920608 to 920615	5.9 E-03	1.9 E-03
	920615 to 920622	1.1 E-02	2.0 E-03
	920622 to 920629	1.8 E-02	3.0 E-03
	920629 to 920706	6.9 E-03	1.7 E-03
	920706 to 920713	8.2 E-03	1.9 E-03
	920713 to 920720	1.1 E-02	2.0 E-03
	920720 to 920727	9.6 E-03	1.9 E-03
	920727 to 920803	1.6 E-02	2.0 E-03
	920803 to 920810	9.0 E-03	1.9 E-03
	920810 to 920817	1.4 E-02	2.0 E-03
	920817 to 920824	1.4 E-02	2.0 E-03
	920824 to 920831	1.7 E-02	2.0 E-03
	920831 to 920908	1.0 E-02	2.0 E-03
	920908 to 920914	1.4 E-02	3.0 E-03
	920914 to 920921	1.1 E-02	2.0 E-03
	920921 to 920928 (a)	1.0 E-02	3.0 E-03

(a) Unit failure; reduced sampling time.

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
8	920928 to 921005	2.4 E-02	3.0 E-03
	921005 to 921012	2.0 E-02	2.0 E-03
	921012 to 921019	2.0 E-02	2.0 E-03
	921019 to 921026	1.7 E-02	2.0 E-03
	921026 to 921102	1.7 E-02	2.0 E-03
	921102 to 921109	1.2 E-02	2.0 E-03
	921109 to 921116	1.7 E-02	2.0 E-03
	921116 to 921123	1.7 E-02	2.0 E-03
	921123 to 921130	3.8 E-02	3.0 E-03
	921130 to 921207	2.8 E-02	3.0 E-03
	921207 to 921214	2.3 E-02	2.0 E-03
	921214 to 921221	1.8 E-02	2.0 E-03
	921221 to 921228	5.9 E-03	1.7 E-03

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
9A	911230 to 920106	3.3 E-02	3.0 E-03
	920106 to 920113	2.0 E-02	3.0 E-03
	920113 to 920120	1.8 E-02	2.0 E-03
	920120 to 920127	1.1 E-02	2.0 E-03
	920127 to 920203	8.4 E-03	1.9 E-03
	920203 to 920210	3.0 E-02	3.0 E-03
	920210 to 920218	2.0 E-02	2.0 E-03
	920218 to 920224	6.8 E-03	2.3 E-03
	920224 to 920302	1.1 E-02	2.0 E-03
	920302 to 920309	1.3 E-02	2.0 E-03
	920309 to 920316	2.3 E-02	3.0 E-03
	920316 to 920323	1.4 E-02	2.0 E-03
	920323 to 920330	1.9 E-02	2.0 E-03
	920330 to 920406	1.4 E-02	2.0 E-03
	920406 to 920413	1.3 E-02	2.0 E-03
	920413 to 920420	9.8 E-03	2.1 E-03
	920420 to 920427	1.0 E-02	2.0 E-03
	920427 to 920504	1.1 E-02	2.0 E-03
	920504 to 920511	1.9 E-02	2.0 E-03
	920511 to 920518	1.3 E-02	2.0 E-03
	920518 to 920526	1.6 E-02	2.0 E-03
	920526 to 920601	1.1 E-02	2.0 E-03
	920601 to 920608	1.0 E-02	2.0 E-03
	920608 to 920615	5.5 E-03	1.9 E-03
	920615 to 920622	1.1 E-02	2.0 E-03
	920622 to 920629	1.8 E-02	3.0 E-03
	920629 to 920706	6.2 E-03	1.7 E-03
	920706 to 920713	8.8 E-03	1.9 E-03
	920713 to 920720	1.2 E-02	2.0 E-03
	920720 to 920727	9.6 E-03	1.9 E-03
	920727 to 920803	1.6 E-02	2.0 E-03
	920803 to 920810 (a)	1.1 E-02	3.0 E-03
	920810 to 920817	1.4 E-02	2.0 E-03
	920817 to 920824	1.6 E-02	2.0 E-03
	920824 to 920831	1.6 E-02	2.0 E-03
	920831 to 920908	1.0 E-02	2.0 E-03
	920908 to 920914	1.3 E-02	3.0 E-03
	920914 to 920921	1.1 E-02	2.0 E-03
	920921 to 920928	8.0 E-03	1.9 E-03

(a) Unit failure; reduced sampling time.

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
9A	920928 to 921005	2.2 E-02	3.0 E-03
	921005 to 921012	1.7 E-02	2.0 E-03
	921012 to 921019	1.7 E-02	3.0 E-03
	921019 to 921026	1.3 E-02	2.0 E-03
	921026 to 921102	1.4 E-02	2.0 E-03
	921102 to 921109	9.4 E-03	1.9 E-03
	921109 to 921116	1.5 E-02	2.0 E-03
	921116 to 921123	1.1 E-02	2.0 E-03
	921123 to 921130	3.7 E-02	3.0 E-03
	921130 to 921207	2.1 E-02	2.0 E-03
	921207 to 921214	2.2 E-02	2.0 E-03
	921214 to 921221	1.4 E-02	2.0 E-03
	921221 to 921228	4.4 E-03	1.6 E-03

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
21	911230 to 920106	3.4 E-02	3.0 E-03
	920106 to 920113	1.9 E-02	2.0 E-03
	920113 to 920120	2.2 E-02	3.0 E-03
	920120 to 920127	1.3 E-02	2.0 E-03
	920127 to 920203	1.2 E-02	2.0 E-03
	920203 to 920210	3.1 E-02	3.0 E-03
	920210 to 920218	2.6 E-02	2.0 E-03
	920218 to 920224	8.0 E-03	2.3 E-03
	920224 to 920302	1.1 E-02	2.0 E-03
	920302 to 920309	1.2 E-02	2.0 E-03
	920309 to 920316	2.6 E-02	3.0 E-03
	920316 to 920323	1.2 E-02	2.0 E-03
	920323 to 920330	2.1 E-02	2.0 E-03
	920330 to 920406	1.7 E-02	2.0 E-03
	920406 to 920413	1.2 E-02	2.0 E-03
	920413 to 920420	5.2 E-03	1.8 E-03
	920420 to 920427 (a)	9.4 E-03	2.0 E-03
	920427 to 920504	1.0 E-02	2.0 E-03
	920504 to 920511	1.7 E-02	2.0 E-03
	920511 to 920518	1.4 E-02	2.0 E-03
	920518 to 920526	1.5 E-02	2.0 E-03
	920526 to 920601	9.3 E-03	2.1 E-03
	920601 to 920608	1.1 E-02	2.0 E-03
	920608 to 920615	6.2 E-03	1.9 E-03
	920615 to 920622	1.1 E-02	2.0 E-03
	920622 to 920629	2.2 E-02	3.0 E-03
	920629 to 920706	8.3 E-03	1.8 E-03
	920706 to 920713	8.2 E-03	1.9 E-03
	920713 to 920720	1.4 E-02	2.0 E-03
	920720 to 920727	1.0 E-02	2.0 E-03
	920727 to 920803	1.5 E-02	2.0 E-03
	920803 to 920810	9.9 E-03	2.0 E-03
	920810 to 920817	1.2 E-02	2.0 E-03
	920817 to 920824	1.4 E-02	2.0 E-03
	920824 to 920831	2.0 E-02	2.0 E-03
	920831 to 920908	9.0 E-03	1.7 E-03
	920908 to 920914	1.1 E-02	3.0 E-03
	920914 to 920921	8.7 E-03	2.0 E-03
	920921 to 920928	9.8 E-03	2.0 E-03

(a) Unit failure; reduced sampling time.

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
21	920928 to 921005	2.2 E-02	3.0 E-03
	921005 to 921012	1.7 E-02	2.0 E-03
	921012 to 921019	1.8 E-02	2.0 E-03
	921019 to 921026	1.9 E-02	2.0 E-03
	921026 to 921102	1.5 E-02	2.0 E-03
	921102 to 921109	1.2 E-02	2.0 E-03
	921109 to 921116	1.5 E-02	2.0 E-03
	921116 to 921123	1.6 E-02	2.0 E-03
	921123 to 921130	3.5 E-02	3.0 E-03
	921130 to 921207	2.6 E-02	3.0 E-03
	921207 to 921214	2.4 E-02	3.0 E-03
	921214 to 921221	1.8 E-02	2.0 E-03
	921221 to 921228	6.1 E-03	1.7 E-03

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
23	911230 to 920106	3.5 E-02	3.0 E-03
	920106 to 920113	2.5 E-02	3.0 E-03
	920113 to 920120	2.1 E-02	3.0 E-03
	920120 to 920127	1.4 E-02	2.0 E-03
	920127 to 920203	1.3 E-02	2.0 E-03
	920203 to 920210	3.8 E-02	3.0 E-03
	920210 to 920218	2.6 E-02	2.0 E-03
	920218 to 920224	8.7 E-03	2.4 E-03
	920224 to 920302	1.2 E-02	2.0 E-03
	920302 to 920309	1.4 E-02	2.0 E-03
	920309 to 920316	2.8 E-02	3.0 E-03
	920316 to 920323 (a)	1.1 E-02	3.0 E-03
	920323 to 920330	2.4 E-02	3.0 E-03
	920330 to 920406	1.7 E-02	2.0 E-03
	920406 to 920413	1.1 E-02	2.0 E-03
	920413 to 920420	6.2 E-03	1.9 E-03
	920420 to 920427	1.1 E-02	2.0 E-03
	920427 to 920504	1.2 E-02	2.0 E-03
	920504 to 920511 (b)		
	920511 to 920518 (c)		
	920518 to 920526 (d)		
	920526 to 920601	1.1 E-02	2.0 E-03
	920601 to 920608	1.3 E-02	2.0 E-03
	920608 to 920615	9.4 E-03	2.1 E-03
	920615 to 920622	1.2 E-02	2.0 E-03
	920622 to 920629	2.1 E-02	3.0 E-03
	920629 to 920706	7.5 E-03	1.8 E-03
	920706 to 920713	1.1 E-02	2.0 E-03
	920713 to 920720	1.4 E-02	2.0 E-03
	920720 to 920727	1.0 E-02	2.0 E-03
	920727 to 920803	1.3 E-02	2.0 E-03
	920803 to 920810	1.2 E-02	2.0 E-03
	920810 to 920817	1.8 E-02	3.0 E-03
	920817 to 920824 (a)	1.6 E-02	2.0 E-03
	920824 to 920831	1.7 E-02	2.0 E-03
	920831 to 920908	1.2 E-02	2.0 E-03
	920908 to 920914	1.6 E-02	3.0 E-03
	920914 to 920921	1.2 E-02	2.0 E-03
	920921 to 920928	8.6 E-03	1.9 E-03

(a) Unit failure; reduced sampling time.
(b) Power outage; no sample collected.
(c) Power outage; temporarily replaced by Station 123.
(d) Unit failure; no sample collected.

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
23	920928 to 921005	2.5 E-02	3.0 E-03
	921005 to 921012	2.0 E-02	2.0 E-03
	921012 to 921019	2.0 E-02	2.0 E-03
	921019 to 921026	1.7 E-02	2.0 E-03
	921026 to 921102	1.6 E-02	2.0 E-03
	921102 to 921109	1.2 E-02	2.0 E-03
	921109 to 921116	1.6 E-02	2.0 E-03
	921116 to 921123	1.8 E-02	2.0 E-03
	921123 to 921130	3.9 E-02	3.0 E-03
	921130 to 921207	2.4 E-02	3.0 E-03
	921207 to 921214	2.5 E-02	3.0 E-03
	921214 to 921221	1.8 E-02	2.0 E-03
	921221 to 921228	5.1 E-03	1.7 E-03

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
40	911230 to 920106	2.8 E-02	3.0 E-03
	920106 to 920113	2.0 E-02	3.0 E-03
	920113 to 920120	1.7 E-02	2.0 E-03
	920120 to 920127	1.4 E-02	2.0 E-03
	920127 to 920203	8.6 E-03	1.9 E-03
	920203 to 920210	3.1 E-02	3.0 E-03
	920210 to 920218	2.1 E-02	2.0 E-03
	920218 to 920224	5.6 E-03	2.2 E-03
	920224 to 920302	1.1 E-02	2.0 E-03
	920302 to 920309	1.5 E-02	2.0 E-03
	920309 to 920316	2.3 E-02	3.0 E-03
	920316 to 920323	1.8 E-02	3.0 E-03
	920323 to 920330	2.3 E-02	3.0 E-03
	920330 to 920406 (a)	2.8 E-02	4.0 E-03
	920406 to 920413	1.2 E-02	2.0 E-03
	920413 to 920420	5.8 E-03	1.9 E-03
	920420 to 920427	1.1 E-02	2.0 E-03
	920427 to 920504	8.5 E-03	1.9 E-03
	920504 to 920511	1.8 E-02	2.0 E-03
	920511 to 920518	1.4 E-02	2.0 E-03
	920518 to 920526	1.8 E-02	2.0 E-03
	920526 to 920601	1.0 E-02	2.0 E-03
	920601 to 920608	1.1 E-02	2.0 E-03
	920608 to 920615	7.7 E-03	2.0 E-03
	920615 to 920622	1.1 E-02	2.0 E-03
	920622 to 920629	2.4 E-02	3.0 E-03
	920629 to 920706	6.7 E-03	1.7 E-03
	920706 to 920713	9.8 E-03	2.0 E-03
	920713 to 920720	1.4 E-02	2.0 E-03
	920720 to 920727	8.1 E-03	1.8 E-03
	920727 to 920803	9.3 E-03	1.9 E-03
	920803 to 920810	9.9 E-03	2.0 E-03
	920810 to 920817	1.5 E-02	2.0 E-03
	920817 to 920824	1.3 E-02	2.0 E-03
	920824 to 920831	1.8 E-02	2.0 E-03
	920831 to 920908	1.0 E-02	2.0 E-03
	920908 to 920914	1.3 E-02	3.0 E-03
	920914 to 920921	1.0 E-02	2.0 E-03
	920921 to 920928	9.2 E-03	2.0 E-03

(a) Unit failure; reduced sampling time.

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
40	920928 to 921005	2.6 E-02	3.0 E-03
	921005 to 921012	2.1 E-02	2.0 E-03
	921012 to 921019	2.0 E-02	2.0 E-03
	921019 to 921026	1.9 E-02	2.0 E-03
	921026 to 921102	1.6 E-02	2.0 E-03
	921102 to 921109	1.3 E-02	2.0 E-03
	921109 to 921116	1.7 E-02	2.0 E-03
	921116 to 921123	1.8 E-02	2.0 E-03
	921123 to 921130	4.3 E-02	3.0 E-03
	921130 to 921207	3.0 E-02	3.0 E-03
	921207 to 921214	2.8 E-02	3.0 E-03
	921214 to 921221	1.6 E-02	2.0 E-03
	921221 to 921228	6.4 E-03	1.7 E-03

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
48	911230 to 920106	3.3 E-02	3.0 E-03
	920106 to 920113	2.9 E-02	3.0 E-03
	920113 to 920120	2.2 E-02	3.0 E-03
	920120 to 920127	1.5 E-02	2.0 E-03
	920127 to 920203	1.2 E-02	2.0 E-03
	920203 to 920210	3.4 E-02	3.0 E-03
	920210 to 920218	2.6 E-02	2.0 E-03
	920218 to 920224	9.1 E-03	2.4 E-03
	920224 to 920302	1.2 E-02	2.0 E-03
	920302 to 920309	1.8 E-02	2.0 E-03
	920309 to 920316	3.0 E-02	3.0 E-03
	920316 to 920323	1.5 E-02	2.0 E-03
	920323 to 920330	2.6 E-02	3.0 E-03
	920330 to 920406	1.8 E-02	2.0 E-03
	920406 to 920413	1.3 E-02	2.0 E-03
	920413 to 920420	6.0 E-03	1.9 E-03
	920420 to 920427	1.3 E-02	2.0 E-03
	920427 to 920504	1.3 E-02	2.0 E-03
	920504 to 920511	2.3 E-02	3.0 E-03
	920511 to 920518	1.8 E-02	2.0 E-03
	920518 to 920526	1.9 E-02	2.0 E-03
	920526 to 920601	1.3 E-02	2.0 E-03
	920601 to 920608	1.5 E-02	2.0 E-03
	920608 to 920615	9.3 E-03	2.1 E-03
	920615 to 920622	1.5 E-02	2.0 E-03
	920622 to 920629	2.4 E-02	3.0 E-03
	920629 to 920706	9.5 E-03	1.9 E-03
	920706 to 920713	1.2 E-02	2.0 E-03
	920713 to 920720 (a)	4.2 E-02	1.7 E-03
	920720 to 920727	8.8 E-03	1.8 E-03
	920727 to 920803 (a)	1.7 E-02	1.0 E-03
	920803 to 920810	1.3 E-02	2.0 E-03
	920810 to 920817	1.7 E-02	3.0 E-03
	920817 to 920824	1.7 E-02	2.0 E-03
	920824 to 920831	1.8 E-02	2.0 E-03
	920831 to 920908	1.1 E-02	2.0 E-03
	920908 to 920914	1.6 E-02	3.0 E-03
	920914 to 920921	1.1 E-02	2.0 E-03
	920921 to 920928	9.1 E-03	2.0 E-03

(a) Unit failure; not included in averages.

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
48	920928 to 921005	2.2 E-02	3.0 E-03
	921005 to 921012	2.0 E-02	2.0 E-03
	921012 to 921019	2.0 E-02	2.0 E-03
	921019 to 921026	1.8 E-02	2.0 E-03
	921026 to 921102	1.7 E-02	2.0 E-03
	921102 to 921109	1.2 E-02	2.0 E-03
	921109 to 921116	1.8 E-02	2.0 E-03
	921116 to 921123	1.7 E-02	2.0 E-03
	921123 to 921130	3.9 E-02	3.0 E-03
	921130 to 921207	2.9 E-02	3.0 E-03
	921207 to 921214	2.2 E-02	2.0 E-03
	921214 to 921221	1.9 E-02	2.0 E-03
	921221 to 921228	8.4 E-03	1.9 E-03

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
57	911230 to 920106	3.6 E-02	3.0 E-03
	920106 to 920113	2.7 E-02	3.0 E-03
	920113 to 920120	2.1 E-02	3.0 E-03
	920120 to 920127	1.3 E-02	2.0 E-03
	920127 to 920203	1.1 E-02	2.0 E-03
	920203 to 920210	3.7 E-02	3.0 E-03
	920210 to 920218	2.7 E-02	2.0 E-03
	920218 to 920224	6.1 E-03	2.2 E-03
	920224 to 920302	1.1 E-02	2.0 E-03
	920302 to 920309	1.3 E-02	2.0 E-03
	920309 to 920316	2.8 E-02	3.0 E-03
	920316 to 920323	1.6 E-02	2.0 E-03
	920323 to 920330	2.3 E-02	3.0 E-03
	920330 to 920406	1.5 E-02	2.0 E-03
	920406 to 920413	1.4 E-02	2.0 E-03
	920413 to 920420	4.6 E-03	1.8 E-03
	920420 to 920427	1.2 E-02	2.0 E-03
	920427 to 920504	9.8 E-03	1.9 E-03
	920504 to 920511	1.9 E-02	2.0 E-03
	920511 to 920518	1.5 E-02	2.0 E-03
	920518 to 920526	1.4 E-02	2.0 E-03
	920526 to 920601	7.6 E-03	2.0 E-03
	920601 to 920608	1.3 E-02	2.0 E-03
	920608 to 920615	8.2 E-03	2.0 E-03
	920615 to 920622	1.2 E-02	2.0 E-03
	920622 to 920629	2.1 E-02	3.0 E-03
	920629 to 920706	6.1 E-03	1.7 E-03
	920706 to 920713	1.1 E-02	2.0 E-03
	920713 to 920720	1.4 E-02	2.0 E-03
	920720 to 920727	1.2 E-02	2.0 E-03
	920727 to 920803	1.5 E-02	2.0 E-03
	920803 to 920810	9.6 E-03	2.0 E-03
	920810 to 920817	1.5 E-02	2.0 E-03
	920817 to 920824	1.4 E-02	2.0 E-03
	920824 to 920831	1.8 E-02	2.0 E-03
	920831 to 920908	1.2 E-02	2.0 E-03
	920908 to 920914	1.4 E-02	3.0 E-03
	920914 to 920921	1.2 E-02	2.0 E-03
	920921 to 920928	8.4 E-03	1.9 E-03

TABLE A-2.1 (Cont.)

GROSS BETA ON AIR PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
57	920928 to 921005	2.4 E-02	3.0 E-03
	921005 to 921012	1.9 E-02	2.0 E-03
	921012 to 921019	2.0 E-02	2.0 E-03
	921019 to 921026	1.8 E-02	2.0 E-03
	921026 to 921102	1.6 E-02	2.0 E-03
	921102 to 921109	1.1 E-02	2.0 E-03
	921109 to 921116	1.6 E-02	2.0 E-03
	921116 to 921123	1.8 E-02	2.0 E-03
	921123 to 921130	4.0 E-02	3.0 E-03
	921130 to 921207	2.4 E-02	3.0 E-03
	921207 to 921214	2.6 E-02	3.0 E-03
	921214 to 921221	1.9 E-02	2.0 E-03
	921221 to 921228	6.4 E-03	1.7 E-03

TABLE A-2.2

GROSS BETA ON AIR PARTICULATE FILTERS - SUMMARY

Results in pCi/cubic meter

NUCLIDE	AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
Gr-Beta (I)	1.63E-02	4.20E-03	4.40E-02	571	571
Gr-Beta (C)	1.46E-02	4.40E-03	3.70E-02	52	52

TABLE A-3.1

GAMMA SPECTROMETRY OF PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
1	911230 to 920330 (a)	Be-7	9.37 E-02	8.28 E-03
		K-40	6.49 E-03	3.65 E-03
		Ru-103	*-3.28 E-04	5.08 E-04
		Ru-106	* 1.03 E-04	2.01 E-03
		Cs-134	* 5.64 E-05	2.48 E-04
		Cs-137	* 1.95 E-04	2.52 E-04
		Ra-226	*-2.72 E-03	4.10 E-03
		Th-228	* 1.62 E-04	3.62 E-04
	920330 to 920629	Be-7	1.57 E-01	8.61 E-03
		K-40	* 1.21 E-03	2.40 E-03
		Ru-103	*-9.01 E-05	3.96 E-04
		Ru-106	*-5.60 E-04	1.46 E-03
		Cs-134	*-3.85 E-05	1.66 E-04
		Cs-137	* 2.34 E-05	1.50 E-04
		Ra-226	* 4.83 E-04	3.05 E-03
		Th-228	* 2.76 E-04	2.70 E-04
	920629 to 920928	Be-7	1.56 E-01	9.28 E-03
		K-40	* 1.26 E-03	2.92 E-03
		Ru-103	*-1.49 E-04	4.33 E-04
		Ru-106	*-3.37 E-04	1.55 E-03
		Cs-134	* 9.27 E-05	1.79 E-04
		Cs-137	* 3.74 E-05	1.83 E-04
		Ra-226	*-6.45 E-04	3.29 E-03
		Th-228	* 5.01 E-04	2.97 E-04
	920928 to 921228	Be-7	7.60 E-02	6.88 E-03
		K-40	5.36 E-03	2.65 E-03
		Ru-103	* 2.56 E-04	4.50 E-04
		Ru-106	*-7.78 E-05	1.74 E-03
		Cs-134	* 1.47 E-04	2.06 E-04
		Cs-137	*-1.15 E-04	2.31 E-04
		Ra-226	*-4.57 E-03	3.15 E-03
		Th-228	*-6.03 E-04	2.85 E-04

(a) Unit failure; not included in averages.
* Denotes a result less than the detection limit.

TABLE A-3.1 (Cont.)

GAMMA SPECTROMETRY OF PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
4	911230 to 920330	Be-7	1.01 E-01	7.33 E-03
		K-40	1.41 E-03	4.48 E-03
		Ru-103	*-3.16 E-04	4.79 E-04
		Ru-106	* 1.28 E-03	1.89 E-03
		Cs-134	*-1.90 E-04	2.08 E-04
		Cs-137	*-4.97 E-05	1.94 E-04
		Ra-226	*-3.10 E-03	2.77 E-03
		Th-228	*-2.93 E-04	2.61 E-04
	920330 to 920629	Be-7	1.71 E-01	1.12 E-02
		K-40	* 1.69 E-03	3.74 E-03
		Ru-103	*-9.88 E-05	5.37 E-04
		Ru-106	* 1.12 E-04	2.10 E-03
		Cs-134	* 1.05 E-04	2.22 E-04
		Cs-137	* 1.98 E-04	2.13 E-04
		Ra-226	*-4.40 E-03	4.96 E-03
		Th-228	* 8.17 E-05	4.32 E-04
	920629 to 920928	Be-7	1.75 E-01	1.31 E-02
		K-40	6.50 E-03	3.23 E-03
		Ru-103	* 1.53 E-04	6.69 E-04
		Ru-106	* 2.70 E-04	2.26 E-03
		Cs-134	* 9.01 E-05	2.36 E-04
		Cs-137	*-1.19 E-04	2.16 E-04
		Ra-226	*-5.78 E-03	5.46 E-03
		Th-228	*-4.48 E-04	4.82 E-04
	920928 to 921228	Be-7	8.86 E-02	8.05 E-03
		K-40	5.97 E-03	2.98 E-03
		Ru-103	* 2.81 E-04	6.80 E-04
		Ru-106	*-2.57 E-03	2.60 E-03
		Cs-134	*-1.74 E-04	3.00 E-04
		Cs-137	* 0.00 E+00	2.52 E-04
		Ra-226	*-3.00 E-03	3.64 E-03
		Th-228	* 3.65 E-04	3.66 E-04

* Denotes a result less than the detection limit.

TABLE A-3.1 (Cont.)

GAMMA SPECTROMETRY OF PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
5	911230 to 920330 (a)	Be-7	9.42 E-02	7.59 E-03
		K-40	*-7.24 E-03	6.06 E-03
		Ru-103	* 1.07 E-04	5.75 E-04
		Ru-106	*-7.87 E-04	2.44 E-03
		Cs-134	*-1.37 E-04	2.74 E-04
		Cs-137	* 1.51 E-04	2.57 E-04
		Ra-226	*-3.47 E-03	3.43 E-03
		Th-228	*-4.88 E-05	3.22 E-04
	920330 to 920629 (a)	Be-7	1.24 E-01	8.06 E-03
		K-40	*-3.25 E-03	4.85 E-03
		Ru-103	* 9.51 E-05	4.97 E-04
		Ru-106	* 8.13 E-04	2.04 E-03
		Cs-134	* 1.19 E-04	2.30 E-04
		Cs-137	* 2.77 E-05	2.33 E-04
		Ra-226	* 1.01 E-03	2.97 E-03
		Th-228	* 5.35 E-05	2.78 E-04
	920629 to 920928 (a)	Be-7	1.19 E-01	8.92 E-03
		K-40	* 4.85 E-03	5.69 E-03
		Ru-103	* 1.56 E-04	6.02 E-04
		Ru-106	*-1.86 E-03	2.18 E-03
		Cs-134	* 9.43 E-05	2.79 E-04
		Cs-137	* 2.99 E-04	2.58 E-04
		Ra-226	* 2.92 E-03	3.41 E-03
		Th-228	* 8.76 E-05	3.24 E-04
	920928 to 921228	Be-7	8.33 E-02	7.95 E-03
		K-40	* 6.36 E-04	3.24 E-03
		Ru-103	*-6.57 E-05	5.06 E-04
		Ru-106	*-3.99 E-04	1.94 E-03
		Cs-134	*-2.70 E-05	1.99 E-04
		Cs-137	* 3.31 E-05	1.91 E-04
		Ra-226	*-1.99 E-03	3.74 E-03
		Th-228	* 5.50 E-05	3.53 E-04

(a) Unit failure; reduced sampling time.
* Denotes a result less than the detection limit.

TABLE A-3.1 (Cont.)

GAMMA SPECTROMETRY OF PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
6	911230 to 920330	Be-7	1.20 E-01	8.38 E-03
		K-40	4.85 E-03	2.26 E-03
		Ru-103	* 1.20 E-04	4.07 E-04
		Ru-106	* 9.50 E-05	1.45 E-03
		Cs-134	* 5.24 E-05	1.48 E-04
		Cs-137	* 5.29 E-05	1.67 E-04
		Ra-226	*-7.03 E-04	3.24 E-03
		Th-228	*-4.92 E-04	2.88 E-04
	920330 to 920629	Be-7	1.48 E-01	8.24 E-03
		K-40	*-1.17 E-03	2.75 E-03
		Ru-103	* 1.65 E-04	4.75 E-04
		Ru-106	* 5.49 E-04	1.78 E-03
		Cs-134	*-1.30 E-04	2.02 E-04
		Cs-137	* 1.99 E-04	2.39 E-04
		Ra-226	* 8.27 E-04	3.13 E-03
		Th-228	*-1.11 E-04	2.87 E-04
	920629 to 920928	Be-7	1.32 E-01	9.29 E-03
		K-40	*-9.75 E-04	3.41 E-03
		Ru-103	*-2.60 E-04	5.11 E-04
		Ru-106	* 1.16 E-03	1.94 E-03
		Cs-134	* 3.34 E-05	1.99 E-04
		Cs-137	*-4.73 E-05	2.54 E-04
		Ra-226	*-6.22 E-04	3.43 E-03
		Th-228	* 2.71 E-04	3.25 E-04
	920928 to 921228	Be-7	6.77 E-02	6.81 E-03
		K-40	1.88 E-02	4.10 E-03
		Ru-103	* 0.00 E+00	5.24 E-04
		Ru-106	*-1.07 E-03	2.06 E-03
		Cs-134	* 1.57 E-04	2.52 E-04
		Cs-137	* 1.11 E-04	2.18 E-04
		Ra-226	*-5.55 E-04	3.01 E-03
		Th-228	* 1.30 E-04	2.82 E-04

* Denotes a result less than the detection limit.

TABLE A-3.1 (Cont.)

GAMMA SPECTROMETRY OF PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
7	911230 to 920330	Be-7	9.72 E-02	7.51 E-03
		K-40	7.89 E-03	3.09 E-03
		Ru-103	*-1.51 E-04	5.13 E-04
		Ru-106	* 7.07 E-05	1.98 E-03
		Cs-134	* 1.92 E-05	2.44 E-04
		Cs-137	* 2.20 E-04	2.17 E-04
		Ra-226	*-2.39 E-04	2.90 E-03
		Th-228	* 3.98 E-05	2.86 E-04
	920330 to 920629	Be-7	1.78 E-01	1.03 E-02
		K-40	* 7.89 E-04	3.07 E-03
		Ru-103	*-5.07 E-04	4.50 E-04
		Ru-106	* 0.00 E+00	1.77 E-03
		Cs-134	* 0.00 E+00	1.98 E-04
		Cs-137	* 1.01 E-04	1.91 E-04
		Ra-226	*-6.13 E-03	3.45 E-03
		Th-228	* 3.11 E-05	3.27 E-04
	920629 to 920928	Be-7	1.35 E-01	8.90 E-03
		K-40	* 4.81 E-04	3.14 E-03
		Ru-103	*-1.05 E-04	4.83 E-04
		Ru-106	*-1.40 E-03	1.86 E-03
		Cs-134	*-4.22 E-05	2.13 E-04
		Cs-137	*-1.19 E-04	2.34 E-04
		Ra-226	*-2.49 E-03	3.33 E-03
		Th-228	*-9.50 E-05	3.08 E-04
	920928 to 921228	Be-7	9.19 E-02	8.42 E-03
		K-40	5.20 E-03	2.46 E-03
		Ru-103	* 4.50 E-05	4.59 E-04
		Ru-106	* 3.10 E-04	1.71 E-03
		Cs-134	* 0.00 E+00	1.83 E-04
		Cs-137	*-6.87 E-05	1.73 E-04
		Ra-226	* 9.15 E-04	3.52 E-03
		Th-228	* 3.29 E-05	3.28 E-04

* Denotes a result less than the detection limit.

TABLE A-3.1 (Cont.)

GAMMA SPECTROMETRY OF PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
8	911230 to 920330	Be-7	1.14 E-01	9.20 E-03
		K-40	1.55 E-03	3.28 E-03
		Ru-103	* 2.00 E-04	5.09 E-04
		Ru-106	*-1.04 E-03	1.99 E-03
		Cs-134	* 2.85 E-05	2.00 E-04
		Cs-137	* 9.30 E-05	1.92 E-04
		Ra-226	* 1.34 E-03	3.92 E-03
		Th-228	*-7.52 E-05	3.50 E-04
	920330 to 920629	Be-7	1.29 E-01	7.27 E-03
		K-40	* 7.76 E-04	3.84 E-03
		Ru-103	*-6.57 E-05	4.40 E-04
		Ru-106	*-2.32 E-03	1.82 E-03
		Cs-134	*-6.52 E-05	1.98 E-04
		Cs-137	* 6.51 E-05	1.95 E-04
		Ra-226	*-4.94 E-03	2.66 E-03
		Th-228	*-9.52 E-05	2.57 E-04
	920629 to 920928 (a)	Be-7	1.24 E-01	9.68 E-03
		K-40	*-8.06 E-05	6.64 E-03
		Ru-103	* 5.33 E-04	7.15 E-04
		Ru-106	*-1.76 E-03	2.58 E-03
		Cs-134	* 4.76 E-05	3.12 E-04
		Cs-137	* 2.91 E-05	2.90 E-04
		Ra-226	*-5.38 E-04	3.99 E-03
		Th-228	* 1.26 E-04	3.75 E-04
	920928 to 921228	Be-7	8.10 E-02	7.80 E-03
		K-40	*-2.12 E-03	2.35 E-03
		Ru-103	* 1.25 E-04	4.74 E-04
		Ru-106	* 2.86 E-04	1.79 E-03
		Cs-134	* 1.94 E-04	2.01 E-04
		Cs-137	* 5.27 E-05	2.10 E-04
		Ra-226	*-2.75 E-03	3.37 E-03
		Th-228	*-1.78 E-04	3.49 E-04

(a) Unit failure; reduced sampling time.
* Denotes a result less than the detection limit.

TABLE A-3.1 (Cont.)

GAMMA SPECTROMETRY OF PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
9A	911230 to 920330	Be-7	1.09 E-01	7.97 E-03
		K-40	* 6.63 E-04	2.83 E-03
		Ru-103	* 1.77 E-04	4.38 E-04
		Ru-106	* 3.35 E-04	1.65 E-03
		Cs-134	*-8.08 E-05	1.75 E-04
		Cs-137	* 1.68 E-04	1.75 E-04
		Ra-226	*-1.24 E-03	3.24 E-03
		Th-228	* 6.79 E-05	2.87 E-04
	920330 to 920629	Be-7	1.71 E-01	9.66 E-03
		K-40	4.89 E-03	2.57 E-03
		Ru-103	* 0.00 E+00	4.36 E-04
		Ru-106	*-4.30 E-04	1.53 E-03
		Cs-134	* 1.64 E-04	1.93 E-04
		Cs-137	*-2.86 E-05	1.64 E-04
		Ra-226	* 6.77 E-04	3.30 E-03
		Th-228	* 3.57 E-04	3.15 E-04
	920629 to 920928 (a)	Be-7	1.38 E-01	1.01 E-02
		K-40	* 2.86 E-03	3.48 E-03
		Ru-103	* 2.07 E-04	5.38 E-04
		Ru-106	* 0.00 E+00	1.92 E-03
		Cs-134	* 1.38 E-05	2.25 E-04
		Cs-137	* 5.64 E-05	2.05 E-04
		Ra-226	*-2.40 E-03	3.96 E-03
		Th-228	* 4.15 E-04	3.75 E-04
	920928 to 921228	Be-7	6.15 E-02	5.94 E-03
		K-40	* 1.27 E-03	2.69 E-03
		Ru-103	*-6.33 E-05	3.38 E-04
		Ru-106	* 0.00 E+00	1.39 E-03
		Cs-134	* 9.97 E-06	1.55 E-04
		Cs-137	* 1.29 E-04	1.51 E-04
		Ra-226	*-9.99 E-04	2.08 E-03
		Th-228	*-1.47 E-04	2.05 E-04

(a) Unit failure; reduced sampling time.
* Denotes a result less than the detection limit.

TABLE A-3.1 (Cont.)

GAMMA SPECTROMETRY OF PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
21	911230 to 920330	Be-7	1.07 E-01	8.34 E-03
		K-40	* 3.77 E-04	2.91 E-03
		Ru-103	*-3.17 E-04	4.33 E-04
		Ru-106	* 7.64 E-04	1.54 E-03
		Cs-134	*-2.63 E-05	1.68 E-04
		Cs-137	*-9.53 E-05	1.51 E-04
		Ra-226	*-9.00 E-04	3.22 E-03
		Th-228	*-1.84 E-04	2.93 E-04
	920330 to 920629 (a)	Be-7	1.42 E-01	8.90 E-03
		K-40	* 2.64 E-03	2.70 E-03
		Ru-103	*-8.65 E-05	4.61 E-04
		Ru-106	*-2.38 E-04	1.68 E-03
		Cs-134	* 9.69 E-05	1.93 E-04
		Cs-137	* 1.41 E-04	1.84 E-04
		Ra-226	*-1.11 E-03	3.25 E-03
		Th-228	*-2.46 E-04	3.25 E-04
	920629 to 920928	Be-7	1.17 E-01	7.85 E-03
		K-40	1.10 E-02	3.17 E-03
		Ru-103	* 1.09 E-04	5.43 E-04
		Ru-106	*-1.19 E-04	2.04 E-03
		Cs-134	* 7.84 E-06	2.36 E-04
		Cs-137	* 1.30 E-05	2.15 E-04
		Ra-226	* 5.63 E-04	3.11 E-03
		Th-228	*-4.24 E-05	2.81 E-04
	920928 to 921228	Be-7	6.76 E-02	6.10 E-03
		K-40	* 1.82 E-03	2.66 E-03
		Ru-103	* 0.00 E+00	3.55 E-04
		Ru-106	*-4.35 E-04	1.20 E-03
		Cs-134	*-7.61 E-05	1.49 E-04
		Cs-137	* 8.27 E-05	1.48 E-04
		Ra-226	* 1.41 E-04	2.63 E-03
		Th-228	* 1.70 E-04	2.37 E-04

(a) Unit failure; reduced sampling time.
* Denotes a result less than the detection limit.

TABLE A-3.1 (Cont.)

GAMMA SPECTROMETRY OF PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
23	911230 to 920330 (a)	Be-7	9.94 E-02	8.03 E-03
		K-40	* 6.10 E-04	5.18 E-03
		Ru-103	* 0.00 E+00	5.26 E-04
		Ru-106	* 2.23 E-04	2.24 E-03
		Cs-134	*-4.05 E-05	2.47 E-04
		Cs-137	*-3.31 E-05	2.32 E-04
		Ra-226	* 5.21 E-04	3.35 E-03
		Th-228	* 3.43 E-04	3.09 E-04
	920330 to 920629 (b)(c)(d)	Be-7	1.56 E-01	8.42 E-03
		K-40	4.82 E-03	2.80 E-03
		Ru-103	*-3.41 E-04	3.55 E-04
		Ru-106	* 7.91 E-04	1.54 E-03
		Cs-134	*-1.99 E-04	1.62 E-04
		Cs-137	* 3.66 E-05	1.62 E-04
		Ra-226	* 2.52 E-04	2.19 E-03
		Th-228	* 9.50 E-05	2.20 E-04
	920629 to 920928 (a)	Be-7	1.56 E-01	1.11 E-02
		K-40	* 2.10 E-03	3.21 E-03
		Ru-103	* 7.51 E-05	5.03 E-04
		Ru-106	*-6.72 E-04	1.91 E-03
		Cs-134	* 1.67 E-04	2.33 E-04
		Cs-137	*-4.96 E-05	1.96 E-04
		Ra-226	*-5.38 E-03	3.74 E-03
		Th-228	* 1.53 E-04	3.71 E-04
	920928 to 921228	Be-7	7.06 E-02	6.52 E-03
		K-40	* 8.96 E-04	4.55 E-03
		Ru-103	*-2.44 E-04	4.86 E-04
		Ru-106	* 7.72 E-04	1.99 E-03
		Cs-134	* 9.55 E-05	2.36 E-04
		Cs-137	* 1.42 E-05	2.13 E-04
		Ra-226	*-2.82 E-03	2.73 E-03
		Th-228	*-1.75 E-04	2.54 E-04

(a) Unit failure; reduced sampling time.
(b) Power outage; no sample collected.
(c) Power outage; temporarily replaced by Station 123.
(d) Unit failure; no sample collected.
* Denotes a result less than the detection limit.

TABLE A-3.1 (Cont.)

GAMMA SPECTROMETRY OF PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
40	911230 to 920330	Be-7	1.04 E-01	8.16 E-03
		K-40	* 1.62 E-03	3.18 E-03
		Ru-103	* 3.52 E-05	5.01 E-04
		Ru-106	*-8.20 E-05	2.07 E-03
		Cs-134	*-5.54 E-05	2.10 E-04
		Cs-137	* 1.16 E-04	2.52 E-04
		Ra-226	*-1.72 E-03	3.44 E-03
		Th-228	* 4.53 E-04	3.37 E-04
	920330 to 920629 (a)	Be-7	1.54 E-01	7.44 E-03
		K-40	5.00 E-03	2.38 E-03
		Ru-103	* 7.01 E-05	3.54 E-04
		Ru-106	*-4.85 E-04	1.19 E-03
		Cs-134	* 2.20 E-05	1.52 E-04
		Cs-137	*-2.39 E-05	1.37 E-04
		Ra-226	*-1.36 E-03	2.68 E-03
		Th-228	* 2.41 E-04	2.40 E-04
	920629 to 920928	Be-7	1.18 E-01	7.75 E-03
		K-40	* 2.74 E-03	4.81 E-03
		Ru-103	* 1.47 E-04	5.17 E-04
		Ru-106	*-9.04 E-04	1.86 E-03
		Cs-134	*-1.04 E-04	2.27 E-04
		Cs-137	* 2.84 E-05	1.95 E-04
		Ra-226	*-5.76 E-05	2.89 E-03
		Th-228	*-2.01 E-04	2.73 E-04
	920928 to 921228	Be-7	7.97 E-02	8.15 E-03
		K-40	* 5.03 E-03	6.66 E-03
		Ru-103	*-3.10 E-05	5.93 E-04
		Ru-106	*-1.19 E-03	2.36 E-03
		Cs-134	* 8.57 E-05	2.63 E-04
		Cs-137	* 1.55 E-05	2.43 E-04
		Ra-226	*-6.18 E-03	3.52 E-03
		Th-228	*-1.20 E-04	3.29 E-04

(a) Unit failure; reduced sampling time.
* Denotes a result less than the detection limit.

TABLE A-3.1 (Cont.)

GAMMA SPECTROMETRY OF PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
48	911230 to 920330	Be-7	1.14 E-01	8.28 E-03
		K-40	* 2.45 E-03	3.27 E-03
		Ru-103	* 3.32 E-05	4.58 E-04
		Ru-106	* 1.55 E-04	1.81 E-03
		Cs-134	* 0.00 E+00	1.88 E-04
		Cs-137	*-2.19 E-05	2.39 E-04
		Ra-226	*-4.08 E-03	3.24 E-03
		Th-228	*-6.81 E-04	2.95 E-04
	920330 to 920629	Be-7	1.76 E-01	8.51 E-03
		K-40	*-2.59 E-04	4.47 E-03
		Ru-103	*-3.99 E-04	5.14 E-04
		Ru-106	* 5.13 E-04	1.92 E-03
		Cs-134	*-3.07 E-05	2.29 E-04
		Cs-137	* 1.58 E-04	2.16 E-04
		Ra-226	*-5.51 E-05	2.85 E-03
		Th-228	* 8.27 E-05	2.81 E-04
	920629 to 920928 (a)	Be-7	1.48 E-01	1.06 E-02
		K-40	* 3.69 E-03	7.48 E-03
		Ru-103	* 4.05 E-04	7.10 E-04
		Ru-106	* 0.00 E+00	2.50 E-03
		Cs-134	* 1.99 E-04	3.04 E-04
		Cs-137	* 4.48 E-05	2.86 E-04
		Ra-226	* 1.07 E-03	4.13 E-03
		Th-228	* 1.95 E-06	3.80 E-04
	920928 to 921228	Be-7	9.41 E-02	8.24 E-03
		K-40	* 2.64 E-03	2.92 E-03
		Ru-103	*-1.25 E-04	4.26 E-04
		Ru-106	*-1.05 E-03	1.54 E-03
		Cs-134	* 0.00 E+00	1.72 E-04
		Cs-137	* 6.34 E-05	1.69 E-04
		Ra-226	*-4.30 E-03	3.22 E-03
		Th-228	* 4.76 E-04	3.08 E-04

(a) Unit failure; unit failure; not included in averages.
* Denotes a result less than the detection limit.

TABLE A-3.1 (Cont.)

GAMMA SPECTROMETRY OF PARTICULATE FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
57	911230 to 920330	Be-7	1.07 E-01	8.85 E-03
		K-40	*-3.19 E-03	6.36 E-03
		Ru-103	*-3.84 E-04	6.50 E-04
		Ru-106	*-2.57 E-04	2.56 E-03
		Cs-134	* 5.80 E-05	2.90 E-04
		Cs-137	*-2.28 E-04	2.68 E-04
		Ra-226	*-1.08 E-03	3.72 E-03
		Th-228	* 1.68 E-04	3.57 E-04
	920330 to 920629	Be-7	1.52 E-01	7.90 E-03
		K-40	*-4.90 E-03	4.61 E-03
		Ru-103	*-2.60 E-04	4.67 E-04
		Ru-106	*-1.54 E-04	1.84 E-03
		Cs-134	*-5.50 E-05	2.17 E-04
		Cs-137	* 1.13 E-04	2.07 E-04
		Ra-226	* 7.82 E-04	2.82 E-03
		Th-228	* 3.41 E-04	2.73 E-04
	920629 to 920928	Be-7	1.35 E-01	9.37 E-03
		K-40	3.25 E-03	1.86 E-03
		Ru-103	*-6.45 E-05	4.28 E-04
		Ru-106	*-1.24 E-03	1.50 E-03
		Cs-134	*-1.31 E-05	1.73 E-04
		Cs-137	*-1.23 E-04	1.78 E-04
		Ra-226	*-1.60 E-03	3.23 E-03
		Th-228	*-1.23 E-04	2.95 E-04
	920928 to 921228	Be-7	7.42 E-02	7.17 E-03
		K-40	9.95 E-03	3.39 E-03
		Ru-103	* 4.43 E-04	5.32 E-04
		Ru-106	*-1.56 E-03	2.08 E-03
		Cs-134	* 2.21 E-04	2.45 E-04
		Cs-137	* 1.33 E-04	2.33 E-04
		Ra-226	*-6.26 E-04	3.01 E-03
		Th-228	* 1.28 E-04	2.92 E-04

* Denotes a result less than the detection limit.

TABLE A-3.2

GAMMA SPECTROMETRY OF PARTICULATE FILTERS - SUMMARY

Results in pCi/cubic meter

NUCLIDE	AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
Ru-103 (I)	-1.90E-05	-5.07E-04	5.33E-04	44	0
Ru-103 (C)	8.02E-05	-6.33E-05	2.07E-04	4	0
Ru-106 (I)	-3.25E-04	-2.57E-03	1.28E-03	44	0
Ru-106 (C)	-2.38E-05	-4.30E-04	3.35E-04	4	0
Cs-134 (I)	2.17E-05	-1.99E-04	2.21E-04	44	0
Cs-134 (C)	2.67E-05	-8.08E-05	1.64E-04	4	0
Cs-137 (I)	3.99E-05	-2.28E-04	2.99E-04	44	0
Cs-137 (C)	8.12E-05	-2.86E-05	1.68E-04	4	0
Be-7 (I)	1.19E-01	6.76E-02	1.78E-01	44	44
Be-7 (C)	1.20E-01	6.15E-02	1.71E-01	4	4
K-40 (I)	2.57E-03	-7.24E-03	1.88E-02	44	15
K-40 (C)	2.42E-03	6.63E-04	4.89E-03	4	1

TABLE A-4.1

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
1	911230 to 920106	* 4.95 E-03	1.25 E-02
	920106 to 920113	*-5.42 E-03	1.26 E-02
	920113 to 920120	*-1.98 E-03	9.19 E-03
	920120 to 920127	*-2.70 E-03	1.27 E-02
	920127 to 920203	* 9.99 E-03	1.23 E-02
	920203 to 920210	* 6.32 E-03	1.27 E-02
	920210 to 920218	* 2.24 E-03	9.62 E-03
	920218 to 920224	* 2.15 E-03	1.41 E-02
	920224 to 920302	* 5.89 E-03	1.21 E-02
	920302 to 920309 (a)	* 1.24 E-02	4.47 E-02
	920309 to 920316	*-2.43 E-03	1.33 E-02
	920316 to 920323	*-6.59 E-04	1.32 E-02
	920323 to 920330	*-3.73 E-03	1.43 E-02
	920330 to 920406	* 3.49 E-03	1.38 E-02
	920406 to 920413	* 2.83 E-03	1.13 E-02
	920413 to 920420	* 9.76 E-04	1.64 E-02
	920420 to 920427	*-1.44 E-04	9.00 E-03
	920427 to 920504	* 2.01 E-03	1.49 E-02
	920504 to 920511	* 0.00 E+00	7.72 E-03
	920511 to 920518	*-2.07 E-03	1.06 E-02
	920518 to 920526	*-3.81 E-03	1.88 E-02
	920526 to 920601	* 1.87 E-02	1.59 E-02
	920601 to 920608	*-1.46 E-03	2.03 E-02
	920608 to 920615	*-2.91 E-03	1.04 E-02
	920615 to 920622	*-1.38 E-03	1.55 E-02
	920622 to 920629	*-3.48 E-03	1.20 E-02
	920629 to 920706	* 4.94 E-03	1.31 E-02
	920706 to 920713	*-2.18 E-03	1.05 E-02
	920713 to 920720	* 5.37 E-03	1.06 E-02
	920720 to 920727	*-5.64 E-03	1.31 E-02
	920727 to 920803	* 2.31 E-03	1.48 E-02
	920803 to 920810	*-5.74 E-03	1.30 E-02
	920810 to 920817	* 0.00 E+00	1.33 E-02
	920817 to 920824	*-3.77 E-03	1.03 E-02
	920824 to 920831	* 1.19 E-03	1.21 E-02
	920831 to 920908	*-6.99 E-03	1.29 E-02
	920908 to 920914	*-5.63 E-03	1.95 E-02
	920914 to 920921	* 5.64 E-03	1.62 E-02
	920921 to 920928	* 2.45 E-03	9.29 E-03

(a) Unit failure; not included in averages.
* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
1	920928 to 921005	* 2.84 E-03	1.10 E-02
	921005 to 921012	*-1.01 E-03	1.44 E-02
	921012 to 921019	*-6.23 E-03	1.14 E-02
	921019 to 921026	* 8.83 E-03	1.51 E-02
	921026 to 921102	*-3.50 E-03	9.64 E-03
	921102 to 921109	*-4.50 E-03	1.07 E-02
	921109 to 921116	* 6.90 E-03	1.06 E-02
	921116 to 921123	*-2.18 E-03	1.85 E-02
	921123 to 921130	* 8.93 E-04	1.57 E-02
	921130 to 921207	* 2.49 E-03	1.55 E-02
	921207 to 921214	* 2.11 E-03	8.78 E-03
	921214 to 921221	*-6.10 E-04	1.23 E-02
	921221 to 921228	*-0.00 E+00	8.73 E-03

* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
4	911230 to 920106	* 4.87 E-03	1.23 E-02
	920106 to 920113	*-5.32 E-03	1.24 E-02
	920113 to 920120	*-1.95 E-03	9.06 E-03
	920120 to 920127	*-2.64 E-03	1.24 E-02
	920127 to 920203	* 9.82 E-03	1.21 E-02
	920203 to 920210	* 6.20 E-03	1.25 E-02
	920210 to 920218	* 2.20 E-03	9.43 E-03
	920218 to 920224	* 2.11 E-03	1.39 E-02
	920224 to 920302	* 5.78 E-03	1.18 E-02
	920302 to 920309	* 3.58 E-03	1.29 E-02
	920309 to 920316	*-2.37 E-03	1.29 E-02
	920316 to 920323	*-6.55 E-04	1.31 E-02
	920323 to 920330	*-3.65 E-03	1.40 E-02
	920330 to 920406	* 3.44 E-03	1.36 E-02
	920406 to 920413	* 2.77 E-03	1.10 E-02
	920413 to 920420	* 9.61 E-04	1.61 E-02
	920420 to 920427	*-1.41 E-04	8.80 E-03
	920427 to 920504	* 1.97 E-03	1.46 E-02
	920504 to 920511	* 0.00 E+00	7.57 E-03
	920511 to 920518	*-2.03 E-03	1.04 E-02
	920518 to 920526	*-3.74 E-03	1.87 E-02
	920526 to 920601	* 1.83 E-02	1.56 E-02
	920601 to 920608	*-1.44 E-03	1.99 E-02
	920608 to 920615	*-2.87 E-03	1.02 E-02
	920615 to 920622	*-1.36 E-03	1.52 E-02
	920622 to 920629	*-3.42 E-03	1.18 E-02
	920629 to 920706	* 4.83 E-03	1.28 E-02
	920706 to 920713	*-2.15 E-03	1.03 E-02
	920713 to 920720	* 5.25 E-03	1.04 E-02
	920720 to 920727	*-5.51 E-03	1.28 E-02
	920727 to 920803	* 2.27 E-03	1.46 E-02
	920803 to 920810	*-5.65 E-03	1.28 E-02
	920810 to 920817	* 0.00 E+00	1.31 E-02
	920817 to 920824	*-3.71 E-03	1.02 E-02
	920824 to 920831	* 1.16 E-03	1.19 E-02
	920831 to 920908	*-6.85 E-03	1.26 E-02
	920908 to 920914	*-5.53 E-03	1.92 E-02
	920914 to 920921	* 5.53 E-03	1.59 E-02
	920921 to 920928	* 2.40 E-03	9.11 E-03

* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
4	920928 to 921005	* 2.78 E-03	1.08 E-02
	921005 to 921012	*-9.98 E-04	1.41 E-02
	921012 to 921019	*-6.14 E-03	1.12 E-02
	921019 to 921026	* 8.68 E-03	1.49 E-02
	921026 to 921102	*-3.44 E-03	9.47 E-03
	921102 to 921109	*-4.41 E-03	1.05 E-02
	921109 to 921116	* 6.78 E-03	1.05 E-02
	921116 to 921123	*-2.14 E-03	1.82 E-02
	921123 to 921130	* 8.74 E-04	1.54 E-02
	921130 to 921207	* 2.42 E-03	1.51 E-02
	921207 to 921214	* 2.09 E-03	8.66 E-03
	921214 to 921221	*-5.98 E-04	1.21 E-02
	921221 to 921228	* 0.00 E+00	8.50 E-03

* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
5	911230 to 920106	* 4.89 E-03	1.24 E-02
	920106 to 920113	*-5.34 E-03	1.24 E-02
	920113 to 920120	*-1.96 E-03	9.11 E-03
	920120 to 920127	*-2.65 E-03	1.25 E-02
	920127 to 920203 (a)	* 1.51 E-02	1.86 E-02
	920203 to 920210	* 6.23 E-03	1.26 E-02
	920210 to 920218	* 2.21 E-03	9.49 E-03
	920218 to 920224	* 2.12 E-03	1.39 E-02
	920224 to 920302	* 5.81 E-03	1.19 E-02
	920302 to 920309	* 3.59 E-03	1.30 E-02
	920309 to 920316	*-2.38 E-03	1.30 E-02
	920316 to 920323	*-6.58 E-04	1.32 E-02
	920323 to 920330	*-3.66 E-03	1.41 E-02
	920330 to 920406	* 3.46 E-03	1.37 E-02
	920406 to 920413	* 2.78 E-03	1.11 E-02
	920413 to 920420	* 9.66 E-04	1.62 E-02
	920420 to 920427	*-1.41 E-04	8.83 E-03
	920427 to 920504	* 1.98 E-03	1.47 E-02
	920504 to 920511	* 0.00 E+00	7.59 E-03
	920511 to 920518	*-2.04 E-03	1.04 E-02
	920518 to 920526	*-3.75 E-03	1.85 E-02
	920526 to 920601	* 1.84 E-02	1.57 E-02
	920601 to 920608	*-1.44 E-03	2.00 E-02
	920608 to 920615	*-2.88 E-03	1.03 E-02
	920615 to 920622 (a)	*-2.06 E-03	2.31 E-02
	920622 to 920629	*-3.44 E-03	1.18 E-02
	920629 to 920706	* 4.86 E-03	1.29 E-02
	920706 to 920713 (b)	*-2.09 E-03	1.01 E-02
	920713 to 920720	* 5.30 E-03	1.05 E-02
	920720 to 920727	*-5.57 E-03	1.30 E-02
	920727 to 920803	* 2.28 E-03	1.46 E-02
	920803 to 920810	*-5.68 E-03	1.28 E-02
	920810 to 920817	* 0.00 E+00	1.31 E-02
	920817 to 920824	*-3.73 E-03	1.03 E-02
	920824 to 920831	* 1.17 E-03	1.20 E-02
	920831 to 920908	*-6.90 E-03	1.28 E-02
	920908 to 920914	*-5.56 E-03	1.93 E-02
	920914 to 920921	* 5.54 E-03	1.60 E-02
	920921 to 920928	* 2.42 E-03	9.19 E-03

(a) Unit failure; reduced sampling time.
(b) Unit failure; not included in averages.
* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
5	920928 to 921005	* 2.79 E-03	1.08 E-02
	921005 to 921012	*-9.21 E-04	1.31 E-02
	921012 to 921019	*-6.16 E-03	1.12 E-02
	921019 to 921026	* 8.73 E-03	1.50 E-02
	921026 to 921102	*-3.47 E-03	9.55 E-03
	921102 to 921109	*-4.43 E-03	1.05 E-02
	921109 to 921116	* 6.85 E-03	1.06 E-02
	921116 to 921123	*-2.16 E-03	1.83 E-02
	921123 to 921130	* 8.79 E-04	1.55 E-02
	921130 to 921207	* 2.45 E-03	1.52 E-02
	921207 to 921214	* 2.09 E-03	8.69 E-03
	921214 to 921221	*-6.01 E-04	1.21 E-02
	921221 to 921228	* 0.00 E+00	8.57 E-03

* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
6	911230 to 920106	* 4.95 E-03	1.25 E-02
	920106 to 920113	*-5.40 E-03	1.26 E-02
	920113 to 920120	*-1.98 E-03	9.20 E-03
	920120 to 920127	*-2.68 E-03	1.26 E-02
	920127 to 920203	* 1.00 E-02	1.23 E-02
	920203 to 920210	* 6.32 E-03	1.27 E-02
	920210 to 920218	* 2.23 E-03	9.59 E-03
	920218 to 920224	* 2.14 E-03	1.41 E-02
	920224 to 920302	* 5.86 E-03	1.20 E-02
	920302 to 920309	* 3.63 E-03	1.31 E-02
	920309 to 920316	*-2.42 E-03	1.32 E-02
	920316 to 920323	*-6.61 E-04	1.33 E-02
	920323 to 920330	*-3.70 E-03	1.42 E-02
	920330 to 920406	* 3.49 E-03	1.38 E-02
	920406 to 920413	* 2.82 E-03	1.12 E-02
	920413 to 920420	* 9.73 E-04	1.63 E-02
	920420 to 920427	*-1.43 E-04	8.93 E-03
	920427 to 920504	* 1.51 E-04	1.12 E-03
	920504 to 920511	* 0.00 E+00	7.64 E-03
	920511 to 920518	*-2.07 E-03	1.06 E-02
	920518 to 920526	*-3.80 E-03	1.87 E-02
	920526 to 920601	* 1.86 E-02	1.59 E-02
	920601 to 920608	*-1.46 E-03	2.02 E-02
	920608 to 920615	*-2.91 E-03	1.04 E-02
	920615 to 920622	*-1.37 E-03	1.54 E-02
	920622 to 920629	*-3.48 E-03	1.20 E-02
	920629 to 920706	* 4.91 E-03	1.30 E-02
	920706 to 920713	*-2.18 E-03	1.05 E-02
	920713 to 920720	* 5.35 E-03	1.06 E-02
	920720 to 920727	*-5.64 E-03	1.31 E-02
	920727 to 920803	* 2.38 E-03	1.53 E-02
	920803 to 920810	*-5.74 E-03	1.30 E-02
	920810 to 920817	* 0.00 E+00	1.32 E-02
	920817 to 920824	*-3.76 E-03	1.03 E-02
	920824 to 920831	* 1.18 E-03	1.21 E-02
	920831 to 920908	*-6.95 E-03	1.28 E-02
	920908 to 920914	*-5.61 E-03	1.95 E-02
	920914 to 920921	* 5.64 E-03	1.62 E-02
	920921 to 920928	* 2.43 E-03	9.23 E-03

* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
6	920928 to 921005	* 2.59 E-03	1.01 E-02
	921005 to 921012	*-1.01 E-03	1.44 E-02
	921012 to 921019	*-6.21 E-03	1.13 E-02
	921019 to 921026	* 8.82 E-03	1.51 E-02
	921026 to 921102	*-3.49 E-03	9.61 E-03
	921102 to 921109	*-4.48 E-03	1.07 E-02
	921109 to 921116	* 6.87 E-03	1.06 E-02
	921116 to 921123	*-2.18 E-03	1.85 E-02
	921123 to 921130	* 8.85 E-04	1.56 E-02
	921130 to 921207	* 2.36 E-03	1.47 E-02
	921207 to 921214	* 2.18 E-03	9.06 E-03
	921214 to 921221	*-6.07 E-04	1.23 E-02
	921221 to 921228	* 0.00 E+00	8.69 E-03

* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
7	911230 to 920106	* 1.93 E-03	4.88 E-03
	920106 to 920113	*-2.11 E-03	4.91 E-03
	920113 to 920120	*-1.11 E-03	5.18 E-03
	920120 to 920127	*-1.05 E-03	4.93 E-03
	920127 to 920203	* 3.90 E-03	4.80 E-03
	920203 to 920210	* 2.43 E-03	4.89 E-03
	920210 to 920218	* 8.73 E-04	3.75 E-03
	920218 to 920224	* 8.36 E-04	5.50 E-03
	920224 to 920302	* 3.83 E-03	7.85 E-03
	920302 to 920309	* 1.65 E-03	5.96 E-03
	920309 to 920316	*-1.10 E-03	5.99 E-03
	920316 to 920323	*-3.01 E-04	6.03 E-03
	920323 to 920330	*-1.68 E-03	6.45 E-03
	920330 to 920406	* 1.59 E-03	6.28 E-03
	920406 to 920413	* 2.07 E-03	8.24 E-03
	920413 to 920420	* 4.42 E-04	7.42 E-03
	920420 to 920427	*-1.00 E-04	6.27 E-03
	920427 to 920504	* 1.30 E-03	9.68 E-03
	920504 to 920511	* 0.00 E+00	5.61 E-03
	920511 to 920518	*-1.38 E-03	7.07 E-03
	920518 to 920526	*-2.47 E-03	1.22 E-02
	920526 to 920601	* 8.47 E-03	7.22 E-03
	920601 to 920608	*-9.50 E-04	1.32 E-02
	920608 to 920615	*-1.95 E-03	6.95 E-03
	920615 to 920622	*-6.24 E-04	7.01 E-03
	920622 to 920629	*-1.58 E-03	5.45 E-03
	920629 to 920706	* 2.23 E-03	5.90 E-03
	920706 to 920713	*-1.45 E-03	7.00 E-03
	920713 to 920720	* 7.44 E-03	1.47 E-02
	920720 to 920727	*-2.56 E-03	5.96 E-03
	920727 to 920803	* 1.50 E-03	9.63 E-03
	920803 to 920810	*-2.61 E-03	5.90 E-03
	920810 to 920817	* 0.00 E+00	8.62 E-03
	920817 to 920824	*-2.51 E-03	6.91 E-03
	920824 to 920831	* 5.38 E-04	5.51 E-03
	920831 to 920908	*-3.16 E-03	5.84 E-03
	920908 to 920914	*-2.55 E-03	8.85 E-03
	920914 to 920921	* 3.67 E-03	1.06 E-02
	920921 to 920928	* 1.79 E-03	6.80 E-03

* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
7	920928 to 921005	* 1.73 E-03	6.70 E-03
	921005 to 921012	*-4.60 E-04	6.54 E-03
	921012 to 921019	*-3.90 E-03	7.13 E-03
	921019 to 921026	* 5.74 E-03	9.83 E-03
	921026 to 921102	*-2.33 E-03	6.42 E-03
	921102 to 921109	*-3.00 E-03	7.12 E-03
	921109 to 921116	* 4.61 E-03	7.11 E-03
	921116 to 921123	*-9.92 E-04	8.43 E-03
	921123 to 921130	* 5.76 E-04	1.02 E-02
	921130 to 921207	* 1.61 E-03	1.00 E-02
	921207 to 921214	* 1.48 E-03	6.15 E-03
	921214 to 921221	*-2.76 E-04	5.58 E-03
	921221 to 921228	* 0.00 E+00	5.81 E-03

* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
8	911230 to 920106	* 3.22 E-03	1.33 E-02
	920106 to 920113	* 6.82 E-03	1.35 E-02
	920113 to 920120	* 7.14 E-03	1.35 E-02
	920120 to 920127	*-1.22 E-03	1.33 E-02
	920127 to 920203	* 2.01 E-03	1.28 E-02
	920203 to 920210	* 0.00 E+00	1.35 E-02
	920210 to 920218	* 2.21 E-03	9.48 E-03
	920218 to 920224	* 7.34 E-03	1.14 E-02
	920224 to 920302	* 6.20 E-03	1.14 E-02
	920302 to 920309	* 1.42 E-03	1.18 E-02
	920309 to 920316	*-1.03 E-04	1.10 E-02
	920316 to 920323	* 3.71 E-03	1.14 E-02
	920323 to 920330	* 4.88 E-03	1.16 E-02
	920330 to 920406	* 8.21 E-03	2.29 E-02
	920406 to 920413	* 1.99 E-03	1.29 E-02
	920413 to 920420	* 9.92 E-03	1.38 E-02
	920420 to 920427	* 7.51 E-03	1.58 E-02
	920427 to 920504	* 2.86 E-03	1.05 E-02
	920504 to 920511	*-2.69 E-03	1.35 E-02
	920511 to 920518	*-4.55 E-03	1.31 E-02
	920518 to 920526	* 1.66 E-04	9.13 E-03
	920526 to 920601	* 4.45 E-04	1.33 E-02
	920601 to 920608	*-1.06 E-02	1.29 E-02
	920608 to 920615	* 2.20 E-03	8.25 E-03
	920615 to 920622	* 9.63 E-04	1.35 E-02
	920622 to 920629	*-3.30 E-03	1.34 E-02
	920629 to 920706	*-2.33 E-03	1.13 E-02
	920706 to 920713	* 1.98 E-03	7.73 E-03
	920713 to 920720	*-1.74 E-03	7.85 E-03
	920720 to 920727	*-6.13 E-03	1.18 E-02
	920727 to 920803	*-1.22 E-03	9.91 E-03
	920803 to 920810	*-7.59 E-03	1.13 E-02
	920810 to 920817	* 7.81 E-03	1.51 E-02
	920817 to 920824	*-2.51 E-03	7.84 E-03
	920824 to 920831	* 2.78 E-03	1.35 E-02
	920831 to 920908	* 2.66 E-03	8.16 E-03
	920908 to 920914	*-5.69 E-03	1.11 E-02
	920914 to 920921	* 1.94 E-03	1.33 E-02
	920921 to 920928 (a)	* 1.18 E-02	1.67 E-02

(a) Unit failure; reduced sampling time.
* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
8	920928 to 921005	* 3.54 E-03	8.03 E-03
	921005 to 921012	* 2.04 E-03	1.22 E-02
	921012 to 921019	*-1.85 E-02	1.51 E-02
	921019 to 921026	*-4.05 E-04	1.03 E-02
	921026 to 921102	*-3.96 E-03	6.99 E-03
	921102 to 921109	* 2.34 E-03	7.85 E-03
	921109 to 921116	* 7.39 E-04	7.98 E-03
	921116 to 921123	* 7.87 E-03	1.60 E-02
	921123 to 921130	*-3.57 E-03	1.06 E-02
	921130 to 921207	* 3.68 E-03	1.07 E-02
	921207 to 921214	*-2.56 E-03	1.26 E-02
	921214 to 921221	*-1.28 E-03	1.38 E-02
	921221 to 921228	* 0.00 E+00	2.04 E-02

* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
9A	911230 to 920106	* 3.24 E-03	1.34 E-02
	920106 to 920113	* 6.86 E-03	1.35 E-02
	920113 to 920120	* 7.16 E-03	1.35 E-02
	920120 to 920127	*-1.22 E-03	1.34 E-02
	920127 to 920203	* 2.02 E-03	1.29 E-02
	920203 to 920210	* 0.00 E+00	1.36 E-02
	920210 to 920218	* 2.22 E-03	9.54 E-03
	920218 to 920224	* 7.38 E-03	1.15 E-02
	920224 to 920302	* 6.24 E-03	1.15 E-02
	920302 to 920309	* 1.43 E-03	1.19 E-02
	920309 to 920316	*-1.04 E-04	1.11 E-02
	920316 to 920323	* 3.71 E-03	1.14 E-02
	920323 to 920330	* 4.90 E-03	1.16 E-02
	920330 to 920406	* 8.26 E-03	2.30 E-02
	920406 to 920413	* 2.00 E-03	1.29 E-02
	920413 to 920420	* 9.98 E-03	1.38 E-02
	920420 to 920427	* 7.57 E-03	1.59 E-02
	920427 to 920504	* 2.88 E-03	1.05 E-02
	920504 to 920511	*-2.69 E-03	1.35 E-02
	920511 to 920518	*-4.58 E-03	1.32 E-02
	920518 to 920526	* 1.68 E-04	9.22 E-03
	920526 to 920601	* 4.49 E-04	1.34 E-02
	920601 to 920608	*-1.02 E-02	1.24 E-02
	920608 to 920615	* 2.21 E-03	8.28 E-03
	920615 to 920622	* 9.68 E-04	1.36 E-02
	920622 to 920629	*-3.31 E-03	1.35 E-02
	920629 to 920706	*-2.34 E-03	1.14 E-02
	920706 to 920713	* 1.99 E-03	7.78 E-03
	920713 to 920720	*-1.75 E-03	7.90 E-03
	920720 to 920727	*-6.26 E-03	1.20 E-02
	920727 to 920803	*-1.13 E-03	9.14 E-03
	920803 to 920810 (a)	*-1.09 E-02	1.63 E-02
	920810 to 920817	* 7.82 E-03	1.52 E-02
	920817 to 920824	*-2.53 E-03	7.91 E-03
	920824 to 920831	* 2.81 E-03	1.36 E-02
	920831 to 920908	* 4.10 E-03	1.26 E-02
	920908 to 920914	*-5.72 E-03	1.12 E-02
	920914 to 920921	* 1.95 E-03	1.33 E-02
	920921 to 920928	* 8.45 E-03	1.19 E-02

(a) Unit failure; reduced sampling time.
* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
9A	920928 to 921005	* 3.56 E-03	8.09 E-03
	921005 to 921012	* 2.05 E-03	1.22 E-02
	921012 to 921019	*-1.86 E-02	1.52 E-02
	921019 to 921026	*-4.07 E-04	1.04 E-02
	921026 to 921102	*-3.97 E-03	7.02 E-03
	921102 to 921109	* 2.36 E-03	7.90 E-03
	921109 to 921116	* 7.44 E-04	8.03 E-03
	921116 to 921123	* 7.94 E-03	1.62 E-02
	921123 to 921130	*-3.60 E-03	1.07 E-02
	921130 to 921207	* 3.71 E-03	1.08 E-02
	821207 to 921214	*-2.56 E-03	1.26 E-02
	921214 to 921221	*-1.29 E-03	1.39 E-02
	921221 to 921228	* 0.00 E+00	2.05 E-02

* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
21	911230 to 920106	* 3.27 E-03	1.35 E-02
	920106 to 920113	* 6.92 E-03	1.37 E-02
	920113 to 920120	* 7.22 E-03	1.37 E-02
	920120 to 920127	*-1.24 E-03	1.36 E-02
	920127 to 920203	* 2.04 E-03	1.30 E-02
	920203 to 920210	* 0.00 E+00	1.37 E-02
	920210 to 920218	* 2.24 E-03	9.63 E-03
	920218 to 920224	* 7.46 E-03	1.16 E-02
	920224 to 920302	* 6.30 E-03	1.16 E-02
	920302 to 920309	* 1.44 E-03	1.20 E-02
	920309 to 920316	*-1.05 E-04	1.13 E-02
	920316 to 920323	* 3.73 E-03	1.14 E-02
	920323 to 920330	* 4.99 E-03	1.18 E-02
	920330 to 920406	* 8.31 E-03	2.32 E-02
	920406 to 920413	* 2.03 E-03	1.31 E-02
	920413 to 920420	* 1.00 E-02	1.39 E-02
	920420 to 920427 (a)	* 7.99 E-03	1.68 E-02
	920427 to 920504	* 2.90 E-03	1.06 E-02
	920504 to 920511	*-2.74 E-03	1.37 E-02
	920511 to 920518	*-4.62 E-03	1.33 E-02
	920518 to 920526	* 1.70 E-04	9.33 E-03
	920526 to 920601	* 4.52 E-04	1.35 E-02
	920601 to 920608	*-1.03 E-02	1.26 E-02
	920608 to 920615	* 2.23 E-03	8.36 E-03
	920615 to 920622	* 9.79 E-04	1.37 E-02
	920622 to 920629	*-3.33 E-03	1.36 E-02
	920629 to 920706	*-2.38 E-03	1.16 E-02
	920706 to 920713	* 2.01 E-03	7.83 E-03
	920713 to 920720	*-1.77 E-03	7.99 E-03
	920720 to 920727	*-6.26 E-03	1.20 E-02
	920727 to 920803	*-1.25 E-03	1.01 E-02
	920803 to 920810	*-7.70 E-03	1.15 E-02
	920810 to 920817	* 7.92 E-03	1.54 E-02
	920817 to 920824	*-2.54 E-03	7.94 E-03
	920824 to 920831	* 2.84 E-03	1.38 E-02
	920831 to 920908	* 4.14 E-03	1.27 E-02
	920908 to 920914	*-5.77 E-03	1.13 E-02
	920914 to 920921	* 1.98 E-03	1.36 E-02
	920921 to 920928	* 8.52 E-03	1.20 E-02

(a) Unit failure; reduced sampling time.
* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
21	920928 to 921005	* 3.60 E-03	8.19 E-03
	921005 to 921012	* 2.07 E-03	1.24 E-02
	921012 to 921019	*-1.88 E-02	1.54 E-02
	921019 to 921026	*-4.10 E-04	1.05 E-02
	921026 to 921102	*-4.02 E-03	7.10 E-03
	921102 to 921109	* 2.38 E-03	7.99 E-03
	921109 to 921116	* 7.48 E-04	8.08 E-03
	921116 to 921123	* 7.99 E-03	1.63 E-02
	921123 to 921130	*-3.66 E-03	1.08 E-02
	921130 to 921207	* 3.75 E-03	1.10 E-02
	921207 to 921214	*-2.57 E-03	1.27 E-02
	921214 to 921221	*-1.31 E-03	1.42 E-02
	921221 to 921228	* 0.00 E+00	2.08 E-02

* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
23	911230 to 920106	* 3.26 E-03	1.35 E-02
	920106 to 920113	* 6.92 E-03	1.37 E-02
	920113 to 920120	* 7.22 E-03	1.36 E-02
	920120 to 920127	*-1.24 E-03	1.35 E-02
	920127 to 920203	* 2.04 E-03	1.30 E-02
	920203 to 920210	* 0.00 E+00	1.37 E-02
	920210 to 920218	* 2.24 E-03	9.63 E-03
	920218 to 920224	* 7.46 E-03	1.16 E-02
	920224 to 920302	* 6.30 E-03	1.16 E-02
	920302 to 920309	* 1.44 E-03	1.20 E-02
	920309 to 920316	*-1.05 E-04	1.12 E-02
	920316 to 920323 (a)	* 5.09 E-03	1.56 E-02
	920323 to 920330	* 4.99 E-03	1.18 E-02
	920330 to 920406	* 8.29 E-03	2.31 E-02
	920406 to 920413	* 2.03 E-03	1.31 E-02
	920413 to 920420	* 1.00 E-02	1.39 E-02
	920420 to 920427	* 7.68 E-03	1.62 E-02
	920427 to 920504	* 2.90 E-03	1.06 E-02
	920504 to 920511 (b)		
	920511 to 920518 (c)		
	920518 to 920526 (d)		
	920526 to 920601	* 4.51 E-04	1.34 E-02
	920601 to 920608	*-1.03 E-02	1.26 E-02
	920608 to 920615	* 2.23 E-03	8.36 E-03
	920615 to 920622	* 9.77 E-04	1.37 E-02
	920622 to 920629	*-3.33 E-03	1.36 E-02
	920629 to 920706	*-2.37 E-03	1.16 E-02
	920706 to 920713	* 2.01 E-03	7.84 E-03
	920713 to 920720	*-1.77 E-03	7.99 E-03
	920720 to 920727	*-6.26 E-03	1.20 E-02
	920727 to 920803	*-1.25 E-03	1.01 E-02
	920803 to 920810	*-7.72 E-03	1.15 E-02
	920810 to 920817	* 7.91 E-03	1.53 E-02
	920817 to 920824 (a)	*-2.80 E-03	8.76 E-03
	920824 to 920831	* 2.84 E-03	1.38 E-02
	920831 to 920908	* 4.13 E-03	1.27 E-02
	920908 to 920914	*-5.77 E-03	1.12 E-02
	920914 to 920921	* 1.97 E-03	1.35 E-02
	920921 to 920928	* 8.50 E-03	1.20 E-02

(a) Unit failure; reduced sampling time.
(b) Power outage; no sample collected.
(c) Power outage; temporarily replaced by Station 123.
(d) Unit failure; no sample collected.
* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
23	920928 to 921005	* 3.60 E-03	8.18 E-03
	921005 to 921012	* 2.06 E-03	1.23 E-02
	921012 to 921019	*-1.88 E-02	1.54 E-02
	921019 to 921026	*-4.10 E-04	1.05 E-02
	921026 to 921102	*-4.01 E-03	7.09 E-03
	921102 to 921109	* 2.39 E-03	8.00 E-03
	921109 to 921116	* 7.48 E-04	8.07 E-03
	921116 to 921123	* 7.98 E-03	1.63 E-02
	921123 to 921130	*-3.64 E-04	1.08 E-02
	921130 to 921207	* 3.75 E-03	1.10 E-02
	921207 to 921214	*-2.58 E-03	1.27 E-02
	921214 to 921221	*-1.30 E-03	1.41 E-02
	921221 to 921228	* 0.00 E+00	2.08 E-02

* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
40	911230 to 920106	* 2.10 E-03	8.69 E-03
	920106 to 920113	* 4.46 E-03	8.80 E-03
	920113 to 920120	* 4.29 E-03	8.12 E-03
	920120 to 920127	*-7.95 E-04	8.70 E-03
	920127 to 920203	* 1.31 E-03	8.38 E-03
	920203 to 920210	* 0.00 E+00	8.81 E-03
	920210 to 920218	* 8.63 E-04	3.70 E-03
	920218 to 920224	* 4.78 E-03	7.45 E-03
	920224 to 920302	* 2.42 E-03	4.44 E-03
	920302 to 920309	* 8.90 E-04	7.42 E-03
	920309 to 920316	*-6.45 E-05	6.90 E-03
	920316 to 920323	* 2.31 E-03	7.10 E-03
	920323 to 920330	* 3.07 E-03	7.27 E-03
	920330 to 920406 (a)	* 1.09 E-02	3.03 E-02
	920406 to 920413	* 1.40 E-03	9.02 E-03
	920413 to 920420	* 6.23 E-03	8.65 E-03
	920420 to 920427	* 4.92 E-03	1.04 E-02
	920427 to 920504	* 1.92 E-03	7.01 E-03
	920504 to 920511	*-2.68 E-03	1.34 E-02
	920511 to 920518	*-2.08 E-03	5.97 E-03
	920518 to 920526	* 1.22 E-04	6.72 E-03
	920526 to 920601	* 2.79 E-04	8.31 E-03
	920601 to 920608	*-6.77 E-03	8.26 E-03
	920608 to 920615	* 1.61 E-03	6.06 E-03
	920615 to 920622	* 6.05 E-04	8.47 E-03
	920622 to 920629	*-1.49 E-03	6.09 E-03
	920629 to 920706	*-1.47 E-03	7.15 E-03
	920706 to 920713	* 1.45 E-03	5.67 E-03
	920713 to 920720	*-1.28 E-03	5.76 E-03
	920720 to 920727	*-3.87 E-03	7.45 E-03
	920727 to 920803	*-8.15 E-04	6.59 E-03
	920803 to 920810	*-4.77 E-03	7.10 E-03
	920810 to 920817	* 5.09 E-03	9.86 E-03
	920817 to 920824	*-1.84 E-03	5.77 E-03
	920824 to 920831	* 1.81 E-03	8.81 E-03
	920831 to 920908	* 2.66 E-03	8.17 E-03
	920908 to 920914	*-4.17 E-03	8.14 E-03
	920914 to 920921	* 8.83 E-04	6.05 E-03
	920921 to 920928	* 5.62 E-03	7.94 E-03

(a) Unit failure; reduced sampling time.
* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
40	920928 to 921005	* 2.60 E-03	5.90 E-03
	921005 to 921012	* 1.28 E-03	7.64 E-03
	921012 to 921019	*-1.20 E-02	9.86 E-03
	921019 to 921026	*-2.70 E-04	6.91 E-03
	921026 to 921102	*-2.90 E-03	5.13 E-03
	921102 to 921109	* 1.72 E-03	5.77 E-03
	921109 to 921116	* 5.41 E-04	5.84 E-03
	921116 to 921123	* 4.95 E-03	1.01 E-02
	921123 to 921130	*-2.39 E-03	7.08 E-03
	921130 to 921207	* 2.46 E-03	7.19 E-03
	921207 to 921214	*-1.16 E-03	5.71 E-03
	921214 to 921221	*-8.35 E-04	9.03 E-03
	921221 to 921228	* 0.00 E+00	1.33 E-02

* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
48	911230 to 920106	*-1.45 E-03	1.94 E-02
	920106 to 920113	* 3.84 E-03	1.33 E-02
	920113 to 920120	*-2.34 E-03	1.37 E-02
	920120 to 920127	* 2.82 E-03	1.33 E-02
	920127 to 920203	*-7.84 E-03	1.29 E-02
	920203 to 920210	*-1.70 E-03	4.55 E-03
	920210 to 920218	*-2.50 E-03	1.48 E-02
	920218 to 920224	*-2.04 E-03	1.39 E-02
	920224 to 920302	*-5.91 E-03	7.83 E-03
	920302 to 920309	* 6.20 E-04	1.07 E-02
	920309 to 920316	*-5.27 E-03	1.53 E-02
	920316 to 920323	* 2.11 E-03	1.11 E-02
	920323 to 920330	*-5.38 E-03	1.10 E-02
	920330 to 920406	* 2.52 E-03	1.36 E-02
	920406 to 920413	*-1.07 E-04	7.00 E-03
	920413 to 920420	* 5.77 E-04	1.89 E-02
	920420 to 920427	*-5.00 E-03	1.06 E-02
	920427 to 920504	* 0.00 E+00	1.08 E-02
	920504 to 920511	*-1.22 E-03	6.10 E-03
	920511 to 920518	* 1.35 E-04	1.21 E-02
	920518 to 920526	*-9.88 E-04	1.46 E-02
	920526 to 920601	*-6.88 E-04	1.21 E-02
	920601 to 920608	*-6.67 E-03	1.14 E-02
	920608 to 920615	* 2.95 E-03	1.19 E-02
	920615 to 920622	* 5.29 E-03	1.36 E-02
	920622 to 920629	* 5.77 E-04	7.18 E-03
	920629 to 920706	* 2.44 E-04	1.00 E-02
	920706 to 920713	*-1.44 E-02	1.49 E-02
	920713 to 920720 (a)	*-8.66 E-03	1.41 E-02
	920720 to 920727	* 9.17 E-03	1.51 E-02
	920727 to 920803 (a)	* 2.70 E-02	4.75 E-02
	920803 to 920810	* 6.84 E-04	1.35 E-02
	920810 to 920817	* 5.53 E-04	1.34 E-02
	920817 to 920824	* 4.63 E-03	1.44 E-02
	920824 to 920831	* 4.80 E-03	1.16 E-02
	920831 to 920908	* 4.07 E-03	1.25 E-02
	920908 to 920914	*-4.66 E-04	2.17 E-02
	920914 to 920921	* 1.33 E-04	7.49 E-03
	920921 to 920928	*-4.14 E-03	1.68 E-02

(a) Low sample volume; not included in averages.
* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
48	920928 to 921005	*-2.69 E-04	1.20 E-02
	921005 to 921012	*-2.10 E-03	1.14 E-02
	921012 to 921019	* 4.16 E-03	1.19 E-02
	921019 to 921026	*-5.52 E-03	1.83 E-02
	921026 to 921102	*-5.84 E-03	1.09 E-02
	921102 to 921109	* 3.01 E-03	1.15 E-02
	921109 to 921116	* 6.21 E-03	1.16 E-02
	921116 to 921123	*-1.24 E-02	2.22 E-02
	921123 to 921130	*-6.79 E-03	1.14 E-02
	921130 to 921207	* 7.65 E-03	1.10 E-02
	921207 to 921214	* 2.18 E-03	1.12 E-02
	921214 to 921221	*-2.43 E-03	1.05 E-02
	921221 to 921228	* 1.75 E-04	9.31 E-03

* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
57	911230 to 920106	*-1.47 E-03	1.97 E-02
	920106 to 920113	* 3.90 E-03	1.35 E-02
	920113 to 920120	*-2.37 E-03	1.39 E-02
	920120 to 920127	* 2.87 E-03	1.35 E-02
	920127 to 920203	*-8.00 E-03	1.31 E-02
	920203 to 920210	* 2.05 E-03	8.15 E-03
	920210 to 920218	*-2.55 E-03	1.51 E-02
	920218 to 920224	*-2.07 E-03	1.41 E-02
	920224 to 920302	*-6.02 E-03	7.98 E-03
	920302 to 920309	* 6.32 E-04	1.09 E-02
	920309 to 920316	*-5.41 E-03	1.57 E-02
	920316 to 920323	* 1.95 E-03	1.02 E-02
	920323 to 920330	*-5.53 E-03	1.13 E-02
	920330 to 920406	* 2.55 E-03	1.38 E-02
	920406 to 920413	*-1.09 E-04	7.15 E-03
	920413 to 920420	* 5.86 E-04	1.92 E-02
	920420 to 920427	*-5.12 E-03	1.09 E-02
	920427 to 920504	* 0.00 E+00	1.10 E-02
	820504 to 920511	* 1.31 E-02	1.19 E-02
	920511 to 920518	* 1.37 E-04	1.23 E-02
	920518 to 920526	*-1.01 E-03	1.49 E-02
	920526 to 920601	*-7.00 E-04	1.23 E-02
	920601 to 920608	*-6.78 E-03	1.16 E-02
	920608 to 920615	* 2.99 E-03	1.21 E-02
	920615 to 920622	* 5.39 E-03	1.38 E-02
	920622 to 920629	* 5.87 E-04	7.31 E-03
	920629 to 920706	* 2.49 E-04	1.02 E-02
	920706 to 920713	*-1.46 E-02	1.51 E-02
	920713 to 920720	*-7.12 E-03	1.16 E-02
	920720 to 920727	* 9.37 E-03	1.54 E-02
	920727 to 920803	* 4.22 E-03	7.43 E-03
	920803 to 920810	* 6.96 E-04	1.38 E-02
	920810 to 920817	* 5.61 E-04	1.36 E-02
	920817 to 920824	* 4.69 E-03	1.46 E-02
	920824 to 920831	* 4.92 E-03	1.18 E-02
	920831 to 920908	* 4.14 E-03	1.27 E-02
	920908 to 920914	*-4.74 E-04	2.21 E-02
	920914 to 920921	* 1.36 E-04	7.67 E-03
	920921 to 920928	*-4.22 E-03	1.71 E-02

* Denotes a result less than the detection limit.

TABLE A-4.1 (Cont.)

I-131 IN CHARCOAL FILTERS

Results in pCi/cubic meter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
57	920928 to 921005	*-2.52 E-04	1.12 E-02
	921005 to 921012	*-2.52 E-03	1.38 E-02
	921012 to 921019	* 4.25 E-03	1.21 E-02
	921019 to 921026	*-5.15 E-03	1.71 E-02
	921026 to 921102	*-5.94 E-03	1.11 E-02
	921102 to 921109	* 3.06 E-03	1.18 E-02
	921109 to 921116	* 6.31 E-03	1.18 E-02
	921116 to 921123	*-1.26 E-02	2.26 E-02
	921123 to 921130	*-6.96 E-03	1.17 E-02
	921130 to 921207	* 7.84 E-03	1.13 E-02
	921207 to 921214	* 2.20 E-03	1.13 E-02
	921214 to 921221	*-2.49 E-03	1.08 E-02
	921221 to 921228	* 1.79 E-04	9.54 E-03

* Denotes a result less than the detection limit.

TABLE A-4.2

I-131 IN CHARCOAL FILTERS - SUMMARY

Results in pCi/cubic meter

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
I-131	(I)	4.85E-04	-1.88E-02	1.87E-02	571	0
I-131	(C)	8.46E-04	-1.86E-02	9.98E-03	52	0

(I) Indicator Stations
(C) Control Station

TABLE A-5.1

GROSS BETA IN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
		River/Drinking	
26	911203 to 920107	2.4 E+00	8.0 E-01
	920107 to 920204	2.0 E+00	8.0 E-01
	920204 to 920303	1.8 E+00	7.0 E-01
	920303 to 920407	2.0 E+00	8.0 E-01
	920407 to 920506	1.5 E+00	7.0 E-01
	920506 to 920602	1.8 E+00	9.0 E-01
	920602 to 920707	1.5 E+00	7.0 E-01
	920707 to 920804	2.2 E+00	8.0 E-01
	920804 to 920901	2.7 E+00	8.0 E-01
	920901 to 921006	* 8.9 E-01	6.8 E-01
	921006 to 921103	* 7.6 E-01	6.8 E-01
	921103 to 921201	1.9 E+00	1.0 E+00
28	911203 to 920107	2.0 E+00	8.0 E-01
	920107 to 920204	1.4 E+00	7.0 E-01
	920204 to 920303	2.5 E+00	7.0 E-01
	920303 to 920407	2.0 E+00	8.0 E-01
	920407 to 920506	1.6 E+00	7.0 E-01
	920506 to 920602	* 9.4 E-01	8.3 E-01
	920602 to 920707	2.1 E+00	8.0 E-01
	920707 to 920804	2.8 E+00	9.0 E-01
	920804 to 920901	1.6 E+00	7.0 E-01
	920901 to 921006	1.4 E+00	7.0 E-01
	921006 to 921103	* 7.9 E-01	6.9 E-01
	921103 to 921201	1.7 E+00	1.0 E+00
29	911203 to 920107	3.3 E+00	9.0 E-01
	920107 to 920204	3.0 E+00	9.0 E-01
	920204 to 920303	1.8 E+00	7.0 E-01
	920303 to 920407	1.3 E+00	7.0 E-01
	920407 to 920506	1.5 E+00	7.0 E-01
	920506 to 920602	* 3.2 E-01	7.6 E-01
	920602 to 920707	1.2 E+00	7.0 E-01
	920707 to 920804	* 6.4 E-01	7.1 E-01
	920804 to 920901	1.8 E+00	7.0 E-01
	920901 to 921006	1.5 E+00	7.0 E-01
	921006 to 921103	1.1 E+00	7.0 E-01
	921103 to 921201	* 1.2 E+00	9.7 E-01

* Denotes a result less than the detection limit.

TABLE A-5.1 (Cont.)

GROSS BETA IN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
		Discharge	
27	911203 to 920107	9.5 E+00	1.7 E+00
	920107 to 920204	1.2 E+01	2.0 E+00
	920204 to 920303	1.5 E+01	2.0 E+00
	920303 to 920407	1.0 E+01	2.0 E+00
	920407 to 920506 (a)	1.0 E+01	2.0 E+00
	920506 to 920602 (a)	3.0 E+01	2.0 E+00
	920602 to 920707 (a)	1.8 E+01	2.0 E+00
	920707 to 920804	1.2 E+01	2.0 E+00
	920804 to 920901 (a)	7.5 E+00	1.3 E+00
	920901 to 921006 (a)	1.1 E+01	2.0 E+00
	921006 to 921103 (a)	1.0 E+01	2.0 E+00
	921103 to 921201 (a)	1.2 E+01	2.0 E+00

(a) Blowdown flow greater than 4000 gpm during part of this time, preventing flow-proportional sampling.

* Denotes a result less than the detection limit.

TABLE A-5.2

GROSS BETA IN WATER - SUMMARY

Results in pCi/liter

NUCLIDE	AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
		River/Drinking			
Gr-Beta (I)	1.7E+00	3.2E-01	3.3E+00	24	19
Gr-Beta (C)	1.8E+00	7.6E-01	2.7E+00	12	10
		Discharge			
Gr-Beta (I)	1.3E+01	7.5E+00	3.0E+01	12	12

(I) Indicator Station
(C) Control Station

TABLE A-6.1

TRITIUM IN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
		River/Drinking	
26	920107 to 920407	* 6.8 E+01	7.3 E+01
	920402 to 920707	*-1.1 E+02	1.5 E+02
	920707 to 921006	1.2 E+02	7.0 E+01
	921006 to 921212	* 2.2 E+01	7.0 E+01
28	920107 to 920407	* 6.0 E+01	1.4 E+02
	920407 to 920707	* 1.4 E+02	1.0 E+02
	920707 to 921006	1.9 E+02	8.0 E+01
	921006 to 930106	* 8.3 E+01	7.6 E+01
29	920107 to 920407	* 2.6 E+01	1.7 E+02
	920407 to 920707	*-5.0 E+02	1.4 E+02
	920707 to 921006	* 5.8 E+01	7.4 E+01
	921006 to 930106	* 5.8 E+01	7.2 E+01
		Discharge	
27	920107 to 920407	1.8 E+03	1.0 E+02
	920407 to 920707 (a)	5.4 E+03	1.0 E+02
	920707 to 921006 (a)	4.4 E+03	2.0 E+02
	921006 to 930106 (a)	2.1 E+03	1.0 E+02

(a) Blowdown flow greater than 4000 gpm during part of this time, preventing flow-proportional sampling.

* Denotes a result less than the detection limit.

TABLE A-6.1 (Cont.)

TRITIUM IN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
		Ground	
31 (Well 1)	920303	*-1.0 E+02	1.1 E+02
	920602	*-2.2 E+02	7.3 E+01
	920901	*-2.0 E+00	9.8 E+01
	921201	*-2.8 E+01	6.9 E+01
32 (Well 2)	920303	*-6.9 E+01	7.5 E+01
	920602	*-1.4 E+02	1.4 E+01
	920901	*-6.9 E+01	9.1 E+01
	921201	*-4.2 E+01	6.8 E+01
52 (Well 3)	920303	* 5.7 E+01	7.7 E+01
	920602	* 7.7 E+01	9.7 E+01
	920901	* 9.4 E+00	9.4 E+01
	921202	* 6.4 E+01	7.3 E+01

* Denotes a result less than the detection limit.

TABLE A-6.2

TRITIUM IN WATER - SUMMARY

Results in pCi/liter

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
			River/Drinking			
H-3	(I)	1.44E+01	-5.00E+02	1.90E+02	8	1
H-3	(C)	2.50E+01	-1.10E+02	1.20E+02	4	1
			Discharge			
H-3	(I)	3.43E+03	1.80E+03	5.40E+03	4	4
			Ground			
H-3	(I)	-3.86E+01	-2.20E+02	7.70E+01	12	0

(I) Indicator Stations
(C) Control Station

TABLE A-7.1

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		River/Drinking		
26	911203 to 920107	Be-7	* 9.41 E+00	1.81 E+01
		K-40	4.48 E+01	2.43 E+01
		Mn-54	* 8.65 E-01	1.77 E+00
		Co-58	* 4.32 E-01	1.89 E+00
		Fe-59	* 9.05 E-01	3.83 E+00
		Co-60	* 1.29 E+00	1.84 E+00
		Zn-65	* 4.40 E+00	3.92 E+00
		Zr-95	*-6.98 E+00	3.80 E+00
		Nb-95	* 1.82 E+00	1.96 E+00
		Cs-134	* 2.33 E+00	2.18 E+00
		Cs-137	* 9.52 E-01	2.13 E+00
		Ba-140	* 1.05 E-01	7.07 E+00
		La-140	* 9.76 E-01	2.52 E+00
		Ra-226	*-6.74 E-01	2.97 E+01
		Th-228	* 1.70 E+00	3.20 E+00
	920107 to 920204	Be-7	*-1.58 E+00	1.63 E+01
		K-40	*-3.01 E+01	2.34 E+01
		Mn-54	* 6.11 E-01	1.63 E+00
		Co-58	*-3.61 E-01	1.67 E+00
		Fe-59	*-6.08 E-01	3.33 E+00
		Co-60	* 1.53 E-01	1.72 E+00
		Zn-65	*-2.47 E+00	3.73 E+00
		Zr-95	*-2.84 E+00	3.32 E+00
		Nb-95	* 7.79 E-01	1.80 E+00
		Cs-134	*-4.42 E-01	1.78 E+00
		Cs-137	* 2.23 E+00	1.92 E+00
		Ba-140	* 7.40 E-01	5.49 E+00
		La-140	* 0.00 E+00	2.55 E+00
		Ra-226	* 2.16 E+01	4.07 E+01
		Th-228	* 2.26 E+00	3.44 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		River/Drinking		
26	920204 to 920303	Be-7	*-1.14 E+01	1.77 E+01
		K-40	*-4.59 E+01	2.51 E+01
		Mn-54	* 6.19 E-01	1.87 E+00
		Co-58	*-1.07 E+00	1.86 E+00
		Fe-59	* 6.82 E-01	4.00 E+00
		Co-60	* 1.23 E+00	2.09 E+00
		Zn-65	* 1.76 E+00	3.82 E+00
		Zr-95	*-1.96 E+00	3.77 E+00
		Nb-95	* 1.28 E+00	2.03 E+00
		Cs-134	* 1.63 E+00	2.16 E+00
		Cs-137	* 7.16 E-01	2.07 E+00
		Ba-140	*-2.71 E+00	7.46 E+00
		La-140	* 0.00 E+00	3.39 E+00
		Ra-226	*-1.79 E+01	4.65 E+01
		Th-228	* 4.47 E+00	3.92 E+00
	920303 to 920407	Be-7	*-5.03 E+00	1.84 E+01
		K-40	*-6.21 E+01	3.86 E+01
		Mn-54	* 1.01 E+00	1.97 E+00
		Co-58	*-9.26 E-01	1.92 E+00
		Fe-59	*-1.77 E+00	4.17 E+00
		Co-60	* 0.00 E+00	1.97 E+00
		Zn-65	* 2.91 E+00	4.45 E+00
		Zr-95	* 5.84 E+00	4.36 E+00
		Nb-95	*-4.41 E-02	2.06 E+00
		Cs-134	* 5.23 E-01	2.11 E+00
		Cs-137	* 4.62 E-01	2.09 E+00
		Ba-140	* 4.23 E+00	8.17 E+00
		La-140	* 1.47 E+00	3.09 E+00
		Ra-226	*-8.00 E+01	3.73 E+01
		Th-228	*-5.48 E+00	3.14 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		River/Drinking		
26	920407 to 920506	Be-7	* 1.28 E+01	2.07 E+01
		K-40	*-2.07 E+01	2.85 E+01
		Mn-54	* 6.54 E-01	2.02 E+00
		Co-58	* 0.00 E+00	2.16 E+00
		Fe-59	* 7.27 E-01	4.42 E+00
		Co-60	*-9.64 E-01	2.11 E+00
		Zn-65	*-9.26 E-01	4.31 E+00
		Zr-95	* 1.54 E+00	4.41 E+00
		Nb-95	* 3.17 E+00	2.14 E+00
		Cs-134	* 4.71 E-01	2.17 E+00
		Cs-137	* 1.93 E+00	2.28 E+00
		Ba-140	* 1.09 E+00	8.23 E+00
		La-140	* 1.96 E-01	3.49 E+00
		Ra-226	*-1.88 E+01	4.89 E+01
		Th-228	*-1.74 E+00	4.20 E+00
	920506 to 920602	Be-7	* 1.50 E+01	2.11 E+01
		K-40	5.23 E+01	2.78 E+01
		Mn-54	* 9.54 E-01	2.22 E+00
		Co-58	*-8.15 E-01	2.33 E+00
		Fe-59	* 2.49 E+00	4.62 E+00
		Co-60	* 2.46 E-01	2.33 E+00
		Zn-65	* 8.52 E-01	4.70 E+00
		Zr-95	* 1.08 E-01	4.49 E+00
		Nb-95	* 1.16 E+00	2.37 E+00
		Cs-134	* 1.09 E+00	2.50 E+00
		Cs-137	* 1.39 E+00	2.42 E+00
		Ba-140	*-8.14 E-01	8.65 E+00
		La-140	*-1.44 E-01	3.57 E+00
		Ra-226	*-4.73 E+00	4.18 E+01
		Th-228	* 3.56 E+00	3.79 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		River/Drinking		
26	920602 to 920707	Be-7	* 7.27 E+00	1.79 E+01
		K-40	*-6.36 E+00	2.64 E+01
		Mn-54	* 2.57 E+00	1.86 E+00
		Co-58	* 1.24 E-01	1.86 E+00
		Fe-59	* 1.16 E+00	3.65 E+00
		Co-60	* 1.82 E-01	2.04 E+00
		Zn-65	* 3.11 E-01	3.80 E+00
		Zr-95	* 3.42 E-01	3.79 E+00
		Nb-95	* 1.58 E+00	1.98 E+00
		Cs-134	*-1.73 E+00	1.88 E+00
		Cs-137	* 4.10 E-01	2.21 E+00
		Ba-140	*-1.64 E+00	5.98 E+00
		La-140	* 9.44 E-01	2.73 E+00
		Ra-226	* 1.63 E+01	4.69 E+01
		Th-228	* 6.39 E-01	3.74 E+00
	920707 to 920804	Be-7	* 7.86 E+00	1.76 E+01
		K-40	*-2.43 E+01	2.51 E+01
		Mn-54	* 5.55 E-01	1.86 E+00
		Co-58	* 5.65 E-02	1.82 E+00
		Fe-59	* 2.70 E+00	3.54 E+00
		Co-60	* 2.52 E+00	2.20 E+00
		Zn-65	*-6.15 E+00	4.13 E+00
		Zr-95	* 0.00 E+00	3.66 E+00
		Nb-95	* 2.08 E+00	1.93 E+00
		Cs-134	* 4.20 E-01	1.96 E+00
		Cs-137	* 2.94 E+00	2.07 E+00
		Ba-140	* 6.97 E-01	6.10 E+00
		La-140	* 1.32 E+00	2.79 E+00
		Ra-226	* 4.93 E+01	4.41 E+01
		Th-228	* 5.98 E+00	3.58 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		River/Drinking		
26	920804 to 920901	Be-7	*-5.46 E+00	1.83 E+01
		K-40	*-2.82 E+01	2.70 E+01
		Mn-54	*-3.28 E-01	1.94 E+00
		Co-58	*-8.04 E-01	1.84 E+00
		Fe-59	* 1.79 E+00	3.99 E+00
		Co-60	* 3.98 E-01	2.07 E+00
		Zn-65	* 1.38 E+00	3.97 E+00
		Zr-95	*-9.57 E-01	3.67 E+00
		Nb-95	* 1.15 E+00	1.99 E+00
		Cs-134	*-2.40 E+00	2.13 E+00
		Cs-137	*-1.16 E-01	2.42 E+00
		Ba-140	* 5.04 E+00	7.91 E+00
		La-140	* 0.00 E+00	4.00 E+00
		Ra-226	*-5.18 E+00	4.15 E+01
		Th-228	*-8.65 E-01	3.55 E+00
	920901 to 921006	Be-7	* 9.27 E+00	1.88 E+01
		K-40	*-1.05 E+02	3.82 E+01
		Mn-54	* 9.28 E-01	1.88 E+00
		Co-58	* 8.32 E-01	2.15 E+00
		Fe-59	* 1.02 E+00	4.31 E+00
		Co-60	* 1.01 E+00	2.00 E+00
		Zn-65	*-3.94 E-01	4.14 E+00
		Zr-95	* 1.54 E+00	4.28 E+00
		Nb-95	* 5.95 E-01	2.05 E+00
		Cs-134	* 1.25 E+00	2.13 E+00
		Cs-137	* 1.82 E-01	2.11 E+00
		Ba-140	*-3.89 E+00	9.50 E+00
		La-140	* 3.86 E+00	3.92 E+00
		Ra-226	* 1.83 E+00	3.66 E+01
		Th-228	* 2.92 E+00	3.19 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		River/Drinking		
26	921006 to 921103	Be-7	*-1.10 E+01	1.76 E+01
		K-40	* 1.12 E+01	2.49 E+01
		Mn-54	*-1.09 E-01	1.80 E+00
		Co-58	*-1.10 E-01	1.76 E+00
		Fe-59	* 1.29 E-01	3.28 E+00
		Co-60	* 2.16 E+00	1.98 E+00
		Zn-65	*-1.65 E+00	3.78 E+00
		Zr-95	*-5.07 E-01	3.70 E+00
		Nb-95	*-2.61 E-01	1.87 E+00
		Cs-134	* 1.89 E+00	2.02 E+00
		Cs-137	* 1.72 E+00	2.14 E+00
		Ba-140	* 2.54 E+00	6.01 E+00
		La-140	*-2.38 E-01	2.61 E+00
		Ra-226	*-6.22 E+01	4.51 E+01
		Th-228	*-1.65 E-01	4.08 E+00
	921103 to 921201	Be-7	* 5.07 E+00	1.98 E+01
		K-40	*-4.20 E+01	2.72 E+01
		Mn-54	* 6.44 E-01	2.01 E+00
		Co-58	* 8.14 E-01	2.13 E+00
		Fe-59	* 1.76 E-01	3.96 E+00
		Co-60	* 5.28 E-01	1.92 E+00
		Zn-65	*-3.64 E-01	4.47 E+00
		Zr-95	*-8.19 E-01	4.04 E+00
		Nb-95	* 1.19 E+00	2.07 E+00
		Cs-134	* 5.41 E-01	2.34 E+00
		Cs-137	* 1.43 E+00	2.25 E+00
		Ba-140	*-3.85 E+00	7.43 E+00
		La-140	*-5.50 E-01	3.50 E+00
		Ra-226	*-8.25 E+01	4.98 E+01
		Th-228	* 5.45 E-01	4.09 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		River/Drinking		
28	911203 to 920107	Be-7	* 3.42 E+00	2.39 E+01
		K-40	* 5.12 E+01	4.49 E+01
		Mn-54	* 1.50 E+00	2.26 E+00
		Co-58	* 2.21 E+00	2.32 E+00
		Fe-59	* 4.10 E+00	4.67 E+00
		Co-60	* 0.00 E+00	2.20 E+00
		Zn-65	* 2.03 E+00	4.71 E+00
		Zr-95	*-4.72 E+00	5.10 E+00
		Nb-95	*-9.24 E-01	2.37 E+00
		Cs-134	* 5.11 E-02	2.46 E+00
		Cs-137	* 1.64 E+00	2.66 E+00
		Ba-140	*-3.83 E+00	9.56 E+00
		La-140	*-1.66 E+00	3.11 E+00
		Ra-226	*-4.12 E+00	5.07 E+01
		Th-228	* 1.74 E+00	4.78 E+00
	920107 to 920204	Be-7	*-1.91 E+00	1.44 E+01
		K-40	* 6.09 E+00	2.34 E+01
		Mn-54	* 9.99 E-01	1.63 E+00
		Co-58	*-6.22 E-01	1.50 E+00
		Fe-59	*-9.14 E-02	3.24 E+00
		Co-60	* 1.03 E+00	1.73 E+00
		Zn-65	*-2.15 E+00	3.47 E+00
		Zr-95	* 1.36 E+00	3.14 E+00
		Nb-95	* 4.41 E-01	1.58 E+00
		Cs-134	*-2.56 E+00	1.74 E+00
		Cs-137	*-2.69 E+00	1.95 E+00
		Ba-140	* 0.00 E+00	4.88 E+00
		La-140	* 4.25 E-01	2.30 E+00
		Ra-226	* 6.30 E+00	3.35 E+01
		Th-228	*-1.90 E+00	2.88 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		River/Drinking		
28	920204 to 920303	Be-7	*-1.47 E+01	2.05 E+01
		K-40	* 1.52 E+01	4.64 E+01
		Mn-54	* 1.24 E+00	2.14 E+00
		Co-58	*-5.14 E-01	2.23 E+00
		Fe-59	* 4.85 E+00	4.96 E+00
		Co-60	* 5.77 E-01	2.18 E+00
		Zn-65	* 0.00 E+00	4.76 E+00
		Zr-95	*-2.38 E+00	4.56 E+00
		Nb-95	* 2.20 E+00	2.22 E+00
		Cs-134	*-1.40 E+00	2.38 E+00
		Cs-137	* 2.10 E+00	2.53 E+00
		Ba-140	*-2.28 E+00	8.28 E+00
		La-140	*-2.49 E-01	3.32 E+00
		Ra-226	* 1.49 E+01	4.57 E+01
		Th-228	* 6.35 E+00	3.91 E+00
28	920303 to 930407	Be-7	* 4.68 E+00	1.77 E+01
		K-40	*-4.34 E+01	2.60 E+01
		Mn-54	* 7.31 E-01	1.73 E+00
		Co-58	*-1.30 E+00	1.79 E+00
		Fe-59	* 2.07 E+00	3.95 E+00
		Co-60	* 9.91 E-01	1.97 E+00
		Zn-65	* 4.16 E+00	3.55 E+00
		Zr-95	* 2.25 E+00	3.67 E+00
		Nb-95	* 7.99 E-01	1.89 E+00
		Cs-134	* 7.08 E-01	1.85 E+00
		Cs-137	* 3.56 E+00	2.15 E+00
		Ba-140	*-1.57 E+00	7.40 E+00
		La-140	* 1.93 E+00	3.66 E+00
		Ra-226	* 3.24 E+01	4.28 E+01
		Th-228	*-1.36 E+01	3.52 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		River/Drinking		
28	920602 to 920707	Be-7	* 4.26 E+00	1.84 E+01
		K-40	*-5.88 E+01	4.29 E+01
		Mn-54	* 4.23 E-02	2.06 E+00
		Co-58	*-4.72 E-01	1.97 E+00
		Fe-59	* 0.00 E+00	4.27 E+00
		Co-60	*-1.50 E+00	2.12 E+00
		Zn-65	*-1.29 E+00	4.53 E+00
		Zr-95	* 1.66 E+00	4.20 E+00
		Nb-95	*-4.87 E-01	1.98 E+00
		Cs-134	* 1.38 E+00	2.22 E+00
		Cs-137	* 9.75 E-01	2.22 E+00
		Ba-140	*-2.07 E+00	6.46 E+00
		La-140	* 2.87 E+00	2.62 E+00
		Ra-226	*-2.20 E-01	3.84 E+01
		Th-228	* 2.04 E+00	3.40 E+00
	920707 to 920804	Be-7	* 3.43 E+00	1.92 E+01
		K-40	*-1.28 E+01	2.73 E+01
		Mn-54	* 1.22 E-01	1.81 E+00
		Co-58	*-2.51 E-01	1.90 E+00
		Fe-59	* 4.67 E+00	3.94 E+00
		Co-60	* 1.39 E+00	2.13 E+00
		Zn-65	* 6.31 E-01	4.06 E+00
		Zr-95	* 1.15 E-01	3.88 E+00
		Nb-95	* 5.93 E-01	1.88 E+00
		Cs-134	* 3.97 E-01	2.23 E+00
		Cs-137	* 2.08 E+00	2.25 E+00
		Ba-140	*-9.67 E-01	6.69 E+00
		La-140	*-2.45 E+00	3.12 E+00
		Ra-226	* 1.64 E+01	4.55 E+01
		Th-228	* 4.07 E+00	3.75 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		River/Drinking		
28	920804 to 920901	Be-7	* 1.64 E+01	2.51 E+01
		K-40	*-1.03 E+02	5.87 E+01
		Mn-54	*-1.01 E+00	2.49 E+00
		Co-58	*-8.08 E-01	2.63 E+00
		Fe-59	*-6.29 E+00	5.86 E+00
		Co-60	* 1.04 E+00	2.61 E+00
		Zn-65	* 7.53 E-01	5.49 E+00
		Zr-95	* 5.74 E-01	5.52 E+00
		Nb-95	* 3.19 E+00	2.69 E+00
		Cs-134	*-7.66 E-01	2.76 E+00
		Cs-137	* 7.29 E-01	2.86 E+00
		Ba-140	*-7.65 E+00	1.08 E+01
		La-140	*-3.36 E-01	4.10 E+00
		Ra-226	*-1.97 E+01	4.75 E+01
		Th-228	* 1.21 E+01	4.18 E+00
	920901 to 921006	Be-7	* 1.14 E+01	1.83 E+01
		K-40	*-7.72 E+01	2.51 E+01
		Mn-54	* 2.97 E-01	1.79 E+00
		Co-58	* 4.82 E-01	1.94 E+00
		Fe-59	* 4.20 E+00	4.31 E+00
		Co-60	* 1.00 E+00	1.88 E+00
		Zn-65	* 8.79 E-01	3.73 E+00
		Zr-95	* 0.00 E+00	3.99 E+00
		Nb-95	* 1.53 E+00	2.08 E+00
		Cs-134	*-5.31 E-01	2.04 E+00
		Cs-137	*-1.47 E+00	2.37 E+00
		Ba-140	* 8.50 E+00	9.30 E+00
		La-140	* 2.73 E+00	4.40 E+00
		Ra-226	*-1.77 E+01	3.93 E+01
		Th-228	* 3.05 E+00	3.41 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		River/Drinking		
28	921006 to 921103	Be-7	* 3.14 E+00	1.20 E+01
		K-40	*-5.28 E+01	2.06 E+01
		Mn-54	* 1.98 E-01	1.18 E+00
		Co-58	* 4.68 E-01	1.21 E+00
		Fe-59	* 2.33 E+00	2.52 E+00
		Co-60	* 1.93 E+00	1.39 E+00
		Zn-65	* 5.81 E-01	2.51 E+00
		Zr-95	*-3.08 E-01	2.52 E+00
		Nb-95	* 9.18 E-01	1.30 E+00
		Cs-134	* 1.29 E+00	1.35 E+00
		Cs-137	* 2.54 E-01	1.45 E+00
		Ba-140	*-9.78 E-01	4.04 E+00
		La-140	*-4.99 E-01	1.74 E+00
		Ra-226	*-2.52 E+01	3.07 E+01
		Th-228	*-2.24 E+00	2.60 E+00
	921103 to 921201	Be-7	*-8.02 E+00	2.03 E+01
		K-40	* 6.44 E+00	4.77 E+01
		Mn-54	* 1.39 E+00	2.20 E+00
		Co-58	* 7.17 E-01	2.26 E+00
		Fe-59	* 3.77 E+00	4.97 E+00
		Co-60	* 4.36 E-01	2.23 E+00
		Zn-65	*-1.26 E-01	4.65 E+00
		Zr-95	*-7.41 E+00	4.68 E+00
		Nb-95	* 2.28 E+00	2.32 E+00
		Cs-134	* 2.09 E+00	2.37 E+00
		Cs-137	* 1.13 E+00	2.44 E+00
		Ba-140	* 1.69 E+00	8.22 E+00
		La-140	* 2.01 E+00	3.12 E+00
		Ra-226	*-2.03 E+01	4.18 E+01
		Th-228	* 2.69 E+00	3.64 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		River/Drinking		
29	911203 to 920107	Be-7	* 1.22 E+00	1.78 E+01
		K-40	*-9.58 E+01	3.62 E+01
		Mn-54	* 1.53 E+00	1.79 E+00
		Co-58	* 1.09 E+00	1.81 E+00
		Fe-59	* 4.17 E-01	3.89 E+00
		Co-60	*-2.40 E-01	1.73 E+00
		Zn-65	*-2.55 E-01	3.68 E+00
		Zr-95	*-6.51 E+00	3.73 E+00
		Nb-95	* 2.12 E+00	1.90 E+00
		Cs-134	* 3.05 E+00	2.13 E+00
		Cs-137	* 4.05 E+00	2.03 E+00
		Ba-140	* 6.62 E-01	7.15 E+00
		La-140	*-5.14 E-01	2.78 E+00
		Ra-226	* 2.01 E+01	2.94 E+01
		Th-228	* 2.15 E+00	3.19 E+00
	920107 to 920204	Be-7	* 1.68 E+00	1.46 E+01
		K-40	* 7.98 E+00	2.19 E+01
		Mn-54	* 7.99 E-01	1.57 E+00
		Co-58	* 6.93 E-01	1.52 E+00
		Fe-59	* 0.00 E+00	3.16 E+00
		Co-60	* 1.01 E+00	1.74 E+00
		Zn-65	* 3.36 E+00	3.29 E+00
		Zr-95	* 3.69 E+00	3.22 E+00
		Nb-95	* 1.57 E+00	1.58 E+00
		Cs-134	* 3.31 E-01	1.76 E+00
		Cs-137	*-1.97 E+00	1.95 E+00
		Ba-140	*-2.90 E+00	5.19 E+00
		La-140	*-1.89 E+00	2.15 E+00
		Ra-226	*-8.91 E+01	3.54 E+01
		Th-228	*-1.78 E+01	2.84 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		River/Drinking		
29	920204 to 920303	Be-7	* 1.03 E+01	1.70 E+01
		K-40	*-1.45 E+01	2.69 E+01
		Mn-54	*-1.04 E+00	1.81 E+00
		Co-58	* 1.02 E+00	1.87 E+00
		Fe-59	*-1.80 E+00	3.94 E+00
		Co-60	* 2.19 E-01	2.10 E+00
		Zn-65	* 3.31 E+00	3.82 E+00
		Zr-95	* 3.56 E+00	3.78 E+00
		Nb-95	* 1.53 E+00	1.85 E+00
		Cs-134	* 4.48 E-01	1.91 E+00
		Cs-137	*-2.73 E+00	2.33 E+00
		Ba-140	*-3.95 E+00	6.40 E+00
		La-140	*-1.74 E+00	2.89 E+00
		Ra-226	*-3.55 E+01	3.85 E+01
		Th-228	* 7.28 E-01	3.33 E+00
	920303 to 930407	Be-7	*-1.82 E+01	2.03 E+01
		K-40	*-7.31 E+01	3.99 E+01
		Mn-54	*-2.48 E-01	1.99 E+00
		Co-58	* 1.57 E+00	2.08 E+00
		Fe-59	*-5.00 E-01	4.60 E+00
		Co-60	*-7.24 E-01	2.17 E+00
		Zn-65	*-1.13 E+00	4.63 E+00
		Zr-95	* 1.93 E+00	4.55 E+00
		Nb-95	* 3.92 E+00	2.26 E+00
		Cs-134	*-3.22 E-01	2.31 E+00
		Cs-137	* 1.61 E+00	2.25 E+00
		Ba-140	*-1.73 E+00	8.68 E+00
		La-140	*-8.35 E-01	3.30 E+00
		Ra-226	*-3.56 E+01	3.92 E+01
		Th-228	* 1.07 E+00	3.49 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		River/Drinking		
29	920407 to 920506	Be-7	* 1.13 E+00	1.87 E+01
		K-40	*-7.18 E-01	2.80 E+01
		Mn-54	* 2.85 E-01	1.90 E+00
		Co-58	* 2.26 E+00	1.96 E+00
		Fe-59	*-4.25 E+00	4.30 E+00
		Co-60	* 1.08 E+00	2.12 E+00
		Zn-65	* 1.01 E+00	3.95 E+00
		Zr-95	* 9.90 E-01	4.09 E+00
		Nb-95	*-4.52 E-01	2.04 E+00
		Cs-134	*-6.16 E-01	2.12 E+00
		Cs-137	* 8.49 E-01	2.57 E+00
		Ba-140	*-5.66 E+00	7.87 E+00
		La-140	* 2.88 E+00	3.58 E+00
		Ra-226	*-3.31 E+01	4.24 E+01
		Th-228	*-6.40 E-01	3.66 E+00
29	920506 to 920602	Be-7	*-1.34 E+00	1.81 E+01
		K-40	*-1.44 E+01	3.68 E+01
		Mn-54	* 1.28 E+00	1.91 E+00
		Co-58	*-1.25 E+00	1.96 E+00
		Fe-59	* 4.26 E+00	4.00 E+00
		Co-60	* 8.65 E-01	1.85 E+00
		Zn-65	* 2.48 E+00	4.10 E+00
		Zr-95	* 2.48 E+00	3.99 E+00
		Nb-95	* 1.88 E+00	1.99 E+00
		Cs-134	*-9.68 E-01	2.05 E+00
		Cs-137	* 9.46 E-01	2.14 E+00
		Ba-140	*-2.11 E+00	7.10 E+00
		La-140	*-9.29 E-01	2.59 E+00
		Ra-226	*-4.82 E+00	3.77 E+01
		Th-228	* 3.85 E+00	3.17 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		River/Drinking		
29	920602 to 920707	Be-7	* 0.00 E+00	1.69 E+01
		K-40	*-2.33 E+01	2.49 E+01
		Mn-54	* 1.01 E+00	1.74 E+00
		Co-58	*-4.86 E-02	1.77 E+00
		Fe-59	*-6.80 E-01	3.64 E+00
		Co-60	* 3.53 E-01	2.00 E+00
		Zn-65	* 1.21 E+00	3.79 E+00
		Zr-95	* 1.17 E+00	3.67 E+00
		Nb-95	* 1.89 E+00	1.86 E+00
		Cs-134	*-1.36 E+00	2.02 E+00
		Cs-137	*-3.24 E+00	2.34 E+00
		Ba-140	*-2.00 E+00	5.85 E+00
		La-140	*-1.25 E+00	2.55 E+00
		Ra-226	*-4.04 E+01	3.89 E+01
		Th-228	*-4.73 E+00	3.32 E+00
	920707 to 920804	Be-7	* 8.77 E+00	2.18 E+01
		K-40	*-5.29 E+00	5.34 E+01
		Mn-54	* 1.83 E-01	2.36 E+00
		Co-58	*-1.55 E+00	2.32 E+00
		Fe-59	*-2.45 E+00	5.06 E+00
		Co-60	* 1.08 E+00	2.31 E+00
		Zn-65	* 5.70 E+00	5.19 E+00
		Zr-95	* 1.21 E+00	4.93 E+00
		Nb-95	* 6.24 E-01	2.44 E+00
		Cs-134	*-7.43 E-01	2.54 E+00
		Cs-137	* 8.30 E-01	2.57 E+00
		Ba-140	* 1.23 E-01	8.24 E+00
		La-140	* 4.44 E-01	3.27 E+00
		Ra-226	* 6.71 E+00	4.32 E+01
		Th-228	* 7.77 E+00	3.89 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		River/Drinking		
29	920804 to 920901	Be-7	*-1.70 E+01	1.89 E+01
		K-40	*-4.60 E+02	4.22 E+01
		Mn-54	* 5.98 E-01	1.91 E+00
		Co-58	*-1.05 E+00	2.02 E+00
		Fe-59	* 5.92 E-01	4.38 E+00
		Co-60	* 5.65 E-02	1.89 E+00
		Zn-65	* 1.49 E+00	4.32 E+00
		Zr-95	*-4.07 E-01	4.29 E+00
		Nb-95	* 1.28 E+00	2.11 E+00
		Cs-134	*-9.48 E-01	2.15 E+00
		Cs-137	* 6.15 E-01	2.14 E+00
		Ba-140	*-6.49 E-01	8.10 E+00
		La-140	*-6.45 E+00	3.22 E+00
		Ra-226	*-2.87 E+01	3.91 E+01
		Th-228	*-1.02 E+01	3.55 E+00
	920901 to 921006	Be-7	* 3.62 E+00	1.99 E+01
		K-40	*-2.24 E+01	4.29 E+01
		Mn-54	* 8.73 E-02	1.99 E+00
		Co-58	*-1.09 E+00	2.19 E+00
		Fe-59	* 4.64 E-01	5.01 E+00
		Co-60	* 1.33 E+00	2.13 E+00
		Zn-65	*-3.33 E-01	4.49 E+00
		Zr-95	* 8.77 E-01	4.59 E+00
		Nb-95	* 4.06 E-01	2.22 E+00
		Cs-134	* 1.92 E+00	2.24 E+00
		Cs-137	* 1.64 E+00	2.28 E+00
		Ba-140	* 6.44 E+00	1.06 E+01
		La-140	* 2.27 E+00	4.61 E+00
		Ra-226	* 1.89 E+01	3.89 E+01
		Th-228	* 1.36 E+00	3.37 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		River/Drinking		
29	921006 to 921103	Be-7	* 5.12 E+00	1.53 E+01
		K-40	*-9.76 E+01	3.60 E+01
		Mn-54	* 4.18 E-01	1.69 E+00
		Co-58	*-1.48 E+00	1.65 E+00
		Fe-59	* 2.25 E+00	3.54 E+00
		Co-60	* 1.05 E+00	1.73 E+00
		Zn-65	*-7.52 E-01	3.60 E+00
		Zr-95	*-2.47 E+00	3.65 E+00
		Nb-95	* 1.06 E+00	1.71 E+00
		Cs-134	* 6.81 E-01	1.87 E+00
		Cs-137	* 1.15 E+00	1.87 E+00
		Ba-140	*-5.17 E-01	5.51 E+00
		La-140	* 1.29 E+00	2.26 E+00
		Ra-226	*-2.49 E+01	3.16 E+01
		Th-228	* 7.48 E-01	2.83 E+00
	921103 to 921201	Be-7	* 1.61 E+01	1.87 E+01
		K-40	*-1.96 E+01	2.79 E+01
		Mn-54	* 8.41 E-01	1.97 E+00
		Co-58	* 6.97 E-01	1.97 E+00
		Fe-59	*-1.93 E+00	4.09 E+00
		Co-60	*-8.20 E-02	2.14 E+00
		Zn-65	* 1.99 E+00	4.22 E+00
		Zr-95	*-1.72 E+00	3.91 E+00
		Nb-95	*-5.51 E-01	1.92 E+00
		Cs-134	* 6.07 E-02	2.21 E+00
		Cs-137	*-9.85 E-02	2.60 E+00
		Ba-140	*-1.12 E+00	7.22 E+00
		La-140	* 9.91 E-01	3.38 E+00
		Ra-226	*-1.17 E+01	4.22 E+01
		Th-228	* 3.43 E+00	3.56 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		Discharge		
27	911203 to 920107	Be-7	* 3.24 E+00	2.63 E+01
		K-40	*-7.38 E+01	6.07 E+01
		Mn-54	* 6.17 E-02	2.72 E+00
		Co-58	*-1.29 E-01	2.94 E+00
		Fe-59	* 2.15 E+00	6.13 E+00
		Co-60	* 3.80 E+00	2.94 E+00
		Zn-65	* 7.83 E-01	6.08 E+00
		Zr-95	* 5.12 E+00	5.87 E+00
		Nb-95	* 1.28 E+00	2.83 E+00
		Cs-134	* 2.00 E-01	3.06 E+00
		Cs-137	* 2.47 E+00	3.11 E+00
		Ba-140	* 5.02 E+00	1.07 E+01
		La-140	*-1.66 E+00	4.38 E+00
		Ra-226	* 1.92 E+01	5.35 E+01
		Th-228	* 4.63 E-01	4.68 E+00
	920107 to 920204	Be-7	* 3.88 E-01	1.71 E+01
		K-40	*-3.19 E+01	2.64 E+01
		Mn-54	* 1.41 E+00	1.77 E+00
		Co-58	*-9.91 E-01	1.63 E+00
		Fe-59	* 8.64 E-01	3.53 E+00
		Co-60	*-1.54 E+00	1.97 E+00
		Zn-65	*-2.92 E+00	3.79 E+00
		Zr-95	* 2.29 E+00	3.78 E+00
		Nb-95	* 1.41 E+00	1.86 E+00
		Cs-134	* 5.31 E-01	1.93 E+00
		Cs-137	* 0.00 E+00	1.96 E+00
		Ba-140	* 7.56 E-01	5.73 E+00
		La-140	*-2.12 E+00	2.57 E+00
		Ra-226	*-8.75 E+00	5.06 E+01
		Th-228	*-3.43 E+00	4.03 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		Discharge		
27	920204 to 920303	Be-7	* 5.95 E+00	2.01 E+01
		K-40	*-5.29 E+00	3.11 E+01
		Mn-54	* 2.14 E+00	1.83 E+00
		Co-58	*-1.03 E+00	1.83 E+00
		Fe-59	* 0.00 E+00	4.20 E+00
		Co-60	* 2.28 E+00	2.43 E+00
		Zn-65	* 2.08 E-01	4.22 E+00
		Zr-95	* 2.37 E+00	4.41 E+00
		Nb-95	* 1.95 E+00	2.24 E+00
		Cs-134	* 8.93 E-02	2.15 E+00
		Cs-137	* 9.48 E-01	2.42 E+00
		Ba-140	*-4.04 E+00	7.44 E+00
		La-140	* 2.70 E+00	3.29 E+00
		Ra-226	*-3.32 E+01	5.79 E+01
		Th-228	*-9.48 E-02	4.68 E+00
	920303 to 930407	Be-7	* 1.47 E+01	2.46 E+01
		K-40	*-8.30 E+01	6.11 E+01
		Mn-54	* 3.19 E-01	2.49 E+00
		Co-58	*-2.79 E-01	2.68 E+00
		Fe-59	*-6.73 E-01	5.68 E+00
		Co-60	* 1.09 E+00	2.58 E+00
		Zn-65	*-1.90 E+00	5.63 E+00
		Zr-95	*-2.88 E+00	5.35 E+00
		Nb-95	* 9.54 E-01	2.65 E+00
		Cs-134	* 2.69 E+00	2.83 E+00
		Cs-137	* 1.31 E+00	2.95 E+00
		Ba-140	* 4.35 E+00	1.06 E+01
		La-140	*-1.52 E+00	3.84 E+00
		Ra-226	*-4.47 E+01	5.02 E+01
		Th-228	* 1.21 E+00	4.19 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		Ground		
31	920303	Be-7	* 8.89 E+00	2.00 E+01
		K-40	* 1.59 E+01	4.43 E+01
		Mn-54	* 1.08 E+00	2.11 E+00
		Co-58	*-9.25 E-01	2.14 E+00
		Fe-59	* 5.77 E-01	4.55 E+00
		Co-60	* 1.24 E+00	2.28 E+00
		Zn-65	* 5.35 E+00	4.88 E+00
		Zr-95	* 8.37 E+00	4.54 E+00
		Nb-95	* 3.42 E+00	2.29 E+00
		Cs-134	* 0.00 E+00	2.41 E+00
		Cs-137	* 2.92 E+00	2.38 E+00
		Ba-140	* 1.75 E+00	7.75 E+00
		La-140	*-4.75 E-01	3.11 E+00
		Ra-226	*-2.45 E+01	4.52 E+01
		Th-228	*-2.33 E+00	3.82 E+00
	920602	Be-7	* 8.87 E+00	1.99 E+01
		K-40	* 9.98 E+00	4.46 E+01
		Mn-54	* 1.59 E+00	2.05 E+00
		Co-58	* 5.16 E-02	2.17 E+00
		Fe-59	* 2.44 E-01	4.60 E+00
		Co-60	* 2.96 E+00	2.23 E+00
		Zn-65	* 3.38 E+00	4.77 E+00
		Zr-95	* 8.42 E+00	4.62 E+00
		Nb-95	* 2.75 E+00	2.27 E+00
		Cs-134	*-1.35 E+00	2.26 E+00
		Cs-137	* 8.11 E-01	2.24 E+00
		Ba-140	* 2.77 E+00	8.10 E+00
		La-140	* 0.00 E+00	3.10 E+00
		Ra-226	* 3.66 E+01	4.18 E+01
		Th-228	*-5.97 E+00	3.61 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		Ground		
31	920901	Be-7	* 1.84 E+00	1.99 E+01
		K-40	* 5.13 E+01	2.81 E+01
		Mn-54	* 4.18 E-01	2.04 E+00
		Co-58	* 2.19 E-01	1.99 E+00
		Fe-59	*-5.29 E-01	4.22 E+00
		Co-60	*-1.23 E+00	2.11 E+00
		Zn-65	* 1.60 E+00	4.08 E+00
		Zr-95	*-3.11 E+00	3.95 E+00
		Nb-95	* 1.32 E+00	2.18 E+00
		Cs-134	* 2.25 E-01	2.05 E+00
		Cs-137	* 3.96 E-01	2.17 E+00
		Ba-140	*-7.66 E+00	8.48 E+00
		La-140	* 1.19 E+00	3.53 E+00
		Ra-226	*-1.10 E+01	4.75 E+01
		Th-228	*-5.35 E+00	3.93 E+00
	921201	Be-7	*-5.34 E+00	1.95 E+01
		K-40	* 1.17 E+01	2.82 E+01
		Mn-54	*-6.58 E-02	2.06 E+00
		Co-58	*-5.44 E-01	2.01 E+00
		Fe-59	* 1.98 E+00	4.37 E+00
		Co-60	*-9.97 E-02	1.95 E+00
		Zn-65	* 2.38 E+00	4.78 E+00
		Zr-95	*-1.25 E-01	4.18 E+00
		Nb-95	* 3.08 E+00	2.24 E+00
		Cs-134	* 6.38 E-01	2.14 E+00
		Cs-137	* 1.55 E+00	2.28 E+00
		Ba-140	*-5.08 E+00	7.57 E+00
		La-140	*-1.74 E+00	3.20 E+00
		Ra-226	*-6.56 E+00	4.39 E+01
		Th-228	* 6.31 E-01	3.77 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		Ground		
32	920303	Be-7	*-1.03 E+01	2.46 E+01
		K-40	* 1.87 E+01	6.30 E+01
		Mn-54	*-3.26 E-01	2.55 E+00
		Co-58	*-1.69 E+00	2.71 E+00
		Fe-59	* 5.30 E-01	5.66 E+00
		Co-60	*-2.37 E-01	2.64 E+00
		Zn-65	* 1.50 E+00	5.84 E+00
		Zr-95	* 2.08 E-01	5.48 E+00
		Nb-95	* 3.95 E+00	2.76 E+00
		Cs-134	*-7.64 E-01	2.88 E+00
		Cs-137	* 1.51 E+00	2.96 E+00
		Ba-140	*-4.68 E+00	1.01 E+01
		La-140	*-4.21 E+00	3.94 E+00
		Ra-226	*-6.27 E+00	5.23 E+01
		Th-228	* 4.99 E+00	4.65 E+00
	920602	Be-7	*-1.16 E+00	2.64 E+01
		K-40	*-1.70 E+00	6.66 E+01
		Mn-54	*-5.40 E-01	2.77 E+00
		Co-58	* 1.12 E+00	2.89 E+00
		Fe-59	* 1.04 E+00	6.22 E+00
		Co-60	* 2.92 E+00	2.83 E+00
		Zn-65	* 6.11 E-01	6.18 E+00
		Zr-95	*-3.44 E-01	5.81 E+00
		Nb-95	* 2.07 E+00	2.95 E+00
		Cs-134	*-8.42 E-01	3.11 E+00
		Cs-137	* 1.82 E+00	3.04 E+00
		Ba-140	* 6.92 E-01	1.08 E+01
		La-140	* 5.02 E+00	4.36 E+00
		Ra-226	*-2.74 E+01	5.64 E+01
		Th-228	* 1.49 E+00	4.75 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		Ground		
32	920901	Be-7	*-1.11 E+00	2.08 E+01
		K-40	*-2.84 E+01	3.31 E+01
		Mn-54	* 2.44 E+00	2.18 E+00
		Co-58	*-7.07 E-01	1.99 E+00
		Fe-59	*-4.26 E-01	4.59 E+00
		Co-60	* 0.00 E+00	2.17 E+00
		Zn-65	*-2.14 E+00	4.73 E+00
		Zr-95	*-7.69 E+00	4.48 E+00
		Nb-95	* 2.43 E+00	2.21 E+00
		Cs-134	* 4.54 E-01	2.15 E+00
		Cs-137	* 1.04 E+00	2.38 E+00
		Ba-140	* 1.32 E+00	8.57 E+00
		La-140	*-1.67 E+00	3.87 E+00
		Ra-226	*-8.88 E+00	5.69 E+01
		Th-228	* 1.82 E-01	4.68 E+00
	921201	Be-7	* 1.10 E+01	1.92 E+01
		K-40	* 3.15 E+01	4.24 E+01
		Mn-54	*-1.35 E-01	2.08 E+00
		Co-58	*-4.20 E-01	2.06 E+00
		Fe-59	* 1.32 E+00	4.54 E+00
		Co-60	* 0.00 E+00	1.93 E+00
		Zn-65	* 1.41 E+01	4.88 E+00
		Zr-95	* 7.86 E+00	4.40 E+00
		Nb-95	* 1.99 E+00	2.18 E+00
		Cs-134	*-2.10 E+00	2.30 E+00
		Cs-137	* 1.86 E+00	2.19 E+00
		Ba-140	* 9.05 E-01	7.66 E+00
		La-140	* 0.00 E+00	2.98 E+00
		Ra-226	*-4.56 E+01	3.91 E+01
		Th-228	*-2.62 E+00	3.43 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		Ground		
52	920303	Be-7	*-9.56 E-01	1.73 E+01
		K-40	*-1.98 E+01	2.42 E+01
		Mn-54	*-5.92 E-01	1.75 E+00
		Co-58	* 1.07 E+00	1.79 E+00
		Fe-59	* 1.10 E+00	3.86 E+00
		Co-60	* 8.74 E-01	1.98 E+00
		Zn-65	* 2.07 E+00	3.79 E+00
		Zr-95	* 1.41 E+00	3.64 E+00
		Nb-95	* 1.45 E-01	1.83 E+00
		Cs-134	*-1.04 E+00	1.96 E+00
		Cs-137	*-1.41 E-01	2.14 E+00
		Ba-140	* 1.26 E+00	6.98 E+00
		La-140	* 4.00 E+00	3.30 E+00
		Ra-226	*-1.60 E+01	4.14 E+01
		Th-228	* 3.05 E-01	3.73 E+00
	920602	Be-7	*-7.27 E+00	1.94 E+01
		K-40	*-1.83 E+01	2.75 E+01
		Mn-54	* 5.78 E-01	1.89 E+00
		Co-58	*-4.28 E-01	1.92 E+00
		Fe-59	* 2.49 E+00	4.19 E+00
		Co-60	* 7.49 E-01	2.29 E+00
		Zn-65	* 8.54 E-01	3.81 E+00
		Zr-95	* 4.71 E-01	3.80 E+00
		Nb-95	* 3.24 E-01	1.94 E+00
		Cs-134	* 9.79 E-01	2.26 E+00
		Cs-137	* 1.55 E+00	2.20 E+00
		Ba-140	*-1.86 E+00	7.12 E+00
		La-140	* 3.56 E+00	3.39 E+00
		Ra-226	*-3.37 E+01	4.48 E+01
		Th-228	*-3.48 E+00	3.87 E+00

* Denotes a result less than the detection limit.

TABLE A-7.1 (Cont.)

GAMMA SPECTROMETRY OF WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
		Ground		
52	920901	Be-7	* 3.51 E+00	1.95 E+01
		K-40	*-2.18 E+02	4.19 E+01
		Mn-54	*-1.93 E-01	2.00 E+00
		Co-58	* 1.22 E+00	2.26 E+00
		Fe-59	* 1.58 E+00	4.85 E+00
		Co-60	* 1.48 E+00	2.26 E+00
		Zn-65	* 3.92 E+00	4.48 E+00
		Zr-95	* 1.22 E+00	4.43 E+00
		Nb-95	* 2.17 E+00	2.27 E+00
		Cs-134	* 1.82 E+00	2.28 E+00
		Cs-137	* 5.49 E-01	2.32 E+00
		Ba-140	*-6.26 E+00	8.32 E+00
		La-140	* 2.60 E+00	3.53 E+00
		Ra-226	* 5.64 E+00	3.95 E+01
		Th-228	* 2.58 E+00	3.52 E+00
	921202	Be-7	* 9.66 E+00	2.49 E+01
		K-40	*-1.16 E+02	6.35 E+01
		Mn-54	* 5.42 E-02	2.70 E+00
		Co-58	*-1.73 E+00	2.72 E+00
		Fe-59	*-7.92 E-01	5.83 E+00
		Co-60	* 4.82 E-01	2.68 E+00
		Zn-65	*-2.44 E+01	6.26 E+00
		Zr-95	* 2.56 E+00	5.47 E+00
		Nb-95	* 6.85 E-01	2.66 E+00
		Cs-134	* 7.04 E-01	2.95 E+00
		Cs-137	* 8.26 E-01	2.90 E+00
		Ba-140	*-2.62 E+00	9.59 E+00
		La-140	* 2.64 E-01	3.46 E+00
		Ra-226	*-1.22 E+02	5.31 E+01
		Th-228	*-1.43 E+00	4.40 E+00

* Denotes a result less than the detection limit.

TABLE A-7.2

GAMMA SPECTROMETRY OF WATER - SUMMARY

Results in pCi/liter

NUCLIDE	AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
		River/Drinking			
Co-60 (I)	5.94E-01	-1.50E+00	2.21E+00	24	0
Co-60 (C)	7.29E-01	-9.64E-01	2.52E+00	12	0
Co-58 (I)	-4.37E-02	-1.55E+00	2.26E+00	24	0
Co-58 (C)	-1.52E-01	-1.07E+00	8.32E-01	12	0
Cs-134 (I)	1.81E-01	-2.56E+00	3.05E+00	24	0
Cs-134 (C)	4.64E-01	-2.40E+00	2.33E+00	12	0
Cs-137 (I)	5.03E-01	-3.24E+00	4.05E+00	24	0
Cs-137 (C)	1.19E+00	-1.16E-01	2.94E+00	12	0
Nb-95 (I)	1.23E+00	-9.24E-01	3.92E+00	24	0
Nb-95 (C)	1.21E+00	-2.61E-01	3.17E+00	12	0
Zr-95 (I)	1.48E-01	-7.41E+00	4.75E+00	24	0
Zr-95 (C)	-3.91E-01	-6.98E+00	5.84E+00	12	0
Zn-65 (I)	9.53E-01	-4.38E+00	5.70E+00	24	0
Zn-65 (C)	-2.84E-02	-6.15E+00	4.40E+00	12	0

(I) Indicator Stations
(C) Control Station

TABLE A-7.2 (Cont.)

GAMMA SPECTROMETRY OF WATER - SUMMARY

Results in pCi/liter

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
			River/Drinking			
K-40	(I)	-5.33E+01	-4.60E+02	5.12E+01	24	0
K-40	(C)	-2.14E+01	-1.05E+02	5.23E+01	12	2
Fe-59	(I)	6.99E-01	-6.29E+00	4.85E+00	24	0
Fe-59	(C)	7.83E-01	-1.77E+00	2.70E+00	12	0
Ba-140	(I)	-9.37E-01	-7.65E+00	8.50E+00	24	0
Ba-140	(C)	1.28E-01	-3.89E+00	5.04E+00	12	0
La-140	(I)	-2.08E-03	-6.45E+00	2.88E+00	24	0
La-140	(C)	6.53E-01	-5.50E-01	3.86E+00	12	0

(I) Indicator Stations
(C) Control Station

TABLE A-7.2 (Cont.)

GAMMA SPECTROMETRY OF WATER - SUMMARY

Results in pCi/liter

NUCLIDE	AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
		Discharge			
K-40 (I)	-2.53E+01	-8.30E+01	1.73E+01	12	0
Mn-54 (I)	4.56E-01	-7.22E-01	2.14E+00	12	0
Co-60 (I)	5.90E+00	-1.54E+00	2.05E+01	12	4
Co-58 (I)	-3.41E-01	-1.03E+00	1.58E+00	12	0
Cs-134 (I)	9.09E-01	-1.49E+00	3.85E+00	12	0
Cs-137 (I)	2.51E+00	-5.28E+00	9.97E+00	12	2
Nb-95 (I)	8.71E-01	-1.08E+00	2.63E+00	12	0
Zr-95 (I)	1.72E+00	-2.88E+00	5.12E+00	12	0
Zn-65 (I)	4.35E+00	-2.92E+00	2.79E+01	12	2
Fe-59 (I)	1.20E+00	-1.88E+00	4.69E+00	12	0
Ba-140 (I)	3.74E-01	-5.39E+00	5.02E+00	12	0
La-140 (I)	-3.86E-01	-2.12E+00	3.75E+00	12	0

(I) Indicator Station only.

TABLE A-7.2 (Cont.)

GAMMA SPECTROMETRY OF WATER - SUMMARY

Results in pCi/liter

NUCLIDE	AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
		Ground			
Mn-54 (I)	3.59E-01	-5.92E-01	2.44E+00	12	0
Co-60 (I)	7.62E-01	-1.23E+00	2.96E+00	12	0
Co-58 (I)	-2.30E-01	-1.73E+00	1.22E+00	12	0
Cs-134 (I)	-1.06E-01	-2.10E+00	1.82E+00	12	0
Cs-137 (I)	1.22E+00	-1.41E-01	2.92E+00	12	0
Nb-95 (I)	2.03E+00	1.45E-01	3.95E+00	12	0
Zr-95 (I)	1.60E+00	-7.69E+00	8.42E+00	12	0
Zn-65 (I)	7.69E-01	-2.44E+01	1.41E+01	12	0
Fe-59 (I)	7.60E-01	-7.92E-01	2.49E+00	12	0
Ba-140 (I)	-1.62E+00	-7.66E+00	2.77E+00	12	0
La-140 (I)	7.12E-01	-4.21E+00	5.02E+00	12	0

(I) Indicator Stations only.

TABLE A-8.1

GAMMA SPECTROMETRY OF SOIL

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
1	920514	K-40	1.33 E+04	4.95 E+02
		Cs-134	* 2.61 E+01	1.51 E+01
		Cs-137	1.95 E+02	2.33 E+01
		Ra-226	1.00 E+03	3.13 E+02
		Th-228	5.86 E+02	2.84 E+01
7	920514	K-40	1.27 E+04	5.40 E+02
		Cs-134	* 3.32 E+01	1.48 E+01
		Cs-137	* 1.19 E+01	1.60 E+01
		Ra-226	* 4.36 E+02	2.47 E+02
		Th-228	5.52 E+02	3.12 E+01
9A	920514	K-40	1.28 E+04	5.34 E+02
		Cs-134	* 3.35 E+01	1.51 E+01
		Cs-137	3.59 E+01	2.00 E+01
		Ra-226	7.02 E+02	3.59 E+02
		Th-228	6.05 E+02	3.39 E+01
21	920514	K-40	1.24 E+04	5.93 E+02
		Cs-134	* 2.26 E+01	2.00 E+01
		Cs-137	* 2.50 E+01	1.93 E+01
		Ra-226	9.53 E+02	4.27 E+02
		Th-228	4.05 E+02	4.71 E+01
23	920514 (a)	K-40	1.33 E+04	5.52 E+02
		Cs-134	* 2.57 E+01	1.73 E+01
		Cs-137	4.89 E+02	3.44 E+01
		Ra-226	1.04 E+03	3.62 E+02
		Th-228	5.59 E+02	3.28 E+01

(a) The result of strontium analysis was below detection level.
* Denotes a result less than the detection limit.

TABLE A-8.2

GAMMA SPECTROMETRY OF SOIL - SUMMARY

Results in pCi/kilogram

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
K-40	(I)	1.29E+04	1.24E+04	1.33E+04	4	4
K-40	(C)	1.28E+04	1.28E+04	1.28E+04	1	1
Cs-134	(I)	2.69E+01	2.26E+01	3.32E+01	4	0
Cs-134	(C)	3.35E+01	3.35E+01	3.35E+01	1	0
Cs-137	(I)	1.80E+02	1.19E+01	4.89E+02	4	2
Cs-137	(C)	3.59E+01	3.59E+01	3.59E+01	1	1
Ra-226	(I)	8.57E+02	4.36E+02	1.04E+03	4	3
Ra-226	(C)	7.02E+02	7.02E+02	7.02E+02	1	1
Th-228	(I)	5.26E+02	4.05E+02	5.86E+02	4	4
Th-228	(C)	6.05E+02	6.05E+02	6.05E+02	1	1

(I) Indicator Stations
(C) Control Station

TABLE A-10.1

GAMMA SPECTROMETRY OF FISH

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
30 Squaw	920427	K-40	3.52 E+03	2.46 E+02
		Mn-54	*-7.63 E-01	8.04 E+00
		Co-58	*-1.21 E+00	9.51 E+00
		Fe-59	* 9.72 E+00	2.50 E+01
		Co-60	* 0.00 E+00	8.61 E+00
		Zn-65	* 1.25 E+01	2.02 E+01
		Cs-134	*-1.87 E+00	9.01 E+00
		Cs-137	5.07 E+01	1.29 E+01
		Ra-226	*-9.54 E+01	1.72 E+02
		Th-228	*-1.85 E+00	1.48 E+01
Whitefish	920427	K-40	3.78 E+03	2.88 E+02
		Mn-54	* 3.51 E-01	9.62 E+00
		Co-58	*-2.51 E+00	1.07 E+01
		Fe-59	*-1.10 E+00	2.79 E+01
		Co-60	* 9.77 E+00	1.04 E+01
		Zn-65	* 8.01 E+00	2.45 E+01
		Cs-134	*-3.70 E-01	9.86 E+00
		Cs-137	* 1.03 E+01	1.06 E+01
		Ra-226	*-3.21 E+01	2.50 E+02
		Th-228	*-2.95 E+01	2.10 E+01
Salmon	920427	K-40	2.87 E+03	1.89 E+02
		Mn-54	* 1.97 E+00	8.69 E+00
		Co-58	*-1.71 E+00	1.03 E+01
		Fe-59	* 0.00 E+00	2.55 E+01
		Co-60	* 1.02 E+00	9.38 E+00
		Zn-65	*-3.21 E+00	2.05 E+01
		Cs-134	*-2.45 E+00	9.48 E+00
		Cs-137	* 1.06 E+01	9.11 E+00
		Ra-226	*-2.22 E+02	1.42 E+02
		Th-228	* 1.31 E+01	1.27 E+01
Carp	920427	K-40	3.08 E+03	2.15 E+02
		Mn-54	*-2.12 E-01	8.37 E+00
		Co-58	* 5.82 E+00	9.51 E+00
		Fe-59	* 0.00 E+00	2.44 E+01
		Co-60	* 1.23 E+01	9.14 E+00
		Zn-65	* 2.71 E+00	1.91 E+01
		Cs-134	* 0.00 E+00	8.48 E+00
		Cs-137	* 2.10 E+00	1.08 E+01
		Ra-226	*-1.38 E+02	1.58 E+02
		Th-228	* 1.11 E+01	1.44 E+01

* Denotes a result less than the detection limit.

TABLE A-10.1 (Cont.)

GAMMA SPECTROMETRY OF FISH

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
30 Sucker	920427	K-40	3.32 E+03	2.17 E+02
		Mn-54	* 4.32 E+00	8.00 E+00
		Co-58	*-3.68 E+00	9.68 E+00
		Fe-59	*-7.79 E+00	2.49 E+01
		Co-60	* 3.49 E+00	8.74 E+00
		Zn-65	*-8.43 E+00	1.91 E+01
		Cs-134	* 0.00 E+00	8.83 E+00
		Cs-137	1.93 E+01	1.02 E+01
		Ra-226	*-3.60 E+02	1.58 E+02
		Th-228	* 3.78 E+00	1.36 E+01
Carp	920929	K-40	4.31 E+03	3.21 E+02
		Mn-54	*-2.27 E+00	1.27 E+01
		Co-58	* 9.69 E+00	1.57 E+01
		Fe-59	* 0.00 E+00	3.89 E+01
		Co-60	* 4.03 E+00	1.31 E+01
		Zn-65	* 1.88 E+01	2.81 E+01
		Cs-134	* 1.60 E+00	1.36 E+01
		Cs-137	* 2.16 E+01	1.36 E+01
		Ra-226	*-1.40 E+02	2.20 E+02
		Th-228	*-2.90 E+01	1.90 E+01
Whitefish	920929	K-40	3.28 E+03	4.42 E+02
		Mn-54	*-1.75 E+00	1.43 E+01
		Co-58	* 5.31 E+00	1.62 E+01
		Fe-59	* 2.88 E+00	4.47 E+01
		Co-60	* 2.13 E+01	1.52 E+01
		Zn-65	* 0.00 E+00	3.69 E+01
		Cs-134	* 6.43 E+00	1.61 E+01
		Cs-137	* 5.53 E+00	1.51 E+01
		Ra-226	* 3.80 E+02	3.31 E+02
		Th-228	*-8.86 E+00	2.72 E+01
Sucker	920929	K-40	3.83 E+03	4.84 E+02
		Mn-54	* 1.87 E+00	1.73 E+01
		Co-58	* 5.68 E+00	1.99 E+01
		Fe-59	* 3.05 E+00	4.74 E+01
		Co-60	* 1.19 E+01	1.78 E+01
		Zn-65	* 2.89 E+01	4.41 E+01
		Cs-134	* 8.83 E+00	1.78 E+01
		Cs-137	* 3.65 E+01	2.01 E+01
		Ra-226	*-1.19 E+02	3.50 E+02
		Th-228	*-1.68 E+01	3.33 E+01

* Denotes a result less than the detection limit.

TABLE A-10.1 (Cont.)

GAMMA SPECTROMETRY OF FISH

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
30 Steelhead	921006	K-40	4.19 E+03	4.86 E+02
		Mn-54	* 1.35 E+01	1.73 E+01
		Co-58	* 0.00 E+00	1.74 E+01
		Fe-59	* 2.15 E+01	4.80 E+01
		Co-60	* 1.29 E+00	1.90 E+01
		Zn-65	*-2.77 E+01	3.91 E+01
		Cs-134	* 4.76 E+00	1.65 E+01
		Cs-137	* 2.40 E+01	2.07 E+01
		Ra-226	*-2.75 E+02	3.60 E+02
		Th-228	*-8.87 E+00	3.22 E+01

* Denotes a result less than the detection limit.

TABLE A-10.1 (Cont.)

GAMMA SPECTROMETRY OF FISH

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
38 Salmon	920512	K-40	3.90 E+03	1.87 E+02
		Mn-54	*-2.75 E+00	7.68 E+00
		Co-58	*-2.06 E+00	8.10 E+00
		Fe-59	*-6.27 E+00	1.84 E+01
		Co-60	* 5.20 E+00	8.09 E+00
		Zn-65	*-5.46 E+00	1.81 E+01
		Cs-134	*-1.08 E+01	8.48 E+00
		Cs-137	* 3.85 E+00	8.60 E+00
		Ra-226	*-2.68 E+01	1.40 E+02
		Th-228	*-1.86 E+01	1.30 E+01
Bass	920512	K-40	3.83 E+03	2.59 E+02
		Mn-54	* 2.53 E-01	8.02 E+00
		Co-58	*-2.70 E-01	8.49 E+00
		Fe-59	*-2.04 E+01	1.95 E+01
		Co-60	* 3.34 E+00	8.50 E+00
		Zn-65	*-3.88 E+00	2.00 E+01
		Cs-134	* 4.36 E+00	8.81 E+00
		Cs-137	2.60 E+01	1.44 E+01
		Ra-226	*-1.35 E+02	1.84 E+02
		Th-228	*-1.02 E+01	1.58 E+01
Sucker	920512	K-40	3.82 E+03	1.92 E+02
		Mn-54	*-5.70 E+00	7.50 E+00
		Co-58	*-5.06 E+00	7.88 E+00
		Fe-59	*-1.39 E+00	1.72 E+01
		Co-60	* 1.72 E+00	7.75 E+00
		Zn-65	*-5.80 E+00	1.69 E+01
		Cs-134	* 2.25 E+00	8.17 E+00
		Cs-137	3.67 E+01	1.10 E+01
		Ra-226	*-1.24 E+02	1.40 E+02
		Th-228	*-1.85 E+01	1.20 E+01
Carp	920512	K-40	3.28 E+03	2.54 E+02
		Mn-54	*-6.27 E+00	7.82 E+00
		Co-58	* 3.49 E+00	8.32 E+00
		Fe-59	* 4.28 E+00	1.86 E+01
		Co-60	* 5.25 E+00	8.95 E+00
		Zn-65	*-9.10 E+00	1.79 E+01
		Cs-134	* 8.78 E-01	8.25 E+00
		Cs-137	* 9.46 E+00	8.81 E+00
		Ra-226	*-3.05 E+00	1.84 E+02
		Th-228	*-2.52 E+00	1.53 E+01

* Denotes a result less than the detection limit.

TABLE A-10.1 (Cont.)

GAMMA SPECTROMETRY OF FISH

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
38 Carp	920930	K-40	2.79 E+03	3.12 E+02
		Mn-54	* 3.56 E+00	1.02 E+01
		Co-58	*-1.23 E+00	1.27 E+01
		Fe-59	* 1.30 E+01	3.28 E+01
		Co-60	* 7.13 E-01	1.16 E+01
		Zn-65	* 1.95 E+01	2.66 E+01
		Cs-134	* 1.61 E+00	1.10 E+01
		Cs-137	* 8.37 E+00	1.23 E+01
		Ra-226	*-3.24 E+01	2.39 E+02
		Th-228	*-2.44 E+00	1.99 E+01
Sucker	920930	K-40	4.05 E+03	3.88 E+02
		Mn-54	*-2.29 E+00	1.68 E+01
		Co-58	* 5.53 E+00	2.12 E+01
		Fe-59	* 1.46 E+01	5.23 E+01
		Co-60	* 7.97 E+00	1.68 E+01
		Zn-65	* 2.91 E+01	4.22 E+01
		Cs-134	* 0.00 E+00	1.95 E+01
		Cs-137	* 1.32 E+01	1.81 E+01
		Ra-226	* 1.67 E+02	2.86 E+02
		Th-228	* 5.20 E+00	2.60 E+01
Bass	920930	K-40	2.94 E+03	4.75 E+02
		Mn-54	* 5.66 E+00	1.64 E+01
		Co-58	* 0.00 E+00	1.74 E+01
		Fe-59	* 2.88 E+01	4.96 E+01
		Co-60	*-9.44 E+00	1.48 E+01
		Zn-65	*-3.74 E+01	4.72 E+01
		Cs-134	*-1.19 E+00	1.83 E+01
		Cs-137	*-4.16 E+00	1.77 E+01
		Ra-226	*-3.90 E+02	4.39 E+02
		Th-228	*-1.10 E+01	3.49 E+01
Steelhead	921006	K-40	3.02 E+03	3.53 E+02
		Mn-54	* 5.81 E+00	1.18 E+01
		Co-58	*-5.35 E+00	1.30 E+01
		Fe-59	*-1.57 E+01	3.25 E+01
		Co-60	*-2.53 E+00	1.28 E+01
		Zn-65	* 1.35 E+01	2.76 E+01
		Cs-134	* 2.46 E+00	1.29 E+01
		Cs-137	* 2.34 E+01	1.29 E+01
		Ra-226	*-1.75 E+02	1.80 E+02
		Th-228	*-3.48 E+01	1.59 E+01

* Denotes a result less than the detection limit.

TABLE A-10.2

GAMMA SPECTROMETRY OF FISH - SUMMARY

Results in pCi/kilogram

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
K-40	(I)	3.58E+03	2.87E+03	4.31E+03	9	9
K-40	(C)	3.45E+03	2.79E+03	4.05E+03	8	8
Co-60	(I)	7.23E+00	0.00E+00	2.13E+01	9	0
Co-60	(C)	1.53E+00	-9.44E+00	7.97E+00	8	0
Fe-59	(I)	3.14E+00	-7.79E+00	2.15E+01	9	0
Fe-59	(C)	2.12E+00	-2.04E+01	2.88E+01	8	0
Zn-65	(I)	3.51E+00	-2.77E+01	2.89E+01	9	0
Zn-65	(C)	5.75E-02	-3.74E+01	2.91E+01	8	0
Co-58	(I)	1.93E+00	-3.68E+00	9.69E+00	9	0
Co-58	(C)	-6.19E-01	-5.35E+00	5.53E+00	8	0
Cs-134	(I)	1.88E+00	-2.45E+00	8.83E+00	9	0
Cs-134	(C)	-5.40E-02	-1.08E+01	4.36E+00	8	0
Cs-137	(I)	2.01E+01	2.10E+00	5.07E+01	9	2
Cs-137	(C)	1.46E+01	-4.16E+00	3.67E+01	8	2
Mn-54	(I)	1.89E+00	-2.27E+00	1.35E+01	9	0
Mn-54	(C)	-2.16E-01	-6.27E+00	5.81E+00	8	0

(I) Indicator Stations
(C) Control Station

TABLE A-11.1

I-131 IN MILK

Results in pCi/liter

LOCATION	COLLECTION DATE	RESULT	OVERALL UNCERTAINTY
9B	920114	*-3.7 E-03	1.13 E-01
	920211	*-2.5 E-02	1.45 E-01
	920310	* 2.5 E-02	1.12 E-01
	920414	* 9.5 E-02	1.12 E-01
	920428	* 1.2 E-01	1.11 E-01
	920505	*-1.7 E-02	1.08 E-01
	920519	*-3.9 E-02	1.76 E-01
	920609	* 9.1 E-02	2.88 E-01
	920623	* 1.1 E-01	1.05 E-01
	920714	*-6.0 E-02	1.44 E-01
	920728	* 4.3 E-02	1.00 E-01
	920811	* 4.6 E-02	2.18 E-01
	920825	*-1.7 E-01	1.43 E-01
	920915	*-4.8 E-02	1.23 E-01
	920929	*-5.8 E-02	1.11 E-01
	921013	* 1.0 E-02	1.56 E-01
	921117	* 1.2 E-02	9.99 E-02
	921215	* 5.8 E-02	9.60 E-02
36	920114	*-1.2 E-01	8.65 E-02
	920211	* 9.5 E-02	1.42 E-01
	920310	*-8.1 E-02	9.69 E-02
	920414	*-1.0 E-01	1.19 E-01
	920428	* 6.1 E-02	6.77 E-02
	920505	* 8.9 E-03	9.59 E-02
	920519	*-2.4 E-02	1.23 E-01
	920609	* 6.8 E-02	2.24 E-01
	920623	* 1.1 E-01	1.05 E-01
	920714	*-5.6 E-02	1.33 E-01
	920728	*-1.0 E-02	8.29 E-02
	920811	*-6.8 E-02	1.66 E-01
	920825	* 1.3 E-02	1.31 E-01
	920915	*-3.4 E-02	9.55 E-02
	920929	*-2.4 E-02	8.76 E-02
	921013	*-5.5 E-02	1.60 E-01
	921117	*-1.6 E-01	1.10 E-01
	921215	* 1.2 E-01	1.27 E-01

* Denotes a result less than the detection limit.

TABLE A-11.1 (Cont.)

I-131 IN MILK

Results in pCi/liter

LOCATION	COLLECTION DATE	RESULT	OVERALL UNCERTAINTY
40	920114	*-3.1 E-02	1.11 E-01
	920211	*-2.0 E-01	1.40 E-01
	920310	*-6.5 E-03	1.08 E-01
	920414	*-3.2 E-01	1.46 E-01
	920428	*-1.4 E-01	1.54 E-01
	920505	*-3.6 E-02	8.17 E-02
	920519	*-7.0 E-02	2.03 E-01
	920609	*-1.5 E-02	2.17 E-01
	920623	* 2.9 E-02	1.89 E-01
	920714 (a)		
	920728	*-2.8 E-02	9.61 E-02
	920811	*-6.5 E-02	9.79 E-02
	920825	* 1.4 E-01	9.60 E-02
	920915	*-6.0 E-02	8.85 E-02
	920929	*-7.0 E-02	1.18 E-01
	921013	* 4.3 E-02	1.42 E-01
	921117	* 1.3 E-02	1.10 E-01
	921215	* 3.2 E-02	1.15 E-01
59	920609 (b)	* 5.9 E-02	3.35 E-01
	920623	* 5.0 E-02	1.13 E-01
	920714	* 1.5 E-01	1.13 E-01
	920728	*-2.0 E-01	2.80 E-01
	920811	* 4.5 E-02	9.82 E-02
	920825	*-1.1 E-01	2.31 E-01
	920915	* 3.4 E-02	8.01 E-02
	920929	*-1.0 E-01	1.19 E-01
	921013	*-1.5 E-01	1.60 E-01
	921117	*-5.8 E-02	1.16 E-01
	921215	* 3.2 E-02	9.71 E-02

(a) Sample not available.
(b) Milk production started again at this station.
* Denotes a result less than the detection limit.

TABLE A-11.1 (Cont.)

I-131 IN MILK

Results in pCi/liter

LOCATION	COLLECTION DATE	RESULT	OVERALL UNCERTAINTY
62	920114	* 2.5 E-02	8.20 E-02
	920211	*-1.6 E-01	1.39 E-01
	920310	* 3.6 E-02	8.83 E-02
	920414	* 1.5 E-01	3.35 E-01
	920428	* 4.0 E-02	1.15 E-01
	920505	*-7.5 E-02	8.65 E-02
	920519	* 1.3 E-02	1.95 E-01
	920609	* 2.1 E-02	2.26 E-01
	920623	*-1.1 E-01	1.14 E-01
	920714	*-1.6 E-01	1.30 E-01
	920728	*-4.2 E-02	6.62 E-02
	920811	* 8.8 E-02	2.58 E-01
	920825	* 1.4 E-01	1.40 E-01
	920915	*-3.1 E-02	7.26 E-02
	920929	* 1.5 E-01	1.01 E-01
	921013 (a)	* 6.3 E-02	1.34 E-01
	921117	* 1.5 E-01	1.50 E-01
	921215	*-3.2 E-02	9.81 E-02
64	920114	*-1.6 E-02	8.46 E-02
	920211	* 1.3 E-01	1.91 E-01
	920310	*-5.0 E-02	8.57 E-02
	920414	*-6.8 E-01	3.10 E-01
	920428	* 5.3 E-02	1.31 E-01
	920505	* 6.3 E-02	8.58 E-02
	920519	*-2.8 E-02	9.98 E-02
	920609	*-8.5 E-02	1.89 E-01
	920623	* 6.8 E-02	2.25 E-01
	920714	*-6.1 E-02	1.22 E-01
	920728	*-2.2 E-01	2.30 E-01
	920811	* 1.2 E-01	1.97 E-01
	920825	* 4.5 E-02	1.66 E-01
	920915	* 1.0 E-01	9.14 E-02
	920929	*-1.2 E-01	1.07 E-01
	921013	* 1.4 E-02	1.43 E-01
	921117	*-4.4 E-01	1.69 E-01
	921215	* 2.9 E-02	9.41 E-02

(a) Sample leaked in transit.
* Denotes a result less than the detection limit.

TABLE A-11.1 (Cont.)

I-131 IN MILK

Results in pCi/liter

LOCATION	COLLECTION DATE	RESULT	OVERALL UNCERTAINTY
96	920114	*-1.8 E-02	7.08 E-02
	920211	*-3.1 E-01	7.35 E-01
	920310	*-4.0 E-02	8.80 E-02
	920414	* 1.2 E-01	1.44 E-01
	920428	*-1.2 E-02	8.47 E-02
	920505	* 7.5 E-02	7.96 E-02
	920519	*-5.4 E-02	1.10 E-01
	920609	* 5.0 E-02	1.82 E-01
	920623	* 6.6 E-02	1.27 E-01
	920714	*-3.5 E-02	1.32 E-01
	920728	*-6.0 E-02	9.91 E-02
	920811	*-2.8 E-02	2.48 E-01
	920825	* 3.6 E-03	8.79 E-02
	920915	*-4.6 E-02	7.54 E-02
	920929	*-1.4 E-02	1.34 E-01
	921013	* 7.8 E-02	1.13 E-01
	921117	*-8.9 E-02	9.21 E-02
	921215	*-5.8 E-02	9.97 E-02

* Denotes a result less than the detection limit.

TABLE A 11.2 (Cont.)

I-131 IN MILK - SUMMARY

Results in pCi/liter

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
I-131	(I)	-1.91E-02	-6.80E-01	1.50E-01	100	0
I-131	(C)	-2.06E-02	-3.10E-01	1.20E-01	18	0

(I) Indicator Stations
(C) Control Station

TABLE A-12.1

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
9B	920114	K-40	1.38 E+03	8.88 E+01
		Cs-134	* 2.02 E+00	2.56 E+00
		Cs-137	* 8.10 E-01	2.43 E+00
		Ba-140	*-6.62 E+00	8.92 E+00
		La-140	* 8.42 E-01	4.07 E+00
	920211	K-40	1.13 E+03	7.89 E+01
		Cs-134	*-9.63 E-01	2.59 E+00
		Cs-137	* 4.90 E-01	2.52 E+00
		Ba-140	* 1.30 E+00	8.61 E+00
		La-140	* 3.31 E+00	3.78 E+00
	920310	K-40	1.43 E+03	9.02 E+01
		Cs-134	* 0.00 E+00	2.37 E+00
		Cs-137	* 1.28 E+00	2.52 E+00
		Ba-140	* 1.67 E+00	8.61 E+00
		La-140	*-7.97 E-01	3.75 E+00
	920414	K-40	1.35 E+03	7.51 E+01
		Cs-134	*-7.70 E-01	3.04 E+00
		Cs-137	* 1.77 E+00	3.01 E+00
		Ba-140	* 2.28 E+00	1.07 E+01
		La-140	* 3.69 E+00	3.93 E+00
	920428	K-40	1.35 E+03	8.15 E+01
		Cs-134	* 8.68 E-01	2.37 E+00
		Cs-137	* 2.96 E+00	2.21 E+00
		Ba-140	* 5.85 E+00	7.38 E+00
		La-140	* 1.16 E+00	3.19 E+00
	920505	K-40	1.29 E+03	8.43 E+01
		Cs-134	* 7.69 E-01	2.47 E+00
		Cs-137	* 3.06 E+00	2.48 E+00
		Ba-140	*-2.32 E+00	8.25 E+00
		La-140	* 0.00 E+00	3.63 E+00
	920519	K-40	1.41 E+03	7.99 E+01
		Cs-134	*-1.74 E+00	2.36 E+00
		Cs-137	* 3.00 E+00	2.47 E+00
		Ba-140	* 1.39 E+00	7.94 E+00
		La-140	* 0.00 E+00	3.48 E+00

* Denotes a result less than the detection limit.

TABLE A-12.1 (Cont.)

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
9B	920609	K-40	1.27 E+03	6.45 E+01
		Cs-134	*-2.17 E+00	2.48 E+00
		Cs-137	* 1.39 E+00	2.52 E+00
		Ba-140	*-4.59 E+00	9.02 E+00
		La-140	* 1.84 E+00	3.74 E+00
	920623	K-40	1.40 E+03	8.38 E+01
		Cs-134	*-1.11 E+00	2.14 E+00
		Cs-137	* 2.08 E+00	2.38 E+00
		Ba-140	* 0.00 E+00	7.40 E+00
		La-140	*-1.44 E+00	3.17 E+00
	920714	K-40	1.36 E+03	6.71 E+01
		Cs-134	* 9.98 E-01	2.50 E+00
		Cs-137	* 3.47 E+00	2.65 E+00
		Ba-140	* 0.00 E+00	8.57 E+00
		La-140	*-4.75 E+00	3.47 E+00
	920728	K-40	1.36 E+03	8.32 E+01
		Cs-134	* 7.21 E-01	2.62 E+00
		Cs-137	* 7.02 E-01	2.55 E+00
		Ba-140	*-6.52 E+00	8.79 E+00
		La-140	*-1.03 E+00	3.73 E+00
	920811	K-40	1.32 E+03	6.75 E+01
		Cs-134	* 7.49 E-01	2.32 E+00
		Cs-137	*-3.51 E+00	2.70 E+00
		Ba-140	*-1.44 E+00	7.81 E+00
		La-140	*-7.08 E-01	3.35 E+00
	920825	K-40	1.17 E+03	6.28 E+01
		Cs-134	* 3.67 E-01	2.45 E+00
		Cs-137	* 2.31 E-01	2.55 E+00
		Ba-140	* 3.52 E+00	9.08 E+00
		La-140	* 5.61 E+00	3.96 E+00
	920915	K-40	1.27 E+03	8.39 E+01
		Cs-134	* 2.50 E-01	2.75 E+00
		Cs-137	*-1.82 E+00	2.61 E+00
		Ba-140	* 1.81 E+00	9.24 E+00
		La-140	* 1.72 E+00	3.98 E+00

* Denotes a result less than the detection limit.

TABLE A-12.1 (Cont.)

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
9B	920929	K-40	1.46 E+03	7.27 E+01
		Cs-134	* 1.07 E+00	2.45 E+00
		Cs-137	*-3.92 E+00	2.50 E+00
		Ba-140	* 3.45 E+00	7.88 E+00
		La-140	*-1.17 E+00	3.33 E+00
	921013	K-40	1.38 E+03	8.63 E+01
		Cs-134	* 1.51 E+00	2.63 E+00
		Cs-137	* 1.74 E+00	2.56 E+00
		Ba-140	*-2.46 E+00	8.51 E+00
		La-140	* 2.22 E-01	3.56 E+00
	921117	K-40	1.32 E+03	7.11 E+01
		Cs-134	*-4.19 E-01	2.39 E+00
		Cs-137	*-2.64 E+00	2.66 E+00
		Ba-140	* 3.15 E+00	7.55 E+00
		La-140	* 1.81 E+00	3.20 E+00
	921215	K-40	1.35 E+03	6.95 E+01
		Cs-134	* 5.89 E-02	2.33 E+00
		Cs-137	*-4.32 E+00	2.61 E+00
		Ba-140	*-1.63 E-01	8.00 E+00
		La-140	* 7.21 E-01	3.42 E+00

* Denotes a result less than the detection limit.

TABLE A-12.1 (Cont.)

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
36	920114	K-40	1.36 E+03	7.82 E+01
		Cs-134	* 2.14 E+00	2.46 E+00
		Cs-137	* 1.31 E+00	2.47 E+00
		Ba-140	*-5.94 E+00	8.51 E+00
		La-140	*-1.92 E+00	3.56 E+00
	920211	K-40	1.31 E+03	7.91 E+01
		Cs-134	*-1.83 E+00	2.41 E+00
		Cs-137	* 8.63 E-01	2.39 E+00
		Ba-140	*-7.09 E+00	8.34 E+00
		La-140	*-5.38 E-01	3.40 E+00
	920310	K-40	1.25 E+03	7.66 E+01
		Cs-134	*-2.04 E-01	2.38 E+00
		Cs-137	* 1.45 E+00	2.33 E+00
		Ba-140	* 6.46 E+00	8.22 E+00
		La-140	*-3.46 E-01	3.15 E+00
	920414	K-40	1.43 E+03	7.91 E+01
		Cs-134	* 3.60 E-01	2.42 E+00
		Cs-137	*-1.42 E-01	2.56 E+00
		Ba-140	* 2.71 E+00	8.35 E+00
		La-140	*-9.30 E-01	3.60 E+00
	920428	K-40	1.33 E+03	7.63 E+01
		Cs-134	* 1.80 E+00	2.48 E+00
		Cs-137	* 2.48 E+00	2.41 E+00
		Ba-140	*-2.48 E+00	7.92 E+00
		La-140	*-2.21 E+00	3.00 E+00
	920505	K-40	1.33 E+03	7.99 E+01
		Cs-134	* 6.05 E-01	2.29 E+00
		Cs-137	* 8.64 E-01	2.40 E+00
		Ba-140	* 1.66 E+00	7.97 E+00
		La-140	*-3.79 E-01	3.26 E+00
	920519	K-40	1.34 E+03	7.43 E+01
		Cs-134	* 2.58 E-01	3.03 E+00
		Cs-137	* 1.08 E+00	3.04 E+00
		Ba-140	*-4.99 E+00	1.08 E+01
		La-140	*-2.35 E+00	4.08 E+00

* Denotes a result less than the detection limit.

TABLE A-12.1 (Cont.)

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
36	920609	K-40	1.46 E+03	8.41 E+01
		Cs-134	* 6.28 E-01	2.54 E+00
		Cs-137	* 1.59 E+00	2.42 E+00
		Ba-140	* 2.05 E+00	9.31 E+00
		La-140	*-3.50 E+00	3.66 E+00
	920623	K-40	1.47 E+03	6.56 E+01
		Cs-134	* 5.29 E-01	2.35 E+00
		Cs-137	* 2.56 E-01	2.31 E+00
		Ba-140	* 1.21 E+00	8.08 E+00
		La-140	* 2.10 E+00	3.04 E+00
	920714	K-40	1.53 E+03	8.48 E+01
		Cs-134	*-6.83 E-01	2.39 E+00
		Cs-137	* 1.07 E+00	2.43 E+00
		Ba-140	*-3.96 E-01	8.01 E+00
		La-140	* 1.07 E+00	2.89 E+00
	920728	K-40	1.36 E+03	7.40 E+01
		Cs-134	* 1.93 E-01	3.08 E+00
		Cs-137	* 2.77 E+00	3.10 E+00
		Ba-140	*-1.97 E+00	1.20 E+01
		La-140	*-1.96 E+00	4.57 E+00
	920811	K-40	1.44 E+03	9.08 E+01
		Cs-134	* 1.82 E+00	2.64 E+00
		Cs-137	*-8.65 E-02	2.73 E+00
		Ba-140	*-2.01 E+00	8.89 E+00
		La-140	*-6.80 E-01	3.76 E+00
	920825	K-40	1.42 E+03	8.14 E+01
		Cs-134	* 0.00 E+00	2.39 E+00
		Cs-137	* 1.00 E+00	2.42 E+00
		Ba-140	*-9.47 E+00	8.92 E+00
		La-140	*-7.96 E-01	3.61 E+00
	920915	K-40	1.31 E+03	7.80 E+01
		Cs-134	* 1.14 E+00	2.36 E+00
		Cs-137	* 1.73 E+00	2.43 E+00
		Ba-140	*-1.55 E+00	8.44 E+00
		La-140	*-3.15 E+00	3.39 E+00

* Denotes a result less than the detection limit.

TABLE A-12.1 (Cont.)

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
36	920929	K-40	1.47 E+03	8.35 E+01
		Cs-134	*-7.77 E-02	2.49 E+00
		Cs-137	* 3.42 E-01	2.43 E+00
		Ba-140	*-1.50 E+00	8.58 E+00
		La-140	* 9.67 E-01	3.56 E+00
	921013	K-40	1.40 E+03	8.22 E+01
		Cs-134	*-1.48 E+00	2.47 E+00
		Cs-137	*-1.03 E+00	2.41 E+00
		Ba-140	* 4.47 E+00	8.45 E+00
		La-140	* 0.00 E+00	3.38 E+00
	921117	K-40	1.36 E+03	8.56 E+01
		Cs-134	*-3.72 E+00	2.55 E+00
		Cs-137	* 3.16 E+00	2.53 E+00
		Ba-140	* 4.32 E+00	8.18 E+00
		La-140	* 3.91 E+00	3.46 E+00
	921215	K-40	1.42 E+03	8.95 E+01
		Cs-134	* 2.17 E+00	2.61 E+00
		Cs-137	* 6.38 E-01	2.59 E+00
		Ba-140	* 1.74 E+00	8.97 E+00
		La-140	*-1.13 E+00	3.71 E+00

* Denotes a result less than the detection limit.

TABLE A-12.1 (Cont.)

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
40	920114	K-40	1.36 E+03	8.55 E+01
		Cs-134	* 4.45 E-01	2.59 E+00
		Cs-137	* 3.77 E+00	2.66 E+00
		Ba-140	* 3.66 E+00	9.61 E+00
		La-140	* 1.60 E+00	3.50 E+00
	920211	K-40	1.44 E+03	6.98 E+01
		Cs-134	*-1.23 E+00	2.17 E+00
		Cs-137	* 5.92 E-01	2.53 E+00
		Ba-140	* 4.34 E+00	7.80 E+00
		La-140	*-3.14 E+00	3.22 E+00
	920310	K-40	1.19 E+03	8.13 E+01
		Cs-134	* 5.32 E-01	2.55 E+00
		Cs-137	* 3.20 E+00	2.51 E+00
		Ba-140	*-7.02 E+00	1.10 E+01
		La-140	* 2.40 E+00	4.63 E+00
	920414	K-40	1.28 E+03	8.22 E+01
		Cs-134	*-4.22 E-01	2.51 E+00
		Cs-137	* 3.53 E+00	2.69 E+00
		Ba-140	* 2.97 E+00	9.61 E+00
		La-140	*-2.17 E+00	4.17 E+00
	920428	K-40	1.25 E+03	8.15 E+01
		Cs-134	*-8.93 E-01	2.47 E+00
		Cs-137	* 7.09 E-01	2.63 E+00
		Ba-140	* 2.29 E+00	8.65 E+00
		La-140	*-1.78 E+00	3.77 E+00
	920505	K-40	1.27 E+03	7.48 E+01
		Cs-134	* 7.78 E-01	2.41 E+00
		Cs-137	* 4.99 E-01	2.34 E+00
		Ba-140	* 3.72 E+00	8.63 E+00
		La-140	*-1.92 E+00	3.55 E+00
	920519	K-40	1.44 E+03	8.64 E+01
		Cs-134	*-5.73 E-01	2.51 E+00
		Cs-137	* 3.36 E+00	2.35 E+00
		Ba-140	*-3.34 E+00	8.29 E+00
		La-140	*-6.26 E-01	3.38 E+00

* Denotes a result less than the detection limit.

TABLE A-12.1 (Cont.)

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
40	920609	K-40	1.28 E+03	6.84 E+01
		Cs-134	*-4.79 E-01	2.28 E+00
		Cs-137	*-1.92 E+00	2.55 E+00
		Ba-140	* 1.93 E+00	8.16 E+00
		La-140	*-1.55 E+00	3.58 E+00
	920623	K-40	1.41 E+03	8.13 E+01
		Cs-134	* 0.00 E+00	2.28 E+00
		Cs-137	* 1.41 E+00	2.43 E+00
		Ba-140	* 1.05 E+00	8.62 E+00
		La-140	* 1.90 E+00	3.52 E+00
40	920714 (a)			
	920728	K-40	1.73 E+03	9.49 E+01
		Cs-134	* 1.45 E+00	2.67 E+00
		Cs-137	* 4.30 E+00	2.75 E+00
		Ba-140	*-3.99 E+00	8.87 E+01
		La-140	*-2.25 E-01	3.81 E+00
	920811	K-40	1.32 E+03	7.68 E+01
		Cs-134	* 1.37 E+00	2.44 E+00
		Cs-137	* 2.15 E+00	2.42 E+00
		Ba-140	* 1.97 E+00	7.76 E+00
		La-140	*-1.08 E+00	3.34 E+00
	920825	K-40	1.26 E+03	6.57 E+01
		Cs-134	*-2.20 E+00	2.24 E+00
		Cs-137	*-1.52 E+00	2.45 E+00
		Ba-140	*-2.88 E+00	8.32 E+00
		La-140	*-3.16 E+00	3.41 E+00
	920915	K-40	1.48 E+03	8.53 E+01
		Cs-134	*-1.52 E+00	2.22 E+00
		Cs-137	* 9.02 E-01	2.41 E+00
		Ba-140	* 4.34 E+00	8.71 E+00
		La-140	*-2.18 E-01	3.18 E+00

(a) Sample not available.
* Denotes a result less than the detection limit.

TABLE A-12.1 (Cont.)

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
40	920929	K-40	1.43 E+03	8.16 E+01
		Cs-134	*-5.19 E-01	2.46 E+00
		Cs-137	* 1.11 E+00	2.47 E+00
		Ba-140	*-5.90 E+00	8.06 E+00
		La-140	* 7.41 E-01	3.35 E+00
	921013	K-40	1.43 E+03	7.23 E+01
		Cs-134	* 4.89 E-01	2.44 E+00
		Cs-137	*-2.51 E+00	2.64 E+00
		Ba-140	*-4.02 E+00	7.93 E+00
		La-140	* 1.70 E+00	3.25 E+00
	921117	K-40	1.33 E+03	7.05 E+01
		Cs-134	* 1.22 E+00	2.39 E+00
		Cs-137	*-2.40 E+00	2.54 E+00
		Ba-140	*-6.26 E+00	7.29 E+00
		La-140	*-2.71 E-01	3.37 E+00
	921215	K-40	1.44 E+03	7.12 E+01
		Cs-134	* 4.58 E-01	2.31 E+00
		Cs-137	*-4.95 E+00	2.43 E+00
		Ba-140	* 1.43 E+00	7.69 E+00
		La-140	*-2.25 E+00	3.31 E+00

* Denotes a result less than the detection limit.

TABLE A-12.1 (Cont.)

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
59	920609 (a)	K-40	1.34 E+03	6.21 E+01
		Cs-134	*-1.35 E+00	2.49 E+00
		Cs-137	* 4.02 E-01	2.42 E+00
		Ba-140	* 4.99 E+00	9.08 E+00
		La-140	*-2.02 E+00	3.20 E+00
	920623	K-40	1.45 E+03	7.39 E+01
		Cs-134	* 4.79 E-01	2.41 E+00
		Cs-137	*-2.76 E+00	2.79 E+00
		Ba-140	*-3.32 E-01	8.30 E+00
		La-140	*-2.79 E+00	3.49 E+00
	920714	K-40	1.30 E+03	7.43 E+01
		Cs-134	* 2.84 E+00	3.21 E+00
		Cs-137	* 1.42 E+00	3.07 E+00
		Ba-140	*-6.74 E-01	1.03 E+01
		La-140	* 1.21 E+00	3.86 E+00
	920728	K-40	1.49 E+03	7.81 E+01
		Cs-134	* 8.28 E-01	3.07 E+00
		Cs-137	* 2.35 E+00	2.96 E+00
		Ba-140	*-7.37 E+00	1.06 E+01
		La-140	* 1.58 E+00	4.00 E+00
	920811	K-40	1.50 E+03	8.72 E+01
		Cs-134	* 7.30 E-01	2.44 E+00
		Cs-137	* 1.13 E+00	2.40 E+00
		Ba-140	* 4.40 E+00	8.49 E+00
		La-140	*-1.03 E+00	3.25 E+00
	920825	K-40	1.06 E+03	5.48 E+01
		Cs-134	* 2.61 E-01	2.37 E+00
		Cs-137	* 2.18 E+00	2.33 E+00
		Ba-140	*-8.61 E+00	8.86 E+00
		La-140	*-6.74 E+00	3.17 E+00
	920915	K-40	1.42 E+03	7.15 E+01
		Cs-134	*-1.20 E-01	2.43 E+00
		Cs-137	* 1.11 E+00	2.73 E+00
		Ba-140	* 6.92 E+00	8.28 E+00
		La-140	*-4.70 E-01	3.76 E+00

(a) Milk production started again at this station.
* Denotes a result less than the detection limit.

TABLE A-12.1 (Cont.)

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
59	920929	K-40	1.40 E+03	8.72 E+01
		Cs-134	* 1.50 E+00	2.73 E+00
		Cs-137	* 7.40 E-01	2.60 E+00
		Ba-140	* 4.62 E+00	9.76 E+00
		La-140	* 0.00 E+00	4.16 E+00
	921013	K-40	1.40 E+03	7.83 E+01
		Cs-134	* 6.62 E-01	3.21 E+00
		Cs-137	* 8.16 E-01	3.17 E+00
		Ba-140	* 2.94 E+00	1.06 E+01
		La-140	* 1.56 E-01	3.83 E+00
	921117	K-40	1.59 E+03	8.57 E+01
		Cs-134	*-6.10 E-01	2.48 E+00
		Cs-137	* 4.03 E-01	2.39 E+00
		Ba-140	* 6.16 E+00	8.23 E+00
		La-140	* 7.18 E-01	3.59 E+00
	921215	K-40	1.26 E+03	7.86 E+01
		Cs-134	*-4.52 E-01	2.47 E+00
		Cs-137	* 3.86 E+00	2.71 E+00
		Ba-140	*-2.35 E+00	8.92 E+00
		La-140	*-2.87 E+00	3.90 E+00

* Denotes a result less than the detection limit.

TABLE A-12.1 (Cont.)

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
62	920114	K-40	1.29 E+03	7.99 E+01
		Cs-134	* 2.37 E-01	2.22 E+00
		Cs-137	* 1.11 E+00	2.31 E+00
		Ba-140	* 4.82 E+00	8.45 E+00
		La-140	* 0.00 E+00	3.54 E+00
	920211	K-40	1.36 E+03	8.96 E+01
		Cs-134	* 1.06 E+00	2.34 E+00
		Cs-137	* 2.02 E+00	2.30 E+00
		Ba-140	*-2.26 E-01	8.14 E+00
		La-140	*-2.04 E-01	3.39 E+00
	920310	K-40	1.26 E+03	7.86 E+01
		Cs-134	*-4.74 E-01	2.15 E+00
		Cs-137	* 1.18 E+00	2.37 E+00
		Ba-140	*-3.04 E+00	7.71 E+00
		La-140	*-1.18 E+00	3.61 E+00
	920414	K-40	1.36 E+03	6.28 E+01
		Cs-134	* 1.23 E+00	2.32 E+00
		Cs-137	* 2.75 E+00	2.35 E+00
		Ba-140	* 0.00 E+00	8.27 E+00
		La-140	* 7.16 E-01	3.03 E+00
	920428	K-40	1.46 E+03	7.45 E+01
		Cs-134	* 9.18 E-01	3.01 E+00
		Cs-137	* 1.46 E+00	2.95 E+00
		Ba-140	*-1.79 E+00	1.00 E+01
		La-140	* 1.22 E+00	3.78 E+00
	920505	K-40	1.66 E+03	7.82 E+01
		Cs-134	*-1.82 E+00	3.11 E+00
		Cs-137	* 3.33 E+00	3.01 E+00
		Ba-140	* 1.19 E+00	1.02 E+01
		La-140	* 2.16 E+00	3.86 E+00
	920519	K-40	1.26 E+03	5.79 E+01
		Cs-134	*-1.60 E+00	2.39 E+00
		Cs-137	*-7.55 E-01	2.39 E+00
		Ba-140	* 2.40 E+00	8.51 E+00
		La-140	* 1.15 E+00	3.08 E+00

* Denotes a result less than the detection limit.

TABLE A-12.1 (Cont.)

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
62	920929	K-40	1.29 E+03	6.99 E+01
		Cs-134	* 9.15 E-01	2.33 E+00
		Cs-137	* 3.77 E-01	2.67 E+00
		Ba-140	*-2.03 E+00	7.90 E+00
		La-140	*-2.39 E+00	3.44 E+00
	921013	K-40	1.10 E+03	6.77 E+01
		Cs-134	* 7.25 E-01	2.28 E+00
		Cs-137	*-1.50 E+00	2.29 E+00
		Ba-140	*-2.17 E+00	6.05 E+00
		La-140	* 0.00 E+00	2.61 E+00
	921117	K-40	1.31 E+03	6.68 E+01
		Cs-134	* 3.69 E-01	2.52 E+00
		Cs-137	* 1.58 E+00	2.57 E+00
		Ba-140	*-3.45 E+00	8.24 E+00
		La-140	* 1.11 E+00	3.30 E+00
	921215	K-40	1.30 E+03	6.58 E+01
		Cs-134	*-6.23 E-01	2.45 E+00
		Cs-137	*-5.49 E-01	2.50 E+00
		Ba-140	*-2.58 E+00	8.86 E+00
		La-140	* 2.43 E+00	3.38 E+00

* Denotes a result less than the detection limit.

TABLE A-12.1 (Cont.)

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
64	920114	K-40	1.23 E+03	6.68 E+01
		Cs-134	*-1.23 E+00	2.13 E+00
		Cs-137	*-1.90 E+00	2.46 E+00
		Ba-140	*-2.91 E+00	7.97 E+00
		La-140	* 5.90 E-01	3.49 E+00
	920211	K-40	7.77 E+02	4.57 E+01
		Cs-134	* 3.76 E-01	1.67 E+00
		Cs-137	*-3.75 E-01	1.97 E+00
		Ba-140	*-1.36 E+00	4.96 E+00
		La-140	* 7.50 E-02	2.06 E+00
	920310	K-40	1.38 E+03	8.31 E+01
		Cs-134	*-5.26 E-01	2.26 E+00
		Cs-137	* 2.17 E+00	2.42 E+00
		Ba-140	*-6.07 E+00	8.54 E+00
		La-140	* 6.00 E-01	3.80 E+00
	920414	K-40	1.29 E+03	6.89 E+01
		Cs-134	* 6.65 E-01	2.34 E+00
		Cs-137	* 2.85 E+00	2.73 E+00
		Ba-140	* 7.71 E+00	8.18 E+00
		La-140	* 1.48 E-01	3.59 E+00
	920428	K-40	1.43 E+03	5.69 E+01
		Cs-134	*-4.53 E+00	2.03 E+00
		Cs-137	* 2.27 E-01	1.99 E+00
		Ba-140	* 5.36 E+00	6.48 E+00
		La-140	*-2.56 E+00	2.57 E+00
	920505	K-40	1.41 E+03	6.62 E+01
		Cs-134	* 1.32 E+00	2.01 E+00
		Cs-137	* 1.65 E+00	1.92 E+00
		Ba-140	* 9.18 E-01	6.81 E+00
		La-140	* 1.74 E+00	2.60 E+00
	920519	K-40	1.43 E+03	8.83 E+01
		Cs-134	* 2.69 E+00	2.83 E+00
		Cs-137	* 0.00 E+00	2.76 E+00
		Ba-140	* 1.68 E+00	9.27 E+00
		La-140	*-2.78 E+00	3.99 E+00

* Denotes a result less than the detection limit.

TABLE A-12.1 (Cont.)

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
64	920609	K-40	1.50 E+03	7.87 E+01
		Cs-134	*-8.00 E-01	3.15 E+00
		Cs-137	* 2.76 E+00	3.15 E+00
		Ba-140	* 1.09 E+01	1.16 E+01
		La-140	*-3.32 E+00	3.97 E+00
	920623	K-40	1.51 E+03	1.05 E+02
		Cs-134	* 2.65 E+00	3.52 E+00
		Cs-137	* 4.32 E+00	3.66 E+00
		Ba-140	*-7.63 E+00	1.22 E+01
		La-140	*-6.27 E-01	5.18 E+00
	920714	K-40	1.46 E+03	7.11 E+01
		Cs-134	*-2.32 E-01	2.35 E+00
		Cs-137	*-2.21 E+00	2.63 E+00
		Ba-140	* 3.81 E+00	7.55 E+00
		La-140	*-5.41 E-01	3.20 E+00
	920728	K-40	1.41 E+03	6.80 E+01
		Cs-134	* 9.33 E-01	2.60 E+00
		Cs-137	* 1.92 E+00	2.52 E+00
		Ba-140	* 2.87 E-01	8.73 E+00
		La-140	* 1.67 E+00	3.55 E+00
	920811	K-40	1.30 E+03	5.63 E+01
		Cs-134	* 3.91 E-01	2.13 E+00
		Cs-137	* 2.28 E+00	2.13 E+00
		Ba-140	* 1.58 E+00	7.25 E+00
		La-140	* 2.06 E+00	2.65 E+00
	920825	K-40	1.29 E+03	7.47 E+01
		Cs-134	* 1.16 E+00	3.14 E+00
		Cs-137	*-6.80 E-01	2.97 E+00
		Ba-140	*-2.25 E+00	1.17 E+01
		La-140	*-4.05 E+00	4.27 E+00
	920915	K-40	1.54 E+03	8.95 E+01
		Cs-134	*-1.15 E+00	2.53 E+00
		Cs-137	* 7.87 E-01	2.62 E+00
		Ba-140	*-4.25 E+00	9.43 E+00
		La-140	* 1.12 E+00	4.23 E+00

* Denotes a result less than the detection limit.

TABLE A-12.1 (Cont.)

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
64	920929	K-40	1.38 E+03	7.95 E+01
		Cs-134	* 0.00 E+00	2.53 E+00
		Cs-137	* 6.81 E-01	2.43 E+00
		Ba-140	* 1.57 E+00	9.43 E+00
		La-140	* 2.03 E-01	3.61 E+00
	921013	K-40	1.50 E+03	7.48 E+01
		Cs-134	*-8.32 E-01	2.29 E+00
		Cs-137	*-5.41 E+00	2.54 E+00
		Ba-140	* 4.84 E+00	7.71 E+00
		La-140	* 6.93 E-01	3.02 E+00
	921117	K-40	1.38 E+03	6.22 E+01
		Cs-134	* 2.19 E-01	2.43 E+00
		Cs-137	* 8.60 E-01	2.50 E+00
		Ba-140	* 2.35 E-01	8.22 E+00
		La-140	*-2.83 E+00	2.84 E+00
	921215	K-40	1.50 E+03	6.33 E+01
		Cs-134	*-1.81 E+00	2.39 E+00
		Cs-137	* 1.69 E+00	2.37 E+00
		Ba-140	*-4.15 E+00	8.36 E+00
		La-140	*-1.42 E+00	3.32 E+00

* Denotes a result less than the detection limit.

TABLE A-12.1 (Cont.)

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
96	920114	K-40	1.27 E+03	7.82 E+01
		Cs-134	* 1.04 E+00	2.46 E+00
		Cs-137	* 9.72 E-01	2.42 E+00
		Ba-140	*-8.53 E-01	8.44 E+00
		La-140	* 1.97 E-01	3.50 E+00
	920211	K-40	1.50 E+03	7.25 E+01
		Cs-134	* 1.18 E+00	2.20 E+00
		Cs-137	*-3.25 E+00	2.47 E+00
		Ba-140	* 3.39 E+00	7.38 E+00
		La-140	* 2.40 E+00	3.19 E+00
	920310	K-40	1.39 E+03	8.12 E+01
		Cs-134	* 1.47 E-01	2.38 E+00
		Cs-137	* 1.80 E+00	2.39 E+00
		Ba-140	*-2.74 E+00	1.02 E-01
		La-140	* 1.38 E+00	4.06 E+00
	920414	K-40	1.44 E+03	8.61 E+01
		Cs-134	*-8.14 E-01	2.29 E+00
		Cs-137	* 3.12 E+00	2.41 E+00
		Ba-140	* 3.96 E+00	7.98 E+00
		La-140	*-8.40 E-01	3.37 E+00
	920428	K-40	1.54 E+03	7.11 E+01
		Cs-134	*-2.15 E+00	2.49 E+00
		Cs-137	*-5.70 E-01	2.42 E+00
		Ba-140	*-4.24 E-01	8.02 E+00
		La-140	*-1.38 E+00	3.27 E+00
	920505	K-40	1.44 E+03	8.79 E+01
		Cs-134	* 1.09 E+00	2.87 E+00
		Cs-137	* 1.12 E+00	2.73 E+00
		Ba-140	* 5.01 E+00	9.98 E+00
		La-140	* 2.90 E+00	3.79 E+00
	920519	K-40	1.35 E+03	5.66 E+01
		Cs-134	*-7.89 E-01	2.11 E+00
		Cs-137	* 1.63 E+00	2.08 E+00
		Ba-140	*-2.05 E+00	7.35 E+00
		La-140	* 2.44 E+00	2.91 E+00

* Denotes a result less than the detection limit.

TABLE A-12.1 (Cont.)

GAMMA SPECTROMETRY OF MILK

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
96	920609	K-40	1.37 E+03	7.05 E+01
		Cs-134	*-3.48 E+00	2.42 E+00
		Cs-137	*-2.89 E+00	2.72 E+00
		Ba-140	* 1.44 E+00	8.39 E+00
		La-140	*-3.19 E-01	3.72 E+00
	920623	K-40	1.40 E+03	6.81 E+01
		Cs-134	*-7.60 E-01	2.49 E+00
		Cs-137	*-6.23 E-01	2.40 E+00
		Ba-140	*-2.11 E+00	8.47 E+00
		La-140	*-7.99 E-01	3.46 E+00
	920714	K-40	1.39 E+03	7.03 E+01
		Cs-134	*-1.19 E-01	2.47 E+00
		Cs-137	* 7.54 E-01	2.69 E+00
		Ba-140	*-3.14 E-01	7.67 E+00
		La-140	* 1.39 E-01	3.20 E+00
	920728	K-40	1.49 E+03	8.41 E+01
		Cs-134	*-1.80 E+00	2.44 E+00
		Cs-137	* 1.12 E+00	2.47 E+00
		Ba-140	*-7.01 E+00	8.41 E+00
		La-140	*-1.12 E+00	3.16 E+00
	920811	K-40	1.47 E+03	7.55 E+01
		Cs-134	* 1.09 E+00	3.20 E+00
		Cs-137	* 1.75 E+00	2.97 E+00
		Ba-140	*-1.77 E-01	1.04 E+01
		La-140	*-1.43 E+00	4.14 E+00
	920825	K-40	1.48 E+03	7.25 E+01
		Cs-134	*-1.63 E+00	2.40 E+00
		Cs-137	*-2.84 E+00	2.67 E+00
		Ba-140	*-6.97 E-01	8.57 E+00
		La-140	*-9.24 E-01	3.77 E+00
	920915	K-40	1.46 E+03	7.96 E+01
		Cs-134	*-4.91 E-01	2.34 E+00
		Cs-137	* 4.63 E+00	2.55 E+00
		Ba-140	* 5.40 E+00	8.67 E+00
		La-140	* 7.67 E-01	3.33 E+00

* Denotes a result less than the detection limit.

TABLE A-12.2 (Cont.)

GAMMA SPECTROMETRY OF MILK - SUMMARY

Results in pCi/liter

NUCLIDE	AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
K-40 (I)	1.37E+03	7.77E+02	1.73E+03	100	100
K-40 (C)	1.41E+03	1.22E+03	1.54E+03	18	18
Cs-134 (I)	1.11E-01	-6.06E+00	2.84E+00	100	0
Cs-134 (C)	-4.01E-01	-3.48E+00	2.66E+00	18	0
Cs-137 (I)	8.19E-01	-5.41E+00	4.32E+00	100	0
Cs-137 (C)	5.62E-01	-3.25E+00	4.63E+00	18	0
Ba-140 (I)	-6.59E-02	-9.47E+00	1.09E+01	100	0
Ba-140 (C)	1.30E+00	-7.01E+00	7.90E+00	18	0
La-140 (I)	-3.35E-01	-6.74E+00	5.61E+00	100	0
La-140 (C)	2.19E-01	-3.11E+00	2.90E+00	18	0

(I) Indicator Stations
(C) Control Station

TABLE A-13.1

GAMMA SPECTROMETRY OF ROOT

Results in pCi/kilogram (wet)

LOCATION	COLLECTION DATE	NUCLIDE	RESULT	OVERALL UNCERTAINTY
	920428 (a)			
	920519 (a)			
9C Potatoes	920623	Cs-134	*-1.25 E+00	2.72 E+00
		Cs-137	* 1.37 E+00	2.59 E+00
		I-131	*-4.94 E+00	5.19 E+00
37 Potatoes	920623	Cs-134	* 2.71 E-01	3.20 E+00
		Cs-137	* 3.35 E-01	3.11 E+00
		I-131	* 5.55 E-01	6.50 E+00
37 Potatoes	920728	Cs-134	* 7.47 E-02	3.58 E+00
		Cs-137	* 3.77 E+00	3.65 E+00
		I-131	*-7.92 E-01	7.04 E+00
9C Potatoes	920728	Cs-134	* 7.59 E-01	4.00 E+00
		Cs-137	* 1.73 E+00	3.95 E+00
		I-131	*-1.12 E+00	7.63 E+00
37 Onions	920825	Cs-134	*-3.00 E+00	3.45 E+00
		Cs-137	* 4.05 E+00	3.55 E+00
		I-131	*-1.51 E+00	6.73 E+00
9C Onions	920825	Cs-134	* 7.89 E-01	3.99 E+00
		Cs-137	*-3.01 E-01	3.96 E+00
		I-131	*-5.53 E-01	7.45 E+00
37 Onions	920929	Cs-134	*-1.05 E+00	3.55 E+00
		Cs-137	* 3.72 E-01	3.42 E+00
		I-131	*-2.41 E+00	7.27 E+00
9C Onions	920929	Cs-134	*-1.65 E-01	3.04 E+00
		Cs-137	* 2.49 E+00	2.96 E+00
		I-131	*-1.43 E+00	6.02 E+00

(a) No samples available.
* Denotes a result less than the detection limit.

TABLE A-13.2 (Cont.)

GAMMA SPECTROMETRY OF ROOT - SUMMARY

Results in pCi/kilogram (wet)

NUCLIDE	AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
Cs-134 (I)	-9.26E-01	-3.00E+00	2.71E-01	4	0
Cs-134 (C)	3.33E-02	-1.25E+00	7.89E-01	4	0
Cs-137 (I)	2.13E+00	3.35E-01	4.05E+00	4	0
Cs-137 (C)	1.32E+00	-3.01E-01	2.49E+00	4	0
I-131 (I)	-1.04E+00	-2.41E+00	5.55E-01	4	0
I-131 (C)	-2.01E+00	-4.94E+00	-5.53E-01	4	0

(I) Indicator Station only.

TABLE A-14.1

GAMMA SPECTROMETRY OF FRUIT

Results in pCi/kilogram (wet)

LOCATION	COLLECTION DATE	NUCLIDE	RESULT	OVERALL UNCERTAINTY
	920428 (a)			
	920519 (a)			
9C Raspberries	920623	Cs-134	*-8.50 E-01	3.03 E+00
		Cs-137	* 1.50 E+00	3.09 E+00
		I-131	*-2.03 E+00	6.48 E+00
37 Raspberries	920623	Cs-134	*-4.82 E+00	2.04 E+00
		Cs-137	* 3.66 E+00	2.01 E+00
		I-131	*-1.93 E-01	4.24 E+00
61 Cherries	920608	Cs-134	* 0.00 E+00	2.24 E+00
		Cs-137	* 1.18 E+00	2.29 E+00
		I-131	* 1.27 E+00	4.58 E+00
37 Cantaloupe	920728	Cs-134	*-7.16 E-01	3.43 E+00
		Cs-137	* 1.97 E+00	3.30 E+00
		I-131	*-2.20 E+00	5.69 E+00
9C Cantaloupe	920728	Cs-134	*-4.06 E-01	3.65 E+00
		Cs-137	* 4.49 E+00	3.44 E+00
		I-131	*-6.32 E-01	6.43 E+00
37 Nectarine	920825	Cs-134	*-6.08 E-02	2.20 E+00
		Cs-137	* 1.07 E-01	2.23 E+00
		I-131	* 2.50 E+00	4.69 E+00
9C Nectarine	920825	Cs-134	* 6.24 E-02	3.25 E+00
		Cs-137	*-3.29 E-01	3.13 E+00
		I-131	*-2.06 E+00	6.21 E+00
91 Apples	920902	Cs-134	* 1.03 E+00	3.21 E+00
		Cs-137	* 8.53 E-01	3.17 E+00
		I-131	*-1.16 E+00	7.10 E+00
93 Grapes	920902	Cs-134	*-1.10 E+00	1.92 E+00
		Cs-137	* 5.62 E-01	1.89 E+00
		I-131	*-1.17 E+00	4.18 E+00

(a) No samples available.
* Denotes a result less than the detection limit.

TABLE A-14.1 (Cont.)

GAMMA SPECTROMETRY OF FRUIT

Results in pCi/kilogram (wet)

LOCATION	COLLECTION DATE	NUCLIDE	RESULT	OVERALL UNCERTAINTY
37 Plum	920929	Cs-134	* 2.10 E+00	2.91 E+00
		Cs-137	* 2.06 E+00	2.74 E+00
		I-131	* 0.00 E+00	5.13 E+00
9C Apples	920929	Cs-134	* 4.13 E+00	3.52 E+00
		Cs-137	* 0.00 E+00	3.52 E+00
		I-131	*-9.46 E-02	6.79 E+00

* Denotes a result less than the detection limit.

TABLE A-14.2

GAMMA SPECTROMETRY OF FRUIT - SUMMARY

Results in pCi/kilogram (wet)

NUCLIDE	AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
Cs-134 (I)	-5.10E-01	-4.82E+00	2.10E+00	7	0
Cs-134 (C)	7.34E-01	-8.50E-01	4.13E+00	4	0
Cs-137 (I)	1.48E+00	1.07E-01	3.66E+00	7	0
Cs-137 (C)	1.42E+00	-3.29E-01	4.49E+00	4	0
I-131 (I)	-1.36E-01	-2.20E+00	2.50E+00	7	0
I-131 (C)	-1.20E+00	-2.06E+00	-9.46E-02	4	0

(I) Indicator Stations
(C) Control Station

TABLE A-15.1

GAMMA SPECTROMETRY OF VEGETABLES

Results in pCi/kilogram (wet)

LOCATION	COLLECTION DATE	NUCLIDE	RESULT	OVERALL UNCERTAINTY
9C Asparagus	920428	Cs-134	* 5.06 E+00	5.28 E+00
		Cs-137	* 2.23 E+00	5.17 E+00
		I-131	*-2.91 E+00	8.50 E+00
37 Asparagus	920428	Cs-134	*-1.84 E+00	4.56 E+00
		Cs-137	*-4.66 E-01	4.42 E+00
		I-131	* 9.57 E-01	7.06 E+00
9C Asparagus	920519	Cs-134	* 6.69 E-01	4.67 E+00
		Cs-137	*-3.77 E+00	4.31 E+00
		I-131	* 1.07 E+00	8.35 E+00
37 Asparagus	920519	Cs-134	* 2.03 E+00	5.44 E+00
		Cs-137	* 2.53 E+00	5.16 E+00
		I-131	*-1.37 E+00	1.08 E+01
9C Cabbage	920623	Cs-134	* 5.36 E-01	4.02 E+00
		Cs-137	* 5.21 E+00	4.10 E+00
		I-131	*-1.77 E+00	9.04 E+00
37 Lettuce	920623	Cs-134	*-1.39 E-01	2.67 E+00
		Cs-137	* 2.33 E+00	2.51 E+00
		I-131	*-9.18 E+00	5.21 E+00
37 Tomatoes	920728	Cs-134	* 9.82 E-01	3.35 E+00
		Cs-137	* 5.13 E+00	3.26 E+00
		I-131	* 3.22 E-01	5.85 E+00
9C Tomatoes	920728	Cs-134	*-2.35 E+00	2.36 E+00
		Cs-137	* 2.59 E-01	2.25 E+00
		I-131	*-5.71 E-01	4.10 E+00
37 Cabbage	920825	Cs-134	*-4.94 E+00	5.26 E+00
		Cs-137	* 3.24 E+00	5.31 E+00
		I-131	* 6.91 E+00	9.48 E+00

* Denotes a result less than the detection limit.

TABLE A-15.1 (Cont.)

GAMMA SPECTROMETRY OF VEGETABLES

Results in pCi/kilogram (wet)

LOCATION	COLLECTION DATE	NUCLIDE	RESULT	OVERALL UNCERTAINTY
9C Green Peppers	920825	Cs-134	* 1.02 E+00	4.48 E+00
		Cs-137	* 2.93 E+00	4.41 E+00
		I-131	* 3.73 E+00	8.60 E+00
37 Tomatoes	920929	Cs-134	*-1.63 E+00	2.81 E+00
		Cs-137	* 1.54 E+00	2.72 E+00
		I-131	*-4.55 E+00	5.20 E+00
9C Beans	920929	Cs-134	* 0.00 E+00	6.29 E+00
		Cs-137	*-7.24 E-01	6.19 E+00
		I-131	*-6.08 E-01	1.19 E+01

* Denotes a result less than the detection limit.

TABLE A-15.2

GAMMA SPECTROMETRY OF VEGETABLES - SUMMARY

Results in pCi/kilogram (Wet)

NUCLIDE	AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
Cs-134 (I)	-9.23E-01	-4.94E+00	2.03E+00	6	0
Cs-134 (C)	8.23E-01	-2.35E+00	5.06E+00	6	0
Cs-137 (I)	2.38E+00	-4.66E-01	5.13E+00	6	0
Cs-137 (C)	1.02E+00	-3.77E+00	5.21E+00	6	0
I-131 (I)	-1.55E+00	-9.18E+00	6.91E+00	6	0
I-131 (C)	-1.77E-01	-2.91E+00	3.73E+00	6	0

(I) Indicator Stations
(C) Control Station

APPENDIX B: SPECIAL INTEREST SAMPLE RESULTS

TABLE B-1.1

GROSS BETA IN STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
101	920219	2.6 E+00	9.0 E-01
	920304	1.9 E+00	8.0 E-01
	920318	6.5 E+00	1.1 E+00
	920402	3.7 E+00	1.0 E+00
	920415	5.5 E+00	1.1 E+00
	920429	1.1 E+01	1.0 E+00
	920513	1.1 E+03	1.0 E+02
	920518	4.2 E+01	3.0 E+00
	920526	2.9 E+00	9.0 E-01
	920527	3.9 E+00	9.0 E-01
	920528	3.6 E+00	9.0 E-01
	920529	1.4 E+01	2.0 E+00
	920530	5.6 E+00	1.2 E+00
	920601	9.2 E+00	1.6 E+00
	920602	3.8 E+00	1.0 E+00
	920603	3.5 E+00	1.0 E+00
	920604	5.3 E+00	1.2 E+00
	920605	7.4 E+00	1.4 E+00
	920606	5.7 E+00	1.3 E+00
	920608	1.9 E+00	9.0 E-01
	920609	6.5 E+00	1.4 E+00
	920610	1.6 E+00	9.0 E-01
	920611	5.4 E+00	1.3 E+00
	920612	1.1 E+01	1.0 E+00
	920617	2.4 E+01	2.0 E+00
	920625	5.0 E+00	1.2 E+00
	920703	6.6 E+00	1.4 E+00
	920707	3.8 E+00	9.0 E-01
	920708	3.3 E+00	1.2 E+00
	920715	2.9 E+00	9.0 E-01
	920722	6.9 E+00	1.2 E+00
	920729	1.3 E+01	2.0 E+00
	921029	4.3 E+00	1.4 E+00
101-A	920522	2.0 E+01	2.0 E+00
101-B	920522	7.0 E+00	1.2 E+00
101-C	920522	1.1 E+01	2.0 E+00
101-E	920522	7.3 E+00	1.2 E+00

TABLE B-1.2

GROSS BETA IN STORM DRAIN WATER - SUMMARY

Results in pCi/liter

NUCLIDE	AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
Gr-Beta (I)	3.73E+01	1.6E+00	1.1E+03	37	37

(I) Indicator Stations only.

TABLE B-2.1

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920219	Be-7	*-1.06 E+01	2.05 E+01
		K-40	*-4.85 E+00	4.74 E+01
		Mn-54	* 2.63 E+00	2.26 E+00
		Co-58	*-4.71 E-01	2.27 E+00
		Fe-59	* 2.10 E+00	4.62 E+00
		Co-60	*-5.15 E-01	2.32 E+00
		Zn-65	* 6.63 E+00	4.64 E+00
		Zr-95	* 3.10 E+00	4.83 E+00
		Nb-95	* 1.44 E+00	2.30 E+00
		Cs-134	*-3.29 E-01	2.51 E+00
		Cs-137	* 1.31 E+00	2.54 E+00
		Ba-140	* 4.20 E+00	8.59 E+00
		La-140	*-6.30 E-01	3.22 E+00
		Ra-226	*-1.89 E+00	4.71 E+01
		Th-228	* 3.83 E+00	3.92 E+00
	920304	Be-7	* 2.54 E+00	1.94 E+01
		K-40	*-1.32 E+01	4.14 E+01
		Mn-54	*-9.90 E-02	2.06 E+00
		Co-58	* 5.12 E-01	2.14 E+00
		Fe-59	*-1.84 E+00	4.34 E+00
		Co-60	* 1.76 E+00	2.19 E+00
		Zn-65	* 1.01 E+00	4.37 E+00
		Zr-95	* 3.39 E+00	4.32 E+00
		Nb-95	* 2.43 E-01	2.13 E+00
		Cs-134	*-2.25 E+00	2.37 E+00
		Cs-137	* 2.30 E+00	2.27 E+00
		Ba-140	* 6.96 E-01	7.54 E+00
		La-140	* 3.82 E-01	3.19 E+00
		Ra-226	* 2.41 E+01	4.16 E+01
		Th-228	*-9.98 E+00	3.52 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920318	Be-7	* 4.46 E+00	1.65 E+01
		K-40	*-3.18 E+01	2.37 E+01
		Mn-54	* 4.80 E-01	1.66 E+00
		Co-58	* 1.17 E+00	1.72 E+00
		Fe-59	*-6.17 E-01	3.69 E+00
		Co-60	7.53 E+00	2.46 E+00
		Zn-65	* 0.00 E+00	3.87 E+00
		Zr-95	* 7.41 E+00	3.63 E+00
		Nb-95	* 1.45 E+00	1.77 E+00
		Cs-134	* 1.55 E+00	1.82 E+00
		Cs-137	* 2.31 E+00	1.99 E+00
		Ba-140	*-2.69 E+00	7.42 E+00
		La-140	*-1.30 E+00	3.02 E+00
		Ra-226	*-1.37 E+02	3.99 E+01
		Th-228	*-4.78 E+00	3.23 E+00
	920402	Be-7	* 4.81 E+00	1.72 E+01
		K-40	*-1.69 E+01	2.44 E+01
		Mn-54	*-2.52 E-01	1.62 E+00
		Co-58	*-1.64 E+00	1.72 E+00
		Fe-59	*-5.36 E-01	3.88 E+00
		Co-60	* 1.16 E+00	1.91 E+00
		Zn-65	*-2.34 E+00	3.78 E+00
		Zr-95	* 1.40 E+00	3.47 E+00
		Nb-95	* 1.02 E+00	1.80 E+00
		Cs-134	* 1.67 E+00	1.94 E+00
		Cs-137	* 9.69 E-02	2.22 E+00
		Ba-140	* 3.38 E+00	7.53 E+00
		La-140	* 8.72 E-01	3.16 E+00
		Ra-226	*-3.71 E+01	3.69 E+01
		Th-228	* 4.47 E+00	3.25 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920415	Be-7	* 4.54 E+00	2.02 E+01
		K-40	*-2.15 E+01	2.78 E+01
		Mn-54	* 1.32 E+00	1.98 E+00
		Co-58	*-1.31 E+00	1.97 E+00
		Fe-59	*-2.78 E+00	4.13 E+00
		Co-60	* 1.44 E+00	2.03 E+00
		Zn-65	* 8.86 E-01	4.41 E+00
		Zr-95	* 3.62 E+00	4.25 E+00
		Nb-95	* 0.00 E+00	2.01 E+00
		Cs-134	* 2.63 E+00	2.19 E+00
		Cs-137	* 2.12 E+00	2.14 E+00
		Ba-140	* 1.04 E+00	8.03 E+00
		La-140	*-2.26 E+00	3.70 E+00
		Ra-226	*-2.15 E+01	4.90 E+01
		Th-228	*-2.54 E+00	4.05 E+00
	920429	Be-7	* 1.60 E+00	1.89 E+01
		K-40	*-1.73 E+01	2.68 E+01
		Mn-54	* 1.15 E+00	1.97 E+00
		Co-58	*-1.72 E+00	1.91 E+00
		Fe-59	*-3.20 E+00	4.18 E+00
		Co-60	* 4.85 E-01	2.17 E+00
		Zn-65	* 2.65 E+00	4.23 E+00
		Zr-95	* 3.03 E+00	4.04 E+00
		Nb-95	* 1.56 E+00	1.96 E+00
		I-131	1.26 E+00	4.60 E+00
		Cs-134	* 4.83 E-01	2.19 E+00
		Cs-137	* 2.82 E+00	2.26 E+00
		Ba-140	* 4.96 E+00	7.51 E+00
		La-140	*-3.40 E-01	3.19 E+00
		Ra-226	*-2.69 E+01	4.24 E+01
		Th-228	* 7.46 E+00	3.60 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920513	Be-7	* 8.11 E-01	2.15 E+01
		K-40	*-1.88 E+01	2.70 E+01
		Mn-54	5.79 E+00	3.61 E+00
		Co-58	* 3.42 E+00	2.80 E+00
		Fe-59	* 3.25 E-01	5.83 E+00
		Co-60	1.25 E+02	7.72 E+00
		Zn-65	5.30 E+01	1.02 E+01
		Zr-95	* 5.40 E+00	5.08 E+00
		Nb-95	* 2.09 E+00	2.46 E+00
		I-131	2.11 E+01	5.01 E+00
		Cs-134	* 4.82 E+00	2.88 E+00
		Cs-137	5.69 E+00	3.28 E+00
		Ba-140	*-1.80 E-01	8.75 E+00
		La-140	* 2.59 E+00	3.66 E+00
		Ce-141	7.07 E+02	7.10 E+01
		Sb-124	1.15 E+01	3.20 E+00
		Sb-125	2.08 E+01	9.60 E+00
		Ra-226	*-5.82 E+01	4.61 E+01
		Th-228	* 2.72 E+00	4.02 E+00
	920518	Be-7	* 6.97 E+00	1.98 E+01
		K-40	*-5.22 E+00	3.10 E+01
		Mn-54	* 2.16 E+00	2.23 E+00
		Co-58	*-4.23 E-01	2.10 E+00
		Fe-59	*-3.31 E-01	4.42 E+00
		Co-60	2.21 E+01	4.01 E+00
		Zn-65	1.22 E+01	6.78 E+00
		Zr-95	* 1.95 E+00	4.56 E+00
		Nb-95	* 1.54 E+00	2.24 E+00
		Cs-134	*-3.03 E-01	2.43 E+00
		Cs-137	* 3.81 E+00	2.45 E+00
		Ba-140	* 5.07 E-01	6.85 E+00
		La-140	* 4.89 E+00	3.50 E+00
		Ra-226	*-1.07 E+02	5.00 E+01
		Th-228	*-5.79 E+00	4.16 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920526	Be-7	* 4.59 E+00	1.84 E+01
		K-40	*-3.59 E+00	3.06 E+01
		Mn-54	* 1.47 E-01	1.87 E+00
		Co-58	* 8.93 E-01	1.79 E+00
		Fe-59	*-5.23 E-01	3.77 E+00
		Co-60	* 1.20 E+00	2.12 E+00
		Zn-65	* 9.34 E-01	4.13 E+00
		Zr-95	* 3.01 E+00	4.17 E+00
		Nb-95	*-2.44 E+00	1.97 E+00
		Cs-134	* 1.20 E+00	2.13 E+00
		Cs-137	* 3.24 E+00	2.32 E+00
		Ba-140	*-3.22 E+00	6.39 E+00
		La-140	* 0.00 E+00	2.74 E+00
		Ra-226	*-1.10 E+02	5.25 E+01
		Th-228	*-3.01 E+00	4.34 E+00
	920527	Be-7	* 1.32 E+01	2.02 E+01
		K-40	* 1.27 E+01	2.87 E+01
		Mn-54	* 1.44 E+00	2.13 E+00
		Co-58	* 4.70 E-01	2.20 E+00
		Fe-59	*-3.18 E+00	4.15 E+00
		Co-60	*-4.47 E-01	2.22 E+00
		Zn-65	* 1.93 E+00	4.87 E+00
		Zr-95	*-2.31 E+00	4.44 E+00
		Nb-95	* 2.75 E+00	2.09 E+00
		Cs-134	*-1.55 E+00	2.17 E+00
		Cs-137	* 2.16 E-01	2.19 E+00
		Ba-140	*-6.47 E-01	7.71 E+00
		La-140	*-2.14 E+00	3.33 E+00
		Ra-226	*-2.73 E+01	5.13 E+01
		Th-228	*-2.32 E+00	4.23 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920528	Be-7	* 1.64 E+01	2.10 E+01
		K-40	*-3.25 E+01	4.85 E+01
		Mn-54	* 1.25 E+00	2.31 E+00
		Co-58	*-5.37 E-02	2.26 E+00
		Fe-59	*-3.81 E-01	4.85 E+00
		Co-60	* 6.15 E-01	2.48 E+00
		Zn-65	*-1.19 E+00	5.05 E+00
		Zr-95	* 9.90 E-01	4.57 E+00
		Nb-95	* 1.63 E+00	2.28 E+00
		Cs-134	* 1.53 E+00	2.60 E+00
		Cs-137	* 1.20 E+00	2.59 E+00
		Ba-140	* 2.12 E+00	7.90 E+00
		La-140	* 3.29 E+00	3.20 E+00
		Ra-226	* 5.40 E+00	4.27 E+01
		Th-228	*-1.45 E+00	3.69 E+00
	920529	Be-7	* 6.03 E+00	1.93 E+01
		K-40	*-4.00 E+01	2.89 E+01
		Mn-54	*-1.77 E-01	1.99 E+00
		Co-58	* 4.82 E-01	2.06 E+00
		Fe-59	* 9.87 E-01	4.15 E+00
		Co-60	6.65 E+00	2.68 E+00
		Zn-65	* 1.49 E+00	4.46 E+00
		Zr-95	*-2.22 E-01	4.10 E+00
		Nb-95	* 8.56 E-01	2.02 E+00
		Cs-134	* 8.33 E-01	2.19 E+00
		Cs-137	*-4.71 E+00	2.67 E+00
		Ba-140	* 1.97 E+00	6.85 E+00
		La-140	* 0.00 E+00	2.83 E+00
		Ra-226	*-1.02 E+01	4.37 E+01
		Th-228	*-1.76 E+00	3.69 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920530	Be-7	* 1.52 E+01	1.87 E+01
		K-40	*-3.37 E+01	2.94 E+01
		Mn-54	* 6.66 E-01	1.94 E+00
		Co-58	*-3.42 E-01	1.87 E+00
		Fe-59	*-1.63 E-01	3.64 E+00
		Co-60	* 1.09 E+00	2.26 E+00
		Zn-65	* 2.88 E+00	4.02 E+00
		Zr-95	* 2.77 E+00	3.81 E+00
		Nb-95	* 2.07 E+00	2.03 E+00
		Cs-134	*-5.76 E-01	2.03 E+00
		Cs-137	* 1.14 E+00	2.24 E+00
		Ba-140	* 2.70 E+00	6.71 E+00
		La-140	*-2.95 E+00	3.08 E+00
		Ra-226	*-7.09 E+01	4.64 E+01
		Th-228	* 1.01 E+00	3.87 E+00
	920601	Be-7	* 3.11 E+00	1.63 E+01
		K-40	*-8.75 E+01	3.29 E+01
		Mn-54	* 1.50 E+00	1.79 E+00
		Co-58	* 1.13 E+00	1.75 E+00
		Fe-59	* 1.56 E+00	3.68 E+00
		Co-60	* 4.03 E+00	1.95 E+00
		Zn-65	* 4.40 E-01	4.07 E+00
		Zr-95	* 3.87 E+00	3.77 E+00
		Nb-95	* 1.11 E+00	1.82 E+00
		Cs-134	*-1.41 E+00	1.97 E+00
		Cs-137	* 1.62 E+00	2.02 E+00
		Ba-140	* 1.01 E+00	5.70 E+00
		La-140	*-3.65 E-01	2.12 E+00
		Ra-226	*-2.64 E+01	3.58 E+01
		Th-228	*-8.92 E+00	3.01 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920602	Be-7	* 2.27 E+00	1.82 E+01
		K-40	*-9.31 E+01	4.36 E+01
		Mn-54	*-2.72 E-01	2.06 E+00
		Co-58	*-1.83 E-01	2.07 E+00
		Fe-59	* 7.81 E+00	4.36 E+00
		Co-60	* 1.00 E+00	2.11 E+00
		Zn-65	* 2.98 E+00	4.46 E+00
		Zr-95	*-5.48 E+00	4.28 E+00
		Nb-95	* 1.69 E+00	2.10 E+00
		Cs-134	* 5.41 E-01	2.26 E+00
		Cs-137	* 2.39 E+00	2.35 E+00
		Ba-140	* 1.21 E+00	6.43 E+00
		La-140	*-3.94 E-01	2.67 E+00
		Ra-226	* 8.28 E+00	3.97 E+01
		Th-228	* 1.75 E+00	3.45 E+00
	920603	Be-7	* 1.25 E+01	1.70 E+01
		K-40	*-3.67 E+01	2.67 E+01
		Mn-54	* 0.00 E+00	1.87 E+00
		Co-58	*-1.39 E+00	1.80 E+00
		Fe-59	* 2.39 E+00	3.71 E+00
		Co-60	* 1.43 E+00	2.05 E+00
		Zn-65	*-5.17 E-01	3.92 E+00
		Zr-95	* 2.37 E+00	3.66 E+00
		Nb-95	* 2.39 E+00	1.84 E+00
		Cs-134	* 8.36 E-01	2.06 E+00
		Cs-137	*-4.44 E+00	2.44 E+00
		Ba-140	* 1.55 E+00	5.83 E+00
		La-140	*-9.50 E-01	2.61 E+00
		Ra-226	*-2.55 E+01	4.05 E+01
		Th-228	*-1.50 E+00	3.42 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920604	Be-7	*-2.47 E+00	1.60 E+01
		K-40	*-4.04 E+01	3.76 E+01
		Mn-54	* 8.34 E-01	1.72 E+00
		Co-58	* 5.23 E-01	1.75 E+00
		Fe-59	* 3.86 E+00	3.79 E+00
		Co-60	* 1.15 E+00	1.80 E+00
		Zn-65	*-3.51 E+00	3.69 E+00
		Zr-95	*-8.20 E+00	3.62 E+00
		Nb-95	* 2.89 E+00	1.78 E+00
		Cs-134	* 2.53 E-01	1.88 E+00
		Cs-137	* 2.31 E+00	1.92 E+00
		Ba-140	*-1.74 E+00	6.75 E+00
		La-140	*-9.57 E-01	2.53 E+00
		Ra-226	*-1.07 E+01	3.49 E+01
		Th-228	*-2.25 E+00	2.91 E+00
	920605	Be-7	* 8.41 E+00	2.52 E+01
		K-40	*-8.80 E+01	5.86 E+01
		Mn-54	*-8.97 E-01	2.65 E+00
		Co-58	*-1.84 E+00	2.60 E+00
		Fe-59	* 7.28 E-01	5.74 E+00
		Co-60	* 6.18 E-01	2.79 E+00
		Zn-65	* 0.00 E+00	6.00 E+00
		Zr-95	* 3.06 E+00	5.46 E+00
		Nb-95	* 1.63 E+00	2.71 E+00
		Cs-134	* 0.00 E+00	2.92 E+00
		Cs-137	* 1.83 E+00	2.92 E+00
		Ba-140	*-1.13 E+00	9.26 E+00
		La-140	* 8.74 E-01	3.75 E+00
		Ra-226	*-1.45 E+01	4.85 E+01
		Th-228	* 9.19 E+00	4.36 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920606	Be-7	*-2.93 E+00	1.86 E+01
		K-40	*-3.66 E+01	3.02 E+01
		Mn-54	*-5.98 E-01	1.79 E+00
		Co-58	* 0.00 E+00	1.93 E+00
		Fe-59	* 0.00 E+00	4.05 E+00
		Co-60	* 3.96 E-01	2.20 E+00
		Zn-65	*-1.69 E+00	4.13 E+00
		Zr-95	* 2.99 E+00	4.08 E+00
		Nb-95	* 6.42 E-01	1.93 E+00
		Cs-134	* 2.16 E-01	2.18 E+00
		Cs-137	* 2.09 E+00	2.31 E+00
		Ba-140	* 4.25 E+00	6.65 E+00
		La-140	* 0.00 E+00	2.85 E+00
		Ra-226	*-1.70 E+01	4.72 E+01
		Th-228	*-5.58 E+00	3.85 E+00
	920608	Be-7	*-1.80 E+01	1.60 E+01
		K-40	*-6.84 E+01	3.36 E+01
		Mn-54	* 3.94 E-01	1.79 E+00
		Co-58	*-1.44 E-01	1.75 E+00
		Fe-59	*-8.11 E-02	3.64 E+00
		Co-60	* 1.01 E-01	1.68 E+00
		Zn-65	* 2.90 E+00	3.74 E+00
		Zr-95	* 5.11 E+00	3.68 E+00
		Nb-95	* 9.61 E-01	1.81 E+00
		Cs-134	* 0.00 E+00	1.98 E+00
		Cs-137	* 3.53 E-01	1.97 E+00
		Ba-140	*-8.69 E-01	5.37 E+00
		La-140	*-4.14 E-01	2.04 E+00
		Ra-226	*-1.37 E+01	3.59 E+01
		Th-228	* 2.90 E+00	2.98 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920609	Be-7	* 1.56 E+00	1.74 E+01
		K-40	*-9.65 E+01	3.30 E+01
		Mn-54	* 1.49 E-01	1.77 E+00
		Co-58	*-9.77 E-01	1.86 E+00
		Fe-59	* 1.45 E+00	3.84 E+00
		Co-60	*-1.09 E+00	1.78 E+00
		Zn-65	*-9.19 E-02	3.93 E+00
		Zr-95	* 1.39 E+00	3.91 E+00
		Nb-95	* 1.87 E+00	1.91 E+00
		Cs-134	* 2.43 E-01	2.01 E+00
		Cs-137	* 1.82 E-01	1.98 E+00
		Ba-140	*-1.07 E+01	7.18 E+00
		La-140	* 1.31 E+00	2.65 E+00
		Ra-226	*-2.57 E+01	3.62 E+01
		Th-228	* 5.31 E+00	3.10 E+00
	920610	Be-7	* 6.43 E+00	2.02 E+01
		K-40	* 9.87 E+00	4.74 E+01
		Mn-54	*-7.44 E-01	2.17 E+00
		Co-58	*-1.03 E-01	2.23 E+00
		Fe-59	* 5.25 E+00	4.88 E+00
		Co-60	* 2.92 E-01	2.26 E+00
		Zn-65	* 2.14 E+00	4.67 E+00
		Zr-95	* 2.09 E+00	4.52 E+00
		Nb-95	* 1.17 E+00	2.30 E+00
		Cs-134	* 5.90 E-01	2.38 E+00
		Cs-137	* 1.84 E+00	2.44 E+00
		Ba-140	*-3.81 E+00	8.10 E+00
		La-140	* 2.27 E+00	3.32 E+00
		Ra-226	*-6.79 E-01	4.19 E+01
		Th-228	*-5.97 E-01	3.58 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920611	Be-7	*-2.17 E+01	1.85 E+01
		K-40	*-6.61 E+01	2.59 E+01
		Mn-54	* 1.29 E+00	1.89 E+00
		Co-58	*-1.10 E+00	1.90 E+00
		Fe-59	* 4.07 E-01	4.21 E+00
		Co-60	* 1.40 E+00	2.07 E+00
		Zn-65	*-1.84 E+00	4.52 E+00
		Zr-95	* 2.45 E+00	4.14 E+00
		Nb-95	* 5.47 E-01	2.04 E+00
		Cs-134	*-4.01 E+00	2.06 E+00
		Cs-137	*-8.85 E-01	2.53 E+00
		Ba-140	*-2.44 E+00	6.81 E+00
		La-140	*-6.73 E-01	3.13 E+00
		Ra-226	*-4.65 E+01	4.18 E+01
		Th-228	* 1.57 E+00	3.63 E+00
	920612	Be-7	* 2.49 E+01	1.98 E+01
		K-40	*-3.33 E+01	2.63 E+01
		Mn-54	* 6.69 E-01	1.92 E+00
		Co-58	*-1.38 E+00	1.94 E+00
		Fe-59	*-1.85 E-01	4.24 E+00
		Co-60	* 2.23 E+00	2.27 E+00
		Zn-65	* 3.82 E+00	4.01 E+00
		Zr-95	* 3.67 E+00	4.05 E+00
		Nb-95	* 3.63 E-01	1.97 E+00
		Cs-134	* 1.68 E+00	2.21 E+00
		Cs-137	* 3.02 E+00	2.22 E+00
		Ba-140	* 5.38 E+00	6.90 E+00
		La-140	* 9.72 E-01	3.26 E+00
		Ra-226	*-9.36 E-01	4.45 E+01
		Th-228	*-5.81 E+00	3.82 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920617	Be-7	*-1.51 E+01	1.87 E+01
		K-40	* 1.09 E+01	1.88 E+01
		Mn-54	*-3.20 E+00	2.28 E+00
		Co-58	*-2.26 E-01	2.11 E+00
		Fe-59	*-7.65 E+00	5.24 E+00
		Co-60	*-6.60 E-01	1.98 E+00
		Zn-65	*-1.30 E+01	5.17 E+00
		Zr-95	* 1.38 E+00	4.12 E+00
		Nb-95	*-2.28 E+00	2.10 E+00
		Cs-134	*-1.41 E+00	2.23 E+00
		Cs-137	*-2.46 E+00	2.15 E+00
		Ba-140	*-8.07 E-01	7.62 E+00
		La-140	*-1.16 E+00	2.69 E+00
		Ra-226	*-1.57 E+02	4.28 E+01
		Th-228	*-1.70 E+01	3.57 E+00
	920625	Be-7	* 1.51 E+01	1.90 E+01
		K-40	*-3.78 E+01	2.81 E+01
		Mn-54	* 3.34 E-01	2.01 E+00
		Co-58	* 4.85 E-01	1.96 E+00
		Fe-59	*-2.98 E+00	4.11 E+00
		Co-60	* 7.92 E-01	2.22 E+00
		Zn-65	* 4.26 E+00	4.27 E+00
		Zr-95	*-1.66 E+00	4.18 E+00
		Nb-95	* 1.58 E+00	2.15 E+00
		Cs-134	*-4.84 E+00	2.11 E+00
		Cs-137	* 1.78 E+00	2.12 E+00
		Ba-140	* 1.91 E-01	7.26 E+00
		La-140	* 2.60 E+00	3.38 E+00
		Ra-226	*-1.18 E+01	4.79 E+01
		Th-228	*-5.62 E-01	3.84 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920703	Be-7	* 7.09 E+00	1.75 E+01
		K-40	*-5.12 E+01	2.57 E+01
		Mn-54	* 4.24 E-01	1.75 E+00
		Co-58	* 3.43 E-01	1.79 E+00
		Fe-59	* 2.21 E+00	3.93 E+00
		Co-60	* 1.38 E+00	1.97 E+00
		Zn-65	* 6.08 E+00	3.99 E+00
		Zr-95	* 1.54 E+00	3.60 E+00
		Nb-95	* 2.32 E-01	1.84 E+00
		Cs-134	* 8.14 E-01	1.96 E+00
		Cs-137	*-1.13 E+00	2.28 E+00
		Ba-140	* 1.11 E+00	6.91 E+00
		La-140	*-1.60 E+00	3.06 E+00
		Ra-226	* 3.22 E+01	3.91 E+01
		Th-228	*-5.98 E+00	3.24 E+00
	920707	Be-7	* 5.28 E+00	1.86 E+01
		K-40	*-4.26 E+01	2.74 E+01
		Mn-54	* 1.98 E+00	1.95 E+00
		Co-58	*-1.67 E-01	1.92 E+00
		Fe-59	*-9.32 E-01	4.02 E+00
		Co-60	* 1.49 E+00	2.10 E+00
		Zn-65	* 2.98 E+00	4.11 E+00
		Zr-95	*-6.19 E-01	4.04 E+00
		Nb-95	* 1.91 E+00	2.01 E+00
		Cs-134	* 1.50 E+00	2.24 E+00
		Cs-137	*-3.15 E+00	2.46 E+00
		Ba-140	* 3.22 E-01	7.35 E+00
		La-140	*-2.86 E-01	3.41 E+00
		Ra-226	*-1.90 E+01	4.12 E+01
		Th-228	*-7.25 E+00	3.44 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920708	Be-7	* 1.51 E+01	1.79 E+01
		K-40	* 1.49 E+01	2.83 E+01
		Mn-54	*-1.16 E+00	1.96 E+00
		Co-58	* 3.95 E-01	1.95 E+00
		Fe-59	* 9.53 E-01	3.99 E+00
		Co-60	* 5.85 E-01	2.26 E+00
		Zn-65	* 1.66 E-01	4.44 E+00
		Zr-95	* 6.03 E-01	3.97 E+00
		Nb-95	* 8.09 E-01	2.01 E+00
		Cs-134	* 3.47 E-01	2.17 E+00
		Cs-137	* 1.94 E+00	2.27 E+00
		Ba-140	* 1.35 E+00	7.14 E+00
		La-140	*-8.09 E-01	3.06 E+00
		Ra-226	*-1.71 E+01	4.19 E+01
		Th-228	*-2.60 E+00	3.55 E+00
	920715	Be-7	* 7.54 E+00	1.78 E+01
		K-40	*-1.87 E+01	2.82 E+01
		Mn-54	* 5.28 E-01	1.93 E+00
		Co-58	*-7.73 E-01	1.76 E+00
		Fe-59	* 5.56 E-01	4.11 E+00
		Co-60	* 6.80 E-01	2.05 E+00
		Zn-65	* 7.75 E-01	3.88 E+00
		Zr-95	* 2.56 E+00	4.15 E+00
		Nb-95	* 9.51 E-01	1.96 E+00
		Cs-134	*-4.89 E-01	2.15 E+00
		Cs-137	* 1.50 E+00	2.18 E+00
		Ba-140	* 3.99 E-01	6.88 E+00
		La-140	* 2.06 E+00	3.14 E+00
		Ra-226	*-2.65 E+01	4.55 E+01
		Th-228	*-2.17 E+00	3.84 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920722	Be-7	* 1.10 E+01	1.97 E+01
		K-40	*-5.86 E+01	2.54 E+01
		Mn-54	*-6.81 E-02	1.78 E+00
		Co-58	*-7.75 E-01	2.00 E+00
		Fe-59	* 6.72 E-01	3.91 E+00
		Co-60	* 1.61 E+00	2.03 E+00
		Zn-65	*-5.20 E-01	3.98 E+00
		Zr-95	* 0.00 E+00	4.16 E+00
		Nb-95	* 4.01 E-01	2.03 E+00
		Cs-134	* 1.25 E+00	2.16 E+00
		Cs-137	* 1.95 E+00	2.21 E+00
		Ba-140	*-2.12 E+00	7.47 E+00
		La-140	*-1.74 E+00	3.23 E+00
		Ra-226	* 4.23 E+01	4.86 E+01
		Th-228	* 2.35 E+00	4.01 E+00
	920729	Be-7	* 8.21 E-01	1.89 E+01
		K-40	* 1.69 E+01	2.66 E+01
		Mn-54	* 2.14 E+00	1.93 E+00
		Co-58	*-3.38 E-01	2.02 E+00
		Fe-59	* 3.29 E-01	4.22 E+00
		Co-60	* 3.93 E-01	2.25 E+00
		Zn-65	* 8.23 E+00	4.52 E+00
		Zr-95	* 7.44 E-01	4.32 E+00
		Nb-95	* 3.65 E+00	2.18 E+00
		Cs-134	* 1.33 E+00	2.14 E+00
		Cs-137	* 3.23 E+00	2.34 E+00
		Ba-140	* 2.27 E+00	7.77 E+00
		La-140	*-2.72 E+00	3.28 E+00
		Ra-226	*-2.22 E+01	4.30 E+01
		Th-228	* 2.08 E-01	3.63 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920805	Be-7	*-2.42 E+00	1.85 E+01
		K-40	*-3.57 E+01	2.33 E+01
		Mn-54	* 4.58 E-01	1.87 E+00
		Co-58	* 4.74 E-01	1.92 E+00
		Fe-59	* 2.47 E+00	4.17 E+00
		Co-60	* 1.49 E+00	2.41 E+00
		Zn-65	*-3.21 E+00	3.71 E+00
		Zr-95	* 1.31 E+00	4.02 E+00
		Nb-95	* 6.73 E-01	1.98 E+00
		Cs-134	* 2.31 E+00	2.22 E+00
		Cs-137	* 2.02 E+00	2.20 E+00
		Ba-140	*-6.41 E-01	6.78 E+00
		La-140	* 2.41 E+00	3.39 E+00
		Ra-226	* 4.38 E+01	4.53 E+01
		Th-228	*-3.43 E+00	3.79 E+00
	920812	Be-7	* 9.64 E+00	1.91 E+01
		K-40	*-7.07 E+01	2.60 E+01
		Mn-54	* 3.25 E-01	1.88 E+00
		Co-58	*-5.09 E-01	1.95 E+00
		Fe-59	* 1.35 E+00	4.39 E+00
		Co-60	* 3.57 E+00	2.20 E+00
		Zn-65	* 1.51 E+00	4.01 E+00
		Zr-95	* 3.77 E+00	4.17 E+00
		Nb-95	* 7.53 E-01	1.96 E+00
		Cs-134	*-8.20 E-01	2.07 E+00
		Cs-137	*-4.79 E+00	2.39 E+00
		Ba-140	* 2.30 E+00	7.51 E+00
		La-140	* 2.91 E-01	3.52 E+00
		Ra-226	*-5.04 E+01	4.15 E+01
		Th-228	*-6.23 E+00	3.44 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920819	Be-7	* 6.89 E+00	1.86 E+01
		K-40	*-4.58 E+00	2.80 E+01
		Mn-54	*-6.49 E-01	1.89 E+00
		Co-58	* 1.81 E+00	2.09 E+00
		Fe-59	* 2.27 E+00	4.18 E+00
		Co-60	*-1.96 E-01	2.21 E+00
		Zn-65	* 1.68 E+00	4.81 E+00
		Zr-95	* 2.58 E+00	4.17 E+00
		Nb-95	*-3.67 E-01	2.11 E+00
		Cs-134	* 0.00 E+00	2.23 E+00
		Cs-137	* 2.38 E+00	2.20 E+00
		Ba-140	* 1.80 E+00	7.22 E+00
		La-140	* 0.00 E+00	3.48 E+00
		Ra-226	*-3.95 E+01	4.32 E+01
		Th-228	*-3.54 E-02	3.64 E+00
	920826	Be-7	*-6.14 E+00	1.52 E+01
		K-40	*-5.79 E+01	2.24 E+01
		Mn-54	* 0.00 E+00	1.55 E+00
		Co-58	* 5.34 E-01	1.61 E+00
		Fe-59	* 1.63 E+00	3.28 E+00
		Co-60	* 1.61 E+00	1.95 E+00
		Zn-65	*-2.56 E+00	3.49 E+00
		Zr-95	* 2.27 E+00	3.34 E+00
		Nb-95	* 6.22 E-01	1.64 E+00
		Cs-134	* 3.96 E-01	1.86 E+00
		Cs-137	*-3.18 E+00	2.22 E+00
		Ba-140	* 1.40 E+00	5.36 E+00
		La-140	*-2.67 E-01	2.50 E+00
		Ra-226	*-1.38 E+01	3.67 E+01
		Th-228	*-3.73 E+00	3.04 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920902	Be-7	*-1.65 E+01	1.75 E+01
		K-40	4.37 E+01	2.50 E+01
		Mn-54	*-5.13 E-01	1.66 E+00
		Co-58	*-9.17 E-01	1.77 E+00
		Fe-59	* 1.68 E+00	3.81 E+00
		Co-60	* 1.11 E+00	1.99 E+00
		Zn-65	* 9.48 E-01	4.14 E+00
		Zr-95	* 2.38 E+00	3.48 E+00
		Nb-95	* 1.59 E+00	1.93 E+00
		Cs-134	*-7.90 E-02	2.04 E+00
		Cs-137	* 1.38 E-01	1.89 E+00
		Ba-140	*-1.29 E+00	7.08 E+00
		La-140	*-2.88 E+00	3.25 E+00
		Ra-226	*-7.12 E+01	4.22 E+01
		Th-228	*-7.22 E+00	3.55 E+00
	920909	Be-7	*-1.14 E+01	1.81 E+01
		K-40	*-4.30 E+01	2.66 E+01
		Mn-54	*-5.99 E-01	1.89 E+00
		Co-58	* 2.26 E-01	1.90 E+00
		Fe-59	* 1.61 E+00	3.97 E+00
		Co-60	* 8.77 E-01	2.06 E+00
		Zn-65	*-6.21 E+00	4.25 E+00
		Zr-95	* 1.04 E+00	4.03 E+00
		Nb-95	* 4.82 E-01	1.98 E+00
		Cs-134	* 1.24 E+00	2.26 E+00
		Cs-137	*-7.04 E-01	2.46 E+00
		Ba-140	* 0.00 E+00	7.18 E+00
		La-140	* 4.16 E-01	3.40 E+00
		Ra-226	*-5.09 E+01	4.13 E+01
		Th-228	*-8.40 E+00	3.44 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920916	Be-7	* 7.28 E+00	2.34 E+01
		K-40	*-3.45 E+01	3.00 E+01
		Mn-54	* 6.98 E-01	2.13 E+00
		Co-58	* 1.76 E+00	2.19 E+00
		Fe-59	*-6.28 E-01	5.19 E+00
		Co-60	* 8.08 E-01	2.30 E+00
		Zn-65	*-1.60 E+00	4.29 E+00
		Zr-95	*-9.27 E-01	4.53 E+00
		Nb-95	* 2.39 E+00	2.39 E+00
		Cs-134	*-1.33 E+00	2.32 E+00
		Cs-137	* 1.58 E+00	2.45 E+00
		Ba-140	*-5.01 E+00	1.13 E+01
		La-140	* 0.00 E+00	5.33 E+00
		Ra-226	*-3.05 E+01	5.08 E+01
		Th-228	*-2.30 E+00	4.11 E+00
	920923	Be-7	* 2.37 E+00	2.03 E+01
		K-40	*-1.56 E+02	4.04 E+01
		Mn-54	* 1.79 E+00	2.20 E+00
		Co-58	*-5.19 E-01	2.34 E+00
		Fe-59	* 6.27 E-01	4.68 E+00
		Co-60	* 1.86 E+00	1.95 E+00
		Zn-65	* 5.22 E+00	4.31 E+00
		Zr-95	* 9.68 E-01	4.87 E+00
		Nb-95	* 1.54 E+00	2.39 E+00
		Cs-134	* 0.00 E+00	2.31 E+00
		Cs-137	* 9.65 E-01	2.38 E+00
		Ba-140	* 1.27 E+00	1.08 E+01
		La-140	*-2.49 E+00	3.71 E+00
		Ra-226	* 1.07 E+01	4.03 E+01
		Th-228	* 9.64 E+00	3.98 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920930	Be-7	* 1.25 E+01	2.50 E+01
		K-40	*-4.25 E+01	6.37 E+01
		Mn-54	* 7.73 E-01	2.78 E+00
		Co-58	* 1.83 E-01	2.76 E+00
		Fe-59	*-2.46 E+00	5.82 E+00
		Co-60	* 7.02 E-01	2.72 E+00
		Zn-65	*-3.02 E-01	6.13 E+00
		Zr-95	* 3.27 E+00	5.59 E+00
		Nb-95	* 3.42 E+00	2.78 E+00
		Cs-134	*-1.16 E+00	2.98 E+00
		Cs-137	* 1.70 E+00	2.99 E+00
		Ba-140	*-3.70 E+00	9.84 E+00
		La-140	* 6.62 E-01	3.64 E+00
		Ra-226	* 1.50 E+01	4.97 E+01
		Th-228	* 3.33 E-01	4.61 E+00
	921007	Be-7	* 5.78 E+00	1.58 E+01
		K-40	*-1.74 E+02	3.57 E+01
		Mn-54	*-8.26 E-01	1.70 E+00
		Co-58	* 1.08 E-01	1.73 E+00
		Fe-59	* 1.18 E+00	3.77 E+00
		Co-60	* 5.92 E-01	1.76 E+00
		Zn-65	* 4.39 E+00	3.74 E+00
		Zr-95	* 3.20 E+00	3.65 E+00
		Nb-95	* 1.50 E+00	1.75 E+00
		Cs-134	*-8.56 E-01	1.86 E+00
		Cs-137	* 1.79 E+00	1.89 E+00
		Ba-140	* 3.15 E+00	6.57 E+00
		La-140	*-3.03 E+00	2.54 E+00
		Ra-226	* 3.01 E+01	3.41 E+01
		Th-228	* 3.71 E-01	2.88 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921014	Be-7	* 1.39 E+01	2.06 E+01
		K-40	*-1.19 E+01	4.51 E+01
		Mn-54	* 3.52 E-01	2.07 E+00
		Co-58	*-8.79 E-01	2.15 E+00
		Fe-59	*-7.74 E-01	4.47 E+00
		Co-60	*-1.86 E+00	2.06 E+00
		Zn-65	*-6.66 E-01	4.63 E+00
		Zr-95	*-6.36 E+00	4.67 E+00
		Nb-95	* 1.76 E-01	2.20 E+00
		Cs-134	* 1.57 E+00	2.26 E+00
		Cs-137	* 7.55 E-01	2.31 E+00
		Ba-140	* 5.90 E+00	8.80 E+00
		La-140	*-1.23 E-01	3.47 E+00
		Ra-226	*-6.24 E+01	3.88 E+01
		Th-228	* 7.05 E+00	3.57 E+00
	921021	Be-7	* 1.75 E+01	2.77 E+01
		K-40	*-1.26 E+02	5.97 E+01
		Mn-54	* 1.10 E+00	2.73 E+00
		Co-58	*-3.34 E-01	2.88 E+00
		Fe-59	*-8.28 E-01	6.10 E+00
		Co-60	* 2.58 E+00	2.72 E+00
		Zn-65	* 3.13 E+00	6.12 E+00
		Zr-95	* 0.00 E+00	5.86 E+00
		Nb-95	* 3.32 E+00	3.04 E+00
		Cs-134	*-1.84 E+00	3.02 E+00
		Cs-137	* 2.87 E-01	2.90 E+00
		Ba-140	*-4.01 E+00	1.49 E+01
		La-140	* 2.94 E+00	5.88 E+00
		Ra-226	* 4.65 E+00	4.85 E+01
		Th-228	* 1.06 E+01	4.43 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921029	Be-7	*-9.39 E+00	1.96 E+01
		K-40	*-1.37 E+02	4.28 E+01
		Mn-54	* 7.08 E-01	2.08 E+00
		Co-58	*-1.39 E-01	2.12 E+00
		Fe-59	* 1.98 E+00	4.46 E+00
		Co-60	*-8.36 E-01	2.14 E+00
		Zn-65	* 1.12 E-01	4.47 E+00
		Zr-95	* 4.57 E+00	4.77 E+00
		Nb-95	*-6.15 E-01	2.15 E+00
		Cs-134	* 6.22 E-01	2.26 E+00
		Cs-137	* 2.54 E+00	2.30 E+00
		Ba-140	* 3.89 E+00	8.44 E+00
		La-140	* 7.04 E-01	3.48 E+00
		Ra-226	*-1.03 E+01	3.90 E+01
		Th-228	* 1.65 E-01	3.48 E+00
	921104	Be-7	* 8.22 E+00	1.79 E+01
		K-40	*-1.99 E+01	2.87 E+01
		Mn-54	*-5.82 E-01	1.81 E+00
		Co-58	*-3.99 E-01	1.72 E+00
		Fe-59	* 1.74 E+00	4.05 E+00
		Co-60	* 7.68 E-01	2.19 E+00
		Zn-65	*-6.60 E-01	3.64 E+00
		Zr-95	* 3.67 E-01	3.83 E+00
		Nb-95	* 1.07 E+00	1.94 E+00
		Cs-134	* 1.19 E+00	2.14 E+00
		Cs-137	* 1.11 E+00	2.03 E+00
		Ba-140	*-4.70 E+00	6.59 E+00
		La-140	* 1.43 E+00	2.94 E+00
		Ra-226	*-8.41 E+01	4.57 E+01
		Th-228	*-1.78 E+00	3.77 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921105	Be-7	* 0.00 E+00	1.53 E+01
		K-40	*-1.38 E+01	3.79 E+01
		Mn-54	*-4.57 E-01	1.61 E+00
		Co-58	*-1.10 E+00	1.67 E+00
		Fe-59	* 4.09 E+00	3.62 E+00
		Co-60	*-3.30 E-01	1.68 E+00
		Zn-65	* 4.24 E+00	3.50 E+00
		Zr-95	*-2.12 E-01	3.28 E+00
		Nb-95	*-1.83 E+00	1.74 E+00
		Cs-134	*-7.09 E-01	1.84 E+00
		Cs-137	* 6.32 E-01	1.82 E+00
		Ba-140	* 1.28 E+00	5.51 E+00
		La-140	*-1.09 E+00	1.98 E+00
		Ra-226	*-2.08 E+00	3.37 E+01
		Th-228	* 4.11 E+00	2.88 E+00
	921106	Be-7	*-3.16 E+00	1.97 E+01
		K-40	*-3.99 E+01	3.27 E+01
		Mn-54	*-6.67 E-01	1.97 E+00
		Co-58	* 1.70 E-01	1.93 E+00
		Fe-59	*-1.20 E+00	4.18 E+00
		Co-60	* 7.41 E-01	2.18 E+00
		Zn-65	*-2.97 E+00	4.65 E+00
		Zr-95	* 1.56 E-01	4.25 E+00
		Nb-95	* 2.49 E+00	2.10 E+00
		Cs-134	* 1.63 E+00	2.27 E+00
		Cs-137	* 2.31 E+00	2.35 E+00
		Ba-140	*-2.78 E+00	6.79 E+00
		La-140	*-3.28 E+00	2.92 E+00
		Ra-226	*-7.88 E+01	5.48 E+01
		Th-228	*-4.70 E+00	4.58 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921107	Be-7	* 2.63 E+00	1.94 E+01
		K-40	*-2.61 E+01	2.75 E+01
		Mn-54	* 1.53 E+00	1.92 E+00
		Co-58	* 1.27 E+00	1.91 E+00
		Fe-59	*-3.17 E+00	4.08 E+00
		Co-60	*-2.06 E-01	2.09 E+00
		Zn-65	* 1.77 E-01	3.69 E+00
		Zr-95	* 1.30 E-01	3.78 E+00
		Nb-95	* 1.47 E+00	2.09 E+00
		Cs-134	*-7.54 E-02	2.04 E+00
		Cs-137	* 1.86 E+00	2.15 E+00
		Ba-140	*-4.23 E+00	6.73 E+00
		La-140	*-1.27 E+00	3.03 E+00
		Ra-226	* 3.14 E+01	4.83 E+01
		Th-228	*-2.58 E+00	4.05 E+00
	921109	Be-7	*-1.20 E+01	1.65 E+01
		K-40	*-1.09 E+02	3.26 E+01
		Mn-54	* 1.78 E-01	1.70 E+00
		Co-58	*-7.54 E-01	1.77 E+00
		Fe-59	*-8.07 E-01	3.65 E+00
		Co-60	* 1.05 E+00	1.81 E+00
		Zn-65	*-2.01 E+00	3.81 E+00
		Zr-95	* 2.54 E+00	3.68 E+00
		Nb-95	* 2.87 E+00	1.81 E+00
		Cs-134	*-1.48 E+00	1.99 E+00
		Cs-137	* 1.87 E+00	2.01 E+00
		Ba-140	*-2.75 E+00	5.37 E+00
		La-140	*-2.05 E-01	2.08 E+00
		Ra-226	*-4.44 E+01	3.64 E+01
		Th-228	* 6.29 E+00	3.11 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921110	Be-7	* 7.21 E+00	1.75 E+01
		K-40	*-4.49 E+01	2.90 E+01
		Mn-54	*-1.18 E+00	1.85 E+00
		Co-58	* 7.21 E-01	1.87 E+00
		Fe-59	* 3.20 E+00	3.79 E+00
		Co-60	* 1.48 E+00	1.92 E+00
		Zn-65	*-1.67 E+00	4.00 E+00
		Zr-95	* 4.81 E-01	3.59 E+00
		Nb-95	* 2.17 E+00	1.89 E+00
		Cs-134	* 2.15 E-01	1.99 E+00
		Cs-137	* 1.20 E+00	2.22 E+00
		Ba-140	* 1.43 E+00	5.32 E+00
		La-140	* 9.12 E-01	2.28 E+00
		Ra-226	*-4.54 E+01	4.67 E+01
		Th-228	*-5.02 E+00	3.82 E+00
	921112	Be-7	* 3.27 E+00	1.95 E+01
		K-40	* 5.67 E+00	4.64 E+01
		Mn-54	* 6.56 E-01	2.10 E+00
		Co-58	*-2.10 E+00	2.08 E+00
		Fe-59	* 1.24 E+00	4.66 E+00
		Co-60	*-6.22 E-01	2.21 E+00
		Zn-65	* 1.66 E+00	4.71 E+00
		Zr-95	* 8.81 E-02	4.57 E+00
		Nb-95	*-5.89 E-01	2.18 E+00
		Cs-134	* 7.12 E-01	2.40 E+00
		Cs-137	*-1.30 E+00	2.33 E+00
		Ba-140	*-3.38 E+00	7.23 E+00
		La-140	*-6.87 E-01	2.86 E+00
		Ra-226	*-3.43 E+01	4.12 E+01
		Th-228	* 2.65 E+00	3.57 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921113	Be-7	* 4.17 E+00	1.81 E+01
		K-40	*-3.42 E+01	2.66 E+01
		Mn-54	*-1.64 E-01	1.86 E+00
		Co-58	*-2.06 E+00	1.89 E+00
		Fe-59	* 6.52 E-01	3.89 E+00
		Co-60	* 2.80 E+00	2.13 E+00
		Zn-65	* 1.38 E+00	4.07 E+00
		Zr-95	* 8.21 E-01	3.87 E+00
		Nb-95	* 6.32 E-01	1.87 E+00
		Cs-134	* 6.50 E-01	2.12 E+00
		Cs-137	* 1.10 E+00	2.50 E+00
		Ba-140	* 2.81 E+00	6.35 E+00
		La-140	*-1.25 E-01	2.66 E+00
		Ra-226	*-6.97 E+01	4.11 E+01
		Th-228	*-6.88 E+00	3.30 E+00
	921116	Be-7	*-1.45 E+01	1.73 E+01
		K-40	* 1.29 E+01	2.61 E+01
		Mn-54	* 9.48 E-01	1.94 E+00
		Co-58	* 0.00 E+00	1.82 E+00
		Fe-59	*-6.07 E-01	3.82 E+00
		Co-60	*-1.44 E+00	2.11 E+00
		Zn-65	* 6.53 E-01	4.32 E+00
		Zr-95	* 5.83 E-01	3.73 E+00
		Nb-95	* 1.62 E+00	1.91 E+00
		Cs-134	*-7.53 E-01	2.09 E+00
		Cs-137	* 2.51 E+00	2.26 E+00
		Ba-140	*-2.08 E+00	6.03 E+00
		La-140	*-2.28 E+00	2.68 E+00
		Ra-226	*-4.33 E+01	4.20 E+01
		Th-228	* 2.48 E+00	3.50 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921118	Be-7	* 5.31 E+00	1.69 E+01
		K-40	*-8.24 E+00	3.85 E+01
		Mn-54	* 1.62 E+00	1.80 E+00
		Co-58	*-1.71 E-01	1.90 E+00
		Fe-59	* 1.29 E+00	3.82 E+00
		Co-60	*-1.32 E+00	1.98 E+00
		Zn-65	*-2.15 E-01	4.10 E+00
		Zr-95	*-9.39 E+00	3.90 E+00
		Nb-95	* 2.51 E+00	1.97 E+00
		Cs-134	*-1.16 E+00	2.12 E+00
		Cs-137	* 2.05 E-01	2.14 E+00
		Ba-140	* 2.46 E+00	5.87 E+00
		La-140	* 3.57 E+00	2.53 E+00
		Ra-226	*-3.28 E+01	3.64 E+01
		Th-228	* 3.11 E+00	3.30 E+00
	921120	Be-7	* 6.04 E+00	1.51 E+01
		K-40	*-5.31 E+01	3.24 E+01
		Mn-54	*-5.69 E-01	1.57 E+00
		Co-58	*-5.85 E-01	1.57 E+00
		Fe-59	* 2.02 E+00	3.37 E+00
		Co-60	* 1.74 E-01	1.61 E+00
		Zn-65	* 4.07 E+00	3.54 E+00
		Zr-95	*-3.33 E+00	3.48 E+00
		Nb-95	* 7.60 E-01	1.63 E+00
		Cs-134	*-1.62 E-01	1.73 E+00
		Cs-137	* 1.56 E+00	1.75 E+00
		Ba-140	*-3.76 E+00	5.81 E+00
		La-140	* 2.13 E-01	2.27 E+00
		Ra-226	*-3.54 E+01	3.16 E+01
		Th-228	*-3.78 E+00	2.68 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921123	Be-7	*-1.55 E+00	1.88 E+01
		K-40	*-2.01 E+02	5.10 E+01
		Mn-54	*-6.10 E-01	2.08 E+00
		Co-58	* 8.30 E-01	2.07 E+00
		Fe-59	* 1.94 E+00	4.46 E+00
		Co-60	* 2.35 E+00	2.23 E+00
		Zn-65	* 9.12 E-02	4.93 E+00
		Zr-95	*-1.33 E-01	4.28 E+00
		Nb-95	* 1.71 E-01	2.08 E+00
		Cs-134	*-1.13 E+00	2.38 E+00
		Cs-137	* 1.48 E+00	2.38 E+00
		Ba-140	*-6.66 E-01	6.57 E+00
		La-140	* 1.51 E-01	2.45 E+00
		Ra-226	*-1.17 E+01	4.34 E+01
		Th-228	*-1.09 E+01	3.56 E+00
	921124	Be-7	* 1.32 E+00	1.89 E+01
		K-40	*-2.78 E+02	4.21 E+01
		Mn-54	*-1.43 E+00	1.94 E+00
		Co-58	*-2.06 E+00	2.02 E+00
		Fe-59	* 6.62 E-01	4.50 E+00
		Co-60	* 7.68 E-01	2.05 E+00
		Zn-65	* 8.37 E+00	4.84 E+00
		Zr-95	*-5.61 E+00	4.39 E+00
		Nb-95	* 4.12 E+00	2.16 E+00
		Cs-134	*-1.13 E+00	2.22 E+00
		Cs-137	*-1.12 E+00	2.19 E+00
		Ba-140	* 3.83 E+00	8.09 E+00
		La-140	*-1.49 E+00	3.06 E+00
		Ra-226	* 6.76 E+00	3.97 E+01
		Th-228	*-6.78 E+00	3.55 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921125	Be-7	* 8.96 E+00	1.83 E+01
		K-40	*-3.74 E+00	2.70 E+01
		Mn-54	* 2.38 E+00	1.96 E+00
		Co-58	* 1.09 E-01	1.89 E+00
		Fe-59	* 1.30 E-01	4.28 E+00
		Co-60	* 4.64 E-01	2.05 E+00
		Zn-65	*-2.67 E-01	4.20 E+00
		Zr-95	* 5.05 E-01	3.96 E+00
		Nb-95	* 0.00 E+00	1.93 E+00
		Cs-134	* 4.00 E-01	2.24 E+00
		Cs-137	*-7.21 E-01	2.52 E+00
		Ba-140	* 5.43 E+00	7.24 E+00
		La-140	* 9.34 E-01	3.19 E+00
		Ra-226	*-1.34 E+01	4.18 E+01
		Th-228	* 3.33 E+00	3.52 E+00
	921125 to 921126 (a)	Be-7	* 2.42 E+00	2.53 E+01
		K-40	* 3.13 E+01	4.00 E+01
		Mn-54	* 1.02 E+00	2.89 E+00
		Co-58	* 6.75 E-01	3.07 E+00
		Fe-59	*-2.30 E+00	6.32 E+00
		Co-60	*-1.36 E+00	3.28 E+00
		Zn-65	* 3.06 E+00	6.49 E+00
		Zr-95	* 0.00 E+00	5.85 E+00
		Nb-95	* 2.20 E+00	3.08 E+00
		Cs-134	*-6.00 E-01	3.06 E+00
		Cs-137	* 9.70 E-01	3.14 E+00
		Ba-140	*-6.59 E+00	1.11 E+01
		La-140	*-4.91 E-01	5.01 E+00
		Ra-226	*-9.11 E+01	5.15 E+01
		Th-228	*-4.84 E+00	4.76 E+00

(a) Composite sample.
* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921126 to 921127 (a)	Be-7	* 1.89 E+01	2.32 E+01
		K-40	*-2.96 E+01	3.63 E+01
		Mn-54	* 4.41 E+00	2.40 E+00
		Co-58	* 1.60 E+00	2.80 E+00
		Fe-59	*-1.41 E+00	4.95 E+00
		Co-60	* 1.58 E+00	2.50 E+00
		Zn-65	* 5.29 E+00	4.68 E+00
		Zr-95	*-2.49 E+00	4.70 E+00
		Nb-95	* 1.95 E+00	2.36 E+00
		Cs-134	* 3.13 E-01	2.41 E+00
		Cs-137	*-4.16 E-01	2.62 E+00
		Ba-140	* 1.85 E+00	9.10 E+00
		La-140	* 1.62 E+00	3.56 E+00
		Ra-226	*-1.06 E+00	5.71 E+01
		Th-228	* 5.99 E+00	4.74 E+00
	921127 to 921128 (a)	Be-7	* 8.55 E-01	2.89 E+01
		K-40	*-1.42 E+02	6.36 E+01
		Mn-54	*-6.61 E-01	2.99 E+00
		Co-58	* 8.14 E-01	3.18 E+00
		Fe-59	* 0.00 E+00	3.18 E+00
		Co-60	* 1.64 E+00	3.00 E+00
		Zn-65	* 5.16 E+00	6.64 E+00
		Zr-95	* 2.61 E+00	6.64 E+00
		Nb-95	* 2.44 E+00	2.98 E+00
		Cs-134	*-5.73 E-01	3.46 E+00
		Cs-137	* 1.90 E-01	3.41 E+00
		Ba-140	* 6.06 E+00	1.08 E+00
		La-140	* 3.12 E-01	4.31 E+00
		Ra-226	*-8.56 E+00	5.70 E+01
		Th-228	*-8.13 E+00	5.08 E+00

(a) Composite sample.
* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921128 to 921129 (a)	Be-7	* 1.92 E+00	2.27 E+01
		K-40	*-1.66 E+02	5.46 E+01
		Mn-54	*-1.13 E+00	2.49 E+00
		Co-58	*-2.62 E+00	2.50 E+00
		Fe-59	* 3.26 E+00	5.48 E+00
		Co-60	* 9.26 E-01	2.57 E+00
		Zn-65	* 2.34 E+00	5.64 E+00
		Zr-95	* 2.98 E+00	5.11 E+00
		Nb-95	*-1.12 E+00	2.59 E+00
		Cs-134	*-7.51 E-01	2.79 E+00
		Cs-137	* 2.58 E+00	2.79 E+00
		Ba-140	* 2.17 E+00	8.13 E+00
		La-140	*-2.17 E-01	3.15 E+00
		Ra-226	*-5.64 E+01	5.04 E+01
		Th-228	*-1.05 E+01	4.19 E+00
	921129 to 921130 (a)	Be-7	* 6.67 E+00	3.30 E+01
		K-40	*-4.08 E+01	4.62 E+01
		Mn-54	*-1.17 E-01	3.06 E+00
		Co-58	* 1.09 E+00	3.23 E+00
		Fe-59	*-1.47 E+00	6.86 E+00
		Co-60	* 2.29 E+00	3.77 E+00
		Zn-65	*-2.71 E+00	7.16 E+00
		Zr-95	* 2.68 E+00	6.87 E+00
		Nb-95	* 1.61 E+00	3.42 E+00
		Cs-134	* 6.29 E-01	3.50 E+00
		Cs-137	* 1.76 E+00	3.53 E+00
		Ba-140	*-9.13 E+00	1.31 E+01
		La-140	* 6.42 E-01	6.41 E+00
		Ra-226	*-9.30 E+01	7.68 E+01
		Th-228	*-9.29 E+00	6.21 E+00

(a) Composite sample.
* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921130 to 921201 (a)	Be-7	* 2.85 E+00	3.36 E+01
		K-40	*-1.68 E+02	7.98 E+01
		Mn-54	* 7.05 E-01	3.69 E+00
		Co-58	* 2.92 E-01	3.59 E+00
		Fe-59	*-1.02 E+00	7.51 E+00
		Co-60	* 5.02 E-01	3.65 E+00
		Zn-65	* 2.28 E+00	8.23 E+00
		Zr-95	* 8.83 E+00	7.94 E+00
		Nb-95	* 6.12 E+00	3.81 E+00
		Cs-134	*-5.36 E-01	3.88 E+00
		Cs-137	*-1.30 E+00	3.97 E+00
		Ba-140	* 1.64 E+00	1.30 E+01
		La-140	*-4.42 E+00	5.09 E+00
		Ra-226	*-2.68 E+01	7.01 E+01
		Th-228	*-2.01 E+01	6.22 E+00
	921201 to 921202 (a)	Be-7	* 4.74 E+00	2.86 E+01
		K-40	*-2.22 E+01	6.74 E+01
		Mn-54	*-5.32 E-01	3.00 E+00
		Co-58	*-2.19 E+00	3.19 E+00
		Fe-59	* 1.44 E+00	6.68 E+00
		Co-60	* 1.16 E+00	3.04 E+00
		Zn-65	* 0.00 E+00	6.57 E+00
		Zr-95	* 1.12 E+01	6.74 E+00
		Nb-95	*-1.30 E-01	3.16 E+00
		Cs-134	*-1.44 E-01	3.49 E+00
		Cs-137	* 7.03 E-01	3.43 E+00
		Ba-140	*-7.18 E-01	1.09 E+01
		La-140	* 1.88 E+00	4.34 E+00
		Ra-226	*-1.70 E+01	5.73 E+01
		Th-228	* 6.98 E+00	5.18 E+00

(a) Composite sample.
* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921202 to 921203 (a)	Be-7	*-1.03 E+01	2.39 E+01
		K-40	*-2.84 E+02	6.06 E+01
		Mn-54	*-5.27 E-02	2.70 E+00
		Co-58	*-5.37 E-01	2.64 E+00
		Fe-59	* 5.97 E+00	5.86 E+00
		Co-60	* 1.52 E-01	2.80 E+00
		Zn-65	* 9.23 E-01	5.96 E+00
		Zr-95	* 1.93 E+00	5.39 E+00
		Nb-95	* 4.18 E+00	2.86 E+00
		Cs-134	*-1.49 E+00	2.90 E+00
		Cs-137	* 1.58 E+00	2.93 E+00
		Ba-140	* 2.32 E+00	8.98 E+00
		La-140	*-9.28 E-01	3.18 E+00
		Ra-226	*-3.26 E+01	5.35 E+01
		Th-228	* 3.87 E+00	4.55 E+00
	921203 to 921204 (a)	Be-7	* 3.47 E+00	2.54 E+01
		K-40	*-2.11 E+01	3.60 E+01
		Mn-54	* 7.59 E-02	2.48 E+00
		Co-58	*-1.58 E-01	2.44 E+00
		Fe-59	* 2.47 E+00	5.64 E+00
		Co-60	* 6.71 E-01	2.70 E+00
		Zn-65	*-1.55 E+00	5.33 E+00
		Zr-95	* 2.34 E+00	5.24 E+00
		Nb-95	* 2.86 E+00	2.67 E+00
		Cs-134	*-3.28 E-01	2.85 E+00
		Cs-137	* 5.76 E-01	2.78 E+00
		Ba-140	* 1.14 E+00	1.02 E+01
		La-140	* 2.05 E-01	4.27 E+00
		Ra-226	*-1.51 E+02	6.27 E+01
		Th-228	* 1.62 E-01	5.24 E+00

(a) Composite sample.
* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921204 to 921205 (a)	Be-7	* 3.78 E+01	2.84 E+01
		K-40	*-1.81 E+01	4.25 E+01
		Mn-54	*-9.45 E-01	2.64 E+00
		Co-58	* 1.96 E-01	2.82 E+00
		Fe-59	* 3.96 E+00	5.81 E+00
		Co-60	* 1.12 E+00	2.79 E+00
		Zn-65	* 1.68 E+00	5.62 E+00
		Zr-95	*-1.44 E+00	5.67 E+00
		Nb-95	* 1.21 E+00	2.97 E+00
		Cs-134	*-1.94 E+00	2.97 E+00
		Cs-137	* 3.60 E+00	3.25 E+00
		Ba-140	* 4.84 E+00	1.07 E+01
		La-140	* 4.85 E-01	4.89 E+00
		Ra-226	* 4.15 E+01	7.74 E+01
		Th-228	*-1.18 E+01	6.35 E+00
	921205 to 921206 (a)	Be-7	* 4.92 E+00	2.22 E+01
		K-40	*-1.85 E+02	4.83 E+01
		Mn-54	*-7.22 E-01	2.37 E+00
		Co-58	*-1.85 E+00	2.43 E+00
		Fe-59	* 8.33 E+00	5.18 E+00
		Co-60	* 3.32 E-01	2.61 E+00
		Zn-65	* 4.80 E+00	5.48 E+00
		Zr-95	*-1.22 E+01	5.03 E+00
		Nb-95	* 1.14 E+00	2.44 E+00
		Cs-134	* 1.66 E+00	2.67 E+00
		Cs-137	* 1.64 E+00	2.75 E+00
		Ba-140	* 1.34 E+00	8.60 E+00
		La-140	* 2.73 E+00	3.64 E+00
		Ra-226	* 4.65 E+00	4.67 E+01
		Th-228	* 2.67 E+00	4.00 E+00

(a) Composite sample.
* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921206 to 921207 (a)	Be-7	* 4.08 E+00	2.10 E+01
		K-40	*-5.93 E+01	3.28 E+01
		Mn-54	*-6.92 E-01	2.29 E+00
		Co-58	* 1.57 E+00	2.23 E+00
		Fe-59	* 5.09 E-01	4.77 E+00
		Co-60	* 2.73 E+00	2.55 E+00
		Zn-65	* 0.00 E+00	4.73 E+00
		Zr-95	* 4.01 E+00	4.63 E+00
		Nb-95	* 3.14 E+00	2.39 E+00
		Cs-134	* 1.10 E+00	2.60 E+00
		Cs-137	*-2.08 E+00	3.03 E+00
		Ba-140	* 3.58 E+00	7.72 E+00
		La-140	*-2.19 E+00	3.30 E+00
		Ra-226	*-1.80 E+01	4.96 E+01
		Th-228	* 7.07 E+00	4.24 E+00
	921207 to 921208 (a)	Be-7	* 1.34 E+00	2.14 E+01
		K-40	*-8.05 E+01	3.19 E+01
		Mn-54	* 2.61 E+00	2.35 E+00
		Co-58	*-1.18 E+00	2.26 E+00
		Fe-59	*-5.02 E-01	4.61 E+00
		Co-60	* 2.35 E-01	2.65 E+00
		Zn-65	* 8.07 E-01	4.93 E+00
		Zr-95	* 4.17 E+00	4.74 E+00
		Nb-95	* 1.63 E+00	2.34 E+00
		Cs-134	* 1.56 E+00	2.52 E+00
		Cs-137	*-4.22 E+00	2.95 E+00
		Ba-140	*-1.82 E+00	7.31 E+00
		La-140	*-1.04 E+00	3.20 E+00
		Ra-226	*-1.32 E+02	4.85 E+01
		Th-228	*-1.53 E+01	4.13 E+00

(a) Composite sample.
* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921208 to 921209 (a)	Be-7	* 2.74 E+01	2.15 E+01
		K-40	*-1.91 E+01	5.47 E+01
		Mn-54	* 3.76 E-01	2.40 E+00
		Co-58	* 7.19 E-01	2.38 E+00
		Fe-59	*-2.58 E-01	4.78 E+00
		Co-60	* 1.13 E+00	2.42 E+00
		Zn-65	* 4.94 E+00	5.53 E+00
		Zr-95	* 6.59 E+00	5.05 E+00
		Nb-95	* 1.62 E+00	2.38 E+00
		Cs-134	*-7.78 E-01	2.71 E+00
		Cs-137	* 1.54 E+00	2.71 E+00
		Ba-140	* 2.42 E+00	7.28 E+00
		La-140	*-2.46 E+00	2.74 E+00
		Ra-226	*-6.58 E+01	4.65 E+01
		Th-228	*-1.78 E+01	4.17 E+00
	921209 to 921210 (a)	Be-7	*-2.90 E+01	6.14 E+01
		K-40	*-8.82 E+01	1.28 E+02
		Mn-54	* 3.24 E+00	6.08 E+00
		Co-58	*-4.87 E+00	6.48 E+00
		Fe-59	*-1.37 E+01	1.39 E+01
		Co-60	* 6.65 E-01	6.04 E+00
		Zn-65	* 7.89 E+00	1.47 E+01
		Zr-95	*-1.69 E+01	1.41 E+01
		Nb-95	* 5.13 E+00	6.70 E+00
		Cs-134	* 0.00 E+00	6.64 E+00
		Cs-137	* 5.36 E+00	6.78 E+00
		Ba-140	* 1.60 E+01	3.05 E+01
		La-140	*-6.60 E+00	1.10 E+01
		Ra-226	*-2.74 E+02	1.07 E+02
		Th-228	*-4.76 E+00	9.54 E+00

(a) Composite sample.
* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921210 to 921211 (a)	Be-7	* 7.84 E+00	7.47 E+01
		K-40	2.04 E+02	8.69 E+01
		Mn-54	* 6.48 E+00	7.69 E+00
		Co-58	* 0.00 E+00	8.05 E+00
		Fe-59	* 2.39 E+00	1.82 E+01
		Co-60	* 1.34 E+00	7.63 E+00
		Zn-65	* 4.98 E+00	1.84 E+01
		Zr-95	* 1.51 E+01	1.68 E+00
		Nb-95	* 1.33 E+01	8.40 E+00
		Cs-134	* 3.34 E+00	8.26 E+00
		Cs-137	* 2.80 E+00	8.55 E+00
		Ba-140	*-9.74 E+00	3.69 E+01
		La-140	*-1.96 E+01	1.36 E+01
		Ra-226	*-2.76 E+02	1.38 E+02
		Th-228	* 7.35 E+00	1.19 E+01
	921216 to 921217 (a)(b)	Be-7	* 2.74 E+01	2.70 E+01
		K-40	*-2.76 E+00	4.02 E+01
		Mn-54	*-3.88 E-01	2.69 E+00
		Co-58	*-1.90 E+00	2.76 E+00
		Fe-59	*-2.42 E+00	5.49 E+00
		Co-60	* 5.85 E-01	2.97 E+00
		Zn-65	* 5.75 E+00	5.80 E+00
		Zr-95	* 4.78 E+00	5.49 E+00
		Nb-95	* 9.47 E-01	2.87 E+00
		Cs-134	* 1.67 E+00	3.13 E+00
		Cs-137	* 1.92 E+00	3.03 E+00
		Ba-140	* 2.14 E+00	1.03 E+01
		La-140	* 0.00 E+00	4.66 E+00
		Ra-226	*-3.40 E+01	6.42 E+01
		Th-228	*-3.97 E+00	5.30 E+00

(a) Composite sample.
(b) From 12/12/92 to 12/16/92 sampler was inoperable.
* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921217 to 921218 (a)	Be-7	* 1.80 E+01	2.86 E+01
		K-40	* 2.87 E+01	4.49 E+01
		Mn-54	* 5.08 E-01	3.09 E+00
		Co-58	* 1.74 E+00	3.05 E+00
		Fe-59	* 8.20 E-01	6.47 E+00
		Co-60	*-2.49 E-01	3.15 E+00
		Zn-65	*-6.43 E-01	6.72 E+00
		Zr-95	* 4.17 E+00	6.27 E+00
		Nb-95	* 2.14 E+00	3.22 E+00
		Cs-134	* 2.75 E-01	3.38 E+00
		Cs-137	*-6.21 E+00	3.82 E+00
		Ba-140	* 9.36 E+00	1.06 E+01
		La-140	*-2.03 E+00	4.71 E+00
		Ra-226	*-1.66 E+02	6.37 E+01
		Th-228	*-1.85 E+01	5.26 E+00
	921218 to 921219 (a)	Be-7	*-3.45 E+01	5.25 E+01
		K-40	*-2.71 E+02	1.29 E+02
		Mn-54	*-3.84 E-01	5.49 E+00
		Co-58	*-2.61 E-01	5.71 E+00
		Fe-59	*-3.07 E-01	1.21 E+01
		Co-60	*-1.52 E+00	5.63 E+00
		Zn-65	*-3.25 E-01	1.30 E+01
		Zr-95	* 7.45 E+00	1.18 E+01
		Nb-95	* 6.79 E+00	6.01 E+00
		Cs-134	*-1.39 E-01	6.41 E+00
		Cs-137	* 6.37 E+00	6.55 E+00
		Ba-140	* 3.26 E+00	1.97 E+01
		La-140	* 0.00 E+00	7.49 E+00
		Ra-226	*-7.35 E+01	1.03 E+02
		Th-228	* 3.36 E+00	9.58 E+00

(a) Composite sample.
* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921221	Be-7	* 1.15 E+01	2.28 E+01
		K-40	*-6.17 E+01	5.43 E+01
		Mn-54	* 4.09 E+00	2.58 E+00
		Co-58	*-3.59 E-01	2.57 E+00
		Fe-59	*-1.98 E+00	5.05 E+00
		Co-60	* 7.33 E-01	2.67 E+00
		Zn-65	*-1.30 E+01	5.91 E+00
		Zr-95	*-1.43 E+00	5.10 E+00
		Nb-95	* 9.74 E-01	2.60 E+00
		Cs-134	*-3.01 E+00	2.93 E+00
		Cs-137	* 2.75 E+00	2.90 E+00
		Ba-140	* 1.69 E+00	7.60 E+00
		La-140	*-1.20 E+00	2.96 E+00
		Ra-226	* 4.50 E+00	5.06 E+01
		Th-228	*-1.10 E+01	4.53 E+00
	921222	Be-7	* 7.83 E+00	2.25 E+01
		K-40	*-3.91 E+01	3.05 E+01
		Mn-54	* 2.17 E+00	2.12 E+00
		Co-58	*-1.00 E+00	2.12 E+00
		Fe-59	* 4.00 E+00	4.99 E+00
		Co-60	*-7.10 E-01	2.15 E+00
		Zn-65	* 4.09 E-01	4.62 E+00
		Zr-95	* 1.39 E+00	4.62 E+00
		Nb-95	* 3.17 E-01	2.32 E+00
		Cs-134	*-4.33 E-01	2.45 E+00
		Cs-137	* 9.15 E-01	2.59 E+00
		Ba-140	*-8.79 E+00	8.83 E+00
		La-140	* 1.07 E+00	4.03 E+00
		Ra-226	* 7.59 E-01	5.57 E+01
		Th-228	* 3.85 E-02	4.57 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921222 to 921223 (a)	Be-7	* 4.55 E+00	2.33 E+01
		K-40	*-5.33 E+01	3.22 E+01
		Mn-54	*-7.13 E-01	2.31 E+00
		Co-58	*-8.83 E-01	2.42 E+00
		Fe-59	*-8.32 E-01	5.28 E+00
		Co-60	* 2.93 E-01	2.73 E+00
		Zn-65	* 7.72 E+00	5.34 E+00
		Zr-95	* 3.74 E+00	5.10 E+00
		Nb-95	* 4.63 E+00	2.56 E+00
		Cs-134	*-8.36 E-01	2.57 E+00
		Cs-137	* 3.15 E+00	2.66 E+00
		Ba-140	*-5.95 E-01	9.89 E+00
		La-140	*-5.71 E-01	4.22 E+00
		Ra-226	* 3.45 E+01	5.25 E+01
		Th-228	*-1.03 E+01	4.37 E+00
	921223 to 921224 (a)	Be-7	* 1.52 E+01	2.35 E+01
		K-40	*-7.30 E+01	5.01 E+01
		Mn-54	*-1.26 E+00	2.38 E+00
		Co-58	* 6.56 E-01	2.48 E+00
		Fe-59	*-1.67 E+00	5.06 E+00
		Co-60	* 2.60 E-01	2.44 E+00
		Zn-65	* 1.92 E+00	5.19 E+00
		Zr-95	*-2.66 E+00	5.36 E+00
		Nb-95	* 1.92 E+00	2.51 E+00
		Cs-134	*-3.20 E+00	2.67 E+00
		Cs-137	* 1.98 E+00	2.67 E+00
		Ba-140	* 5.84 E+00	9.42 E+00
		La-140	* 0.00 E+00	3.83 E+00
		Ra-226	*-8.09 E+01	4.66 E+01
		Th-228	*-7.50 E-01	4.02 E+00

(a) Composite sample.
* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921224 to 921225 (a)	Be-7	* 3.94 E+00	3.12 E+01
		K-40	*-2.88 E+02	7.77 E+01
		Mn-54	*-1.50 E+00	3.31 E+00
		Co-58	* 6.33 E-01	3.35 E+00
		Fe-59	* 2.61 E+00	7.32 E+00
		Co-60	*-4.94 E-01	3.27 E+00
		Zn-65	*-5.96 E+00	7.30 E+00
		Zr-95	* 2.55 E+00	6.71 E+00
		Nb-95	* 4.59 E+00	3.40 E+00
		Cs-134	*-3.61 E-01	3.64 E+00
		Cs-137	* 1.11 E+00	3.67 E+00
		Ba-140	*-2.99 E+00	1.24 E+01
		La-140	* 1.30 E+00	4.80 E+00
		Ra-226	*-1.14 E+02	6.70 E+01
		Th-228	*-1.39 E+01	5.54 E+00
	921225 to 921226 (a)	Be-7	*-1.19 E+01	2.13 E+01
		K-40	*-4.38 E+01	3.20 E+01
		Mn-54	* 1.22 E+00	2.27 E+00
		Co-58	*-3.92 E-01	2.21 E+00
		Fe-59	* 2.64 E+00	4.74 E+00
		Co-60	* 2.78 E+00	2.41 E+00
		Zn-65	* 1.98 E-01	4.91 E+00
		Zr-95	* 3.02 E+00	4.85 E+00
		Nb-95	* 5.93 E-01	2.38 E+00
		Cs-134	* 9.92 E-01	2.48 E+00
		Cs-137	* 2.24 E+00	2.62 E+00
		Ba-140	* 3.82 E+00	8.00 E+00
		La-140	*-5.76 E-01	4.12 E+00
		Ra-226	*-4.63 E+01	5.49 E+01
		Th-228	* 4.20 E-01	4.84 E+00

(a) Composite sample.
* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921226 to 921227 (a)	Be-7	* 5.38 E+00	2.52 E+01
		K-40	*-1.84 E+01	5.30 E+01
		Mn-54	* 1.58 E-01	2.74 E+00
		Co-58	* 1.18 E+00	2.66 E+00
		Fe-59	* 1.38 E+00	5.52 E+00
		Co-60	* 1.16 E+00	2.92 E+00
		Zn-65	*-1.33 E+00	5.81 E+00
		Zr-95	* 3.17 E+00	5.53 E+00
		Nb-95	* 2.65 E+00	2.87 E+00
		Cs-134	*-5.15 E-01	2.92 E+00
		Cs-137	*-2.28 E+00	2.87 E+00
		Ba-140	* 2.03 E+00	9.10 E+00
		La-140	*-7.19 E-01	3.87 E+00
		Ra-226	* 1.35 E+01	5.07 E+01
		Th-228	* 9.17 E+00	4.68 E+00
	921227 to 921228 (a)	Be-7	* 1.45 E+01	2.56 E+01
		K-40	*-2.35 E+01	3.87 E+01
		Mn-54	* 3.98 E-01	2.64 E+00
		Co-58	* 1.29 E+00	2.71 E+00
		Fe-59	* 1.91 E+00	5.25 E+00
		Co-60	* 3.14 E+00	3.14 E+00
		Zn-65	*-6.35 E+00	5.92 E+00
		Zr-95	* 3.83 E+00	5.78 E+00
		Nb-95	* 6.83 E-01	2.78 E+00
		Cs-134	* 1.12 E+00	2.89 E+00
		Cs-137	* 3.32 E+00	3.14 E+00
		Ba-140	*-6.61 E+00	8.62 E+00
		La-140	* 1.79 E+00	3.88 E+00
		Ra-226	*-1.07 E+02	6.43 E+01
		Th-228	*-3.46 E+00	5.35 E+00

(a) Composite sample.
* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921228 to 921229 (a)	Be-7	* 4.88 E+00	3.13 E+01
		K-40	*-2.62 E+01	4.58 E+01
		Mn-54	* 1.87 E+00	3.35 E+00
		Co-58	*-1.58 E+00	3.23 E+00
		Fe-59	* 4.39 E+00	6.28 E+00
		Co-60	* 1.32 E+00	3.64 E+00
		Zn-65	*-7.51 E-01	7.20 E+00
		Zr-95	*-1.82 E-01	6.59 E+00
		Nb-95	* 2.81 E+00	3.23 E+00
		Cs-134	* 6.42 E-01	3.56 E+00
		Cs-137	* 1.70 E+00	3.69 E+00
		Ba-140	*-6.63 E+00	1.02 E+01
		La-140	* 8.27 E-01	4.29 E+00
		Ra-226	*-3.87 E+01	8.26 E+01
		Th-228	*-3.14 E+00	6.84 E+00
	921229 to 921230 (a)	Be-7	*-1.87 E+00	2.41 E+01
		K-40	*-7.00 E+01	5.13 E+01
		Mn-54	*-3.25 E-01	2.48 E+00
		Co-58	* 7.81 E-01	2.59 E+00
		Fe-59	*-3.96 E+00	5.43 E+00
		Co-60	* 1.21 E+00	2.43 E+00
		Zn-65	* 2.93 E+00	5.68 E+00
		Zr-95	* 4.81 E+00	5.70 E+00
		Nb-95	* 3.12 E+00	2.66 E+00
		Cs-134	*-1.85 E+00	2.73 E+00
		Cs-137	* 2.35 E+00	2.73 E+00
		Ba-140	* 4.48 E-01	1.02 E+01
		La-140	* 3.11 E+00	4.21 E+00
		Ra-226	*-8.90 E+01	4.80 E+01
		Th-228	*-9.78 E+00	4.07 E+00

(a) Composite sample.
* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921230 to 921231 (a)	Be-7	* 8.50 E+00	3.27 E+01
		K-40	*-1.78 E+02	8.13 E+01
		Mn-54	* 2.33 E+00	3.37 E+00
		Co-58	*-2.90 E+00	3.49 E+00
		Fe-59	*-8.52 E-01	7.66 E+00
		Co-60	* 1.67 E+00	3.35 E+00
		Zn-65	*-4.63 E+00	7.71 E+00
		Zr-95	* 9.83 E-01	7.04 E+00
		Nb-95	* 4.21 E+00	3.57 E+00
		Cs-134	*-1.90 E+00	3.68 E+00
		Cs-137	* 4.20 E+00	3.57 E+00
		Ba-140	* 3.57 E+00	1.36 E+01
		La-140	* 2.16 E+00	5.33 E+00
		Ra-226	*-1.84 E+02	6.78 E+01
		Th-228	*-1.45 E+01	5.63 E+00
101A Outfall	920522	Be-7	* 8.63 E+00	2.06 E+01
		K-40	*-9.03 E+00	2.73 E+01
		Mn-54	* 4.98 E-01	1.98 E+00
		Co-58	*-7.31 E-02	2.14 E+00
		Fe-59	* 1.73 E+00	4.43 E+00
		Co-60	* 4.73 E+00	2.42 E+00
		Zn-65	* 1.63 E+00	4.61 E+00
		Zr-95	* 2.16 E+00	3.99 E+00
		Nb-95	* 2.08 E+00	2.10 E+00
		Cs-134	* 4.62 E-01	2.20 E+00
		Cs-137	* 1.70 E+00	2.30 E+00
		Ba-140	*-1.15 E+00	7.43 E+00
		La-140	*-6.94 E-01	2.88 E+00
		Ra-226	* 1.06 E+01	4.96 E+01
		Th-228	*-2.06 E+00	4.12 E+00

(a) Composite sample.
* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101A (Outfall)	921129	Be-7	* 1.81 E+01	1.67 E+01
		K-40	*-7.43 E+01	3.40 E+01
		Mn-54	* 1.44 E+00	1.78 E+00
		Co-58	* 2.57 E-01	1.78 E+00
		Fe-59	* 3.00 E+00	3.71 E+00
		Co-60	*-1.06 E+00	1.82 E+00
		Zn-65	*-1.76 E+00	3.94 E+00
		Zr-95	* 1.85 E+00	3.62 E+00
		Nb-95	* 5.24 E-01	1.83 E+00
		Cs-134	*-3.73 E+00	1.97 E+00
		Cs-137	* 2.12 E-01	1.98 E+00
		Ba-140	* 1.05 E+00	5.88 E+00
		La-140	* 2.28 E-01	2.33 E+00
		Ra-226	*-5.42 E+01	3.59 E+01
		Th-228	* 9.03 E-01	2.98 E+00
101B (Mid-Channel)	920522	Be-7	* 1.65 E+00	2.01 E+01
		K-40	*-3.07 E+01	3.11 E+01
		Mn-54	* 5.16 E-01	2.00 E+00
		Co-58	*-8.83 E-01	2.14 E+00
		Fe-59	*-6.28 E-01	4.31 E+00
		Co-60	* 2.16 E+00	2.55 E+00
		Zn-65	* 4.81 E+00	4.58 E+00
		Zr-95	* 3.26 E-01	3.97 E+00
		Nb-95	*-1.49 E+00	2.13 E+00
		Cs-134	* 2.79 E-01	2.33 E+00
		Cs-137	* 2.13 E+00	2.35 E+00
		Ba-140	* 8.58 E+00	8.00 E+00
		La-140	*-6.29 E-01	3.18 E+00
		Ra-226	*-1.37 E+02	5.72 E+01
		Th-228	*-4.70 E+00	4.68 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101C (Neck of Pond)	920522	Be-7	* 1.14 E+01	1.94 E+01
		K-40	*-1.28 E+02	4.44 E+01
		Mn-54	*-8.86 E-01	2.12 E+00
		Co-58	*-1.72 E+00	2.17 E+00
		Fe-59	* 2.03 E+00	4.56 E+00
		Co-60	* 3.41 E+00	2.31 E+00
		Zn-65	* 5.12 E+00	4.79 E+00
		Zr-95	* 2.42 E+00	4.46 E+00
		Nb-95	* 2.11 E+00	2.19 E+00
		Cs-134	*-2.66 E-01	2.36 E+00
		Cs-137	* 2.45 E+00	2.32 E+00
		Ba-140	*-1.46 E+00	7.43 E+00
		La-140	*-7.14 E-01	3.25 E+00
		Ra-226	*-7.70 E+00	4.81 E+01
		Th-228	*-4.02 E+00	3.59 E+00
101E (End of Pond)	920522	Be-7	* 2.52 E+00	1.82 E+01
		K-40	*-5.71 E+01	2.73 E+01
		Mn-54	* 9.48 E-01	1.92 E+00
		Co-58	* 4.01 E-01	1.98 E+00
		Fe-59	* 4.05 E-01	3.84 E+00
		Co-60	* 2.78 E+00	2.25 E+00
		Zn-65	*-1.27 E+00	4.17 E+00
		Zr-95	* 1.91 E+00	3.95 E+00
		Nb-95	* 5.44 E-01	1.99 E+00
		Cs-134	* 1.03 E+00	2.20 E+00
		Cs-137	*-4.20 E+00	2.52 E+00
		Ba-140	*-4.25 E+00	6.91 E+00
		La-140	*-2.15 E+00	3.27 E+00
		Ra-226	*-3.83 E+01	4.20 E+01
		Th-228	* 2.08 E+00	3.66 E+00

* Denotes a result less than the detection limit.

TABLE B-2.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101E (End of Pond)	921104	Be-7	* 0.00 E+00	1.51 E+01
		K-40	9.00 E+01	2.39 E+01
		Mn-54	*-3.03 E-01	1.79 E+00
		Co-58	* 7.82 E-01	1.41 E+00
		Fe-59	*-7.78 E-01	3.41 E+00
		Co-60	* 1.47 E-01	1.78 E+00
		Zn-65	*-3.29 E+00	3.77 E+00
		Zr-95	*-8.77 E-01	3.66 E+00
		Nb-95	* 1.70 E+00	1.88 E+00
		Cs-134	*-2.68 E+00	2.10 E+00
		Cs-137	* 3.92 E-01	2.04 E+00
		Ba-140	* 2.23 E+00	5.65 E+00
		La-140	* 4.09 E-01	1.92 E+00
		Ra-226	* 1.89 E-01	3.43 E+01
		Th-228	* 4.98 E+00	3.23 E+00
101E (End of Pond)	921129	Be-7	* 1.54 E+01	1.85 E+01
		K-40	5.02 E+01	2.36 E+01
		Mn-54	* 1.46 E+00	1.88 E+00
		Co-58	*-1.55 E+00	2.00 E+00
		Fe-59	*-2.39 E+00	4.22 E+00
		Co-60	* 3.16 E+00	2.23 E+00
		Zn-65	* 3.38 E+00	4.30 E+00
		Zr-95	*-1.86 E+00	3.80 E+00
		Nb-95	* 9.02 E-01	1.93 E+00
		Cs-134	* 7.19 E-02	2.07 E+00
		Cs-137	* 2.22 E+00	2.30 E+00
		Ba-140	*-1.84 E+00	6.07 E+00
		La-140	* 3.05 E-01	2.82 E+00
		Ra-226	*-8.00 E+01	4.75 E+01
		Th-228	*-9.44 E+00	3.76 E+00

* Denotes a result less than the detection limit.

TABLE B-2.2

GAMMA SPECTROMETRY OF STORM DRAIN WATER- SUMMARY

Results in pCi/liter

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
Be-7	(I)	4.69E+00	-3.50E+01	6.00E+01	97	1
K-40	(I)	-5.25E+01	-2.90E+02	2.04E+02	97	4
Mn-54	(I)	5.38E-01	-3.20E+00	6.50E+00	97	1
Co-58	(I)	-2.53E-01	-4.90E+00	3.40E+00	97	0
Fe-59	(I)	4.67E-01	-1.40E+01	8.30E+00	97	0
Co-60	(I)	2.56E+00	-1.90E+00	1.25E+02	97	4
Zn-65	(I)	1.57E+00	-1.30E+01	5.30E+01	97	1
Zr-95	(I)	1.34E+00	-1.70E+01	1.50E+01	97	0
Nb-95	(I)	1.67E+00	-2.40E+00	1.30E+01	97	0
Sb-124 (a)	(I)	1.15E+01			97	1
Sb-125 (a)	(I)	2.08E+01			97	1
I-131 (b)	(I)	7.91E-01	-6.00E+00	2.11E+01	97	2
Cs-134	(I)	2.78E-02	-4.80E+00	8.30E+00	97	0
Cs-137	(I)	1.02E+00	-6.20E+00	6.40E+00	97	1
Ba-140	(I)	3.31E-01	-1.10E+01	1.60E+01	97	0
La-140	(I)	-3.42E-01	-2.00E+01	4.90E+00	97	0
Ce-141	(I)	6.36E+00	-1.10E+01	7.07E+02	97	1
Ra-226	(I)	-4.11E+01	-2.80E+02	4.40E+01	97	0
Th-228	(I)	-2.40E+00	-2.00E+01	1.10E+01	97	0

(a) Only the 5/13/92 sample contained these; unless they are detected they are not part of the results less than detection limits transmitted by Teledyne.

(I) Indicator stations only.

TABLE B-3.1

TRITIUM IN STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
101	920318	1.5 E+04	1.0 E+03
	920429	1.2 E+02	7.0 E+01
	920513	2.7 E+05	1.0 E+04
	920518	1.1 E+05	1.0 E+04
	920526	2.1 E+02	1.1 E+02
	920527	1.3 E+02	8.0 E+01
	920528	1.9 E+02	9.0 E+01
	920529	* 5.7 E+01	1.1 E+02
	920530	1.8 E+02	1.1 E+02
	920601	3.4 E+02	1.5 E+02
	920602	* 1.3 E+02	8.1 E+01
	920603	* 1.1 E+02	1.1 E+02
	920604	*-9.3 E+01	1.6 E+02
	920605	*-1.8 E+01	1.2 E+02
	920606	* 1.6 E+02	1.6 E+02
	920608	* 7.7 E+01	1.4 E+02
	920609	* 1.1 E+02	1.2 E+02
	920610	* 1.4 E+02	9.3 E+01
	920611	* 1.0 E+02	9.1 E+01
	920612	2.2 E+02	9.0 E+01
	930617	3.9 E+03	1.0 E+02
	920625	*-9.2 E+01	1.0 E+02
	920701	* 9.4 E+01	1.3 E+02
	920708	2.5 E+02	1.2 E+02
	920715	* 2.0 E+01	5.9 E+01
	920722	4.3 E+02	1.7 E+02
	920729	1.2 E+03	1.0 E+02
	920805	5.7 E+02	1.0 E+02
	920812	2.7 E+03	2.0 E+02
	920819	1.5 E+02	8.0 E+01
	920826	2.2 E+02	8.0 E+01
	920902	7.2 E+03	2.0 E+02
	920909	6.2 E+03	2.0 E+02
	920916	1.7 E+03	1.0 E+02
	920923	3.2 E+03	2.0 E+02
	920930	2.3 E+04	1.0 E+03
	921007	2.0 E+04	1.0 E+03
	921014	3.9 E+04	1.0 E+03
	921021	6.0 E+03	2.0 E+02
	921029	3.7 E+04	1.0 E+03

* Denotes a result less than the detection limit.

TABLE B-3.1 (Cont.)

TRITIUM IN STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
101	921104	4.2 E+03	2.0 E+02
	921105	2.3 E+03	1.0 E+02
	921106	3.1 E+02	8.0 E+01
	921107	9.5 E+03	3.0 E+02
	921109	4.2 E+02	8.0 E+01
	921110	1.7 E+02	7.0 E+01
	921112	1.9 E+03	1.0 E+02
	921113	* 1.1 E+02	7.8 E+01
	921116	1.2 E+04	1.0 E+03
	921118	3.0 E+02	8.0 E+01
	921120	2.8 E+02	9.0 E+01
	921123	2.0 E+02	8.0 E+01
	921124	3.6 E+02	9.0 E+01
	921125	* 1.4 E+01	7.5 E+01
	921129	9.3 E+02	1.0 E+02
	921221	1.8 E+04	1.0 E+03
	921222	4.7 E+03	2.0 E+02
101-A	920522	4.2 E+02	2.6 E+02
101-B	920522	* 3.2 E+02	2.4 E+02
101-C	921217	6.5 E+03	2.0 E+02
	921218	3.2 E+04	1.0 E+03
	921221	3.5 E+04	1.0 E+03
	921223	9.6 E+03	3.0 E+02
	921228	1.2 E+04	1.0 E+03
	921229	1.5 E+04	1.0 E+03
	921230	2.0 E+04	1.0 E+03
101-D	920522	4.9 E+03	4.0 E+02
101-E	921104	3.5 E+03	2.0 E+02
	921129	4.8 E+03	2.0 E+02
	921216	1.0 E+04	1.0 E+03

* Denotes a result less than the detection limit.

TABLE B-3.1 (Cont.)

TRITIUM IN STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
101 (a)	921125 to 921126	1.2 E+02	7.0 E+01
	921126 to 921127	4.8 E+03	2.0 E+02
	921127 to 921128	1.7 E+04	1.0 E+03
	921128 to 921129	2.0 E+03	1.0 E+02
	921129 to 921130	1.0 E+04	1.0 E+03
	921130 to 911201	5.8 E+03	2.0 E+02
	921201 to 921202	5.7 E+02	9.0 E+01
	921202 to 921203	4.2 E+02	9.0 E+01
	921203 to 921204	1.1 E+03	1.0 E+02
	921204 to 921205	2.5 E+02	9.0 E+01
	921205 to 921206	* 1.2 E+02	8.1 E+01
	921206 to 921207	5.0 E+03	2.0 E+02
	921207 to 921208	1.2 E+04	1.0 E+03
	921208 to 921209	4.4 E+04	1.0 E+03
	921209 to 921210	2.3 E+04	1.0 E+03
	921210 to 921211	1.2 E+04	1.0 E+03
	921216 to 921217 (b)	8.6 E+03	3.0 E+02
	921217 to 921218	3.8 E+04	1.0 E+03
	921218 to 921219	1.7 E+04	1.0 E+03
	921222 to 921223 (c)	4.2 E+03	2.0 E+02
	921223 to 921224	4.6 E+03	2.0 E+02
	921224 to 921225	6.8 E+03	2.0 E+02
	921225 to 921226	4.7 E+03	2.0 E+02
	921226 to 921227	4.1 E+04	1.0 E+03
	921227 to 921228	4.0 E+04	1.0 E+03
	921228 to 921229	3.4 E+04	1.0 E+03
	921229 to 921230	1.7 E+04	1.0 E+03
	921230 to 921231	1.1 E+05	1.0 E+04

(a) Composite samples.
(b) Sampler not operational 12/12 to 12/15.
(c) Sampler not operational 12/20 to 12/21.
* Denotes a result less than the detection limit.

TABLE B-3.2

TRITIUM IN STORM DRAIN WATER - SUMMARY

Results in pCi/liter

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
H-3	(I)	1.30E+04	-9.3E+01	2.7E+05	98	82

(I) Indicator stations only.

TABLE B-4.1

IODINE-131 IN STORM DRAIN WATER (a)

Results in pCi/liter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
101	920513	8.3 E+00	3.00 E-01
	920518	* 4.4 E-02	7.07 E-02
	920526	*-1.8 E-02	9.41 E-02
	920527	1.8 E+00	6.00 E-01
	920528	* 6.8 E-01	5.69 E-01
	920529	*-4.4 E-02	1.12 E-01
	920530	2.6 E-01	1.00 E-01
	920601	* 7.7 E-02	7.29 E-02
	920602	*-2.2 E-02	9.78 E-02
	820603	*-5.9 E-02	6.54 E-02
	920604	*-2.6 E-02	7.07 E-02
	920605	* 9.3 E-02	8.48 E-02
	920609	*-2.0 E-01	3.81 E-01
	920610	*-1.6 E-01	3.72 E-01
	920611	*-1.4 E-01	3.27 E-01
	920612	*-9.6 E-02	3.45 E-01
	920617	* 1.7 E-01	3.41 E-01
	920625	*-1.2 E-01	9.63 E-02
	920701	*-5.7 E-02	8.00 E-02
	920708	*-6.4 E-02	7.65 E-02
	920715	* 2.8 E-03	7.71 E-02
	920722	*-6.1 E-02	1.01 E-01
	920729	* 5.0 E-02	9.20 E-02
101-A	920522	*-1.0 E-01	1.32 E-01
101-B	920522	* 1.6 E-01	1.10 E-01
101-C	920522	* 0.0 E+00	1.10 E-01
101-E	920522	* 9.5 E-02	1.22 E-01

(a) Resin method.
* Denotes a result less than the detection limit.

TABLE B-4.2

IODINE-131 IN STORM DRAIN WATER - SUMMARY

Results in pCi/liter

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
I-131	(I)	3.91E-01	-2.0E-01	8.3E+00	27	3

(I) Indicator stations only.

TABLE B-5.1

STRONTIUM-89 AND-90 IN STORM DRAIN WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
		Strontium-89	
101	920429	*-5.1 E-02	3.6 E+00
	920513	* 1.8 E+00	1.9 E+00
		Strontium-90	
101	920429	* 8.8 E-01	8.9 E-01
	920513	*-7.8 E-02	4.6 E-01

* Denotes a result less than the detection limit.

TABLE B-5.2

STRONTIUM-89 AND-90 IN STORM DRAIN WATER - SUMMARY

Results in pCi/liter

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
Sr-89	(I)	8.75E-01	-5.1E-02	1.8E+00	2	0
Sr-90	(I)	4.01E-01	-7.8E-02	8.8E-01	2	0

(I) Indicator stations only.

TABLE B-6.1

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920123	K-40	1.02 E+04	6.13 E+02
		Co-57	* 2.51 E+00	1.56 E+01
		Co-60	1.03 E+02	3.17 E+01
		Zn-65	* 6.63 E+01	4.81 E+01
		Co-58	*-2.75 E+01	1.60 E+01
		Mn-54	* 1.89 E+01	1.72 E+01
		Cs-134	4.91 E+01	2.01 E+01
		Ce-141	*-4.67 E+00	3.31 E+01
		Cs-137	1.15 E+02	3.37 E+01
		Ra-226	5.64 E+02	3.31 E+02
		Eu-152	* 4.88 E+01	7.81 E+01
		Th-228	3.95 E+02	3.49 E+01
	920205	K-40	9.20 E+03	4.98 E+02
		Co-57	* 6.19 E+00	1.29 E+01
		Co-60	8.22 E+01	2.76 E+01
		Zn-65	* 5.50 E+01	2.74 E+01
		Co-58	*-9.23 E+00	1.32 E+01
		Mn-54	* 5.46 E+01	1.44 E+01
		Cs-134	5.37 E+01	2.57 E+01
		Cs-137	9.95 E+01	2.61 E+01
		Ce-141	* 6.21 E+00	2.50 E+01
		Ra-226	7.68 E+02	3.94 E+02
		Eu-152	* 9.56 E+00	7.17 E+01
		Th-228	5.10 E+02	2.94 E+01
	920219	K-40	8.58 E+03	4.78 E+02
		Co-57	* 3.82 E+00	1.08 E+01
		Co-60	1.04 E+02	2.66 E+01
		Zn-65	9.08 E+01	3.03 E+01
		Co-58	*-3.40 E+00	1.40 E+01
		Mn-54	* 1.50 E+01	1.40 E+01
		Cs-134	* 1.45 E+01	1.58 E+01
		Cs-137	* 8.33 E+01	1.70 E+01
		Ce-141	* 0.00 E+00	2.10 E+01
		Ra-226	1.03 E+03	3.37 E+02
		Eu-152	* 8.83 E+01	7.04 E+01
		Th-228	3.83 E+02	2.37 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920304	K-40	8.75 E+03	5.91 E+02
		Co-57	*-1.20 E+01	1.47 E+01
		Co-60	5.11 E+02	4.74 E+01
		Zn-65	* 9.25 E+01	5.43 E+01
		Co-58	* 3.41 E+00	2.01 E+00
		Mn-54	* 9.60 E+00	2.03 E+00
		Cs-134	7.09 E+01	3.19 E+01
		Cs-137	1.43 E+02	3.48 E+01
		Ce-141	* 4.70 E+00	2.85 E+01
		Ra-226	6.59 E+02	4.38 E+02
		Eu-152	* 2.08 E+01	8.91 E+01
		Th-228	4.33 E+02	3.12 E+01
	920318	K-40	8.41 E+03	5.90 E+02
		Co-57	*-3.16 E-01	1.37 E+01
		Co-60	1.27 E+02	3.36 E+01
		Zn-65	* 9.44 E+01	5.10 E+01
		Co-58	*-1.33 E+01	1.76 E+01
		Mn-54	* 5.13 E+00	1.75 E+01
		Cs-134	7.86 E+01	2.88 E+01
		Cs-137	1.43 E+02	3.04 E+01
		Ce-141	*-3.84 E+00	3.13 E+01
		Ra-226	* 5.79 E+02	3.40 E+02
		Eu-152	* 3.02 E+01	9.40 E+01
		Th-228	4.59 E+02	3.79 E+01
	920402	K-40	8.24 E+03	5.32 E+02
		Co-57	*-5.92 E+00	1.44 E+01
		Co-60	1.64 E+02	3.09 E+01
		Zn-65	1.22 E+02	4.30 E+01
		Co-58	*-1.78 E+00	1.73 E+01
		Mn-54	* 1.47 E+01	1.67 E+01
		Cs-134	6.16 E+01	2.15 E+01
		Cs-137	1.40 E+02	2.82 E+01
		Ce-141	*-3.96 E+00	3.19 E+01
		Ra-226	7.43 E+02	4.18 E+02
		Eu-152	* 1.25 E+01	8.69 E+01
		Th-228	4.41 E+02	3.57 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920415	K-40	6.71 E+03	4.83 E+02
		Co-57	* 4.36 E+00	1.34 E+01
		Co-60	1.46 E+02	3.05 E+01
		Zn-65	1.31 E+02	4.70 E+01
		Co-58	* 9.19 E+00	1.50 E+01
		Mn-54	* 1.26 E+01	1.75 E+01
		Cs-134	* 2.71 E+01	2.03 E+01
		Cs-137	1.08 E+02	2.92 E+01
		Ce-141	*-4.64 E+00	2.73 E+01
		Ra-226	9.83 E+02	3.88 E+02
		Eu-152	* 1.06 E+02	8.36 E+01
		Th-228	3.79 E+02	3.38 E+01
	920429	K-40	6.56 E+03	6.27 E+02
		Co-57	*-2.18 E+01	2.57 E+01
		Co-60	2.79 E+02	4.21 E+01
		Zn-65	1.43 E+02	4.80 E+01
		Co-58	*-1.72 E+00	1.91 E+00
		Mn-54	* 0.00 E+00	2.27 E+01
		Cs-134	* 8.86 E+01	2.87 E+01
		Cs-137	1.47 E+02	3.75 E+01
		Ce-141	* 1.19 E+01	4.86 E+01
		Ra-226	2.21 E+03	7.45 E+02
		Eu-152	* 1.12 E+02	1.01 E+02
		Th-228	3.94 E+02	4.89 E+01
	920513	K-40	9.92 E+03	5.76 E+02
		Co-57	* 6.91 E+00	1.48 E+01
		Co-60	1.56 E+02	3.01 E+01
		Zn-65	* 5.23 E+01	4.57 E+01
		Co-58	* 5.61 E+00	1.62 E+01
		Mn-54	* 3.57 E+01	1.76 E+01
		Cs-134	* 4.73 E+01	1.85 E+01
		Cs-137	5.87 E+01	2.58 E+01
		Ce-141	1.13 E+02	3.90 E+01
		Ra-226	7.44 E+02	3.92 E+02
		Eu-152	* 5.91 E+01	7.05 E+01
		Th-228	4.24 E+02	3.45 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920518	K-40	9.66 E+03	6.20 E+02
		Co-57	*-1.90 E-01	1.68 E+01
		Co-60	4.88 E+02	4.91 E+01
		Zn-65	2.53 E+02	5.40 E+01
		Co-58	* 3.81 E+00	2.05 E+01
		Mn-54	6.65 E+01	2.97 E+01
		Cs-134	5.73 E+01	2.74 E+01
		Cs-137	1.33 E+02	3.30 E+01
		Ce-141	1.90 E+02	4.20 E+01
		Ra-226	9.82 E+02	4.47 E+02
		Eu-152	* 2.46 E+01	8.24 E+01
		Th-228	4.30 E+02	3.87 E+01
	920527	K-40	1.15 E+04	6.16 E+02
		Co-57	* 4.76 E+00	1.44 E+01
		Co-60	9.64 E+01	3.00 E+01
		Zn-65	* 3.94 E+01	4.82 E+01
		Co-58	*-1.08 E+01	1.82 E+01
		Mn-54	* 1.61 E+01	1.75 E+01
		Cs-134	* 3.86 E+01	2.14 E+01
		Cs-137	* 4.29 E+01	2.10 E+01
		Ce-141	* 3.59 E+01	2.77 E+01
		Ra-226	7.59 E+02	4.26 E+02
		Eu-152	* 5.22 E+01	9.24 E+01
		Th-228	4.34 E+02	3.61 E+01
	920603	K-40	8.73 E+03	6.61 E+02
		Co-57	*-1.45 E+01	2.53 E+01
		Co-60	5.00 E+02	5.57 E+01
		Zn-65	2.94 E+02	7.40 E+01
		Co-58	* 1.90 E+01	2.40 E+01
		Mn-54	7.37 E+01	3.44 E+01
		Cs-134	7.28 E+01	3.64 E+01
		Cs-137	1.21 E+02	3.67 E+01
		Ce-141	2.12 E+02	6.30 E+01
		Ra-226	* 7.73 E+02	4.96 E+02
		Eu-152	* 2.52 E+01	1.05 E+02
		Th-228	4.50 E+02	4.99 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920610	K-40	9.90 E+03	5.74 E+02
		Co-57	*-2.43 E+01	1.50 E+01
		Co-60	3.80 E+02	4.15 E+01
		Zn-65	2.30 E+02	6.00 E+01
		Co-58	* 5.50 E-01	2.04 E+01
		Mn-54	1.05 E+02	2.90 E+01
		Cs-134	4.88 E+01	2.41 E+01
		Cs-137	1.14 E+02	2.98 E+01
		Ce-141	1.30 E+02	4.10 E+01
		Ra-226	* 3.59 E+02	3.27 E+02
		Eu-152	* 1.26 E+02	9.23 E+01
		Th-228	4.73 E+02	3.76 E+01
	920617	K-40	1.09 E+04	4.71 E+02
		Co-57	*-4.39 E+00	1.16 E+01
		Co-60	3.29 E+02	3.07 E+01
		Zn-65	2.52 E+02	5.30 E+02
		Co-58	* 1.40 E+00	1.58 E+01
		Mn-54	7.29 E+01	2.32 E+01
		Cs-134	* 7.44 E+01	1.91 E+01
		Cs-137	1.40 E+02	2.53 E+01
		Ce-141	8.87 E+01	3.24 E+01
		Ra-226	1.04 E+03	3.26 E+02
		Eu-152	* 1.26 E+01	7.66 E+01
		Th-228	4.31 E+02	2.83 E+01
	920625	K-40	9.72 E+03	6.77 E+02
		Co-57	*-1.58 E+00	2.36 E+01
		Co-60	2.33 E+02	3.79 E+01
		Zn-65	* 7.74 E+01	5.51 E+01
		Co-58	*-5.18 E+00	2.12 E+01
		Mn-54	* 4.09 E+01	2.13 E+01
		Cs-134	* 6.33 E+01	2.51 E+01
		Cs-137	8.90 E+01	3.05 E+01
		Ce-141	* 1.82 E+01	4.94 E+01
		Ra-226	1.15 E+03	5.66 E+02
		Eu-152	*-3.54 E+01	8.02 E+01
		Th-228	4.02 E+02	4.54 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920701	K-40	9.05 E+03	5.09 E+02
		Co-57	*-2.53 E+00	1.18 E+01
		Co-60	3.73 E+02	3.75 E+01
		Zn-65	* 2.13 E+02	4.81 E+01
		Co-58	* 1.20 E+01	1.80 E+01
		Mn-54	* 4.15 E+01	1.84 E+01
		Cs-134	7.55 E+01	2.39 E+01
		Cs-137	1.11 E+02	2.59 E+01
		Ce-141	1.00 E+02	3.20 E+01
		Ra-226	7.54 E+02	3.48 E+02
		Eu-152	* 4.45 E+01	7.77 E+01
		Th-228	4.30 E+02	3.22 E+01
	920703	K-40	1.11 E+04	6.57 E+02
		Co-57	* 8.69 E+00	1.40 E+01
		Co-60	2.57 E+02	3.70 E+01
		Zn-65	1.47 E+02	5.30 E+01
		Co-58	* 3.31 E+00	1.96 E+01
		Mn-54	* 3.37 E+01	1.96 E+01
		Cs-134	* 7.81 E+01	2.34 E+01
		Cs-137	1.49 E+02	3.36 E+01
		Ce-141	* 4.45 E+01	3.16 E+01
		Ra-226	7.64 E+02	4.21 E+02
		Eu-152	* 1.45 E+01	8.95 E+01
		Th-228	4.50 E+02	3.73 E+01
	920708	K-40	1.12 E+04	5.53 E+02
		Co-57	*-9.10 E+00	1.18 E+01
		Co-60	3.48 E+02	3.60 E+01
		Zn-65	2.22 E+02	5.00 E+01
		Co-58	* 1.30 E+01	1.71 E+01
		Mn-54	5.84 E+01	2.43 E+01
		Cs-134	* 6.16 E+01	2.08 E+01
		Cs-137	8.55 E+01	2.36 E+01
		Ce-141	* 2.20 E+01	2.41 E+01
		Ra-226	9.99 E+02	3.94 E+02
		Eu-152	* 6.67 E+00	8.20 E+01
		Th-228	4.72 E+02	3.28 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920715	K-40	9.11 E+03	5.26 E+02
		Co-57	*-4.43 E+00	1.09 E+01
		Co-60	3.82 E+02	3.83 E+01
		Zn-65	1.36 E+02	5.40 E+01
		Co-58	* 1.20 E+01	1.70 E+01
		Mn-54	4.69 E+01	2.35 E+01
		Cs-134	* 5.82 E+01	1.94 E+01
		Cs-137	1.29 E+02	2.38 E+01
		Ce-141	8.89 E+01	3.24 E+01
		Ra-226	8.36 E+02	3.49 E+02
		Eu-152	*-1.79 E+01	6.99 E+01
		Th-228	4.41 E+02	3.50 E+01
	920722	K-40	8.90 E+03	5.79 E+02
		Co-57	*-1.15 E+01	1.47 E+01
		Co-60	2.63 E+02	3.82 E+01
		Zn-65	1.55 E+02	5.30 E+02
		Co-58	* 1.50 E+01	1.90 E+01
		Mn-54	4.39 E+01	2.48 E+01
		Cs-134	4.67 E+01	1.78 E+01
		Cs-137	1.29 E+02	2.92 E+01
		Ce-141	* 3.17 E+01	3.00 E+01
		Ra-226	* 6.48 E+02	3.36 E+02
		Eu-152	*-4.69 E+01	9.13 E+01
		Th-228	3.92 E+02	3.69 E+01
	920729	K-40	8.47 E+03	5.19 E+02
		Co-57	*-5.54 E+00	1.16 E+01
		Co-60	2.76 E+02	3.56 E+01
		Zn-65	1.12 E+02	4.20 E+01
		Co-58	* 2.03 E+01	1.73 E+01
		Mn-54	* 3.10 E+01	1.81 E+01
		Cs-134	6.31 E+01	2.64 E+01
		Cs-137	1.26 E+02	2.95 E+01
		Ce-141	* 1.41 E+01	2.31 E+01
		Ra-226	* 5.25 E+02	2.89 E+02
		Eu-152	* 6.58 E+01	8.40 E+01
		Th-228	4.34 E+02	3.27 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920805	K-40	9.71 E+03	5.78 E+02
		Co-57	*-1.73 E+01	1.52 E+01
		Co-60	4.43 E+02	4.38 E+01
		Zn-65	1.63 E+02	5.20 E+01
		Co-58	* 3.10 E+01	2.10 E+01
		Mn-54	6.23 E+01	2.70 E+01
		Cs-134	* 7.21 E+01	2.54 E+01
		Cs-137	1.41 E+02	3.33 E+01
		Ce-141	* 3.07 E+01	3.02 E+01
		Ra-226	* 7.45 E+02	3.32 E+02
		Eu-152	*-2.95 E+00	9.00 E+01
		Th-228	4.43 E+02	3.86 E+01
	920812	K-40	1.00 E+04	6.37 E+01
		Co-57	* 8.15 E+00	1.38 E+01
		Co-60	3.28 E+02	4.18 E+01
		Zn-65	2.29 E+02	6.10 E+01
		Co-58	* 6.77 E-01	1.81 E+01
		Mn-54	* 2.24 E+01	2.00 E+01
		Cs-134	* 4.33 E+01	2.34 E+01
		Cs-137	1.49 E+02	2.96 E+01
		Ce-141	* 0.00 E+00	3.20 E+01
		Ra-226	1.10 E+03	4.90 E+02
		Eu-152	* 0.00 E+00	8.84 E+01
		Th-228	4.90 E+02	3.78 E+01
	920819	K-40	9.42 E+03	6.12 E+02
		Co-57	*-1.74 E+00	1.70 E+01
		Co-60	3.58 E+02	4.22 E+01
		Zn-65	1.84 E+02	6.10 E+01
		Co-58	*-4.70 E+00	1.87 E+01
		Mn-54	5.86 E+01	2.41 E+01
		Cs-134	* 5.66 E+01	2.33 E+01
		Cs-137	1.05 E+02	3.20 E+01
		Ce-141	* 1.40 E+01	3.20 E+01
		Ra-226	4.24 E+02	3.42 E+02
		Eu-152	* 4.98 E+01	8.88 E+01
		Th-228	4.34 E+02	3.96 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920826	K-40	9.58 E+03	5.52 E+02
		Co-57	*-5.31 E+00	1.38 E+01
		Co-60	3.27 E+02	3.66 E+01
		Zn-65	9.59 E+01	4.61 E+01
		Co-58	* 7.50 E+00	1.69 E+01
		Mn-54	8.04 E+01	2.20 E+01
		Cs-134	5.16 E+01	2.29 E+01
		Cs-137	1.02 E+02	2.07 E+01
		Ce-141	* 3.68 E+00	2.57 E+01
		Ra-226	9.68 E+02	4.24 E+02
		Eu-152	* 9.54 E+01	8.72 E+01
		Th-228	4.26 E+02	3.38 E+01
	920902	K-40	8.55 E+03	7.14 E+02
		Co-57	*-1.32 E+01	1.90 E+01
		Co-60	2.65 E+02	4.67 E+01
		Zn-65	1.17 E+02	6.40 E+01
		Co-58	*-1.90 E+00	2.30 E+01
		Mn-54	* 1.30 E+01	2.30 E+01
		Cs-134	* 6.75 E+01	2.57 E+01
		Cs-137	1.29 E+02	3.24 E+01
		Ce-141	* 3.82 E+01	3.87 E+01
		Ra-226	9.77 E+02	5.70 E+02
		Eu-152	* 7.37 E+00	1.07 E+02
		Th-228	4.66 E+02	5.04 E+01
	920909	K-40	8.36 E+03	4.85 E+02
		Co-57	*-8.84 E+00	1.29 E+01
		Co-60	2.34 E+02	3.48 E+01
		Zn-65	1.40 E+02	3.80 E+01
		Co-58	*-4.38 E-01	1.73 E+01
		Mn-54	* 2.35 E+01	1.80 E+01
		Cs-134	* 5.69 E+01	2.00 E+01
		Cs-137	6.87 E+01	2.44 E+01
		Ce-141	*-1.25 E+01	2.61 E+01
		Ra-226	1.39 E+03	4.46 E+02
		Eu-152	* 1.64 E+01	8.38 E+01
		Th-228	4.16 E+02	3.22 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920916	K-40	7.31 E+03	4.76 E+02
		Co-57	* 1.32 E+01	1.36 E+01
		Co-60	2.63 E+02	3.23 E+01
		Zn-65	1.38 E+02	4.80 E+01
		Co-58	* 2.04 E+00	1.63 E+01
		Mn-54	* 2.67 E+01	1.75 E+01
		Cs-134	6.67 E+01	2.34 E+01
		Cs-137	8.40 E+01	2.05 E+01
		Ce-141	* 2.21 E+01	2.55 E+01
		Ra-226	9.15 E+02	4.02 E+02
		Eu-152	* 6.13 E+01	8.65 E+01
		Th-228	4.32 E+02	3.41 E+01
	920923	K-40	8.76 E+03	6.05 E+02
		Co-57	* 2.74 E+00	1.40 E+01
		Co-60	2.46 E+02	4.07 E+01
		Zn-65	* 1.37 E+02	5.40 E+01
		Co-58	*-4.14 E+00	1.88 E+01
		Mn-54	* 3.34 E+01	2.10 E+01
		Cs-134	* 5.71 E+01	2.26 E+01
		Cs-137	1.45 E+02	3.13 E+01
		Ce-141	*-5.33 E+00	3.02 E+01
		Ra-226	1.16 E+03	4.46 E+02
		Eu-152	* 2.59 E+01	8.59 E+01
		Th-228	4.70 E+02	3.91 E+01
	920930	K-40	8.87 E+03	5.59 E+02
		Co-57	*-9.32 E-01	1.09 E+01
		Co-60	2.41 E+02	3.67 E+01
		Zn-65	1.25 E+02	5.10 E+01
		Co-58	* 6.00 E+00	1.69 E+01
		Mn-54	* 2.05 E+01	1.77 E+01
		Cs-134	* 6.18 E+01	2.01 E+01
		Cs-137	9.77 E+01	2.48 E+01
		Ce-141	*-7.30 E+00	2.14 E+01
		Ra-226	1.00 E+03	3.77 E+02
		Eu-152	*-8.29 E+00	7.89 E+01
		Th-228	4.29 E+02	3.48 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921007	K-40	8.66 E+03	5.65 E+02
		Co-57	*-1.15 E+01	1.48 E+01
		Co-60	4.16 E+02	4.15 E+01
		Zn-65	1.48 E+02	5.10 E+01
		Co-58	* 7.80 E+00	1.98 E+01
		Mn-54	3.94 E+01	2.13 E+01
		Cs-134	7.73 E+01	2.78 E+01
		Cs-137	1.68 E+02	2.99 E+01
		Ce-141	* 2.40 E+01	3.20 E+01
		Ra-226	* 6.44 E+02	3.28 E+02
		Eu-152	*-8.45 E+00	8.45 E+01
		Th-228	5.41 E+02	3.84 E+01
	921014	K-40	9.05 E+03	6.23 E+02
		Co-57	*-1.11 E+01	1.60 E+01
		Co-60	2.12 E+02	3.50 E+01
		Zn-65	* 7.65 E+01	5.11 E+01
		Co-58	*-7.45 E+00	1.96 E+01
		Mn-54	* 2.31 E+01	2.00 E+01
		Cs-134	* 4.89 E+01	2.24 E+01
		Cs-137	1.39 E+02	2.94 E+01
		Ce-141	*-2.88 E+01	3.98 E+01
		Ra-226	8.39 E+02	4.42 E+02
		Eu-152	* 3.54 E+01	9.19 E+01
		Th-228	4.86 E+02	4.10 E+01
	921021	K-40	8.97 E+03	5.46 E+02
		Co-57	*-7.58 E+00	1.28 E+01
		Co-60	2.64 E+02	3.54 E+01
		Zn-65	* 1.03 E+02	5.12 E+01
		Co-58	*-2.46 E+01	1.78 E+01
		Mn-54	* 4.01 E+01	1.91 E+01
		Cs-134	7.42 E+01	2.26 E+01
		Cs-137	8.39 E+01	2.85 E+01
		Ce-141	* 8.07 E+00	2.55 E+01
		Ra-226	1.10 E+03	3.19 E+02
		Eu-152	* 4.86 E+01	9.69 E+01
		Th-228	4.45 E+02	3.31 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921029	K-40	1.07 E+04	6.07 E+02
		Co-57	*-6.58 E+00	1.42 E+01
		Co-60	2.75 E+02	3.62 E+01
		Zn-65	* 6.27 E+01	4.64 E+01
		Co-58	* 1.68 E+01	1.70 E+01
		Mn-54	* 2.31 E+01	1.84 E+01
		Cs-134	* 4.77 E+01	2.08 E+01
		Cs-137	1.25 E+02	2.72 E+01
		Ce-141	* 3.35 E+00	2.76 E+01
		Ra-226	7.87 E+02	3.76 E+02
		Eu-152	* 5.82 E+01	8.44 E+01
		Th-228	5.01 E+02	3.68 E+01
	921104	K-40	8.27 E+03	4.90 E+02
		Co-57	*-5.44 E+00	1.33 E+01
		Co-60	2.95 E+02	3.35 E+01
		Zn-65	8.58 E+01	4.68 E+01
		Co-58	*-5.77 E+00	1.61 E+01
		Mn-54	* 2.91 E+01	1.79 E+01
		Cs-134	* 3.25 E+01	1.91 E+01
		Cs-137	8.27 E+01	2.32 E+01
		Ce-141	*-4.70 E+00	2.42 E+01
		Ra-226	9.34 E+02	3.94 E+02
		Eu-152	*-3.54 E+01	7.77 E+01
		Th-228	4.30 E+02	3.27 E+01
	921112	K-40	7.95 E+03	5.66 E+02
		Co-57	*-1.59 E+01	1.24 E+01
		Co-60	2.25 E+02	3.79 E+01
		Zn-65	1.29 E+02	4.30 E+01
		Co-58	* 1.86 E+00	1.68 E+01
		Mn-54	* 1.52 E+01	1.83 E+01
		Cs-134	* 4.00 E+01	2.05 E+01
		Cs-137	1.52 E+02	3.13 E+01
		Ce-141	* 1.85 E+00	2.52 E+01
		Ra-226	8.61 E+02	3.74 E+02
		Eu-152	*-9.68 E+00	7.74 E+01
		Th-228	4.21 E+02	3.52 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921118	K-40	9.87 E+03	6.09 E+02
		Co-57	* 3.87 E+00	1.35 E+01
		Co-60	5.58 E+02	4.92 E+01
		Zn-65	2.57 E+02	6.10 E+01
		Co-58	* 3.60 E+00	1.83 E+01
		Mn-54	* 2.04 E+01	2.00 E+01
		Cs-134	* 5.86 E+01	2.42 E+01
		Cs-137	1.51 E+02	3.46 E+01
		Ce-141	* 3.61 E+00	2.73 E+01
		Ra-226	* 5.95 E+02	3.41 E+02
		Eu-152	* 2.79 E+01	8.39 E+01
		Th-228	4.76 E+02	3.76 E+01
	921125	K-40	9.11 E+03	7.06 E+02
		Co-57	*-8.37 E+00	2.52 E+01
		Co-60	2.67 E+02	4.74 E+01
		Zn-65	* 7.87 E+01	5.67 E+01
		Co-58	* 9.05 E-01	2.32 E+01
		Mn-54	* 1.39 E+01	2.18 E+01
		Cs-134	* 3.27 E+01	2.53 E+01
		Cs-137	5.80 E+01	3.22 E+01
		Ce-141	*-1.02 E+01	4.54 E+01
		Ra-226	1.68 E+03	7.01 E+01
		Eu-152	* 6.62 E+00	1.03 E+02
		Th-228	4.72 E+02	4.91 E+01
	921203	K-40	1.12 E+04	6.69 E+02
		Co-57	* 3.33 E+00	1.72 E+01
		Co-60	2.50 E+02	3.81 E+01
		Zn-65	* 8.13 E+01	4.89 E+01
		Co-58	* 2.00 E+00	1.77 E+01
		Mn-54	* 2.81 E+01	2.01 E+01
		Cs-134	6.21 E+01	2.85 E+01
		Cs-137	1.29 E+02	3.12 E+01
		Ce-141	* 3.14 E+01	3.12 E+01
		Ra-226	1.08 E+03	5.00 E+02
		Eu-152	* 4.60 E+01	8.45 E+01
		Th-228	4.56 E+02	4.01 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921209	K-40	1.20 E+04	6.93 E+02
		Co-57	*-5.01 E+00	1.33 E+01
		Co-60	2.23 E+02	3.70 E+01
		Zn-65	* 6.32 E+01	5.09 E+01
		Co-58	*-8.60 E+00	1.65 E+00
		Mn-54	6.09 E+01	2.90 E+01
		Cs-134	* 3.95 E+01	2.12 E+01
		Cs-137	1.24 E+02	3.16 E+01
		Ce-141	* 9.12 E-01	2.61 E+01
		Ra-226	9.75 E+02	4.48 E+02
		Eu-152	* 7.66 E+01	8.21 E+01
		Th-228	4.78 E+02	3.76 E+01
	921216	K-40	9.87 E+03	5.96 E+02
		Co-57	* 6.69 E+00	1.52 E+01
		Co-60	3.63 E+02	4.07 E+01
		Zn-65	1.91 E+02	5.20 E+01
		Co-58	*-1.69 E+00	1.84 E+01
		Mn-54	* 1.27 E+01	1.90 E+01
		Cs-134	6.42 E+01	2.36 E+01
		Cs-137	1.60 E+02	3.27 E+01
		Ce-141	* 3.44 E-01	2.83 E+01
		Ra-226	9.69 E+02	4.02 E+02
		Eu-152	* 3.00 E+01	9.26 E+01
		Th-228	4.93 E+02	3.81 E+01
	921223	K-40	9.08 E+03	5.28 E+02
		Co-57	*-7.10 E+00	1.26 E+01
		Co-60	3.05 E+02	3.56 E+01
		Zn-65	1.24 E+02	4.70 E+01
		Co-58	*-7.38 E+00	1.68 E+01
		Mn-54	* 2.25 E+01	1.75 E+01
		Cs-134	8.32 E+01	2.22 E+01
		Cs-137	1.41 E+02	2.59 E+01
		Ce-141	* 3.83 E+00	2.40 E+01
		Ra-226	9.27 E+02	3.83 E+02
		Eu-152	* 7.83 E+01	8.44 E+01
		Th-228	4.96 E+02	3.42 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	921230	K-40	1.06 E+04	5.19 E+02
		Co-57	*-1.52 E+01	1.21 E+01
		Co-60	2.62 E+02	3.04 E+01
		Zn-65	* 1.00 E+02	4.03 E+01
		Co-58	*-1.60 E+01	1.41 E+01
		Mn-54	* 1.66 E+01	1.55 E+01
		Cs-134	* 4.80 E+01	1.88 E+01
		Cs-137	1.59 E+02	2.84 E+01
		Ce-141	* 1.75 E+00	2.08 E+01
		Ra-226	8.14 E+02	3.51 E+02
		Eu-152	* 9.14 E+00	7.23 E+01
		Th-228	5.02 E+02	3.20 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101 Depth 18 in 7-1-1	920709	K-40	1.35 E+04	6.63 E+02
		Co-57	* 7.41 E+00	1.58 E+01
		Co-60	9.23 E+02	5.69 E+01
		Zn-65	* 6.07 E+01	5.38 E+01
		Co-58	* 5.20 E+00	2.07 E+01
		Mn-54	* 3.90 E+01	2.10 E+01
		Cs-134	* 4.21 E+01	2.30 E+01
		Cs-137	1.13 E+02	2.32 E+01
		Ce-141	*2.53 E+01	3.62 E+01
		Ra-226	1.28 E+03	4.43 E+02
		Eu-152	* 4.03 E+01	8.43 E+01
		Th-228	5.95 E+02	4.04 E+01
Depth 36 in 7-1-1	920709	K-40	1.33 E+04	5.51 E+02
		Co-57	*-4.06 E+00	1.23 E+01
		Co-60	1.01 E+02	2.42 E+01
		Zn-65	* 4.01 E+01	3.71 E+01
		Co-58	*-1.50 E+01	1.50 E+01
		Mn-54	* 7.60 E-01	1.53 E+01
		Cs-134	* 3.42 E+01	1.76 E+01
		Cs-137	* 1.73 E+01	1.61 E+01
		Ce-141	* 9.53 E+00	2.50 E+01
		Ra-226	1.12 E+03	3.70 E+02
		Eu-152	1.43 E+01	6.97 E+01
		Th-228	5.17 E+02	3.18 E+01
Depth 48 in 7-1-1	920709	K-40	1.13 E+04	6.38 E+02
		Co-57	* 1.57 E+01	1.26 E+01
		Co-60	* 2.83 E+01	1.93 E+01
		Zn-65	*-2.94 E+00	4.44 E+01
		Co-58	*-8.90 E+00	1.63 E+01
		Mn-54	*-6.80 E+00	1.60 E+01
		Cs-134	* 1.99 E+01	1.75 E+01
		Cs-137	* 1.72 E+01	1.70 E+01
		Ce-141	*-3.30 E+00	3.15 E+01
		Ra-226	* 7.12 E+02	3.05 E+02
		Eu-152	* 3.52 E+01	7.54 E+01
		Th-228	4.93 E+02	3.55 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101 Depth 62 in 7-1-1	920709	K-40	1.14 E+04	4.61 E+02
		Co-57	*-5.40 E+00	1.06 E+01
		Co-60	* 2.29 E+00	1.21 E+01
		Zn-65	* 1.72 E+00	3.00 E+00
		Co-58	*-2.20 E+00	1.27 E+01
		Mn-54	* 7.10 E+00	1.27 E+01
		Cs-134	* 4.13 E+00	1.37 E+01
		Cs-137	* 1.51 E+01	1.22 E+01
		Ce-141	*-2.90 E+00	2.35 E+01
		Ra-226	6.33 E+02	2.73 E+02
		Eu-152	*-1.10 E+01	6.16 E+01
		Th-228	4.41 E+02	2.67 E+01
Depth 12 in 7-2-1	920710	K-40	1.50 E+04	6.75 E+02
		Co-57	*-1.61 E+01	1.43 E+01
		Co-60	2.94 E+02	3.85 E+01
		Zn-65	* 5.24 E+01	4.70 E+01
		Co-58	* 5.30 E-01	2.05 E+01
		Mn-54	* 2.70 E+01	1.90 E+01
		Cs-134	* 2.93 E+01	2.15 E+01
		Cs-137	7.90 E+01	2.71 E+01
		Ce-141	* 8.08 E+00	3.36 E+01
		Ra-226	1.17 E+03	4.19 E+02
		Eu-152	* 4.01 E+01	8.72 E+01
		Th-228	5.53 E+02	3.65 E+01
Depth 24 in 7-2-1	920710	K-40	1.27 E+04	7.56 E+02
		Co-57	* 1.74 E+00	1.79 E+01
		Co-60	2.41 E+03	1.05 E+02
		Zn-65	7.15 E+01	7.83 E+01
		Co-58	* 1.60 E+00	3.22 E+01
		Mn-54	* 2.50 E+01	3.00 E+01
		Cs-134	* 3.30 E+01	3.13 E+01
		Cs-137	* 3.75 E+01	2.93 E+01
		Ce-141	* 1.85 E+00	4.11 E+01
		Ra-226	* 7.59 E+02	3.83 E+02
		Eu-152	* 7.76 E+01	1.03 E+02
		Th-228	5.15 E+02	4.64 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920710	K-40	1.45 E+04	6.03 E+02
Depth 36 in		Co-57	*-9.54 E+00	1.13 E+01
7-2-1		Co-60	* 5.36 E+00	1.61 E+01
		Zn-65	* 2.11 E+01	3.70 E+01
		Co-58	*-1.40 E+01	1.70 E+01
		Mn-54	* 5.00 E+00	1.54 E+01
		Cs-134	* 3.03 E+01	1.70 E+01
		Cs-137	*-3.84 E-01	1.53 E+01
		Ce-141	* 7.20 E+00	2.66 E+00
		Ra-226	1.06 E+03	3.71 E+02
		Eu-152	* 2.20 E+01	7.61 E+01
		Th-228	5.03 E+02	3.04 E+01
	920710	K-40	1.27 E+04	7.00 E+02
Depth 48 in		Co-57	*-6.47 E+00	1.50 E+01
7-2-1		Co-60	* 9.63 E+00	1.74 E+01
		Zn-65	* 1.23 E+01	4.46 E+01
		Co-58	*-4.00 E+00	1.78 E+01
		Mn-54	*-9.60 E+00	1.68 E+01
		Cs-134	* 1.08 E+01	1.93 E+01
		Cs-137	* 7.75 E+00	1.75 E+01
		Ce-141	*-1.51 E+01	3.54 E+01
		Ra-226	* 4.67 E+02	3.30 E+02
		Eu-152	* 1.39 E+02	8.94 E+01
		Th-228	4.73 E+02	3.75 E+01
	920710	K-40	1.31 E+04	6.06 E+02
Depth 60 in		Co-57	*-7.89 E+00	1.36 E+01
7-2-1		Co-60	* 1.35 E+00	1.75 E+01
		Zn-65	*-2.46 E+01	4.26 E+01
		Co-58	* 4.20 E+00	1.67 E+01
		Mn-54	* 1.40 E+01	1.70 E+01
		Cs-134	* 1.80 E+01	1.85 E+01
		Cs-137	* 1.10 E+01	1.69 E+01
		Ce-141	*-7.55 E-01	3.27 E+01
		Ra-226	* 4.97 E+02	2.85 E+02
		Eu-152	* 1.43 E+01	7.87 E+01
		Th-228	* 4.62 E+02	3.38 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920710	K-40	1.66 E+04	8.70 E+02
Depth 12 in		Co-57	*-3.54 E+00	2.59 E+01
7-2-2		Co-60	* 9.08 E+00	2.13 E+01
		Zn-65	*-2.00 E+01	5.40 E+01
		Co-58	* 0.00 E+01	2.30 E+01
		Mn-54	* 2.40 E+00	2.07 E+01
		Cs-134	* 4.54 E+01	2.40 E+01
		Cs-137	*-7.53 E-01	2.14 E+01
		Ce-141	* 4.25 E+01	5.46 E+01
		Ra-226	1.15 E+03	6.00 E+02
		Eu-152	* 6.57 E+01	1.03 E+02
		Th-228	* 6.49 E+02	5.38 E+01
	920710	K-40	1.43 E+04	5.93 E+02
Depth 24 in		Co-57	* 9.43 E-01	1.24 E+01
7-2-2		Co-60	*-2.43 E+00	1.74 E+01
		Zn-65	* 6.46 E+00	3.71 E+01
		Co-58	*-5.20 E+00	1.74 E+01
		Mn-54	*-2.50 E+00	1.64 E+01
		Cs-134	* 2.92 E+01	1.85 E+01
		Cs-137	* 1.96 E+00	1.67 E+01
		Ce-141	* 2.85 E+01	2.89 E+01
		Ra-226	6.94 E+02	3.86 E+02
		Eu-152	* 9.62 E+01	8.01 E+01
		Th-228	6.23 E+02	3.49 E+01
	920710	K-40	1.31 E+04	6.00 E+02
Depth 36 in		Co-57	*-5.08 E+00	1.26 E+01
7-2-2		Co-60	* 1.93 E+00	1.54 E+01
		Zn-65	* 1.03 E+01	3.51 E+01
		Co-58	*-9.50 E+00	1.47 E+01
		Mn-54	* 1.20 E+01	1.40 E+01
		Cs-134	* 1.82 E+01	1.58 E+01
		Cs-137	*-3.58 E+00	1.53 E+01
		Ce-141	* 8.73 E+00	2.87 E+01
		Ra-226	7.88 E+02	3.37 E+02
		Eu-152	* 9.49 E+01	7.73 E+01
		Th-228	4.76 E+02	3.24 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920710	K-40	1.34 E+04	5.97 E+02
Depth 48 in		Co-57	*-6.27 E+00	1.30 E+01
7-2-2		Co-60	*-6.37 E+00	1.51 E+01
		Zn-65	* 2.90 E+00	3.40 E+01
		Co-58	* 1.20 E+01	1.60 E+01
		Mn-54	* 2.60 E+01	1.40 E+01
		Cs-134	* 1.65 E+01	1.57 E+01
		Cs-137	* 2.72 E+00	1.60 E+01
		Ce-141	*-5.88 E+00	2.95 E+01
		Ra-226	* 6.07 E+02	2.85 E+02
		Eu-152	* 3.02 E+01	6.94 E+01
		Th-228	4.76 E+02	3.22 E+01
	920710	K-40	1.31 E+04	6.06 E+02
Depth 60 in		Co-57	*-7.89 E+00	1.36 E+01
7-2-2		Co-60	* 1.35 E+00	1.75 E+01
		Zn-65	* 4.08 E+01	4.21 E+01
		Co-58	* 5.80 E+00	1.72 E+01
		Mn-54	* 5.60 E+00	7.65 E+01
		Cs-134	* 1.80 E+01	1.85 E+01
		Cs-137	* 1.10 E+01	1.69 E+01
		Ce-141	* 2.12 E+00	3.02 E+01
		Ra-226	* 4.97 E+02	2.85 E+02
		Eu-152	* 1.43 E+01	7.87 E+01
		Th-228	* 4.62 E+02	3.38 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101A	920522	K-40	1.08 E+04	6.34 E+02
		Co-57	*-2.22 E+00	1.59 E+01
		Co-60	2.02 E+02	3.40 E+01
		Zn-65	1.84 E+02	4.80 E+01
		Co-58	* 1.50 E+01	1.90 E+01
		Mn-54	* 2.30 E+01	1.80 E+01
		Cs-134	6.39 E+01	2.48 E+01
		Cs-137	9.42 E+01	2.92 E+01
		Ce-141	1.44 E+02	5.00 E+01
		Ra-226	* 2.97 E+02	3.24 E+02
		Eu-152	*-9.17 E+00	7.24 E+01
		Th-228	4.67 E+02	5.01 E+01
101A	921119	K-40	1.12 E+04	5.40 E+02
		Co-57	*-1.35 E+01	1.25 E+01
		Co-60	3.26 E+02	3.36 E+01
		Zn-65	1.53 E+02	4.70 E+02
		Co-58	*-8.40 E-01	1.57 E+01
		Mn-54	* 5.10 E+01	1.60 E+01
		Cs-134	* 5.40 E+01	1.93 E+01
		Cs-137	1.34 E+02	2.62 E+01
		Ce-141	* 7.44 E+00	2.21 E+01
		Ra-226	9.08 E+02	3.75 E+02
		Eu-152	* 7.92 E+01	7.47 E+01
		Th-228	5.91 E+02	4.56 E+01
101B	920522	K-40	1.09 E+04	1.06 E+03
		Co-57	* 4.57 E+01	3.98 E+01
		Co-60	1.88 E+04	3.84 E+02
		Zn-65	4.65 E+03	4.70 E+02
		Co-58	* 5.80 E+01	1.25 E+02
		Mn-54	6.70 E+02	1.46 E+02
		Cs-134	1.14 E+03	1.62 E+02
		Cs-137	2.90 E+03	1.74 E+02
		Ce-141	3.74 E+03	3.70 E+02
		Ra-226	3.37 E+03	1.23 E+03
		Eu-152	* 1.47 E+02	2.18 E+02
		Th-228	9.28 E+02	1.16 E+02

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101B	921119	K-40	1.19 E+04	9.60 E+02
		Co-57	*-6.55 E+00	3.77 E+01
		Co-60	1.97 E+04	3.59 E+02
		Zn-65	1.71 E+03	3.20 E+02
		Co-58	* 3.80 E+01	8.70 E+01
		Mn-54	3.09 E+02	1.22 E+02
		Cs-134	8.39 E+02	1.38 E+02
		Cs-137	2.78 E+03	1.53 E+02
		Ce-141	*-6.26 E-01	7.10 E+01
		Ra-226	4.09 E+03	1.20 E+03
		Eu-152	* 2.00 E+02	2.14 E+02
		Th-228	9.95 E+02	1.29 E+02
101C	920522	K-40	1.12 E+04	1.28 E+03
		Co-57	* 8.04 E+00	4.90 E+01
		Co-60	2.54 E+04	5.56 E+02
		Zn-65	2.87 E+03	5.30 E+02
		Co-58	* 2.10 E+00	1.39 E+02
		Mn-54	4.48 E+02	2.02 E+02
		Cs-134	7.37 E+02	1.98 E+02
		Cs-137	2.50 E+03	2.28 E+02
		Ce-141	1.39 E+03	1.80 E+02
		Ra-226	4.33 E+03	1.76 E+03
		Eu-152	*-3.19 E+02	3.00 E+02
		Th-228	1.08 E+03	1.90 E+02
101C	920930	K-40	1.34 E+04	6.85 E+02
		Co-57	*-3.82 E+00	1.72 E+01
		Co-60	9.70 E+02	6.27 E+01
		Zn-65	* 3.31 E+01	6.45 E+01
		Co-58	*-8.10 E+00	2.41 E+01
		Mn-54	* 3.10 E+01	2.50 E+01
		Cs-134	* 4.37 E+01	2.62 E+01
		Cs-137	1.21 E+02	3.28 E+01
		Ce-141	* 2.16 E+01	4.96 E+01
		Ra-226	1.56 E+03	4.78 E+02
		Eu-152	* 3.76 E+01	9.38 E+01
		Th-228	7.84 E+02	5.96 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101C	921119	K-40	1.10 E+04	8.41 E+02
		Co-57	*-2.50 E+01	2.26 E+01
		Co-60	3.51 E+03	1.49 E+02
		Zn-65	5.16 E+02	1.67 E+02
		Co-58	*-3.90 E+00	4.11 E+01
		Mn-54	* 3.00 E+01	4.20 E+01
		Cs-134	* 7.91 E+01	4.69 E+01
		Cs-137	4.58 E+02	6.53 E+01
		Ce-141	*-1.99 E+01	4.19 E+01
		Ra-226	1.75 E+03	6.96 E+02
		Eu-152	*-7.77 E+00	1.28 E+02
		Th-228	5.31 E+02	6.00 E+01
101D	920522	K-40	1.26 E+04	5.67 E+02
		Co-57	*-6.89 E+00	1.30 E+01
		Co-60	4.83 E+02	3.87 E+01
		Zn-65	1.50 E+02	4.90 E+01
		Co-58	*-6.80 E+00	1.57 E+01
		Mn-54	* 4.20 E+00	1.63 E+01
		Cs-134	8.10 E+01	2.44 E+01
		Cs-137	2.70 E+02	2.93 E+01
		Ce-141	6.70 E+01	1.50 E+02
		Ra-226	1.29 E+03	3.92 E+02
		Eu-152	*-1.62 E+01	6.89 E+01
		Th-228	6.13 E+02	4.58 E+01
101D	921119	K-40	1.06 E+04	1.28 E+03
		Co-57	*-1.34 E+01	4.30 E+01
		Co-60	5.41 E+03	2.73 E+02
		Zn-65	1.11 E+03	2.90 E+02
		Co-58	*-2.70 E+01	7.80 E+01
		Mn-54	* 1.20 E+02	8.00 E+01
		Cs-134	2.18 E+02	1.24 E+02
		Cs-137	9.81 E+02	1.39 E+02
		Ce-141	*-1.23 E+01	8.23 E+01
		Ra-226	2.97 E+03	1.44 E+03
		Eu-152	*-6.32 E+01	2.97 E+02
		Th-228	6.29 E+02	1.07 E+02

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101E	920522	K-40	1.19 E+04	5.83 E+02
		Co-57	*-1.93 E+01	1.40 E+01
		Co-60	9.35 E+02	5.44 E+01
		Zn-65	1.30 E+02	5.60 E+01
		Co-58	* 6.30 E+00	1.97 E+01
		Mn-54	* 1.60 E+01	2.10 E+01
		Cs-134	9.77 E+01	2.97 E+01
		Cs-137	2.75 E+02	3.33 E+01
		Ce-141	* 3.09 E+01	2.91 E+01
		Ra-226	9.78 E+02	4.20 E+02
		Eu-152	* 3.06 E+01	8.74 E+01
		Th-228	4.93 E+02	3.60 E+01
101E	921119	K-40	1.06 E+04	1.40 E+03
		Co-57	*-1.54 E+01	4.79 E+01
		Co-60	3.47 E+03	2.29 E+02
		Zn-65	1.22 E+03	2.70 E+02
		Co-58	* 3.50 E+01	7.00 E+01
		Mn-54	* 2.00 E+01	7.10 E+01
		Cs-134	3.04 E+02	1.08 E+02
		Cs-137	6.57 E+02	1.24 E+02
		Ce-141	* 5.54 E+01	9.09 E+01
		Ra-226	4.96 E+03	1.54 E+03
		Eu-152	* 1.26 E+02	2.56 E+02
		Th-228	8.56 E+02	1.20 E+02
101F	920522	K-40	1.27 E+04	6.96 E+02
		Co-57	* 6.75 E+00	1.86 E+01
		Co-60	1.92 E+03	8.81 E+01
		Zn-65	3.00 E+02	7.70 E+01
		Co-58	*-2.00 E+00	2.77 E+01
		MN-54	* 5.10 E+01	2.70 E+01
		Cs-134	2.02 E+02	4.14 E+01
		Cs-137	5.00 E+02	4.88 E+01
		Ce-141	9.86 E+01	5.73 E+01
		Ra-226	1.80 E+03	5.28 E+02
		Eu-152	* 2.35 E+01	9.52 E+01
		Th-228	5.99 E+02	4.92 E+01

* Denotes a result less than the detection limit.

TABLE B-6.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101F	920930	K-40	1.15 E+04	5.85 E+02
		Co-57	* 1.20 E+01	1.37 E+01
		Co-60	1.37 E+02	2.98 E+01
		Zn-65	*-1.12 E+01	3.97 E+01
		Co-58	*-3.50 E+00	1.75 E+01
		Mn-54	* 1.50 E+00	1.57 E+01
		Cs-134	* 3.53 E+01	1.68 E+01
		Cs-137	3.96 E+01	2.16 E+01
		Ce-141	*-3.07 E+00	3.83 E+01
		Ra-226	1.06 E+03	3.87 E+02
		Eu-152	* 5.40 E+01	7.95 E+01
		Th-228	5.18 E+02	3.57 E+01
101G	920930	K-40	1.42 E+01	5.68 E+02
		Co-57	*-1.81 E+01	1.25 E+01
		Co-60	1.60 E+02	2.77 E+01
		Zn-65	* 2.38 E+01	3.77 E+01
		Co-58	*-1.00 E+01	1.47 E+01
		Mn-54	* 6.84 E+00	1.55 E+01
		Cs-134	* 3.29 E+01	1.83 E+01
		Cs-137	4.00 E+01	2.00 E+01
		Ce-141	* 2.17 E+01	2.37 E+01
		Ra-226	8.85 E+02	3.73 E+02
		Eu-152	* 2.03 E+01	7.40 E+01
		Th-228	5.63 E+02	5.60 E+01

* Denotes a result less than the detection limit.

TABLE B-6.2

GAMMA SPECTROMETRY OF STORM DRAIN SEDIMENT - SUMMARY

Results in pCi/kilogram

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
K-40	(I)	1.06E+04	1.06E+04	1.66E+04	71	71
Mn-54	(I)	4.69E+01	-9.60E+00	6.70E+02	71	15
Co-57	(I)	-4.11E+00	-2.50E+01	4.57E+01	71	0
Co-58	(I)	1.84E+00	-2.70E+01	5.80E+01	71	1
Co-60	(I)	1.37E+03	-6.37E+00	2.54E+04	71	61
Zn-65	(I)	2.70E+02	-2.50E+01	4.65E+03	71	40
Cs-134	(I)	9.53E+01	4.13E+00	1.14E+03	71	25
Cs-137	(I)	2.42E+02	-3.58E+00	2.90E+03	71	57
Ce-141	(I)	9.63E+01	-2.90E+01	3.74E+03	71	11
Ra-226	(I)	1.15E+03	2.97E+02	4.96E+03	71	55
Eu-152	(I)	3.56E+01	-3.19E+02	2.00E+02	71	0
Th-228	(I)	5.10E+02	3.79E+02	1.08E+03	71	70

(I) Indicator Stations only.

TABLE B-7.1

GAMMA SPECTROMETRY OF STORM DRAIN SOIL

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101A	920319	K-40	1.73 E+04	5.65 E+02
		Cs-134	* 2.23 E+01	1.56 E+01
		Cs-137	4.93 E+01	2.21 E+01
		Ra-226	1.13 E+03	3.91 E+02
		Th-228	5.73 E+02	3.45 E+01
101A	920617	K-40	1.53 E+04	6.01 E+02
		Cs-134	* 1.83 E+01	1.51 E+01
		Cs-137	7.73 E+01	1.96 E+01
		Ra-226	7.82 E+02	3.35 E+02
		Th-228	5.80 E+02	3.14 E+01
101A	920916	K-40	1.57 E+04	6.17 E+02
		Cs-134	* 3.83 E+01	1.58 E+01
		Cs-137	5.63 E+01	2.37 E+01
		Ra-226	1.26 E+03	4.03 E+02
		Th-228	5.37 E+02	3.23 E+01
101B	920319	K-40	1.54 E+04	5.59 E+02
		Cs-134	* 7.29 E-01	1.42 E+01
		Cs-137	5.98 E+01	2.24 E+01
		Ra-226	7.78 E+02	3.02 E+02
		Th-228	5.18 E+02	2.92 E+01
101B	920617	K-40	1.64 E+04	5.08 E+02
		Cs-134	* 1.96 E+01	1.38 E+01
		Cs-137	5.17 E+01	1.39 E+01
		Ra-226	1.18 E+03	2.90 E+02
		Th-228	6.67 E+02	3.78 E+01
101B	920916	K-40	1.59 E+04	6.64 E+02
		Cs-134	* 2.37 E+01	1.93 E+01
		Cs-137	6.67 E+01	2.48 E+01
		Ra-226	8.65 E+02	4.20 E+02
		Th-228	5.37 E+02	3.49 E+01

TABLE B-7.2

GAMMA SPECTROMETRY OF STORM DRAIN SOIL - SUMMARY

Results in pCi/kilogram

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
K-40	(I)	1.60E+04	1.53E+04	1.73E+04	6	6
Cs-134	(I)	2.05+01	7.29E-01	3.83E+01	6	0
Cs-137	(I)	6.02E+01	4.93E+01	7.73E+01	6	6
Ra-226	(I)	9.99E+02	7.78E+02	1.26E+03	6	6
Th-228	(I)	5.69E+02	5.18E+02	6.67E+02	6	6

(I) Indicator Stations

TABLE B-8.1

GAMMA SPECTROMETRY OF STORM DRAIN VEGETATION

Results in pCi/kilogram (wet)

LOCATION	COLLECTION DATE	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101	920319	Be-7	3.37 E+02	1.03 E+02
		K-40	5.33 E+03	5.30 E+02
		Mn-54	* 1.70 E+01	8.00 E+00
		Co-60	* 1.70 E+01	9.00 E+00
		Zn-65	* 4.30 E+01	2.10 E+00
		Cs-134	*-2.56 E+00	9.65 E+00
		Cs-137	* 1.63 E+01	9.61 E+00
101	920617	Be-7	6.90 E+02	7.30 E+01
		K-40	3.22 E+03	1.49 E+02
		Mn-54	3.22 E+01	7.20 E+00
		Co-60	2.63 E+01	8.20 E+00
		Zn-65	5.74 E+01	1.68 E+01
		Cs-134	4.58 E+01	8.72 E+00
		Cs-137	9.35 E+01	9.17 E+00
101	920723	Be-7	4.41 E+02	7.60 E+01
		K-40	2.95 E+03	3.00 E+02
		Mn-54	2.23 E+01	7.80 E+00
		Co-60	4.61 E+01	8.70 E+00
		Zn-65	3.98 E+01	1.58 E+01
		Cs-134	1.98 E+01	8.68 E+00
		Cs-137	3.77 E+01	8.70 E+00
101	920916	Be-7	3.56 E+02	7.80 E+01
		K-40	3.12 E+03	3.10 E+02
		Mn-54	2.14 E+01	7.80 E+00
		Co-60	3.95 E+01	9.60 E+00
		Zn-65	4.83 E+01	1.51 E+01
		Cs-134	* 9.62 E+00	6.99 E+00
		Cs-137	3.40 E+01	1.04 E+01
101	921014	Be-7	* 1.47 E+02	9.00 E+01
		K-40	3.25 E+03	3.30 E+02
		Mn-54	* 4.74 E+00	9.80 E+00
		Co-60	*-3.65 E+00	9.71 E+00
		Zn-65	* 2.19 E+01	2.33 E+01
		Cs-134	*-6.50 E+00	1.00 E+01
		Cs-137	* 3.85 E+00	1.00 E+01

* Denotes a result less than the detection limit.

TABLE B-8.1 (Cont.)

GAMMA SPECTROMETRY OF STORM DRAIN VEGETATION

Results in pCi/kilogram (wet)

LOCATION	COLLECTION DATE	NUCLIDE	RESULT	OVERALL UNCERTAINTY
101-B	920522 (a)	Be-7	* 0.00 E+01	8.50 E+01
		K-40	5.04 E+03	5.00 E+02
		Mn-54	* 9.60 E+00	8.60 E+00
		Co-60	* 1.20 E+01	9.90 E+00
		Zn-65	* 4.10 E+00	2.09 E+01
		Cs-134	* 9.14 E+00	9.38 E+00
		Cs-137	* 1.28 E+01	9.66 E+00
101-E	920522 (b)	Be-7	* 2.00 E+01	8.80 E+01
		K-40	4.67 E+03	4.70 E+02
		Mn-54	* 1.70 E+01	1.00 E+01
		Co-60	*-3.60 E+00	1.06 E+01
		Zn-65	* 2.80 E+01	2.40 E+01
		Cs-134	*-2.06 E+00	1.04 E+01
		Cs-137	* 8.28 E+00	9.94 E+00

(a) Mid-channel location.
(b) North side of pond.
* Denotes a result less than the detection limit.

TABLE B-8.2

GAMMA SPECTROMETRY OF STORM DRAIN VEGETATION - SUMMARY

Results in pCi/kilogram (wet)

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
Be-7	(I)	2.85E+02	0.0E+00	6.9E+02	7	4
K-40	(I)	3.94E+03	3.0E+03	5.3E+03	7	6
Mn-54	(I)	1.77E+01	4.7E+00	3.2E+01	7	3
Co-60	(I)	1.91E+01	-3.7E+00	4.6E+01	7	3
Zn-65	(I)	3.46E+01	4.1E+00	5.7E+01	7	3
Cs-134	(I)	1.05E+01	-6.5E+00	4.6E+01	7	2
Cs-137	(I)	2.95E+01	3.9E+00	9.4E+01	7	3

(I) Indicator stations only.

TABLE B-9.1

GROSS ALPHA IN SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
102A Annual	920415	* 5.9 E-01	1.03 E+00
102B Monthly	920415	* 3.6 E-01	1.61 E+00
102C Prior to Discharge	920618	* 5.9 E-01	1.39 E+00
102C Prior to Discharge (1)	921007	* 0.0 E+00	1.55 E+00
102C Prior to Discharge (2)	921007	*-3.8 E-01	1.33 E+00

* Denotes a result less than the detection limit.

TABLE B-9.2

GROSS ALPHA IN SANITARY WASTE TREATMENT WATER - SUMMARY

Results in pCi/liter

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
Gr-A	(I)	2.32E-01	-3.8E-01	5.9E-01	5	0

(I) Indicator stations only.

TABLE B-10.1

GROSS BETA IN SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
102A Annual	920415	4.1 E+01	3.0 E+00
102B Monthly	920415	4.2 E+01	3.0 E+00
102C Prior to Discharge	920618	4.5 E+01	3.0 E+00
102C Prior to Discharge-1	921007	4.8 E+01	4.0 E+00
102C Prior to Discharge-2	921007	5.1 E+01	4.0 E+00

TABLE B-10.2

GROSS BETA IN SANITARY WASTE TREATMENT WATER - SUMMARY

Results in pCi/liter

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
Gr-B	(I)	4.54E+01	4.1E+01	5.1E+01	5	5

(I) Indicator stations only.

TABLE B-11.1

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102A Annual/Prior to Discharge	920415	Be-7	* 3.29 E+00	2.07 E+01
		K-40	*-4.39 E+01	3.19 E+01
		Mn-54	*-3.37 E-01	1.83 E+00
		Co-58	*-4.39 E-01	2.03 E+00
		Fe-59	* 8.41 E-01	4.56 E+00
		Co-60	* 1.36 E+00	2.25 E+00
		Zn-65	* 0.00 E+00	4.76 E+00
		Zr-95	* 5.02 E+00	4.61 E+00
		Nb-95	* 1.08 E+00	2.16 E+00
		Cs-134	*-7.26 E-01	2.09 E+00
		Cs-137	* 2.08 E+00	2.40 E+00
		Ba-140	*-5.04 E-01	7.97 E+00
		La-140	* 4.55 E-01	3.91 E+00
		Ra-226	*-1.30 E+02	5.63 E+01
		Th-228	*-7.28 E+00	4.59 E+00
102B Monthly	920529	Be-7	* 1.52 E+01	1.76 E+01
		K-40	* 2.87 E+00	2.68 E+01
		Mn-54	*-3.02 E-01	1.87 E+00
		Co-58	* 2.10 E-01	1.84 E+00
		Fe-59	*-1.00 E+00	3.98 E+00
		Co-60	* 5.90 E-01	2.08 E+00
		Zn-65	* 2.04 E+00	4.13 E+00
		Zr-95	* 4.47 E+00	3.91 E+00
		Nb-95	* 1.30 E+00	1.98 E+00
		Cs-134	*-3.81 E-01	1.96 E+00
		Cs-137	*-2.07 E+00	2.44 E+00
		Ba-140	*-8.73 E+00	6.84 E+00
		La-140	* 1.47 E+00	3.35 E+00
		Ra-226	*-1.61 E+02	3.93 E+01
		Th-228	*-4.70 E+00	3.28 E+00

* Denotes a result less than the detection limit.

TABLE B-11.1(Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102B Monthly	920617	Be-7	* 1.07 E+01	2.37 E+01
		K-40	9.22 E+01	3.52 E+01
		Mn-54	*-6.31 E-01	2.46 E+00
		Co-58	* 0.00 E+00	2.55 E+00
		Fe-59	* 2.56 E-01	5.79 E+00
		Co-60	* 7.79 E-02	2.66 E+00
		Zn-65	*-4.15 E+00	5.52 E+00
		Zr-95	* 0.00 E+00	5.33 E+00
		Nb-95	* 1.69 E+00	2.71 E+00
		Cs-134	* 4.55 E-01	2.84 E+00
		Cs-137	* 1.50 E+00	2.81 E+00
		Ba-140	* 3.67 E+00	9.01 E+00
		La-140	* 2.18 E+00	3.63 E+00
		Ra-226	*-4.97 E+01	5.24 E+01
		Th-228	*-7.67 E+00	4.35 E+00
102B Monthly	920715	Be-7	* 4.02 E+00	1.90 E+01
		K-40	*-1.29 E+02	4.56 E+01
		Mn-54	*-4.82 E-01	2.03 E+00
		Co-58	*-4.14 E-01	2.12 E+00
		Fe-59	* 2.01 E+00	4.55 E+00
		Co-60	* 8.02 E-01	2.07 E+00
		Zn-65	*-2.00 E-01	4.71 E+00
		Zr-95	*-3.27 E+00	4.38 E+00
		Nb-95	* 1.54 E+00	2.14 E+00
		Cs-134	*-1.48 E+00	2.29 E+00
		Cs-137	* 3.32 E+00	2.26 E+00
		Ba-140	*-4.83 E+00	7.24 E+00
		La-140	*-1.12 E+00	2.74 E+00
		Ra-226	*-5.37 E+01	4.02 E+01
		Th-228	* 3.73 E+00	3.75 E+00

* Denotes a result less than the detection limit.

TABLE B-11.1(Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102B Monthly	920819	Be-7	* 2.31 E+00	1.72 E+01
		K-40	*-3.18 E+01	2.50 E+01
		Mn-54	*-1.55 E+00	1.87 E+00
		Co-58	* 1.68 E+00	1.93 E+00
		Fe-59	*-1.11 E+00	4.01 E+00
		Co-60	*-2.23 E-01	1.84 E+00
		Zn-65	* 3.81 E-01	3.84 E+00
		Zr-95	*-1.96 E+00	3.77 E+00
		Nb-95	*-5.76 E-01	1.76 E+00
		Cs-134	* 8.75 E-01	1.98 E+00
		Cs-137	* 4.16 E+00	2.12 E+00
		Ba-140	*-3.47 E+00	7.00 E+00
		La-140	* 0.00 E+00	2.85 E+00
		Ra-226	*-3.54 E+01	4.35 E+01
		Th-228	* 2.35 E-01	3.72 E+00
102B Monthly	920923	Be-7	* 1.53 E+01	2.84 E+01
		K-40	* 1.81 E+01	3.88 E+01
		Mn-54	* 8.58 E-01	2.13 E+00
		Co-58	* 5.08 E-02	2.41 E+00
		Fe-59	* 3.67 E+00	4.62 E+00
		Co-60	*-1.07 E+00	2.03 E+00
		Zn-65	* 9.46 E-01	4.40 E+00
		Zr-95	*-3.14 E+00	5.65 E+00
		Nb-95	* 2.14 E+00	2.40 E+00
		Cs-134	*-4.57 E-01	2.48 E+00
		Cs-137	* 1.71 E+00	2.51 E+00
		Ba-140	* 3.21 E+00	1.12 E+01
		La-140	* 1.51 E-01	3.89 E+00
		Ra-226	* 6.44 E+01	4.17 E+01
		Th-228	* 2.24 E+00	3.85 E+00

* Denotes a result less than the detection limit.

TABLE B-11.1(Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102B Monthly	921007	Be-7	*-9.36 E+00	1.83 E+01
		K-40	*-2.00 E+01	2.47 E+01
		Mn-54	* 1.22 E-01	1.81 E+00
		Co-58	* 0.00 E+00	1.92 E+00
		Fe-59	*-2.66 E+00	3.93 E+00
		Co-60	* 8.97 E-02	1.87 E+00
		Zn-65	*-1.56 E-01	4.20 E+00
		Zr-95	*-1.67 E+00	3.90 E+00
		Nb-95	* 8.61 E-01	1.93 E+00
		Cs-134	* 1.45 E+00	1.98 E+00
		Cs-137	* 1.04 E+00	2.03 E+00
		Ba-140	* 0.00 E+00	8.44 E+00
		La-140	*-7.30 E-01	3.35 E+00
		Ra-226	* 2.09 E+01	4.56 E+01
		Th-228	* 7.06 E+00	3.80 E+00
102B Monthly	921118	Be-7	* 1.63 E+01	1.83 E+01
		K-40	*-2.67 E+01	2.84 E+01
		Mn-54	* 1.10 E+00	1.90 E+00
		Co-58	*-1.94 E-01	1.83 E+00
		Fe-59	* 1.37 E+00	3.87 E+00
		Co-60	* 1.33 E+00	2.31 E+00
		Zn-65	* 1.33 E+00	4.24 E+00
		Zr-95	* 9.45 E-01	3.90 E+00
		Nb-95	* 1.10 E+00	1.90 E+00
		Cs-134	* 2.10 E+00	2.25 E+00
		Cs-137	* 2.81 E+00	2.36 E+00
		Ba-140	*-2.19 E+00	6.18 E+00
		La-140	*-1.66 E+00	2.83 E+00
		Ra-226	*-2.59 E+01	4.65 E+01
		Th-228	*-9.29 E+00	3.72 E+00

* Denotes a result less than the detection limit.

TABLE B-11.1(Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102B Monthly	921216	Be-7	*-3.64 E+00	1.50 E+01
		K-40	* 1.73 E+00	2.50 E+01
		Mn-54	* 9.02 E-02	1.49 E+00
		Co-58	*-2.74 E-01	1.58 E+00
		Fe-59	* 2.03 E+00	3.11 E+00
		Co-60	* 1.08 E+00	1.67 E+00
		Zn-65	*-2.30 E-01	3.31 E+00
		Zr-95	* 2.93 E+00	3.20 E+00
		Nb-95	* 9.05 E-01	1.56 E+00
		Cs-134	* 9.79 E-01	1.70 E+00
		Cs-137	* 1.08 E+00	1.81 E+00
		Ba-140	* 8.68 E-01	4.85 E+00
		La-140	*-3.96 E-01	2.30 E+00
		Ra-226	*-6.17 E+01	3.90 E+01
		Th-228	*-3.68 E+00	3.13 E+00
102C Monthly	920415	Be-7	*-6.31 E-01	1.98 E+01
		K-40	*-3.46 E+01	4.41 E+01
		Mn-54	* 1.93 E-01	2.06 E+00
		Co-58	* 1.00 E-01	2.16 E+00
		Fe-59	*-3.60 E+00	4.80 E+00
		Co-60	*-4.94 E-01	2.24 E+00
		Zn-65	*-3.67 E-01	4.89 E+00
		Zr-95	*-6.50 E-01	4.45 E+00
		Nb-95	* 1.10 E+00	2.30 E+00
		Cs-134	* 1.04 E-01	2.28 E+00
		Cs-137	* 2.02 E+00	2.31 E+00
		Ba-140	* 1.45 E+00	8.35 E+00
		La-140	* 0.00 E+00	3.14 E+00
		Ra-226	* 5.14 E+00	4.00 E+01
		Th-228	* 5.98 E+00	3.45 E+00

* Denotes a result less than the detection limit.

TABLE B-11.1(Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102C Prior to Discharge South Stabilization Pond	920618	Be-7	*-5.04 E+00	1.88 E+01
		K-40	* 6.78 E+00	2.94 E+01
		Mn-54	* 4.41 E-01	1.96 E+00
		Co-58	* 1.37 E+00	1.96 E+00
		Fe-59	*-8.12 E-01	3.93 E+00
		Co-60	* 4.03 E+00	2.29 E+00
		Zn-65	*-1.53 E+00	4.22 E+00
		Zr-95	*-1.06 E-01	4.09 E+00
		Nb-95	* 1.41 E+00	2.03 E+00
		Cs-134	* 5.96 E-02	2.28 E+00
		Cs-137	*-2.02 E+00	2.51 E+00
		Ba-140	*-1.74 E+00	7.32 E+00
		La-140	*-2.52 E+00	3.14 E+00
		Ra-226	*-7.74 E+01	4.24 E+01
		Th-228	* 3.50 E+00	3.66 E+00
102C Prior to Discharge-1	921007	Be-7	* 4.81 E-01	2.01 E+01
		K-40	* 1.38 E+01	3.18 E+01
		Mn-54	* 1.91 E+00	1.92 E+00
		Co-58	* 3.76 E-01	2.06 E+00
		Fe-59	* 3.78 E+00	4.60 E+00
		Co-60	* 2.18 E+00	1.96 E+00
		Zn-65	* 1.92 E+00	3.86 E+00
		Zr-95	*-1.82 E+00	4.09 E+00
		Nb-95	*-9.36 E-01	2.21 E+00
		Cs-134	* 1.53 E+00	2.06 E+00
		Cs-137	* 1.77 E+00	2.17 E+00
		Ba-140	* 3.98 E+00	1.10 E+00
		La-140	* 3.35 E+00	5.30 E+00
		Ra-226	*-4.83 E+01	4.65 E+01
		Th-228	* 8.50 E-01	3.86 E+00

* Denotes a result less than the detection limit.

TABLE B-11.1(Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102C Prior to Discharge-2	921007	Be-7	* 5.88 E+00	1.95 E+01
		K-40	*-6.47 E+01	4.50 E+01
		Mn-54	* 1.66 E+00	2.05 E+00
		Co-58	*-1.57 E+00	2.13 E+00
		Fe-59	*-1.02 E+00	4.72 E+00
		Co-60	* 7.10 E-01	2.10 E+00
		Zn-65	* 5.39 E-01	4.69 E+00
		Zr-95	* 4.05 E+00	4.49 E+00
		Nb-95	* 3.48 E+00	2.16 E+00
		Cs-134	*-5.48 E-01	2.20 E+00
		Cs-137	*-1.38 E-01	2.19 E+00
		Ba-140	* 2.32 E+00	9.52 E+00
		La-140	*-1.92 E+00	3.69 E+00
		Ra-226	* 5.55 E+00	3.85 E+01
		Th-228	* 5.26 E-01	3.50 E+00
102D West Stabilization Pond	921104	Be-7	* 0.00 E+00	1.46 E+01
		K-40	4.99 E+01	1.84 E+01
		Mn-54	*-6.58 E-01	1.75 E+00
		Co-58	* 6.63 E-01	1.86 E+00
		Fe-59	* 4.55 E+00	3.41 E+00
		Co-60	* 3.33 E-01	1.64 E+00
		Zn-65	* 3.53 E+00	3.43 E+00
		Zr-95	*-5.44 E+00	4.28 E+00
		Nb-95	* 1.10 E+00	1.79 E+00
		Cs-134	*-2.51 E+00	2.03 E+00
		Cs-137	*-1.60 E-01	2.01 E+00
		Ba-140	* 6.25 E-01	5.55 E+00
		La-140	*-3.96 E-01	1.00 E+00
		Ra-226	* 8.07 E+00	3.49 E+01
		Th-228	* 1.78 E-01	3.24 E+00

* Denotes a result less than the detection limit.

TABLE B-11.1(Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102D West Stabilization Pond	921118	Be-7	* 5.64 E+00	1.56 E+01
		K-40	* 1.99 E+01	2.57 E+01
		Mn-54	*-8.14 E-01	1.60 E+00
		Co-58	*-8.79 E-01	1.57 E+00
		Fe-59	* 4.01 E+00	3.45 E+00
		Co-60	* 1.34 E+00	1.82 E+00
		Zn-65	*-3.39 E+00	3.40 E+00
		Zr-95	* 1.15 E-01	3.23 E+00
		Nb-95	* 5.91 E-01	1.72 E+00
		Cs-134	*-6.79 E-01	1.79 E+00
		Cs-137	* 1.60 E+00	1.91 E+00
		Ba-140	*-6.08 E+00	5.20 E+00
		La-140	*-6.72 E-01	2.39 E+00
		Ra-226	*-9.81 E+00	4.04 E+01
		Th-228	*-5.46 E+00	3.44 E+00
102D West Stabilization Pond	921125	Be-7	*-3.68 E+00	1.84 E+01
		K-40	*-3.91 E+01	2.60 E+01
		Mn-54	* 2.06 E-01	1.90 E+00
		Co-58	* 4.79 E-01	1.91 E+00
		Fe-59	* 8.84 E-01	4.16 E+00
		Co-60	* 1.36 E+00	2.15 E+00
		Zn-65	* 4.17 E+00	4.34 E+00
		Zr-95	* 1.38 E+00	3.93 E+00
		Nb-95	* 9.60 E-01	1.84 E+00
		Cs-134	*-2.22 E-01	2.00 E+00
		Cs-137	*-3.77 E+00	2.22 E+00
		Ba-140	* 2.64 E+00	7.08 E+00
		La-140	*-1.04 E+00	3.17 E+00
		Ra-226	*-7.92 E+01	4.02 E+01
		Th-228	*-4.72 E+00	3.34 E+00

* Denotes a result less than the detection limit.

TABLE B-11.1(Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102D West Stabilization Pond	921203	Be-7	*-1.73 E+00	1.73 E+01
		K-40	*-2.37 E+01	2.76 E+01
		Mn-54	* 5.97 E-01	1.88 E+00
		Co-58	*-7.19 E-01	1.95 E+00
		Fe-59	* 9.08 E-01	4.07 E+00
		Co-60	* 2.00 E+00	2.11 E+00
		Zn-65	* 2.75 E+00	4.20 E+00
		Zr-95	* 3.67 E+00	3.84 E+00
		Nb-95	* 2.94 E+00	1.98 E+00
		Cs-134	* 8.84 E-01	2.12 E+00
		Cs-137	*-5.06 E+00	2.34 E+00
		Ba-140	*-1.94 E+00	6.15 E+00
		La-140	*-8.62 E-01	2.84 E+00
		Ra-226	*-9.58 E+01	4.19 E+01
		Th-228	*-8.69 E+00	3.48 E+00
102D West Stabilization Pond	921229	Be-7	* 1.39 E+03	8.35 E+02
		K-40	* 8.08 E+03	2.31 E+03
		Mn-54	* 5.73 E+00	8.38 E+01
		Co-58	* 4.39 E+01	8.73 E+01
		Fe-59	*-4.88 E+01	1.82 E+02
		Co-60	* 4.70 E+02	1.22 E+02
		Zn-65	* 1.25 E+02	1.97 E+02
		Zr-95	*-5.90 E+01	1.73 E+02
		Nb-95	* 7.18 E+01	9.14 E+01
		Cs-134	* 2.17 E+01	9.34 E+01
		Cs-137	* 1.79 E+02	9.85 E+01
		Ba-140	*-6.57 E+01	2.85 E+02
		La-140	* 1.37 E+01	1.16 E+02
		Ra-226	* 3.82 E+02	1.43 E+03
		Th-228	* 1.29 E+02	1.31 E+02

* Denotes a result less than the detection limit.

TABLE B-11.1 (Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102E West Stabilization Pond	921112	Be-7	*-2.11 E+01	2.49 E+01
		K-40	*-1.96 E+01	6.26 E+01
		Mn-54	* 8.06 E-01	2.60 E+00
		Co-58	*-7.04 E-01	2.62 E+00
		Fe-59	*-1.24 E+00	5.57 E+00
		Co-60	* 2.56 E+00	2.77 E+00
		Zn-65	* 7.90 E+00	5.95 E+00
		Zr-95	* 2.16 E-01	5.37 E+00
		Nb-95	* 5.00 E+00	2.76 E+00
		Cs-134	* 6.24 E-02	2.97 E+00
		Cs-137	*-4.96 E-01	2.92 E+00
		Ba-140	*-1.03 E+00	8.97 E+00
		La-140	*-1.86 E+00	3.63 E+00
		Ra-226	*-2.07 E+01	4.92 E+01
		Th-228	* 3.24 E-01	4.51 E+00
102P West Aeration Pond	921104	Be-7	* 2.59 E+00	1.29 E+01
		K-40	5.39 E+01	1.87 E+01
		Mn-54	*-7.59 E-01	1.61 E+00
		Co-58	* 0.00 E+00	1.60 E+00
		Fe-59	* 5.40 E-01	2.95 E+00
		Co-60	* 2.55 E-01	1.51 E+00
		Zn-65	*-3.44 E+00	3.35 E+00
		Zr-95	* 2.06 E+00	3.33 E+00
		Nb-95	* 5.01 E-01	1.58 E+00
		Cs-134	*-5.40 E-01	1.75 E+00
		Cs-137	* 7.64 E-01	1.80 E+00
		Ba-140	* 9.62 E-01	4.89 E+00
		La-140	*-1.13 E+00	1.82 E+00
		Ra-226	* 1.95 E+00	3.19 E+01
		Th-228	* 5.61 E+00	2.81 E+00

* Denotes a result less than the detection limit.

TABLE B-11.1 (Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102P West Aeration Pond	921112	Be-7	*-3.23 E+00	1.65 E+01
		K-40	*-1.47 E+02	4.39 E+01
		Mn-54	* 9.52 E-01	1.95 E+00
		Co-58	*-8.43 E-01	1.82 E+00
		Fe-59	*-2.42 E-01	3.71 E+00
		Co-60	*-5.52 E-02	2.05 E+00
		Zn-65	* 5.46 E+00	4.55 E+00
		Zr-95	*-2.36 E+00	3.82 E+00
		Nb-95	* 2.28 E+00	1.84 E+00
		Cs-134	*-3.97 E+00	2.18 E+00
		Cs-137	* 6.79 E-01	2.26 E+00
		Ba-140	*-1.73 E+00	4.32 E+00
		La-140	*-7.17 E-01	1.53 E+00
		Ra-226	*-2.18 E+01	3.96 E+01
		Th-228	*-3.42 E+00	3.47 E+00
102P East Aeration Pond	921118	Be-7	* 1.34 E+01	1.74 E+01
		K-40	*-7.72 E+01	4.33 E+01
		Mn-54	* 7.41 E-01	1.93 E+00
		Co-58	*-1.14 E+00	1.90 E+00
		Fe-59	*-7.26 E-01	3.96 E+00
		Co-60	* 8.09 E-01	1.99 E+00
		Zn-65	* 3.33 E+00	4.34 E+00
		Zr-95	*-1.81 E+00	3.92 E+00
		Nb-95	* 2.02 E+00	1.92 E+00
		Cs-134	*-4.93 E+00	2.10 E+00
		Cs-137	* 1.00 E+00	2.14 E+00
		Ba-140	* 3.35 E-01	5.78 E+00
		La-140	*-1.73 E+00	2.17 E+00
		Ra-226	*-8.29 E+01	3.72 E+01
		Th-228	* 1.88 E+00	3.42 E+00

* Denotes a result less than the detection limit.

TABLE B-11.1 (Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102P West Aeration Pond	921229	Be-7	* 1.11 E+00	1.47 E+01
		K-40	*-1.33 E+01	2.48 E+01
		Mn-54	* 1.30 E+00	1.54 E+00
		Co-58	* 4.51 E-02	1.47 E+00
		Fe-59	* 2.42 E+00	3.20 E+00
		Co-60	* 7.39 E-01	1.75 E+00
		Zn-65	*-8.02 E-01	3.26 E+00
		Zr-95	* 7.46 E-01	3.05 E+00
		Nb-95	* 4.69 E-01	1.57 E+00
		Cs-134	* 4.89 E-02	1.72 E+00
		Cs-137	* 2.24 E+00	1.75 E+00
		Ba-140	* 2.36 E+00	4.86 E+00
		La-140	*-2.25 E+00	2.11 E+00
		Ra-226	*-1.87 E+01	3.95 E+01
		Th-228	*-3.76 E+00	3.15 E+00
102P-A West Aeration Pond	- 921029	Be-7	*-2.22 E+00	1.64 E+01
		K-40	5.58 E+01	2.05 E+01
		Mn-54	*-2.94 E-01	1.87 E+00
		Co-58	*-4.79 E-01	2.08 E+00
		Fe-59	* 5.83 E+00	3.83 E+00
		Co-60	* 6.09 E-01	1.76 E+00
		Zn-65	* 2.43 E+00	3.96 E+00
		Zr-95	* 0.00 E+00	3.96 E+00
		Nb-95	* 1.03 E+00	1.99 E+00
		Cs-134	* 7.29 E-01	2.16 E+00
		Cs-137	* 5.66 E-01	2.12 E+00
		Ba-140	* 8.43 E-01	7.31 E+00
		La-140	* 0.00 E+00	2.49 E+00
		Ra-226	*-1.60 E+01	3.81 E+01
		Th-228	* 4.28 E+00	3.34 E+00

* Denotes a result less than the detection limit.

TABLE B-11.1 (Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102P-B West Aeration Pond	921029	Be-7	*-2.32 E+00	2.09 E+01
		K-40	1.44 E+02	2.92 E+01
		Mn-54	*-4.95 E-01	2.45 E+00
		Co-58	*-8.72 E-01	2.57 E+00
		Fe-59	* 2.16 E+00	4.79 E+00
		Co-60	*-9.22 E-01	2.39 E+00
		Zn-65	*-2.60 E+00	4.79 E+00
		Zr-95	* 3.43 E+00	5.11 E+00
		Nb-95	* 9.77 E-01	2.48 E+00
		Cs-134	*-9.67 E-01	2.74 E+00
		Cs-137	*-5.75 E-01	2.79 E+00
		Ba-140	* 1.72 E+00	9.30 E+00
		La-140	*-2.41 E-01	3.21 E+00
		Ra-226	*-2.73 E-01	4.63 E+01
		Th-228	* 4.60 E+00	4.18 E+00
102 Percolation Bed	921229	Be-7	* 7.67 E+00	1.59 E+01
		K-40	2.69 E+02	2.76 E+01
		Mn-54	* 8.38 E-01	1.77 E+00
		Co-58	*-4.08 E-01	1.72 E+00
		Fe-59	* 3.34 E+00	3.75 E+00
		Co-60	*-6.98 E-01	1.76 E+00
		Zn-65	*-1.07 E+01	4.08 E+00
		Zr-95	*-3.91 E+00	3.67 E+00
		Nb-95	* 1.68 E+00	1.80 E+00
		Cs-134	*-2.48 E+00	1.95 E+00
		Cs-137	* 7.14 E-01	1.95 E+00
		Ba-140	*-1.93 E-01	5.44 E+00
		La-140	*-3.25 E+00	2.04 E+00
		Ra-226	*-8.96 E+00	3.44 E+01
		Th-228	*-6.27 E+00	3.09 E+00

* Denotes a result less than the detection limit.

TABLE B-11.1 (Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
C-N Center of West Stabilization Pond	921014	Be-7	*-1.18 E+01	1.55 E+01
		K-40	*-1.60 E+02	3.45 E+01
		Mn-54	*-5.97 E-01	1.85 E+00
		Co-58	*-8.80 E-01	1.93 E+00
		Fe-59	*-6.06 E-01	3.74 E+00
		Co-60	* 1.06 E+00	1.76 E+00
		Zn-65	*-1.32 E+00	3.83 E+00
		Zr-95	* 1.36 E-01	3.76 E+00
		Nb-95	* 2.44 E-01	1.90 E+00
		Cs-134	* 1.33 E+00	2.06 E+00
		Cs-137	* 6.75 E-02	2.04 E+00
		Ba-140	* 4.71 E+00	7.29 E+00
		La-140	*-7.33 E-01	2.53 E+00
		Ra-226	* 2.48 E+01	3.52 E+01
		Th-228	* 7.79 E+00	3.27 E+00
C-S Center of East Stabilization Pond	921014	Be-7	* 0.00 E+00	1.59 E+01
		K-40	* 1.78 E+01	3.29 E+01
		Mn-54	*-5.83 E-01	1.84 E+00
		Co-58	*-2.51 E-01	1.93 E+00
		Fe-59	*-2.28 E+00	3.70 E+00
		Co-60	* 1.18 E+00	1.73 E+00
		Zn-65	*-1.72 E+00	3.71 E+00
		Zr-95	* 9.46 E-01	4.61 E+00
		Nb-95	* 2.32 E+00	2.00 E+00
		Cs-134	*-8.17 E-01	2.10 E+00
		Cs-137	* 1.98 E-01	2.10 E+00
		Ba-140	*-4.41 E+00	7.47 E+00
		La-140	*-9.77 E-01	2.70 E+00
		Ra-226	* 5.43 E+01	3.56 E+01
		Th-228	* 6.20 E+00	3.31 E+00

* Denotes a result less than the detection limit.

TABLE B-11.2

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT WATER- SUMMARY

Results in pCi/liter

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
Be-7	(I)	1.08E+00	-2.10E+01	1.60E+01	28	0
K-40	(I)	-4.53E+00	-1.60E+02	2.60E+02	28	6
Mn-54	(I)	1.74E-01	-1.60E+00	1.90E+00	28	0
Co-58	(I)	-2.76E-01	-2.70E+00	1.70E+00	28	0
Fe-59	(I)	8.10E-01	-3.60E+00	5.80E+00	28	0
Co-60	(I)	7.78E-01	-1.10E+00	4.00E+00	28	0
Zn-65	(I)	2.22E-01	-1.10E+01	7.90E+00	28	0
Cs-134	(I)	-3.39E-01	-4.90E+00	2.10E+00	28	0
Cs-137	(I)	4.15E-01	-5.10E+00	4.20E+00	28	0
Ra-226	(I)	-3.04E+01	-1.60E+02	6.40E+01	28	0
Th-228	(I)	-3.59E-01	-9.50E+00	7.80E+00	28	0

(I) Indicator stations only.

TABLE B-12.1

TRITIUM IN SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
	Center - East Stabilization Pond		
102 CS Water	921014	1.0 E+03	1.0 E+02
	Center-West Stabilization Pond		
102 CN Water	921014	1.4 E+03	1.0 E+02
	Monthly Headworks		
102-B	920415 (a)		
102-B	920617	8.6 E+02	1.1 E+02
102-B	920715	1.7 E+03	1.0 E+02
102-B	920819	3.8 E+02	8.0 E+01
102-B	920923	8.7 E+02	1.1 E+02
102-B	921118	1.4 E+02	7.0 E+01
102-B	921216	* 5.0 E+01	7.0 E+01
	Prior to Discharge		
102-C	920529	1.1 E+03	1.0 E+02
102-C	921007	1.0 E+03	1.0 E+02
102-C	921007	9.7 E+02	1.1 E+02
	Percolation Bed - After Discharge		
102	921229	8.2 E+02	1.1 E+02
	Location D - West Stabilization Pond		
102-D	921104	1.3 E+03	1.0 E+02
102-D	921118	1.1 E+03	1.0 E+02
102-D	921125	9.8 E+02	1.0 E+02
102-D	921203	1.5 E+02	8.0 E+01
102-D	921229	9.8 E+02	1.1 E+02
	Location E - West Stabilization Pond		
102-E	921112	1.2 E+03	1.0 E+02

(a) Not analyzed.
* Denotes a result less than the detection limit.

TABLE B-12.1 (Cont.)

TRITIUM IN SANITARY WASTE TREATMENT WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
		Aeration Ponds	
102-P	921104	* 9.4 E+01	7.3 E+01
102-P	921112	* 8.3 E+01	7.6 E+01
102-P	921118	1.2 E+02	8.0 E+01
102-P	921229	* 6.2 E+01	7.7 E+01
102-PA	921029	* 8.1 E+01	7.8 E+01
102-PB	921029	2.3 E+02	8.0 E+01

* Denotes a result less than the detection limit.

TABLE B-12.2

TRITIUM IN SANITARY WASTE TREATMENT WATER - SUMMARY

Results in pCi/liter

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
			All Samples			
H-3	(I)	6.66E+02	5.0E+01	1.7E+03	25	19
			Monthly Headworks			
H-3	(I)	6.66E+02	5.0E+01	1.7E+03	6	5
			Stabilization Ponds			
H-3	(I)	1.02E+03	1.50E+02	1.40E+03	11	11
			Aeration Ponds			
H-3	(I)	1.11E+02	6.2E+01	2.3E+02	6	2
			Percolation Bed - After Discharge			
H-3	(I)	8.2E+02	8.2E+02	8.2E+02	1	1

(I) Indicator stations only.

TABLE B-13.1

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102	920409	K-40	* 2.51 E+02	2.91 E+02
		Co-57	* 1.06 E+01	1.24 E+01
		Co-60	* 7.28 E+00	1.44 E+01
		Zn-65	* 1.54 E+01	3.00 E+01
		Cs-134	*-3.01 E+00	1.59 E+01
		Cs-137	* 6.33 E+00	1.58 E+01
		Ra-226	*-5.73 E+01	2.47 E+02
		Eu-152	* 7.19 E+01	6.68 E+01
		Th-228	*-1.40 E+01	2.19 E+01
102	920812	K-40	6.39 E+03	8.40 E+02
		Co-57	*-3.72 E+00	3.32 E+01
		Co-60	6.32 E+02	8.80 E+01
		Zn-65	* 1.80 E+01	8.45 E+01
		Cs-134	* 5.43 E+01	3.91 E+01
		Cs-137	* 2.54 E+02	6.70 E+01
		Ra-226	2.09 E+03	9.80 E+02
		Eu-152	* 8.17 E+01	1.67 E+02
		Th-228	4.62 E+02	7.20 E+01
102	920708	K-40	5.75 E+03	7.43 E+02
		Co-57	* 4.59 E-01	2.96 E+01
		Co-60	2.65 E+02	5.93 E+01
		Zn-65	*-3.41 E+01	6.93 E+01
		Cs-134	* 1.74 E+01	3.27 E+01
		Cs-137	* 4.42 E+01	3.51 E+01
		Ra-226	* 5.66 E+02	6.62 E+02
		Eu-152	* 7.97 E+01	1.39 E+02
		Th-228	* 2.09 E+02	6.11 E+01
102 D-1 (a)	920930	K-40	9.54 E+03	1.05 E+03
		Co-57	*-1.27 E+01	3.95 E+01
		Co-60	7.28 E+02	1.02 E+02
		Zn-65	* 6.90 E+01	1.20 E+02
		Cs-134	*-1.10 E+01	5.67 E+01
		Cs-137	2.34 E+02	7.81 E+01
		Ra-226	2.50 E+03	1.22 E+03
		Eu-152	* 8.63 E+01	2.34 E+02
		Th-228	5.06 E+02	1.32 E+02

(a) Refer to Figure 5-20 for sample location.
* Denotes a result less than the detection limit.

TABLE B-13.1 (Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102 D-2	920930	K-40	7.45 E+03	1.24 E+03
		Co-57	*-2.85 E+01	4.50 E+01
		Co-60	5.26 E+02	1.20 E+02
		Zn-65	* 6.00 E+01	1.24 E+02
		Cs-134	* 5.52 E+01	6.17 E+01
		Cs-137	1.69 E+02	6.57 E+01
		Ra-226	* 1.35 E+02	1.03 E+03
		Eu-152	* 0.00 E+00	2.70 E+02
		Th-228	6.65 E+02	1.09 E+02
102 E-1 (a)	920930	K-40	1.00 E+04	1.04 E+03
		Co-57	* 9.85 E+00	2.96 E+01
		Co-60	3.61 E+02	7.92 E+01
		Zn-65	* 0.00 E+02	1.00 E+02
		Cs-134	* 2.65 E+01	5.02 E+01
		Cs-137	2.40 E+02	7.04 E+01
		Ra-226	2.18 E+03	9.87 E+02
		Eu-152	* 2.02 E+02	2.05 E+02
		Th-228	6.14 E+02	7.01 E+01
102 E-2 (a)	920930	K-40	7.75 E+03	9.86 E+02
		Co-57	*-1.41 E+01	3.21 E+01
		Co-60	2.45 E+02	6.31 E+01
		Zn-65	* 0.00 E+00	7.40 E+01
		Cs-134	* 1.71 E+01	3.99 E+01
		Cs-137	1.89 E+02	5.57 E+01
		Ra-226	* 8.76 E+02	7.01 E+02
		Eu-152	* 1.84 E+02	2.10 E+02
		Th-228	4.28 E+02	7.75 E+01
102 F-1 (a)	920930	K-40	1.22 E+04	8.15 E+02
		Co-57	*-7.18 E+00	2.01 E+01
		Co-60	* 1.88 E+01	2.66 E+01
		Zn-65	*-6.50 E+01	5.90 E+01
		Cs-134	* 2.71 E+01	2.67 E+01
		Cs-137	1.11 E+02	3.89 E+01
		Ra-226	1.13 E+03	5.57 E+02
		Eu-152	* 6.60 E+00	1.08 E+02
		Th-228	5.72 E+02	5.16 E+01

(a) Refer to Figure 5-20 for sample location.
* Denotes a result less than the detection limit.

TABLE B-13.1 (Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102 F-2 (a)	920930	K-40	1.33 E+04	8.50 E+02
		Co-57	*-4.39 E+00	2.08 E+01
		Co-60	* 2.29 E+01	2.62 E+01
		Zn-65	*-2.30 E+01	6.00 E+01
		Cs-134	* 4.35 E+01	2.72 E+01
		Cs-137	9.99 E+01	3.67 E+01
		Ra-226	1.06 E+03	5.81 E+02
		Eu-152	*-1.34 E+01	1.18 E+02
		Th-228	8.23 E+02	7.41 E+01
102 G-1 (a)	920930	K-40	9.06 E+03	7.14 E+02
		Co-57	* 2.14 E+00	2.08 E+01
		Co-60	* 2.89 E+01	2.45 E+01
		Zn-65	* 3.20 E+01	5.40 E+01
		Cs-134	* 4.56 E+01	2.49 E+01
		Cs-137	1.02 E+02	3.39 E+01
		Ra-226	* 5.82 E+02	4.70 E+02
		Eu-152	* 1.11 E+02	1.09 E+02
		Th-228	7.95 E+02	7.36 E+01
102 G-2 (a)	920930	K-40	1.38 E+04	8.59 E+02
		Co-57	*-1.71 E+01	2.20 E+01
		Co-60	* 4.46 E+01	3.09 E+01
		Zn-65	*-3.10 E+01	7.00 E+01
		Cs-134	* 4.87 E+01	2.94 E+01
		Cs-137	1.45 E+02	4.37 E+01
		Ra-226	* 8.27 E+02	4.60 E+02
		Eu-152	*-3.92 E+01	1.32 E+02
		Th-228	6.30 E+02	5.33 E+01
102 A-1 (a)	921014	K-40	1.27 E+04	1.01 E+03
		Co-57	*-1.75 E+01	3.33 E+01
		Co-60	* 6.02 E+01	3.40 E+01
		Zn-65	* 1.00 E+01	6.30 E+01
		Cs-134	* 3.96 E+01	3.32 E+01
		Cs-137	1.25 E+02	4.60 E+01
		Ra-226	* 9.27 E+02	6.85 E+02
		Eu-152	* 2.97 E+01	1.50 E+02
		Th-228	5.49 E+02	6.65 E+01

* Denotes a result less than the detection limit.

TABLE B-13.1 (Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102 B-1 (a)	921014	K-40	1.34 E+04	7.90 E+02
		Co-57	*-1.07 E+01	1.72 E+01
		Co-60	* 4.44 E+01	2.59 E+01
		Zn-65	* 2.90 E+01	5.60 E+01
		Cs-134	* 3.12 E+01	2.57 E+01
		Cs-137	1.57 E+02	4.04 E+01
		Ra-226	* 4.89 E+02	4.12 E+02
		Eu-152	* 9.71 E+01	1.21 E+02
		Th-228	6.16 E+02	5.72 E+01
102 H-1 (a)	921014	K-40	1.39 E+04	9.59 E+02
		Co-57	*-2.10 E+01	2.00 E+01
		Co-60	* 3.49 E+01	2.69 E+01
		Zn-65	*-2.80 E+01	5.94 E+01
		Cs-134	* 2.27 E+01	2.56 E+01
		Cs-137	1.47 E+02	3.58 E+01
		Ra-226	* 5.24 E+02	4.33 E+02
		Eu-152	* 5.05 E+01	1.19 E+02
		Th-228	5.36 E+02	5.46 E+01
102 I-1 (a)	921014	K-40	1.43 E+04	8.27 E+02
		Co-57	* 1.09 E+01	1.93 E+01
		Co-60	* 1.02 E+01	2.51 E+01
		Zn-65	* 1.80 E+01	5.20 E+01
		Cs-134	* 4.30 E+01	2.53 E+01
		Cs-137	1.74 E+02	4.10 E+01
		Ra-226	9.65 E+02	5.34 E+02
		Eu-152	* 2.99 E+01	1.20 E+02
		Th-228	6.30 E+02	4.96 E+01
102 M-1 (a)	920930	K-40	1.35 E+04	1.11 E+03
		Co-57	* 1.39 E+00	3.30 E+01
		Co-60	* 7.16 E+01	4.82 E+01
		Zn-65	* 7.20 E+00	1.00 E+02
		Cs-134	* 4.99 E+01	4.82 E+01
		Cs-137	2.42 E+02	7.28 E+01
		Ra-226	* 1.27 E+03	7.22 E+02
		Eu-152	*-5.40 E+01	1.95 E+02
		Th-228	7.84 E+02	7.88 E+01

* Denotes a result less than the detection limit.

TABLE B-13.1 (Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102 N-1 (a)	921014	K-40	1.08 E+04	8.34 E+02
		Co-57	*-1.91 E+01	2.08 E+01
		Co-60	* 2.81 E+01	3.12 E+01
		Zn-65	* 2.00 E+01	5.70 E+01
		Cs-134	* 2.65 E+01	2.63 E+01
		Cs-137	* 5.50 E+01	3.10 E+01
		Ra-226	1.44 E+03	5.04 E+02
		Eu-152	* 1.71 E+02	1.27 E+02
		Th-228	6.84 E+02	6.95 E+01
102	921118	K-40	1.21 E+04	1.20 E+03
		Co-57	*-8.92 E+00	1.77 E+01
		Co-60	1.86 E+02	3.90 E+01
		Zn-65	*-1.58 E+01	6.05 E+01
		Cs-134	* 3.96 E+01	2.80 E+01
		Cs-137	1.62 E+02	4.20 E+01
		Ra-226	1.02 E+03	4.90 E+02
		Eu-152	* 6.10 E+02	1.22 E+02
		Th-228	5.65 E+02	5.70 E+01
102 Overflow Basin	921118	K-40	1.52 E+04	6.06 E+02
		Co-57	*-4.45 E+00	1.23 E+01
		Co-60	* 2.86 E+00	1.42 E+01
		Zn-65	*-4.30 E+01	4.00 E+01
		Zn-65	*-4.30 E+01	4.00 E+01
		Cs-134	* 2.72 E+01	1.61 E+01
		Cs-137	* 2.56 E+01	1.61 E+01
		Ra-226	7.41 E+02	3.44 E+02
		Eu-152	* 5.13 E+01	7.21 E+01
		Th-228	6.02 E+02	3.45 E+01
102 Dosing Pond	921118	K-40	1.33 E+04	6.91 E+02
		Co-57	* 8.23 E-01	1.52 E+01
		Co-60	* 9.85 E+00	1.89 E+01
		Zn-65	* 8.60 E+00	4.23 E+01
		Cs-134	* 3.08 E+01	2.01 E+01
		Cs-137	* 1.01 E+01	1.82 E+01
		Ra-226	1.26 E+03	4.47 E+02
		Eu-152	* 3.97 E+01	8.51 E+01
		Th-228	6.09 E+02	4.23 E+01

* Denotes a result less than the detection limit.

TABLE B-13.1 (Cont.)

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
102 Percolation Bed	921118	K-40	1.31 E+04	7.85 E+02
		Co-57	*-6.53 E+00	2.27 E+01
		Co-60	*-3.37 E+00	2.03 E+01
		Zn-65	*-2.30 E+01	4.70 E+01
		Cs-134	* 1.91 E+01	2.30 E+01
		Cs-137	* 0.00 E+00	2.12 E+01
		Ra-226	1.57 E+03	6.71 E+02
		Eu-152	* 4.71 E+01	9.84 E+01
		Th-228	4.81 E+02	4.66 E+01

* Denotes a result less than the detection limit.

TABLE B-13.2

GAMMA SPECTROMETRY OF SANITARY WASTE TREATMENT SEDIMENT - SUMMARY

Results in pCi/kilogram

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
K-40	(I)	1.08E+04	2.51E+02	1.52E+04	21	20
Co-57	(I)	-6.70E+00	-2.85E+01	1.09E+01	21	0
Co-60	(I)	1.58E+02	-3.40E+00	7.28E+02	21	7
Zn-65	(I)	1.30E+00	-6.90E+01	6.00E+01	21	0
Cs-134	(I)	3.10E+01	-1.10E+01	5.52E+01	21	0
Cs-137	(I)	1.21E+02	0.00E+00	2.54E+02	21	15
Ra-226	(I)	1.06E+03	-5.73E+01	2.50E+03	21	11
Eu-152	(I)	8.78E+01	-5.40E+01	6.10E+02	21	0
Th-228	(I)	5.59E+02	-1.40E+01	8.23E+02	21	19

(I) Indicator stations only.

TABLE B-14.1

STRONTIUM-90 IN SANITARY WASTE TREATMENT SEDIMENT

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
102 D-1 (a)	920930	8.9 E+01	4.6 E+01
102 D-2 (a)	920930	1.3 E+02	5.0 E+01
102 E-1 (a)	920930	7.5 E+01	3.8 E+01
102 E-2 (a)	920930	8.0 E+01	3.3 E+01
102 F-1 (a)	920930	1.1 E+02	4.0 E+01
102 F-2 (a)	920930	* 4.7 E+01	6.2 E+01
102 G-1 (a)	920930	1.1 E+02	6.0 E+01
101 G-2 (a)	920930	* 2.6 E+01	4.5 E+01

(a) Refer to Figure 5-20 for sample locations.
* Denotes a result less than the detection limit.

TABLE B-14.2

STRONTIUM-90 IN SANITARY WASTE TREATMENT SEDIMENT - SUMMARY

Results in pCi/liter

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
Sr-90	(I)	8.3E+01	2.6E+01	1.3E+02	8	6

(I) Indicator stations only.

TABLE B-15.1

GAMMA SPECTROMETRY OF FFTF SEWAGE WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
4001 FFTF Septic Tank Water	921104	Be-7	*-1.29 E+01	2.44 E+01
		K-40	*-6.75 E+01	6.14 E+01
		Mn-54	* 5.76 E-02	2.59 E+00
		Co-58	*-3.90 E+00	2.63 E+00
		Fe-59	*-5.60 E-01	5.79 E+00
		Co-60	* 1.02 E+00	2.65 E+00
		Zn-65	* 5.13 E+00	5.71 E+00
		Zr-95	*-1.42 E+00	5.49 E+00
		Nb-95	* 1.62 E+00	2.74 E+00
		Cs-134	* 1.25 E-01	2.92 E+00
		Cs-137	* 1.93 E+00	3.00 E+00
		Ba-140	*-4.77 E+00	9.23 E+00
		La-140	*-1.94 E+00	3.68 E+00
		Ra-226	*-6.00 E+01	4.85 E+01
		Th-228	* 1.46 E+00	4.46 E+00

* Denotes a result less than the detection limit.

TABLE B-16.1

TRITIUM IN FFTF SEWAGE WATER

Results in pCi/liter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
102F FFTF Tie-in To SWTF	921030	6.4 E+03	2.0 E+02
4001 FFTF Sanitary Water	921104	6.2 E+03	2.0 E+02
4002 FFTF Sanitary Sludge Water	921104	6.7 E+03	2.0 E+02

TABLE B-16.2

TRITIUM IN FFTF SEWAGE WATER - SUMMARY

Results in pCi/liter

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
H-3	(I)	6.43E+03	6.2E+03	6.7E+03	3	3

(I) Indicator stations only.

TABLE B-17.1

GAMMA SPECTROMETRY OF FFTF SEWAGE SLUDGE

Results in pCi/kilogram

LOCATION	COLLECTION DATE	NUCLIDE	RESULT	OVERALL UNCERTAINTY
4002 FFTF Septic Tank Sludge (wet)	921104	K-40	*-1.13 E+02	9.95 E+01
		Co-57	* 2.48 E+00	7.78 E+00
		Co-60	1.62 E+01	8.89 E+00
		Zn-65	* 1.49 E+01	1.43 E+01
		Cs-134	* 6.28 E+00	7.25 E+00
		Cs-137	*-1.25 E+00	7.39 E+00
		Ra-226	* 1.84 E+02	1.74 E+02
		Th-228	* 2.58 E+01	1.47 E+01
4002 FFTF Septic Tank Sludge (dry)	921104	K-40	*-3.33 E+03	3.27 E+00
		Co-57	* 1.78 E+01	1.10 E+02
		Co-60	4.03 E+02	1.98 E+02
		Zn-65	* 1.02 E+02	3.24 E+02
		Cs-134	*-7.48 E+01	1.52 E+02
		Cs-137	*-2.10 E+02	1.59 E+02
		Ra-226	*-1.41 E+03	2.37 E+03
		Th-228	* 3.51 E+02	2.11 E+02
4003 FFTF Septic Tank Drain Field (dry)	921104	K-40	2.62 E+03	7.70 E+02
		Co-57	*-3.40 E+01	4.40 E+01
		Co-60	3.59 E+02	9.60 E+01
		Zn-65	* 2.28 E+01	8.73 E+01
		Cs-134	* 1.90 E+01	5.29 E+01
		Cs-137	2.84 E+02	7.90 E+01
		Ra-226	* 7.85 E+02	9.75 E+02
		Th-228	* 1.94 E+02	9.61 E+01

* Denotes a result less than the detection limit.

TABLE B-17.2

GAMMA SPECTROMETRY FFTF SEWAGE SLUDGE - SUMMARY

Results in pCi/liter

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
K-40	(I)	-3.55E+02	-3.33E+03	2.62E+03	2	1
Co-57	(I)	2.59E+01	1.78E+01	3.40E+01	2	0
Co-60	(I)	3.81E+02	3.59E+02	4.03E+02	2	2
Zn-65	(I)	6.24E+01	2.28E+01	1.02E+02	2	0
Cs-134	(I)	-2.79E+01	-7.48E+01	1.90E+01	2	0
Cs-137	(I)	2.47E+02	2.10E+02	2.84E+02	2	1
Ra-226	(I)	-3.13E+02	-1.41E+03	7.85E+02	2	0
Th-228	(I)	2.73E+02	1.94E+02	3.51E+02	2	0

(a) Average of the dry sludge only.
(I) Indicator stations only.

TABLE B-18.1

STRONTIUM-90 IN FFTF SEWAGE SLUDGE

Results in pCi/kilogram

LOCATION	COLLECTION DATE	NUCLIDE	RESULT	OVERALL UNCERTAINTY
4002 FFTF Septic Tank Sludge (dry)	921104	Sr-90	4.1 E+02	1.3 E+02
4003 FFTF Septic Tank Drain Field (dry)	921104	Sr-90	* 6.6 E+01	4.1 E+01

* Denotes a result less than the detection limit.

TABLE B-18.2

STRONTIUM IN FFTF SEWAGE SLUDGE - SUMMARY

Results in pCi/kilogram (dry)

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
Sr-90	(I)	2.38E+02	6.6E+01	4.1E+02	2	1

(I) Indicator stations only.

TABLE B-19.1

GAMMA SPECTROMETRY OF STATION 118 SOIL

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
118A	920212	K-40	1.30 E+04	6.68 E+02
		Cs-134	* 2.85 E+01	1.79 E+01
		Cs-137	* 4.76 E+01	1.90 E+01
		Ra-226	1.09 E+03	4.68 E+02
		Th-228	5.53 E+02	3.72 E+01
118B	920212	K-40	1.31 E+04	4.51 E+02
		Cs-134	* 2.04 E+01	1.25 E+01
		Cs-137	* 1.65 E+01	1.24 E+01
		Ra-226	6.61 E+02	3.47 E+02
		Th-228	5.34 E+02	2.69 E+01
118B	920701	K-40	1.33 E+04	5.83 E+02
		Cs-134	* 1.96 E+01	1.70 E+01
		Cs-137	* 2.03 E+01	1.65 E+01
		Ra-226	8.49 E+02	3.37 E+02
		Th-228	5.44 E+02	3.28 E+01
118B	920909	K-40	1.32 E+04	6.02 E+02
		Cs-134	* 2.64 E+01	1.63 E+01
		Cs-137	* 1.49 E+01	1.49 E+01
		Ra-226	9.19 E+02	4.31 E+02
		Th-228	5.37 E+02	3.49 E+01
118B	921209	K-40	1.33 E+04	5.67 E+02
		Cs-134	* 1.52 E+01	1.65 E+01
		Cs-137	* 1.82 E+01	1.57 E+01
		Ra-226	6.42 E+02	3.03 E+02
		Th-228	6.84 E+02	4.22 E+01
118C	920212	K-40	1.24 E+04	7.05 E+02
		Cs-134	* 4.56 E+01	1.98 E+01
		Cs-137	* 2.05 E+01	1.89 E+01
		Ra-226	* 6.32 E+02	3.38 E+02
		Th-228	5.38 E+02	3.82 E+01

* Denotes a result less than the detection limit.

TABLE 19.1 (Cont.)

GAMMA SPECTROMETRY OF STATION 118 SOIL

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
118D	920212	K-40	1.14 E+04	3.85 E+02
		Cs-134	* 8.94 E+00	1.11 E+01
		Cs-137	* 2.46 E+01	1.09 E+01
		Ra-226	9.43 E+02	3.17 E+02
		Th-228	4.74 E+02	2.34 E+01
118D	920701	K-40	1.24 E+04	5.76 E+02
		Cs-134	* 2.27 E+01	1.59 E+01
		Cs-137	* 1.08 E+01	1.65 E+01
		Ra-226	9.29 E+02	3.92 E+02
		Th-228	5.03 E+02	3.28 E+01
118D	920909	K-40	1.34 E+04	4.01 E+02
		Cs-134	* 2.13 E+01	1.16 E+01
		Cs-137	* 5.25 E+00	1.12 E+01
		Ra-226	8.07 E+02	2.62 E+02
		Th-228	5.19 E+02	2.62 E+01
118D	921209	K-40	1.31 E+04	6.07 E+02
		Cs-134	* 2.83 E+01	1.72 E+01
		Cs-137	*-8.80 E-01	1.71 E+01
		Ra-226	* 3.69 E+02	2.88 E+02
		Th-228	5.18 E+02	3.49 E+01
118E	920212	K-40	1.19 E+04	6.03 E+02
		Cs-134	* 2.48 E+01	1.63 E+01
		Cs-137	* 4.10 E+01	1.59 E+01
		Ra-226	7.97 E+02	3.77 E+02
		Th-228	4.43 E+02	4.28 E+01
118F	920212	K-40	3.55 E+03	1.82 E+02
		Cs-134	* 4.62 E+00	4.09 E+00
		Cs-137	* 8.70 E+00	3.86 E+00
		Ra-226	1.46 E+02	7.32 E+01
		Th-228	1.09 E+02	6.77 E+00

* Denotes a result less than the detection limit.

TABLE 19.1 (Cont.)

GAMMA SPECTROMETRY OF STATION 118 SOIL

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
118G	920212	K-40	1.17 E+04	6.38 E+02
		Cs-134	* 1.53 E+01	1.62 E+01
		Cs-137	* 5.13 E-01	1.67 E+01
		Ra-226	6.54 E+02	3.82 E+02
		Th-228	5.39 E+02	3.56 E+01
118H	920212	K-40	1.16 E+04	4.75 E+02
		Cs-134	* 3.77 E+01	1.34 E+01
		Cs-137	* 1.45 E+01	1.19 E+01
		Ra-226	7.48 E+02	3.19 E+02
		Th-228	4.84 E+02	2.61 E+01
118I	920402	K-40	1.26 E+04	5.19 E+02
		Cs-134	* 2.03 E+01	1.49 E+01
		Cs-137	* 2.13 E+01	1.49 E+01
		Ra-226	* 4.80 E+02	2.44 E+02
		Th-228	5.41 E+02	3.12 E+01
118I	920701	K-40	1.27 E+04	5.39 E+02
		Cs-134	* 3.48 E+01	1.58 E+01
		Cs-137	* 3.62 E+00	1.49 E+01
		Ra-226	1.01 E+03	3.31 E+02
		Th-228	4.83 E+02	3.03 E+01
118I	920909	K-40	1.25 E+04	5.79 E+02
		Cs-134	* 2.25 E+01	1.55 E+01
		Cs-137	* 1.23 E+00	1.42 E+01
		Ra-226	7.13 E+02	3.52 E+02
		Th-228	6.12 E+02	4.47 E+01
118I	921209	K-40	1.27 E+04	6.43 E+02
		Cs-134	* 3.64 E+01	1.72 E+01
		Cs-137	*-8.15 E+00	1.57 E+01
		Ra-226	* 5.76 E+02	2.98 E+02
		Th-228	5.20 E+02	3.47 E+01

* Denotes a result less than the detection limit.

TABLE 19.1 (Cont.)

GAMMA SPECTROMETRY OF STATION 118 SOIL

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
118J	920402	K-40	1.21 E+04	6.35 E+02
		Cs-134	* 2.26 E+01	1.73 E+01
		Cs-137	* 1.42 E+01	1.71 E+01
		Ra-226	9.11 E+02	3.89 E+02
		Th-228	5.13 E+02	3.56 E+01
118J	920701	K-40	1.17 E+04	5.41 E+02
		Cs-134	* 3.47 E+01	1.71 E+01
		Cs-137	* 1.63 E+01	1.61 E+01
		Ra-226	8.21 E+02	3.13 E+02
		Th-228	4.83 E+02	3.17 E+01
118J	920909	K-40	1.22 E+04	4.92 E+02
		Cs-134	* 1.96 E+01	1.26 E+01
		Cs-137	* 6.12 E+00	1.20 E+01
		Ra-226	* 4.84 E+02	2.05 E+02
		Th-228	5.00 E+02	2.81 E+01
118J	921209	K-40	1.27 E+04	5.14 E+02
		Cs-134	*-2.93 E+00	1.37 E+01
		Cs-137	* 1.58 E+01	1.43 E+01
		Ra-226	7.47 E+02	3.17 E+02
		Th-228	4.99 E+02	2.93 E+01
118K	920402	K-40	1.41 E+04	5.57 E+02
		Cs-134	* 3.01 E+01	1.55 E+01
		Cs-137	* 2.00 E+01	1.48 E+01
		Ra-226	7.65 E+02	3.23 E+02
		Th-228	6.96 E+02	3.98 E+01
118K	920701	K-40	1.23 E+04	6.36 E+02
		Cs-134	* 2.10 E+01	1.68 E+01
		Cs-137	* 8.23 E+00	1.60 E+01
		Ra-226	* 4.92 E+02	3.08 E+02
		Th-228	6.85 E+02	5.05 E+01

* Denotes a result less than the detection limit.

TABLE 19.1 (Cont.)

GAMMA SPECTROMETRY OF STATION 118 SOIL

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
118K	920909	K-40	1.40 E+04	4.85 E+02
		Cs-134	* 2.64 E+01	1.21 E+01
		Cs-137	* 1.54 E+01	1.24 E+01
		Ra-226	7.04 E+02	2.79 E+02
		Th-228	5.49 E+02	2.68 E+01
118K	921209	K-40	1.50 E+04	6.03 E+02
		Cs-134	* 1.57 E+01	1.72 E+01
		Cs-137	* 1.88 E+01	1.64 E+01
		Ra-226	7.19 E+02	3.78 E+02
		TH-228	5.84 E+02	3.30 E+01
118L	920402	K-40	1.37 E+04	7.24 E+02
		Cs-134	* 1.28 E+01	1.85 E+01
		Cs-137	* 3.34 E+01	1.89 E+01
		Ra-226	* 4.41 E+02	3.33 E+02
		Th-228	6.89 E+02	5.23 E+01
118L	920701	K-40	1.34 E+04	5.93 E+02
		Cs-134	* 2.61 E+01	1.75 E+01
		Cs-137	* 2.42 E+01	1.63 E+01
		Ra-226	7.47 E+02	3.70 E+02
		Th-228	5.28 E+02	3.23 E+01
118L	920909	K-40	1.23 E+04	4.55 E+02
		Cs-134	* 2.19 E+01	1.32 E+01
		Cs-137	* 1.79 E+01	1.33 E+01
		Ra-226	7.35 E+02	2.47 E+02
		Th-228	4.80 E+02	2.62 E+01
118L	921209	K-40	1.13 E+04	5.97 E+02
		Cs-134	* 2.83 E+01	1.61 E+01
		Cs-137	* 1.26 E+01	1.52 E+01
		Ra-226	9.86 E+02	3.95 E+02
		Th-228	4.88 E+02	3.46 E+01

* Denotes a result less than the detection limit.

TABLE 19.1 (Cont.)

GAMMA SPECTROMETRY OF STATION 118 SOIL

Results in pCi/kilogram

LOCATION	COLLECTION PERIOD	NUCLIDE	RESULT	OVERALL UNCERTAINTY
118M	920701	K-40	1.27 E+04	6.19 E+02
		Cs-134	* 2.08 E+01	1.63 E+01
		Cs-137	* 1.40 E+01	1.53 E+01
		Ra-226	6.84 E+02	3.29 E+02
		Th-228	4.98 E+02	3.39 E+01
118M	920909	K-40	1.23 E+04	3.46 E+02
		Cs-134	* 3.47 E+01	9.29 E+00
		Cs-137	* 1.43 E+01	8.85 E+00
		Ra-226	6.55 E+02	2.22 E+02
		Th-228	5.11 E+02	2.07 E+01
118M	921209	K-40	1.27 E+04	7.40 E+02
		Cs-134	* 1.78 E+01	1.94 E+01
		Cs-137	* 6.85 E+00	1.94 E+01
		Ra-226	* 6:03 E+02	4.39 E+02
		Th-228	5.40 E+02	4.74 E+01

* Denotes a result less than the detection limit.

TABLE B-19.2

GAMMA SPECTROMETRY OF STATION 118 SOIL - SUMMARY

Results in pCi/kilogram

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
K-40	(I)	1.21E+04	3.55E+03	1.50E+04	33	33
Cs-134	(I)	2.32E+01	-2.93E+00	4.56E+01	33	0
Cs-137	(I)	1.49E+01	-8.80E+00	4.76E+01	33	0
Ra-226	(I)	7.11E+02	1.46E+02	1.09E+03	33	25
Th-228	(I)	5.27E+02	1.09E+02	6.96E+02	33	33

(I) Indicator Stations only.

TABLE B-20.1

TRITIUM IN SNOW

Results in pCi/liter

LOCATION	COLLECTION PERIOD	RESULT	OVERALL UNCERTAINTY
130 (a) Snow	921218	4.1 E+02	9.0 E+01
130 (a) Snow	921218	4.3 E+02	8.0 E+01
130 (a) Snow	921222	2.9 E+02	8.0 E+01

(a) Station 130 is a special sampling location near the Plant 2 cooling towers; currently not a part of the REMP sampling plan.

TABLE B-20.2

TRITIUM IN SNOW

Results in pCi/liter

NUCLIDE		AVERAGE	LOW	HIGH	NUMBER SAMPLES	NUMBER POSITIVE
H-3	(I)	3.77E+02	2.9E+02	4.3E+02	3	3

(I) Indicator stations only.

APPENDIX C: 1992 EPA INTERCOMPARISON PROGRAM

EPA INTERCOMPARISON RESULTS

A summary of the results of EPA Intercomparison Program samples analyzed during 1992 is given in Table C-1. Graphs of the results of selected analyses performed by Teledyne Isotopes on EPA Intercomparison samples during 1992 and previous years are presented in Figures C-1 through C-25.

TABLE C-1

1992 EPA INTERCOMPARISON PROGRAM RESULTS

ISOTOPE	COLLECTION DATE	TI RESULTS (a)	EPA RESULTS (b)	OTHER LABS (C)
		MEDIUM - WATER (pCi/liter)		
Sr-89	920117	45.67 ± 1.53	51.0 ± 5.0	47.12 ± 10.55
Sr-90	920117	18.67 ± 1.53	20.0 ± 5.0	19.28 ± 2.46
Sr-89	920414	16.00 ± 1.00	15.0 ± 5.0	15.52 ± 3.23
Sr-90	920414	14.33 ± 1.15	17.0 ± 5.0	15.85 ± 2.37
Sr-89	920508	24.00 ± 1.73	29.0 ± 5.0	28.05 ± 5.49
Sr-90	920508	6.33 ± 0.58	8.0 ± 5.0	7.74 ± 1.96
Sr-89	920911	16.00 ± 1.00	20.0 ± 5.0	20.04 ± 4.84
Sr-90	920911	13.00 ± 1.00	15.0 ± 5.0	14.50 ± 2.37
Sr-89	921020	8.67 ± 0.58	8.0 ± 5.0	8.60 ± 3.07
Sr-90	921020	8.00 ± 1.00	10.0 ± 5.0	10.50 ± 1.83
Gr-Beta	920131	31.67 ± 0.58	30.0 ± 5.0	29.88 ± 5.42
Gr-Beta	920515	44.67 ± 1.15	44.0 ± 5.0	42.79 ± 6.81
Gr-Beta	920414	98.00 ± 2.00	140.0 ± 21.0	118.11 ± 16.91 (d)
Gr-Beta	920515	44.67 ± 1.15	44.0 ± 5.0	42.79 ± 6.81
Gr-Beta	920918	45.00 ± 1.73	50.0 ± 5.0	48.61 ± 9.14
Gr-Beta	921020	49.00 ± 2.65	53.0 ± 10.0	46.53 ± 6.55
I-131	920207	61.00 ± 1.73	59.0 ± 6.0	60.16 ± 5.54
Co-60	920214	38.00 ± 2.65	40.0 ± 5.0	40.08 ± 3.38
Zn-65	920214	145.00 ± 1.73	148.0 ± 15.0	148.85 ± 9.10
Ru-106	920214	191.00 ± 21.66	203.0 ± 20.0	194.62 ± 18.29
Cs-134	920214	29.00 ± 2.00	31.0 ± 5.0	29.44 ± 2.69
Cs-137	920214	53.67 ± 2.52	49.0 ± 5.0	50.69 ± 3.69
Ba-133	920214	75.67 ± 7.51	76.0 ± 8.0	75.06 ± 5.77
Ra-226	920306	5.30 ± 0.95	10.1 ± 1.5	9.85 ± 0.94 (e)
Ra-228	920306	20.00 ± 2.00	15.5 ± 3.9	14.49 ± 3.70 (e)

TABLE C-1 (Cont.)

1992 EPA INTERCOMPARISON PROGRAM RESULTS

ISOTOPE	COLLECTION DATE	TI RESULTS (a)	EPA RESULTS (b)	OTHER LABS (C)
		MEDIUM - WATER (pCi/liter)		
Co-60	920306	44.00 ± 1.73	56.0 ± 5.0	56.44 ± 2.97
Cs-134	920306	22.67 ± 1.53	24.0 ± 5.0	23.42 ± 2.02
Cs-137	920306	24.67 ± 3.06	22.0 ± 5.0	23.20 ± 2.35
Ra-226	920306	13.33 ± 2.08	14.9 ± 2.2	14.26 ± 2.19
Ra-228	920306	15.33 ± 0.58	14.0 ± 3.5	13.05 ± 3.21
Co-60	920414	55.00 ± 1.73	56.0 ± 5.0	56.44 ± 2.97
Cs-134	920414	22.67 ± 1.53	24.0 ± 5.0	23.42 ± 2.02
Cs-137	920414	24.67 ± 3.06	22.0 ± 5.0	23.20 ± 2.35
Ra-226	920414	13.33 ± 2.08	14.9 ± 2.2	14.26 ± 2.19
Ra-228	920414	15.33 ± 0.58	14.0 ± 3.5	13.05 ± 3.21
Co-60	920605	21.33 ± 0.58	20.0 ± 5.0	20.61 ± 2.28
Zn-65	920605	107.00 ± 3.61	99.0 ± 10.0	104.65 ± 7.49
Ru-106	920605	127.00 ± 11.53	141.0 ± 14.0	138.47 ± 11.86
Cs-134	920605	15.00 ± 1.00	15.0 ± 5.0	14.76 ± 1.99
Cs-137	920605	16.00 ± 1.00	15.0 ± 5.0	16.11 ± 3.83
Ba-133	920605	93.33 ± 6.03	98.0 ± 10.0	96.17 ± 7.10
Ra-226	920717	23.33 ± 1.15	24.9 ± 3.7	24.17 ± 3.60
Ra-228	920717	17.33 ± 0.58	16.7 ± 4.2	16.25 ± 3.27
I-131	920807	43.33 ± 6.03	45.0 ± 6.0	45.91 ± 3.79
Co-60	921009	11.00 ± 1.00	10.0 ± 5.0	10.96 ± 2.10
Zn-65	921009	156.67 ± 0.58	148.0 ± 15.0	157.10 ± 9.35
Ru-106	921009	164.33 ± 7.51	175.0 ± 18.0	160.69 ± 14.64
Cs-134	921009	8.67 ± 0.58	8.0 ± 5.0	8.14 ± 1.64
Cs-137	921009	8.67 ± 0.58	8.0 ± 5.0	8.73 ± 1.70
Ba-133	921009	75.67 ± 9.29	74.0 ± 7.0	73.05 ± 5.18
Co-60	921020	15.00 ± 1.00	15.0 ± 5.0	15.31 ± 1.97
Cs-134	921020	5.00 ± 0.00	5.0 ± 5.0	5.33 ± 1.45
Cs-137	921020	8.67 ± 0.58	8.0 ± 5.0	8.86 ± 1.76

TABLE C-1 (Cont.)

1992 EPA INTERCOMPARISON PROGRAM RESULTS

ISOTOPE	COLLECTION DATE	TI RESULTS (a)	EPA RESULTS (b)	OTHER LABS (C)
		MEDIUM - WATER (pCi/liter)		
Ra-226	921020	7.23 ± 0.68	7.4 ± 1.1	7.49 ± 1.16
Ra-228	921020	10.33 ± 0.58	10.0 ± 2.5	10.15 ± 2.45
Ra-226	921111	5.27 ± 0.40	7.5 ± 1.1	7.27 ± 1.06 (f)
Ra-228	921111	6.07 ± 0.47	5.0 ± 1.3	5.31 ± 1.16
H-3	920221	7800.00 ± 100.00	7904.0 ± 790.0	7942.78 ± 702.00
H-3	820619	2100.00 ± 0.00	2125.0 ± 347.0	2101.61 ± 22.134
H-3	921023	5666.67 ± 57.74	5962.0 ± 596.0	5997.40 ± 565.83
		MEDIUM - AIR FILTERS (pCi/cubic meter)		
Gr-Beta	920327	43.00 ± 1.00	41.0 ± 5.0	42.32 ± 3.31
Sr-90	920327	12.67 ± 0.58	15.0 ± 5.0	14.59 ± 2.27
Cs-137	920327	11.00 ± 1.73	10.0 ± 5.0	11.02 ± 2.08
Gr-Beta	921028	69.00 ± 1.00	69.0 ± 10.0	71.98 ± 6.43
Sr-90	921028	22.67 ± 1.15	25.0 ± 5.0	24.31 ± 2.80
Cs-137	921028	16.67 ± 2.31	18.0 ± 5.0	196.8 ± 2.94
Gr-Beta	920828	69.00 ± 1.00	69.0 ± 10.0	71.98 ± 6.43
Sr-90	920828	22.67 ± 1.15	25.0 ± 5.0	24.31 ± 2.80
Cs-137	920828	16.67 ± 2.31	18.0 ± 5.0	19.68 ± 2.94

TABLE C-1 (Cont.)

1992 EPA INTERCOMPARISON PROGRAM RESULTS

ISOTOPE	COLLECTION DATE	TI RESULTS (a)	EPA RESULTS (b)	OTHER LABS (C)
		MEDIUM - MILK (pCi/liter)		
Sr-89	920424	36.00 ± 4.58	38.0 ± 5.0	31.02 ± 8.85
Sr-90	920424	26.00 ± 0.00	29.0 ± 5.0	24.66 ± 5.43
I-131	920424	71.67 ± 4.04	78.0 ± 8.0	78.45 ± 6.07
Cs-137	920424	46.67 ± 2.31	39.0 ± 5.0	40.32 ± 3.59(g)
K	920424	1680.00 ± 72.11	1710.0 ± 86.0	1704.01 ± 105.51
Sr-89	920925	16.00 ± 2.00	15.0 ± 5.0	13.71 ± 4.30
Sr-90	920925	12.67 ± 1.15	15.00 ± 5.0	12.82 ± 2.71
I-131	920925	99.00 ± 7.21	100.0 ± 10.0	100.98 ± 6.67
Cs-137	920925	15.67 ± 1.15	15.0 ± 5.0	16.10 ± 1.93
K	920925	1660.00 ± 85.44	1750.0 ± 88.0	1711.91 ± 93.26

Footnotes:

(a) Teledyne Results - Average ± one sigma. Units are pCi/liter for water and milk except K is in mg/liter. Units are total pci for air particulate filters.

(b) EPA Results - Expected laboratory precision (1 sigma). Units are pCi/liter for water, and milk except K is in mg/liter. Units are total pCi for air particulate filters.

(c) Average concentration plus or minus one sigma, based on range of values encountered.

(d) There was large fraction of low energy beta emitters (cobalt-60 and cesium-134) in the sample. Detector efficiency decreases with decreasing energy. High energy beta emitters (cesium-137 and strontium-90) are used to calibrate. No corrective action necessary.

(e) All lab data sheets were verified for accuracy. Three different detectors were used with aliquot ingrowth times of 9 and 19 days. Results ranged from 4 to 6 pCi/l. Dilution error has been determined to be the probable cause for the deviation from the spike value. Internal biweekly spike analyses have been in control. Corrective action includes implementation of a dilution form to record aliquot and solvent volumes. Entries will be made by the technician and reviewed by the supervisor.

(f) An investigation is being conducted; the results will be available shortly.

(g) There is no apparent reason for the high cesium-137 results. The sample geometry and detector efficiencies were verified to be correct. The Total K and iodine-131 by gamma spectroscopy were in good agreement with EPA values. There is no trend and results were within ±3 sigma so no action taken.

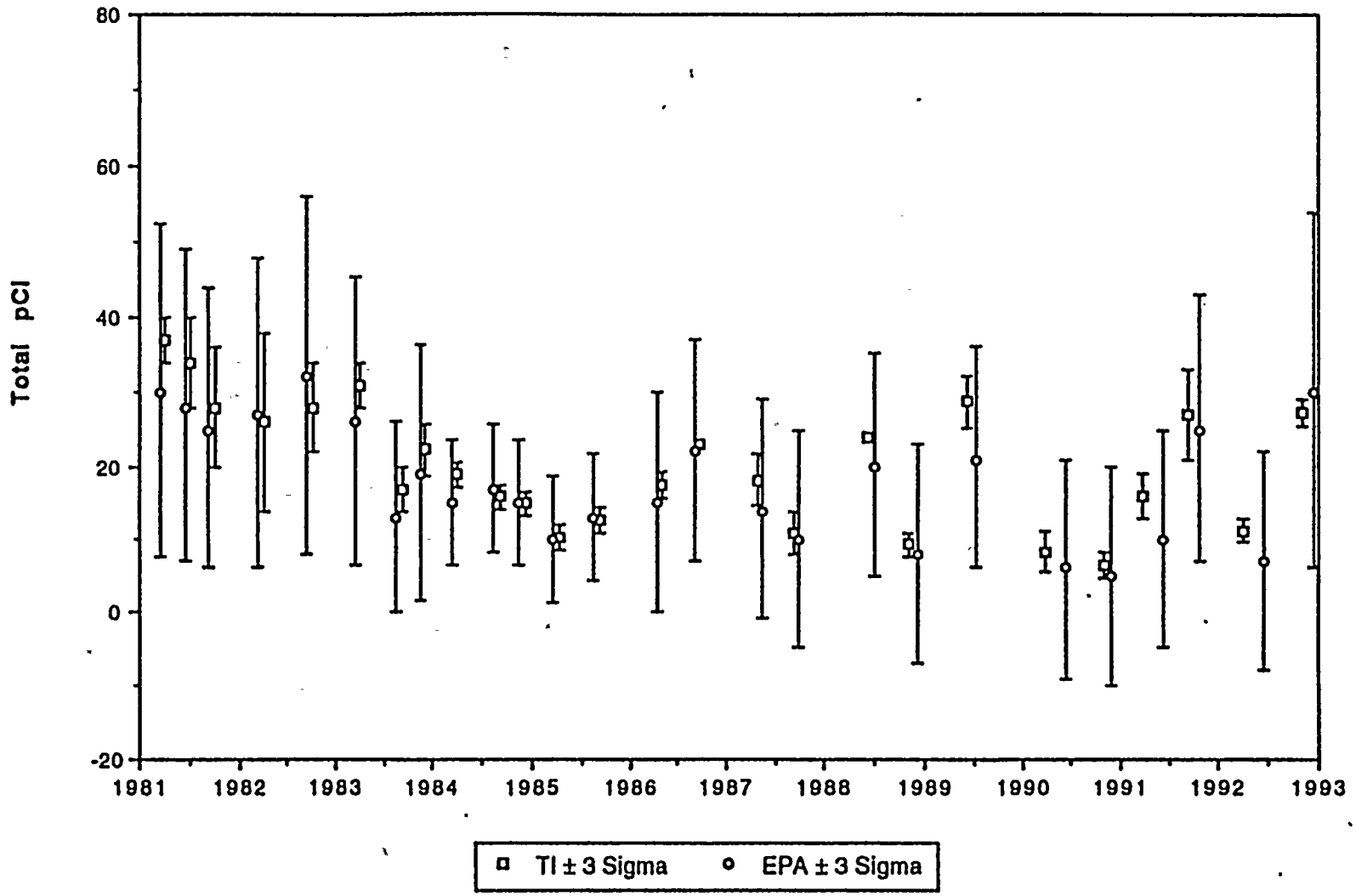


FIGURE C-1
EPA CROSS CHECK PROGRAM - GROSS ALPHA IN AIR PARTICULATES

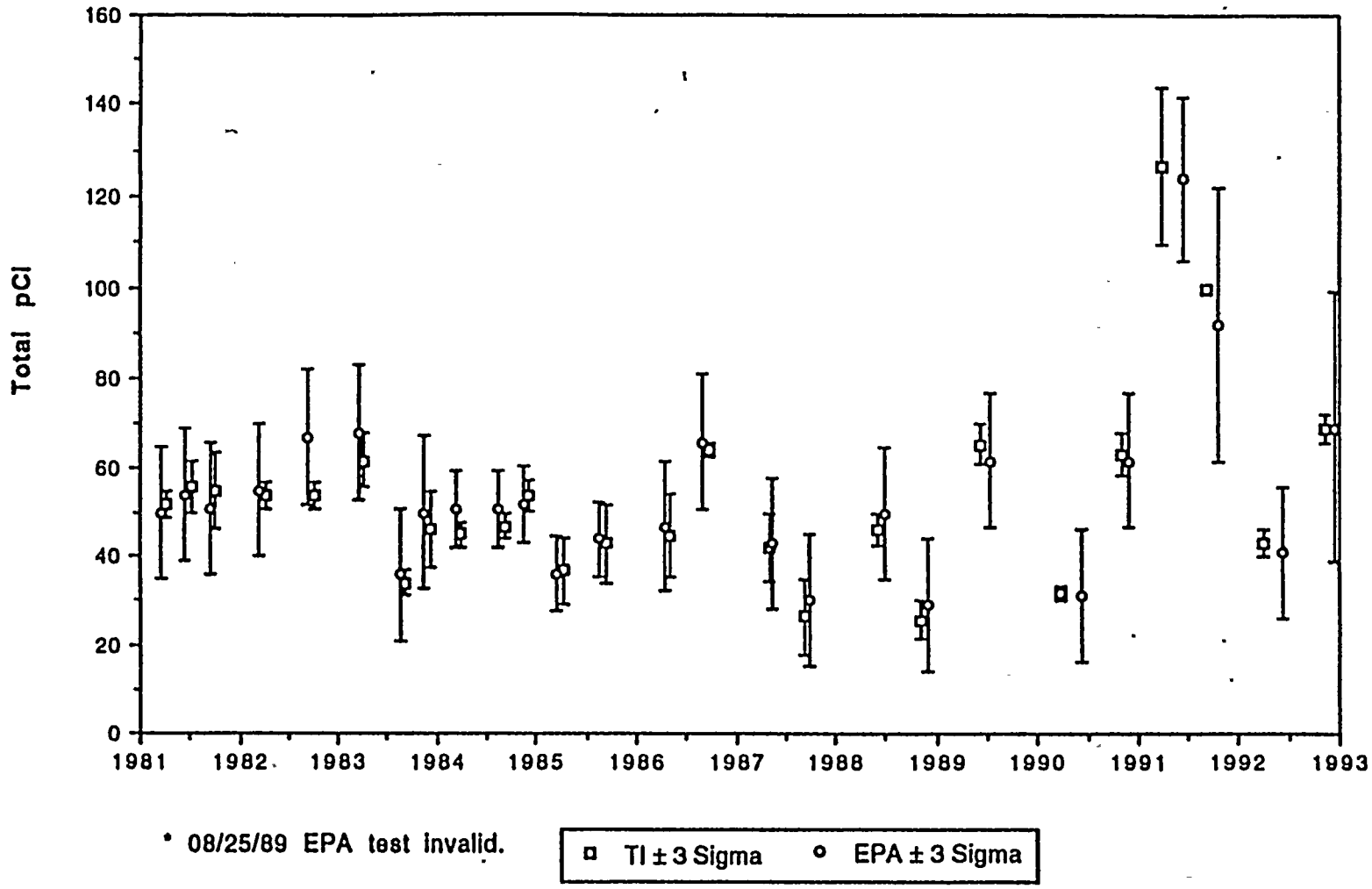


FIGURE C-2
EPA CROSS CHECK PROGRAM - GROSS BETA IN AIR PARTICULATES

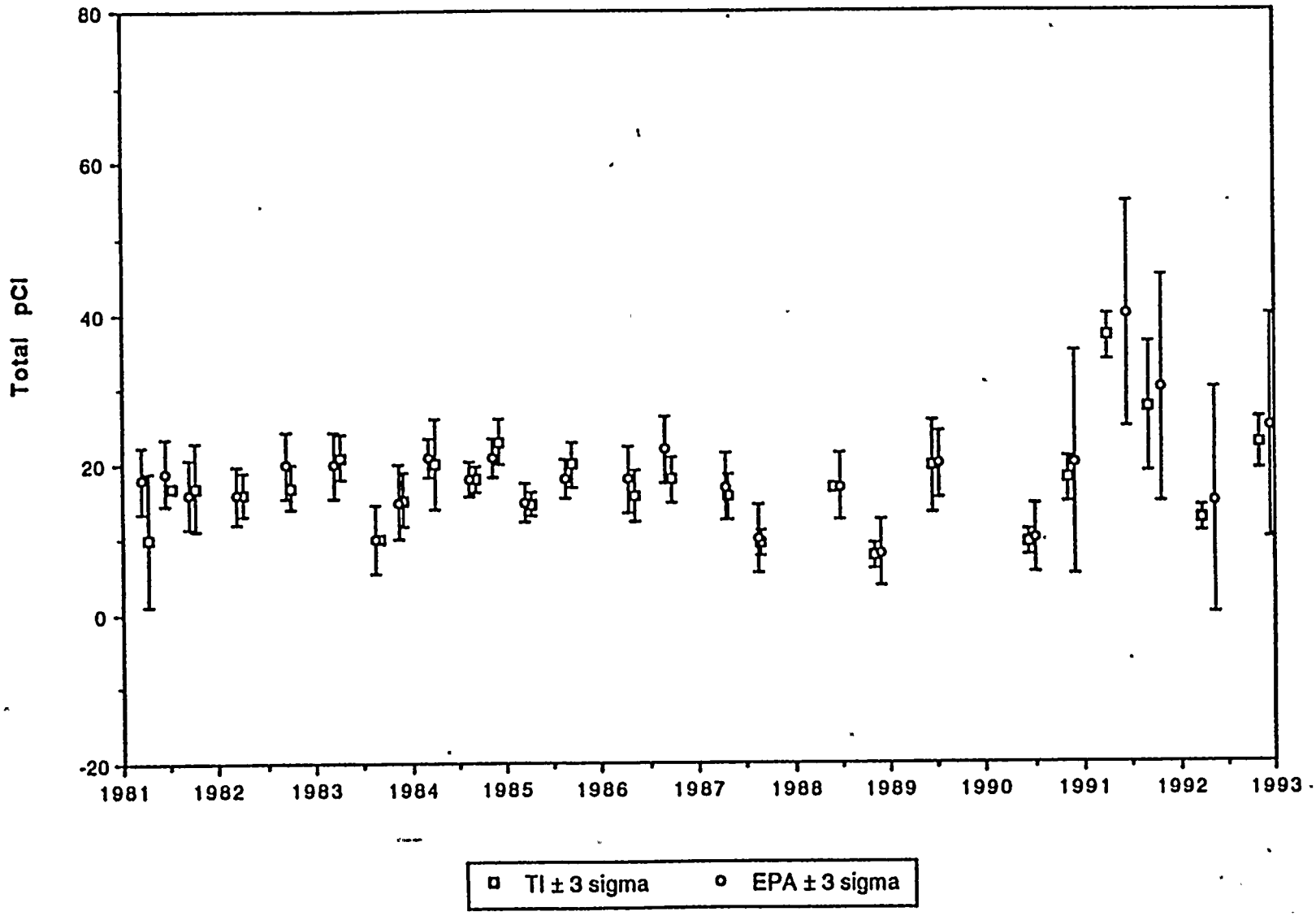


FIGURE C-3
EPA CROSS CHECK PROGRAM - STRONTIUM-90 IN AIR PARTICULATES

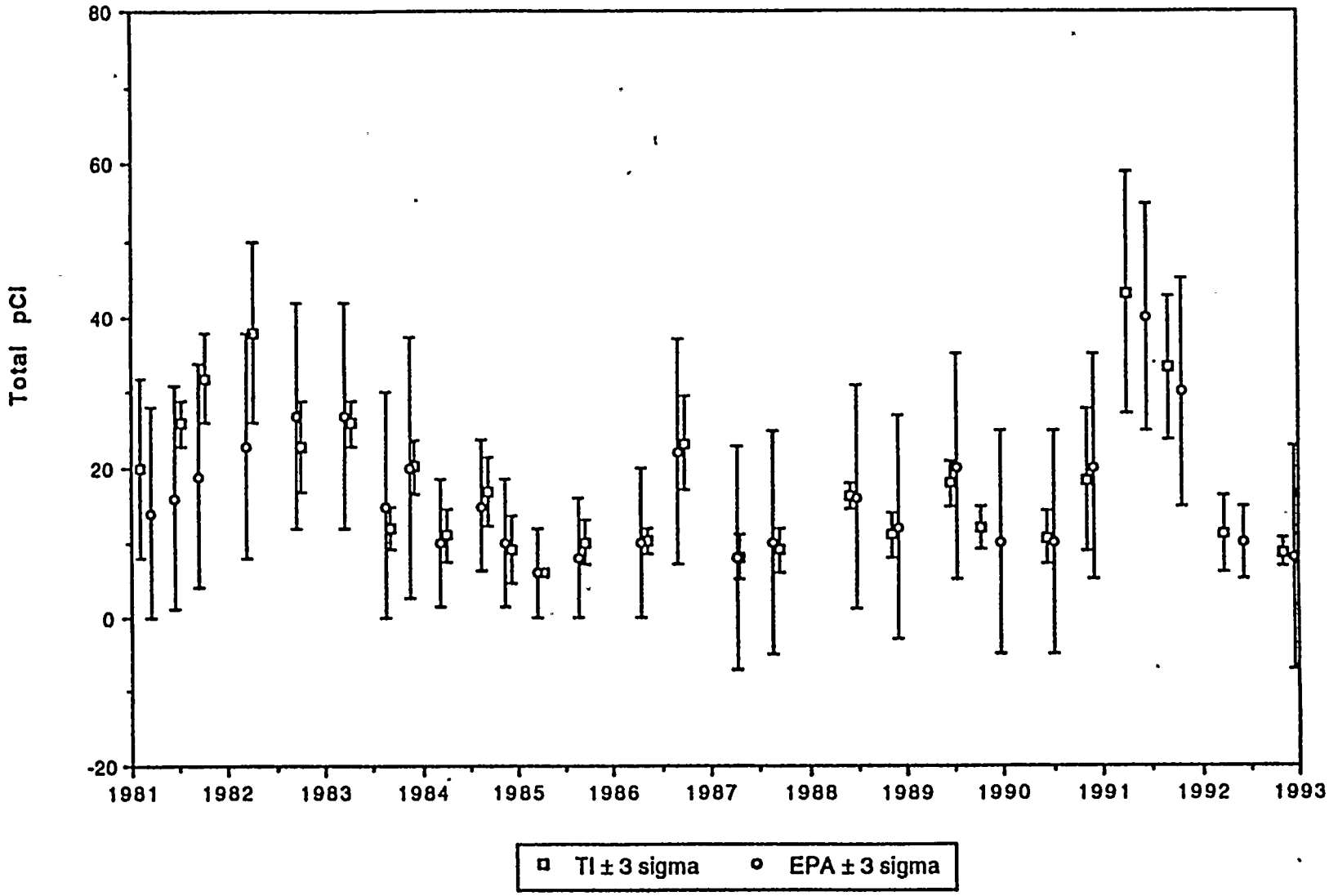
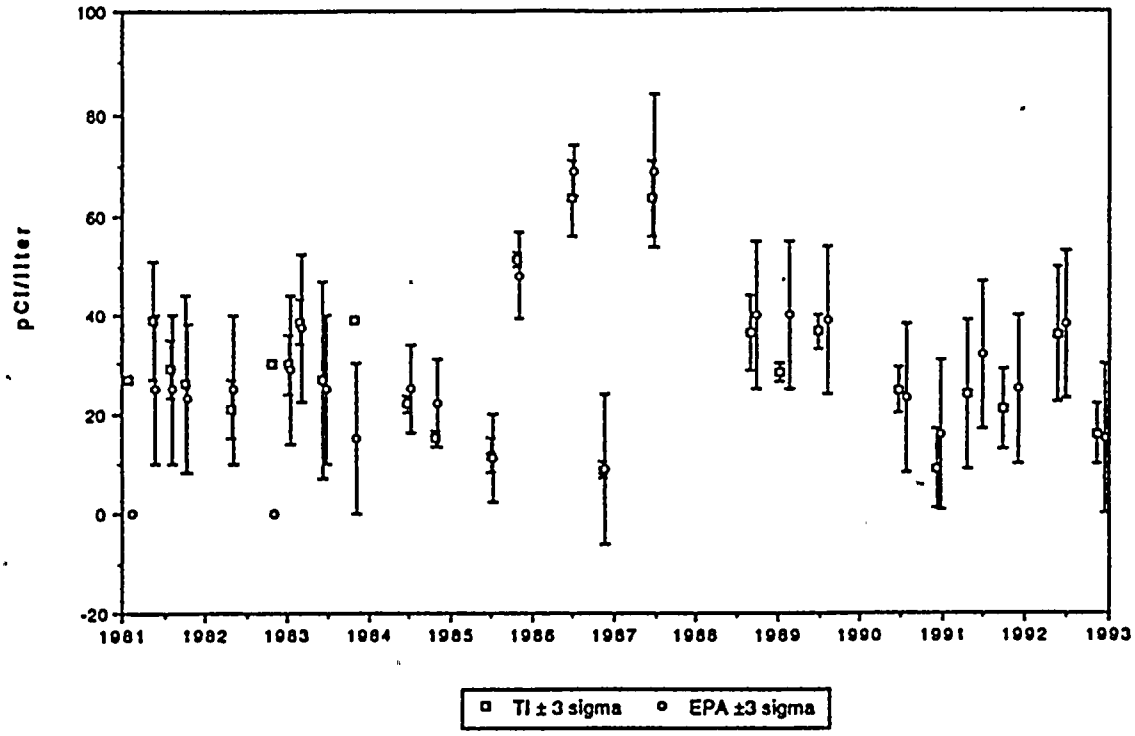
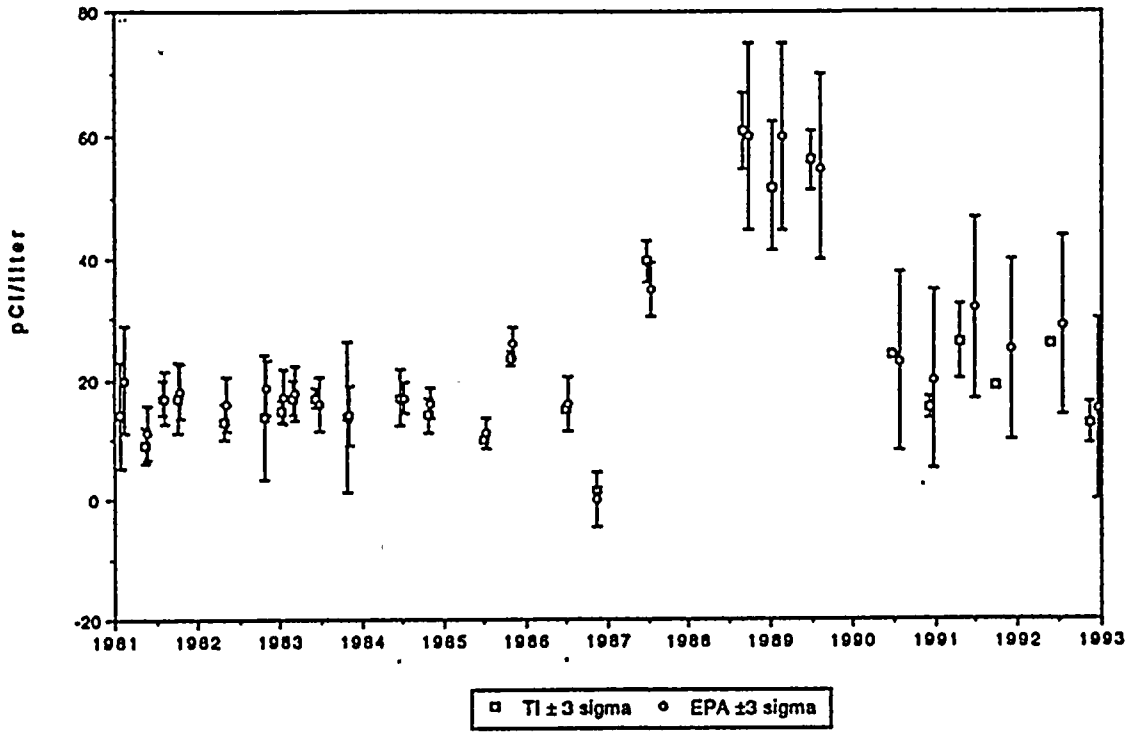


FIGURE C-4
EPA CROSS CHECK PROGRAM - CESIUM-137 IN AIR PARTICULATES



Strontium-89



Strontium-90

FIGURE C-5
EPA CROSS CHECK PROGRAM - STRONTIUM IN MILK

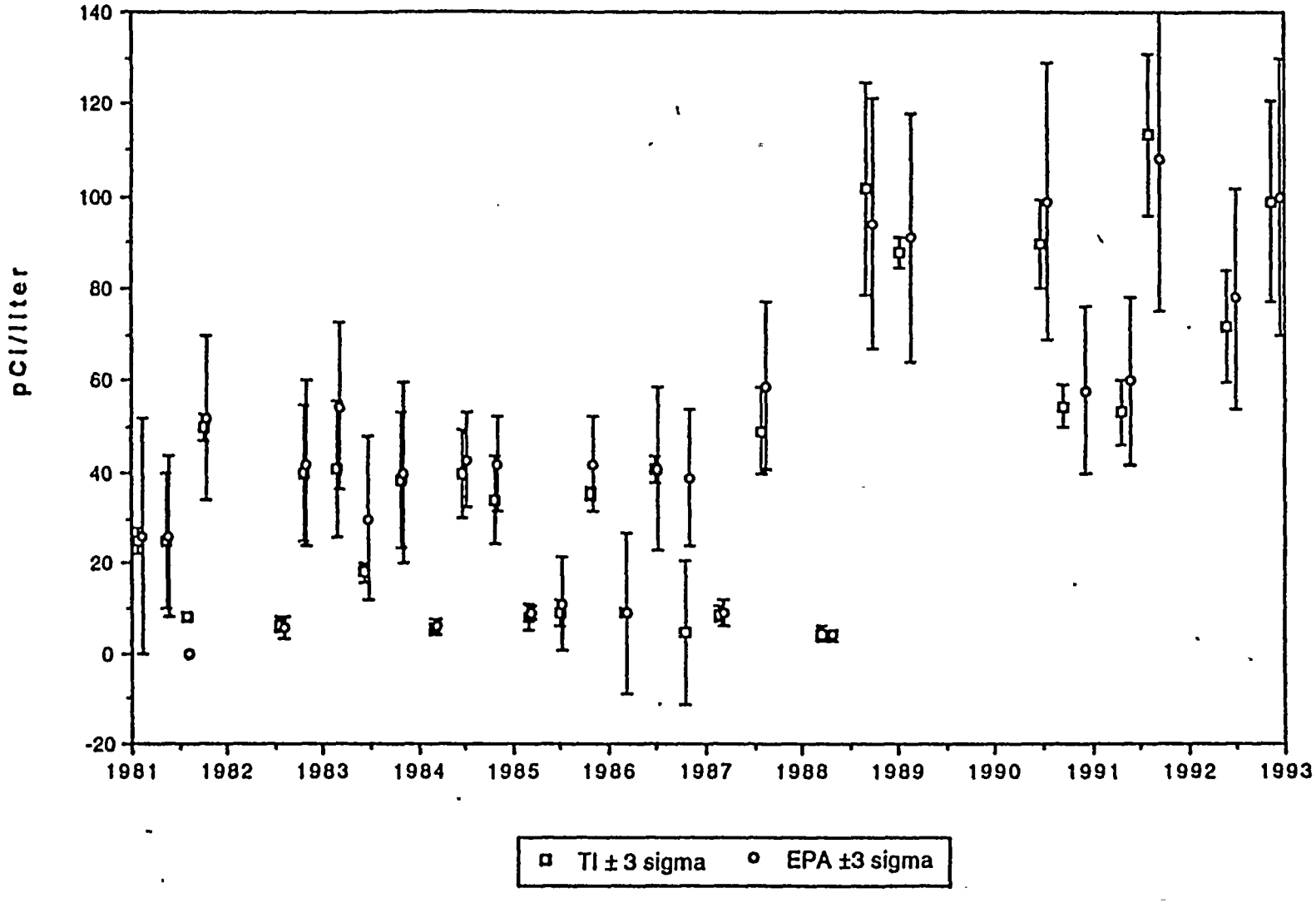


FIGURE C-6
EPA CROSS CHECK PROGRAM - IODINE-131 IN MILK

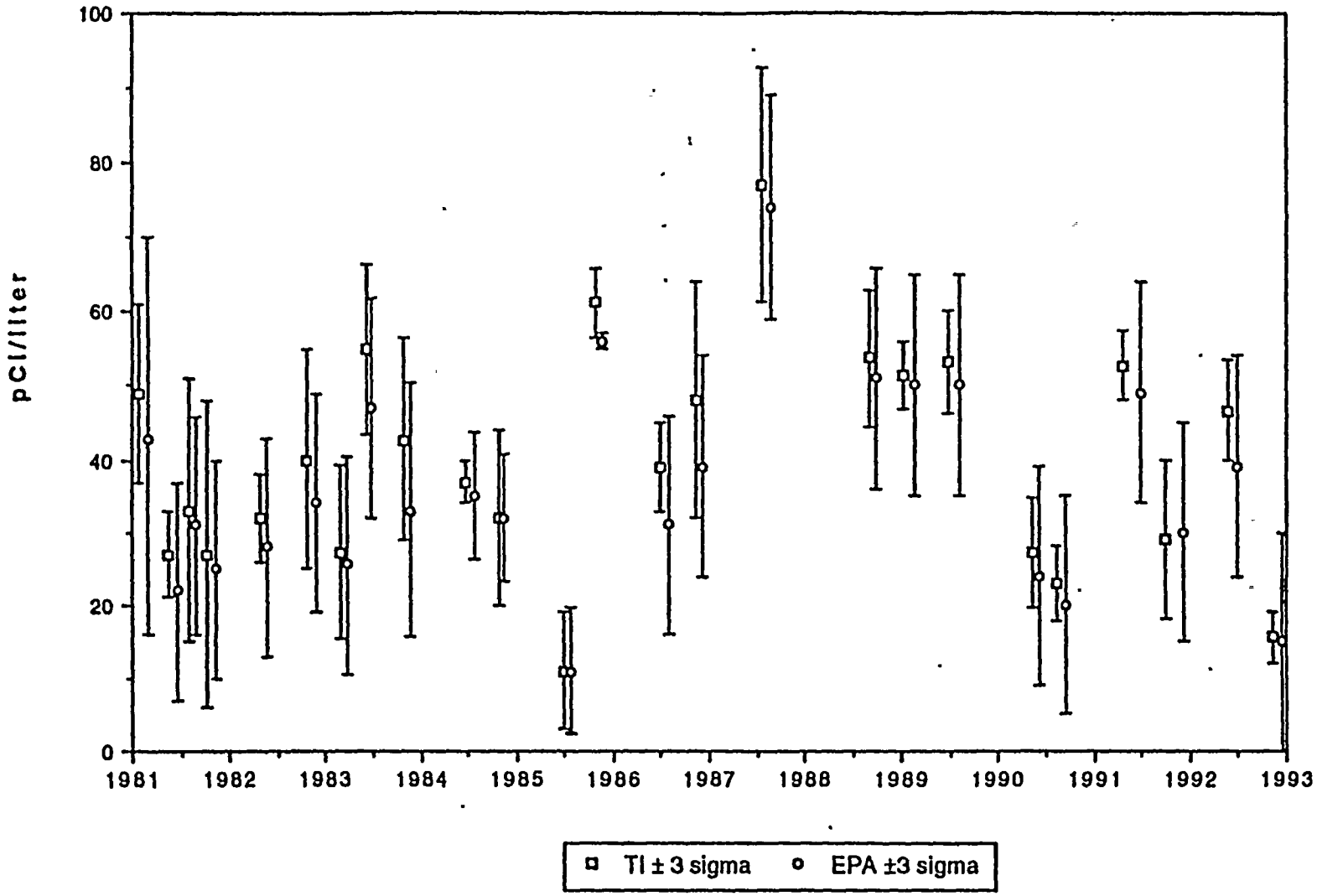


FIGURE C-7
EPA CROSS CHECK PROGRAM - CESIUM-137 IN MILK

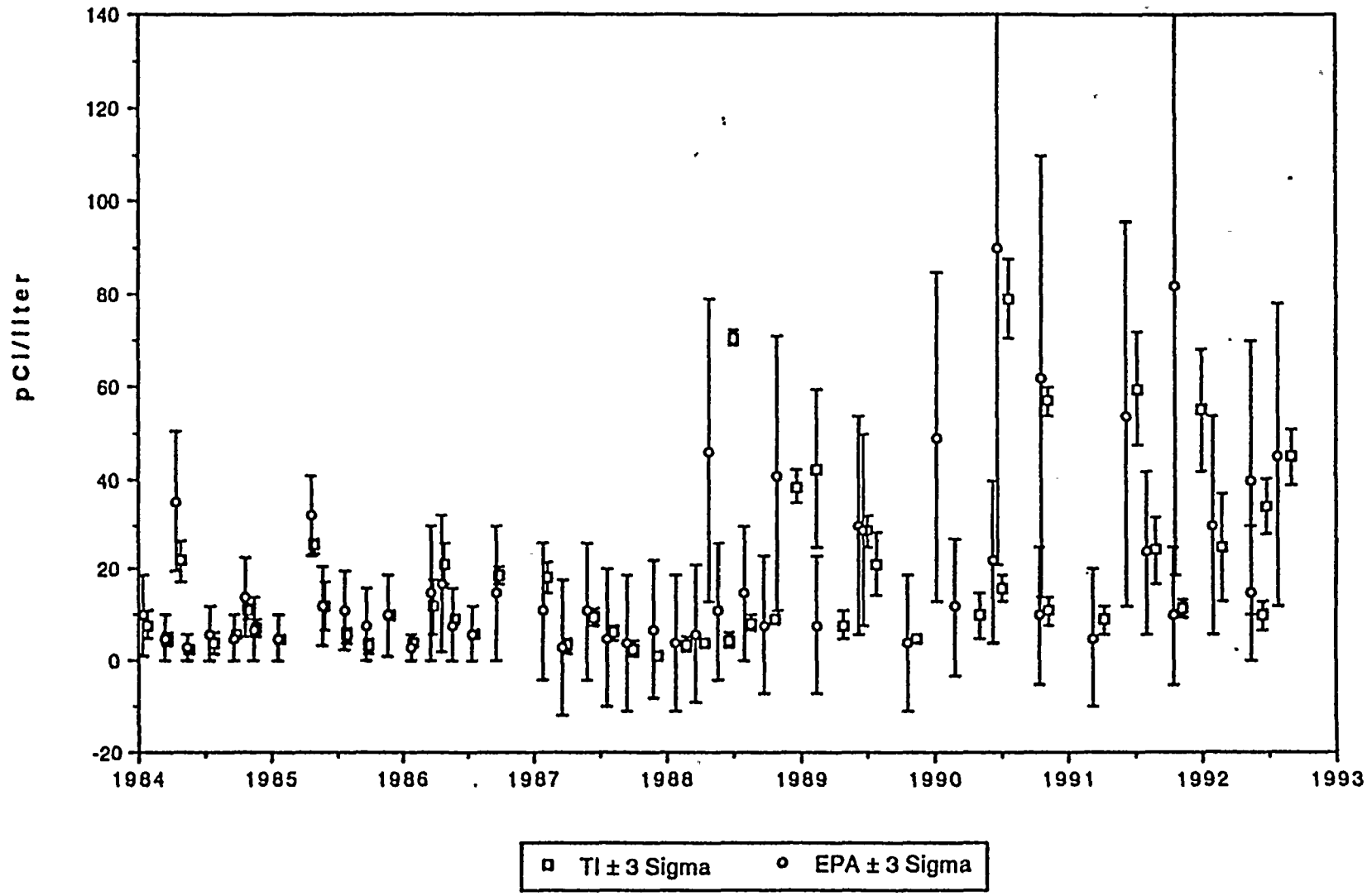


FIGURE C-8
EPA CROSS CHECK PROGRAM - GROSS ALPHA IN WATER

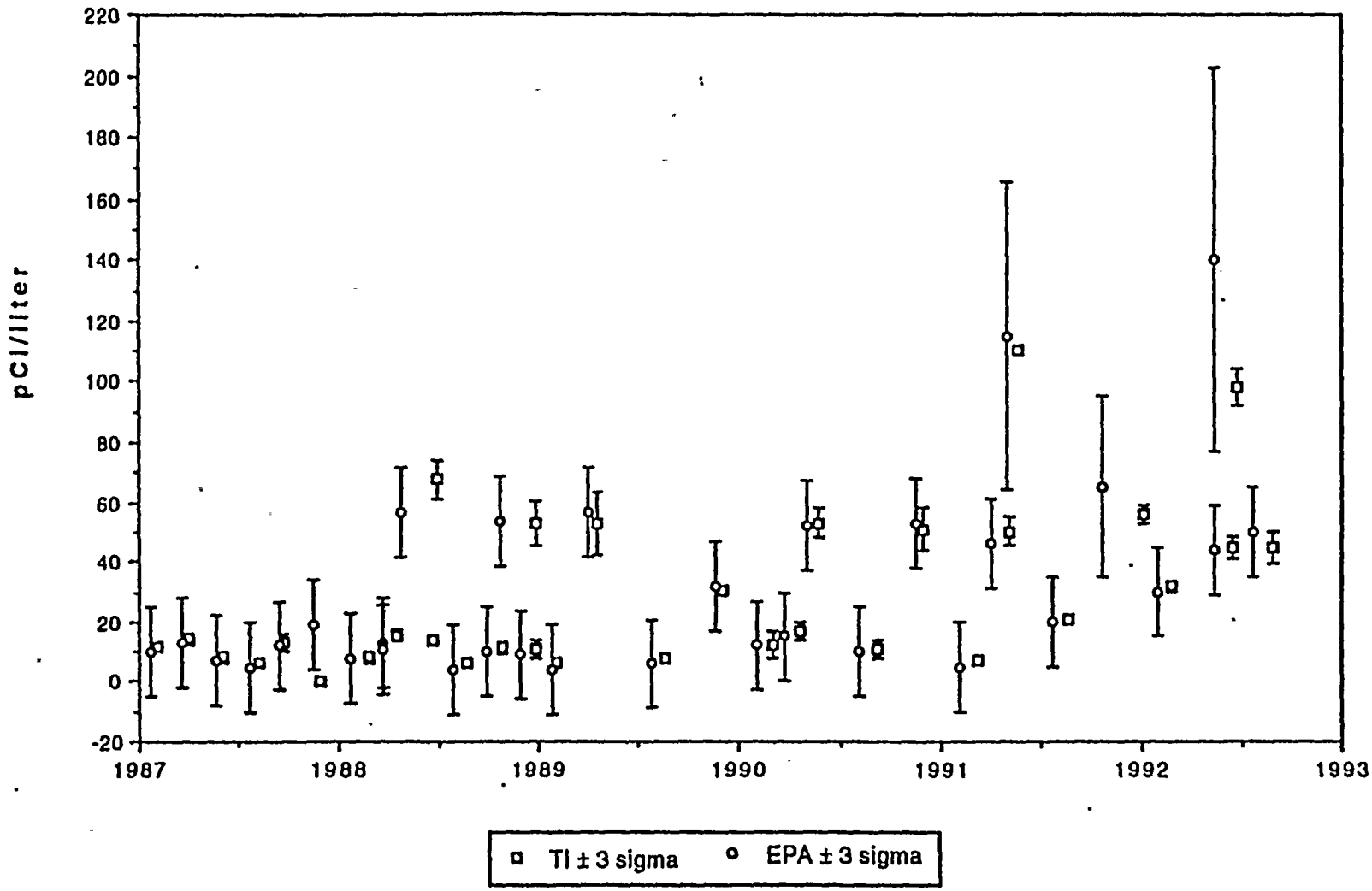
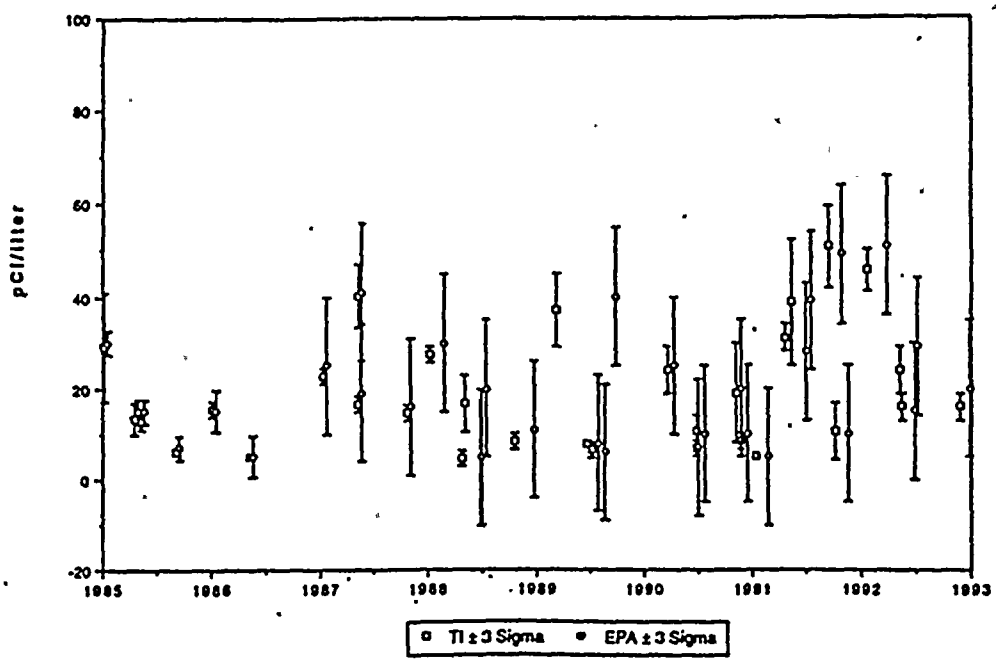
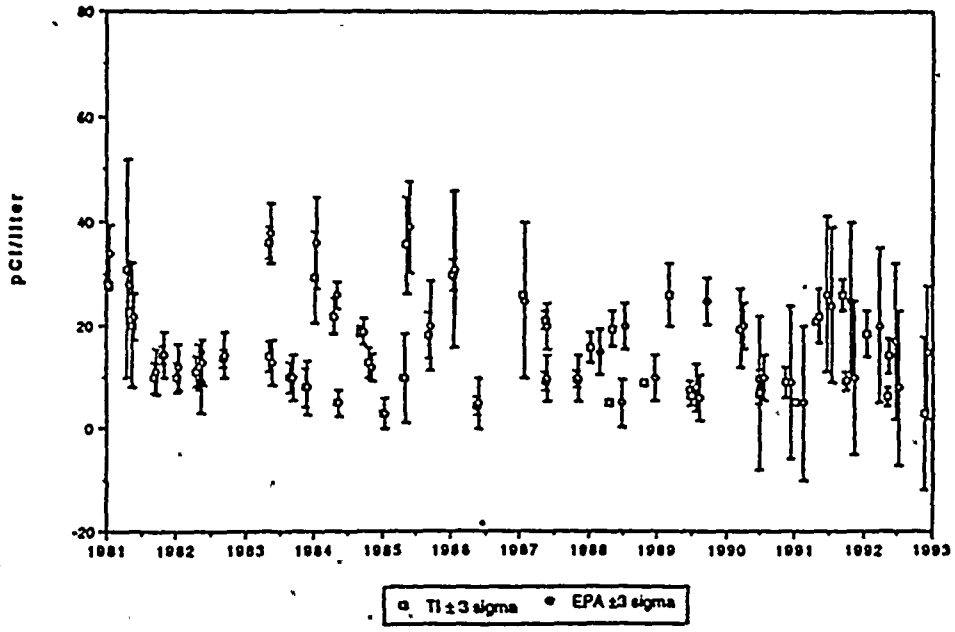


FIGURE C-9
EPA CROSS CHECK PROGRAM - GROSS BETA IN WATER



Strontium-89



Strontium-90

FIGURE C-10
EPA CROSS CHECK PROGRAM - STRONTIUM IN WATER

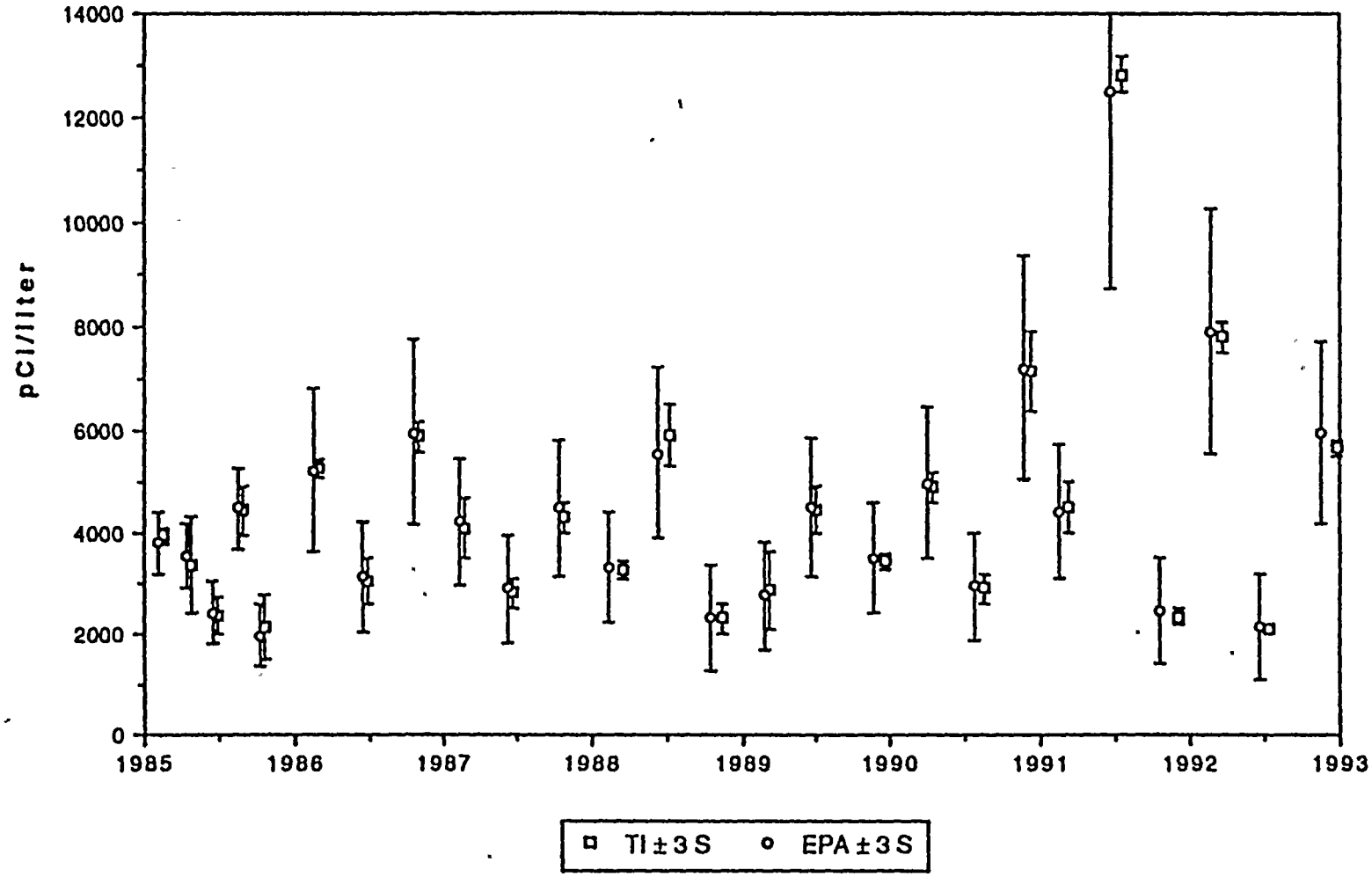


FIGURE C-11
EPA CROSS CHECK PROGRAM - TRITIUM IN WATER

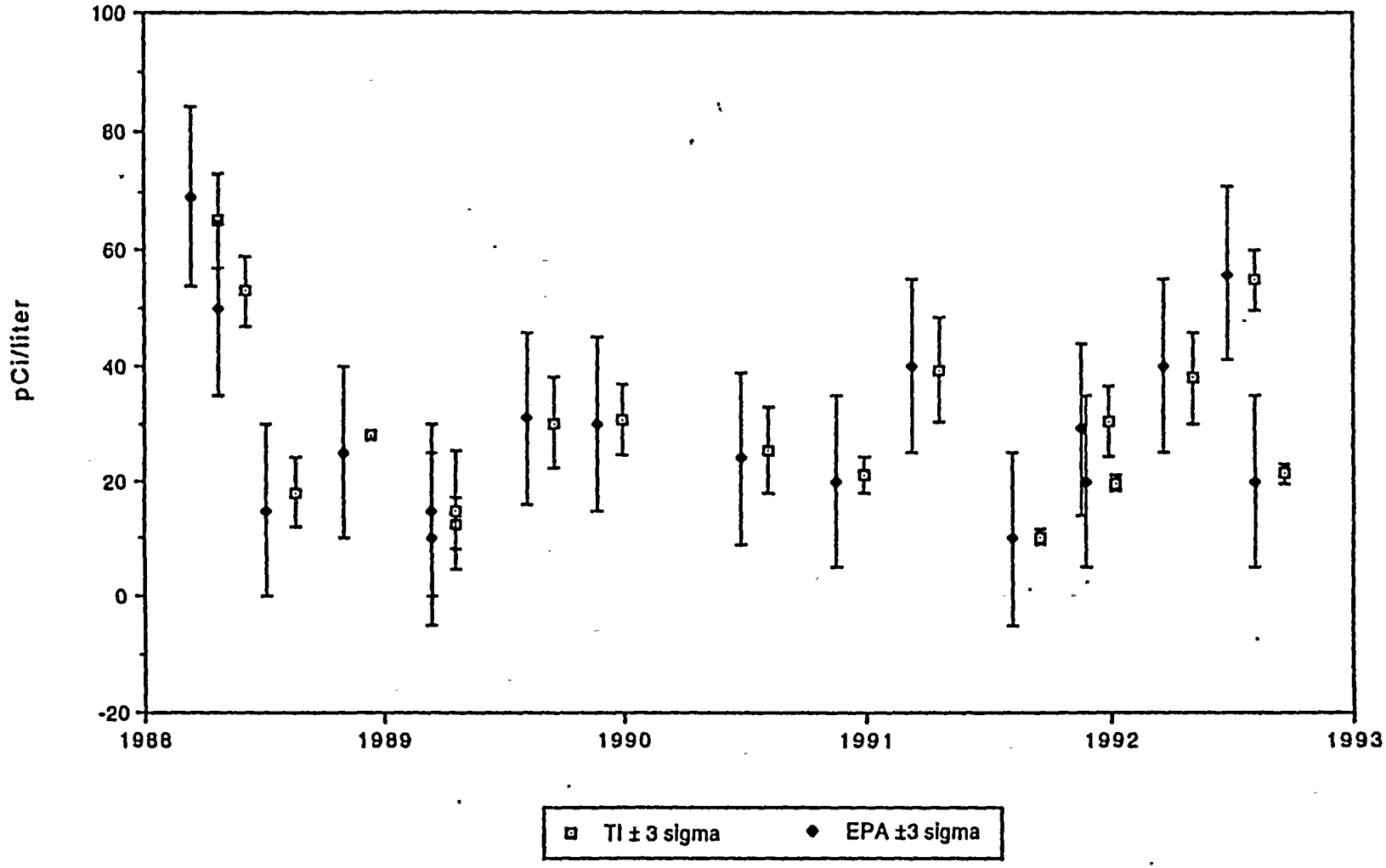


FIGURE C-12
EPA CROSS CHECK PROGRAM - COBALT-60 IN WATER

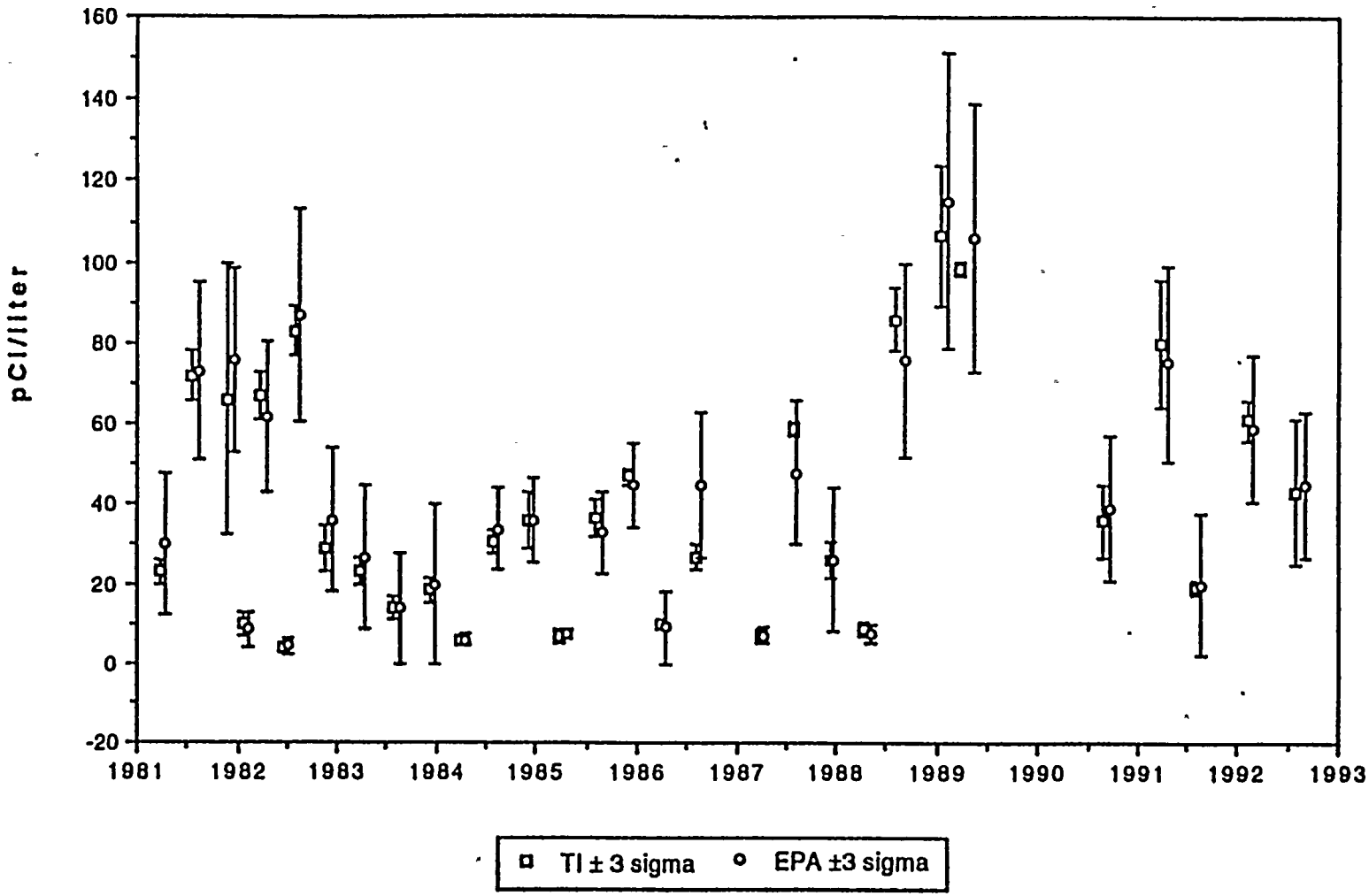
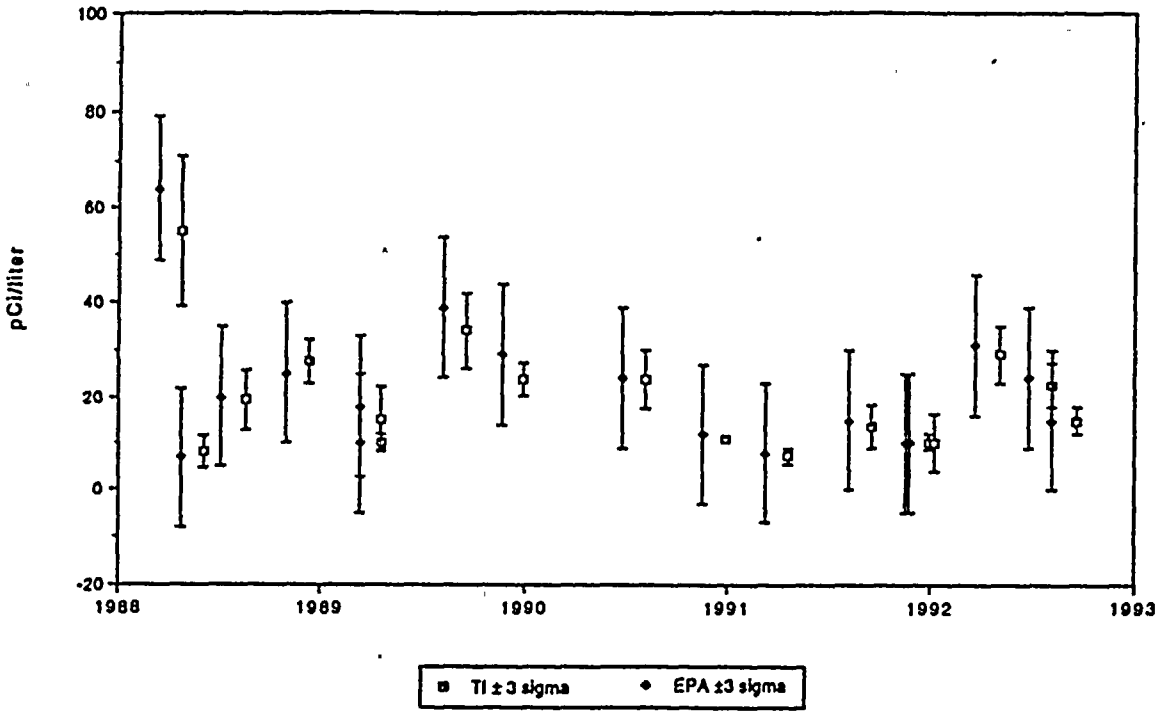
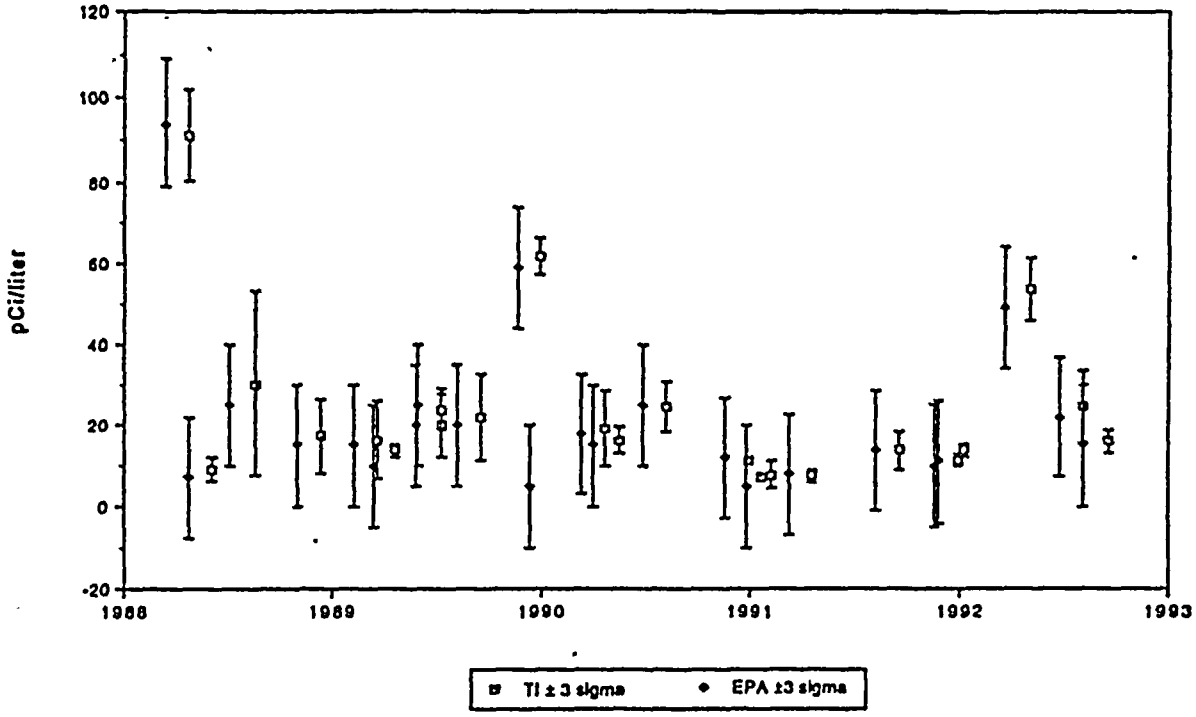


FIGURE C-13
EPA CROSS CHECK PROGRAM - IODINE IN WATER



Cesium-134



Cesium-137

FIGURE C-14
EPA CROSS CHECK PROGRAM - CESIUM IN WATER

APPENDIX D: 1992 SAMPLE DEVIATIONS

1992 Sample Deviations

This year the composite sampling equipment outages at Station 27 accounted for a small portion of the deviations for that sample. Periods when blowdown flows were greater than 4000 gpm account for most of the deviations noted for that station, since the flow-measuring equipment can not distinguish flowrates greater than 4000 gpm Electrical outages at the BPA switching stations (Stations 5 and 23) accounted for more of the loss of air sampling time: These deviations and all the others for 1992 are presented in Table D-1 which follows.

TABLE D-1
1992 SAMPLE DEVIATIONS

SAMPLE MEDIA	DATE	LOCATION	PROBLEM
Air Particulate/ Iodine	01/27 to 02/03	Station 5	Blown Fuse, Reduced hours
	03/09	Station 1	Blown Fuse, Reduced hours
	03/23	Station 23	Blown Fuse, Reduced hours
	03/30 to 04/06	Station 40	Blown Fuse, Reduced hours
	04/20 to 04/27	Station 21	Unit pump failure, reduced hours
	05/04 to 05/11	Station 23	Power off due to outage work
	05/26	Station 23	Reset pump
	06/15 to 06/22	Station 5	Pump failure, reduced hours
	07/13	Station 5	Pump failure, reduced hours
	07/20	Station 48	Pump failure, reduced hours
	08/3	Station 48	Blown Fuse, reduced hours
	08/10	Station 9	Pump failure, reduced hours
	08/24	Station 23	Pump failure, reduced hours
	09/28	Station 8	Blown fuse, reduced hours
Water	04/08 to 04/10	Station 27	Excessive flow; sample not proportional
	04/26	Station 27	Excessive flow; sample not proportional
	04/28 to 07/05	Station 27	Sampler operated in timed interv mode while maintenance performed on blowdown pumps; blowdown flow maintained constant
	06/21-06/25	Station 27	Excessive flow; sample not proportional
	08/06	Station 27	Excessive flow; sample not proportional
	08/11	Station 27	Excessive flow; sample not proportional
	08/19 to 08/24	Station 27	Excessive flow; sample not proportional
	09/15 to 09/18	Station 27	Out of service; no samples drawn
	10/09 to 10/11	Station 27	Excessive flow; sample not proportional

TABLE D-1 (Cont.)
1992 SAMPLE DEVIATIONS

SAMPLE MEDIA	DATE	LOCATION	PROBLEM
Water	10/21 to 10/22	Station 27	Excessive flow; sample not proportional.
	11/11	Station 27	Excessive flow; sample not proportional.
	12/19 to 12/31	Station 27	Excessive flow; sample not proportional.
TLD	06/25 to 06/26	Station 46	The second quarter/annual TLDs were missing; replaced Annual TLD.
	06/22	Station 61	Removed second quarter TLD upon owner's request.
	06/26	Station 54	TLD left in office for 2 weeks following second quarter; exchanged and returned to Dosimetry Lab July 9th.
Milk	06/09	Station 59	Re-established sampling under new management.
	07/14	Station 40	No milk, cow was calving.
Produce	04/28	Station 37	No leafy vegetables, fruit, or root; too early in season, asparagus only sample.
	05/19	Station 37	No leafy vegetables, fruit, or root; too early in season; asparagus only sample.
	08/29	Station 37	No leafy vegetables

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Senior Env. Licensing Engineer
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Mail Drop 927K

Environmental Programs Library
Mail Drop 1020

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Mail Drop PE20

W.A. Kiel
Senior State Liaison
Mail Drop PE20

P.J. Macbeth, Supervisor
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