WSRC-TR-95-077

Savannah River Site
Environmental Data for 1994

Environmental Monitoring Section
Environmental Protection Department

Westinghouse Savannah River Company
Savannah River Site
Aiken, SC 29808

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WSRC-TR-95-077

Savannah River Site Environmental Data for 1994

Editor

Margaret W. Arnett

Prepared for the U.S. Department of Energy under contract No. DE-AC09-89SR18035
Westinghouse Savannah River Company
Savannah River Site, Aiken, SC 29808

MASTER

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Introduction

Tables in this document present data from routine environmental monitoring and surveillance programs at the Savannah River Site. An attempt has been made to include all available data from environmental research programs.

The first section of the book is a collection of maps of radiological and nonradiological sampling locations. Also included are a list of the media sampled, along with sample sizes and representative aliquots; the minimum detectable concentrations for gamma analysis of water and air samples; the minimum detectable concentrations for gamma analysis of soil, food, fish and wildlife, and vegetation samples; and a list of the minimum detectable concentrations for Environmental Monitoring Section radiological analyses.

Following the first section are tables containing radiological and nonradiological effluent monitoring results, radiological and nonradiological environmental surveillance results, dose estimates, quality assurance data, and special surveys results. Because of space requirements of data table columns, many abbreviations are used. To assist the reader with these abbreviations, a list of radionuclide and chemical nomenclature has been included following this introduction.

Data tables sometimes present fewer results than would be expected according to the frequency described in the sampling and analysis schedules. There are several reasons for this. Problems may have arisen with sample collection, such as loss of power to the sampling site or inaccessibility to the sampling site (locked gates, flooding, etc.). Results for collected samples can be rejected for such reasons as insufficient sample volume, low chemical yield, or equipment failure. The "number of samples" columns in the tables refer to the number of results used to determine maximum, minimum, and average concentrations.

The following should aid the reader in interpreting the data:

- The uncertainty term is reported with up to three significant figures. In most cases, the last significant figure is determined by the quantification of the uncertainty term.
- The reported uncertainty reflects only the counting error—not other components of random and systematic error present in the measurement process. For this reason, some results may imply a greater confidence than the determination would suggest.
- Uncertainties quoted with means represent the deviation of measurements about the mean value. This number is calculated from the results themselves and does not account for the uncertainties of the individual results.
- Averages were calculated using both positive and negative results, except for gamma-emitting radionuclides, whose less-than-detectable results were not considered in the averages.
- In tables containing arithmetic mean, maximum, and minimum columns, when only one sample was collected, sometimes only the single result is reported in the arithmetic mean column.

An errata page follows the tables.

Information in this book is summarized in the *Savannah River Site Environmental Report for 1994* (WSRC–TR–95–075). Information about the environmental monitoring program, including a complete description of the Environmental Protection Department/Environmental Monitoring Section sampling and analytical procedures, can be found in sections 1101–1111 (SRS EM Program) of the *Savannah River Site Environmental Monitoring Section Plans and Procedures*, WSRC–3Q1–2, Volume 1, which is scheduled to be issued in 1995.

To obtain copies of environmental reports and documents, contact

Manager, Environmental Sampling and Reporting
Westinghouse Savannah River Company
Building 735–16A
Aiken, SC 29808
Telephone: 803–725–3556

Radionuclide and Chemical Nomenclature

Nomenclature and Half-Life for Radionuclides

Radionuclide	Symbol	Half-life[a,b]
Americium-241	Am-241	432.7 y
Americium-243	Am-243	7.37E3 y
Antimony-125	Sb-125	2.7 y
Argon-41	Ar-41	1.83 h
Beryllium-7	Be-7	53 d
Californium-252	Cf-252	2.638 y
Carbon-14	C-14	5,730 y
Cerium-141	Ce-141	33 d
Cerium-144	Ce-144	284 d
Cesium-134	Cs-134	2.05 y
Cesium-137	Cs-137	30 y
Cobalt-58	Co-58	71.3 d
Cobalt-60	Co-60	5.26 y
Curium-242	Cm-242	163 d
Curium-244	Cm-244	17.6 y
Iodine-129	I-129	1.7E7 y
Iodine-131	I-131	8.05 d
Krypton-85	Kr-85	10.76 y
Krypton-88	Kr-88	2.8 h
Manganese-54	Mn-54	312 d
Niobium-95	Nb-95	35 d
Osmium-185	Os-185	94 d
Phosphorus-32	P-32	14.3 d
Polonium-210	Po-210	138.4 d
Plutonium-238	Pu-238	87.4 y
Plutonium-239	Pu-239	2.4E4 y
Potassium-40	K-40	1.26E9 y
Promethium-147	Pm-147	2.62 y
Ruthenium-103	Ru-103	39.6 d
Ruthenium-106	Ru-106	367 d
Selenium-75	Se-75	120.4 d
Strontium-89	Sr-89	52 d
Strontium-90	Sr-90	28.1 y
Tritium	H-3	12.3 y
Uranium-235	U-235	7.1E8 y
Uranium-238	U-238	4.5E9 y
Xenon-133	Xe-133	5.27 d
Xenon-135	Xe-135	9.16 h
Yttrium-90	Y-90	64 h
Zirconium-95	Zr-95	65 d

a h = hour; d = day; y = year
b Reference: Chart of the Nuclides, 14th edition, revised to April 1988, General Electric Company

Nomenclature for Elements and Chemical Constituent Analyses

Constituent	Symbol
Aluminum	Al (or AL)
Ammonia	NH_3
Ammonia as Nitrogen	NH_3–N (or AN)
Antimony	Sb (or SB)
Arsenic	As
Barium	Ba
Biochemical Oxygen Demand	BOD
Benzene	BEN
Beryllium	Be
Cadmium	Cd
Calcium	Ca
Calcium Carbonate	$CaCO_3$
Carbon	C
Chemical Oxygen Demand	COD
Chlorine	Cl (or CHL)
Chromium	Cr (or CR)
Cobalt	Co
Copper	Cu (or CU)
Cyanide	CN
Dissolved Oxygen	DO
Fecal Coliform	FEC
Flow	FLO
Fluorine	F
Iron	Fe
Lead	Pb (or PB)
Lithium	Li
Magnesium	Mg
Manganese	Mn (or MN)
Mercury	Hg (or HG)
Nickel	Ni (or NI)
Nitrogen	N
Nitrate as Nitrogen	NO_3_N
Oil and Grease	O&G
Oxygen	O
Ozone	O_3
Particulate Matter <10 microns	PM_{10}
Perclene	PERCL
pH	PH
Phenol	PHE
Phosphorus	P
Phosphate	PO_4 (or PHOS)
Phosphate as Phosphorus	Phosphate P
Polychlorinated Biphenyl	PCB
Potassium	K
Radium	Ra

Nomenclature for Elements and Chemical Constituent Analyses

Constituent	Symbol
Rhenium	Re
Selenium	Se (or SE)
Silver	Ag
Sodium	Na
Sulfate	SO_4
Sulfur Dioxide	SO_2
Temperature	TMP
Tetrachloroethylene (Perchloroethylene)	PERCL
Trichloroethylene	TRICL
1,1,1–Trichloroethane	TCE
Thallium	Tl
Tin	SN
Total Dissolved Solids	TDS
Total Kjeldahl Nitrogen	TKN
Total Organic Carbon	TOC
Total Organic Halogens	TOH
Total Phosphates	TPO_4
Total Residual Chlorine	TRC
Total Solids	TS
Total Suspended Solids	TSS
Uranium	U
Uranium (tested as a heavy metal)	U_3O_8
Vanadium	V
Volatile Organic Compound	VOC
Zinc	Zn

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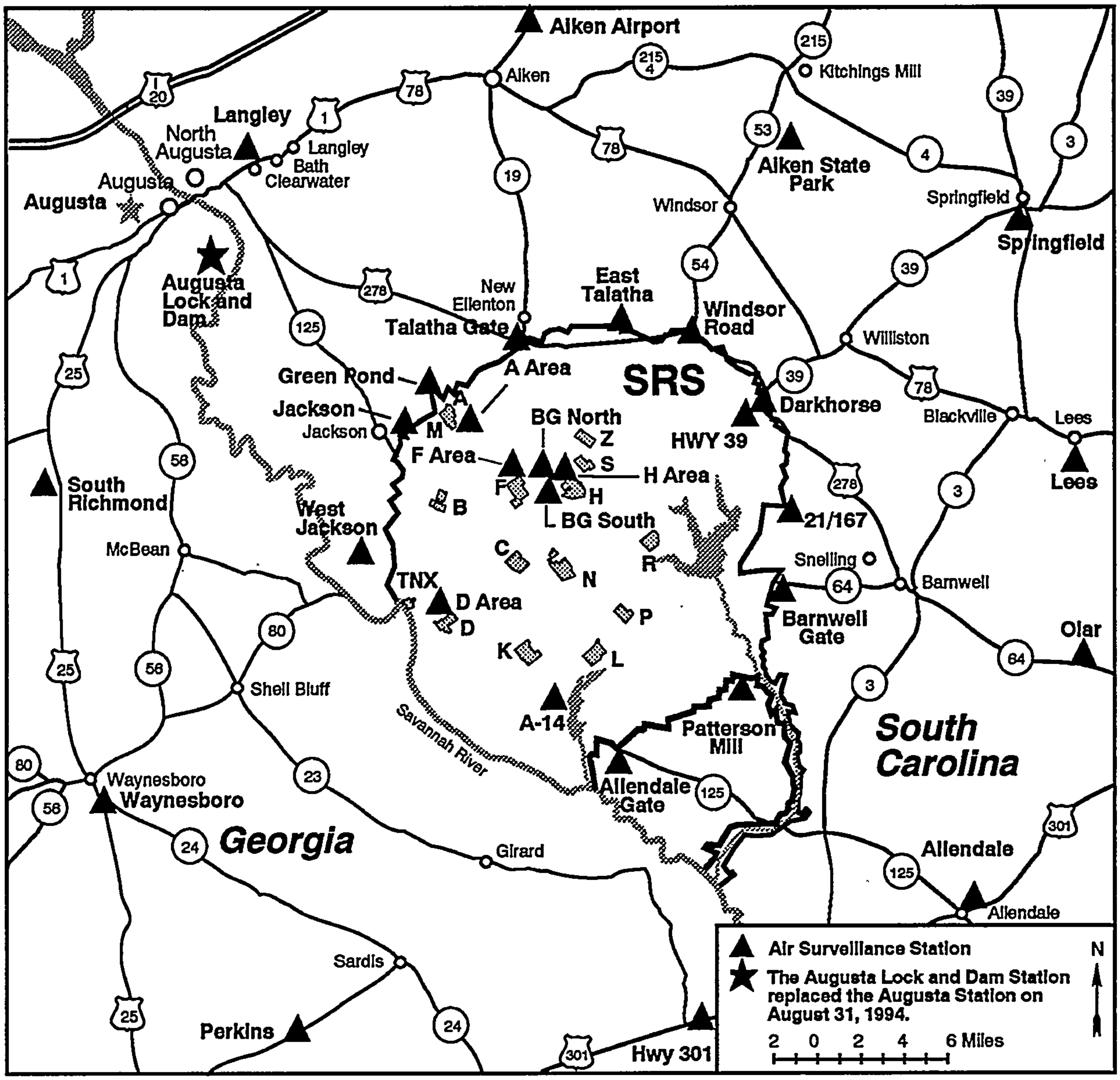

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Figure 1 Radiological Air Surveillance Stations
The SRS air surveillance program consists of 31 stations located within 25 miles of the site and four stations (not shown) approximately 100 miles from the site.

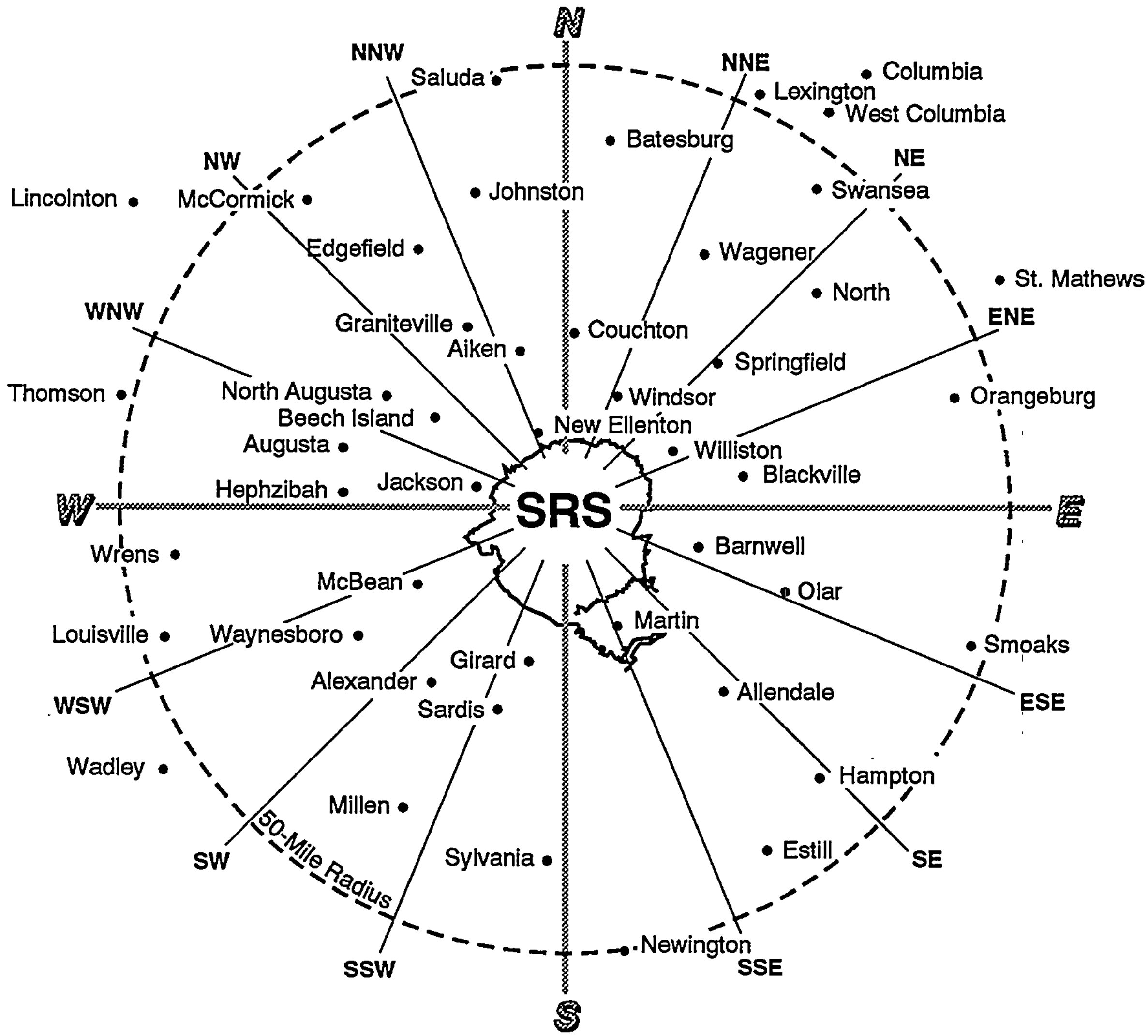

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Figure 2 Offsite TLD Surveillance Locations
Ambient gamma exposure rates are monitored in cities and towns within a 50-mile radius of SRS.

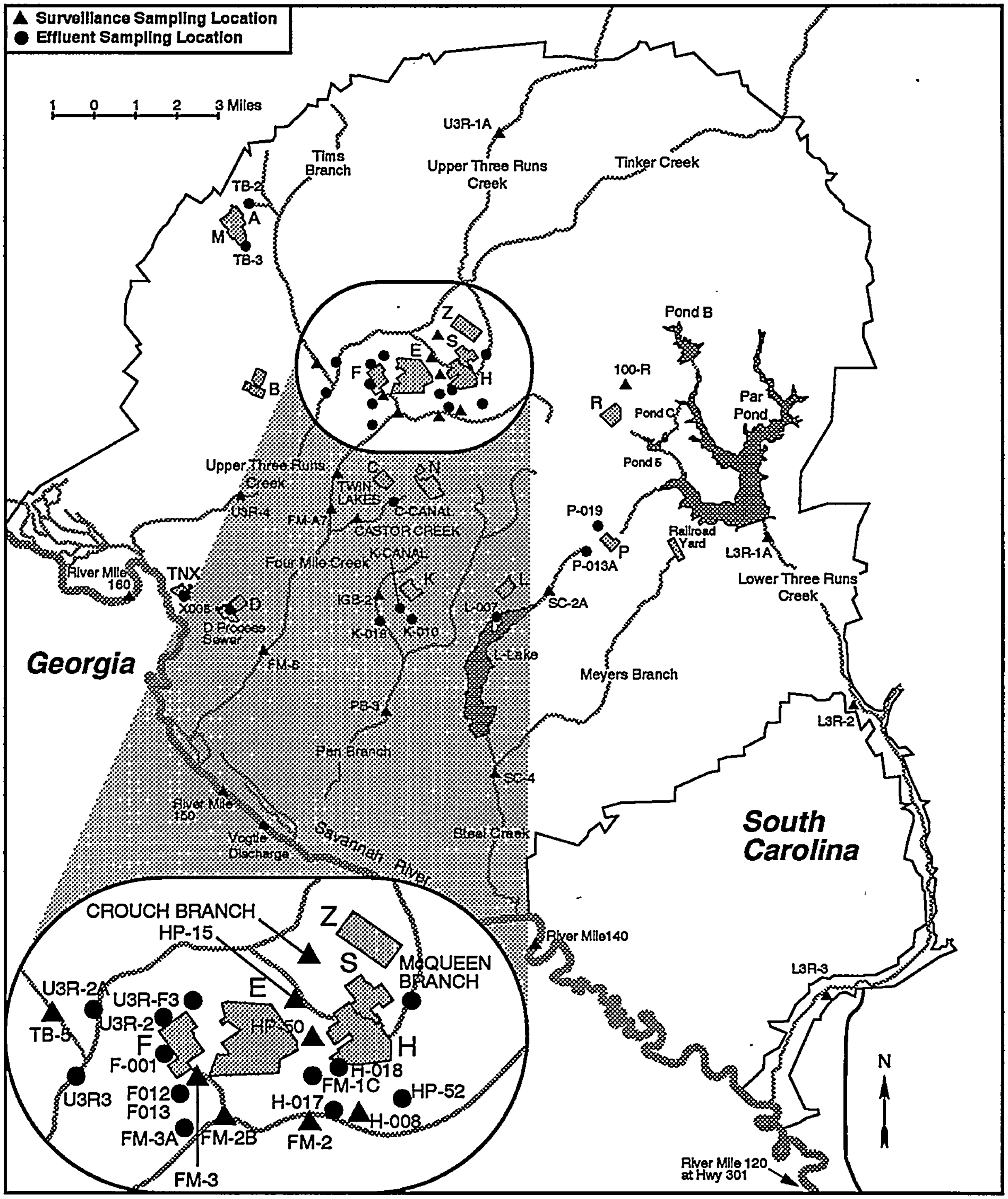

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Figure 3 Radiological SRS Surface Water Sampling Locations
Surveillance and effluent sampling points are located on SRS seepage basins and streams and on the Savannah River.

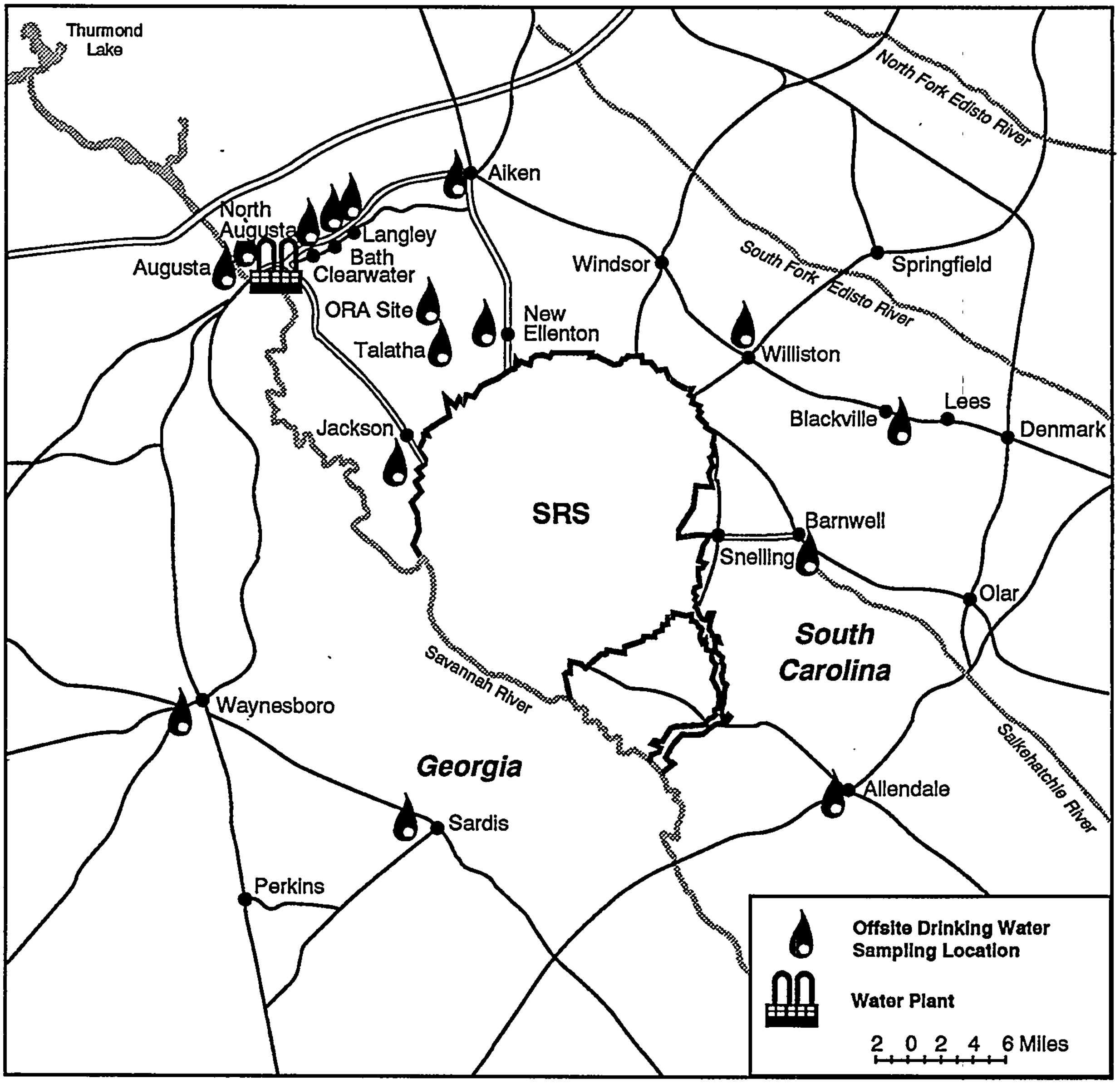

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Figure 4 Radiological Offsite Drinking Water Sampling Locations
SRS collects drinking water samples from 16 offsite locations within a 30-mile radius and from three water treatment plants, one of which is shown on the map.

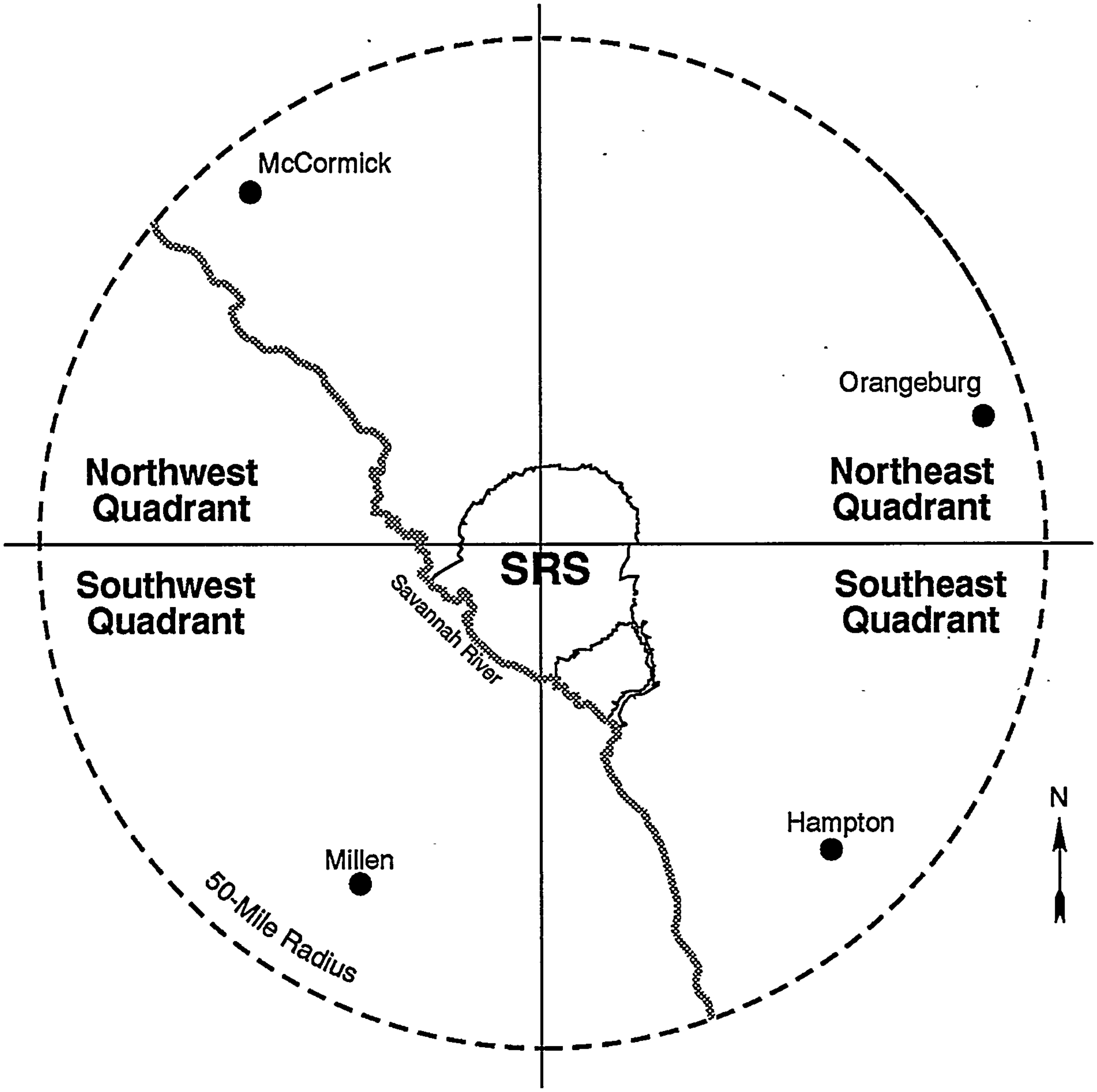

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Figure 5 Radiological Food Product Sampling Locations (50-Mile)
In 1993, the food product sampling program was expanded to include 50-mile-radius locations. The collection points correspond to general geographic areas because exact locations vary from year to year and crop to crop.

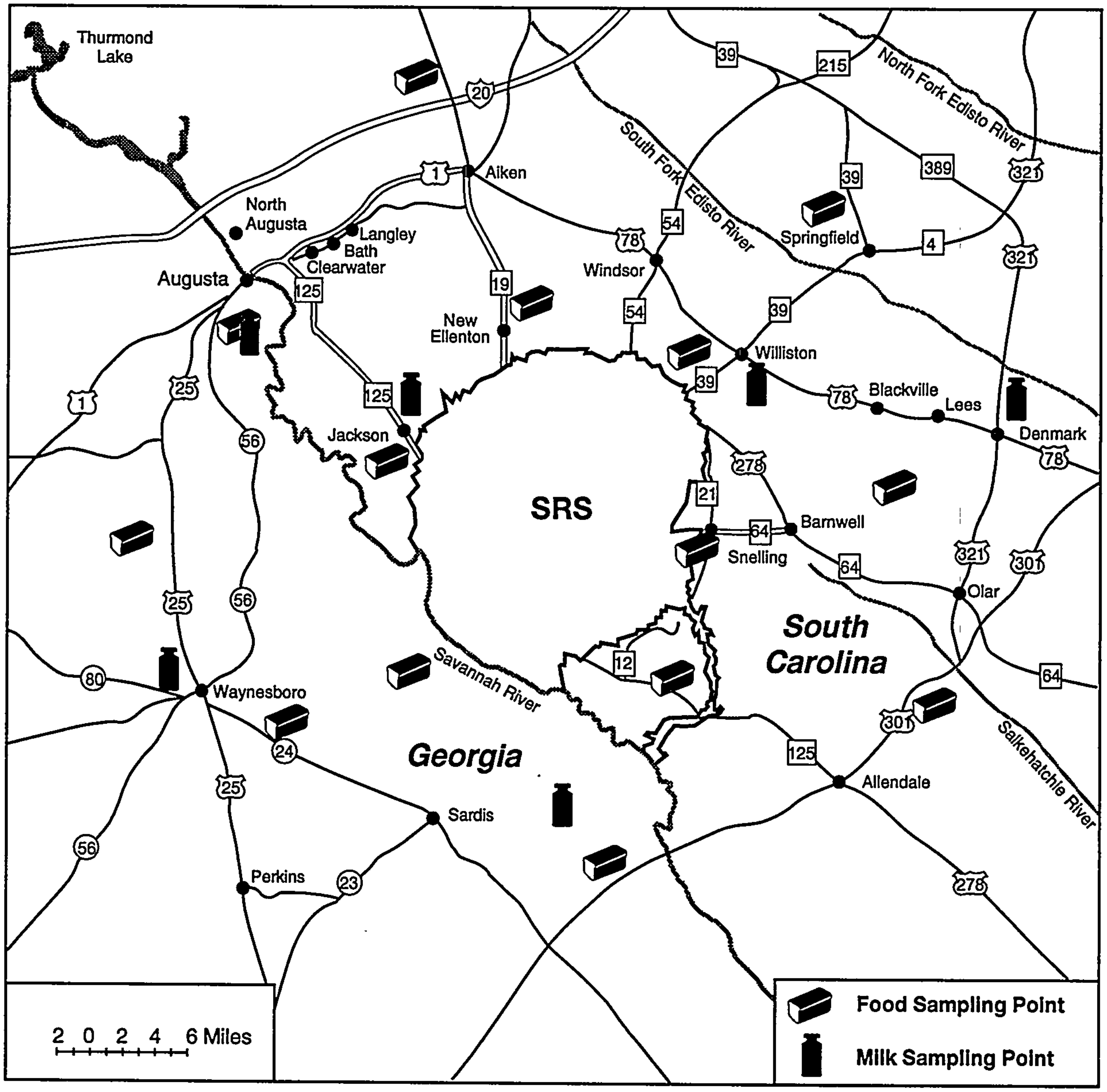

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Figure 6 Radiological Food Product Sampling Locations (Perimeter and 25-Mile)
Food product collection points correspond to general geographic areas because exact locations vary from year to year and crop to crop. Food samples are collected annually, except for eggs (collected quarterly) and milk (collected quarterly and monthly).

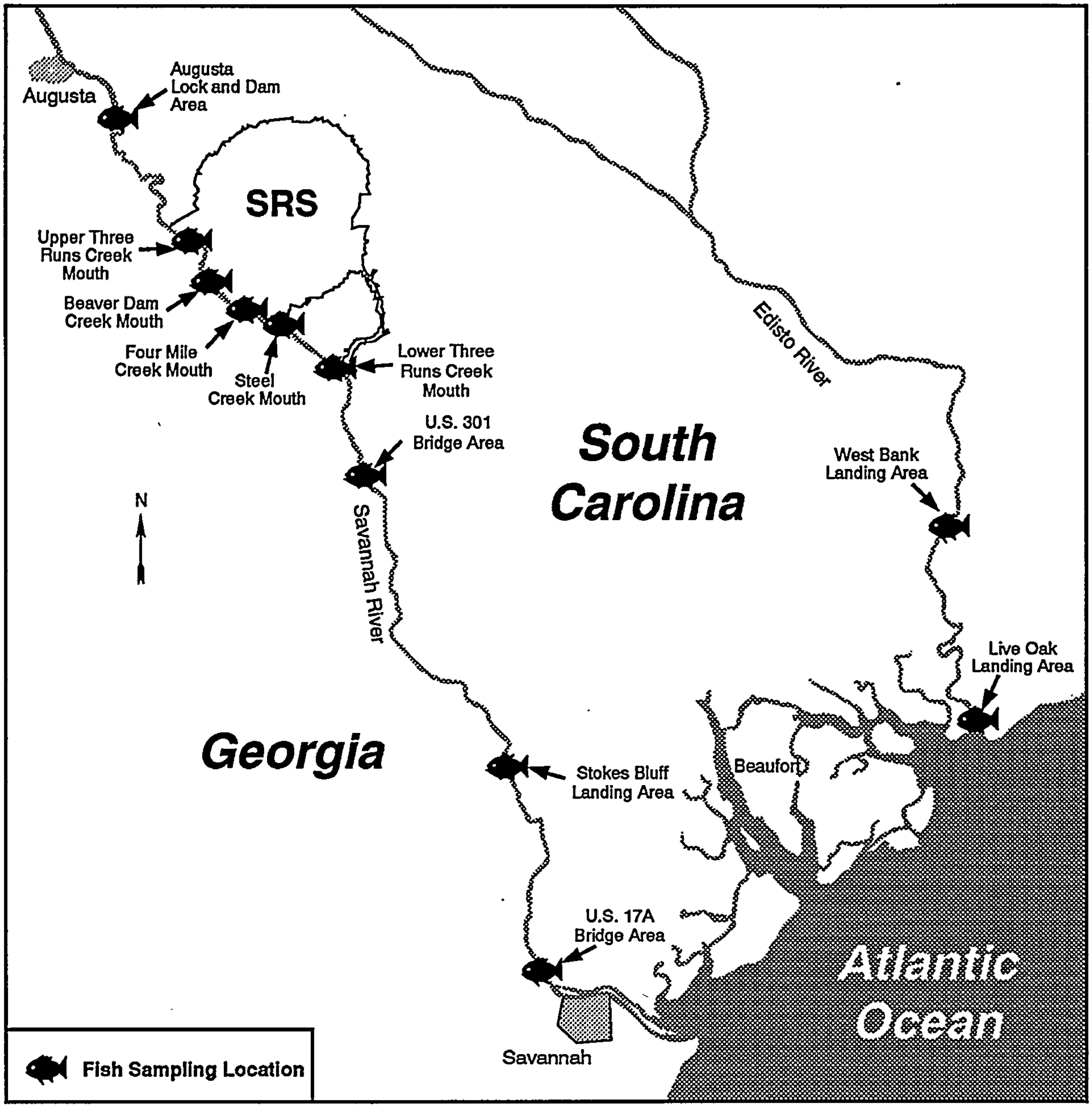

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Figure 7 Fish Sampling Points on the Savannah River and at Control Locations
SRS collects fish from the Savannah River above the site, adjacent to the site, and near the river mouth, as well as from the Edisto River at two control locations. (No fish were caught at the Live Oak Landing Area control location in 1994.)

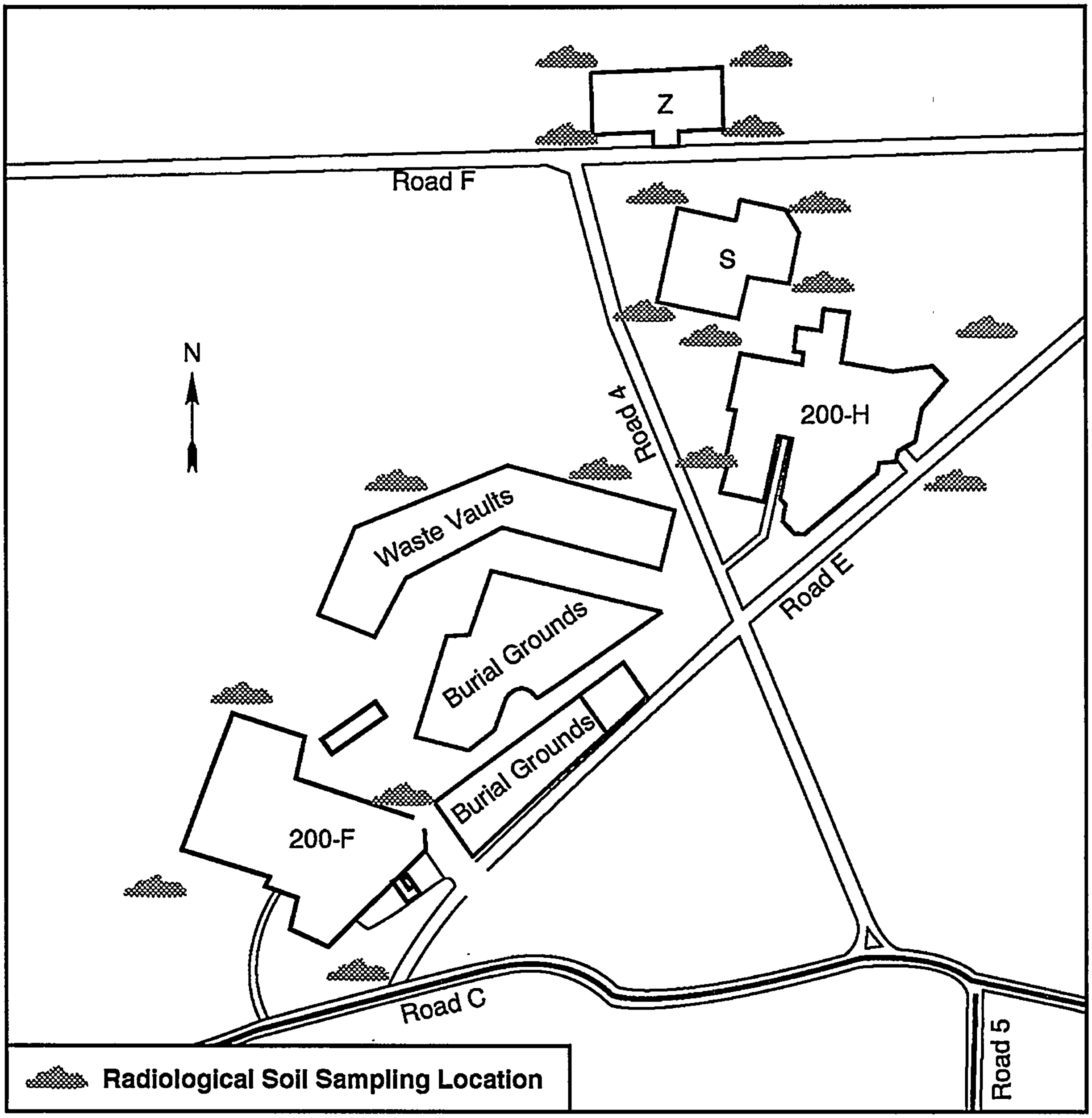

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Figure 8 Radiological Soil Sampling Locations
SRS collects soil samples from 22 onsite locations (four perimeter locations not shown) and two offsite locations.

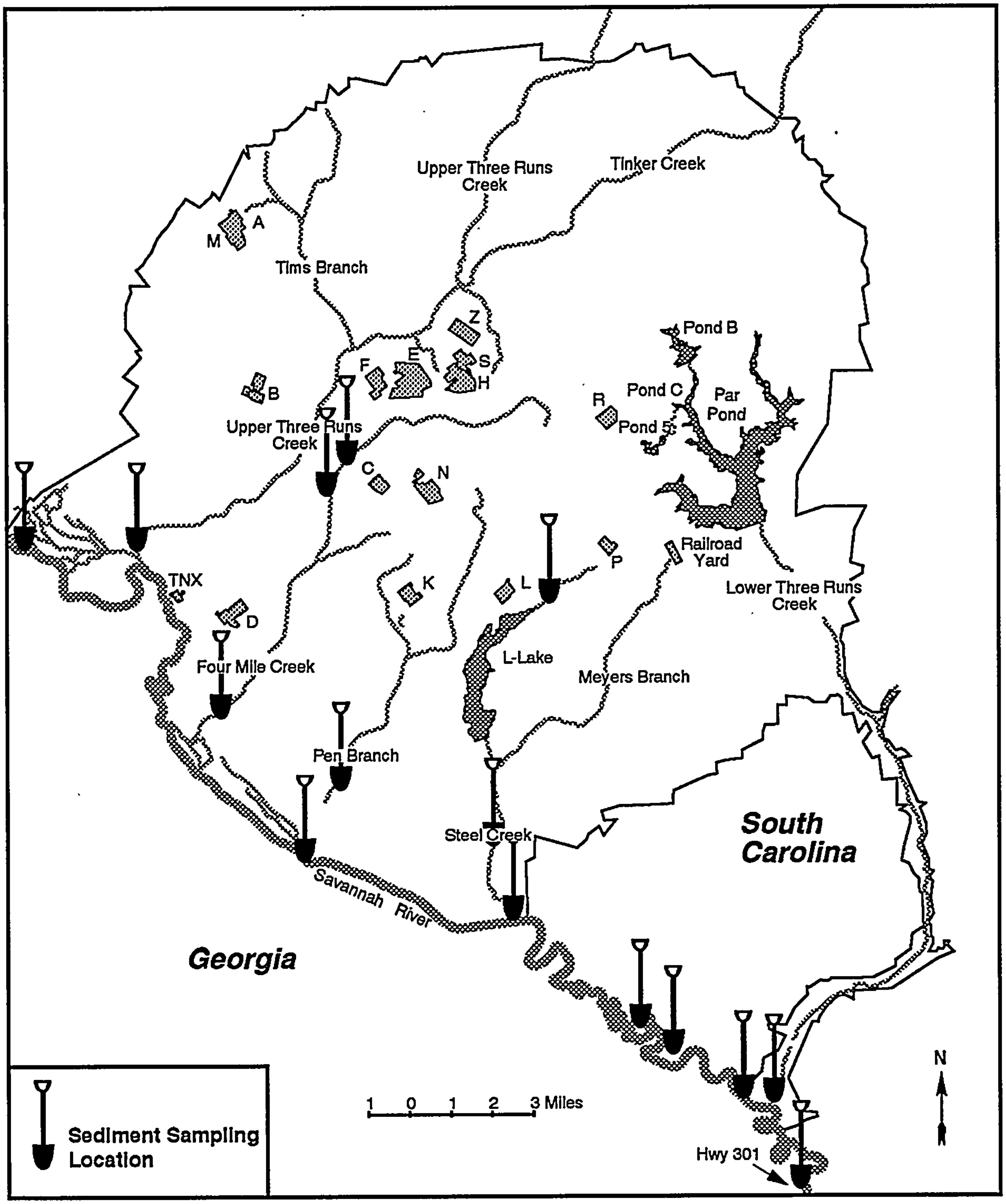

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Figure 9 Radiological Sediment Sampling Locations
Sediment samples are collected at six Savannah River locations—upriver of, adjacent to, and downriver of the site—and nine site stream locations.

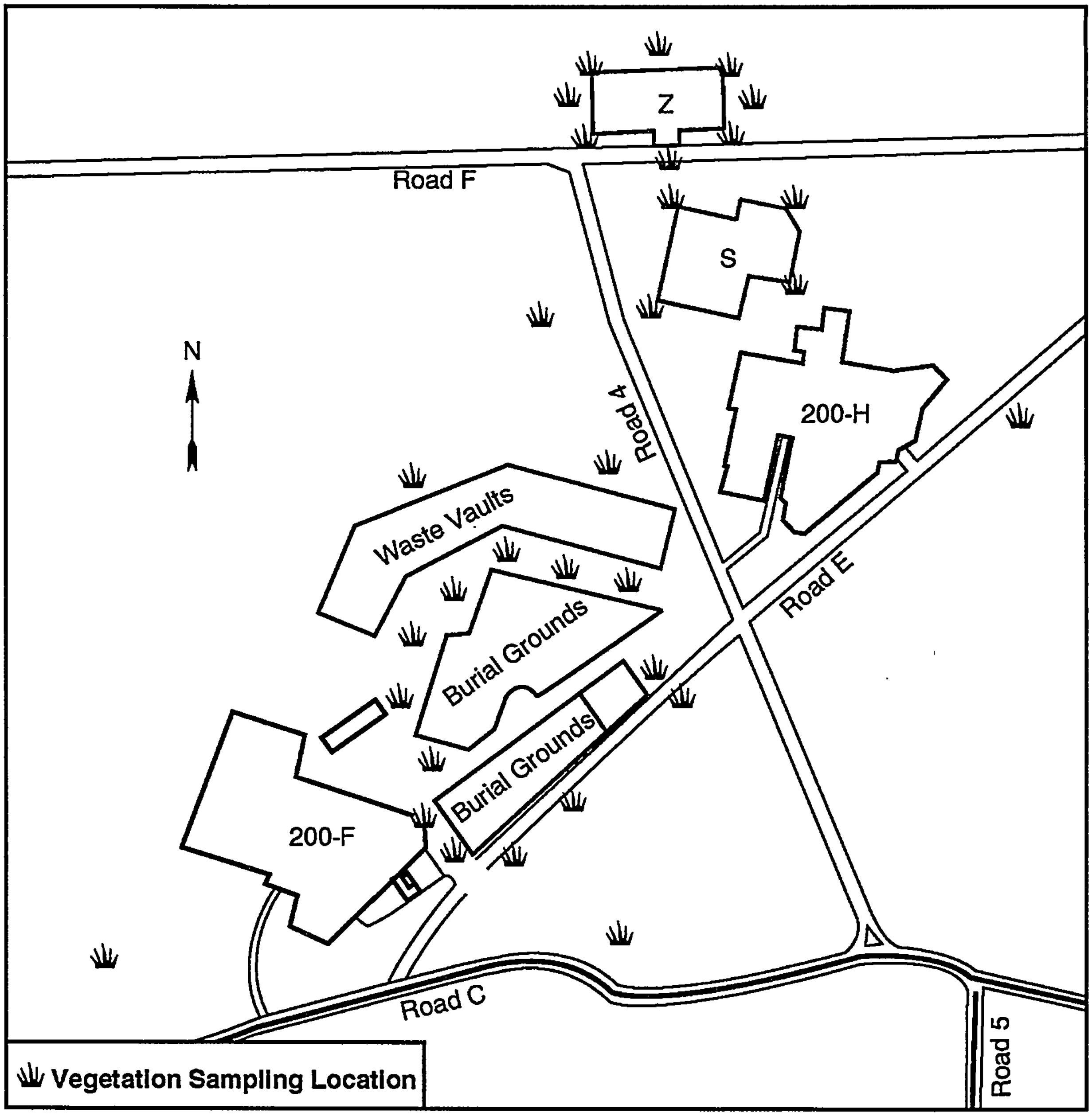

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Figure 10 Radiological Onsite Quarterly (18) and Outside SWDF (13) Vegetation Sampling Locations

SRS collects vegetation samples quarterly from 31 onsite locations. Table 39 contains data from locations 1–13 outside the Solid Waste Disposal Facility, which houses buried waste. The two other SWDF perimeter sampling locations (643–26E#1 and 643–26E#2) were added in 1993 to develop baseline information prior to the startup of the 643–26E burial ground expansion. Data from these locations are reported in Table 38, along with other quarterly samples data.

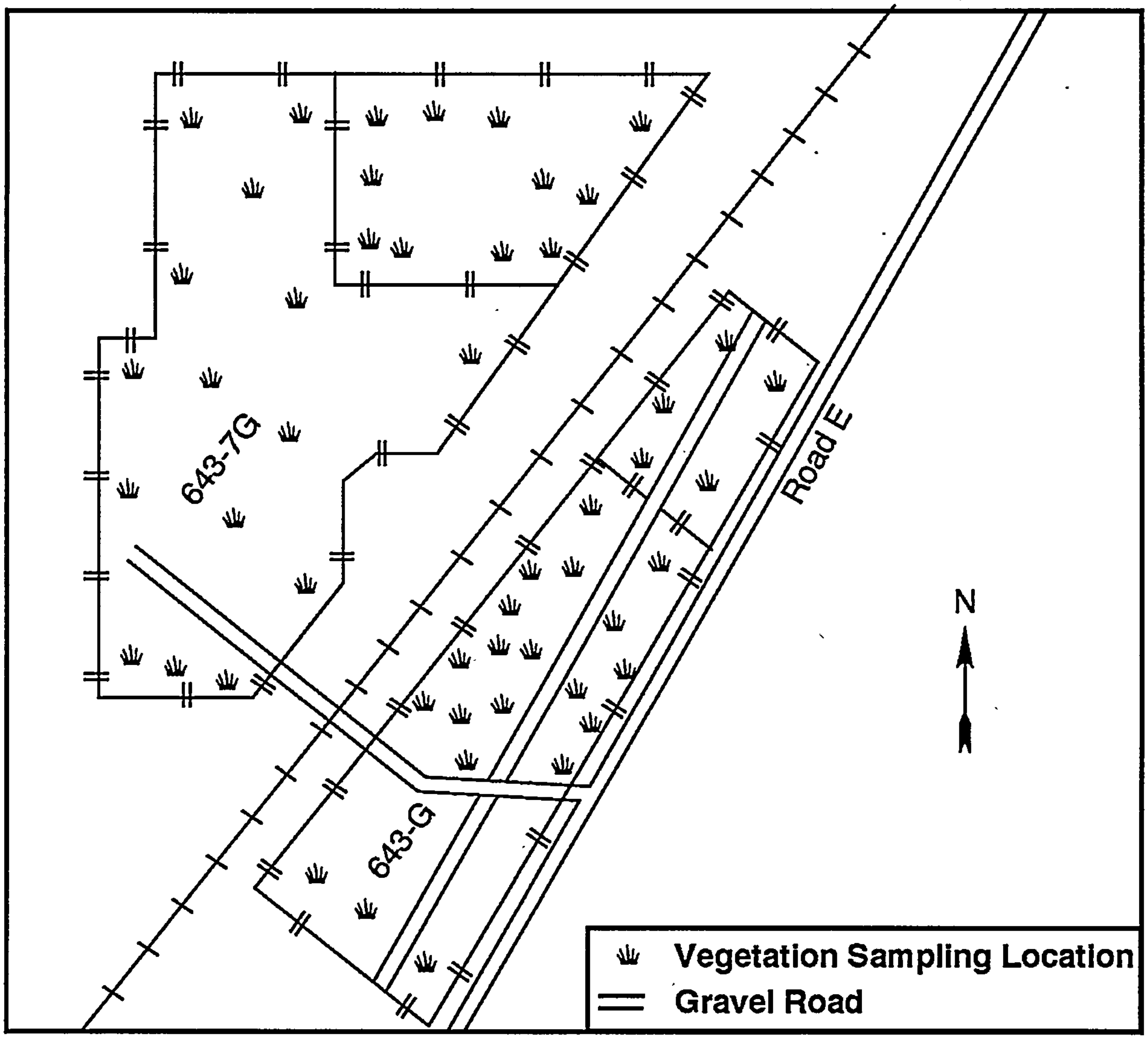

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Figure 11 Radiological SWDF Interior Vegetation Sampling Locations
Vegetation samples are collected inside the SWDF to determine whether uptake of radioactivity by vegetation has occurred. No samples were collected in 1994, however, because of procedural control associated with the removal of materials from a radiologically contaminated area.

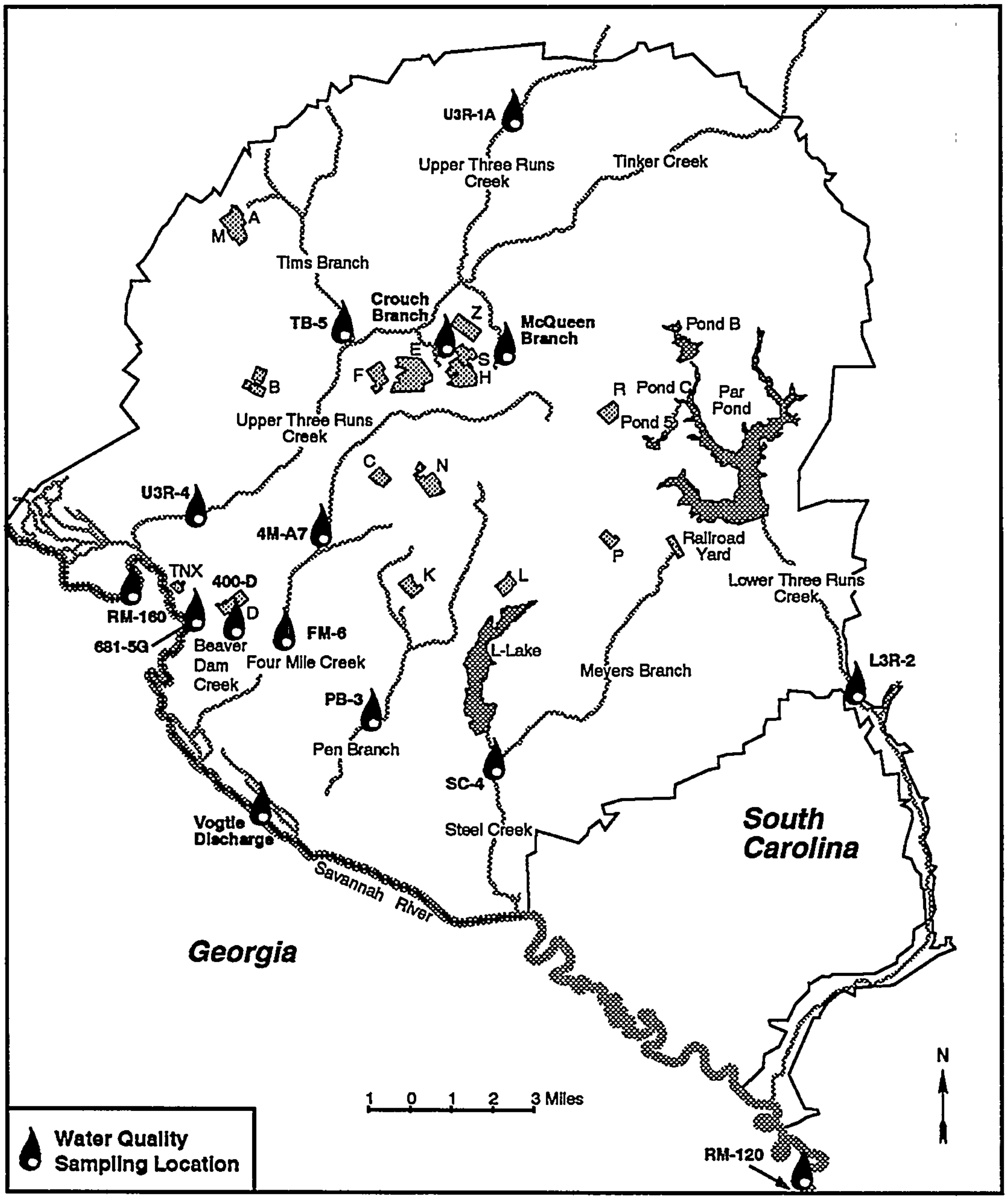

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Figure 12 SRS Streams and Savannah River Water Quality Sampling Locations
Note: Other names or abbreviations by which locations are known are listed in parentheses.

On Site		River
Upper Three Runs–1A (U3R–1A)	Pen Branch–3 (PB–3)	River Mile 160 (RM–160)
Four Mile Creek–6 (4MC–6, FM–6)	McQueens Branch	Vogtle Discharge
Lower Three Runs–2 (L3R–2)	Crouch Branch	River Mile 120 (RM–120)
Steel Creek–4 at Road A (SC–4)[a]	400–D	681–5G (GDNR and EMS sampling location)
Tims Branch–5 (TB–5)[a]		
Four Mile Creek at Road A7 (4M–A7)[a]		
Upper Three Runs–4 at Road A (Upper Three Runs–4, U3R–4, U3R–Rd A)[a]		

a EMS and SCDHEC sampling location. Samples from the four SCDHEC locations are also analyzed for pesticides, herbicides, and volatile organic compounds.

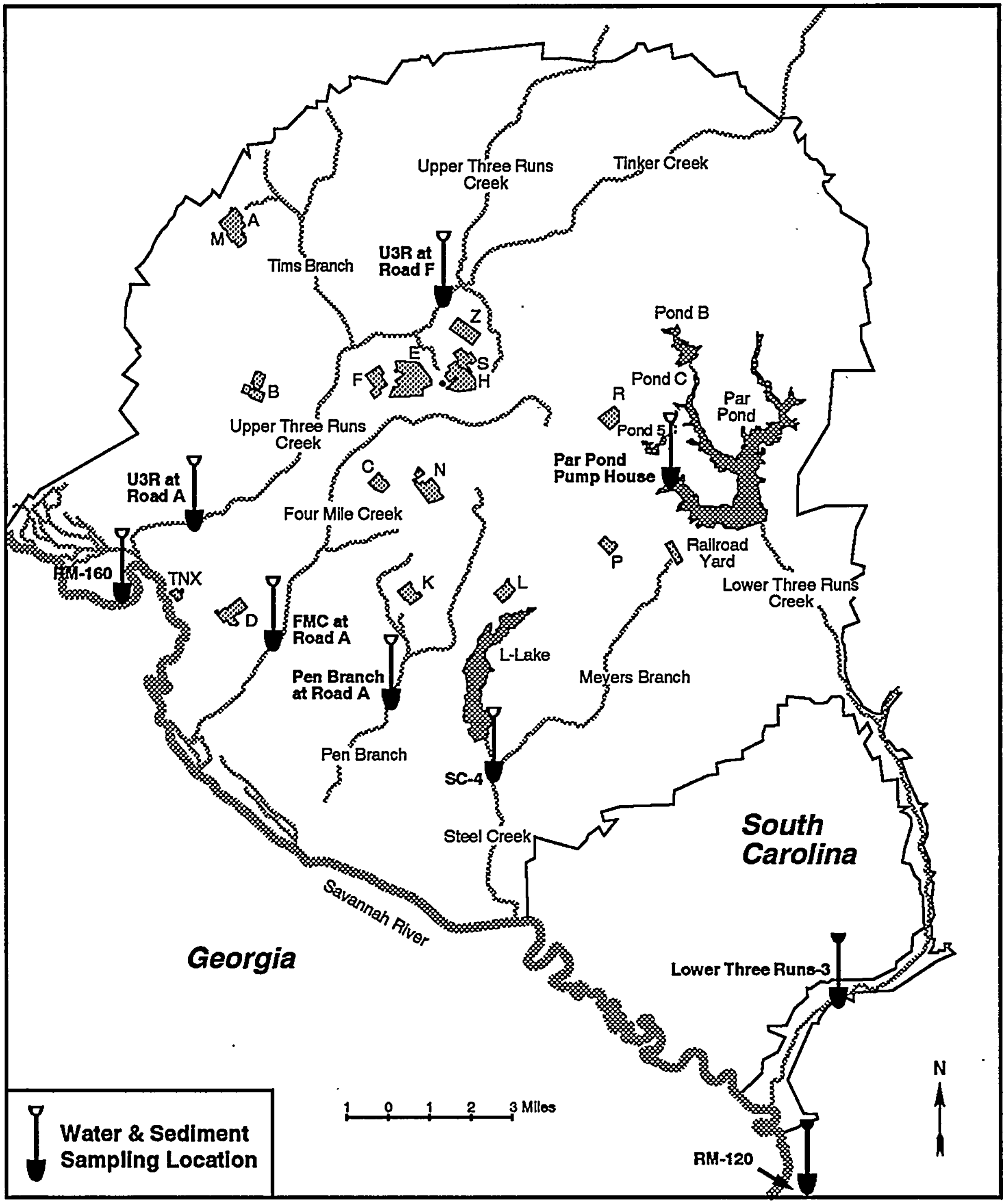

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Figure 13 SRS Stream and Savannah River Nonradiological Sampling Locations for Pesticides and Herbicides in Water and Sediment
Water and sediment from seven SRS stream and two Savannah River locations are sampled for pesticides and herbicides.

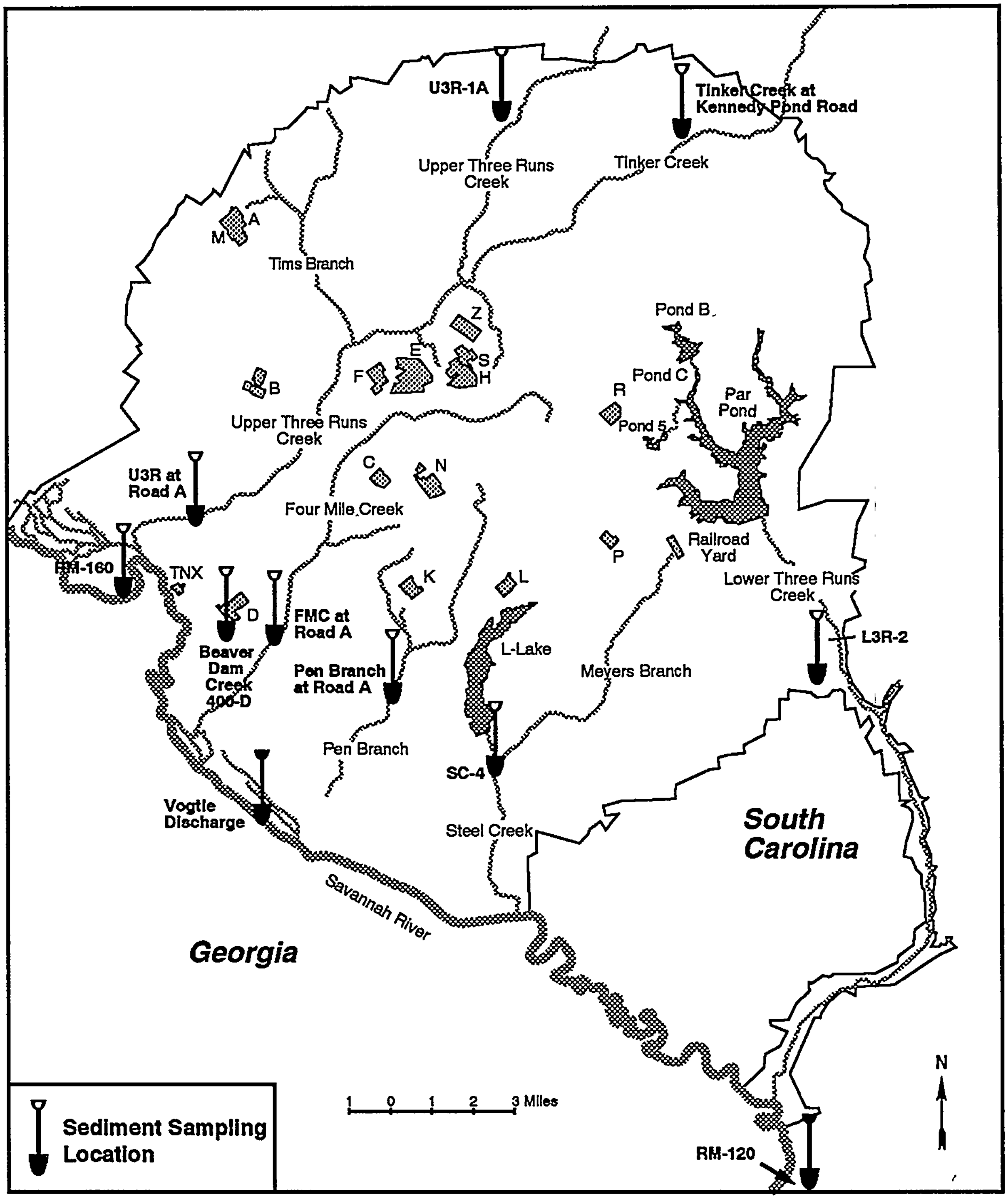

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Figure 14 SRS Stream and Savannah River Nonradiological Sampling Locations for Inorganic Contaminants in Sediment
Sediment from eight SRS stream locations (six indicator and two control) and three Savannah River locations (two indicator and one control) is sampled for inorganic contaminants.

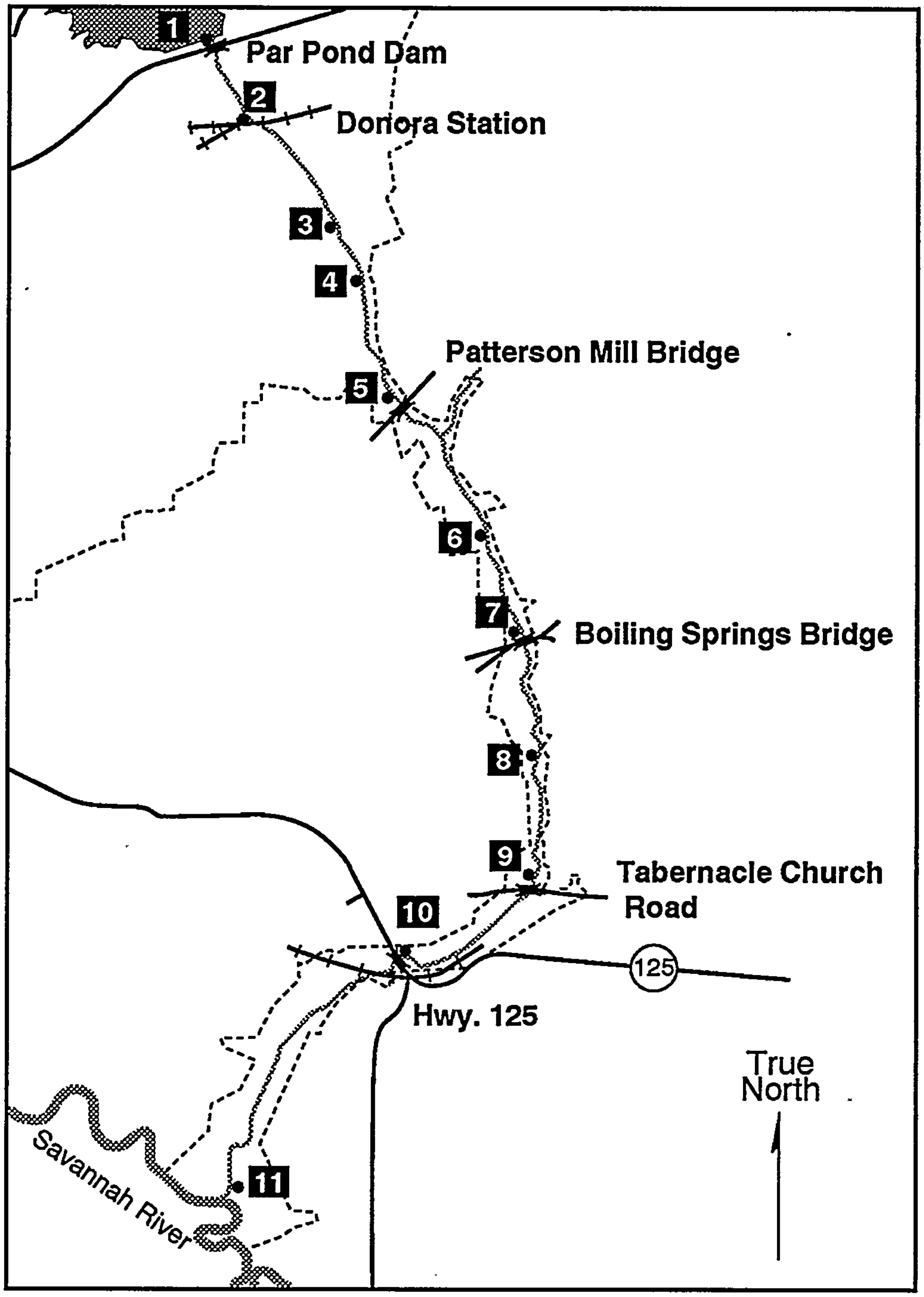

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Figure 15 Survey Sampling Locations
Eleven sampling trails have been established to survey the Lower Three Runs Creek corridor, which is located downstream of the PAR Pond Dam. The latest survey was conducted in late 1993 to characterize radionuclide levels along the corridor after the PAR Pond drawdown.

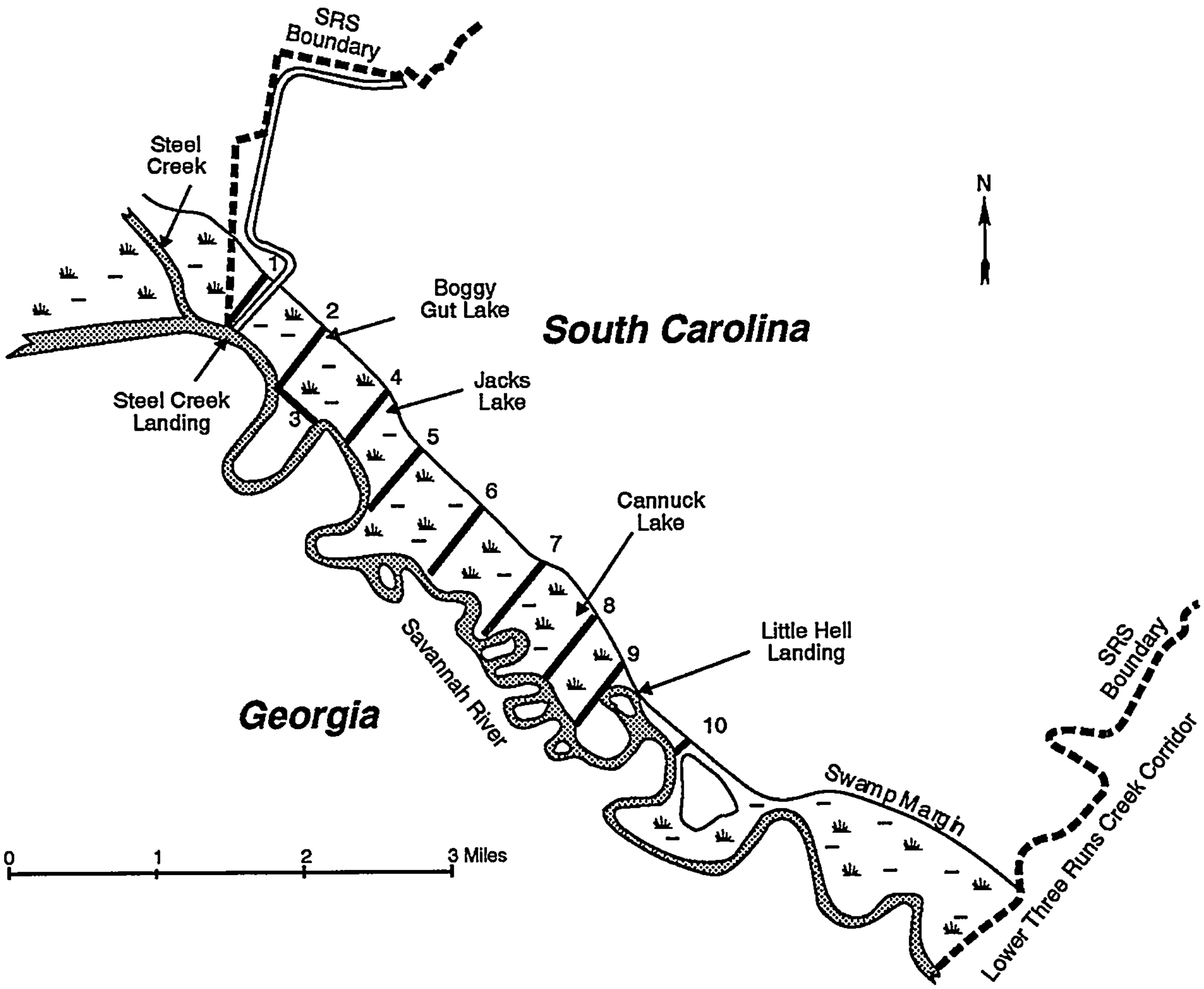

Figure 16 Savannah River Swamp Sampling Trails
Ten sampling trails were established in the Savannah River Swamp in 1974 so that surveys could be conducted of the movement of contamination from SRS operations.

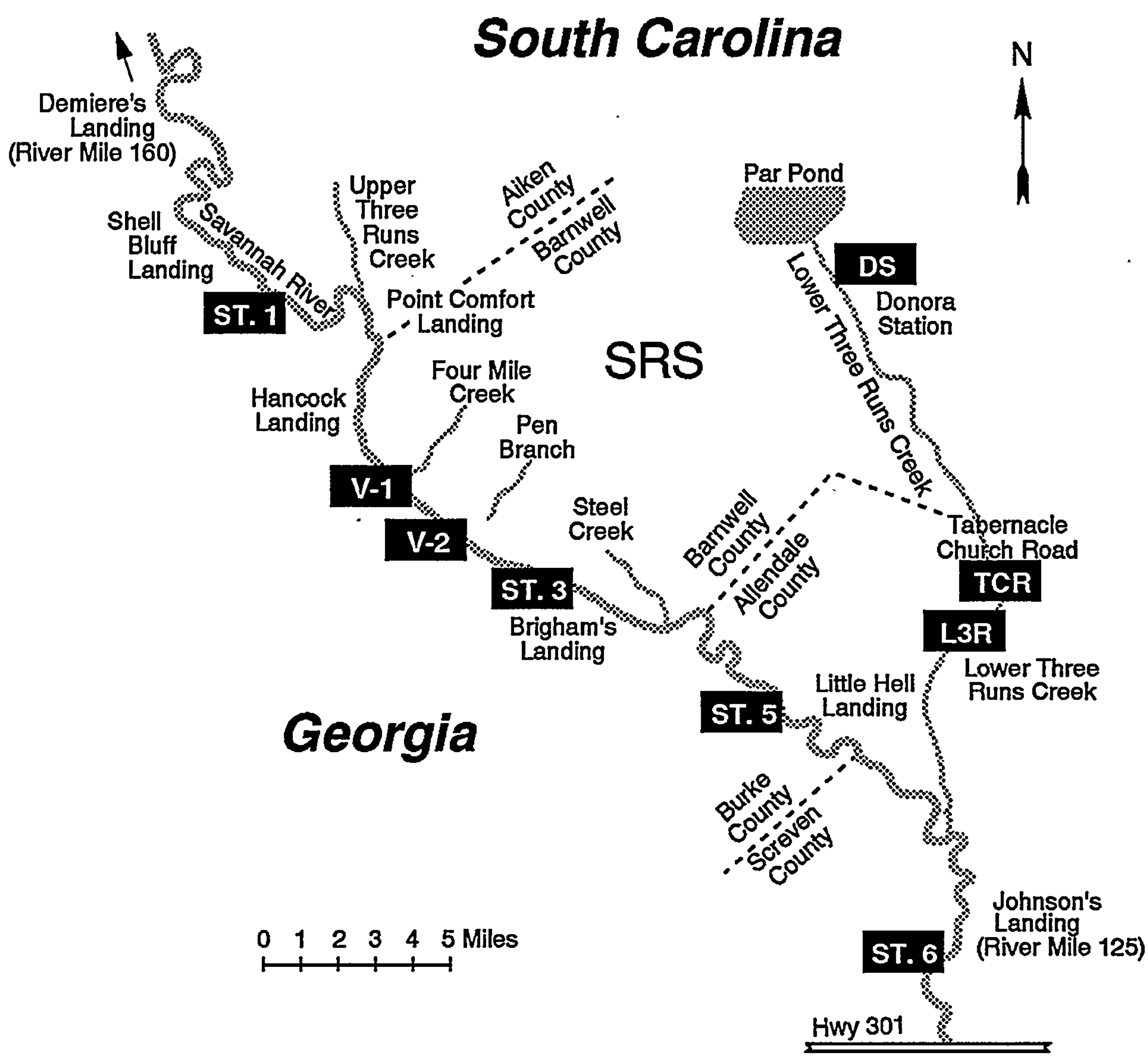

Figure 17 Academy Survey Sampling Sites
The Academy of Natural Sciences of Philadelphia has established specific sampling locations for surveys of the Savannah River—three exposed to SRS influence (stations 3, 5, and 6) and one unexposed reference station (station 1).

Table 1
Sample Media Information

Sample Matrix or Media	Sample Size	Representative Aliquot
Gross alpha		
Water	1 L	1 L
Vegetation	1–2 kg	0.5 g
Rain (collection pan)	0.37 m^2	0.093 m^2 (1/4 total sample)
Air	whole filter	800 m^3
Nonvolatile beta		
Water	1 L	1 L
Vegetation	1–2 kg	0.5 g
Rain (collection pan)	0.37 m^2	0.093 m^2 (1/4 total sample)
Air	whole filter	800 m^3
Strontium-89,90		
Vegetation	5 g	5 g
Food	20 g	20 g
River water	1 L	1 L
Rain	0.37 m^2	0.031 m^2 (1/12 total sample)
Streams	1–3 L	1–3 L
Soil	20 g	20 g
Air composites		
Site perimeter	20,000 m^3	4,200 m^3
25-mile radius	18,000 m^3	3,600 m^3
100-mile radius	6,000 m^3	1,200 m^3
Strontium-90		
Milk	0.5 L	0.5 L
Plutonium-238, Plutonium-239		
River water	1 L	1 L
Vegetation	5 g	5 g
Sediment	10 g	10 g
Soil	10 g	10 g
Food	100 g	100 g

Table 1
Sample Media Information

Sample Matrix or Media	Sample Size	Representative Aliquot
Tritium		
River water	60 mL	5 mL
Vegetation	60 g	5 mL
Sediment	5 mL	5 mL
Soil (special samples)	5 mL	5 mL
Food	25 g	5 mL

Table 2
Minimum Detectable Concentrations for Gamma Analysis of Water and Air Samples

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Nuclide	pCi/L River Water[a]	pCi/L Stream Water[a]	pCi/m^2 Rainwater[a]	pCi/m^3 Air Filter[a]
Ce-141	0.8	14	36	.012
Ce-144	2.9	48	125	.033
Co-58	0.6	11	29	.010
Co-60	1.0	11	32	.011
Cr-51	5.8	90	246	.093
Cs-134	0.7	10	27	.008
Cs-137	0.7	9	26	.008
I-131	1.2	26	72	.017
Mn-54	0.7	12	32	.011
Nb-95	0.8	13	36	.014
Ru-103	0.6	10	28	.010
Ru-106	5.5	100	278	.088
Sb-125	1.8	23	63	.019
Zn-65	1.4	23	64	.022
Zr-95	1.4	20	55	.019

a The Minimum Detectable Concentrations (MDCs) are calculated using the Canberra/Nuclear Data VAX/VMS Gamma Spectroscopy software. The values are calculated using a background measurement and typical sample and counting parameters. Chemical recoveries are assumed to be 100%. The MDCs for actual samples are variable because of variations in sample size, sample preparation, sample content, chemical recovery, counting efficiency, and radioactive decay.

Table 3
Minimum Detectable Concentrations for Gamma Analysis of Soil, Food, Fish and Wildlife, and Vegetation Samples

Page 1 of 1

	pCi/g				pCi/L
Nuclide	Soil[a]	Foods[a]	Fish and Wildlife[a]	Vegetation[a]	Milk[a]
Ce-141	.097	.098	.158	0.4	3
Ce-144	.139	.040	.227	0.5	12
Co-58	.042	.021	.074	0.2	2
Co-60	.029	.007	.052	0.1	3
Cr-51	.771	.979	1.322	2.9	19
Cs-134	.026	.007	.045	0.1	2
Cs-137	.024	.007	.042	0.1	3
I-131	3.949	Decayed	6.790	15.0	3
Mn-54	.032	.008	.057	0.1	2
Nb-95	.084	.074	.147	0.3	3
Ru-103	.060	.049	.104	0.2	2
Ru-106	.279	.072	.486	1.1	23
Sb-125	.061	.018	.106	0.2	6
Zn-65	.066	.021	.117	0.3	5
Zr-95	.083	.039	.145	0.3	4

a The Minimum Detectable Concentrations (MDCs) are calculated using the Canberra/Nuclear Data VAX/VMS Gamma Spectroscopy software. The values are calculated using a background measurement and typical sample and counting parameters. Chemical recoveries are assumed to be 100%. The MDCs for actual samples are variable because of variations in sample size, sample preparation, sample content, chemical recovery, counting efficiency, and radioactive decay.

Table 4
Minimum Detectable Concentrations for EMS Radiological Analyses

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Analysis of Plutonium by Alpha Spectroscopy

Sample:	Typical Minimum Detectable Concentration:
Air filter	1.5E–12 µCi/m³
Rain ion columns	1.6E–07 µCi/m²
River water	8.0E–12 µCi/mL
Soil and sediment	8.0E–10 µCi/g
Foodstuffs	3.1E–11 µCi/g
Vegetation	4.4E–11 µCi/g

NOTE: These Minimum Detectable Concentration (MDC) values for the **alpha spectrometer** were calculated using the Canberra/Nuclear Data VAX/VMS Alpha Spectroscopy software. The air filter value is for one half of a single filter [2.5 cubic feet per minute (CFM) for one week]. The rainwater value is for a collection area of 0.031 m². The other sample sizes are 1L for river water, 10g for soil and sediment, 100 g for foodstuffs, and 100g for vegetation. The sample counting time is 5,000 minutes. Typical detector efficiencies and chemical recoveries are used in the calculations. The MDCs for actual samples are variable because of variations in the sample size, sample preparation, sample content, chemical recovery, and counting efficiency.

Analysis of Gross Alpha, Nonvolatile Beta, Strontium-89,90, and Strontium-90 by Gas-Flow Proportional Counters

Nuclide:	Typical Minimum Detectable Concentration:
Gross alpha	6.8E–7 µCi/sample
Nonvolatile beta	1.52E–6 µCi/sample
Strontium-89, 90	2.38E–6 µCi/sample
Strontium-90	1.89E–6 µCi/sample

NOTE: The instrument MDC values for the gas-flow proportional counter were calculated at the 95% confidence level using the formula given in the section, "Lower Limits of Detection," in chapter 4 of the *Savannah River Site Environmental Report for 1991*. The counting efficiencies were 28% for alpha, and 40% for beta, strontium-90, and strontium-89,90. The MDC for the actual sample is variable because of the effects of sample aliquot size, sample preparation, chemical recovery, counting efficiency, and radioactive decay. The sample counting time was 20 minutes.

Analysis for Weak Beta Emitters by Liquid Scintillation

Sample:	Typical Minimum Detectable Concentration:
Tritium[a]	1.3E–6 µCi/mL
Tritium[b]	4.7E–7 µCi/mL
Promethium-147	8.6E–9 µCi/mL

NOTE: Instrumental MDC values for the liquid scintillation counter were calculated at the 95% confidence level using the formula given in the section, "Lower Limits of Detection," in chapter 4 of the *Savannah River Site Environmental Report for 1991*. The average counting efficiencies were 37% for tritium, 79% for phosphorus-32, 88% for promethium-147, and 88% for sulfur-35. The MDC for the actual sample is variable because of the effects of sample preparation, sample aliquot size, chemical recovery, counting efficiency, counting time, and radioactive decay.

a Routine environmental samples (e.g. stream samples and silica gels) are analyzed for tritium using a 20-minute count.
b Environmental samples such as drinking water, foodstuffs, and rainwater are analyzed using a 150-minute count.

Table 5
1994 Radioactive Atmospheric Releases by Source

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		Curies[a]						
Radio-nuclide	Half-life	Reactors	Separa-tions[b]	Reactor Materials	Heavy Water	SRTC[c]	Diffuse and Fugitive[d]	Total
Note: Blank space indicates no quantifiable activity.								
GASES AND VAPORS								
H-3 (oxide)	12.3 y	2.37E+04	8.31E+04		3.01E+02		1.31E+01	1.07E+05
H-3 (elem)	12.3 y		5.29E+04					5.29E+04
H-3 Total	12.3 y	2.37E+04	1.36E+05		3.01E+02		1.31E+01	1.60E+05
C-14	5.7E3 y		3.71E–02				3.50E–13	3.71E–02
Cl-36	3.01E5 y						1.00E–15	1.00E–15
I-129	1.6E7 y		3.80E–03					3.80E–03
I-131	8 d	4.42E–07	2.19E–05			4.77E–05		7.00E–05
I-133	20.8 h					1.98E–03		1.98E–03
I-135	6.57 h					2.96E–01		2.96E–01
Xe-135	9.1 h					2.17E–02		2.17E–02
PARTICULATES								
Be-7	53.28 d						1.50E–13	1.50E–13
Al-26	7.3E5 y						3.50E–14	3.50E–14
S-35	87.2 d						6.85E–12	6.85E–12
Ca-45	162.7 d						1.00E–15	1.00E–15
Ca-47	4.536 d						1.00E–16	1.00E–16
Sc-46	83.81 d						1.00E–16	1.00E–16
Mn–54	312.2 d						1.50E–15	1.50E–15
Co-57	271.8 d						2.50E–14	2.50E–14
Co-60	5.3 y					6.16E–06	1.08E–13	6.16E–06
Ni-63	100 y						2.06E–13	2.06E–13
Zn-65	243.8 d		4.44E–06				2.60E–13	4.44E–06
Se–75	119.78 d						6.00E–16	6.00E–16
Rb–86	18.65 d						2.00E–15	2.00E–15
Sr-85	64.84 d						5.00E–15	5.00E–15
Sr-89,90[e]	29.1 y	1.08E–04	1.58E–03	4.30E–05	1.53E–06	2.34E–06	3.75E–04	2.11E–03

a One curie equals 3.7 E+10 Becquerels.
b Includes separations, waste management, and tritium facilities
c Savannah River Technology Center
d Estimated releases from minor unmonitored diffuse and fugitive sources
e Includes unidentified beta-gamma emissions

Table 5
1994 Radioactive Atmospheric Releases by Source

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		Curies[a]						
Radio-nuclide	Half-life	Reactors	Separa-tions[b]	Reactor Materials	Heavy Water	SRTC[c]	Diffuse and Fugitive[d]	Total
Zr-95	64 d						2.39E–11	2.39E–11
Ru-106	372.6 d		1.19E-08				4.97E–09	1.69E–08
Cd-109	462.0 d						5.00E–14	5.00E–14
Sb-125	2.8 y						7.27E–12	7.27E–12
Cs-134	2.1 y		8.41E–09				2.01E–13	8.41E–09
Cs-137	30.2 y	6.40E–06	1.49E–04			2.57E–06	1.08E–08	1.58E–04
Ce-144	285 d						1.13E–10	1.13E–10
Eu-154	8.6 y						3.44E–10	3.44E–10
Eu-155	4.7 y						1.63E–10	1.63E–10
Hg-203	46.61 d						2.00E–12	2.00E–12
U-235,238	4.5E9 y		2.22E–03	1.15E–05		3.94E–08	8.12E–06	2.23E–03
Np-237	2.10E6 y						7.40E–15	7.40E–15
Pu–236	2.87 y						1.90E–17	1.90E–17
Pu-238	87.7 y		1.61E–03			7.87E–08	5.18E–07	1.61E–03
Pu-239[e]	2.4E4 y	6.33E–07	7.55E–04	7.82E–07		1.56E–06	6.45E–07	7.59E–04
Am-241,243	7.4E3 y		5.59E–05			2.75E–07	8.86E–10	5.62E–05
Cm-242,244	18.1 y		1.22E–05			3.90E–06	7.32E–09	1.61E–05
Cm-243	29.1 y						1.00E–13	1.00E–13
Cm-248	3.48E5 y						9.20E–18	9.20E–18

a One curie equals 3.7 E+10 Becquerels.
b Includes separations, waste management and tritium facilities
c Savannah River Technology Center
d Estimated releases from minor unmonitored diffuse and fugitive sources
e Includes unidentified alpha emissions

Table 6
1994 Radioactive Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE Derived Concentration Guides

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Stack/Facility	Radionuclide	Quantity Released During 1994 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1994 (μCi/mL)	DOE DCGs[a] (μCi/mL)
Note: Blank space indicates no quantifiable activity.					
A-Area (Savannah River Technology Center)					
735–A					
773–A B	Cs-137	6.77E–01	1.09E+15	6.21E–16	4.0E–10
	Am-241,243	2.63E–01	1.09E+15	2.41E–16	2.0E–14
	Cm-242,244	3.33E+00	1.09E+15	3.06E–15	4.0E–14
773–A C	U-235, 238	3.94E–02	1.01E+15	3.90E–17	1.0E–13
	Pu-238	7.87E–02	1.01E+15	7.79E–17	4.0E–10
	Pu-239	2.58E–03	1.01E+15	2.55E–18	3.0E–14
	Am-241,243	1.24E–02	1.01E+15	1.23E–17	2.0E–14
	Cm-242,244	5.71E–01	1.01E+15	5.65E–16	4.0E–14
773–A Sandfilter	Co-60	6.00E+00	1.01E+15	5.94E–15	8.0E–11
	I-131	4.75E+01	1.01E+15	4.70E–14	4.0E–10
	I-133	1.97E+03	1.01E+15	1.95E–12	2.0E–09
	I-135	2.96E+05	1.01E+15	2.93E–10	1.0E–08
	Xe-135	2.17E+04	1.01E+15	2.15E–11	none listed
	Cs-137	1.89E–00	1.01E+15	1.87E–15	4.0E–10
776–A	Co-60	1.57E–01	1.66E+14	9.46E–16	8.0E–11
	I-131	1.78E–01	1.66E+14	1.07E–15	4.0E–10
	I-133	5.71E+00	1.66E+14	3.44E–14	2.0E–09
C-Area (C-Reactor)					
717–C Hot Shop					
728–N	Cs-137	6.32E–02	7.82E+13	8.08E–16	4.0E–10
C Decon	Cs-137	7.26E–02	4.45E+14	1.63E–16	4.0E–10
C Disassembly					
C Main (148')	H-3 (oxide)	4.93E+07	2.33E+15	2.12E–08	1.0E–07

a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 6
1994 Radioactive Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE Derived Concentration Guides

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Stack/Facility	Radionuclide	Quantity Released During 1994 (µCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1994 (µCi/mL)	DOE DCGs[a] (µCi/mL)
D-Area (Heavy Water Rework)					
420–D	H-3 (oxide)	2.51E+08	2.37E+14	1.06E–06	1.0E–07
421–2D	H-3 (oxide)	1.60E+07	1.58E+14	1.01E–07	1.0E–07
772–D	H-3 (oxide)	3.41E+07	2.65E+14	1.29E–07	1.0E–07
F-Area (Separations and Waste Management)					
235–F Sandfilter	U-235,238	3.36E–02	5.62E+14	5.98E–17	1.0E–13
	Pu-238	1.06E–02	5.62E+14	1.89E–17	3.0E–14
	Pu-239	3.62E–02	5.62E+14	6.44E–17	2.0E–14
	Am-241,243	6.25E–02	5.62E+14	1.11E–16	2.0E–14
	Cm-242,244	1.98E–02	5.62E+14	3.52E–17	4.0E–14
241–F Misc	Cs-137	3.65E–01	1.01E+14	3.61E–15	4.0E–10
241–F Purge	Cs-137	9.06E+00	1.05E+14	8.63E–14	4.0E–10
241–F Annulus	Cs-137	4.08E–01	2.38E+14	1.71E–15	4.0E–10
247–F Main	U-235,238	2.60E–01	1.47E+15	1.77E–16	1.0E–13
	Pu-238	9.10E–03	1.47E+15	6.19E–18	3.0E–14
	Pu-239	3.43E–03	1.47E+15	2.33E–18	2.0E–14
291–F Isokinetic	Sr-89, 90	5.37E+02	3.76E+15	1.43E–13	9.0E–12
	Cs-137	1.25E+02	3.76E+15	3.32E–14	4.0E–10
	U-235,238	2.14E+03	3.76E+15	5.69E–13	1.0E–13
	Pu-238	1.39E+02	3.76E+15	3.70E–14	3.0E–14
	Pu-239	4.09E+02	3.76E+15	1.09E–13	2.0E–14
	Am-241,243	5.01E+01	3.76E+15	1.33E–14	2.0E–14
	Cm-242,244	1.06E+01	3.76E+15	2.82E–15	4.0E–14
6.1D Dissolver					

a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 6
1994 Radioactive Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE Derived Concentration Guides

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Stack/Facility	Radionuclide	Quantity Released During 1994 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1994 (μCi/mL)	DOE DCGs[a] (μCi/mL)
6.4D Dissolver	Ru-106	1.19E–02	1.04E+13	1.14E–15	3.0E–11
	Cs-137	2.00E–02	1.04E+13	1.92E–15	4.0E–10
723–F					
772–1F	Sr-89,90	4.92E+00	1.07E+15	4.60E–15	9.0E–12
	U-235,238	8.69E–03	1.07E+15	8.12E–18	1.0E–13
	Pu-239	6.02E–01	1.07E+15	5.63E–16	2.0E–14
772–4F	U-235,238	5.50E+00	2.23E+15	2.47E–15	1.0E–13
	Pu-238	7.99E+00	2.23E+15	3.58E–15	3.0E–14
	Pu-239	5.12E–01	2.23E+15	2.30E–16	2.0E–14
	Am-241,243	5.68E–01	2.23E+15	2.55E–16	2.0E–14
800 Cell (211–F)	Sr-89,90	2.59E–02	8.91E+13	2.91E–16	9.0E–12
A-Line (221–1F)	Cs-137	4.66E–02	3.56E+13	1.31E–15	4.0E–10
	U-235,238	2.80E–01	3.56E+13	7.87E–15	1.0E–13
	Pu-238	1.98E–02	3.56E+13	5.56E–16	3.0E–14
	Pu-239	1.12E–02	3.56E+13	3.15E–16	2.0E–14
F Main (195')					
H-Area (Separations and Waste Management)					
230–H Lag					
230–H Process					
241–84H ETF Lab					
241–84H ETF Process					
241–H Misc	Cs-134	6.49E–03	9.55E+13	6.80E–17	2.0E–10
	Cs-137	1.54E+00	9.55E+13	1.61E–14	4.0E–10
241–H Purge	Cs-134	1.92E–03	1.29E+14	1.49E–17	2.0E–10
	Cs-137	3.86E+00	1.29E+14	2.99E–14	4.0E–10

a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 6
1994 Radioactive Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE Derived Concentration Guides

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Stack/Facility	Radionuclide	Quantity Released During 1994 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1994 (μCi/mL)	DOE DCGs[a] (μCi/mL)
241–H Annulus	Cs-137	5.09E+00	7.94E+14	6.41E–15	4.0E–10
244–H RBOF[b]	Cs-137	2.82E–01	3.56E+14	7.92E–16	4.0E–10
244–H RBOF Vessel Vent	Cs-137	2.37E–02	5.73E+12	4.14E–15	4.0E–10
253–H Waste Compactor	H-3 (oxide)	4.43E+00	6.03E+13	7.35E–14	1.0E–07
291–H Isokinetic	Sr-89,90	1.16E+01	3.89E+15	2.98E–15	9.0E–12
	I-131	2.19E+01	3.89E+15	5.63E–15	4.0E–10
	Cs-137	3.03E+00	3.89E+15	7.79E–16	4.0E–10
	U-235,238	7.68E+01	3.89E+15	1.97E–14	1.0E–13
	Pu-238	1.46E+03	3.89E+15	3.75E–13	3.0E–14
	Pu-239	5.92E+01	3.89E+15	1.52E–14	2.0E–14
	Am-241,243	5.21E+00	3.89E+15	1.34E–15	2.0E–14
	Cm-242,244	1.64E+00	3.89E+15	4.22E–16	4.0E–14
299–H	Cs-137	4.26E–01	2.95E+14	1.44E–15	4.0E–10
H Main(195')	U-235,238	9.00E+01	2.00E+15	4.50E–14	1.0E–13
	Pu-238	8.47E+00	2.00E+15	4.24E–15	3.0E–14
	Pu-239	1.45E+00	2.00E+15	7.25E–16	2.0E–14
Tritium	H-3 (oxide)	8.31E+10	1.36E+15	6.11E–05	1.0E–07
	H-3 (element)	5.29E+10	1.36E+15	3.89E–05	2.0E–02
K-Area (K-Reactor)					
K Main (148')	H-3 (oxide)	1.11E+10	2.31E+15	4.81E–06	1.0E–07
K Disassembly	H-3 (oxide)	1.49E+09	1.74E+15	8.56E–07	1.0E–07
	Cs-137	9.44E–01	1.74E+15	5.43E–16	4.0E–10
L-Area (L-Reactor)					
L Main (148')	H-3 (oxide)	2.17E+09	2.65E+15	8.19E–07	1.0E–07

a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed dose of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

b Receiving Basin for Offsite Fuel

Table 6
1994 Radioactive Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE Derived Concentration Guides

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Stack/Facility	Radionuclide	Quantity Released During 1994 (µCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1994 (µCi/mL)	DOE DCGs[a] (µCi/mL)
L Disassembly	H-3 (oxide)	3.71E+08	1.28E+15	2.90E–07	1.0E–07
	Cs-137	5.32E+00	1.28E+15	4.16E–15	4.0E–10
M-Area (Reactor Materials)					
313–M					
320–M	U-235,238	5.55E–02	2.76E+13	2.01E–15	1.0E–13
321-M	U-235,238	4.20E–01	5.03E+14	8.35E–16	1.0E–13
321–M Mach Rm Isokinetic	U-235,238	3.34E–01	1.18E+16	2.83E–17	1.0E–13
321–M Mach Rm	U-235,238	7.87E+00	1.44E+14	5.47E–14	1.0E–13
322–M	U-235,238	2.82E+00	5.82E+14	4.85E–15	1.0E–13
P-Area (P-Reactor)					
P Main (148')	H-3 (oxide)	8.34E+09	2.35E+15	3.55E–06	1.0E–07
P Disassembly	H-3 (oxide)	1.59E+08	2.61E+14	6.09E–07	1.0E–07
	I-131	4.42E–01	2.61E+14	1.69E–15	4.0E–10

a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed dose of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 7
1994 Radioactive Liquid Releases by Source (Including Direct and Seepage Basin Migration Releases)

Page 1 of 1

Radio-nuclide	Half-life	Curies[a] Reactors	Separa-tions[b]	Reactor Materials	Heavy Water	Savannah River Technology Center/TNX	Total
Note: Blank space indicates no quantifiable activity.							
H-3 (oxide)	12.3 y	2.42E+03	7.73E+03		2.62E+02	2.27E–01	1.04E+04[c]
Sr-89,90[d]	29.1 y	2.14E–01	1.59E–01		1.08E–02	1.62E–03	3.86E–01
Tc-99	2.1E5 y		8.80E–03				8.80E–03
I-129	1.6E7 y		7.39E–02				7.39E–02
Cs-137	30.2 y	4.72E–02	9.35E–02				1.41E–01[e]
Pm-147	2.6 y		1.54E–03				1.54E–03
U-235,238	4.5E9 y		1.00E–05				1.00E–05
Pu-239[f]	2.4E4 y	3.51E–04	1.32E–02	1.33E–04	6.52E–04	5.70E–05	1.44E–02

a One curie equals 3.7E+10 Becquerels.
b Includes separations, waste management, and tritium facilities
c For conservatism, the slightly higher river transport number (1.09E+04 Ci) was used for dose calculations.
d Includes unidentified beta-gamma
e For conservatism, the higher release number (2.01E–01 Ci), calculated from River Mile 120 fish concentrations, was used for dose calculations.
f Includes unidentified alpha

Table 8
1994 Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual Average Radionuclide Concentrations to DOE Derived Concentration Guides

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Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1994 (Ci)	Average Effluent Concentration During 1994 (µCi/mL)	DOE DCGs[a] (µCi/mL)	Fraction of DOE DCG
Note: "MDL" denotes "minimum detectable level."					
A-Area (Savannah River Technology Center)					
TB–2 A–1	H-3 (oxide)	6.46E–02	1.71E–07	2.00E–03	8.53E–05
	U/Pu (Pu-239)	Below MDL	8.12E–09	3.00E–08	5.39E–02
				Sum of Fractions -	5.40E–02
C-Area (C-Reactor)					
C-Canal	H-3 (oxide)	9.02E–01	4.67E–07	2.00E–03	2.34E–04
	Sr-89,90	Below MDL	Below MDL	1.00E–06	0.00E+01
				Sum of Fractions -	2.34E–04
D-Area (Heavy Water Rework)					
400-D Effluent Discharge	H-3 (oxide)	2.35E+02	3.12E–05	2.00E–03	1.56E–02
				Sum of Fractions -	1.56E–02
D-Area Effluent in BD Creek	H-3 (oxide)	2.67E+01	3.46E–06	2.00E–03	1.74E–03
	Sr-89,90	Below MDL	2.86E–11	1.00E–06	2.86E–05
				Sum of Fractions -	1.77E–03
F-Area (Separations and Waste Management)					
F–001	H-3 (oxide)	1.83E–01	1.54E–06	2.00E–03	7.71E–04
	Sr-89,90	Below MDL	2.69E–11	1.00E–06	2.69E–05
				Sum of Fractions -	5.17E–04
F–012 (281–8F Retention Basin)	H-3 (oxide)	1.86E–01	–5.87E–06	2.00E–03	0.00E+00
	Sr-89,90	1.77E–04	3.92E–09	1.00E–06	3.92E–03
	Cs-137	1.37E–03	1.65E–08	3.00E–06	5.51E–03
				Sum of Fractions -	9.42E–03

a Source: DOE Order 5400.5 .In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. DCGs are defined as the concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 8
1994 Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual Average Radionuclide Concentrations to DOE Derived Concentration Guides

Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1994 (Ci)	Average Effluent Concentration During 1994 (µCi/mL)	DOE DCGs[a] (µCi/mL)	Fraction of DOE DCG
F–013 (200–F Cooling Basin)	H-3 (oxide)	2.53E–02	1.05E–06	2.00E–03	5.26E–04
	Sr-89,90	3.54E–05	4.34E–09	1.00E–06	4.34E–03
	Cs-137	1.12E–04	1.01E–08	3.00E–06	3.36E–03
				Sum of Fractions -	8.22E–03
FM–3 (F-Area Effluent)	H-3 (oxide)	1.32E+01	2.00E–06	2.00E–03	1.00E–03
	Sr-89,90	Below MDL	4.26E–10	1.00E–06	4.26E–04
	Cs-137	4.83E–04	1.15E–08	3.00E–06	3.84E–03
	Pm-147	Below MDL	-1.80E–09	1.00E–04	0.00E–00
	U-235,238	Below MDL	1.81E–10	6.00E–07	3.01E–04
	Pu-239	Below MDL	5.89E–11	3.00E–08	1.96E–03
	Am-241,243	Below MDL	2.55E–09	3.00E–08	8.51E–02
				Sum of Fractions -	9.26E–02
U3R–2 (F Storm Sewer)	H-3 (oxide)	2.53E–01	7.74E–07	2.00E–03	9.77E–04
	Sr-89,90	Below MDL	1.10E–10	1.00E–06	1.10E–04
	Pm-147	7.92E–05	-1.12E–09	1.00E–04	0.00E+00
	U/Pu (Pu-239)	6.55E–05	4.84E–10	3.00E–08	1.61E–02
				Sum of Fractions -	1.66E–02
U3R–F3 (Naval Fuels Effluent)	H-3 (oxide)	2.04E–01	1.86E–06	2.00E–03	9.29E–04
	Sr-89,90	Below MDL	4.06E–10	1.00E–06	4.06E–04
	Pm-147	Below MDL	-1.94E–09	1.00E–04	0.00E+00
	U/Pu (Pu-239)	Below MDL	2.27E–10	3.00E–08	7.58E–03
	U-235,238	1.00E–05	3.16E–10	6.00E–07	5.27E–04
				Sum of Fractions -	9.44E–03

a Source: DOE Order 5400.5 .In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. DCGs are defined as the concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 8
1994 Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual Average Radionuclide Concentrations to DOE Derived Concentration Guides

Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1994 (Ci)	Average Effluent Concentration During 1994 (µCi/mL)	DOE DCGs[a] (µCi/mL)	Fraction of DOE DCG
H-Area (Separations and Waste Management)					
FM–1C (H-Area Effluent)	H-3 (oxide)	1.01E+01	9.39E–06	2.00E–03	4.69E–03
	Sr-89,90	4.69E–04	1.32E–09	1.00E–06	1.32E–03
	Cs-137	1.10E–02	2.08E–08	3.00E–06	6.92E–03
	Pm-147	Below MDL	-2.14E–09	1.00E–04	0.00E+00
				Sum of Fractions -	1.29E–02
H–017 (281–8H Retention Basin)	H-3 (oxide)	5.46E–01	6.20E–06	2.00E–03	3.10E–03
	Sr-89,90	4.50E–04	6.82E–09	1.00E–06	6.82E–03
	Cs-137	2.50E–02	1.76E–09	3.00E–06	5.87E–02
				Sum of Fractions -	6.86E–02
H–018 (200–H Cooling Basin)	H-3 (oxide)	3.00E–01	2.34E–05	2.00E–03	1.17E–02
	Sr-89,90	9.64E–04	8.50E–08	1.00E–06	8.50E–02
	Cs-137	4.42E–03	3.86E–07	3.00E–06	1.29E–01
				Sum of Fractions -	2.25E–01
HP–15 (Tritium)	H-3 (oxide)	3.43E+00	2.21E–05	2.00E–03	1.11E–02
				Sum of Fractions -	1.11E–02
HP–52 (H–Area Tank Farm)	H-3 (oxide)	3.30E+00	2.24E–06	2.00E–03	1.12E–03
	Sr-89,90	2.03E–04	4.82E–10	1.00E–06	4.82E–04
	Cs-137	Below MDL	3.41E–09	3.00E–06	1.14E–03
	U-235,238	Below MDL	1.69E–10	6.00E–07	2.82E–04
	Pu-238	Below MDL	4.79E–11	4.00E–08	1.20E–03
	Am-241,243	Below MDL	1.47E–09	3.00E–08	4.90E–02
	Cm-241,244	Below MDL	1.05E–09	6.00E–08	1.75E–02
				Sum of Fractions -	7.07E–02

a Source: DOE Order 5400.5 .In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. DCGs are defined as the concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 8
1994 Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual Average Radionuclide Concentrations to DOE Derived Concentration Guides

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Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1994 (Ci)	Average Effluent Concentration During 1994 (µCi/mL)	DOE DCGs[a] (µCi/mL)	Fraction of DOE DCG
McQueen's Branch at Rd F	H-3 (oxide)	9.66E+00	1.19E–05	2.00E–03	5.95E–03
				Sum of Fractions -	5.40E–03
U3R–2A (ETF Outfall at Rd C)	H-3 (oxide)	3.89E+02	4.39E–03	2.00E–03	2.20E+00
	Sr-89,90	Below MDL	2.47E–10	1.00E–06	2.47E–04
	Cs-137	4.85E–02	4.87E–07	3.00E–06	1.62E–01
	Pm-147	1.46E–03	5.90E–09	1.00E–04	5.90E–05
				Sum of Fractions -	2.36E+00
K-Area (K-Reactor)					
K-Canal	H-3 (oxide)	1.46E+00	3.95E–07	2.00E–03	1.98E–04
	Sr-89,90	Below MDL	2.17E–10	1.00E–06	2.17E–04
				Sum of Fractions -	4.15E–04
PB–1 (K–Area Sec. Effluent)	H-3 (oxide)	1.84E–02	4.13E–06	2.00E–03	2.06E–03
				Sum of Fractions -	2.06E–03
L-Area (L-Reactor)					
L–007	H-3 (oxide)	1.93E+01	3.62E–07	2.00E–03	1.81E–04
	Sr-89,90	Below MDL	1.38E–10	1.00E–06	1.38E–04
				Sum of Fractions -	3.19E–04
M-Area (Reactor Materials)					
TB–3 (M-Area Effluent at Rd D	U-235,238	Below MDL	3.34E–10	6.00E–07	5.56E-03
				Sum of Fractions -	5.56E–03
P-Area (P-Reactor)					
105–R Sumps	H-3 (oxide)	1.55E–01	5.56E–04	2.00E–03	2.78E–01
	Sr-89,90	2.92E–06	1.23E–08	1.00E–06	1.23E–02
	Cs-137	1.67E–05	1.86E–09	3.00E–06	6.20E–02

a Source: DOE Order 5400.5 .In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. DCGs are defined as the concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 8
1994 Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual Average Radionuclide Concentrations to DOE Derived Concentration Guides

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Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1994 (Ci)	Average Effluent Concentration During 1994 (µCi/mL)	DOE DCGs[a] (µCi/mL)	Fraction of DOE DCG
				Sum of Fractions -	3.52E–01
P–013A	H-3 (oxide)	5.62E+00	5.05E–07	2.00E–03	2.53E–04
	Sr-89,90	Below MDL	7.37E–11	1.00E–06	7.37E–05
				Sum of Fractions -	3.26E–04
P–019 (P-Area Canal PAR Pond)	H-3 (oxide)	2.31E+00	4.11E–07	2.00E–03	2.50E–04
	Sr-89,90	Below MDL	1.77E–10	1.00E–06	1.77E–04
				Sum of Fractions -	3.82E–04
TNX Area					
TNX–1 TNX	H-3 (oxide)	1.10E–01	1.84E–06	2.00E–03	9.19E–04
Process Sewer	U/Pu (Pu-239)	Below MDL	-3.33E–11	3.00E–08	0.00E+00
				Sum of Fractions -	9.19E–04
TNX–008	H-3 (oxide)	5.25E–02	6.96E–06	2.00E–03	3.48E–05
	U/Pu (Pu-239)	Below MDL	6.66E–11	3.00E–08	2.22E–03
				Sum of Fractions -	2.26E–03

a Source: DOE Order 5400.5 .In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. DCGs are defined as the concentration of that radionuclide that will give a 50-year committed effective dose equivalent of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 9
Estimated Tritium Releases in SRS Streams and the Savannah River

Page 1 of 3

Area	Release Point	Direct Releases (Curies) 1989	1990	1991	1992	1993	1994
Reactor							
100–P	Par Pond overflow to Lower Three Runs Creek (L3R2)	(321)[a]	(207)[a]	221	100	64	59
	*Process sewer to Par Pond	164	67	(43)[a]			
	*Reactor heat exchanger cooling water to Par Pond	464	125	(67)[a]			
	*Combined in 1992 (P019)				(8)[a]	(3)[a]	(2)[a]
100–L	L-Lake overflow to Steel Creek (SC4)	(556)[a]	(358)[a]	723	515	650	473
	*Process sewer to L Lake	24	27	(11)[a]			
	*Reactor heat exchanger cooling water to L Lake	98	72	(112)[a]			
	*Combined in 1992 (L007)				(58)[a]	(9)[a]	(19)[a]
100–K	*Process sewer to Pen Branch	100	169	74			
	*Reactor heat exchanger cooling water to Pen Branch	112	249	6,470[b]			
	*Combined in 1992 (K-Canal)				126	16	15
	(K008)				3		
	K-Area secondary effluent (PB1)			6	3		
100–C	Process Sewer to Four Mile Creek (C-Canal)	16	1	13	28	12	1
	Subtotal	978	710	7,510	775	742	548
Separations							
200–F	Effluent to Four Mile Creek (FM3)	8	327	6	5	4	13
	Effluent to Upper Three Runs	2	0	0	1	1	1
200–H	Effluent to Four Mile Creek	20	22	14	13	12	10
	Effluent to Upper Three Runs (HP15+MQB)	1	4	5	15	17	13
	Effluent Treatment Facility (U3R2A)	2,070	1,200	3,070	1,010	395	389
	Subtotal	3,100	1,550	3,090	1,040	426	426

a Not used in totals because release was counted elsewhere
b Includes heat exchanger leak of December 22–25, 1991

Table 9
Estimated Tritium Releases in SRS Streams and the Savannah River

Page 2 of 3

Area	Release Point	Direct Releases (Curies) 1989	1990	1991	1992	1993	1994
400–D	Process sewer to Beaver Dam Creek	562	358	681	576	499	235
	Subtotal	562	358	681	576	499	235
	Total Direct Releases[a]	**3,640**	**2,620**	**11,300**	**2,390**	**1,670**	**1,210**

Area	Release Point	Migration (Curies) 1989	1990	1991	1992	1993	1994
200–F&H	Solid Waste Disposal Facility (FM3A–FM3) and H-Area seepage basin to Four Mile Creek	3,600	4,280	6,420	4,090	5,330	3090
	200–F seepage basin to Four Mile Creek	4,440	3,570	5,750	4,260	2,180	2880
	200–H seepage basin to Four Mile Creek	3,310	1,900	1,810	1,470	1,020	739
100–C	Seepage basin to Four Mile Creek		7				
100–K	904–88G to Indian Grave Branch	2,220	3,560	2,160	1,530	1,100	878
100–P	Seepage basin to Steel Creek	137	224	(364)[b]	(232)[b]	(382)[b]	(386)[b]
	Subtotal	13,700	13,500	16,100	11,400	9,630	7,500
	Total Direct Releases and Migration[a]	**17,300**	**16,100**	**27,400**	**13,800**	**11,300**	**8,800**

Area	Release Point	Stream Transport (Curies) 1989	1990	1991	1992	1993	1994
400–D	Beaver Dam Creek at swamp	879	756	801	576	499	235
20–F&H	Four Mile Creek at Road A13 (FM6)	11,200	9,370	13,300	8,710	9,000	6,980
100–K	Pen Branch at Road A (PB3)	2,700	2,510	7,100	1,850	1,580	1,890
100–L	Steel Creek at Road A (SC4)	556	358	723	515	650	473
100–P	Lower Three Runs at Road B (L3R2	321	207	221	100	64	59
ETF	Upper Three Runs at Road A (U3R4)	2,160	2,380	4,410	1,300	879	747
	Total[a]	**17,800**	**15,600**	**26,600**	**13,100**	**12,700**	**10,400**

a Because of rounding, sums of individual columns might not equal totals.
b Not used in totals because release was counted elsewhere

Table 9
Estimated Tritium Releases in SRS Streams and the Savannah River

Page 3 of 3

	River Transport (Curies)					
	1989	1990	1991	1992	1993	1994
Tritium measured in the Savannah River below SRS (R10C)	17,110	16,570	28,700	16,000	12,600	12,100
Tritium measured in the Savannah River above SRS (R2)	1,480	2,080	2,420	2,210	433	1,170
Tritium measured in the Savannah River below SRS (downriver minus upriver)[a]	**15,600**	**14,490**	**26,300**	**13,800**	**12,200**	**10,900**

a Because of rounding, differences in individual columns might not equal totals.

Table 10
Calculated Migration of Radioactivity from Seepage Basins

Page 1 of 2

		Tritium (Curies)			
Location	**Source Description**	**1991**	**1992**	**1993**	**1994**
FMA7–(FM3A+FM2B)	200–F seepage basins to Four Mile Creek	5,750	4,260	2,180	2880
FM2B–FM1C	200–H seepage basins to Four Mile Creek	1,810	1,470	1,020	739
FM3A–FM3	200–H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek	6,420	4,090	5,330	3090
IGB21	K-Area retention basin to Indian Grave Branch	2,160	1,530	1,100	878
SC2A	100–P seepage basin to Steel Creek[a]	364	232	382	386

		Total Strontium (Millicuries)			
Location	**Source Description**	**1991**	**1992**	**1993**	**1994**
FMA7–(FM3A+FM2B)	200–F seepage basins to Four Mile Creek	460	194	150	78
FM2B–FM1C	200–H seepage basins to Four Mile Creek	72	78	65	35

		Cesium-137 (Millicuries)			
Location	**Source Description**	**1991**	**1992**	**1993**	**1994**
FMA7–(direct discharges to Four Mile Creek)	200–F seepage basins to Four Mile Creek	b	b	b	3
	200–H seepage basins to Four Mile Creek				
	200–H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek				

		Iodine-129 (Millicuries)			
Location	**Source Description**	**1991**	**1992**	**1993**	**1994**
FMA7–(direct discharges to Four Mile Creek)	200–F seepage basins to Four Mile Creek	22	22	22	74
	200–H seepage basins to Four Mile Creek				
	200–H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek				

a Includes some secondary effluent releases from P-Area when water is diverted from PAR Pond.
b Not detected

Table 10
Calculated Migration of Radioactivity from Seepage Basins

Page 2 of 2

Location	Source Description	Technicium-99 (Millicuries) 1991	1992	1993	1994
FMA7–(direct discharges to Four Mile Creek)	200–F seepage basins to Four Mile Creek	a	a	a	9
	200–H seepage basins to Four Mile Creek				
	200–H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek				

a Not measured

Table 11
Minimum Detectable Activities for Radionuclides in Settleable Solids

Page 1 of 1

Nuclide	MDA (pCi/sample)	Nuclide	MDA (pCi/sample)
Be-7	3.32E+01	Na-24	1.21E+01
K-40	1.09E+02	Cr-51	4.02E+01
Mn-54	7.83E+00	Mn-56	8.04E+00
Co-57	3.31E+00	Co-58	6.43E+00
Fe-59	1.19E+01	Co-60	8.22E+00
Zn-65	1.59E+01	Y-88	1.12E+01
Nb-95	6.88E+00	Nb-95M	1.34E+01
Zr-95	1.18E+01	Mo-99	4.40E+01
Ru-103	5.29E+00	Ru-106	6.63E+01
Cd-109	6.74E+01	Sn-113	5.69E+00
Sb-124	6.41E+00	Sb-125	1.48E+01
Sb-127	1.82E+01	I-131	5.03E+00
I-132	9.26E+00	Te-132	3.65E+00
Ba-133	7.69E+00	I-133	6.82E+00
Cs-134	6.54E+00	I-135	2.49E+01
Xe-135	4.66E+00	Cs-136	6.6E+00
Cs-137	6.47E+00	Ce-139	3.50E+00
Ba-140	2.30E+01	La-140	9.98E+00
Ce-141	5.68E+00	Ce-143	5.59E+00
Ce-144	2.57E+01	Nd-147	1.19E+01
Eu-154	7.01E+00	Tl-208	9.15E+00
Tl-210	6.15E+00	Pb-211	1.34E+02
Bi-212	6.17E+01	Pb-212	1.25E+01
Bi-214	1.69E+01	Pb-214	1.29E+01
Rn-219	3.78E+01	Ra-223	1.35E+01
Ra-224	1.16E+02	Ra-226	1.27E+02
Th-227	3.00E+01	Ac-228	3.22E+01
Th-228	2.89E+02	Th-231	5.41E+01
Th-234	6.87E+01	U-235	7.65E+00
Am-241	1.25E+01	Alpha	6.80E–01
		Beta	1.53E–00

Table 12
Settleable Solids Results
for the SRS Radionuclides in Settleable Solids Program

Page 1 of 4

		First Quarter		
Location	Date	Total Suspended Solids (mg/L)	Nonsettleable Solids (mg/L)	Settleable Solids (mg/L)
Note: "NF" denotes "no flow." Blank space indicates no sample taken.				
UTR–1A	3/16/94	2.00	1.00	1.00
TB–2	3/16/94	1.00	1.00	<1.00
C-Canal	3/16/94	1.00	1.00	<1.00
BDC (D–001)	3/17/94	9.00	1.00	8.00
F–001	3/16/94	<1.00	<1.00	<1.00
F–012	3/29/94	4.00	4.00	<1.00
F–012 Dup	3/29/94	9.00	4.00	5.00
F–013	3/16/94	6.00	5.00	1.00
FMC–3	3/16/94	6.00	1.00	5.00
UTR–2	3/16/94	1.00	1.00	<1.00
UTR–F3	3/16/94	1.00	<1.00	1.00
FMC–1C	3/16/94	2.00	<1.00	2.00
HP–15	3/16/94	1.00	<1.00	1.00
HP–15 Dup	3/16/94	<1.00	<1.00	<1.00
H–017	3/29/94	<7.00	4.00	3.00
H–017 Dup				
H–018	NF	NF	NF	NF
H–018 Rep				
HP–52	3/16/94	<1.00	<1.00	<1.00
McQueens Branch	3/16/94	<1.00	<1.00	<1.00
UTR–2A	3/16/94	1.00	<1.00	1.00
UTR–2A Rep				
K–008	3/29/94	6.00	4.00	2.00
K–008 Rep	3/29/94	7.00	4.00	3.00
K-Canal (K–018)	3/16/94	1.00	<1.00	1.00
K-Canal Rep	3/16/94	1.00	<1.00	1.00
PB–1	NF	NF	NF	NF
L–007	3/16/94	1.00	1.00	<1.00
L–007 Rep				
TB–3	3/16/94	<1.00	<1.00	<1.00
P–019	3/16/94	<1.00	<1.00	<1.00
P–019 Rep	3/16/94	<1.00	<1.00	<1.00
TNX–1 (X–008)	3/3/94	2.00	<1.00	2.00
TNX–1 Rep	3/3/94	2.00	<1.00	2.00

Table 12
Settleable Solids Results
for the SRS Radionuclides in Settleable Solids Program

		Second Quarter		
Location	Date	TSS (mg/L)	Nonsettleable Solids (mg/L)	Settleable Solids (mg/L)
UTR–1A	6/15/94	2.00	2.00	<1.00
TB–2	6/15/94	<1.00	<1.00	<1.00
C-Canal	6/14/94	2.00	1.00	1.00
BDC (D–001)	6/14/94	10.00	5.00	5.00
F–001	6/14/94	<1.00	<1.00	<1.00
F–012	6/27/94	3.00	3.00	<1.00
F–012 Dup	6/27/94	4.00	2.00	2.00
F–013				
FMC–3	6/14/94	7.00	<1.00	7.00
UTR–2	6/14/94	<1.00	<1.00	<1.00
UTR–F3	6/14/94	<1.00	<1.00	<1.00
FMC–1C	6/14/94	<1.00	<1.00	<1.00
HP–15	6/15/94	<1.00	<1.00	<1.00
HP–15 Dup				
H–017	6/27/94	2.00	2.00	<1.00
H–017 Dup	6/27/94	3.00	2.00	1.00
H–018	6/28/94	1.00	<1.00	1.00
H–018 Rep	6/28/94	1.00	<1.00	1.00
HP–52	6/14/94	2.00	<1.00	2.00
McQueens Branch	6/21/94	1.00	<1.00	1.00
UTR–2A	6/14/94	9.00	1.00	8.00
UTR–2A Rep	6/14/94	10.00	<1.00	10.00
K–008				
K–008 Rep				
K-Canal (K–018)	6/21/94	2.00	<1.00	2.00
K-Canal Rep				
PB–1	6/15/94	13.00	1.00	12.00
L–007	6/15/94	3.00	<1.00	3.00
L–007 Rep	6/15/94	4.00	1.00	3.00
TB–3	6/21/94	<1.00	<1.00	<1.00
P–019	6/15/94	<1.00	<1.00	<1.00
P–019 Rep				
TNX–1 (X–008)	6/15/94	41.00	16.00	25.00
TNX–1 Rep				

Table 12
Settleable Solids Results
for the SRS Radionuclides in Settleable Solids Program

		Third Quarter		
Location	Date	TSS (mg/L)	Nonsettleable Solids (mg/L)	Settleable Solids (mg/L)
UTR–1A	9/20/94	2.00	<1.00	2.00
UTR–1A Dup				
TB–2	9/20/94	<1.00	<1.00	<1.00
C-Canal	9/20/94	11.00	1.00	10.00
BDC (D–001)	9/20/94	15.00	3.00	12.00
BDC Rep	9/20/94	16.00	2.00	14.00
F–001	9/20/94	<1.00	<1.00	<1.00
FMC–3	9/20/94	1.00	<1.00	1.00
FMC–3 Dup	9/20/94	<1.00	<1.00	<1.00
U3R–2	9/20/94	<1.00	<1.00	<1.00
U3R–2 Rep/Dup				
UTR–F3	9/20/94	2.00	1.00	1.00
UTR–F3 Dup	9/20/94	3.00	1.00	2.00
FMC–1C	9/20/94	<1.00	<1.00	<1.00
HP–15	9/20/94	<1.00	<1.00	<1.00
HP–15 Rep				
H–017	9/20/94	5.00	4.00	1.00
H–017 Dup	9/20/94	5.00	4.00	1.00
H–018				
H–018 Dup				
HP–52	9/20/94	3.00	<1.00	3.00
HP–52 Dup	9/20/94	3.00	<1.00	3.00
McQueens Branch	9/20/94	1.00	1.00	<1.0
UTR–2A	9/20/94	4.00	1.00	3.00
UTR–2A Rep	9/20/94	5.00	<1.00	5.00
K–008	9/20/94	5.00	4.00	1.00
K-Canal (K–018)	9/20/94	4.00	1.00	3.00
PB–1	9/20/94	10.00	3.00	7.00
L–007	9/20/94	3.00	1.00	2.00
TB–3	9/20/94	<1.00	<1.00	<1.00
P–019	9/20/94	1.00	<1.00	1.00
P–019 Dup				
TNX–1 (X–008)	9/20/94	2.00	1.00	1.00
TNX–1 Rep	9/20/94	1.00	<1.00	1.00

Table 12
Settleable Solids Results
for the SRS Radionuclides in Settleable Solids Program

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Location	Date	Fourth Quarter TSS (mg/L)	Nonsettleable Solids (mg/L)	Settleable Solids (mg/L)
UTR–1A	12/2/94	1.00	<1.00	1.00
UTR–1A Dup	12/2/94	1.00	<1.00	1.00
TB–2	12/2/94	1.00	<1.00	1.00
C-Canal	12/2/94	2.00	<1.00	2.00
BDC (D–001)	12/2/94	8.00	2.00	6.00
BDC Rep	12/2/94	8.00	2.00	6.00
F–001	12/2/94	1.00	<1.00	1.00
F–012	11/29/94	4.00	2.00	2.00
F–012 Dup				
F–013	12/29/94	1.00	1.00	<1.00
FMC–3	12/2/94	<1.00	<1.00	<1.00
FMC–3 Dup	12/2/94	<1.00	<1.00	<1.00
U3R–2	12/2/94	1.00	<1.00	1.00
U3R–2 Rep/Dup	12/2/94	1.00	<1.00	1.00
UTR–F3	12/2/94	1.00	<1.00	1.00
UTR–F3 Dup				
FMC–1C	12/2/94	1.00	<1.00	1.00
HP–15	12/2/94	1.00	<1.00	1.00
HP–15 Rep	12/2/94	1.00	<1.00	1.00
H–017	11/29/94	4.00	3.00	1.00
H–017 Dup	11/29/94	5.00	4.00	1.00
H–018				
H–018 Dup				
HP–52	12/2/94	<1.00	<1.00	<1.00
HP–52 Dup	12/2/94			
McQueens Branch	12/2/94	<1.00	<1.00	<1.00
UTR–2A	12/2/94	<1.00	<1.00	<1.00
UTR–2A Rep	12/2/94	<1.00	<1.00	<1.00
K–008	12/2/94	1.00	1.00	<1.00
K-Canal (K–018)	12/2/94	3.00	2.00	1.00
PB–1	12/2/94	22.00	2.00	20.00
L–007	12/2/94	7.00	5.00	2.00
TB–3	12/2/94	<1.00	<1.00	<1.00
P–019	12/2/94	1.00	<1.00	1.00
P–019 Dup	12/2/94	1.00	<1.00	1.00
TNX–1 (X–008)	12/2/94	7.00	3.00	4.00
TNX–1 Rep	12/2/94			

Table 13
Radioactivity in Air

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Cs-137 (pCi/cu m)				
On Site				
F-Area	1	(1.53 ± 0.42)E–15		
Site Perimeter				
Barnwell Gate	9	(1.32 ± 0.24)E–14	(1.63 ± 0.40)E–14	(8.01 ± 2.76)E–15
Pu-238 (μCi/cc)				
On Site				
A-Area	11	(4.91 ± 8.51)E–19	(2.23 ± 1.11)E–18	(–0.69 ± 1.56)E–18
Burial Ground north	11	(2.05 ± 2.21)E–18	(5.95 ± 1.40)E–18	(–0.97 ± 1.17)E–18
Burial Ground south	10	(3.87 ± 3.18)E–18	(1.13 ± 0.30)E–17	(0.70 ± 1.22)E–18
F-Area	11	(1.08 ± 0.60)E–17	(1.99 ± 0.33)E–17	(2.74 ± 1.09)E–18
H-Area	12	(4.04 ± 4.44)E–18	(1.76 ± 0.36)E–17	(0.00 ± 1.21)E–18
Site Perimeter				
Site perimeter	47	(2.57 ± 3.46)E–19	(1.24 ± 0.65)E–18	(–2.69 ± 6.03)E–19
25-Mile Radius				
25-mile radius	38	(3.24 ± 6.01)E–19	(1.83 ± 1.30)E–18	(–6.20 ± 3.59)E–19
100-Mile Radius				
100-mile radius	43	(0.54 ± 1.38)E–18	(4.99 ± 2.24)E–18	(–2.15 ± 1.60)E–18
Pu-239 (μCi/cc)				
On Site				
A-Area	11	(0.79 ± 1.45)E–18	(4.19 ± 1.98)E–18	(–1.16 ± 0.82)E–18
Burial Ground north	11	(4.00 ± 4.16)E–18	(1.29 ± 0.23)E–17	(–2.59 ± 1.02)E–18
Burial Ground south	9	(1.11 ± 2.08)E–18	(5.76 ± 4.56)E–18	(–1.40 ± 1.72)E–18
F-Area	11	(5.83 ± 3.38)E–18	(1.21 ± 0.20)E–17	(2.07 ± 1.09)E–18
H-Area	12	(2.19 ± 1.14)E–18	(4.37 ± 1.53)E–18	(7.45 ± 5.55)E–19
Site Perimeter				
Site perimeter	46	(2.79 ± 3.82)E–19	(1.24 ± 0.89)E–18	(–6.71 ± 3.36)E–19
25-Mile Radius				
25-mile radius	45	(2.15 ± 3.85)E–19	(2.15 ± 1.14)E–18	(–2.35 ± 2.35)E–19
100-Mile Radius				
100-mile radius	45	(0.77 ± 2.58)E–18	(1.53 ± 0.27)E–17	(–5.31 ± 2.38)E–18

Table 13
Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Sr-89,90 (µCi/cc)				
On Site				
A-Area	12	(1.40 ± 4.00)E–16	(9.76 ± 2.17)E–16	(–2.97 ± 2.26)E–16
Burial Ground north	12	(0.91 ± 3.50)E–16	(7.86 ± 2.24)E–16	(–2.59 ± 2.18)E–16
Burial Ground south	10	(2.42 ± 3.47)E–16	(7.65 ± 1.75)E–16	(–2.00 ± 3.07)E–16
F-Area	12	(1.69 ± 2.51)E–16	(7.31 ± 1.71)E–16	(–1.79 ± 2.47)E–16
H-Area	12	(2.40 ± 4.33)E–16	(1.03 ± 0.42)E–15	(–2.86 ± 2.45)E–16
Site Perimeter				
Site perimeter	53	(0.45 ± 1.16)E–16	(3.08 ± 0.72)E–16	(–1.70 ± 0.74)E–16
25-Mile Radius				
25-mile radius	51	(0.58 ± 1.41)E–16	(3.50 ± 0.86)E–16	(–1.84 ± 1.02)E–16
100-Mile Radius				
100-mile radius	52	(2.21 ± 3.87)E–16	(1.31 ± 0.26)E–15	(–3.59 ± 3.04)E–16
Gross Alpha (µCi/cc)				
On Site				
A-Area	52	(1.19 ± 0.50)E–15	(2.24 ± 0.57)E–15	(1.67 ± 2.71)E–16
Burial Ground north	52	(1.69 ± 0.65)E–15	(3.32 ± 0.69)E–15	(7.30 ± 3.65)E–16
Burial Ground south	39	(1.12 ± 0.32)E–15	(1.79 ± 0.52)E–15	(2.85 ± 2.94)E–16
F-Area	52	(1.53 ± 0.65)E–15	(4.00 ± 0.84)E–15	(4.71 ± 2.30)E–16
H-Area	52	(1.46 ± 0.56)E–15	(3.56 ± 0.71)E–15	(3.48 ± 2.92)E–16
Site Perimeter				
Allendale Gate	53	(1.38 ± 0.53)E–15	(2.63 ± 0.61)E–15	(2.83 ± 2.99)E–16
Barnwell Gate	40	(1.38 ± 0.49)E–15	(2.73 ± 0.63)E–15	(7.00 ± 3.67)E–16
D-Area	52	(1.16 ± 0.51)E–15	(2.70 ± 0.64)E–15	(2.34 ± 2.67)E–16
Darkhorse at Williston Gate	53	(1.49 ± 0.61)E–15	(3.09 ± 0.47)E–15	(2.83 ± 2.99)E–16Ea
East Talatha	53	(1.43 ± 0.61)E–15	(2.88 ± 0.65)E–15	(3.99 ± 3.26)E–16
Green Pond	53	(1.35 ± 0.57)E–15	(2.90 ± 0.65)E–15	(2.44 ± 2.71)E–16
H-Area	52	(1.46 ± 0.56)E–15	(3.56 ± 0.71)E–15	(3.48 ± 2.92)E–16
Highway 125 at Road A–14	51	(1.27 ± 0.61)E–15	(2.92 ± 0.66)E–15	(0.88 ± 2.31)E–16
Highway 21 at Highway 167	52	(1.54 ± 0.55)E–15	(3.56 ± 0.71)E–15	(6.67 ± 3.63)E–16
Highway 39 at Williston Gate	51	(1.36 ± 0.63)E–15	(3.01 ± 0.65)E–15	(3.53 ± 2.91)E–16

Table 13
Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Jackson	53	(1.19 ± 0.63)E–15	(3.21 ± 0.69)E–15	(3.56 ± 2.87)E–16
Patterson Mill Road	52	(1.26 ± 0.57)E–15	(3.07 ± 0.66)E–15	(4.01 ± 3.28)E–16
Talatha Gate	43	(1.24 ± 0.55)E–15	(2.85 ± 0.65)E–15	(3.52 ± 2.92)E–16
West Jackson	53	(1.29 ± 0.60)E–15	(2.99 ± 0.65)E–15	(1.56 ± 2.71)E–16
Windsor Road	53	(1.48 ± 0.65)E–15	(3.10 ± 0.67)E–15	(1.87 ± 1.76)E–16
25-Mile Radius				
Aiken Airport	46	(1.50 ± 0.49)E–15	(3.16 ± 0.63)E–15	(7.74 ± 4.27)E–16
Aiken State Park	52	(1.23 ± 0.56)E–15	(2.69 ± 0.63)E–15	(2.43 ± 2.69)E–16
Allendale, S.C.	52	(1.18 ± 0.62)E–15	(2.71 ± 0.60)E–15	(1.09 ± 2.26)E–16
Augusta, Ga.[a]	34	(1.79 ± 0.62)E–15	(3.12 ± 0.69)E–15	(6.06 ± 3.51)E–16
Augusta Lock and Dam[a]	18	(1.79 ± 0.93)E–15	(4.95 ± 1.11)E–15	(5.51 ± 3.54)E–16
Highway 301 at State Line	27	(1.34 ± 0.77)E–15	(3.03 ± 0.66)E–15	(0.95 ± 2.19)E–16
Langley, S.C.	51	(1.72 ± 0.59)E–15	(3.41 ± 0.74)E–15	(5.08 ± 3.28)E–16
Lees, S.C.	52	(1.29 ± 0.55)E–15	(2.43 ± 0.42)E–15	(2.81 ± 2.98)E–16
Olar, S.C.	52	(1.46 ± 0.82)E–15	(4.41 ± 0.84)E–15	(1.12 ± 2.31)E–16
Perkins, Ga.	44	(1.36 ± 0.63)E–15	(3.08 ± 0.67)E–15	(4.69 ± 3.10)E–16
south Richmond, Ga.	52	(1.51 ± 0.68)E–15	(3.19 ± 0.68)E–15	(4.72 ± 3.20)E–16
Springfield, S.C.	51	(1.38 ± 0.50)E–15	(2.82 ± 0.60)E–15	(6.57 ± 3.58)E–16
Waynesboro, Ga.	52	(1.32 ± 0.76)E–15	(3.40 ± 0.49)E–15	(1.09 ± 2.34)E–16
100-Mile Radius				
Columbia, S.C.	51	(2.02 ± 0.85)E–15	(3.87 ± 0.70)E–15	(7.60 ± 3.60)E–16
Greenville, S.C.	52	(1.78 ± 0.69)E–15	(2.94 ± 0.65)E–15	(4.95 ± 3.20)E–16
Macon, Ga.	51	(1.67 ± 0.72)E–15	(3.65 ± 0.74)E–15	(4.96 ± 3.21)E–16
Savannah, Ga.	47	(1.52 ± 0.80)E–15	(4.88 ± 0.79)E–15	(2.48 ± 2.63)E–16
Gross Beta (µCi/cc)				
On Site				
A-Area	52	(1.66 ± 0.33)E–14	(2.53 ± 0.14)E–14	(8.84 ± 0.69)E–15
Burial Ground north	52	(1.70 ± 0.35)E–14	(2.55 ± 0.15)E–14	(1.12 ± 0.10)E–14
Burial Ground south	39	(1.53 ± 0.34)E–14	(2.21 ± 0.13)E–14	(9.58 ± 0.99)E–15

a The Augusta, Ga., station was shut down August 31 and replaced with a new station at the Augusta Lock and Dam. Therefore, results for the Augusta station are for January through August, and results for the Augusta Lock and Dam station are for September through December.

Table 13
Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
F-Area	52	(1.80 ± 0.40)E–14	(3.28 ± 0.15)E–14	(1.09 ± 0.10)E–14
H-Area	52	(1.72 ± 0.34)E–14	(2.66 ± 0.14)E–14	(8.66 ± 0.68)E–15
Site Perimeter				
Allendale Gate	53	(1.86 ± 0.37)E–14	(2.59 ± 0.14)E–14	(1.04 ± 0.07)E–14
Barnwell Gate	40	(1.86 ± 0.37)E–14	(2.75 ± 0.15)E–14	(1.20 ± 0.11)E–14
D-Area	52	(1.62 ± 0.38)E–14	(2.61 ± 0.17)E–14	(6.75 ± 0.62)E–15
Darkhorse at Williston Gate	53	(2.02 ± 0.46)E–14	(3.34 ± 0.16)E–14	(1.13 ± 0.07)E–14
East Talatha	53	(1.85 ± 0.39)E–14	(3.10 ± 0.15)E–14	(1.06 ± 0.10)E–14
Green Pond	53	(1.84 ± 0.37)E–14	(2.96 ± 0.15)E–14	(7.57 ± 0.65)E–15
H-Area	52	(1.72 ± 0.34)E–14	(2.66 ± 0.14)E–14	(8.66 ± 0.68)E–15
Highway 125 at Road A–14	51	(1.70 ± 0.40)E–14	(2.55 ± 0.14)E–14	(3.66 ± 0.92)E–15
Highway 21 at Highway 167	52	(1.97 ± 0.46)E–14	(3.62 ± 0.17)E–14	(1.08 ± 0.07)E–14
Highway 39 at Williston Gate	51	(1.98 ± 0.54)E–14	(4.17 ± 0.18)E–14	(1.05 ± 0.07)E–14
Jackson	53	(1.54 ± 0.34)E–14	(2.72 ± 0.14)E–14	(8.88 ± 0.68)E–15
Patterson Mill Road	52	(1.77 ± 0.35)E–14	(2.61 ± 0.14)E–14	(1.12 ± 0.07)E–14
Talatha Gate	43	(1.56 ± 0.36)E–14	(2.31 ± 0.14)E–14	(7.77 ± 1.31)E–15
West Jackson	53	(1.79 ± 0.38)E–14	(2.80 ± 0.14)E–14	(8.66 ± 0.67)E–15
Windsor Road	53	(1.98 ± 0.42)E–14	(3.26 ± 0.18)E–14	(1.07 ± 0.07)E–14
25-Mile Radius				
Aiken Airport	46	(1.75 ± 0.42)E–14	(2.99 ± 0.15)E–14	(9.49 ± 0.98)E–15
Aiken State Park	52	(1.84 ± 0.48)E–14	(3.38 ± 0.16)E–14	(7.99 ± 0.65)E–15
Allendale, S.C.	52	(1.60 ± 0.35)E–14	(2.33 ± 0.14)E–14	(6.01 ± 0.60)E–15
Augusta, Ga.[a]	34	(1.88 ± 0.31)E–14	(2.55 ± 0.15)E–14	(1.18 ± 0.11)E–14
Augusta Lock and Dam[a]	18	(2.23 ± 0.82)E–14	(5.26 ± 0.26)E–14	(1.61 ± 0.13)E–14
Highway 301 at State Line	17	(1.89 ± 0.41)E–14	(2.94 ± 0.15)E–14	(1.00 ± 0.11)E–14
Langley, S.C.	51	(1.92 ± 0.38)E–14	(3.09 ± 0.16)E–14	(9.66 ± 1.00)E–15
Lees, S.C.	52	(1.89 ± 0.40)E–14	(3.33 ± 0.17)E–14	(8.10 ± 0.96)E–15
Olar, S.C.	52	(1.86 ± 0.47)E–14	(3.45 ± 0.17)E–14	(1.02 ± 0.10)E–14
Perkins, Ga.	44	(1.68 ± 0.32)E–14	(2.35 ± 0.13)E–14	(8.43 ± 0.67)E–15

a The Augusta, Ga., station was shut down August 31 and replaced with a new station at the Augusta Lock and Dam. Therefore, results for the Augusta station are for January through August, and results for the Augusta Lock and Dam station are for September through December.

Table 13
Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
South Richmond, Ga.	52	(1.93 ± 0.41)E–14	(2.97 ± 0.15)E–14	(1.08 ± 0.10)E–14
Springfield, S.C.	51	(1.89 ± 0.42)E–14	(2.90 ± 0.16)E–14	(1.02 ± 0.10)E–14
Waynesboro, Ga.	52	(1.67 ± 0.33)E–14	(2.69 ± 0.16)E–14	(9.74 ± 0.97)E–15
100-Mile Radius				
Columbia, S.C.	51	(1.77 ± 0.42)E–14	(3.12 ± 0.15)E–14	(9.21 ± 0.97)E–15
Greenville, S.C.	52	(2.08 ± 0.57)E–14	(4.10 ± 0.12)E–14	(7.63 ± 0.83)E–15
Macon, Ga.	51	(1.82 ± 0.47)E–14	(2.83 ± 0.15)E–14	(7.03 ± 0.87)E–15
Savannah, Ga.	47	(1.61 ± 0.43)E–14	(2.66 ± 0.14)E–14	(7.44 ± 0.89)E–15

Table 14
Tritium in Atmospheric Moisture

Page 1 of 2

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
On Site				
A-Area	26	(2.47 ± 2.34)E+00	(9.73 ± 0.48)E+00	(–8.22 ± 2.97)E–01
Burial Ground North	26	(1.82 ± 1.35)E+01	(6.27 ± 0.10)E+01	(4.97 ± 0.38)E+00
Burial Ground South	18	(2.35 ± 1.12)E+01	(4.80 ± 0.11)E+01	(5.94 ± 0.45)E+00
F-Area	26	(7.52 ± 7.81)E+00	(4.20 ± 0.08)E+01	(1.15 ± 0.33)E+00
H-Area	26	(7.44 ± 6.17)E+01	(2.31 ± 0.04)E+02	(6.21 ± 0.47)E+00
Site Perimeter				
Allendale Gate	26	(1.20 ± 1.36)E+00	(6.59 ± 0.43)E+00	(–1.05 ± 3.85)E–01
Barnwell Gate	20	(1.48 ± 1.46)E+00	(4.81 ± 0.47)E+00	(0.49 ± 3.92)E–01
D-Area	26	(3.78 ± 1.98)E+00	(8.70 ± 0.46)E+00	(9.68 ± 4.08)E–01
Darkhorse atWilliston Gate	25	(2.22 ± 2.26)E+00	(1.00 ± 0.05)E+01	(2.42 ± 3.63)E–01
East Talatha	26	(2.39 ± 2.55)E+00	(1.32 ± 0.03)E+01	(5.22 ± 3.76)E–01
Green Pond	25	(1.91 ± 1.38)E+00	(4.86 ± 0.47)E+00	(–1.28 ± 3.79)E–01
Highway 125 at Road A–14	24	(1.75 ± 1.25)E+00	(4.21 ± 0.46)E+00	(0.10 ± 3.94)E–01
Highway 21 at Highway 167	26	(1.57 ± 0.98)E+00	(3.97 ± 0.44)E+00	(0.70 ± 3.47)E–01
Highway 3 at Williston Gate	25	(2.87 ± 2.28)E+00	(8.00 ± 0.45)E+00	(7.89 ± 3.96)E–01
Jackson	26	(1.44 ± 0.77)E+00	(3.17 ± 0.44)E+00	(3.69 ± 4.08)E–01
Patterson Mill Road	26	(1.04 ± 0.75)E+00	(3.35 ± 0.43)E+00	(–0.84 ± 3.53)E–01
Talatha Gate	22	(2.70 ± 3.05)E+00	(1.19 ± 0.05)E+01	(4.06 ± 3.18)E–01
West Jackson	26	(1.67 ± 1.15)E+00	(5.73 ± 0.41)E+00	(5.25 ± 3.62)E–01
Windsor Road	26	(2.47 ± 1.96)E+00	(8.54 ± 0.45)E+00	(2.01 ± 3.53)E–01
25-Mile Radius				
Aiken Airport	21	(7.26 ± 6.12)E–01	(2.51 ± 0.42)E+00	(–1.82 ± 3.60)E–01
Aiken State Park	25	(6.39 ± 6.03)E–01	(2.80 ± 0.45)E+00	(–0.81 ± 3.93)E–01
Allendale, S.C.	25	(3.44 ± 7.99)E–01	(3.53 ± 0.46)E+00	(–5.55 ± 3.64)E–01
Augusta, Ga.	17	(3.78 ± 4.59)E–01	(1.61 ± 0.39)E+00	(–1.72 ± 3.64)E–01
Highway 301 at State Line	13	(6.29 ± 7.94)E–01	(2.57 ± 0.44)E+00	(–2.21 ± 3.87)E–01
Langley, S.C.	25	(5.82 ± 4.78)E–01	(1.41 ± 0.39)E+00	(–2.95 ± 3.65)E–01
Lees, S.C.	25	(6.18 ± 5.00)E–01	(1.64 ± 0.43)E+00	(–3.51 ± 3.65)E–01
Olar, S.C.	25	(6.31 ± 7.11)E–01	(2.43 ± 0.42)E+00	(–2.08 ± 3.86)E–01
Perkins, Ga.	22	(4.31 ± 4.87)E–01	(1.53 ± 0.40)E+00	(–2.85 ± 3.85)E–01
South Richmond, Ga.	24	(6.04 ± 5.17)E–01	(1.65 ± 0.38)E+00	(–0.98 ± 3.61)E–01

Table 14
Tritium in Atmospheric Moisture

Page 2 of 2

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Springfield, S.C.	25	(0.94 ± 1.09)E+00	(5.41 ± 0.49)E+00	(–1.61 ± 3.66)E–01
Waynesboro, Ga.	26	(7.56 ± 5.82)E–01	(1.60 ± 0.39)E+00	(–6.26 ± 3.53)E–01
100-Mile Radius				
Columbia, S.C.	3	(5.21 ± 2.85)E–01	(8.43 ± 3.31)E–01	(3.01 ± 3.76)E–01
Greenville, S.C.	4	(6.21 ± 5.52)E–01	(1.30 ± 0.43)E+00	(–0.48 ± 2.48)E–01
Macon, Ga.	4	(2.53 ± 3.66)E–01	(4.79 ± 4.02)E–01	(–2.91 ± 3.92)E–01
Savannah, Ga.	3	(0.79 ± 3.42)E–01	(3.30 ± 3.20)E–01	(–3.11 ± 3.85)E–01

Table 15
Tritium in Rainwater

Page 1 of 2

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3, μCi/mL				
On Site				
A-Area	26	(0.91 ± 1.84)E–06	(8.60 ± 0.56)E–06	(–5.21 ± 3.56)E–07
Burial Ground North	26	(6.66 ± 9.87)E–06	(4.16 ± 0.11)E–05	(2.99 ± 3.89)E–07
Burial Ground South	26	(0.89 ± 1.40)E–05	(5.48 ± 0.11)E–05	(1.15 ± 3.97)E–07
F-Area	26	(2.73 ± 3.63)E–06	(1.29 ± 0.02)E–05	(–2.84 ± 3.66)E–07
H-Area	24	(5.55 ± 4.81)E–05	(1.81 ± 0.03)E–04	(1.01 ± 0.39)E–06
Site Perimeter				
Allendale Gate	26	(2.89 ± 4.87)E–07	(1.43 ± 0.42)E–06	(–6.54 ± 3.61)E–07
Barnwell Gate	26	(7.02 ± 9.92)E–07	(4.09 ± 0.38)E–06	(–4.70 ± 3.64)E–07
D-Area	26	(1.30 ± 1.59)E–06	(4.83 ± 0.42)E–06	(–3.79 ± 3.86)E–07
Darkhorse at Williston Gate	26	(0.86 ± 1.01)E–06	(4.41 ± 0.46)E–06	(–1.89 ± 3.46)E–07
East Talatha	26	(6.35 ± 9.40)E–07	(4.48 ± 0.24)E–06	(–4.19 ± 3.64)E–07
Green Pond	25	(0.69 ± 1.01)E–06	(4.30 ± 0.49)E–06	(–2.24 ± 3.45)E–07
Highway 125 at Road A–14	26	(0.99 ± 1.54)E–06	(6.47 ± 0.51)E–06	(–4.99 ± 3.58)E–07
Highway 21 at Highway 167	26	(3.75 ± 3.95)E–07	(1.30 ± 0.25)E–06	(–2.61 ± 3.86)E–07
Highway 39 at Williston Gate	26	(6.12 ± 8.95)E–07	(4.37 ± 0.46)E–06	(–3.81 ± 3.88)E–07
Jackson	26	(0.61 ± 1.08)E–06	(4.50 ± 0.49)E–06	(–7.15 ± 3.66)E–07
Patterson Mill Road	26	(3.53 ± 3.72)E–07	(1.31 ± 0.41)E–06	(–1.93 ± 3.00)E–07
Talatha Gate	26	(0.76 ± 1.57)E–06	(7.59 ± 0.43)E–06	(–2.99 ± 2.28)E–07
West Jackson	26	(0.68 ± 1.18)E–06	(5.12 ± 0.49)E–06	(–4.70 ± 3.64)E–07
Windsor Road	26	(5.51 ± 8.96)E–07	(3.00 ± 0.46)E–06	(–5.77 ± 3.60)E–07
25-Mile Radius				
Aiken Airport	26	(2.23 ± 4.10)E–07	(1.42 ± 0.33)E–06	(–7.94 ± 3.55)E–07
Aiken State Park	26	(3.72 ± 8.63)E–07	(4.03 ± 0.29)E–06	(–6.15 ± 3.75)E–07
Allendale, S.C.	26	(0.88 ± 3.12)E–07	(9.85 ± 3.90)E–07	(–5.91 ± 2.91)E–07
Augusta, Ga.	16	(0.40 ± 3.10)E–07	(5.46 ± 4.24)E–07	(–6.86 ± 3.78)E–07
Highway 301 at State Line	24	(0.92 ± 4.03)E–07	(1.29 ± 0.37)E–06	(–5.15 ± 3.61)E–07
Langley, S.C.	26	(2.90 ± 2.92)E–07	(1.05 ± 0.39)E–06	(–3.51 ± 3.99)E–07

Table 15
Tritium in Rainwater

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Lees, S.C.	26	(2.41 ± 3.36)E–07	(1.03 ± 0.39)E–06	(–3.37 ± 3.69)E–07
Olar, S.C.	26	(2.23 ± 3.27)E–07	(1.16 ± 0.25)E–06	(–2.30 ± 3.79)E–07
Perkins, Ga.	26	(1.20 ± 4.19)E–07	(9.88 ± 4.10)E–07	(–6.05 ± 3.78)E–07
South Richmond, Ga.	26	(2.46 ± 5.83)E–07	(2.74 ± 0.44)E–06	(–4.88 ± 3.69)E–07
Springfield, S.C.	26	(3.19 ± 3.06)E–07	(8.85 ± 2.44)E–07	(–0.94 ± 3.47)E–07
Waynesboro, Ga.	26	(3.91 ± 7.16)E–07	(3.25 ± 0.44)E–06	(–7.56 ± 3.55)E–07
100-Mile Radius				
Columbia, S.C.	3	(3.59 ± 4.62)E–07	(8.23 ± 3.93)E–07	(–1.02 ± 3.74)E–07
Greenville, S.C.	5	(–1.11 ± 2.27)E–07	(2.56 ± 3.82)E–07	(–2.67 ± 4.16)E–07
Macon, Ga.	4	(–2.24 ± 2.68)E–07	(1.77 ± 3.92)E–07	(–3.72 ± 3.48)E–07
Savannah, Ga.	4	(2.58 ± 2.52)E–07	(5.37 ± 3.87)E–07	(–0.76 ± 3.71)E–07

Table 16
Radioactivity in Rain Ion Columns

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Pu-238, pCi/sq m				
On Site				
H-Area	4	(5.97 ± 5.50)E–02	(1.15 ± 0.24)E–01	(9.65 ± 5.59)E–03
Site Perimeter				
Barnwell Gate	4	(0.01 ± 1.51)E–02	(1.17 ± 1.17)E–02	(–2.18 ± 0.98)E–02
Darkhorse at Williston Gate	2	(0.13 ± 1.70)E–02	(1.33 ± 1.17)E–02	(–1.07 ± 0.76)E–02
25-Mile Radius				
Olar, S.C.	2	(–1.70 ± 0.50)E–02	(–1.35 ± 1.00)E–02	(–2.06 ± 1.26)E–02
100-Mile Radius				
Columbia, S.C.	4	(0.45 ± 1.74)E–02	(1.87 ± 0.94)E–02	(–2.32 ± 1.34)E–02
Greenville, S.C.	4	(–0.03 ± 7.12)E–03	(8.65 ± 8.68)E–03	(–0.88 ± 1.96)E–02
Macon, Ga.	4	(0.18 ± 2.51)E–02	(3.60 ± 1.56)E–02	(–1.84 ± 1.30)E–02
Savannah, Ga.	3	(–2.01 ± 1.77)E–02	(–0.51 ± 1.35)E–02	(–3.96 ± 1.50)E–02
Pu-239, pCi/sq m				
On Site				
H-Area	4	(5.26 ± 6.23)E–02	(1.18 ± 0.31)E–01	(–6.43 ± 6.44)E–03
Site Perimeter				
Barnwell Gate	3	(1.57 ± 2.93)E–02	(4.93 ± 1.54)E–02	(–4.32 ± 7.54)E–03
Darkhorse at Williston Gate	4	(2.59 ± 9.14)E–03	(8.86 ± 8.87)E–03	(–1.07 ± 1.52)E–02
25-Mile Radius				
Olar, S.C.	3	(4.91 ± 5.14)E–03	(1.02 ± 0.73)E–02	(00.00 ± 6.84)E–03
100-Mile Radius				
Columbia, S.C.	3	(0.12 ± 1.43)E–02	(9.60 ± 9.61)E–03	(–1.53 ± 2.17)E–02
Greenville, S.C.	4	(4.13 ± 6.65)E–02	(1.39 ± 0.29)E–01	(–4.33 ± 7.50)E–03

Table 16
Radioactivity in Rain Ion Columns

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Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Macon, Ga.	3	(0.64 ± 3.00)E–02	(4.04 ± 1.96)E–02	(–1.61 ± 1.61)E–02
Savannah, Ga.	3	(1.70 ± 2.95)E–03	(0.51 ± 1.14)E–02	(00.00 ± 1.47)E–02
Sr-89,90, pCi/sq m				
On Site				
H-Area	4	(–0.51 ± 6.70)E+00	(8.01 ± 1.21)E+00	(–7.57 ± 6.42)E+00
Site Perimeter				
Barnwell Gate	4	(1.12 ± 7.43)E+00	(7.10 ± 1.26)E+00	(–9.55 ± 4.45)E+00
Darkhorse at Williston Gate	4	(5.04 ± 4.71)E+00	(1.09 ± 0.36)E+01	(0.38 ± 5.91)E+00
25-Mile Radius				
Olar, S.C.	4	(0.62 ± 6.19)E+00	(8.97 ± 1.34)E+00	(–5.92 ± 6.75)E+00
100-Mile Radius				
Columbia, S.C.	4	(6.01 ± 5.40)E+00	(1.29 ± 0.61)E+01	(1.12 ± 0.99)E+00
Greenville, S.C.	5	(6.10 ± 6.96)E+00	(1.77 ± 0.39)E+01	(0.94 ± 5.61)E+00
Macon, Ga.	4	(3.78 ± 6.36)E+00	(1.30 ± 0.37)E+01	(–1.05 ± 5.79)E+00
Savannah, Ga.	4	(5.57 ± 4.96)E+00	(1.30 ± 0.37)E+01	(2.75 ± 9.07)E+00
Gross Beta		**pCi/sq m per year[a]**	**pCi/sq m**	**pCi/sq m**
On Site				
H-Area	13	(6.44 ± 3.42)E+02	(9.17 ± 0.84)E+01	(1.11 ± 0.49)E+01
Site Perimeter				
Barnwell Gate	13	(4.68 ± 2.81)E+02[a]	(8.53 ± 0.88)E+01	(0.73 ± 4.21)E+00
Darkhorse at Williston Gate	13	(6.97 ± 4.55)E+02[a]	(1.25 ± 0.10)E+02	(1.95 ± 0.53)E+01
25-Mile Radius				
Olar, S.C.	13	(7.53 ± 3.98)E+02[a]	(1.25 ± 0.10)E+02	(1.54 ± 0.51)E+01

a The mean concentrations for gross beta and gross alpha have been normalized to pCi/sq m per year to allow comparison between concentrations collected at different intervals.

Table 16
Radioactivity in Rain Ion Columns

Page 3 of 3

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
100-Mile Radius				
Columbia, S.C.	4	(6.04 ± 3.76)E+02[a]	(2.87 ± 0.20)E+02	(8.39 ± 1.07)E+01
Greenville, S.C.	5	(1.28 ± 0.49)E+03[a]	(3.65 ± 0.20)E+02	(1.14 ± 0.12)E+02
Macon, Ga.	4	(5.60 ± 5.36)E+02[a]	(3.07 ± 0.20)E+02	(2.82 ± 0.68)E+01
Savannah, Ga.	4	(7.20 ± 3.80)E+02[a]	(3.15 ± 0.25)E+02	(9.89 ± 1.38)E+01
Gross Alpha		**pCi/sq m per year[a]**	**pCi/sq m**	**pCi/sq m**
On Site				
H-Area	13	(1.90 ± 3.54)E+01[a]	(9.60 ± 4.01)E+00	(–1.16 ± 1.03)E+00
Site Perimeter				
Barnwell Gate	13	(4.55 ± 2.24)E+01[a]	(5.23 ± 2.89)E+00	(–1.25 ± 1.10)E+00
Darkhorse at Williston Gate	13	(1.24 ± 2.52)E+01[a]	(4.20 ± 3.14)E+00	(–2.19 ± 1.53)E+00
25-Mile Radius				
Olar, S.C.	13	(1.87 ± 3.12)E+01[a]	(6.12 ± 3.35)E+00	(–1.86 ± 1.44)E+00
100-Mile Radius				
Columbia, S.C.	4	(0.45 ± 1.73)E+01[a]	(6.00 ± 5.78)E+00	(–3.91 ± 2.59)E+00
Greenville, S.C.	5	(0.92 ± 1.52)E+01[a]	(6.34 ± 5.55)E+00	(–0.93 ± 4.03)E+00
Macon, Ga.	4	(4.68 ± 9.08)E+01[a]	(4.53 ± 1.07)E+01	(–3.18 ± 2.61)E+00
Savannah, Ga.	4	(3.04 ± 4.16)E+01[a]	(1.73 ± 0.90)E+01	(–4.26 ± 3.12)E+00

a The mean concentrations for gross beta and gross alpha have been normalized to pCi/sq m per year to allow comparison between concentrations collected at different intervals.

Table 17
Thermoluminescent Dosimeter (TLD) Results: SRS Areas

Page 1 of 4

Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year[a]

Location	Quarter 1[b]	Quarter 2[b]	Quarter 3[b]	Quarter 4[b]	mR/Year[b]
Note: Blank spaces indicate missing TLD results.					
643–26E Building TLD 1	0.3	0.29	0.26	0.28	103.7
643–26E Building TLD 2	0.24	0.22	0.2	0.21	79.9
643–7G Building TLD 1	0.27	0.25	0.24	0.25	91.9
643–7G Building TLD 2	0.28	0.27	0.24	0.24	92.8
643–7G Building TLD 3	0.34	0.33	0.3	0.28	113.8
643–7G Building TLD 4	0.68	0.66	0.62	0.6	231.7
643–G Building TLD 1	0.25	0.24	0.21	0.21	82.9
643–G Building TLD 2	0.3	0.28	0.25	0.26	100.2
643–G Building TLD 3	0.93	0.88	0.84	0.82	315.4
643–G Building TLD 4	0.33	0.31	0.28	0.28	108.5
B-Area TLD 1	0.77	0.77	0.69	0.68	265.1
B-Area TLD 2	0.23	0.21	0.18	0.18	73.5
B-Area TLD 3	0.24	0.21	0.19	0.19	74.9
B-Area TLD 4	0.23	0.21	0.18	0.19	74.3
C-Area TLD 1	0.21	0.2	0.2	0.2	73.8
C-Area TLD 2	0.2	0.18	0.2	0.19	70.5
C-Area TLD 3	0.21	0.2	0.21	0.21	75.2
C-Area TLD 4	0.2	0.2	0.2	0.19	72.4
Classification Yard TLD 1	0.2	0.2	0.2	0.19	71.9
Classification Yard TLD 2	0.21	0.21	0.2	0.19	73.8
Classification Yard TLD 3		0.23	0.23	0.22	82.8
Classification Yard TLD 4	0.18	0.18	0.18	0.17	64.2
D-Area TLD 1	0.21	0.19	0.2	0.19	73
D-Area TLD 2	0.18	0.18	0.21	0.2	70.3
D-Area TLD 3	0.22	0.21	0.22	0.21	79
D-Area TLD 4	0.22	0.2	0.21	0.23	78.3

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, this derived unit is used to facilitate data comparison between locations or through time at a single location.
b An 18% uncertainty is associated with each result.

Table 17
Thermoluminescent Dosimeter (TLD) Results: SRS Areas

Page 2 of 4

Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year[a]

Location	Quarter 1[b]	Quarter 2[b]	Quarter 3[b]	Quarter 4[b]	mR/Year[b]
D-Area TLD 5	0.18	0.18	0.18	0.17	65.5
D-Area TLD 6	0.16	0.16	0.17	0.17	59.6
F-Area TLD 1	0.24	0.22	0.2	0.21	79.4
F-Area TLD 2	0.26	0.24	0.23	0.23	88
F-Area TLD 3	0.27	0.26	0.23	0.24	90.2
F-Area TLD 4	0.27	0.26	0.22	0.23	89.2
F-Area TLD 5	0.4	0.37	0.35	0.39	136.6
F-Area TLD 6	0.29	0.27	0.24	0.25	95.5
H-Area TLD 1	0.27	0.24	0.23	0.22	88
H-Area TLD 2	0.28	0.26	0.22	0.24	90.7
H-Area TLD 3	0.25	0.23	0.24	0.24	86.9
H-Area TLD 4	0.43	0.48	0.42	0.39	156.4
H-Area TLD 5	0.39	0.4	0.36	0.39	140.5
H-Area TLD 6	0.28	0.26	0.24	0.24	92.7
H-Area TLD 7	0.28	0.26	0.23	0.24	91.2
H-Area TLD 8	0.27	0.27	0.24	0.25	93.3
K-Area TLD 1	0.22	0.2	0.2	0.19	73.9
K-Area TLD 2	0.19	0.18	0.18	0.17	65.4
K-Area TLD 3	0.26	0.24	0.25	0.25	91.4
K-Area TLD 4	0.22	0.2	0.21	0.2	76.2
L-Area TLD 1	0.22	0.2	0.21	0.21	76.1
L-Area TLD 2	0.21	0.2	0.21	0.19	73.1
L-Area TLD 3	0.2	0.21	0.21	0.2	74.5
L-Area TLD 4	0.24	0.22	0.23	0.22	82.5
M-Area TLD 1	0.29	0.27	0.24	0.25	95
M-Area TLD 2	0.22	0.21	0.18	0.18	72.2
M-Area TLD 3	0.32	0.29	0.27	0.27	104.6

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, this derived unit is used to facilitate data comparison between locations or through time at a single location.
b An 18% uncertainty is associated with each result.

Table 17
Thermoluminescent Dosimeter (TLD) Results: SRS Areas

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Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year[a]

Location	Quarter 1[b]	Quarter 2[b]	Quarter 3[b]	Quarter 4[b]	mR/Year[b]
M-Area TLD 4	0.24	0.22	0.2	0.2	77.5
M-Area TLD 5	0.25	0.24	0.21	0.22	84.3
M-Area TLD 6	0.23	0.22	0.18	0.19	75.1
M-Area TLD 7	0.28	0.28	0.24	0.24	95.1
M-Area TLD 8	0.32	0.3	0.31	0.26	108.3
N-Area TLD 1	0.27	0.27	0.27	0.26	97.8
N-Area TLD 2	0.27	0.26	0.26	0.25	94.5
N-Area TLD 3	0.28	0.33	0.35	0.33	117.3
N-Area TLD 4	0.35	0.36	0.34	0.34	125.8
N-Area TLD 5	0.88	0.78	0.69	0.64	272.2
P-Area TLD 1	0.22	0.23	0.22	0.21	79.8
P-Area TLD 2	0.19	0.2	0.2	0.19	70.4
P-Area TLD 3	0.21	0.21	0.21	0.2	74.7
P-Area TLD 4	0.22	0.21	0.22	0.21	78
R-Area TLD 1	0.2	0.2	0.21	0.19	72.9
R-Area TLD 2	0.22	0.21	0.22	0.2	78.1
R-Area TLD 3	0.18	0.19	0.19	0.18	66.3
R-Area TLD 4	0.22	0.21	0.22	0.21	79.3
R-Area TLD 5	0.22	0.21	0.23	0.22	79.3
R-Area TLD 6	0.2	0.19	0.2	0.19	71.4
R-Area TLD 7	0.21	0.21	0.21	0.2	75.3
Railroad at Roads E & F 1	0.26	0.24	0.22	0.24	87.4
Railroad at Roads E & F 2	0.27	0.25	0.23	0.23	89.4
S-Area TLD 1	0.26	0.24	0.22	0.24	87.9
S-Area TLD 2	0.37	0.34		0.32	124.5
S-Area TLD 3	0.33	0.3	0.29	0.28	109
S-Area TLD 4	0.29	0.28	0.28	0.26	101.7

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, this derived unit is used to facilitate data comparison between locations or through time at a single location.
b An 18% uncertainty is associated with each result.

Table 17
Thermoluminescent Dosimeter (TLD) Results: SRS Areas

Page 4 of 4

Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year[a]

Location	Quarter 1[b]	Quarter 2[b]	Quarter 3[b]	Quarter 4[b]	mR/Year[b]
A-Area TLD 1	0.26	0.23	0.2	0.21	82.9
A-Area TLD 2	0.32	0.3	0.27	0.28	107.3
A-Area TLD 3	0.28	0.25	0.22	0.23	89
A-Area TLD 4	0.29	0.26	0.23	0.24	92.7
A-Area TLD 5	0.27	0.25	0.22	0.22	86.3
A-Area TLD 6	0.25	0.25	0.22	0.23	87.3
A-Area TLD 7	0.29	0.27	0.24	0.24	94.2
A-Area TLD 8	0.22	0.21	0.21	0.22	78.2
T-Area TLD 1	0.19	0.18	0.19	0.17	66.2
T-Area TLD 2	0.24	0.24	0.25	0.23	88.3
T-Area TLD 3	0.21	0.22	0.22	0.23	80
T-Area TLD 4	0.29	0.28	0.24	0.28	99.8
Z-Area TLD 1	0.23	0.2	0.19	0.19	73.9
Z-Area TLD 2	0.22	0.21	0.19	0.18	73.1
Z-Area TLD 3	0.23	0.2	0.18	0.18	72.5
Z-Area TLD 4	0.25	0.24	0.22	0.22	83.9

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, this derived unit is used to facilitate data comparison between locations or through time at a single location.
b An 18% uncertainty is associated with each result.

Table 18
Thermoluminescent Dosimeter (TLD) Results: Site Perimeter Stations

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Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year[a]

Location	Quarter 1[b]	Quarter 2[b]	Quarter 3[b]	Quarter 4[b]	mR/Year[b]
Note: Blank spaces indicate missing TLD results.					
Site Perimeter TLD 1A	0.17	0.16	0.16		58.3
Site Perimeter TLD 1B	0.17	0.16		0.17	59.6
Site Perimeter TLD 1C	0.17	0.18	0.17	0.17	61.9
Site Perimeter TLD 1D	0.17	0.15	0.16	0.15	56.3
Site Perimeter TLD 2A	0.23	0.22	0.23	0.24	82.3
Site Perimeter TLD 2B	0.19	0.19	0.18	0.18	66.5
Site Perimeter TLD 2C	0.18	0.17	0.18	0.17	63
Site Perimeter TLD 2D	0.16	0.16	0.16	0.16	56.9
Site Perimeter TLD 3A	0.17	0.17	0.17	0.16	60.2
Site Perimeter TLD 3B	0.16	0.16	0.16	0.16	57.2
Site Perimeter TLD 3C	0.17	0.16	0.17	0.16	59
Site Perimeter TLD 3D	0.2	0.2	0.2	0.21	72.6
Site Perimeter TLD 4A	0.2	0.19	0.2	0.19	69.6
Site Perimeter TLD 4B	0.18	0.17	0.17	0.17	61.4
Site Perimeter TLD 4C	0.17	0.17	0.17	0.17	61.6
Site Perimeter TLD 4D	0.17	0.17	0.16	0.16	59.7
Site Perimeter TLD 5A	0.2	0.19	0.2	0.2	70.2
Site Perimeter TLD 5B	0.19	0.19	0.2	0.18	67.7
Site Perimeter TLD 5C	0.2	0.21	0.21	0.2	72.5
Site Perimeter TLD 5D	0.24	0.24	0.25	0.25	87.4
Site Perimeter TLD 6A	0.25	0.24	0.25	0.25	87.9
Site Perimeter TLD 6B	0.25	0.26	0.25	0.27	91
Site Perimeter TLD 6C	0.2	0.22	0.21	0.21	75.1
Site Perimeter TLD 6D	0.17	0.17	0.17	0.16	59.3
Site Perimeter TLD 7A	0.21	0.21	0.2	0.2	73.4
Site Perimeter TLD 7B	0.22	0.22	0.22	0.22	78.6

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, this derived unit is used to facilitate data comparison between locations or through time at a single location.
b An 18% uncertainty is associated with each result.

Table 18
Thermoluminescent Dosimeter (TLD) Results: Site Perimeter Stations

Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year[a]

Location	Quarter 1[b]	Quarter 2[b]	Quarter 3[b]	Quarter 4[b]	mR/Year[b]
Site Perimeter TLD 7C	0.19	0.18	0.19	0.18	66.4
Site Perimeter TLD 7D	0.19	0.19	0.19	0.2	68.8
Site Perimeter TLD 8A	0.18	0.18	0.17	0.18	64.7
Site Perimeter TLD 8B	0.2	0.21		0.2	72.4
Site Perimeter TLD 8C	0.2	0.21	0.2	0.2	72.7
Site Perimeter TLD 8D	0.18	0.19	0.19	0.19	66.3
Site Perimeter TLD 9A	0.19	0.19	0.19	0.19	68
Site Perimeter TLD 9B	0.17	0.17	0.17	0.17	60.4
Site Perimeter TLD 9C	0.18	0.17	0.17	0.17	61
Site Perimeter TLD 9D	0.16	0.15	0.15	0.16	56.3
Site Perimeter TLD 10	0.17	0.15	0.15	0.15	54.8
Site Perimeter TLD 11	0.16		0.16		58.3
Site Perimeter TLD 12	0.17	0.17	0.17	0.17	59.7
Site Perimeter TLD 13	0.16	0.17		0.16	58
Site Perimeter TLD 14	0.19	0.18	0.18	0.17	64.1
Site Perimeter TLD 15	0.18	0.2	0.18	0.18	66.9
Site Perimeter TLD 16	0.21	0.21	0.21	0.21	74.8
Site Perimeter TLD 17	0.23	0.22	0.22	0.23	80
Site Perimeter TLD 18	0.19	0.19	0.19	0.18	67.5
Site Perimeter TLD 19	0.19	0.18	0.19	0.18	66.1
Site Perimeter TLD 20	0.25	0.26	0.23	0.27	90.1
Site Perimeter TLD 21	0.17	0.17	0.15	0.18	59.7
Site Perimeter TLD 22	0.18	0.17	0.15	0.19	62
Site Perimeter TLD 23	0.2	0.2	0.17	0.2	68.2
Site Perimeter TLD 24	0.18	0.17	0.15	0.18	60.9
Site Perimeter TLD 25	0.17	0.16	0.15	0.18	58.5
Site Perimeter TLD 26	0.17	0.16	0.15	0.17	58.1

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, this derived unit is used to facilitate data comparison between locations or through time at a single location.
b An 18% uncertainty is associated with each result.

Table 18
Thermoluminescent Dosimeter (TLD) Results: Site Perimeter Stations

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Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year[a]

Location	Quarter 1[b]	Quarter 2[b]	Quarter 3[b]	Quarter 4[b]	mR/Year[b]
Site Perimeter TLD 27	0.19	0.19	0.16	0.19	64.3
Site Perimeter TLD 28	0.19	0.18	0.16	0.18	63
Site Perimeter TLD 29	0.16	0.16	0.13	0.17	54.6
Site Perimeter TLD 30	0.19	0.19	0.16	0.2	65.6
Site Perimeter TLD 31	0.17	0.17	0.15	0.18	58.8
Site Perimeter TLD 32	0.19	0.18	0.16	0.19	63.4
Site Perimeter TLD 33	0.19	0.18	0.16	0.2	65.2
Site Perimeter TLD 34	0.18	0.18	0.16	0.2	64
Site Perimeter TLD 35	0.17	0.17	0.15	0.18	60.5
Site Perimeter TLD 36	0.2	0.2	0.17	0.21	68.6
Site Perimeter TLD 37	0.19	0.19	0.17	0.2	66.8
Site Perimeter TLD 38	0.2	0.21	0.18	0.21	71.1
Site Perimeter TLD 39	0.22	0.2	0.18	0.18	69.2
Site Perimeter TLD 40	0.19	0.17	0.15	0.16	60.7
Site Perimeter TLD 41	0.19	0.17	0.15	0.17	61.4
Site Perimeter TLD 42	0.21	0.19	0.18	0.18	68.9
Site Perimeter TLD 43	0.24	0.23	0.21	0.22	79.7
Site Perimeter TLD 44	0.2	0.18	0.17	0.18	64.6
Site Perimeter TLD 45	0.19	0.18	0.17	0.17	63.3
Site Perimeter TLD 46	0.21	0.2	0.18	0.18	68.5
Site Perimeter TLD 47	0.21	0.19	0.17	0.17	65.4
Site Perimeter TLD 48	0.2	0.18	0.18	0.17	64.7
Site Perimeter TLD 49	0.28	0.27	0.26	0.26	94.7
Site Perimeter TLD 50	0.19	0.18	0.16	0.17	61.9
Site Perimeter TLD 51	0.2	0.19	0.16	0.18	64.4
Site Perimeter TLD 52	0.22	0.19	0.19	0.19	70.1
Site Perimeter TLD 53	0.18	0.17	0.15	0.16	59.1

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, this derived unit is used to facilitate data comparison between locations or through time at a single location.
b An 18% uncertainty is associated with each result.

Table 18
Thermoluminescent Dosimeter (TLD) Results: Site Perimeter Stations

Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year[a]

Location	Quarter 1[b]	Quarter 2[b]	Quarter 3[b]	Quarter 4[b]	mR/Year[b]
Site Perimeter TLD 54	0.17	0.15	0.14	0.14	54.5
Site Perimeter TLD 55	0.17	0.15	0.14	0.14	52.9
Site Perimeter TLD 56	0.17	0.15	0.14	0.15	54.1
Site Perimeter TLD 57A	0.18	0.16	0.14	0.15	56
Site Perimeter TLD 57B	0.19	0.17	0.16	0.17	60.7
Site Perimeter TLD 57C	0.18	0.17	0.15	0.16	59.7
Site Perimeter TLD 57D	0.2	0.18	0.17	0.17	64.3
Site Perimeter TLD 58A	0.23	0.21	0.19	0.21	75.2
Site Perimeter TLD 58B	0.19	0.18	0.15	0.17	62.4
Site Perimeter TLD 58C	0.18	0.17	0.16	0.16	59.8
Site Perimeter TLD 58D	0.2	0.19	0.17	0.18	66.2
Site Perimeter TLD 59A	0.2	0.17	0.15	0.16	61
Site Perimeter TLD 59B	0.2	0.18	0.17	0.18	65.4
Site Perimeter TLD 59C	0.23	0.21	0.2	0.2	75.8
Site Perimeter TLD 59D	0.21	0.2	0.18	0.19	69.1
Site Perimeter TLD 60A	0.21	0.21	0.18	0.2	71.5
Site Perimeter TLD 60B	0.19	0.17	0.15	0.16	59.7
Site Perimeter TLD 60C	0.18	0.18	0.15	0.16	60
Site Perimeter TLD 60D	0.18	0.16	0.14	0.15	57.1
Site Perimeter TLD 61A	0.2	0.17	0.16	0.17	62.8
Site Perimeter TLD 61B	0.2	0.18	0.17	0.17	64.6
Site Perimeter TLD 61C	0.18	0.17	0.15	0.17	60
Site Perimeter TLD 61D	0.2	0.2	0.18	0.18	67.6
Site Perimeter TLD 62A	0.19	0.18	0.16	0.17	62.5
Site Perimeter TLD 62B	0.19	0.17	0.15	0.16	59.8
Site Perimeter TLD 62C	0.21	0.19	0.17	0.18	67.3
Site Perimeter TLD 62D	0.24	0.22	0.19	0.2	76

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, this derived unit is used to facilitate data comparison between locations or through time at a single location.
b An 18% uncertainty is associated with each result.

Table 18
Thermoluminescent Dosimeter (TLD) Results: Site Perimeter Stations

Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year[a]

Location	Quarter 1[b]	Quarter 2[b]	Quarter 3[b]	Quarter 4[b]	mR/Year[b]
Site Perimeter TLD 63A	0.19	0.17	0.15	0.16	59.1
Site Perimeter TLD 63B	0.19	0.18	0.15	0.18	60.5
Site Perimeter TLD 63C	0.19	0.18	0.16	0.18	61.7
Site Perimeter TLD 63D	0.17	0.17	0.14	0.15	56.2
Site Perimeter TLD 64A	0.18	0.18	0.15	0.16	58.6
Site Perimeter TLD 64B	0.17	0.16	0.14	0.15	55.2
Site Perimeter TLD 64C	0.18	0.18	0.15	0.16	58.8
Site Perimeter TLD 64D	0.17	0.17	0.15	0.16	56.5
Site Perimeter TLD 65A	0.19	0.19	0.16	0.18	63.9
Site Perimeter TLD 65B	0.22	0.22	0.2	0.21	74.2
Site Perimeter TLD 65C	0.26	0.25	0.22	0.25	85.3
Site Perimeter TLD 65D	0.22	0.22	0.2	0.21	73.9
Site Perimeter TLD 66A	0.24	0.25	0.22	0.24	83.4
Site Perimeter TLD 66B	0.26	0.24	0.24	0.26	87
Site Perimeter TLD 66C	0.2	0.2	0.17	0.18	64.9
Site Perimeter TLD 66D	0.21	0.2	0.19	0.21	70.7
Site Perimeter TLD 67A	0.2	0.19	0.17	0.19	64.3
Site Perimeter TLD 67B	0.2	0.2	0.18	0.2	68.2
Site Perimeter TLD 67C	0.2	0.21	0.18	0.19	67.2
Site Perimeter TLD 67D	0.17	0.17	0.14	0.15	55.1
Site Perimeter TLD 68A	0.17	0.17	0.15	0.16	57.5
Site Perimeter TLD 68B	0.18	0.18	0.15	0.17	58.6
Site Perimeter TLD 68C	0.21	0.2	0.17	0.18	66.6
Site Perimeter TLD 68D	0.22	0.21	0.19	0.22	72.8
Site Perimeter TLD 69A	0.23	0.23	0.21	0.22	77.7
Site Perimeter TLD 69B	0.18	0.17	0.15	0.16	57.5
Site Perimeter TLD 69C	0.19	0.18	0.16	0.17	60.2

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, this derived unit is used to facilitate data comparison between locations or through time at a single location.
b An 18% uncertainty is associated with each result.

Table 18
Thermoluminescent Dosimeter (TLD) Results: Site Perimeter Stations

Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year[a]

Location	Quarter 1[b]	Quarter 2[b]	Quarter 3[b]	Quarter 4[b]	mR/Year[b]
Site Perimeter TLD 69D	0.2	0.19	0.17	0.19	65.9
Site Perimeter TLD 70A	0.2	0.2	0.17	0.18	65.4
Site Perimeter TLD 70B	0.17	0.16	0.14	0.16	55.1
Site Perimeter TLD 70C	0.19	0.19	0.16	0.17	62
Site Perimeter TLD 70D	0.21	0.22	0.18	0.2	70.1
Site Perimeter TLD 71A	0.18	0.17	0.15	0.17	59.3
Site Perimeter TLD 71B	0.21	0.21	0.19	0.2	70.8
Site Perimeter TLD 71C	0.2	0.19	0.17	0.19	65.5
Site Perimeter TLD 71D	0.21	0.21	0.19	0.2	70.9
Site Perimeter TLD 72A	0.2	0.2	0.17	0.19	66.8
Site Perimeter TLD 72B	0.2	0.19	0.16	0.18	63.9
Site Perimeter TLD 72C	0.2	0.18	0.16	0.18	63
Site Perimeter TLD 72D	0.19	0.18	0.16	0.17	61.3
Site Perimeter TLD 73A	0.18	0.17	0.15	0.16	58
Site Perimeter TLD 73B	0.19	0.18	0.16	0.18	62.4
Site Perimeter TLD 73C	0.18	0.18	0.15	0.18	60.7
Site Perimeter TLD 73D	0.18	0.16	0.15	0.17	57.4
Site Perimeter TLD 74A	0.18	0.17	0.14	0.16	56.9
Site Perimeter TLD 74B	0.16	0.16	0.14	0.15	53.1
Site Perimeter TLD 74C	0.18	0.16	0.14	0.15	54.3
Site Perimeter TLD 74D	0.17	0.17	0.15	0.17	58.1
Site Perimeter TLD 75A	0.17	0.16	0.14	0.15	54.3
Site Perimeter TLD 75B	0.18	0.17	0.15	0.16	56.9
Site Perimeter TLD 75C	0.16	0.15	0.13	0.14	50.8
Site Perimeter TLD 75D	0.17	0.16	0.14	0.15	54.6
Site Perimeter TLD 76A	0.18	0.17	0.14	0.16	57.2
Site Perimeter TLD 76B	0.19	0.18	0.16	0.17	61.4

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, this derived unit is used to facilitate data comparison between locations or through time at a single location.
b An 18% uncertainty is associated with each result.

Table 18
Thermoluminescent Dosimeter (TLD) Results: Site Perimeter Stations

Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year[a]

Location	Quarter 1[b]	Quarter 2[b]	Quarter 3[b]	Quarter 4[b]	mR/Year[b]
Site Perimeter TLD 76C	0.17	0.17	0.15	0.16	57.7
Site Perimeter TLD 76D	0.18	0.18	0.16	0.17	59.4
Site Perimeter TLD 77	0.19	0.19	0.17	0.18	63
Site Perimeter TLD 78	0.19	0.18	0.16	0.17	61.9
Site Perimeter TLD 79A	0.2	0.18	0.16	0.19	64.1
Site Perimeter TLD 79B	0.19	0.19	0.17	0.18	63
Site Perimeter TLD 79C	0.22	0.21	0.19	0.2	71.3
Site Perimeter TLD 79D	0.22	0.2	0.18	0.18	68.8
Allied General 1	0.19	0.19	0.16	0.19	64.2
Allied General 2	0.15	0.15	0.12	0.16	51.9
Allied General 3	0.17	0.17	0.15	0.18	59
Allied General 4	0.16	0.15	0.12	0.16	52.8
Pumphouse Road 1	0.22	0.22	0.19	0.21	73.8
Pumphouse Road 2	0.22	0.21	0.19	0.2	71.1
Pumphouse Road 3	0.17	0.17	0.14	0.15	54.4
Pumphouse Road 4	0.17	0.17	0.14	0.16	56.1
Pumphouse Road 5	0.24	0.25	0.22	0.25	83.2
Pumphouse Road 6	0.22	0.22	0.18	0.2	71.1

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, this derived unit is used to facilitate data comparison between locations or through time at a single location.
b An 18% uncertainty is associated with each result.

Table 19
Thermoluminescent Dosimeter (TLD) Results: Environmental Surveillance (Air Monitoring) Stations

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Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year[a]

Location	Quarter 1[b]	Quarter 2[b]	Quarter 3[b]	Quarter 4[b]	mR/Year[b]
Note: Blank spaces indicate missing TLD results.					
Columbia 1	0.23	0.24	0.23	0.24	82.9
Columbia 2	0.23	0.21	0.24	0.27	84.7
Hwy 301	0.24	0.24			87.3
Augusta	0.22	0.22	0.2		78.2
Langley	0.25	0.24	0.22	0.25	87.6
Perkins	0.19	0.18	0.16	0.18	64.3
South Richmond	0.25	0.25	0.22	0.26	89.1
Waynesboro	0.22	0.23	0.18	0.23	77.8
Greenville 1	0.29	0.32	0.28	0.32	106.4
Greenville 2	0.32	0.29	0.27	0.27	101.5
Macon 1	0.3	0.27	0.3	0.29	104.3
Macon 2	0.28	0.23	0.27	0.24	90.3
Hwy 39	0.18	0.2	0.17	0.2	67.9
A-Area	0.23	0.25	0.22	0.25	84.9
BG North	0.31	0.33	0.31	0.33	116.8
BG South	0.2	0.23	0.21	0.24	80.2
Dark Horse	0.18	0.19	0.17	0.19	65.3
East Talatha	0.16	0.18	0.16	0.18	62.7
F-Area	0.26	0.29	0.27	0.29	101.3
H-Area	0.28	0.31	0.28	0.3	105.7
Aiken Gate	0.2	0.23	0.2	0.22	76.4
Windsor Rd.	0.17	0.19	0.14	0.18	61.5
Hwy 21/Hwy 167	0.23	0.27	0.21	0.24	85.8
Rd A–14	0.18	0.21	0.17	0.18	66.5
Allendale Gate	0.14	0.17	0.14	0.14	53.1
Barnwell Gate	0.18	0.22	0.18	0.2	70.5

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, this derived unit is used to facilitate data comparison between locations or through time at a single location.
b An 18% uncertainty is associated with each result.

Table 19
Thermoluminescent Dosimeter (TLD) Results: Environmental Surveillance (Air Monitoring) Stations

Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year[a]

Location	Quarter 1[b]	Quarter 2[b]	Quarter 3[b]	Quarter 4[b]	mR/Year[b]
Note: Blank spaces indicate missing TLD results.					
D-Area	0.18	0.22	0.17	0.18	67.8
Green Pond	0.17	0.21	0.17	0.18	65.5
Jackson	0.19	0.23	0.19	0.19	73.1
PMR	0.16	0.2	0.15	0.16	61
West Jackson	0.22	0.2	0.19	0.24	77.1
Savannah 1	0.18	0.17	0.14	0.18	60.1
Savannah 2	0.18	0.19	0.16	0.19	63.9
Aiken Airport	0.2	0.25	0.17	0.19	73.6
Allendale	0.21		0.17	0.19	69.2
Aiken State Park	0.16	0.21	0.14	0.16	59.9
Lees	0.17	0.22	0.14	0.16	62.5
Olar	0.17	0.23	0.13	0.17	63.8
Springfield	0.28	0.29			103.7

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, this derived unit is used to facilitate data comparison between locations or through time at a single location.
b An 18% uncertainty is associated with each result.

Table 20
Thermoluminescent Dosimeter (TLD) Results: Population Centers

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Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year[a]

Location	Quarter 1[b]	Quarter 2[b]	Quarter 3[b]	Quarter 4[b]	mR/Year[b]
Note: Blank spaces indicate missing TLD results.					
Barnwell	0.22	0.27	0.24	0.25	88.9
Beech Island	0.25	0.26	0.24	0.25	91.3
Graniteville	0.2	0.22		0.21	76.6
Jackson	0.2	0.21	0.22	0.21	75.7
Martin	0.15	0.17	0.15	0.16	56.4
North Augusta	0.3	0.32	0.31	0.32	113.6
Williston	0.25	0.27	0.26	0.29	98
Windsor	0.16	0.17	0.15	0.17	58.8
Aiken 1	0.27	0.26	0.25	0.28	96.5
Aiken 2	0.27	0.24	0.24	0.27	93.7
Allendale	0.19		0.2	0.22	74
Blackville	0.25	0.25	0.23	0.25	89.4
Couchton	0.28		0.24	0.27	96.8
New Ellenton	0.26	0.24	0.23	0.26	89.8
Olar	0.29	0.29	0.27	0.31	106.1
Springfield	0.27	0.24		0.25	93.8
Wagener	0.24	0.22	0.19	0.22	80.6
Alexander	0.19	0.17	0.18	0.19	66.6
Augusta 1	0.27		0.25	0.27	97.1
Augusta 2	0.29	0.27	0.28	0.29	103.3
Augusta 3	0.3	0.28	0.29	0.3	105.8
Augusta 4	0.24	0.21	0.21	0.24	81.4
Augusta 5		0.27	0.29	0.3	103.3
Augusta 7	0.23	0.22	0.22	0.23	82.7
Augusta 8	0.29	0.26	0.27	0.29	101.3
Girard	0.3	0.27		0.28	104.1

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, this derived unit is used to facilitate data comparison between locations or through time at a single location.
b An 18% uncertainty is associated with each result.

Table 20
Thermoluminescent Dosimeter (TLD) Results: Population Centers

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Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year[a]

Location	Quarter 1[b]	Quarter 2[b]	Quarter 3[b]	Quarter 4[b]	mR/Year[b]
Note: Blank spaces indicate missing TLD results.					
Hephzibah	0.2	0.17	0.18	0.19	67.5
McBean	0.29	0.26	0.27	0.28	100.5
Sardis	0.25	0.23	0.21	0.23	84.5
Waynesboro	0.23	0.2	0.19	0.2	75.4
Batesburg	0.28	0.31	0.28	0.3	105.6
Edgefield	0.24	0.26	0.24	0.25	90.3
Johnston	0.29	0.3	0.28	0.29	105.3
Lincoln	0.27	0.29	0.27	0.28	99.8
McCormick	0.23	0.25	0.23	0.24	86.8
Saluda	0.35		0.36	0.38	131.2
Thompson	0.34	0.36	0.3	0.33	121.7
Estill	0.28	0.25	0.26	0.25	93.4
Hampton	0.31	0.27	0.29	0.29	103.7
North		0.28	0.27	0.28	99.6
Orangeburg	0.31	0.29	0.3	0.3	108.1
Smoaks	0.22	0.2	0.21	0.21	75.4
St. Matthews	0.33	0.28	0.29	0.3	108.2
Swansea	0.35	0.32	0.32	0.29	115.1
Louisville	0.28	0.35	0.29	0.36	115.4
Millen	0.18	0.24	0.21	0.23	77.3
Newington	0.22	0.3	0.25	0.3	95.9
Statesboro	0.19	0.26	0.22	0.26	82.7
Sylvania	0.22	0.29	0.25	0.3	95.3
Wadley	0.24	0.3	0.27	0.32	102.4
Wrens	0.2	0.21	0.21	0.24	78.6
Columbia 1	0.29	0.35		0.32	115.7

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, this derived unit is used to facilitate data comparison between locations or through time at a single location.
b An 18% uncertainty is associated with each result.

Table 20
Thermoluminescent Dosimeter (TLD) Results: Population Centers

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Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year[a]

Location	Quarter 1[b]	Quarter 2[b]	Quarter 3[b]	Quarter 4[b]	mR/Year[b]
Note: Blank spaces indicate missing TLD results.					
Columbia 2	0.27	0.31	0.29	0.32	107.6
Columbia 3	0.31	0.34	0.32	0.35	118.9
Columbia 4	0.26	0.3	0.27	0.29	101.1
Columbia 5	0.26	0.28	0.28	0.27	98.9
Columbia 6	0.28	0.3	0.3	0.32	109.7
Columbia 7	0.3	0.32	0.27	0.31	108.7
Columbia 8	0.28	0.3	0.29	0.33	108.9
Columbia 9	0.25	0.28	0.26	0.27	96
Lexington	0.21		0.21	0.23	79.3
West Columbia	0.34	0.3	0.33	0.35	121.2

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, this derived unit is used to facilitate data comparison between locations or through time at a single location.
b An 18% uncertainty is associated with each result.

Table 21
Thermoluminescent Dosimeter (TLD) Results: Vogtle Electric Generating Plant Vicinity

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Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year[a]

Location	Quarter 1[b]	Quarter 2[b]	Quarter 3[b]	Quarter 4[b]	mR/Year[b]
Nuclear Regulatory Commission TLD 1	0.17	0.21	0.19	0.19	69.1
Nuclear Regulatory Commission TLD 2	0.13	0.16	0.14	0.14	51.5
Nuclear Regulatory Commission TLD 3	0.13	0.17	0.14	0.13	52.7
Nuclear Regulatory Commission TLD 4	0.15	0.19	0.16	0.15	59.1
Nuclear Regulatory Commission TLD 5	0.21	0.25	0.21	0.22	80.3
Nuclear Regulatory Commission TLD 6	0.15	0.2	0.16	0.16	61.6
Nuclear Regulatory Commission TLD 7	0.14	0.18	0.15	0.15	56.2
Nuclear Regulatory Commission TLD 8	0.14	0.18	0.14	0.16	55.2
Georgia Power Company TLD 1 H	0.16	0.17	0.15	0.15	56.8
Georgia Power Company TLD 1 L	0.16	0.17	0.14	0.15	56
Georgia Power Company TLD 2 H	0.18	0.18	0.16	0.16	61.2
Georgia Power Company TLD 2 L	0.17	0.18	0.16	0.17	61.5
Georgia Power Company TLD 3 H	0.17	0.18	0.16	0.16	62
Georgia Power Company TLD 3 L	0.17	0.17	0.16	0.17	60.4
Georgia Power Company TLD 4 H	0.17	0.18	0.16	0.16	61
Georgia Power Company TLD 4 L	0.17	0.17	0.15	0.15	59.8
Georgia Power Company TLD 5 H	0.16	0.17	0.14	0.16	57.2
Georgia Power Company TLD 5 L	0.16	0.17	0.13	0.17	57.3

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, this derived unit is used to facilitate data comparison between locations or through time at a single location.
b An 18% uncertainty is associated with each result.

Table 22
Radioactivity in Seepage Basin Water

Page 1 of 1

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3, µCi/mL				
CSB–1 C-Area seepage basin	3	(8.58 ± 5.49)E-06	(1.49 ± 0.42)E-05	(4.90 ± 3.81)E-06
EAV Basin North (E–004)	12	(1.05 ± 1.02)E-05	(3.99 ± 0.11)E-05	(2.90 ± 0.4)E-06
EAV Basin South (E–003)	1	(4.44 ± 0.12)E-05		
LSB–1 L-Area seepage basin	4	(1.08 ± 2.75)E-06	(4.01 ± 3.55)E-06	(–2.61 ± 3.86)E-06
SWDF Basin South (E–001)	11	(1.72 ± 1.15)E-05	(3.71 ± 0.09)E-05	(3.48 ± 0.37)E-06
TNX–SB seepage basin	7	(2.42 ± 0.41)E-06	(3.16 ± 0.46)E-06	(1.86 ± 0.51)E-06
Cs-137, µCi/mL				
CSB–1 C-Area seepage basin	3	(2.01 ± 0.38)E–08	(2.33 ± 0.46)E–08	(1.59 ± 0.32)E–08
Sr-89,90, µCi/mL				
LSB–1 L-Area seepage basin	4	(1.96 ± 2.00)E–08	(4.81 ± 2.20)E–08	(0.14 ± 1.76)E–08
U/Pu, µCi/mL				
TNX–SB seepage basin	7	(5.33 ± 5.42)E–09	(1.39 ± 0.90)E–08	(–0.09 ± 4.79)E–09
Gross Beta, µCi/mL				
CSB–1 C-Area seepage basin	3	(5.78 ± 1.67)E–08	(7.66 ± 0.76)E–08	(4.48 ± 0.62)E–08
E Basin North (E–004)	12	(4.52 ± 2.19)E–09	(8.21 ± 3.29)E–09	(1.78 ± 0.87)E–09
E Basin South (E–003)	1	(4.34 ± 1.27)E–09		
LSB–1 L-Area seepage basin	4	(5.52 ± 2.93)E–09	(9.08 ± 4.57)E–09	(2.30 ± 4.11)E–09
SWDF Basin South (E–001)	11	(8.45 ± 2.69)E–09	(1.35 ± 0.13)E–08	(4.13 ± 0.98)E–09
TNX–SB seepage basin	7	(2.96 ± 8.78)E–09	(1.20 ± 0.86)E–08	(–1.26 ± 0.74)E–08
Gross Alpha, µCi/mL				
CSB–1 C-Area seepage basin	3	(0.11 ± 1.54)E–09	(1.79 ± 2.10)E–09	(–1.23 ± 1.08)E–09
E Basin North (E–004)	12	(1.54 ± 1.29)E–09	(4.82 ± 2.26)E–09	(4.27 ± 4.37)E–10
E Basin South (E–003)	1	(5.41 ± 5.55)E–10		
LSB–1 L-Area seepage basin	4	(1.03 ± 1.48)E–09	(2.80 ± 2.28)E–09	(–0.19 ± 1.50)E–09
SWDF Basin South (E–001)	11	(2.68 ± 1.67)E–09	(6.85 ± 2.39)E–09	(7.05 ± 8.08)E–10
TNX–SB seepage basin	7	(2.10 ± 1.31)E–09	(4.38 ± 4.92)E–09	(–0.07 ± 3.17)E–09

Table 23
Radioactivity in SRS Stream Water

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Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3, μCi/mL				
Tims Branch				
TB–5 Near Road C	26	(1.18 ± 0.55)E–06	(3.26 ± 0.45)E–06	(2.12 ± 3.85)E–07
Upper Three Runs				
Crouch Branch at Road 4	26	(2.51 ± 0.90)E–05	(4.42 ± 0.11)E–05	(1.17 ± 0.06)E–05
U3R–1A Treadway Bridge Road 8–1	53	(4.58 ± 3.08)E–07	(1.34 ± 0.40)E–06	(–2.98 ± 3.67)E–07
U3R–3 at Road C	26	(3.54 ± 2.47)E–06	(1.09 ± 0.05)E–05	(3.66 ± 3.14)E–07
U3R–4 at Road A	26	(3.57 ± 2.31)E–06	(1.18 ± 0.05)E–05	(1.44 ± 0.43)E–06
Four Mile Creek				
Caster Creek – SE of C-Area	52	(3.97 ± 0.43)E–06	(5.00 ± 0.44)E–06	(2.98 ± 0.45)E–06
FM–2 at Road 4	25	(3.30 ± 0.80)E–05	(5.22 ± 0.09)E–05	(1.56 ± 0.06)E–05
FM–2B Above F-Area Effluent	25	(1.06 ± 0.19)E–04	(1.45 ± 0.06)E–04	(7.43 ± 0.47)E–05
FM–3A Below F-Area Effluent	26	(2.06 ± 0.44)E–03	(2.98 ± 0.03)E–03	(1.49 ± 0.02)E–03
FM–6 at Road A–12.2	26	(2.75 ± 0.37)E–04	(3.47 ± 0.02)E–04	(2.18 ± 0.03)E–04
FM–A7 at Road A–7	26	(4.85 ± 0.77)E–04	(6.36 ± 0.11)E–04	(3.23 ± 0.08)E–04
H–008 Outfall	52	(2.32 ± 1.32)E–06	(6.97 ± 0.48)E–06	(3.96 ± 3.60)E–07
HP–50 Tritium Facility Outfall	26	(1.13 ± 0.94)E–05	(4.76 ± 0.07)E–05	(2.60 ± 0.42)E–06
Twin Lakes – West of C-Area	51	(1.69 ± 0.15)E–05	(1.94 ± 0.06)E–05	(1.29 ± 0.06)E–05
Pen Branch				
IGB–21 800 ft South of Road 6–1	52	(9.51 ± 2.59)E–04	(1.85 ± 0.02)E–03	(0.68 ± 1.15)E–05
K–018 Outfall at Road B	52	(4.05 ± 0.60)E–05	(5.48 ± 0.13)E–05	(3.02 ± 0.07)E–05
PB–3 at Road A–13.2	26	(3.83 ± 0.34)E–05	(4.50 ± 0.09)E–05	(3.14 ± 0.09)E–05
Steel Creek				
SC–2A 1 mile Above Road B	26	(5.97 ± 2.69)E–05	(9.49 ± 0.14)E–05	(1.53 ± 0.07)E–05
SC–4 Steel Creek at Road A	26	(6.35 ± 0.59)E–06	(7.48 ± 0.51)E–06	(5.43 ± 0.10)E–06
Lower Three Runs Creek				
L3R–1A at Road B	26	(1.41 ± 0.54)E–06	(2.84 ± 0.41)E–06	(6.67 ± 4.00)E–07
L3R–2 Patterson Mill Road	26	(9.75 ± 3.46)E–07	(1.53 ± 0.34)E–06	(2.80 ± 4.31)E–07
L3R–3 at Highway 125	12	(4.64 ± 4.05)E–07	(1.10 ± 0.29)E–06	(–2.85 ± 3.66)E–07
R-Area Downstream of R–1 (100R)	51	(1.34 ± 2.03)E–05	(1.18 ± 0.01)E–04	(2.38 ± 0.43)E–06

Table 23
Radioactivity in SRS Stream Water

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Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
S-35, µCi/mL				
Four Mile Creek				
FM–6 at Road A–12.2	8	(9.25 ± 9.77)E–10	(2.50 ± 1.14)E–09	(–3.33 ± 5.72)E–10
Pen Branch				
PB–3 at Road A–13.2	8	(0.77 ± 1.64)E–09	(4.36 ± 0.78)E–09	(–6.95 ± 5.75)E–10
Steel Creek				
SC–4 Steel Creek at Road A	8	(0.11 ± 1.01)E–09	(1.97 ± 0.75)E–09	(–1.32 ± 0.96)E–09
Lower Three Runs Creek				
L3R–2 Patterson Mill Road	8	(0.93 ± 1.55)E–09	(3.50 ± 0.80)E–09	(–9.73 ± 5.76)E–10
Cs-137, µCi/mL				
Upper Three Runs				
U3R–3 at Road C	1	(5.73 ± 1.89)E–09		
Four Mile Creek				
FM–2 at Road 4	15	(1.22 ± 0.52)E–08	(2.28 ± 0.46)E–08	(2.84 ± 1.02)E–09
FM–2B Above F-Area Effluent	18	(1.08 ± 0.24)E–08	(1.49 ± 0.35)E–08	(6.20 ± 1.08)E–09
FM–3A Below F-Area Effluent	1	(7.29 ± 2.72)E–09		
FM–6 at Road A–12.2	2	(4.46 ± 1.68)E–09	(5.66 ± 1.81)E–09	(3.27 ± 1.15)E–09
FM–A7 at Road A–7	10	(9.25 ± 3.22)E–09	(1.47 ± 0.40)E–08	(5.45 ± 1.99)E–09
H–008 Outfall	2	(3.72 ± 2.21)E–09	(5.28 ± 1.30)E–09	(2.16 ± 0.75)E–09
Steel Creek				
SC–2A 1 mile Above Road B	9	(1.22 ± 0.39)E–08	(1.86 ± 0.35)E–08	(7.34 ± 2.17)E–09
Lower Three Runs Creek				
R-Area Downstream of R–1 (100R)	26	(1.26 ± 0.35)E–08	(2.01 ± 0.31)E–08	(7.77 ± 2.87)E–09
Pm-147, µCi/mL				
Upper Three Runs				
U3R–3 at Road C	12	(–1.21 ± 3.49)E–09	(2.39 ± 2.10)E–09	(–1.03 ± 0.12)E–08
Pu-238, µCi/mL				
Four Mile Creek				
HP–50 Tritium Facility Outfall	1	(2.04 ± 2.60)E–10		

Table 23
Radioactivity in SRS Stream Water

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Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Sr-89,90, µCi/mL				
Upper Three Runs				
Crouch Branch at Road 4	12	(1.60 ± 2.45)E–10	(5.94 ± 4.75)E–10	(–1.16 ± 4.33)E–10
U3R–3 at Road C	12	(0.29 ± 3.22)E–10	(6.41 ± 4.74)E–10	(–5.15 ± 4.34)E–10
Four Mile Creek				
FM–2 at Road 4	11	(3.70 ± 1.16)E–09	(6.08 ± 0.79)E–09	(2.46 ± 0.63)E–09
FM–2B Above F-Area Effluent	12	(6.93 ± 1.41)E–09	(9.51 ± 1.03)E–09	(4.79 ± 0.76)E–09
FM–3A Below F-Area Effluent	12	(1.06 ± 0.64)E–09	(2.16 ± 0.66)E–09	(1.95 ± 6.29)E–10
FM–6 at Road A–12.2	12	(5.15 ± 0.72)E–09	(6.26 ± 0.34)E–09	(3.56 ± 0.30)E–09
FM–A7 at Road A–7	12	(1.07 ± 0.17)E–08	(1.38 ± 0.11)E–08	(7.95 ± 1.61)E–09
H–008 Outfall	12	(0.41 ± 1.16)E–09	(3.65 ± 1.14)E–09	(–0.77 ± 1.12)E–09
Pen Branch				
IGB–21 800ft South of Road. 6–1	4	(1.68 ± 2.12)E–10	(3.98 ± 4.45)E–10	(–0.94 ± 3.62)E–10
K–018 Outfall at Road B	12	(1.14 ± 3.30)E–10	(5.20 ± 4.72)E–10	(–4.80 ± 4.13)E–10
PB–3 at Road A–13.2	12	(1.69 ± 2.85)E–10	(9.54 ± 2.48)E–10	(–0.25 ± 1.37)E–10
Steel Creek				
SC–2A 1 mile Above Road B	12	(2.49 ± 2.24)E–10	(6.40 ± 4.41)E–10	(–3.06 ± 4.18)E–10
SC–4 Steel Creek at Road A	12	(1.37 ± 1.31)E–10	(4.35 ± 1.07)E–10	(–0.26 ± 1.32)E–10
Lower Three Runs Creek				
L3R–1A at Road B	12	(2.19 ± 4.05)E–10	(1.28 ± 0.50)E–09	(–1.88 ± 3.55)E–10
L3R–2 Patterson Mill Road	12	(2.60 ± 1.44)E–10	(5.71 ± 1.22)E–10	(0.63 ± 1.42)E–10
L3R–3 at Highway 125	12	(1.20 ± 3.31)E–10	(7.55 ± 3.40)E–10	(–3.48 ± 2.76)E–10
U-235,238, µCi/mL				
Four Mile Creek				
HP–50 Tritium Facility Outfall	1	(3.06 ± 3.18)E–10		
U/Pu, µCi/mL				
Upper Three Runs				
U3R–4 at Road A	25	(0.26 ± 1.17)E–08	(5.87 ± 4.41)E–08	(–1.77 ± 1.71)E–10
Four Mile Creek				
FM–6 at Road A–12.2	25	(0.68 ± 2.18)E–10	(7.41 ± 4.57)E–10	(–2.07 ± 1.89)E–10

Table 23
Radioactivity in SRS Stream Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Pen Branch				
PB–3 at Road A–13.2	25	(0.90 ± 3.81)E–09	(1.92 ± 3.42)E–08	(–2.07 ± 1.89)E–10
Lower Three Runs Creek				
L3R–2 (Weekly Grab)	46	(0.84 ± 2.27)E–10	(8.48 ± 4.51)E–10	(–2.07 ± 1.89)E–10
L3R–2 Patterson Mill Road	25	(0.90 ± 2.26)E–10	(7.22 ± 3.84)E–10	(–2.06 ± 1.89)E–10
Gross B, μCi/mL				
Tims Branch				
TB–5 Near Road C	25	(2.13 ± 0.87)E–09	(4.38 ± 0.69)E–09	(6.30 ± 4.39)E–10
Upper Three Runs				
Crouch Branch at Road 4	25	(2.18 ± 1.41)E–09	(8.04 ± 0.72)E–09	(8.17 ± 4.97)E–10
U3R–1A Treadway Bridge Road 8–1	52	(9.40 ± 5.78)E–10	(2.16 ± 0.38)E–09	(–4.30 ± 3.85)E–10
U3R–3 at Road C	25	(1.48 ± 0.91)E–09	(3.97 ± 0.46)E–09	(2.72 ± 4.52)E–10
U3R–4 at Road A	26	(1.19 ± 0.52)E–09	(2.37 ± 0.55)E–09	(4.68 ± 4.03)E–10
Four Mile Creek				
FM–2 at Road 4	25	(1.51 ± 0.55)E–08	(2.90 ± 0.13)E–08	(5.88 ± 0.81)E–09
FM–2B Above F-Area Effluent	24	(2.04 ± 0.33)E–08	(2.73 ± 0.12)E–08	(1.52 ± 0.09)E–08
FM–3A Below F-Area Effluent	26	(4.26 ± 1.14)E–09	(6.03 ± 0.66)E–09	(1.96 ± 0.50)E–09
FM–6 at Road A–12.2	26	(1.21 ± 0.21)E–08	(1.85 ± 0.11)E–08	(9.09 ± 0.79)E–09
FM–A7 at Road A–7	25	(2.68 ± 0.32)E–08	(3.06 ± 0.13)E–08	(1.80 ± 0.10)E–08
H–008 Outfall	51	(5.10 ± 1.50)E–09	(1.05 ± 0.18)E–08	(2.30 ± 0.50)E–09
HP–50 Tritium Facility Outfall	25	(3.87 ± 1.74)E–09	(7.24 ± 0.76)E–09	(1.15 ± 0.53)E–09
Pen Branch				
IGB–21 800ft South of Road. 6–1	3	(7.84 ± 6.10)E–10	(1.26 ± 0.52)E–09	(0.95 ± 4.19)E–10
K–018 Outfall at Road B	50	(1.61 ± 0.78)E–09	(3.95 ± 0.65)E–09	(5.69 ± 4.84)E–10
PB–3 at Road A–13.2	26	(1.23 ± 0.67)E–09	(3.73 ± 0.43)E–09	(2.94 ± 4.15)E–10
Steel Creek				
SC–2A 1 mile Above Road B	25	(3.86 ± 1.24)E–09	(5.95 ± 0.69)E–09	(1.25 ± 0.46)E–09
SC–4 Steel Creek at Road A	26	(1.35 ± 0.58)E–09	(2.43 ± 0.57)E–09	(4.46 ± 4.00)E–10
Lower Three Runs Creek				
L3R–1A at Road B	25	(3.78 ± 1.39)E–09	(6.33 ± 0.71)E–09	(1.46 ± 0.48)E–09
L3R–2 Patterson Mill Road	25	(1.79 ± 0.83)E–09	(3.51 ± 0.63)E–09	(2.16 ± 3.82)E–10

Table 23
Radioactivity in SRS Stream Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
L3R–3 at Highway 125	11	(1.64 ± 0.56)E–09	(2.65 ± 0.59)E–09	(9.73 ± 4.68)E–10
R-Area Downstream of R–1 (100R)	51	(1.19 ± 0.40)E–08	(2.12 ± 0.13)E–08	(5.72 ± 0.65)E–09
Gross A, µCi/mL				
Tims Branch				
TB–5 Near Road C	25	(1.71 ± 0.79)E–09	(3.48 ± 0.72)E–09	(7.04 ± 3.88)E–10
Pen Branch				
IGB–21 800ft South of Road 6–1	3	(3.50 ± 5.67)E–10	(9.70 ± 4.78)E–10	(–1.41 ± 1.27)E–10
K–018 Outfall at Road B	50	(1.83 ± 4.27)E–10	(2.46 ± 0.60)E–09	(–1.74 ± 1.59)E–10
PB–3 at Road A–13.2	26	(1.59 ± 2.34)E–10	(7.76 ± 4.15)E–10	(–1.83 ± 1.48)E–10
Steel Creek				
SC–2A 1 mile Above Road B	25	(3.39 ± 2.92)E–10	(1.07 ± 0.43)E–09	(–0.32 ± 2.10)E–10
SC–4 Steel Creek at Road A	26	(0.37 ± 1.80)E–10	(3.48 ± 2.81)E–10	(–1.82 ± 1.64)E–10
Lower Three Runs Creek				
L3R–1A at Road B	25	(1.07 ± 2.43)E–10	(7.08 ± 3.69)E–10	(–1.77 ± 1.37)E–10
L3R–2 Patterson Mill Road	25	(1.84 ± 2.81)E–10	(6.94 ± 3.55)E–10	(–2.12 ± 1.89)E–10
L3R–3 at Highway 125	11	(2.11 ± 2.91)E–10	(6.98 ± 3.75)E–10	(–2.21 ± 1.98)E–10
R-Area Downstream of R–1 (100R)	51	(3.10 ± 4.75)E–10	(2.60 ± 0.83)E–09	(–4.17 ± 3.26)E–10

Table 24
Radioactivity in Transport at Sample Points on Four Mile Creek

Page 1 of 1

Location	Tritium (Curies) 1992	1993	1994
FM–3	5	4	13
FM–1C	5	6	10
H–017		1	1
H–008	4	583	7
FM–2	421	322	260
FM–2B	1480	1040	757
FM–3A	4100	5320	3100
FM–A7	9840	8560	6740
FM–6	8710	9000	6980

Location	Total Strontium (Millicuries) 1992	1993	1994
FM–3	1	a	a
FM–1C	1	a	1
H–017	7	1	1
FM–2	42	26	43
FM–2B	86	66	45
FM–3A	1	a	2
FM–A7	280	216	107
FM–6	219	227	113

Desorption of Cesium-137 from Four Mile Creek (Millicuries) 1993	
160[b]	3

a No activity quantified for year
b Amount of Cs-137 estimated in transport at FM–A7 minus direct releases. This value is included in dose calculations and reflects previous releases to Four Mile Creek that were sorbed in the creek bed.

Table 25
Radioactivity in Savannah River Water

Page 1 of 3

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3, µCi/mL				
Edisto River				
E–1 Edisto River, Aiken State Park	52	(1.61 ± 1.85)E–07	(5.06 ± 1.33)E–07	(–3.64 ± 1.37)E–07
Savannah River				
R–2 (River Mile 160) above SRS	5	(1.64 ± 0.88)E–07	(2.32 ± 1.43)E–07	(0.10 ± 1.45)E–07
R–2 (monthly grab)	1	(0.26 ± 1.36)E–07		
R–3A (River Mile 151) above Vogtle	5	(3.61 ± 1.32)E–07	(4.99 ± 1.46)E–07	(1.48 ± 1.40)E–07
R–3B (monthly grab)	1	(2.02 ± 1.39)E–07		
R–3B (River Mile 150) below Vogtle	5	(3.87 ± 2.39)E–07	(6.13 ± 1.45)E–07	(0.07 ± 1.38)E–07
R–8A (River Mile 141) below Steel Creek	2	(1.34 ± 0.22)E–06	(1.50 ± 0.15)E–06	(1.19 ± 0.15)E–06
R–8C (River Mile 134) below Little Hell	2	(1.74 ± 0.05)E–06	(1.77 ± 0.15)E–06	(1.70 ± 0.15)E–06
River Mile 120	52	(1.27 ± 0.47)E–06	(2.43 ± 0.13)E–06	(3.92 ± 1.45)E–07
River Mile 140	52	(1.60 ± 0.59)E–06	(2.69 ± 0.14)E–06	(2.00 ± 1.29)E–07
R–3B (River Mile 150)	52	(2.09 ± 1.09)E–06	(4.24 ± 0.14)E–06	(0.44 ± 1.28)E–07
R–2 (River Mile 160)	52	(1.44 ± 1.83)E–07	(5.90 ± 1.43)E–07	(–2.31 ± 1.34)E–07
River Mile 120 (monthly grab)	11	(1.45 ± 0.56)E–06	(2.21 ± 0.15)E–06	(3.89 ± 1.30)E–07
Vogtle Discharge	53	(1.22 ± 1.16)E–06	(6.01 ± 0.19)E–06	(1.61 ± 1.14)E–07
Cs-137, µCi/mL				
Savannah River				
River Mile 140	1	(2.29 ± 0.76)E–09		
Sr-89,90, µCi/mL				
Savannah River				
R–8A (River Mile 141) below Steel Creek	1	(0.26 ± 5.52)E–10		
R–8B (River Mile 141) below Steel Creek	1	(4.70 ± 5.88)E–10		
R–8C (River Mile 134) below Little Hell	1	(–0.43 ± 5.30)E–10		

Table 25
Radioactivity in Savannah River Water

Page 2 of 3

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Gross Beta, µCi/mL				
Edisto River				
E–1 Edisto River Aiken State Park 52	52	(1.21 ± 0.57)E–09	(2.70 ± 0.55)E–09	(0.43 ± 4.62)E–10
Savannah River				
R–2 (River Mile 160) above SRS	5	(1.55 ± 0.59)E–09	(2.18 ± 0.57)E–09	(6.95 ± 4.65)E–10
R–2 (monthly grab)	1	(2.76 ± 0.61)E–09		
R–3A (River Mile 151) above Vogtle	5	(2.13 ± 0.78)E–09	(3.05 ± 0.63)E–09	(9.45 ± 4.82)E–10
R–3B (monthly grab)	1	(1.94 ± 0.56)E–09		
R–3B (River Mile 150) below Vogtle	5	(1.77 ± 0.95)E–09	(3.00 ± 0.63)E–09	(8.34 ± 4.74)E–10
R–8A (River Mile 141) below Steel Creek	2	(8.30 ± 6.35)E–10	(1.28 ± 0.51)E–09	(3.81 ± 4.60)E–10
R–8B (River Mile 141) below Steel Creek	2	(1.57 ± 0.57)E–09	(1.97 ± 0.57)E–09	(1.17 ± 0.50)E–09
R–8C (River Mile 134) below Little Hell	2	(1.20 ± 0.20)E–09	(1.33 ± 0.53)E–09	(1.06 ± 0.49)E–09
River Mile 120	52	(1.65 ± 0.65)E–09	(3.51 ± 0.65)E–09	(5.64 ± 4.55)E–10
River Mile 140	52	(1.66 ± 0.67)E–09	(3.43 ± 0.64)E–09	(5.62 ± 4.15)E–10
R–3B (River Mile 150)	52	(1.66 ± 0.71)E–09	(3.61 ± 0.62)E–09	(5.22 ± 4.68)E–10
R–2 (River Mile 160)	52	(1.59 ± 0.66)E–09	(3.98 ± 0.67)E–09	(3.35 ± 4.07)E–10
River Mile 120 (monthly grab)	11	(1.60 ± 0.61)E–09	(3.14 ± 0.65)E–09	(8.23 ± 4.92)E–10
Vogtle Discharge	53	(1.62 ± 0.67)E–09	(3.67 ± 0.50)E–09	(4.38 ± 4.23)E–10
Gross Alpha, µCi/mL				
Edisto River				
E–1 Edisto River, Aiken State Park	52	(9.00 ± 5.73)E–10	(2.41 ± 0.55)E–09	(–1.78 ± 1.60)E–10
Savannah River				
R–2 (River Mile 160) above SRS	5	(0.95 ± 1.52)E–10	(3.47 ± 3.31)E–10	(–0.29 ± 2.23)E–10
R–2 (monthly grab)	1	(5.40 ± 3.76)E–10		

Table 25
Radioactivity in Savannah River Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
R–3A (River Mile 151) above Vogtle	5	(–0.65 ± 1.55)E–10	(1.91 ± 3.03)E–10	(–1.75 ± 1.59)E–10
R–3B (monthly grab)	1	(0.14 ± 2.15)E–10		
R–3B (River Mile 150) below Vogtle	5	(0.92 ± 2.39)E–10	(4.13 ± 3.76)E–10	(–1.88 ± 1.77)E–10
R–8A (River Mile 141) below Steel Creek	2	(3.10 ± 6.23)E–10	(7.51 ± 4.12)E–10	(–1.30 ± 1.35)E–10
R–8B (River Mile 141) below Steel Creek	2	(0.11 ± 2.63)E–10	(1.97 ± 3.01)E–10	(–1.75 ± 1.57)E–10
R–8C (River Mile 134) below Little Hell	2	(0.06 ± 2.65)E–10	(1.94 ± 2.93)E–10	(–1.81 ± 1.62)E–10
River Mile 120	52	(1.08 ± 2.40)E–10	(7.33 ± 4.51)E–10	(–2.16 ± 1.94)E–10
River Mile 140	52	(1.40 ± 2.85)E–10	(1.04 ± 0.51)E–09	(–2.22 ± 2.10)E–10
R–3B (River Mile 150)	52	(1.80 ± 2.25)E–10	(1.05 ± 0.63)E–09	(–1.90 ± 1.73)E–10
R–2 (River Mile 160)	52	(1.04 ± 2.34)E–10	(9.41 ± 5.10)E–10	(–2.82 ± 2.67)E–10
River Mile 120 (monthly grab)	11	(1.54 ± 2.76)E–10	(7.02 ± 3.77)E–10	(–1.88 ± 1.69)E–10
Vogtle Discharge	53	(1.57 ± 2.84)E–10	(1.13 ± 0.38)E–09	(–2.84 ± 2.83)E–10

Table 26
Summary of SRS Tritium Transport, 1960–1994

Year	Estimated Tritium Transport (Ci): Based on Point-of-Release Concentrations and Flow Rates[a]	Based on Stream Concentrations and Flow Rates	Based on Savannah River Concentrations and Flow Rates
1960	64,000[b]	69,600	73,700
1961	69,000[b]	83,000	77,000
1962	58,000[b]	64,000	63,000
1963	97,000[b]	96,900	122,800
1964	111,000[b]	131,600	143,000
1965	108,400	109,200	100,200
1966	84,900	97,800	78,300
1967	70,600	77,000	68,500
1968	63,800	67,200	61,800
1969	64,600	64,000	58,100
1970	36,900	43,200	31,800
1971	38,200	44,700	39,100
1972	46,800	47,300	45,300
1973	71,100	62,800	61,100
1974	59,900	54,600	46,000
1975	55,600	50,000	49,500
1976	59,600	47,400	51,100
1977	43,800	39,700	42,500
1978	37,600	35,300	36,600
1979	29,400	27,100	30,600
1980	24,900	28,800	30,700
1981	23,900	22,100	25,100
1982	32,200	31,300	30,600
1983	34,200	33,000	33,000
1984	32,800	32,600	33,200
1985	25,000	22,300	24,100
1986	27,800	22,300	22,100
1987	22,700	20,500	26,200
1988	19,300	18,300	14,600
1989	17,300	17,800	15,600
1990	16,100	15,600	14,500
1991	27,400	26,600	26,300
1992	13,800	13,100	13,800
1993	11,300	12,700	12,200
1994	8,800	10,400	10,900

a Includes direct releases to streams and migration from F-Area, H-Area, K-Area, and P-Area seepage basins and the Solid Waste Disposal Facility to streams
b Includes heat exchanger cooling water released from P-Area (of PAR Pond origin) to Steel Creek

Table 27
Radioactivity in Drinking Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3, µCi/mL				
On Site				
105–C C-Area Dom. Water Faucet	12	(–0.72 ± 2.27)E–07	(3.30 ± 3.80)E–07	(–3.99 ± 1.32)E–07
105–K K-Area Dom. Water Faucet	12	(–0.63 ± 1.77)E–07	(1.75 ± 3.72)E–07	(–3.01 ± 1.29)E–07
105–L L-Area Dom. Water Faucet	12	(–1.16 ± 2.07)E–07	(1.88 ± 3.73)E–07	(–4.88 ± 1.29)E–07
105–P P-Area Dom. Water Faucet	12	(0.82 ± 1.12)E–06	(3.18 ± 0.16)E–06	(–2.14 ± 1.33)E–07
221–F F-Area Dom. Water Faucet	12	(–0.86 ± 1.16)E–07	(1.69 ± 1.31)E–07	(–2.86 ± 1.31)E–07
221–H H-Area Dom. Water Faucet	12	(–0.74 ± 3.47)E–07	(6.27 ± 3.81)E–07	(–6.80 ± 1.30)E–07
241–24H H-Area Dom. Water Faucet	4	(–2.61 ± 0.69)E–07	(–1.73 ± 1.42)E–07	(–3.29 ± 1.30)E–07
617–G Wackenhut Training Faucet	4	(5.04 ± 3.93)E–07	(7.84 ± 1.47)E–07	(–0.77 ± 1.27)E–07
618–G Class. Yard Lunchroom	4	(–0.65 ± 2.03)E–07	(1.40 ± 1.42)E–07	(–3.30 ± 1.34)E–07
661–G Firing Range (Pumphouse)	4	(5.52 ± 6.42)E–07	(1.13 ± 0.15)E–06	(–1.64 ± 1.34)E–07
679–T TNX Dom. Water Faucet	4	(0.55 ± 3.33)E–07	(4.04 ± 1.39)E–07	(–3.99 ± 1.32)E–07
681–3G Dom. Water Faucet	4	(–0.03 ± 1.79)E–07	(1.05 ± 1.42)E–07	(–2.70 ± 1.34)E–07
701–12G Patrol Gate 7	4	(3.85 ± 3.86)E–07	(7.93 ± 1.33)E–07	(–0.62 ± 1.34)E–07
701–13G Patrol Gate 6	4	(2.61 ± 0.21)E–06	(2.88 ± 0.16)E–06	(2.42 ± 0.15)E–06
701–1F F-Area Dom. Water Faucet	4	(0.28 ± 1.92)E–07	(1.81 ± 1.29)E–07	(–2.52 ± 1.32)E–07
701–1H H-Area Dom. Water Faucet	4	(–0.07 ± 1.95)E–07	(1.59 ± 1.30)E–07	(–2.59 ± 1.32)E–07
701–3G Barnwell Gate	4	(0.23 ± 2.44)E–07	(2.08 ± 1.43)E–07	(–3.21 ± 1.33)E–07
701–4G Williston Gate	4	(1.48 ± 1.70)E–07	(2.79 ± 1.31)E–07	(–0.99 ± 1.34)E–07
701–5G Talatha Gate	4	(5.62 ± 0.66)E–07	(6.25 ± 1.45)E–07	(4.73 ± 1.37)E–07
701–6G Jackson Gate	4	(0.20 ± 2.36)E–07	(2.14 ± 1.44)E–07	(–3.22 ± 1.32)E–07
701–8G Patrol Gate 8	4	(2.30 ± 0.08)E–06	(2.39 ± 0.15)E–06	(2.18 ± 0.15)E–06
703–A EOC (Kitchen)	4	(–1.20 ± 1.69)E–07	(0.56 ± 1.30)E–07	(–3.51 ± 1.32)E–07
704–F F-Area Dom. Water Faucet	4	(–0.46 ± 2.27)E–07	(2.68 ± 3.82)E–07	(–2.72 ± 1.31)E–07
704–H H-Area Dom. Water Faucet	4	(–0.77 ± 2.14)E–07	(1.51 ± 3.75)E–07	(–3.62 ± 1.30)E–07
704–S S-Area Dom. Water Faucet	4	(–0.91 ± 1.96)E–07	(0.86 ± 1.42)E–07	(–3.51 ± 1.33)E–07
708–A A-Area Cafe. (Restroom)	4	(0.95 ± 7.70)E–08	(1.05 ± 1.43)E–07	(–0.80 ± 1.33)E–07
735–7G PAR Pond Lab	4	(–0.86 ± 1.95)E–07	(1.63 ± 1.37)E–07	(–3.08 ± 1.32)E–07
760–G Forestry Building	4	(1.04 ± 0.20)E–06	(1.16 ± 0.11)E–06	(7.34 ± 1.39)E–07
772–F F-Area Dom. Water Faucet	4	(–2.14 ± 1.87)E–07	(–0.30 ± 1.28)E–07	(–4.37 ± 1.29)E–07
Cent. Shops 690–G Ford Bldg.	1	(0.95 ± 1.29)E–07		

Table 27
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
TC–1 B-Area Cafeteria	4	(0.07 ± 2.72)E–07	(2.38 ± 1.30)E–07	(–3.86 ± 1.32)E–07
Z-Area Building 704–Z	4	(–0.22 ± 2.99)E–07	(2.26 ± 1.06)E–07	(–4.33 ± 1.31)E–07
Surrounding Towns				
Aiken, S.C., Post Office	2	(1.52 ± 0.11)E–07	(1.60 ± 1.30)E–07	(1.44 ± 1.09)E–07
Allendale, S.C., Post Office	2	(–1.26 ± 2.24)E–07	(0.32 ± 1.08)E–07	(–2.84 ± 1.27)E–07
Augusta, Ga., Post Office 8th St.	2	(1.54 ± 0.66)E–07	(2.00 ± 1.30)E–07	(1.07 ± 1.08)E–07
Barnwell, S.C., Post Office	2	(0.19 ± 1.49)E–07	(1.25 ± 1.09)E–07	(–0.86 ± 1.28)E–07
Bath, S.C., Post Office	2	(2.89 ± 2.40)E–07	(4.59 ± 1.11)E–07	(1.20 ± 1.30)E–07
Blackville, S.C., Post Office	2	(1.72 ± 3.79)E–08	(0.44 ± 1.08)E–07	(–0.10 ± 1.30)E–07
Clearwater, S.C., Post Office	2	(1.95 ± 3.14)E–07	(4.17 ± 1.11)E–07	(–0.27 ± 1.28)E–07
Jackson, S.C., Post Office	2	(4.45 ± 1.97)E–07	(5.85 ± 1.12)E–07	(3.06 ± 1.31)E–07
Langley, S.C., Post Office	2	(0.90 ± 3.05)E–07	(3.05 ± 1.10)E–07	(–1.26 ± 1.28)E–07
N. Augusta, S.C., Post Office	2	(–0.06 ± 1.57)E–07	(1.05 ± 1.08)E–07	(–1.17 ± 1.27)E–07
New Ellenton, S.C., Post Office	2	(1.60 ± 3.63)E–07	(4.17 ± 1.11)E–07	(–0.96 ± 1.29)E–07
ORA Site, ORA Building	2	(0.47 ± 2.14)E–07	(1.98 ± 1.09)E–07	(–1.04 ± 1.27)E–07
Sardis, Ga., Post Office Farm St.	2	(1.25 ± 0.43)E–07	(1.56 ± 1.09)E–07	(0.95 ± 1.30)E–07
Talatha, S.C., Tap Near Water Tank	2	(4.65 ± 1.62)E–07	(5.80 ± 1.12)E–07	(3.50 ± 1.31)E–07
Waynesboro, Ga., Post Office	2	(–3.33 ± 1.15)E–08	(–0.25 ± 1.12)E–07	(–0.41 ± 1.29)E–07
Williston, S.C., Post Office	2	(–0.07 ± 3.00)E–07	(2.05 ± 1.09)E–07	(–2.20 ± 1.27)E–07
Treatment Plants				
Beaufort Public Water Works–Finished	12	(8.21±2.70)E–07	(1.11±0.15)E–06	(3.00±1.13)E–07
Beaufort Public Water Works–Raw	12	(8.26 ± 2.55)E–07	(1.17 ± 0.15)E–06	(4.28 ± 3.58)E–07
D-Area Powerhouse Lab–Finished	12	(–0.72±2.00)E–07	(2.18±1.40)E–07	(–3.95±1.48)E–07
D-Area Powerhouse Lab–Raw	12	(1.90 ± 2.04)E–07	(6.04 ± 1.43)E–07	(–0.96 ± 1.44)E–07
N. Augusta Public Water Works–Finished	12	(0.41±2.54)E–07	(6.19±1.43)E–07	(–2.71±1.48)E–07
N. Augusta Public Water Works–Raw	12	(0.31 ± 2.00)E–07	(3.62 ± 1.41)E–07	(–2.78 ± 1.39)E–07
Savannah Public Water Works–Finished	12	(9.98±2.59)E–07	(1.44±0.16)E–06	(5.81±3.60)E–07
Savannah Public Water Works–Raw	12	(9.34 ± 2.94)E–07	(1.31 ± 0.14)E–06	(5.12 ± 3.60)E–07

Table 27
Radioactivity in Drinking Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
EMS Sampler				
Beaufort Public Water Works–Raw	20	(9.04 ± 3.41)E–07	(2.04 ± 0.25)E–06	(3.83 ± 1.29)E–07
Sr-89,90, µCi/mL				
On Site				
679–T TNX Dom. Water Faucet	1	(–9.86 ± 9.60)E–10		
Surrounding Towns				
Gross Beta, µCi/mL				
On Site				
105–C C-Area Dom. Water Faucet	12	(6.61 ± 3.98)E–10	(1.24 ± 0.49)E–09	(0.81 ± 3.98)E–10
105–K K-Area Dom. Water Faucet	12	(1.95 ± 1.16)E–09	(4.36 ± 0.62)E–09	(0.89 ± 4.34)E–10
105–L L-Area Dom. Water Faucet	12	(1.15 ± 0.59)E–09	(2.07 ± 0.53)E–09	(4.58 ± 4.61)E–10
105–P P-Area Dom. Water Faucet	12	(1.58 ± 0.80)E–09	(2.65 ± 0.58)E–09	(0.66 ± 3.89)E–10
221–F F-Area Dom. Water Faucet	12	(2.90 ± 1.00)E–09	(5.25 ± 0.68)E–09	(1.86 ± 0.57)E–09
221–H H-Area Dom. Water Faucet	12	(1.10 ± 1.12)E–09	(3.22 ± 0.58)E–09	(–0.29 ± 3.98)E–10
241–24H H-Area Dom. Water Faucet	4	(3.33 ± 2.31)E–09	(5.43 ± 0.69)E–09	(0.97 ± 4.36)E–10
617–G Wackenhut Training Faucet	4	(9.91 ± 8.80)E–10	(2.06 ± 0.53)E–09	(2.15 ± 4.78)E–10
618–G Class. Yard Lunchroom	4	(1.82 ± 0.78)E–09	(2.51 ± 0.60)E–09	(9.99 ± 5.34)E–10
661–G Firing Range (Pumphouse)	4	(1.37 ± 0.75)E–09	(2.30 ± 0.57)E–09	(4.50 ± 8.16)E–10
679–T TNX Dom. Water Faucet	4	(1.13 ± 1.79)E–08	(3.82 ± 0.24)E–08	(1.63 ± 0.60)E–09
681–3G Dom. Water Faucet	4	(3.01 ± 0.66)E–09	(3.51 ± 0.58)E–09	(2.06 ± 0.57)E–09
701–12G Patrol Gate 7	4	(1.56 ± 0.36)E–09	(2.02 ± 0.52)E–09	(1.13 ± 0.53)E–09
701–13G Patrol Gate 6	4	(7.09 ± 5.48)E–10	(1.31 ± 0.54)E–09	(1.44 ± 3.93)E–10
701–1F F-Area Dom. Water Faucet	4	(3.62 ± 1.91)E–09	(6.46 ± 1.25)E–09	(2.41 ± 0.56)E–09
701–1H H-Area Dom. Water Faucet	4	(2.74 ± 0.54)E–09	(3.51 ± 0.57)E–09	(2.31 ± 0.57)E–09
701–3G Barnwell Gate	4	(0.31 ± 5.75)E–10	(7.03 ± 4.27)E–10	(–6.87 ± 4.12)E–10
701–4G Williston Gate	4	(1.54 ± 3.61)E–10	(6.39 ± 4.95)E–10	(–2.34 ± 3.98)E–10
701–5G Talatha Gate	4	(3.04 ± 1.50)E–09	(4.69 ± 0.66)E–09	(1.57 ± 0.48)E–09
701–6G Jackson Gate	4	(1.94 ± 0.64)E–09	(2.50 ± 0.59)E–09	(1.18 ± 0.51)E–09
701–8G Patrol Gate 8	4	(2.12 ± 2.76)E–10	(5.84 ± 3.61)E–10	(–0.25 ± 4.33)E–10
703–A EOC (Kitchen)	4	(9.55 ± 3.41)E–10	(1.43 ± 0.50)E–09	(6.22 ± 4.44)E–10
704–F F-Area Dom. Water Faucet	4	(2.42 ± 0.99)E–09	(3.59 ± 0.60)E–09	(1.51 ± 0.54)E–09
704–H H-Area Dom. Water Faucet	4	(4.01 ± 0.76)E–09	(4.69 ± 0.64)E–09	(3.15 ± 0.55)E–09

Table 27
Radioactivity in Drinking Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
704–S S-Area Dom. Water Faucet	4	(2.10 ± 0.66)E–09	(2.82 ± 0.58)E–09	(1.28 ± 0.53)E–09
708–A A-Area Cafe (Restroom)	4	(8.07 ± 7.95)E–10	(1.94 ± 1.05)E–09	(1.58 ± 4.91)E–10
735–7G PAR Pond Lab	4	(1.25 ± 0.78)E–09	(2.31 ± 0.54)E–09	(5.28 ± 4.91)E–10
760–G Forestry Building	4	(8.87 ± 7.74)E–10	(1.51 ± 0.54)E–09	(–2.39 ± 3.98)E–10
772–F F-Area Dom. Water Faucet	4	(2.55 ± 1.41)E–09	(4.30 ± 0.65)E–09	(8.58 ± 4.72)E–10
Cent. Shops 690–G Ford Bldg.	1	(8.81 ± 9.83)E–10		
TC–1 B-Area Cafeteria	4	(2.59 ± 4.40)E–10	(5.11 ± 3.93)E–10	(–4.00 ± 8.91)E–10
Z-Area Building 704–Z	4	(2.05 ± 2.56)E–09	(5.86 ± 0.72)E–09	(3.44 ± 4.10)E–10
Surrounding Towns				
Aiken, S.C., Post Office	2	(1.70 ± 0.10)E–09	(1.77 ± 0.63)E–09	(1.63 ± 0.54)E–09
Allendale, S.C., Post Office	2	(1.29 ± 0.12)E–09	(1.38 ± 0.67)E–09	(1.20 ± 0.54)E–09
Augusta, Ga., Post Office 8th St.	2	(1.21 ± 0.74)E–09	(1.74 ± 0.61)E–09	(6.86 ± 4.70)E–10
Barnwell, S.C., Post Office	2	(6.14 ± 1.52)E–10	(7.22 ± 5.77)E–10	(5.07 ± 4.54)E–10
Bath, S.C., Post Office	2	(6.07 ± 6.72)E–10	(1.08 ± 0.59)E–09	(1.32 ± 4.45)E–10
Blackville, S.C., Post Office	2	(9.64 ± 1.10)E–10	(1.04 ± 0.51)E–09	(8.86 ± 6.48)E–10
Clearwater, S.C., Post Office	2	(3.72 ± 2.63)E–10	(5.58 ± 5.96)E–10	(1.86 ± 4.63)E–10
Jackson, S.C., Post Office	2	(1.69 ± 1.13)E–09	(2.49 ± 0.57)E–09	(8.86 ± 5.77)E–10
Langley, S.C., Post Office	2	(1.04 ± 0.12)E–09	(1.13 ± 0.48)E–09	(9.51 ± 5.59)E–10
N. Augusta, S.C., Post Office	2	(1.31 ± 0.56)E–09	(1.71 ± 0.62)E–09	(9.15 ± 4.79)E–10
New Ellenton, S.C., Post Office	2	(1.17 ± 0.30)E–09	(1.38 ± 0.59)E–09	(9.57 ± 4.71)E–10
ORA Site, ORA Building	2	(4.38 ± 2.71)E–10	(6.29 ± 4.61)E–10	(2.46 ± 5.19)E–10
Sardis, Ga., Post Office Farm St.	2	(1.41 ± 0.09)E–09	(1.48 ± 0.68)E–09	(1.34 ± 0.55)E–09
Talatha, S.C., Tap Near Water Tank	2	(1.41 ± 0.98)E–09	(2.10 ± 0.65)E–09	(7.15 ± 4.61)E–10
Waynesboro, Ga., Post Office	2	(8.87 ± 6.48)E–10	(1.34 ± 0.62)E–09	(4.29 ± 4.70)E–10
Williston, S.C., Post Office	2	(1.34 ± 0.56)E–09	(1.74 ± 0.69)E–09	(9.44 ± 5.04)E–10
Treatment Plants				
Beaufort Public Water Works–Finished	12	(1.58±0.66)E–09	(2.96±0.61)E–09	(9.10±4.86)E–10
Beaufort Public Water Works–Raw	12	(1.47 ± 0.50)E–09	(2.27 ± 0.55)E–09	(6.01 ± 4.48)E–10
D-Area Powerhouse Lab–Finished	12	(2.55±0.87)E–09	(3.85±0.64)E–09	(1.08±0.47)E–09
D-Area Powerhouse Lab–Raw	12	(1.50 ± 0.64)E–09	(2.60 ± 0.57)E–09	(6.01 ± 4.48)E–10
N. Augusta Public Water Works–Finished	12	(1.21±0.36)E–09	(1.88±0.54)E–09	(5.25±4.23)E–10

Table 27
Radioactivity in Drinking Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
N. Augusta Public Water Works–Raw	12	(1.11 ± 0.44)E–09	(1.59 ± 0.50)E–09	(0.26 ± 3.80)E–10
Savannah Public Water Works–Finished	12	(1.73±0.62)E–09	(2.87±0.61)E–09	(6.04±4.31)E–10
Savannah Public Water Works–Raw	12	(1.72 ± 0.34)E–09	(2.36 ± 0.56)E–09	(1.34 ± 0.47)E–09
EMS Sampler				
Beaufort Public Water Works–Raw	20	(1.73 ± 0.57)E–09	(2.77 ± 0.57)E–09	(5.70 ± 4.29)E–10
Gross Alpha, µCi/mL				
On Site				
105–C C-Area Dom. Water Faucet	12	(3.52 ± 4.95)E–10	(1.40 ± 0.47)E–09	(–1.39 ± 1.29)E–10
105–K K-Area Dom. Water Faucet	12	(0.95 ± 1.86)E–10	(5.72 ± 3.49)E–10	(–1.64 ± 1.48)E–10
105–L L-Area Dom. Water Faucet	12	(5.02 ± 4.38)E–10	(1.58 ± 0.50)E–09	(–0.23 ± 1.84)E–10
105–P P-Area Dom. Water Faucet	12	(5.61 ± 7.77)E–10	(2.35 ± 0.60)E–09	(–1.49 ± 1.34)E–10
221–F F-Area Dom. Water Faucet	12	(2.26 ± 1.53)E–09	(5.80 ± 1.14)E–09	(–0.53 ± 4.08)E–10
221–H H-Area Dom. Water Faucet	12	(0.65 ± 1.06)E–09	(3.67 ± 0.79)E–09	(–0.63 ± 2.03)E–10
241–24H H-Area Dom. Water Faucet	4	(2.68 ± 2.34)E–09	(5.25 ± 0.89)E–09	(2.51 ± 2.56)E–10
617–G Wackenhut Training Faucet	4	(1.05 ± 1.13)E–09	(2.73 ± 0.60)E–09	(2.29 ± 4.14)E–10
618–G Class. Yard Lunchroom	4	(1.42 ± 0.63)E–09	(2.36 ± 0.84)E–09	(1.08 ± 0.53)E–09
661–G Firing Range (Pumphouse)	4	(1.23 ± 1.03)E–09	(2.39 ± 0.54)E–09	(0.46 ± 4.32)E–10
679–T TNX Dom. Water Faucet	4	(2.15 ± 9.08)E–10	(1.42 ± 0.76)E–09	(–7.64 ± 6.16)E–10
681–3G Dom. Water Faucet	4	(3.55 ± 3.78)E–10	(8.38 ± 4.36)E–10	(–0.15 ± 3.18)E–10
701–12G Patrol Gate 7	4	(2.03 ± 0.79)E–10	(2.76 ± 2.85)E–10	(1.34 ± 2.93)E–10
701–13G Patrol Gate 6	4	(8.78 ± 3.36)E–10	(1.20 ± 0.41)E–09	(4.78 ± 2.99)E–10
701–1F F-Area Dom. Water Faucet	4	(2.42 ± 1.39)E–09	(4.11 ± 1.26)E–09	(7.04 ± 5.08)E–10
701–1H H-Area Dom. Water Faucet	4	(2.26 ± 0.49)E–09	(2.65 ± 0.74)E–09	(1.61 ± 0.52)E–09
701–3G Barnwell Gate	4	(0.89 ± 3.77)E–10	(6.49 ± 3.73)E–10	(–1.60 ± 1.56)E–10
701–4G Williston Gate	4	(–2.35 ± 4.55)E–10	(1.05 ± 2.29)E–10	(–9.01 ± 9.42)E–10
701–5G Talatha Gate	4	(8.15 ± 1.39)E–09	(9.67 ± 1.10)E–09	(6.68 ± 0.96)E–09
701–6G Jackson Gate	4	(1.59 ± 0.41)E–09	(2.05 ± 0.46)E–09	(1.17 ± 0.41)E–09
701–8G Patrol Gate 8	4	(3.08 ± 3.44)E–10	(7.56 ± 3.56)E–10	(–0.21 ± 1.72)E–10
703–A EOC (kitchen)	4	(8.07 ± 6.93)E–10	(1.65 ± 0.75)E–09	(–0.39 ± 2.97)E–10
704–F F-Area Dom. Water Faucet	4	(2.53 ± 1.35)E–09	(3.59 ± 0.87)E–09	(5.68 ± 4.27)E–10
704–H H-Area Dom. Water Faucet	4	(2.94 ± 1.35)E–09	(4.89 ± 0.89)E–09	(1.86 ± 0.53)E–09

Table 27
Radioactivity in Drinking Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
704–S S-Area Dom. Water Faucet	4	(2.00 ± 0.42)E–09	(2.49 ± 0.63)E–09	(1.46 ± 0.53)E–09
708–A A-Area Cafe (Restroom)	4	(5.63 ± 7.60)E–10	(1.53 ± 0.98)E–09	(–0.48 ± 3.78)E–10
735–7G PAR Pond Lab	4	(1.93 ± 2.29)E–10	(5.23 ± 9.64)E–10	(0.12 ± 2.44)E–10
760–G Forestry Building	4	(1.32 ± 1.15)E–09	(2.50 ± 0.59)E–09	(0.99 ± 2.11)E–10
772–F F-Area Dom. Water Faucet	4	(2.46 ± 2.22)E–09	(4.57 ± 1.09)E–09	(–1.61 ± 1.56)E–10
Cent. Shops 690–G Ford Bldg.	1	(3.58 ± 7.66)E–10		
TC–1 B-Area Cafeteria	4	(3.09 ± 8.16)E–10	(1.46 ± 0.64)E–09	(–4.47 ± 4.07)E–10
Z-Area Building 704–Z	4	(4.11 ± 4.51)E–10	(1.05 ± 0.46)E–09	(–0.21 ± 1.74)E–10
Surrounding Towns				
Aiken, S.C., Post Office	2	(1.99 ± 0.30)E–09	(2.20 ± 0.66)E–09	(1.77 ± 0.56)E–09
Allendale, S.C., Post Office	2	(1.37 ± 1.68)E–09	(2.56 ± 1.57)E–09	(1.86 ± 4.14)E–10
Augusta, Ga., Post Office 8th St.	2	(–0.79 ± 1.02)E–10	(–0.07 ± 2.22)E–10	(–1.52 ± 1.37)E–10
Barnwell, S.C., Post Office	2	(–1.55 ± 1.27)E–11	(–0.07 ± 2.64)E–10	(–0.24 ± 1.97)E–10
Bath, S.C., Post Office	2	(7.03 ± 1.19)E–10	(7.87 ± 4.28)E–10	(6.19 ± 3.98)E–10
Blackville, S.C., Post Office	2	(1.58 ± 2.55)E–10	(3.38 ± 3.88)E–10	(–0.23 ± 9.10)E–10
Clearwater, S.C., Post Office	2	(1.15 ± 0.33)E–09	(1.38 ± 0.62)E–09	(9.18 ± 6.80)E–10
Jackson, S.C., Post Office	2	(2.97 ± 3.08)E–09	(5.15 ± 0.85)E–09	(7.87 ± 4.28)E–10
Langley, S.C., Post Office	2	(9.33 ± 7.22)E–10	(1.44 ± 0.48)E–09	(4.22 ± 2.74)E–10
N. Augusta, S.C., Post Office	2	(1.50 ± 2.47)E–10	(3.25 ± 3.28)E–10	(–0.25 ± 1.98)E–10
New Ellenton, S.C., Post Office	2	(8.28 ± 3.82)E–10	(1.10 ± 0.40)E–09	(5.58 ± 3.28)E–10
ORA Site, ORA Building	2	(2.36 ± 1.52)E–10	(3.43 ± 2.74)E–10	(1.28 ± 2.30)E–10
Sardis, Ga., Post Office Farm St.	2	(–4.05 ± 1.96)E–11	(–0.27 ± 9.10)E–10	(–0.54 ± 4.04)E–10
Talatha, S.C., Tap Near Water Tank	2	(8.76 ± 2.18)E–10	(1.03 ± 0.38)E–09	(7.22 ± 4.40)E–10
Waynesboro, Ga., Post Office	2	(3.57 ± 2.23)E–10	(5.15 ± 4.14)E–10	(2.00 ± 3.59)E–10
Williston, S.C., Post Office	2	(9.54 ± 1.35)E–10	(1.05 ± 1.04)E–09	(8.58 ± 4.70)E–10
Treatment Plants				
Beaufort Public Water Works–Finished	12	(1.02±3.08)E–10	(7.10±5.30)E–10	(–2.41±2.38)E–10
Beaufort Public Water Works–Raw	12	(1.76 ± 2.53)E–10	(6.01 ± 3.63)E–10	(–1.70 ± 1.54)E–10
D-Area Powerhouse Lab–Finished[a]	12	(–0.24±1.94)E–10	(4.63±3.82)E–10	(–2.96±2.33)E–10
D-Area Powerhouse Lab–Raw[a]	12	(1.48 ± 2.41)E–10	(5.35 ± 3.38)E–10	(–1.88 ± 1.70)E–10

a Process water only

Table 27
Radioactivity in Drinking Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
N. Augusta Public Water Works–Finished	12	(1.09±2.11)E–10	(4.28±3.38)E–10	(–1.67±1.67)E–10
N. Augusta Public Water Works–Raw	12	(0.98 ± 1.67)E–10	(3.82 ± 2.68)E–10	(–1.98 ± 1.59)E–10
Savannah Public Water Works–Finished	12	(–0.33±2.75)E–10	(5.92±5.46)E–10	(–2.68±2.55)E–10
Savannah Public Water Works–Raw	12	(1.22 ± 2.50)E–10	(5.41 ± 3.55)E–10	(–2.37 ± 1.87)E–10
EMS Sampler				
Beaufort Public Water Works–Raw	20	(1.03 ± 1.96)E–10	(4.79 ± 3.98)E–10	(–1.53 ± 1.44)E–10

Table 28
Radioactivity in Food[a]

Page 1 of 7

Location	H-3[b] (pCi/g±σ)	Cs-137[c] (pCi/g±σ)	Pu-238[b] (pCi/g±σ)	Pu-239[b] (pCi/g±σ)	Sr-89,90[b] (pCi/g±σ)	U/Pu[b] (pCi/g±σ)
Collards						
FS #1 below Barricade #5	(6.61 ± 1.76)E–02				(9.70 ± 1.76)E–02	(1.62 ± 3.31)E–03
FS #11 Hwy 19—7 mi. north of Aiken	(–0.35 ± 2.44)E–02	(3.85 ± 0.97)E–02			(8.11 ± 1.63)E–02	(5.00 ± 4.55)E–03
FS #12 Springfield area	(7.65 ± 2.90)E–02		(1.67 ± 0.45)E–04		(1.11 ± 0.19)E–01	(1.09 ± 3.61)E–03
FS #13 Hilda area	(1.55 ± 0.19)E–01				(4.84 ± 1.43)E–02	(1.58 ± 3.29)E–03
FS #14 Ulmers area	(2.28 ± 0.24)E–01				(5.52 ± 1.32)E–02	(1.61 ± 3.29)E–03
FS #15 Control, Columbia, S.C.	(1.05 ± 2.28)E–02		(2.15 ± 2.15)E–05	(–1.00 ± 3.26)E–05	(3.51 ± 2.14)E–02	(8.52 ± 6.09)E–03
FS #2 near Savannah River—east of Sardis	(1.11 ± 0.29)E–01	(2.42 ± 0.54)E–02			(1.06 ± 0.21)E–01	(4.58 ± 1.15)E–02
FS #4 Talatha area	(7.86 ± 2.67)E–02				(8.60 ± 1.77)E–02	(1.50 ± 0.64)E–02
FS #5 Darkhorse area	(2.89 ± 1.39)E–02				(7.35 ± 1.40)E–02	(3.10 ± 4.15)E–03
FS #7 Wade Plantation vicinity	(1.29 ± 0.04)E+00				(8.98 ± 1.87)E–02	(4.44 ± 4.35)E–03
FS #8 Sardis area	(3.47 ± 1.96)E–02				(7.85 ± 2.03)E–02	(2.91 ± 0.93)E–02
FS #9 Boyce Dairy area						

a All results except those for H-3 are expressed in dry weight.
b Blank spaces indicate that no analyses were performed.
c Blank spaces indicate that activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in food products was 7.00E–03 pCi/g.

Table 28
Radioactivity in Food[a]

Location	H-3[b] (pCi/g±σ)	Cs-137[c] (pCi/g±σ)	Pu-238[b] (pCi/g±σ)	Pu-239[b] (pCi/g±σ)	Sr-89,90[b] (pCi/g±σ)	U/Pu[b] (pCi/g±σ)
Canteloupe						
Northeast S.C. 50-mi. radius	(3.42 ± 1.86)E–02				(2.57 ± 2.71)E–02	(1.90 ± 6.23)E–03
Northwest S.C. 50-mi.radius	(1.92 ± 2.76)E–02				(0.85 ± 2.55)E–02	(1.94 ± 6.29)E–03
Southeast S.C. 50-mi. radius	(1.13 ± 1.14)E–02				(–0.71 ± 2.29)E–02	(6.99 ± 7.09)E–03
Greens						
Northeast S.C. 50-mi. radius	(3.23 ± 1.94)E–02		(1.40 ± 0.56)E–04	(5.27 ± 3.93)E–05	(3.78 ± 1.21)E–02	(1.07 ± 3.47)E–03
Northwest S.C. 50-mi. radius	(8.37 ± 2.15)E–02		(3.63 ± 7.77)E–05	(–0.51 ± 1.77)E–04	(1.64 ± 0.85)E–01	(1.58 ± 1.81)E–02
Southeast S.C. 50-mi. radius	(–0.23 ± 1.33)E–02				(5.40 ± 1.30)E–02	(1.12 ± 3.63)E–03
Southwest Ga. 50-mi. radius	(4.54 ± 1.34)E–02	(4.69 ± 1.03)E–02			(9.79 ± 2.00)E–02	
Watermelon						
Northeast S.C. 50-mi. radius	(7.50 ± 2.03)E–02				(–0.56 ± 2.08)E–02	(–4.87 ± 4.04)E–03
Northwest S.C. 50-mi. radius	(1.01 ± 0.45)E–01		(1.55 ± 1.15)E–05	(0.00 ± 2.21)E–05	(–0.49 ± 2.52)E–02	(–1.44 ± 5.18)E–03

a All results except those for H-3 are expressed in dry weight.
b Blank spaces indicate that no analyses were performed.
c Blank spaces indicate that activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in food products was 7.00E–03 pCi/g.

Table 28
Radioactivity in Food[a]

Location	H-3[b] (pCi/g±σ)	Cs-137[c] (pCi/g±σ)	Pu-238[b] (pCi/g±σ)	Pu-239[b] (pCi/g±σ)	Sr-89,90[b] (pCi/g±σ)	U/Pu[b] (pCi/g±σ)
Southeast S.C. 50-mi. radius	(2.33 ± 2.53)E–02		(00.00 ± 1.41)E–05		(–0.27 ± 2.16)E–02	(–0.09 ± 5.07)E–03
Soybeans						
Northeast S.C. 50-mi. radius	(3.41 ± 1.02)E–02		(2.55 ± 1.90)E–05	(–1.69 ± 1.69)E–05	(4.47 ± 1.93)E–02	(1.11 ± 3.65)E–03
Northwest S.C. 50mi. radius	(3.60 ± 1.05)E–02		(2.02 ± 1.43)E–05	(1.01 ± 1.75)E–05	(7.24 ± 1.10)E–02	(3.10 ± 4.15)E–03
Southeast S.C. 50-mi. radius	(2.88 ± 1.46)E–02		(3.53 ± 1.93)E–05	(1.51 ± 2.30)E–05	(3.15 ± 2.23)E–02	(2.59 ± 8.36)E–03
Southwest Ga. 50mi. radius	(3.15 ± 1.11)E–02		(–2.76 ± 2.76)E–05	(–1.38 ± 2.39)E–05	(4.16 ± 1.79)E–02	
Wheat						
Northeast S.C. 50-mi. radius		(2.00 ± 0.51)E–02			(–1.38 ± 2.26)E–02	(–0.59 ± 5.07)E–03
Northwest S.C. 50-mi. radius					(0.17 ± 2.38)E–02	(6.27 ± 7.04)E–03
Southeast S.C. 50-mi. radius			(2.29 ± 1.37)E–05	(4.55 ± 7.91)E–06	(0.44 ± 2.39)E–02	(2.85 ± 6.13)E–03
Southwest Ga. 50-mi. radius					(–1.39 ± 2.32)E–02	(–0.61 ± 5.07)E–03

a All results except those for H-3 are expressed in dry weight.
b Blank spaces indicate that no analyses were performed.
c Blank spaces indicate that activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in food products was 7.00E–03 pCi/g.

Table 28
Radioactivity in Food[a]

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Location	H-3[b] (pCi/g±σ)	Cs-137[c] (pCi/g±σ)	Pu-238[b] (pCi/g±σ)	Pu-239[b] (pCi/g±σ)	Sr-89,90[b] (pCi/g±σ)	U/Pu[b] (pCi/g±σ)
Corn						
Northeast S.C. 50-mi. radius	(1.22 ± 0.73)E–02	(9.37 ± 2.68)E–03	(1.77 ± 1.09)E–05	(–7.00 ± 7.66)E–06	(0.42 ± 2.34)E–02	(1.62 ± 0.95)E–02
Southeast S.C. 50-mi. radius			(–5.70 ± 2.82)E–06	(–0.36 ± 1.59)E–05	(–0.65 ± 2.02)E–02	(1.42 ± 3.44)E–03
FS #12 Springfield area					(–0.54 ± 2.38)E–02	(3.85 ± 3.78)E–03
FS #7 Wade Plantation vicinity					(–1.13 ± 2.12)E–02	(3.85 ± 3.78)E–03
FS #8 Sardis area					(0.48 ± 2.72)E–02	(3.86 ± 3.78)E–03
FS #9 Boyce Dairy area	(2.04 ± 0.72)E–02		(–3.78 ± 3.78)E–06	(2.65 ± 8.54)E–06	(1.80 ± 2.66)E–02	(–1.78 ± 2.63)E–03
FS #14 Ulmers area					(2.57 ± 2.43)E–02	(8.69 ± 5.12)E–03
FS #5 Darkhorse area					(0.10 ± 2.68)E–02	(1.42 ± 2.89)E–03
Peanuts						
Northeast S.C. 50-mi. radius	(9.23 ± 3.24)E–02		(1.08 ± 1.08)E–05	(1.08 ± 1.19)E–05	(–2.04 ± 1.80)E–02	(6.23 ± 4.46)E–03
Southeast S.C. 50-mi. radius	(1.75 ± 1.04)E–02		(1.01 ± 0.28)E–04	(–1.12 ± 1.38)E–05	(1.25 ± 2.25)E–02	(1.49 ± 3.04)E–03
Southwest Ga. 50-mi. radius	(3.53 ± 1.00)E–02	(1.45 ± 0.42)E–02	(1.84 ± 0.97)E–05	(1.47 ± 1.16)E–05	(1.53 ± 2.22)E–02	(–1.08 ± 1.62)E–03

a All results except those for H-3 are expressed in dry weight.
b Blank spaces indicate that no analyses were performed.
c Blank spaces indicate that activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in food products was 7.00E–03 pCi/g.

Table 28
Radioactivity in Food[a]

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Location	H-3[b] (pCi/g±σ)	Cs-137[c] (pCi/g±σ)	Pu-238[b] (pCi/g±σ)	Pu-239[b] (pCi/g±σ)	Sr-89,90[b] (pCi/g±σ)	U/Pu[b] (pCi/g±σ)
Grain						
FS #4 Talatha area			(3.32 ± 1.71)E–05	(0.94 ± 1.16)E–05	(0.97 ± 2.22)E–02	
FS #7 Wade Plantation vicinity	(–1.75 ± 9.40)E–03	(1.82 ± 0.39)E–02	(2.88 ± 0.85)E–05	(8.79 ± 4.46)E–06	(0.26 ± 1.70)E–02	(1.73 ± 3.28)E–03
FS #9 Boyce Dairy area	(4.39 ± 9.89)E–03		(0.54 ± 1.23)E–05	(–0.54 ± 1.45)E–05	(–0.23 ± 2.08)E–02	(–4.05 ± 3.71)E–03
FS #10 Gracewood School area					(–0.43 ± 2.14)E–02	(1.51 ± 3.04)E–03
FS #12 Springfield area			(3.06 ± 1.77)E–05	(–1.02 ± 1.25)E–05	(1.65 ± 2.92)E–02	(2.84 ± 4.88)E–03
FS #3 Jackson area					(–3.19 ± 1.95)E–02	(6.23 ± 6.97)E–03
Fruit						
FS #10 Gracewood School area	(2.41 ± 1.12)E–02				(–0.42 ± 2.31)E–02	(–1.46 ± 5.23)E–03
FS #11 Hwy 19 —7 mi. north of Aiken	(9.16 ± 6.25)E–03		(3.02 ± 2.25)E–05	(0.00 ± 1.41)E–05	(1.33 ± 2.40)E–02	(–3.62 ± 3.56)E–03
FS #12 Springfield area	(2.00 ± 0.40)E–01		(0.89 ± 1.55)E–05		(–0.15 ± 2.05)E–02	(5.36 ± 7.15)E–03
FS #3 Jackson area	(4.04 ± 0.24)E–01		(1.10 ± 1.92)E–05	(8.85 ± 3.13)E–05	(1.36 ± 2.52)E–02	(1.42 ± 0.88)E–02
FS #4 Talatha area	(1.53 ± 0.21)E–01		(0.00 ± 2.57)E–05	(0.00 ± 1.48)E–05	(–2.31 ± 2.24)E–02	(1.71 ± 1.74)E–02
FS #6 Snelling area	(8.57 ± 1.83)E–02				(–1.39 ± 2.24)E–02	(–1.51 ± 5.28)E–03

a All results except those for H-3 are expressed in dry weight.
b Blank spaces indicate that no analyses were performed.
c Blank spaces indicate that activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in food products was 7.00E–03 pCi/g.

Table 28
Radioactivity in Food[a]

Location	H-3[b] (pCi/g±σ)	Cs-137[c] (pCi/g±σ)	Pu-238[b] (pCi/g±σ)	Pu-239[b] (pCi/g±σ)	Sr-89,90[b] (pCi/g±σ)	U/Pu[b] (pCi/g±σ)
FS #9 Boyce Dairy area	(5.07 ± 1.18)E–02				(–0.73 ± 2.33)E–02	(–3.76 ± 3.68)E–03
FS #5 Darkhorse Area	(1.50 ± 0.21)E–01		(–3.21 ± 1.85)E–05	(1.07 ± 2.82)E–05	(2.59 ± 2.50)E–02	(–4.85 ± 4.00)E–03
FS #7 Wade Plantation vicinity	(6.70 ± 9.66)E–03				(–2.91 ± 2.19)E–02	(7.05 ± 7.16)E–03
Northeast S.C. 50-mi. radius	(4.16 ± 0.42)E–01				(4.62 ± 2.61)E–02	(5.18 ± 7.01)E–03
Northwest S.C. 50-mi. radius	(5.00 ± 5.11)E–02		(7.48 ± 5.29)E–06	(–3.72 ± 3.74)E–06	(3.54 ± 0.83)E–02	(–1.87 ± 2.51)E–03
Southeast S.C. 50-mi. radius	(2.07 ± 1.75)E–02				(4.82 ± 2.55)E–02	(–0.11 ± 5.07)E–03
Southwest Ga. 50-mi. radius	(1.07 ± 0.64)E–02		(0.00 ± 1.32)E–05	(–1.07 ± 0.76)E–05	(0.28 ± 2.52)E–02	(–2.64 ± 9.13)E–02
Chicken						
FS #9 Boyce Dairy area	(3.43 ± 1.45)E–01				(4.45 ± 4.27)E–02	(0.81 ± 1.66)E–02

a All results except those for H-3 are expressed in dry weight.
b Blank spaces indicate that no analyses were performed.
c Blank spaces indicate that activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in food products was 7.00E–03 pCi/g.

Table 28
Radioactivity in Food[a]

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Location	H-3[b] (pCi/g±σ)	Cs-137[c] (pCi/g±σ)	Pu-238[b] (pCi/g±σ)	Pu-239[b] (pCi/g±σ)	Sr-89,90[b] (pCi/g±σ)	U/Pu[b] (pCi/g±σ)
Beef						
Northeast S.C. 50-mi. radius	(4.06 ± 1.31)E–02		(4.99 ± 2.10)E–05	(–0.38 ± 1.24)E–05	(0.20 ± 2.57)E–02	
Northwest S.C. 50-mi. radius	(–1.05 ± 1.48)E–02		(2.14 ± 1.13)E–05	(1.71 ± 0.85)E–05	(1.42 ± 3.08)E–02	

a All results except those for H-3 are expressed in dry weight.
b Blank spaces indicate that no analyses were performed.
c Blank spaces indicate that activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in food products was 7.00E–03 pCi/g.

Table 29
Radioactivity in Eggs

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Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3, pCi/g				
FS #10 Gracewood School area	1	(–0.85 ± 2.19)E–02		
FS #9 Boyce Dairy area	1	(2.48 ± 1.44)E–01		
Sr-89,90, pCi/g				
FS #10 Gracewood School area	1	(0.96 ± 3.49)E–02		
FS #9 Boyce Dairy area	1	(4.99 ± 4.32)E–02		
U/Pu, pCi/g				
FS #10 Gracewood School area	1	(–0.68 ± 1.03)E–02		
FS #9 Boyce Dairy area	1	(1.02 ± 1.00)E–02		

Table 30
Radioactivity in Milk

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Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3, μCi/mL				
Dairy (Major Distributor)	12	(−0.07 ± 1.72)E−07	(2.11 ± 1.08)E−07	(−3.35 ± 1.45)E−07
Denmark, SC	12	(1.34 ± 1.60)E−07	(3.63 ± 1.07)E−07	(−1.03 ± 1.33)E−07
Girard, GA Dairy	12	(2.59 ± 3.26)E−07	(9.60 ± 1.54)E−07	(−1.62 ± 1.42)E−07
Gracewood, GA Dairy	12	(1.31 ± 1.40)E−07	(3.29 ± 1.43)E−07	(−1.89 ± 1.41)E−07
Jackson, SC Dairy	12	(6.21 ± 1.74)E−07	(9.30 ± 1.43)E−07	(2.87 ± 1.21)E−07
Waynesboro, GA Dairy	12	(1.99 ± 1.97)E−07	(7.50 ± 1.38)E−07	(−0.79 ± 1.18)E−07
N.E. SC 50-Mile Radius	11	(1.32 ± 2.59)E−07	(7.21 ± 1.33)E−07	(−1.84 ± 1.41)E−07
N.W. SC 50-Mile Radius	12	(1.40 ± 2.40)E−07	(5.54 ± 1.43)E−07	(−1.48 ± 1.35)E−07
S.E. SC 50-Mile Radius	12	(1.92 ± 2.23)E−07	(6.09 ± 1.32)E−07	(−1.23 ± 1.43)E−07
S.W. GA 50-Mile Radius	12	(0.37 ± 2.41)E−07	(4.42 ± 1.41)E−07	(−3.48 ± 1.40)E−07
Sr-90, μCi/mL				
Dairy (Major Distributor)	4	(2.38 ± 1.43)E−09	(4.36 ± 1.79)E−09	(1.02 ± 1.19)E−09
Denmark, SC	4	(2.82 ± 1.21)E−09	(4.58 ± 1.49)E−09	(2.03 ± 1.02)E−09
Girard, GA Dairy	4	(2.12 ± 1.27)E−09	(3.84 ± 0.88)E−09	(1.05 ± 1.11)E−09
Gracewood, GA Dairy	4	(1.40 ± 1.19)E−09	(2.67 ± 1.92)E−09	(−1.11 ± 9.64)E−10
Jackson, SC Dairy	4	(1.45 ± 1.00)E−09	(2.81 ± 0.99)E−09	(0.40 ± 1.17)E−09
Waynesboro, GA Dairy	3	(1.54 ± 2.06)E−09	(3.61 ± 0.96)E−09	(−0.51 ± 1.07)E−09
Cs-137[a], μCi/mL (The typical lower limit of detection for Cs-137 in milk was 3.00E−09 μCi/mL.)				
Dairy (Major Distributor)	3	(3.67 ± 0.36)E−09	(3.97 ± 1.09)E−09	(3.27 ± 1.00)E−09
Denmark, SC	3	(4.46 ± 0.34)E−09	(4.81 ± 1.18)E−09	(4.14 ± 1.16)E−09
Girard, GA Dairy	1	(3.55 ± 1.12)E−09		
N.E. SC 50-Mile Radius	5	(4.09 ± 1.19)E−09	(5.48 ± 1.27)E−09	(2.52 ± 0.91)E−09
S.E. SC 50-Mile Radius	7	(4.66 ± 1.00)E−09	(5.87 ± 0.89)E−09	(3.14 ± 0.99)E−09
S.W. GA 50-Mile Radius	2	(3.58 ± 0.02)E−09	(3.59 ± 1.33)E−09	(3.57 ± 1.15)E−09

a The gamma analysis package currently used by Environmental Monitoring does not force an activity determination if a threshold setting is not met. For these reported radionuclides, "No. of Samples" is displayed as "number with activities quantified/number of samples counted"; only the number quantified are used in the mean, maximum, and minimum generation.

Table 31
Radioactivity in Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3, pCi/g				
Off Site (Edible)				
Augusta Lock and Dam				
Predators	1	(3.60 ± 1.58)E–02		
Beaver Dam Creek River Mouth				
Predators	1	(9.13 ± 2.65)E–02		
Bottom dwellers	3	(2.94 ± 4.07)E–01	(7.63 ± 0.36)E–01	(3.47 ± 1.59)E–02
Four Mile Creek River Mouth				
Panfish	3	(8.01 ± 5.61)E–01	(1.40 ± 0.02)E+00	(2.91 ± 0.09)E–01
Bottom dwellers	3	(1.31 ± 0.30)E+00	(1.49 ± 0.04)E+00	(9.71 ± 0.23)E–01
Hwy–301 Bridge Area				
Predators	1	(1.48 ± 0.26)E–01		
Panfish	4	(7.07 ± 0.74)E–02	(7.68 ± 1.13)E–02	(6.11 ± 0.83)E–02
Bottom dwellers	2	(1.01 ± 0.20)E–01	(1.15 ± 0.13)E–01	(8.63 ± 0.77)E–02
L3R Creek River Mouth				
Predators	1	(2.12 ± 0.27)E–01		
Panfish	4	(5.50 ± 1.01)E–02	(6.74 ± 1.61)E–02	(4.28 ± 0.89)E–02
Bottom dwellers	3	(8.67 ± 3.40)E–02	(1.23 ± 0.22)E–01	(5.58 ± 1.17)E–02
Steel Creek River Mouth				
Predators	2	(1.12 ± 0.26)E+00	(1.31 ± 0.03)E+00	(9.37 ± 0.33)E–01
Panfish	1	(2.66 ± 0.13)E–01		
Bottom dwellers	3	(2.23 ± 0.84)E–01	(3.16 ± 0.20)E–01	(1.51 ± 0.10)E–01
U3R Creek River Mouth				
Bottom dwellers	3	(1.51 ± 0.28)E–01	(1.72 ± 0.27)E–01	(1.19 ± 0.22)E–01
Sr-89,90, pCi/g				
Off Site (Edible)				
Beaver Dam Creek River Mouth				
Bottom dwellers	2	(–2.03 ± 0.59)E–02	(–1.61 ± 1.87)E–02	(–2.44 ± 1.02)E–02
Four Mile Creek River Mouth				
Panfish	3	(9.56 ± 5.28)E–01	(1.27 ± 0.55)E+00	(3.46 ± 3.19)E–01
Bottom dwellers	2	(–3.38 ± 4.46)E–02	(–0.23 ± 1.30)E–02	(–6.54 ± 1.69)E–02

Table 31
Radioactivity in Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Hwy–301 Bridge Area				
Panfish	4	(0.88 ± 1.82)E–01	(3.60 ± 2.75)E–01	(–1.77 ± 1.21)E–02
Bottom dwellers	2	(4.53 ± 6.43)E–03	(9.07 ± 7.68)E–03	(–0.02 ± 6.65)E–03
L3R Creek River Mouth				
Panfish	2	(3.17 ± 5.47)E–01	(7.04 ± 3.80)E–01	(–6.97 ± 2.06)E–02
Steel Creek River Mouth				
Panfish	1	(–3.00 ± 1.54)E–02		
Bottom dwellers	2	(4.63 ± 6.39)E–02	(9.15 ± 1.68)E–02	(0.12 ± 1.03)E–02
U3R Creek River Mouth				
Bottom dwellers	3	(–5.41 ± 5.43)E–03	(0.08 ± 1.22)E–02	(–9.39 ± 7.78)E–03
Sr-90, pCi/g				
Off Site (Edible)				
Augusta Lock and Dam				
Predators	1	(5.86 ± 3.94)E–03		
Beaver Dam Creek River Mouth				
Predators	1	(7.21 ± 4.65)E–03		
Bottom dwellers	3	(2.05 ± 1.64)E–02	(3.94 ± 0.94)E–02	(9.53 ± 3.49)E–03
Four Mile Creek River Mouth				
Panfish	3	(4.17 ± 3.34)E–02	(7.53 ± 1.09)E–02	(8.62 ± 5.38)E–03
Bottom dwellers	3	(3.12 ± 2.73)E–02	(6.25 ± 0.71)E–02	(1.23 ± 0.41)E–02
Hwy–301 Bridge Area				
Predators	1	(4.13 ± 3.97)E–03		
Panfish	4	(1.16 ± 0.60)E–02	(1.72 ± 0.57)E–02	(3.31 ± 3.55)E–03
Bottom dwellers	2	(6.57 ± 9.19)E–03	(1.31 ± 0.45)E–02	(0.01 ± 3.89)E–02
L3R Creek River Mouth				
Predators	1	(1.31 ± 2.83)E–03		
Panfish	4	(7.86 ± 9.84)E–02	(2.25 ± 0.17)E–01	(1.60 ± 0.58)E–02
Bottom dwellers	3	(1.12 ± 1.11)E–02	(2.40 ± 0.44)E–02	(4.52 ± 3.52)E–03
Steel Creek River Mouth				
Predators	2	(4.84 ± 5.15)E–03	(8.48 ± 4.31)E–03	(1.20 ± 4.25)E–03
Panfish	1	(1.66 ± 0.65)E–02		
Bottom dwellers	3	(1.72 ± 1.01)E–02	(2.53 ± 0.63)E–02	(5.83 ± 3.29)E–03

Table 31
Radioactivity in Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
U3R Creek River Mouth				
Bottom dwellers	3	(1.12 ± 0.74)E–02	(1.86 ± 0.78)E–02	(3.86 ± 2.88)E–03
Off Site (Nonedible)				
Augusta Lock and Dam				
Predators	1	(1.09 ± 0.31)E–01		
Beaver Dam Creek River Mouth				
Predators	1	(1.63 ± 0.42)E–01		
Bottom dwellers	3	(1.91 ± 1.04)E–01	(3.07 ± 0.42)E–01	(1.07 ± 0.29)E–01
Four Mile Creek River Mouth				
Panfish	3	(6.09 ± 4.33)E–01	(1.08 ± 0.13)E+00	(2.27 ± 0.75)E–01
Bottom dwellers	3	(1.04 ± 0.53)E+00	(1.39 ± 0.13)E+00	(4.31 ± 0.50)E–01
Hwy–301 Bridge Area				
Predators	2	(1.45 ± 0.10)E–01	(1.52 ± 0.35)E–01	(1.37 ± 0.34)E–01
Panfish	4	(2.85 ± 1.01)E–01	(4.33 ± 0.83)E–01	(2.07 ± 0.41)E–01
Bottom dwellers	2	(1.90 ± 0.17)E–01	(2.02 ± 0.44)E–01	(1.78 ± 0.44)E–01
L3R Creek River Mouth				
Predators	1	(1.02 ± 0.35)E–01		
Panfish	4	(1.60 ± 0.71)E–01	(2.63 ± 0.78)E–01	(1.13 ± 0.32)E–01
Bottom dwellers	3	(1.82 ± 0.69)E–01	(2.26 ± 0.50)E–01	(1.03 ± 0.43)E–01
Steel Creek River Mouth				
Predators	2	(2.03 ± 0.15)E–01	(2.14 ± 0.42)E–01	(1.92 ± 0.41)E–01
Panfish	1	(1.99 ± 0.73)E–01		
Bottom dwellers	3	(1.85 ± 1.13)E–01	(3.12 ± 0.82)E–01	(9.28 ± 3.95)E–02
U3R Creek River Mouth				
Bottom dwellers	3	(1.61 ± 0.29)E–01	(1.89 ± 0.44)E–01	(1.31 ± 0.48)E–01
Cs-137, pCi/g				
Off Site (Edible)				
Beaver Dam Creek River Mouth				
Predators	1	(9.37 ± 0.24)E–01		
Bottom dwellers	1	(5.79 ± 1.62)E–02		

Table 31
Radioactivity in Fish

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Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Four Mile Creek River Mouth				
Panfish	1	(2.09 ± 0.30)E–01		
Bottom dwellers	3	(2.36 ± 1.32)E–01	(3.54 ± 0.27)E–01	(9.40 ± 2.41)E–02
Hwy–301 Bridge Area				
Predators	1	(7.01 ± 1.72)E–02		
Panfish	2	(7.76 ± 4.68)E–02	(1.11 ± 0.27)E–01	(4.44 ± 1.36)E–02
Bottom dwellers	2	(6.29 ± 1.09)E–02	(7.07 ± 2.42)E–02	(5.52 ± 2.05)E–02
L3R Creek River Mouth				
Predators	1	(4.45 ± 0.18)E–01		
Panfish	4	(4.94 ± 3.31)E–01	(7.98 ± 0.46)E–01	(1.48 ± 0.30)E–01
Bottom dwellers	3	(7.23 ± 5.56)E–01	(1.33 ± 0.05)E+00	(2.44 ± 0.23)E–01
Steel Creek River Mouth				
Predators	2	(1.34 ± 1.09)E+00	(2.12 ± 0.06)E+00	(5.68 ± 0.33)E–01
Bottom dwellers	3	(2.37 ± 0.31)E–01	(2.72 ± 0.29)E–01	(2.12 ± 0.32)E–01
Stokes Bluff Landing				
Bottom dwellers	3	(8.82 ± 3.09)E–02	(1.22 ± 0.26)E–01	(6.24 ± 1.78)E–02
U3R Creek River Mouth				
Bottom dwellers	1	(6.97 ± 2.15)E–02		
Hwy–17A Bridge Area				
Predators	2	(9.81 ± 1.24)E–02	(1.07 ± 0.21)E–01	(8.93 ± 1.47)E–02
On Site (Edible)				
L-Lake				
Predators	3	(7.08 ± 0.90)E–01	(8.01 ± 0.51)E–01	(6.21 ± 0.51)E–01
PAR Pond				
Predators	3	(1.15 ± 0.16)E+01	(1.27 ± 0.02)E+01	(9.64 ± 0.16)E+00
SC–4 Steel Creek at Road A				
Predators	2	(1.62 ± 0.63)E+00	(2.07 ± 0.06)E+00	(1.18 ± 0.07)E+00
Off Site (Nonedible)				
Beaver Dam Creek River Mouth				
Predators	1	(4.72 ± 0.30)E–01		
Bottom dwellers	1	(5.89 ± 2.11)E–02		

Table 31
Radioactivity in Fish

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Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Four Mile Creek River Mouth				
Panfish	2	(1.27 ± 0.27)E–01	(1.46 ± 0.29)E–01	(1.08 ± 0.31)E–01
Bottom dwellers	3	(9.55 ± 1.80)E–02	(1.13 ± 0.17)E–01	(7.71 ± 1.60)E–02
Hwy–301 Bridge Area				
Predators	2	(4.07 ± 0.48)E–02	(4.41 ± 0.94)E–02	(3.73 ± 1.24)E–02
Panfish	1	(6.20 ± 2.10)E–02		
L3R Creek River Mouth				
Predators	1	(2.39 ± 0.29)E–01		
Panfish	4	(2.82 ± 1.80)E–01	(4.41 ± 0.35)E–01	(1.08 ± 0.33)E–01
Bottom dwellers	3	(3.59 ± 2.89)E–01	(6.67 ± 0.39)E–01	(9.35 ± 1.87)E–02
Steel Creek River Mouth				
Predators	2	(7.58 ± 5.46)E–01	(1.14 ± 0.05)E+00	(3.72 ± 0.20)E–01
Bottom dwellers	2	(1.44 ± 0.41)E–01	(1.73 ± 0.24)E–01	(1.16 ± 0.22)E–01
Pu-238, pCi/g				
Off Site (Edible)				
Beaver Dam Creek River Mouth				
Bottom dwellers	2	(–0.58 ± 1.22)E–05	(2.79 ± 4.84)E–06	(–1.44 ± 2.04)E–05
Four Mile Creek River Mouth				
Panfish	2	(6.02 ± 8.51)E–06	(1.20 ± 2.10)E–05	(0.00 ± 1.63)E–05
Bottom dwellers	3	(3.70 ± 7.49)E–06	(1.09 ± 0.94)E–05	(–4.05 ± 2.87)E–06
Hwy–301 Bridge Area				
Predators	1	(0.00 ± 9.75)E–03		
Panfish	2	(1.97 ± 2.79)E–06	(3.94 ± 6.85)E–06	(0.00 ± 8.51)E–06
Bottom dwellers	2	(0.49 ± 1.04)E–05	(1.23 ± 1.23)E–05	(–2.39 ± 6.34)E–06
L3R Creek River Mouth				
Predators	1	(0.00 ± 1.24)E–05		
Panfish	4	(2.17 ± 2.05)E–05	(4.22 ± 2.44)E–05	(–0.66 ± 1.15)E–05
Bottom dwellers	3	(–0.96 ± 7.45)E–06	(5.96 ± 4.45)E–06	(–8.85 ± 6.61)E–06
Steel Creek River Mouth				
Bottom dwellers	3	(0.09 ± 1.05)E–05	(1.19 ± 0.49)E–05	(–9.04 ± 6.74)E–06
U3R Creek River Mouth				
Bottom dwellers	2	(–1.75 ± 1.77)E–05	(–4.92 ± 3.67)E–06	(–3.00 ± 1.34)E–05

Table 31
Radioactivity in Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Pu-239, pCi/g				
Off Site (Edible)				
Beaver Dam Creek River Mouth				
Bottom dwellers	3	(–1.31 ± 9.25)E–06	(0.72 ± 1.25)E–05	(–1.11 ± 0.68)E–05
Four Mile Creek River Mouth				
Panfish	2	(2.26 ± 4.89)E–05	(5.72 ± 2.55)E–05	(–1.20 ± 2.08)E–05
Bottom dwellers	3	(2.95 ± 0.98)E–06	(4.04 ± 4.96)E–06	(2.12 ± 4.74)E–06
Hwy–301 Bridge Area				
Panfish	3	(–6.64 ± 9.29)E–06	(3.94 ± 3.95)E–06	(–1.35 ± 1.35)E–05
Bottom dwellers	1	(2.39 ± 9.28)E–06		
L3R Creek River Mouth				
Predators	1	(–0.61 ± 1.38)E–05		
Panfish	4	(1.67 ± 2.77)E–05	(5.55 ± 2.78)E–05	(–9.41 ± 6.65)E–06
Bottom dwellers	3	(5.34 ± 5.57)E–06	(1.18 ± 0.59)E–05	(1.98 ± 5.95)E–06
Steel Creek River Mouth				
Bottom dwellers	2	(4.51 ± 6.38)E–06	(9.03 ± 7.95)E–06	(00.00 ± 5.57)E–06
U3R Creek River Mouth				
Bottom dwellers	3	(–2.26 ± 4.88)E–06	(3.27 ± 2.31)E–06	(–0.60 ± 1.04)E–05
Gross Beta, pCi/g				
Off Site (Edible)				
Augusta Lock and Dam				
Predators	1	(1.09 ± 0.32)E+00		
Beaver Dam Creek River Mouth				
Predators	1	(2.89 ± 0.40)E+00		
Bottom dwellers	3	(2.41 ± 1.06)E+00	(3.13 ± 0.49)E+00	(1.19 ± 0.34)E+00
Four Mile Creek River Mouth				
Panfish	3	(2.62 ± 0.65)E+00	(3.13 ± 0.49)E+00	(1.89 ± 0.38)E+00
Bottom dwellers	3	(3.09 ± 0.43)E+00	(3.58 ± 0.51)E+00	(2.78 ± 0.45)E+00
Hwy–301 Bridge Area				
Predators	1	(1.70 ± 0.35)E+00		
Panfish	4	(2.80 ± 1.12)E+00	(3.78 ± 0.50)E+00	(1.35 ± 0.35)E+00
Bottom dwellers	2	(1.78 ± 0.43)E+00	(2.08 ± 0.39)E+00	(1.48 ± 0.36)E+00

Table 31
Radioactivity in Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
L3R Creek River Mouth				
Predators	1	(2.21 ± 0.38)E+00		
Panfish	4	(3.67 ± 0.78)E+00	(4.70 ± 0.56)E+00	(2.81 ± 0.41)E+00
Bottom dwellers	3	(3.53 ± 1.44)E+00	(4.70 ± 0.56)E+00	(1.93 ± 0.32)E+00
Steel Creek River Mouth				
Predators	2	(2.63 ± 0.36)E+00	(2.89 ± 0.40)E+00	(2.38 ± 0.38)E+00
Panfish	1	(1.59 ± 0.37)E+00		
Bottom dwellers	3	(3.73 ± 0.56)E+00	(4.25 ± 0.53)E+00	(3.13 ± 0.50)E+00
Stokes Bluff Landing				
Bottom dwellers	3	(1.67 ± 1.72)E+00	(3.58 ± 0.52)E+00	(2.47 ± 3.12)E–01
U3R Creek River Mouth				
Bottom dwellers	3	(1.59 ± 0.62)E+00	(2.27 ± 0.39)E+00	(1.08 ± 0.34)E+00
Hwy–17A Bridge Area				
Predators	3	(2.66 ± 1.49)E+00	(4.38 ± 0.52)E+00	(1.76 ± 0.37)E+00
Panfish	3	(2.37 ± 0.71)E+00	(2.78 ± 0.45)E+00	(1.55 ± 0.36)E+00
Bottom dwellers	2	(3.03 ± 1.34)E+00	(3.98 ± 0.50)E+00	(2.08 ± 0.39)E+00
On Site (Edible)				
L-Lake				
Predators	3	(3.12 ± 2.03)E+00	(5.18 ± 0.55)E+00	(1.12 ± 0.32)E+00
PAR Pond				
Predators	3	(1.29 ± 0.16)E+01	(1.42 ± 0.09)E+01	(1.11 ± 0.08)E+01
SC–4 Steel Creek at Road A				
Predators	2	(4.33 ± 1.56)E+00	(5.44 ± 0.56)E+00	(3.23 ± 0.42)E+00
Off Site (Nonedible)				
Augusta Lock and Dam				
Predators	1	(2.04 ± 0.83)E+00		
Beaver Dam Creek River Mouth				
Predators	1	(3.79 ± 1.01)E+00		
Bottom dwellers	3	(2.19 ± 1.60)E+00	(4.00 ± 1.18)E+00	(9.63 ± 8.96)E–01
Four Mile Creek River Mouth				
Panfish	3	(3.24 ± 1.50)E+00	(4.71 ± 1.11)E+00	(1.72 ± 0.90)E+00
Bottom dwellers	3	(2.45 ± 0.81)E+00	(3.16 ± 1.12)E+00	(1.57 ± 0.87)E+00

Table 31
Radioactivity in Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Hwy–301 Bridge Area				
Predators	2	(3.51 ± 0.60)E+00	(3.94 ± 0.99)E+00	(3.08 ± 0.94)E+00
Panfish	4	(2.19 ± 0.75)E+00	(3.10 ± 1.03)E+00	(1.28 ± 0.93)E+00
Bottom dwellers	2	(2.33 ± 1.10)E+00	(3.10 ± 1.02)E+00	(1.55 ± 0.93)E+00
L3R Creek River Mouth				
Predators	1	(9.03 ± 1.75)E+00		
Panfish	4	(2.46 ± 0.82)E+00	(3.16 ± 1.19)E+00	(1.48 ± 1.02)E+00
Bottom dwellers	3	(2.67 ± 1.91)E+00	(4.00 ± 1.19)E+00	(4.80 ± 8.30)E–01
Steel Creek River Mouth				
Predators	1	(3.22 ± 0.99)E+00		
Panfish	1	(4.17 ± 1.11)E+00		
Bottom dwellers	3	(2.00 ± 0.62)E+00	(2.68 ± 0.95)E+00	(1.47 ± 0.89)E+00
U3R Creek River Mouth				
Bottom dwellers	3	(1.38 ± 1.68)E+00	(2.93 ± 0.97)E+00	(–0.41 ± 1.27)E+00
Gross Alpha, pCi/g				
Off Site (Edible)				
Augusta Lock and Dam				
Predators	1	(–0.44 ± 1.19)E–01		
Beaver Dam Creek River Mouth				
Predators	1	(0.29 ± 1.40)E–01		
Bottom dwellers	3	(0.77 ± 1.66)E–01	(2.69 ± 2.09)E–01	(–0.21 ± 1.38)E–01
Four Mile Creek River Mouth				
Panfish	3	(0.57 ± 1.58)E–01	(1.48 ± 1.69)E–01	(–1.25 ± 1.10)E–01
Bottom dwellers	3	(–1.39 ± 8.40)E–02	(0.74 ± 1.70)E–01	(–9.35 ± 8.67)E–02
Hwy–301 Bridge Area				
Predators	1	(1.02 ± 1.56)E–01		
Panfish	4	(–6.19 ± 5.52)E–02	(–0.10 ± 1.32)E–01	(–1.21 ± 1.07)E–01
Bottom dwellers	2	(–1.68 ± 0.15)E–02	(–0.16 ± 1.14)E–01	(–0.18 ± 1.24)E–01
L3R Creek River Mouth				
Predators	1	(–0.46 ± 1.21)E–01		
Panfish	4	(–0.20 ± 1.24)E–01	(0.98 ± 1.88)E–01	(–1.32 ± 1.16)E–01
Bottom dwellers	3	(–2.95 ± 6.66)E–02	(0.33 ± 1.03)E–01	(–9.94 ± 8.89)E–02

Table 31
Radioactivity in Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Steel Creek River Mouth				
Predators	2	(–1.19 ± 0.00)E–01	(–1.19 ± 0.93)E–01	(–1.19 ± 0.93)E–01
Panfish	1	(0.63 ± 1.42)E–01		
Bottom dwellers	3	(–5.36 ± 5.44)E–02	(–0.22 ± 1.38)E–01	(–1.16 ± 1.00)E–01
Stokes Bluff Landing				
Bottom dwellers	3	(–4.60 ± 4.77)E–02	(–0.15 ± 1.18)E–01	(–1.01 ± 0.90)E–01
Hwy–17A Bridge Area				
Predators	3	(–7.10 ± 4.70)E–02	(–0.17 ± 1.18)E–01	(–1.01 ± 0.91)E–01
Panfish	3	(–0.81 ± 8.98)E–02	(0.86 ± 1.60)E–01	(–9.35 ± 8.67)E–02
Bottom dwellers	2	(–6.01 ± 6.12)E–02	(–0.17 ± 1.15)E–01	(–1.03 ± 0.93)E–01
U3R Creek River Mouth				
Bottom dwellers	3	(0.10 ± 1.18)E–01	(1.38 ± 1.57)E–01	(–9.47 ± 8.47)E–02
On Site (Edible)				
L-Lake				
Predators	3	(–9.86 ± 3.38)E–02	(–0.60 ± 1.66)E–01	(–1.19 ± 0.93)E–01
PAR Pond				
Predators	3	(0.60 ± 1.60)E–01	(2.33 ± 2.47)E–01	(–0.83 ± 1.68)E–01
SC–4 Steel Creek at Road A				
Predators	2	(–0.34 ± 1.15)E–01	(0.47 ± 1.95)E–01	(–1.16 ± 0.92)E–01
Off Site (Edible)				
Hwy–17A Bridge Area				
Predators	3	(–7.10 ± 4.70)E–02	(–0.17 ± 1.18)E–01	(–1.01 ± 0.91)E–01
Panfish	3	(–0.81 ± 8.98)E–02	(0.86 ± 1.60)E–01	(–9.35 ± 8.67)E–02
Bottom dwellers	2	(–6.01 ± 6.12)E–02	(–0.17 ± 1.15)E–01	(–1.03 ± 0.93)E–01
Off Site (Nonedible)				
Augusta Lock and Dam				
Predators	1	(0.76 ± 3.58)E–01		
Beaver Dam Creek River Mouth				
Predators	1	(–2.13 ± 5.81)E–01		
Bottom dwellers	3	(–0.08 ± 2.63)E–01	(2.58 ± 4.68)E–01	(–2.68 ± 2.57)E–01

Table 31
Radioactivity in Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Four Mile Creek River Mouth				
Panfish	3	(–1.06 ± 1.63)E–01	(–0.10 ± 3.46)E–01	(–2.94 ± 2.78)E–01
Bottom dwellers	3	(3.03 ± 3.36)E–01	(6.57 ± 4.79)E–01	(–0.11 ± 3.53)E–01
Hwy–301 Bridge Area				
Predators	2	(–1.85 ± 4.09)E–01	(1.04 ± 4.97)E–01	(–4.74 ± 3.85)E–01
Panfish	4	(–1.40 ± 2.51)E–01	(2.35 ± 4.28)E–01	(–2.89 ± 2.78)E–01
Bottom dwellers	2	(1.10 ± 4.96)E–01	(4.60 ± 4.70)E–01	(–2.41 ± 2.33)E–01
L3R Creek River Mouth				
Predators	1	(0.32 ± 1.11)E+00		
Panfish	4	(3.43 ± 5.49)E–01	(1.12 ± 0.86)E+00	(–0.57 ± 4.50)E–01
Bottom dwellers	3	(4.43 ± 1.14)E–01	(5.37 ± 5.50)E–01	(3.16 ± 5.75)E–01
Steel Creek River Mouth				
Predators	1	(–2.89 ± 7.79)E–01		
Panfish	1	(–0.19 ± 4.91)E–01		
Bottom dwellers	3	(2.29 ± 2.40)E–01	(4.70 ± 4.79)E–01	(–0.10 ± 3.63)E–01
U3R Creek River Mouth				
Bottom dwellers	3	(0.66 ± 1.88)E–01	(2.80 ± 5.03)E–01	(–0.71 ± 5.95)E–01

Table 32
Comparison of Field and Laboratory Cesium-137 Measurements in Deer and Hog Muscle

Date	Animal Identification	Animal Type	pCi/g Field Cs-137	pCi/g Lab Cs-137
29–OCT–94	14807	Deer	1	4.31 ± 0.49
29–OCT–94	14061	Deer	1	4.45 ± 0.43
29–OCT–94	14221	Deer	4	6.06 ± 0.55
29–OCT–94	14050	Deer	2	2.99 ± 0.39
29–OCT–94	14059	Deer	4	4.22 ± 0.46
29–OCT–94	14058	Deer	1	4.82 ± 0.28
29–OCT–94	14788	Deer	3	2.86 ± 0.29
29–OCT–94	14813(Dup)[a]	Deer	5	3.61 ± 0.37
29–OCT–94	14813(Dup)[a]	Deer	5	3.77 ± 0.43
29–OCT–94	14155	Deer	4	3.32 ± 0.33
29–OCT–94	14043(Dup)[a]	Deer	3	3.48 ± 0.32
29–OCT–94	14043(Dup)[a]	Deer	3	3.36 ± 0.33
29–OCT–94	14213	Deer	4	4.76 ± 0.52
29–OCT–94	14203	Deer	4	4.44 ± 0.52
29–OCT–94	14780	Deer	2	2.31 ± 0.30
02–NOV–94	14789	Deer	2	2.30 ± 0.24
02–NOV–94	15069	Deer	22	15.01 ± 1.73
02–NOV–94	19000	Deer	5	5.97 ± 0.58
02–NOV–94	14164	Deer	2	2.12 ± 0.24
02–NOV–94	14501	Deer	3	3.68 ± 0.35
02–NOV–94	14520	Deer	4	4.91 ± 0.49
02–NOV–94	14080	Deer	1	2.62 ± 0.28
02–NOV–94	14087(Dup)[a]	Deer	8	8.35 ± 0.76
02–NOV–94	14087(Dup)[a]	Deer	8	8.30 ± 0.75
02–NOV–94	14170	Deer	1	2.24 ± 0.23
02–NOV–94	14511	Deer	5	7.09 ± 0.63
05–NOV–94	14759	Deer	2	3.81 ± 0.45
05–NOV–94	14552	Deer	3	3.82 ± 0.47
05–NOV–94	14530	Deer	4	4.58 ± 0.24
05–NOV–94	14559	Deer	6	9.88 ± 1.10

a Duplicate laboratory analysis on single field sample

Table 32
Comparison of Field and Laboratory Cesium-137 Measurements in Deer and Hog Muscle

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Date	Animal Identification	Animal Type	pCi/g Field Cs-137	pCi/g Lab Cs-137
05–NOV–94	14496	Deer	3	3.74 ± 0.45
05–NOV–94	14521	Deer	5	6.65 ± 0.74
05–NOV–94	14111(Dup)[a]	Deer	3	4.85 ± 0.56
05–NOV–94	14111(Dup)[a]	Deer	3	4.71 ± 0.28
09–NOV–94	14568	Deer	6	6.72 ± 0.74
09–NOV–94	14570	Deer	8	10.03 ± 1.16
09–NOV–94	14585	Deer	5	6.67 ± 0.63
09–NOV–94	14773	Deer	11	11.00 ± 1.20
09–NOV–94	14242	Deer	3	5.45 ± 0.63
09–NOV–94	17410	Deer	1	5.29 ± 0.59
09–NOV–94	15543(Dup)[a]	Deer	4	3.14 ± 0.19
09–NOV–94	15543(Dup)[a]	Deer	4	6.00 ± 0.68
09–NOV–94	14122	Deer	6	2.42 ± 0.10
09–NOV–94	14293	Deer	4	5.38 ± 0.51
09–NOV–94	15985	Deer	7	7.85 ± 0.41
09–NOV–94	15533	Deer	9	10.39 ± 0.93
09–NOV–94	15984	Deer	4	4.85 ± 0.46
09–NOV–94	15538	Deer	4	3.99 ± 0.41
09–NOV–94	15980(Dup)[a]	Deer	6	7.59 ± 0.71
09–NOV–94	15980(Dup)[a]	Deer	6	6.81 ± 0.80
09–NOV–94	14822(Dup)[a]	Deer	4	4.32 ± 0.49
09–NOV–94	14822(Dup)[a]	Deer	4	4.72 ± 0.45
05–NOV–94	14120	Deer	2	3.65 ± 0.41
12–NOV–94	17427	Deer	7	6.79 ± 0.64
12–NOV–94	17434	Deer	6	6.16 ± 0.60
12–NOV–94	15549	Deer	4	5.78 ± 0.56
12–NOV–94	17418(Dup)[a]	Deer	5	5.87 ± 0.57
12–NOV–94	17418(Dup)[a]	Deer	5	5.97 ± 0.56
12–NOV–94	15966	Deer	6	7.58 ± 0.71
12–NOV–94	15649	Deer	5	5.81 ± 0.55

a Duplicate laboratory analysis on single field sample

Table 32
Comparison of Field and Laboratory Cesium-137 Measurements in Deer and Hog Muscle

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Date	Animal Identification	Animal Type	pCi/g Field Cs-137	pCi/g Lab Cs-137
12–NOV–94	15560	Hog	2	1.29 ± 0.15
12–NOV–94	17434	Deer	6	8.71 ± 0.80
12–NOV–94	17480	Deer	7	8.48 ± 0.78
12–NOV–94	17441	Deer	2	2.22 ± 0.22
16–NOV–94	17077	Deer	4	3.17 ± 0.41
16–NOV–94	14139	Deer	1	5.77 ± 0.67
16–NOV–94	15574	Deer	6	7.88 ± 0.41
16–NOV–94	15876	Deer	4	7.05 ± 0.79
16–NOV–94	17463	Deer	1	1.15 ± 0.17
16–NOV–94	17079	Deer	5	5.33 ± 0.66
16–NOV–94	17486	Deer	5	6.05 ± 0.71
16–NOV–94	15584(Dup)[a]	Deer	7	6.52 ± 0.81
16–NOV–94	15584(Dup)[a]	Deer	7	7.32 ± 0.83
16–NOV–94	17480(Dup)[a]	Deer	7	6.67 ± 0.81
16–NOV–94	17480(Dup)[a]	Deer	7	8.32 ± 1.01
16–NOV–94	17472(Dup)[a]	Deer	4	4.15 ± 0.51
16–NOV–94	17472(Dup)[a]	Deer	4	3.97 ± 0.49
19–NOV–94	17086	Deer	3	2.70 ± 0.26
19–NOV–94	15702	Deer	4	4.00 ± 0.38
19–NOV–94	15628	Deer	1	7.21 ± 0.65
19–NOV–94	17122	Deer	9	8.00 ± 0.93
19–NOV–94	17115	Deer	2	3.00 ± 0.31
19–NOV–94	15627	Deer	6	7.82 ± 0.73
19–NOV–94	14145(Dup)[a]	Deer	3	2.26 ± 0.27
19–NOV–94	14145(Dup)[a]	Deer	3	2.09 ± 0.21
19–NOV–94	15704	Deer	5	4.30 ± 0.42
19–NOV–94	17107	Deer	4	3.69 ± 0.36
19–NOV–94	15680	Deer	7	7.42 ± 0.80
19–NOV–94	17605	Deer	7	9.13 ± 1.05
19–NOV–94	15678	Deer	8	9.93 ± 1.11

a Duplicate laboratory analysis on single field sample

Table 32
Comparison of Field and Laboratory Cesium-137 Measurements in Deer and Hog Muscle

Date	Animal Identification	Animal Type	pCi/g Field Cs-137	pCi/g Lab Cs-137
19–NOV–94	17096	Deer	2	2.27 ± 0.26
23–NOV–94	15683	Deer	6	7.47 ± 0.71
23–NOV–94	17130	Deer	8	9.16 ± 0.85
23–NOV–94	17154	Deer	7	8.65 ± 0.73
23–NOV–94	17779	Deer	4	4.70 ± 0.46
23–NOV–94	17043	Deer	4	3.53 ± 0.33
23–NOV–94	17033	Deer	7	7.78 ± 0.73
23–NOV–94	17031	Deer	18	18.94 ± 0.84
23–NOV–94	15718	Deer	5	6.22 ± 0.57
23–NOV–94	17151	Deer	5	7.85 ± 0.70
23–NOV–94	15504(Dup)[a]	Deer	6	7.32 ± 0.28
23–NOV–94	15504(Dup)[a]	Deer	6	9.48 ± 0.86
26–NOV–94	14269	Deer	6	5.78 ± 0.55
26–NOV–94	14268	Deer	10	12.17 ± 1.13
26–NOV–94	17168	Deer	5	5.19 ± 0.63
26–NOV–94	17175	Deer	5	6.48 ± 0.63
26–NOV–94	17193	Deer	6	7.02 ± 0.66
26–NOV–94	15790	Deer	6	5.71 ± 0.55
26–NOV–94	17186(Dup)[a]	Deer	7	6.95 ± 0.64
26–NOV–94	17186(Dup)[a]	Deer	7	7.04 ± 0.66
26–NOV–94	17158	Deer	7	8.18 ± 0.74
26–NOV–94	15510	Deer	8	10.78 ± 0.99
26–NOV–94	17598	Deer	10	10.70 ± 0.98
26–NOV–94	17593	Deer	9	8.54 ± 0.45
26–NOV–94	15756	Deer	11	12.75 ± 1.15
26–NOV–94	15800	Deer	3	4.34 ± 0.44
26–NOV–94	17201	Deer	4	5.97 ± 0.55
26–NOV–94	17218	Deer	6	7.72 ± 0.34
26–NOV–94	17209(Dup)[a]	Deer	11	13.08 ± 0.57
26–NOV–94	17209(Dup)[a]	Deer	11	13.09 ± 0.61

a Duplicate laboratory analysis on single field sample

Table 32
Comparison of Field and Laboratory Cesium-137 Measurements in Deer and Hog Muscle

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Date	Animal Identification	Animal Type	pCi/g Field Cs-137	pCi/g Lab Cs-137
30–NOV–94	16203	Deer	4	5.88 ± 0.57
30–NOV–94	17508	Deer	13	12.97 ± 1.21
30–NOV–94	17509	Deer	17	17.69 ± 0.89
30–NOV–94	17512	Deer	9	10.98 ± 0.57
30–NOV–94	15768	Deer	8	8.11 ± 0.76
30–NOV–94	17233	Deer	4	5.74 ± 0.31
30–NOV–94	17251	Deer	7	9.84 ± 0.89
30–NOV–94	17237	Deer	12	10.65 ± 1.00
30–NOV–94	17241(Dup)[a]	Deer	5	7.68 ± 0.73
30–NOV–94	17241(Dup)[a]	Deer	5	7.32 ± 0.66
30–NOV–94	17222	Deer	5	7.32 ± 0.7
30–NOV–94	17261	Deer	8	9.53 ± 0.85
30–NOV–94	17245(Dup)[a]	Deer	13	12.36 ± 0.63
30–NOV–94	17245(Dup)[a]	Deer	13	8.75 ± 0.83
30–NOV–94	17013	Deer	7	7.13 ± 0.36
30–NOV–94	16214	Deer	6	8.65 ± 0.79
30–NOV–94	17266	Deer	10	11.86 ± 1.06
30–NOV–94	17273	Deer	5	6.21 ± 0.28
30–NOV–94	17280	Deer	7	7.30 ± 0.67
30–NOV–94	17269	Deer	8	9.28 ± 0.83
30–NOV–94	17271	Deer	5	5.71 ± 0.54
30–NOV–94	16216(Dup)[a]	Deer	3	4.11 ± 0.38
30–NOV–94	16216(Dup)[a]	Deer	3	3.73 ± 0.20
03–DEC–94	17736	Deer	29	28.87 ± 1.28
03–DEC–94	17730	Deer	5	4.66 ± 0.44
03–DEC–94	17813	Deer	2	2.66 ± 0.267
03–DEC–94	17818	Deer	3	3.46 ± 0.36
03–DEC–94	17020	Deer	3	3.11 ± 0.39
03–DEC–94	17613	Deer	13	11.66 ± 1.33
03–DEC–94	15743	Deer	7	7.15 ± 0.80

a Duplicate laboratory analysis on single field sample

Table 32
Comparison of Field and Laboratory Cesium-137 Measurements in Deer and Hog Muscle

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Date	Animal Identification	Animal Type	pCi/g Field Cs-137	pCi/g Lab Cs-137
03–DEC–94	15744	Deer	6	7.02 ± 0.81
03–DEC–94	15621	Deer	7	9.31 ± 1.03
03–DEC–94	17289(Dup)[a]	Deer	4	4.77 ± 0.55
03–DEC–94	17289(Dup)[a]	Deer	4	4.73 ± 0.43
03–DEC–94	16334(Dup)[a]	Hog	1	0.55 ± 0.09
03–DEC–94	16334(Dup)[a]	Hog	1	0.60 ± 0.13
03–DEC–94	17291	Deer	12	13.15 ± 0.59
03–DEC–94	17293	Deer	9	8.68 ± 0.83
03–DEC–94	17297	Deer	4	4.90 ± 0.47
03–DEC–94	17808	Deer	4	4.88 ± 0.45
03–DEC–94	16331	Deer	4	3.95 ± 0.39
07–DEC–94	16113	Deer	7	7.30 ± 0.63
07–DEC–94	16340	Deer	4	4.80 ± 0.43
07–DEC–94	17744	Deer	5	6.15 ± 0.30
07–DEC–94	17580	Deer	5	6.44 ± 0.60
07–DEC–94	17524	Deer	7	9.20 ± 0.43
07–DEC–94	17525(Dup)[a]	Deer	8	10.4 ± 0.48
07–DEC–94	17525(Dup)[a]	Deer	8	10.99 ± 1.26
07–DEC–94	17840	Deer	8	11.85 ± 1.08
07–DEC–94	17847	Deer	12	17.17 ± 0.79
07–DEC–94	17858	Deer	6	6.56 ± 0.78
10–DEC–94	16160	Hog	2	1.57 ± 0.21
10–DEC–94	16162	Hog	2	1.23 ± 0.19
10–DEC–94	16161	Hog	1	1.18 ± 0.04
10–DEC–94	17711	Deer	7	8.49 ± 0.94
10–DEC–94	17869	Deer	3	2.84 ± 0.32
10–DEC–94	17877	Deer	6	5.92 ± 0.71
10–DEC–94	17879	Deer	7	6.84 ± 0.80
10–DEC–94	17891	Deer	3	4.12 ± 0.39
10–DEC–94	17883	Deer	5	3.95 ± 0.39

a Duplicate laboratory analysis on single field sample

Table 32
Comparison of Field and Laboratory Cesium-137 Measurements in Deer and Hog Muscle

Date	Animal Identification	Animal Type	pCi/g Field Cs-137	pCi/g Lab Cs-137
10–DEC–94	16251	Deer	6	7.41 ± 0.70
10–DEC–94	17862	Deer	1	5.15 ± 0.48
14–DEC–94	17916	Deer	7	9.11 ± 0.84
14–DEC–94	16277	Deer	13	12.07 ± 1.06
14–DEC–94	17938	Deer	6	6.40 ± 0.60
14–DEC–94	17940	Deer	10	10.47 ± 0.93
14–DEC–94	17632	Deer	7	8.64 ± 0.79
14–DEC–94	17930	Deer	5	8.45 ± 0.78
14–DEC–94	17931	Deer	14	15.80 ± 1.41
14–DEC–94	17911	Deer	6	7.36 ± 0.69
14–DEC–94	17900	Deer	15	15.66 ± 1.41
14–DEC–94	16263	Deer	7	10.75 ± 0.49
14–DEC–94	16171	Deer	12	10.62 ± 0.97
14–DEC–94	17763	Hog	2	1.35 ± 0.15
14–DEC–94	16164	Deer	6	6.04 ± 0.56
14–DEC–94	17946	Deer	13	14.59 ± 1.32
14–DEC–94	17945	Deer	4	7.24 ± 0.63
14–DEC–94	17952	Deer	12	11.44 ± 0.50
14–DEC–94	17956	Deer	10	11.03 ± 1.01
14–DEC–94	17957	Deer	19	17.96 ± 1.63
14–DEC–94	17955	Deer	8	8.25 ± 0.74
14–DEC–94	17963	Deer	11	12.89 ± 1.14
14–DEC–94	17965	Deer	10	12.95 ± 1.16
14–DEC–94	17964	Deer	7	8.99 ± 0.80
14–DEC–94	17906(Dup)[a]	Deer	7	8.14 ± 0.72
14–DEC–94	17906(Dup)[a]	Deer	7	7.52 ± 0.70

a Duplicate laboratory analysis on single field sample

Table 33
Cesium-137 in Offsite Deer Muscle

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Date	Quadrant	Cs-137 (pCi/g)
26–OCT–94	Northeast	a
26–OCT–94	Northeast	1.89 ± 0.01
26–OCT–94	Northeast	0.07 ± 0.02
26–OCT–94	Northeast	0.25 ± 0.06
02–NOV–94	Northeast	b
16–NOV–94	Northeast	c
16–NOV–94	Northeast	1.28 ± 0.07
16–NOV–94	Northeast	0.38 ± 0.03
12–NOV–94	Northwest	1.00 ± 0.13
12–NOV–94	Northwest	1.41 ± 0.18
12–NOV–94	Northwest	0.57 ± 0.12
12–NOV–94	Northwest	1.75 ± 0.19
12–NOV–94	Northwest	1.17 ± 0.20
12–NOV–94	Northwest	0.71 ± 0.10
12–NOV–94	Northwest	2.38 ± 0.29
12–NOV–94	Northwest	0.96 ± 0.13
12–NOV–94	Northwest	0.86 ± 0.13
12–NOV–94	Northwest	1.35 ± 0.14
12–NOV–94	Northwest	1.37 ± 0.18
12–NOV–94	Northwest	0.64 ± 0.19
12–NOV–94	Northwest	0.42 ± 0.06
12–NOV–94	Northwest	1.60 ± 0.09
12–NOV–94	Northwest	2.10 ± 0.24
12–NOV–94	Northwest	0.73 ± 0.12
12–NOV–94	Northwest	0.76 ± 0.10
12–NOV–94	Northwest	2.31 ± 0.26
26–OCT–94	Southeast	1.01 ± 0.10
26–OCT–94	Southeast	0.69 ± 0.05
26–OCT–94	Southeast	0.61 ± 0.07
26–OCT–94	Southeast	1.54 ± 0.16

a Results from seven animals from northeast quadrant collected 10/26 were less than the lower limit of detection.
b Results from eight animals from northeast quadrant collected 11/2 were less than the lower limit of detection.
c Results from ten animals from northeast quadrant collected 11/16 were less than the lower limit of detection.

Table 33
Cesium-137 in Offsite Deer Muscle

Date	Quadrant	Cs-137 (pCi/g)
26–OCT–94	Southeast	0.96 ± 0.11
26–OCT–94	Southeast	1.02 ± 0.12
26–OCT–94	Southeast	2.40 ± 0.12
26–OCT–94	Southeast	0.32 ± 0.06
02–NOV–94	Southeast	0.36 ± 0.06
02–NOV–94	Southeast	0.59 ± 0.11
02–NOV–94	Southeast	0.90 ± 0.15
02–NOV–94	Southeast	1.07 ± 0.04
02–NOV–94	Southeast	4.48 ± 0.55
02–NOV–94	Southeast	0.98 ± 0.11
02–NOV–94	Southeast	1.04 ± 0.14
02–NOV–94	Southeast	0.69 ± 0.07
02–NOV–94	Southeast	1.44 ± 0.17
08–NOV–94	Southeast	1.57 ± 0.15
16–NOV–94	Southeast	0.29 ± 0.06
16–NOV–94	Southeast	0.15 ± 0.05
16–NOV–94	Southeast	1.53 ± 0.19
16–NOV–94	Southeast	0.54 ± 0.07
21–NOV–94	Southeast	0.73 ± 0.08
21–NOV–94	Southeast	0.89 ± 0.12
21–NOV–94	Southeast	0.12 ± 0.02
02–DEC–94	Southeast	2.19 ± 0.22
02–DEC–94	Southeast	0.85 ± 0.10
02–DEC–94	Southeast	1.54 ± 0.17
02–DEC–94	Southeast	1.04 ± 0.14
02–DEC–94	Southeast	1.30 ± 0.16
30–DEC–94	Southwest	0.25 ± 0.05
30–DEC–94	Southwest	0.34 ± 0.05
30–DEC–94	Southwest	0.06 ± 0.00
30–DEC–94	Southwest	0.57 ± 0.09
30–DEC–94	Southwest	0.52 ± 0.08
30–DEC–94	Southwest	0.61 ± 0.08

Table 33
Cesium-137 in Offsite Deer Muscle

Date	Quadrant	Cs-137 (pCi/g)
30–DEC–94	Southwest	0.08 ± 0.01
30–DEC–94	Southwest	0.15 ± 0.01
30–DEC–94	Southwest	3.58 ± 0.33
30–DEC–94	Southwest	0.86 ± 0.09
30–DEC–94	Southwest	0.19 ± 0.09
30–DEC–94	Southwest	0.66 ± 0.07
30–DEC–94	Southwest	0.36 ± 0.05
30–DEC–94	Southwest	0.12 ± 0.02
06–JAN–95	Southwest	0.75 ± 0.11
06–JAN–95	Southwest	0.08 ± 0.03
06–JAN–95	Southwest	0.51 ± 0.07
06–JAN–95	Southwest	1.81 ± 0.20
06–JAN–95	Southwest	2.34 ± 0.24
06–JAN–95	Southwest	0.29 ± 0.03
06–JAN–95	Southwest	0.47 ± 0.07
06–JAN–95	Southwest	1.66 ± 0.17
06–JAN–95	Southwest	0.67 ± 0.07
06–JAN–95	Southwest	0.50 ± 0.12
06–JAN–95	Southwest	0.74 ± 0.09
06–JAN–95	Southwest	0.11 ± 0.01
06–JAN–95	Southwest	2.80 ± 0.25
06–JAN–95	Southwest	0.19 ± 0.04
06–JAN–95	Southwest	0.40 ± 0.07
06–JAN–95	Southwest	0.16 ± 0.03

Table 34
Strontium-89,90 in Deer and Hog Muscle

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Date	Animal Identification	Animal Type	Sr-89,90 (pCi/g)
Note: *Blank spaces indicate activity was less than the lower limit of detection (.095 pCi/g)*			
29–OCT–94	14813 (Dup)[a]	Deer	
29–OCT–94	14813 (Dup)[a]	Deer	
29–OCT–94	14043 (Dup)[a]	Deer	
29–OCT–94	14043 (Dup)[a]	Deer	
02–NOV–94	15069	Deer	
02–NOV–94	14087 (Dup)[a]	Deer	
02–NOV–94	14087 (Dup)[a]	Deer	
05–NOV–94	14111 (Dup)[a]	Deer	
05–NOV–94	14111 (Dup)[a]	Deer	
09–NOV–94	15543 (Dup)[a]	Deer	
09–NOV–94	15543 (Dup)[a]	Deer	
09–NOV–94	15985	Deer	
09–NOV–94	15980 (Dup)[a]	Deer	
09–NOV–94	15980 (Dup)[a]	Deer	
09–NOV–94	14822 (Dup)[a]	Deer	
09–NOV–94	14822 (Dup)[a]	Deer	
12–NOV–94	17427	Deer	
12–NOV–94	17418 (Dup)[a]	Deer	
12–NOV–94	17418 (Dup)[a]	Deer	
16–NOV–94	15584 (Dup)[a]	Deer	
16–NOV–94	15584 (Dup)[a]	Deer	
16–NOV–94	17480 (Dup)[a]	Deer	
16–NOV–94	17480 (Dup)[a]	Deer	
16–NOV–94	17472 (Dup)[a]	Deer	
16–NOV–94	17472 (Dup)[a]	Deer	
19–NOV–94	15627	Deer	
19–NOV–94	14145 (Dup)[a]	Deer	
19–NOV–94	14145 (Dup)[a]	Deer	
23–NOV–94	17031	Deer	
23–NOV–94	15504 (Dup)[a]	Deer	
23–NOV–94	15504 (Dup)[a]	Deer	
26–NOV–94	17186 (Dup)[a]	Deer	
26–NOV–94	17186 (Dup)[a]	Deer	

a Duplicate laboratory analysis on single field sample

Table 34
Strontium-89,90 in Deer and Hog Muscle

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Date	Animal Identification	Animal Type	Sr-89,90 (pCi/g)
26–NOV–94	17201	Deer	
26–NOV–94	17209 (Dup)[a]	Deer	
30–NOV–94	17508	Deer	
30–NOV–94	17509	Deer	
30–NOV–94	17241 (Dup)[a]	Deer	
30–NOV–94	17241 (Dup)[a]	Deer	
30–NOV–94	17222	Deer	
30–NOV–94	17245 (Dup)[a]	Deer	
30–NOV–94	17245 (Dup)[a]	Deer	
30–NOV–94	17266	Deer	
30–NOV–94	17273	Deer	
30–NOV–94	16216 (Dup)[a]	Deer	
30–NOV–94	16216 (Dup)[a]	Deer	
03–DEC–94	17736	Deer	
03–DEC–94	17613	Deer	
03–DEC–94	17289 (Dup)[a]	Deer	
03–DEC–94	17289 (Dup)[a]	Deer	
03–DEC–94	16334 (Dup)[a]	Hog	
03–DEC–94	16334 (Dup)[a]	Hog	
07–DEC–94	17525 (Dup)[a]	Deer	
07–DEC–94	17525 (Dup)[a]	Deer	
10–DEC–94	17877	Deer	
14–DEC–94	17916	Deer	0.10 ± 0.09
14–DEC–94	16277	Deer	
14–DEC–94	17940	Deer	
14–DEC–94	17930	Deer	
14–DEC–94	17931	Deer	
14–DEC–94	17763	Hog	
14–DEC–94	17906 (Dup)[a]	Deer	
14–DEC–94	17906 (Dup)[a]	Deer	

a Duplicate laboratory analysis on single field sample

Table 35
Strontium-89,90 in Deer and Hog Bone

Page 1 of 1

Date	Animal Identification	Animal Type	Sr-89,90 (pCi/g)
29–OCT–94	14813	Deer	4.59 ± 5.01
29–OCT–94	14043	Deer	3.39 ± 4.85
02–NOV–94	14087	Deer	8.85 ± 6.18
05–NOV–94	14111	Deer	5.40 ± 5.33
09–NOV–94	15543	Deer	7.64 ± 6.36
09–NOV–94	15980	Deer	7.91 ± 6.70
09–NOV–94	14822	Deer	5.25 ± 5.35
12–NOV–94	17418	Deer	5.37 ± 4.98
16–NOV–94	15584	Deer	4.85 ± 5.05
16–NOV–94	17480	Deer	4.61 ± 5.42
19–NOV–94	14145	Deer	2.85 ± 4.26
23–NOV–94	15504	Deer	5.40 ± 5.30
26–NOV–94	17186	Deer	5.56 ± 5.42
26–NOV–94	17209	Deer	6.90 ± 5.99
30–NOV–94	17241	Deer	6.54 ± 6.19
30–NOV–94	17245	Deer	6.57 ± 6.01
30–NOV–94	16216	Deer	2.85 ± 4.31
03–DEC–94	17289	Deer	5.16 ± 5.20
03–DEC–94	16334	Hog	1.44 ± 3.98
07–DEC–94	17525	Deer	4.15 ± 4.87
14–DEC–94	17906	Deer	10.52 ± 6.91

Table 36
Radioactivity in Soil

Page 1 of 1

Location	pCi/g ± σ; dry weight; 0–8 cm depth			
	Sr-89,90	Cs-137	Pu-238	Pu-239
Note: Blank spaces indicate activity was below lower limit of detection.				
F-Area				
2000 feet east	(1.43 ± 1.78)E–02	(6.53 ± 0.36)E–01	(2.46 ± 0.12)E–02	(1.29 ± 0.04)E–01
2000 feet north	(0.33 ± 1.54)E–02	(6.62 ± 0.45)E–01	(4.94 ± 0.19)E–02	(9.20 ± 0.29)E–02
2000 feet south	(1.41 ± 1.60)E–02	(1.49 ± 0.21)E–01	(5.05 ± 0.59)E–03	(1.14 ± 0.09)E–02
2000 feet west	(2.08 ± 1.80)E–02	(5.81 ± 0.38)E–01	(4.56 ± 0.13)E–02	(9.19 ± 0.23)E–02
H-Area				
2000 feet east	(0.91 ± 1.51)E–02	(5.63 ± 0.40)E–01	(1.47 ± 0.14)E–02	(4.03 ± 0.24)E–02
2000 feet north	(2.10 ± 1.54)E–02	(1.01 ± 0.05)E–00	(6.56 ± 0.35)E–02	(6.25 ± 0.34)E–02
2000 feet south	(2.64 ± 1.59)E–02	(8.77 ± 0.44)E–01	(1.62 ± 0.10)E–02	(3.87 ± 0.17)E–02
2000 feet west	(2.78 ± 1.60)E–02	(2.01 ± 0.29)E–01	(1.28 ± 0.11)E–02	(3.47 ± 0.19)E–02
S-Area				
#1	(–0.20 ± 1.35)E–02	(1.90 ± 0.27)E–01	(4.44 ± 0.20)E–02	(4.61 ± 0.20)E–02
#2	(–0.33 ± 1.32)E–02		(8.48 ± 2.20)E–04	(1.80 ± 0.32)E–03
#3	(–0.64 ± 1.37)E–02	(6.07 ± 2.27)E–02	(1.91 ± 0.12)E–02	(5.26 ± 0.23)E–02
#4	(1.44 ± 1.36)E–02	(4.83 ± 0.73)E–02	(3.36 ± 0.41)E–03	(1.02 ± 0.07)E–02
Z-Area				
#1	(1.49 ± 1.37)E–02		(4.37 ± 1.65)E–04	(1.98 ± 0.35)E–03
#3	(1.58 ± 1.46)E–02	(1.21 ± 0.43)E–01	(9.32 ± 2.43)E–04	(3.61 ± 0.44)E–03
#5	(1.89 ± 1.45)E–02		(5.11 ± 2.22)E–04	(1.91 ± 0.37)E–03
#7	(2.99 ± 1.47)E–02		(4.62 ± 0.61)E–03	(4.83 ± 0.63)E–03
Burial Ground				
643–26E–1	(1.93 ± 1.41)E–02		(1.55 ± 0.29)E–03	(4.09 ± 0.47)E–03
643–26E–2	(0.94 ± 1.34)E–02		(1.90 ± 1.42)E–04	(3.15 ± 1.89)E–04
Site Perimeter				
NE quadrant	(1.81 ± 1.42)E–02	(2.87 ± 0.30)E–01	(–1.16 ± 2.01)E–04	(9.80 ± 0.80)E–03
NW quadrant	(2.11 ± 1.47)E–02	(3.83 ± 0.09)E–01	(1.22 ± 0.37)E–03	(9.12 ± 1.04)E–03
SE quadrant	(2.38 ± 1.46)E–02	(2.77 ± 0.32)E–01	(9.43 ± 2.91)E–04	(1.06 ± 0.08)E–02
SW quadrant	(2.31 ± 1.47)E–02	(4.36 ± 0.24)E–01	(5.65 ± 2.37)E–04	(9.36 ± 0.74)E–03
100-Mile Radius				
Clinton, S.C.	(1.43 ± 0.25)E–01	(1.87 ± 0.43)E–01	(6.20 ± 1.73)E–04	(4.51 ± 0.48)E–03
Savannah, Ga.	(0.92 ± 1.64)E–02	(6.17 ± 2.00)E–02	(6.83 ± 2.17)E–04	(1.78 ± 0.32)E–03

Table 37
Radioactivity in River and Stream Sediment

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Location	River Mile	Cs-137, pCi/g (dry weight) 1992	1993	1994
Note: Blank spaces indicate activity was below the lower limit of detection.				
Savannah River				
Below Four Mile Creek	150.2	(2.15 ± 0.23)E–01	(1.66 ± 0.35)E–01	
Above Little Hell Landing	136.5	(1.04 ± 0.25)E–01	(2.89 ± 0.24)E–01	
Below Little Hell Landing	134.0	<1.01E–01	(1.17 ± 0.26)E–01	(2.71 ± 0.42)E–01
Above Lower Three Runs	129.5	(3.96 ± 0.44)E–01	(3.49 ± 0.31)E–01	(5.61 ± 0.59)E–01
Highway 301	118.7	(5.66 ± 0.37)E–01	(1.51 ± 0.29)E–01	(2.40 ± 0.38)E–01
Demier's Landing (control)	160.5	(2.84 ± 0.26)E–01	(1.44 ± 0.34)E–01	(1.01 ± 0.29)E–01
SRS Streams				
Four Mile at Road A–7		(2.33 ± 0.08)E±01	(6.46 ± 0.06)E+00	(1.66 ± 0.01)E+01
Four Mile A–7A (in a beaver pond)		(7.44 ± 0.22)E±01	(3.15 ± 0.07)E+00	(8.88 ± 0.05)E+01
Four Mile discharge at swamp		(5.52 ± 0.27)E–01	(6.61 ± 0.32)E–01	(8.98 ± 0.39)E+01
Pen Branch discharge at swamp		(1.82 ± 0.12)E±00	(3.04 ± 0.10)E+00	(2.82 ± 0.22)E+00
Steel Creek at Road B		(No sample counted)	(1.07 ± 0.01)E+01	(2.91 ± 0.31)E–01
Steel Creek discharge at swamp		(6.95 ± 0.35)E–01	(1.37 ± 0.04)E+00	(1.03 ± 0.02)E+01
Steel Creek—Pen Branch mouth		(4.81 ± 0.19)E±00	(3.68 ± 0.03)E+01	(2.37 ± 0.43)E–01
Lower Three Runs mouth		(4.01 ± 0.42)E–01	(1.17 ± 0.06)E+00	(3.80 ± 0.10)E–00
Upper Three Runs mouth (control)		(2.36 ± 0.34)E–01	(6.45 ± 0.44)E–01	(1.55 ± 0.35)E–01

Location	River Mile	Co-60, pCi/g (dry weight) 1992	1993	1994
Savannah River				
Below Four Mile Creek	150.2	<1.02E–01		
Above Little Hell Landing	136.5	<5.31E–02		
Below Little Hell Landing	134.0	<9.23E–02		
Above Lower Three Runs	129.5	<6.92E–02		
Highway 301	118.7	<8.28E–02		
Demier's Landing (control)	160.5	<8.71E–02		
SRS Streams				
Four Mile at Road A–7		(3.02 ± 0.28)E–01	(8.74 ± 1.32)E–02	(2.49 ± 0.15)E–01
Four Mile A–7A (in a beaver pond)		(1.16 ± 0.06)E±00		(1.17 ± 0.06)E+00
Four Mile discharge at swamp		(5.95 ± 1.21)E–02		(6.27 ± 1.13)E–02
Pen Branch discharge at swamp		(6.57 ± 0.58)E–01	(2.61 ± 0.47)E–01	
Steel Creek at Road B		(No sample counted)	(1.45 ± 0.19)E–01	
Steel Creek discharge at swamp		(6.34 ± 1.22)E–02		(3.17 ± 0.26)E–01
Steel Creek—Pen Branch mouth		(2.67 ± 0.24)E–01	(1.02 ± 0.05)E+00	
Lower Three Runs mouth		<7.37E–02		
Upper Three Runs mouth (control)		<8.59E–02		

Table 37
Radioactivity in River and Stream Sediment

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Location	River Mile	Sr-89,90, pCi/g (dry weight) 1992	1993	1994
Savannah River				
Below Four Mile Creek	150.2	(1.12 ± 1.84)E–02	(5.40 ± 3.17)E–02	(1.51 ± 1.40)E–02
Above Little Hell Landing	136.5	(1.29 ± 2.13)E–02	(–2.49 ± 1.41)E–02	(1.23 ± 1.11)E–02
Below Little Hell Landing	134.0	(–0.94 ± 5.13)E–02	(–0.18 ± 1.91)E–02	(0.74 ± 1.47)E–02
Above Lower Three Runs	129.5	(–1.84 ± 4.88)E–02	(–2.43 ± 1.38)E–02	(0.15 ± 1.51)E–02
Highway 301	118.7	(3.10 ± 5.44)E–02	(–1.45 ± 1.47)E–02	(0.62 ± 1.62)E–02
Demier's Landing (control)	160.5	(3.03 ± 1.65)E–02	(6.68 ± 3.23)E–02	(1.28 ± 1.46)E–02
SRS Streams				
Four Mile at Road A–7		(2.34 ± 0.13)E±00	(2.47 ± 0.26)E–01	(3.42 ± 0.20)E–01
Four Mile A–7A (in a beaver pond)		(1.85 ± 0.12)E±00	(4.35 ± 1.71)E–02	(1.56 ± 0.04)E+00
Four Mile discharge at swamp		(9.63 ± 5.69)E–02	(1.15 ± 1.56)E–02	(3.03 ± 1.82)E–02
Pen Branch discharge at swamp		(–3.34 ± 4.67)E–02	(3.48 ± 2.38)E–02	(1.25 ± 0.23)E–01
Steel Creek at Road B		(–6.87 ± 6.54)E–02	(–0.16 ± 2.23)E–02	(0.00 ± 1.62)E–02
Steel Creek discharge at swamp		(4.73 ± 5.10)E–02	(2.71 ± 1.62)E–02	(-0.82 ± 1.45)E–02
Steel Creek—Pen Branch mouth		(1.78 ± 4.95)E–02	(8.22 ± 2.57)E–02	(1.89 ± 1.48)E–02
Lower Three Runs mouth		(3.70 ± 2.05)E–02	(–0.96 ± 2.20)E–02	(2.91 ± 1.46)E–02
Upper Three Runs mouth control		(1.30 ± 1.65)E–02	(3.49 ± 3.10)E–02	(0.21 ± 1.31)E–02

Location	River Mile	Pu-238, pCi/g (dry weight) 1992	1993	1994
Savannah River				
Below Four Mile Creek	150.2	(1.14 ± 0.14)E–02	(–2.15 ± 2.15)E–04	(3.06 ± 1.31)E–04
Above Little Hell Landing	136.5	(1.45 ± 0.23)E–02	(2.02 ± 1.78)E–04	(1.59 ± 0.92)E–04
Below Little Hell Landing	134.0	(1.17 ± 0.94)E–03	(3.78 ± 1.89)E–04	(2.15 ± 1.14)E–04
Above Lower Three Runs	129.5	(3.57 ± 3.14)E–04	(–4.97 ± 4.97)E–04	(1.96 ± 2.36)E–04
Highway 301	118.7	(2.06 ± 1.58)E–03	(00.00 ± 5.65)E–04	(1.11 ± 0.26)E–03
Demier's Landing (control)	160.5	(3.60 ± 0.98)E–03	(2.00 ± 2.00)E–04	(1.51 ± 1.52)E–04
SRS Streams				
Four Mile at Road A–7		(2.93 ± 0.08)E–01	(7.50 ± 0.41)E–02	(2.06 ±0.006)E–01
Four Mile A–7A (in a beaver pond)		(1.82 ± 0.04)E+00	(3.08 ± 0.26)E–02	(1.23 ± 0.03)E+00
Four Mile discharge at swamp		(2.51 ± 1.26)E–03	(4.85 ± 0.86(E–03	(4.44 ± 0.51)E–03
Pen Branch discharge at swamp		(1.38 ± 0.14)E–02	(4.76 ± 1.12)E–03	(5.94 ± 0.55)E–03
Steel Creek at Road B		(1.55 ± 0.70)E–03	(5.09 ± 1.05)E–03	(6.61 ± 3.09)E–04
Steel Creek discharge at swamp		(3.12 ± 1.05)E–03	2.63 ± 0.44)E–03	(3.79 ± 0.18)E–02
Steel Creek—Pen Branch mouth		(1.66 ± 0.24)E–02	(6.08 ± 0.30)E–02	(3.09 ± 1.89)E–04
Lower Three Runs mouth		(2.04 ± 0.59)E–03	(00.00 ± 4.13)E–04	(8.86 ± 3.80)E–04
Upper Three Runs mouth (control)		(1.70 ± 0.38)E–03	(3.24 ± 0.65)E–03	(1.97 ± 0.29)E–03

Table 37
Radioactivity in River and Stream Sediment

Location	River Mile	Pu-239, pCi/g (dry weight)		
		1992	1993	1994
Savannah River				
Below Four Mile Creek	150.2	(8.61 ± 1.15)E–03	(4.29 ± 3.03)E–04	(1.25 ± 0.36)E–03
Above Little Hell Landing	136.5	(1.60 ± 0.71)E–03	(1.21 ± 0.32)E–03	(5.28 ± 1.84)E–04
Below Little Hell Landing	134.0	(6.64 ± 9.40)E–04	(7.54 ± 2.98)E–04	(1.00 ± 0.20)E–03
Above Lower Three Runs	129.5	(6.21 ± 2.54)E–04	(2.48 ± 5.55)E–04	(2.48 ± 0.43)E–03
Highway 301	118.7	(–0.55 ± 1.66)E–03	(00.00 ± 5.64)E–04	(3.88 ± 1.67)E–04
Demier's Landing	160.5	(2.76 ± 0.83)E–03	(9.97 ± 3.46)E–04	(2.03 ± 0.44)E–03
SRS Streams				
Four Mile at Road A–7		(1.09 ± 0.05)E–01	(3.06 ± 0.25)E–02	(8.72 ± 0.31)E–02
Four Mile A–7A (in a beaver pond)		(6.03 ± 0.15)E–01	(1.55 ± 0.18)E–02	(5.25 ± 0.12)E–01
Four Mile discharge at swamp		(6.01 ± 1.41)E–03	(3.76 ± 0.76)E–03	(4.11 ± 0.46)E–03
Pen Branch discharge at swamp		(2.34 ± 0.17)E–02	(2.15 ± 0.22)E–02	(1.43 ± 0.09)E–02
Steel Creek at Road B		(3.42 ± 0.83)E–03	(1.24 ± 0.16)E–02	(6.63 ± 0.75)E–03
Steel Creek discharge at swamp		(1.41 ± 0.66)E–03	(2.62 ± 0.45)E–03	(2.90 ± 0.15)E–02
Steel Creek—Pen Branch mouth		(1.52 ± 0.22)E–02	(8.15 ± 0.36)E–02	(4.10 ± 1.79)E–04
Lower Three Runs mouth		(6.29 ± 3.86)E–04	(1.75 ± 0.82)E–03	(4.04 ± 0.78)E–03
Upper Three Runs mouth (control)		(1.51 ± 0.38)E–03	(1.52 ± 0.14)E–02	(2.69 ± 0.31)E–03

Table 38
Radioactivity in Vegetation (Quarterly Samples)

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Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3, pCi/g				
On Site				
200–F #13	4	(4.25 ± 5.62)E+00	(1.24 ± 0.02)E+01	(5.61 ± 0.33)E–01
200–F #21	4	(7.06 ± 7.18)E–01	(1.73 ± 0.04)E+00	(1.34 ± 0.13)E–01
200–H #10	4	(1.15 ± 0.88)E+01	(2.00 ± 0.02)E+01	(3.73 ± 0.38)E–01
200–H #22	4	(2.22 ± 1.75)E+00	(4.84 ± 0.09)E+00	(1.21 ± 0.04)E+00
643–26E–1	3	(4.88 ± 3.70)E+00	(8.43 ± 0.05)E+00	(1.05 ± 0.02)E+00
643–26E–2	3	(1.01 ± 0.31)E+00	(1.24 ± 0.01)E+00	(6.59 ± 0.14)E–01
S-Area #1	4	(5.83 ± 3.93)E+00	(1.00 ± 0.01)E+01	(2.46 ± 0.05)E+00
S-Area #2	4	(1.33 ± 1.18)E+01	(3.09 ± 0.01)E+01	(5.99 ± 0.10)E+00
S-Area #3	4	(1.10 ± 1.11)E+01	(2.70 ± 0.01)E+01	(1.72 ± 0.03)E+00
S-Area #4	4	(4.44 ± 2.84)E+00	(7.25 ± 0.12)E+00	(1.51 ± 0.02)E+00
Z-Area #1	4	(2.21 ± 1.50)E+00	(4.23 ± 0.08)E+00	(6.70 ± 0.14)E–01
Z-Area #2	3	(1.96 ± 1.30)E+00	(3.41 ± 0.07)E+00	(8.90 ± 0.16)E–01
Z-Area #3	4	(2.03 ± 0.96)E+00	(3.34 ± 0.07)E+00	(1.14 ± 0.03)E+00
Z-Area #4	4	(5.06 ± 4.30)E+00	(1.13 ± 0.01)E+01	(2.08 ± 0.04)E+00
Z-Area #5	4	(4.25 ± 3.33)E+00	(7.62 ± 0.14)E+00	(1.39 ± 0.02)E+00
Z-Area #6	4	(3.31 ± 1.65)E+00	(4.94 ± 0.09)E+00	(1.37 ± 0.02)E+00
Z-Area #7	4	(5.03 ± 1.88)E+00	(6.40 ± 0.12)E+00	(2.29 ± 0.03)E+00
Z-Area #8	4	(6.97 ± 3.87)E+00	(1.23 ± 0.01)E+01	(3.06 ± 0.05)E+00
Site Perimeter				
Allendale Gate	4	(4.03 ± 6.20)E–01	(1.33 ± 0.03)E+00	(1.51 ± 1.63)E–02
Barnwell Gate	4	(1.63 ± 1.86)E–01	(4.18 ± 0.36)E–01	(3.61 ± 6.44)E–03
D-Area	4	(4.60 ± 3.22)E–01	(9.08 ± 0.27)E–01	(1.42 ± 0.15)E–01
Darkhorse at Williston Gate	4	(4.38 ± 5.45)E–01	(1.20 ± 0.06)E+00	(0.17 ± 1.11)E–02
East Talatha	4	(1.31 ± 0.95)E–01	(2.08 ± 0.25)E–01	(–2.55 ± 7.62)E–03
Green Pond	4	(1.03 ± 1.12)E–01	(2.61 ± 0.57)E–01	(2.18 ± 1.06)E–02
Highway 125 at Road A–14	4	(1.29 ± 1.47)E+00	(3.38 ± 0.06)E+00	(1.63 ± 0.13)E–01
Highway 21 at Highway 167	4	(1.99 ± 2.72)E–01	(5.95 ± 0.25)E–01	(–0.04 ± 1.17)E–02
Highway 39 at Williston Gate	4	(7.31 ± 8.84)E–01	(1.97 ± 0.03)E+00	(9.08 ± 9.25)E–03
Jackson	4	(8.52 ± 6.74)E–02	(1.48 ± 0.42)E–01	(0.69 ± 1.54)E–02

Table 38
Radioactivity in Vegetation (Quarterly Samples)

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Patterson Mill Road	4	(1.15 ± 1.34)E–01	(2.73 ± 0.33)E–01	(–8.69 ± 9.96)E–03
Talatha Gate	4	(1.21 ± 0.85)E–01	(1.73 ± 0.26)E–01	(–0.57 ± 2.61)E–02
West Jackson	4	(3.15 ± 4.68)E–01	(1.02 ± 0.02)E+00	(6.71 ± 2.26)E–02
Windsor Road	4	(1.11 ± 0.93)E–01	(2.14 ± 0.17)E–01	(–0.56 ± 1.07)E–02
25-Mile Radius				
Allendale, S.C.	4	(2.84 ± 2.87)E–02	(6.42 ± 1.83)E–02	(–0.57 ± 2.13)E–02
Langley, S.C.	4	(3.58 ± 3.08)E–02	(7.44 ± 2.27)E–02	(0.43 ± 1.79)E–02
Springfield, S.C.	4	(2.60 ± 2.52)E–01	(6.12 ± 0.33)E–01	(1.73 ± 1.51)E–02
Waynesboro, Ga.	4	(8.56 ± 8.83)E–02	(2.04 ± 0.27)E–01	(6.79 ± 4.84)E–03
100-Mile Radius				
Columbia, S.C.	4	(3.44 ± 6.79)E–02	(1.31 ± 0.41)E–01	(–1.81 ± 2.60)E–02
Greenville, S.C.	4	(–0.31 ± 2.91)E–02	(2.16 ± 1.05)E–02	(–4.53 ± 4.29)E–02
Macon, Ga.	3	(3.03 ± 3.88)E–02	(7.46 ± 2.38)E–02	(3.01 ± 8.33)E–03
Savannah, Ga.	4	(1.78 ± 3.87)E–02	(5.69 ± 3.13)E–02	(–3.34 ± 2.96)E–02
Mn-54, pCi/g				
Site Perimeter				
Barnwell Gate	1	(8.34 ± 1.24)E–02		
Co-60, pCi/g				
Site Perimeter				
Barnwell Gate	1	(3.25 ± 0.11)E–01		
Site Perimeter	1	(4.11 ± 0.78)E–02		
Cs-137, pCi/g				
On Site				
F-Area	4	(4.46 ± 1.85)E–01	(7.10 ± 0.41)E–01	(3.06 ± 0.33)E–01
H-Area	4	(1.01 ± 0.95)E+00	(2.25 ± 0.06)E+00	(2.51 ± 0.34)E–01
S-Area #1	2	(1.19 ± 0.38)E–01	(1.46 ± 0.26)E–01	(9.17 ± 1.98)E–02
S-Area #3	1	(9.22 ± 3.00)E–02		

Table 38
Radioactivity in Vegetation (Quarterly Samples)

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
S-Area #4	2	(1.09 ± 0.17)E–01	(1.21 ± 0.27)E–01	(9.66 ± 2.84)E–02
Z-Area #1	1	(9.40 ± 2.35)E–02		
Z-Area #2	2	(4.17 ± 0.89)E–01	(4.80 ± 0.80)E–01	(3.54 ± 0.53)E–01
Z-Area #3	4	(2.31 ± 1.07)E–01	(3.24 ± 0.29)E–01	(1.03 ± 0.30)E–01
Z-Area #4	2	(2.08 ± 1.46)E–01	(3.11 ± 0.58)E–01	(1.05 ± 0.24)E–01
Z-Area #6	1	(2.32 ± 0.43)E–01		
Z-Area #7	2	(1.82 ± 1.05)E–01	(2.57 ± 0.65)E–01	(1.08 ± 0.23)E–01
Z-Area #8	4	(1.90 ± 0.90)E–01	(2.98 ± 0.55)E–01	(7.94 ± 2.48)E–02
Site Perimeter				
Barnwell Gate	2	(5.52 ± 3.68)E–01	(8.12 ± 0.16)E–01	(2.91 ± 0.14)E–01
Site Perimeter	4	(2.78 ± 0.98)E–01	(3.86 ± 0.26)E–01	(1.92 ± 0.21)E–01
25–Mile Radius				
25-mile radius	2	(1.10 ± 0.16)E–01	(1.21 ± 0.23)E–01	(9.81 ± 2.26)E–02
100–Mile Radius				
100-mile radius	2	(8.46 ± 2.96)E–02	(1.06 ± 0.29)E–01	(6.37 ± 2.35)E–02
Sr-89,90, pCi/g				
On Site				
643–26E–1	4	(1.78 ± 1.81)E–01	(4.37 ± 1.55)E–01	(1.92 ± 5.72)E–02
643–26E–2	4	(–0.35 ± 1.33)E–01	(5.38 ± 7.17)E–02	(–2.31 ± 1.25)E–01
F-Area	4	(3.43 ± 1.74)E–01	(5.42 ± 0.95)E–01	(1.95 ± 0.73)E–01
H-Area	4	(4.19 ± 3.57)E–01	(9.41 ± 1.42)E–01	(1.70 ± 0.53)E–01
S-Area #1	4	(1.29 ± 1.16)E–01	(2.97 ± 1.49)E–01	(3.32 ± 9.53)E–02
Z-Area #1	4	(1.74 ± 0.85)E–01	(2.60 ± 0.57)E–01	(7.96 ± 6.04)E–02
Site Perimeter				
Site Perimeter	4	(5.06 ± 2.42)E–01	(7.38 ± 0.83)E–01	(1.72 ± 1.09)E–01

Table 38
Radioactivity in Vegetation (Quarterly Samples)

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
25-Mile Radius				
25-mile radius	4	(1.78 ± 1.89)E–01	(3.63 ± 0.85)E–01	(–8.28 ± 7.62)E–02
100-Mile Radius				
100-mile radius	3	(1.39 ± 0.38)E–01	(1.81 ± 1.23)E–01	(1.06 ± 0.61)E–01
Gross Beta, pCi/g				
On Site				
200–F #13	4	(1.05 ± 0.37)E+01	(1.60 ± 0.15)E+01	(7.78 ± 1.35)E+00
200–F #21	4	(1.19 ± 0.10)E+01	(1.32 ± 0.16)E+01	(1.09 ± 0.14)E+01
200–H #10	4	(1.18 ± 0.33)E+01	(1.58 ± 0.16)E+01	(7.95 ± 1.23)E+00
200–H #22	4	(1.05 ± 0.17)E+01	(1.26 ± 0.15)E+01	(8.48 ± 1.20)E+00
643–26E–1	4	(1.35 ± 0.38)E+01	(1.85 ± 0.16)E+01	(1.05 ± 0.13)E+01
643–26E–2	4	(1.84 ± 1.08)E+01	(2.83 ± 0.19)E+01	(6.36 ± 1.14)E+00
S-Area #1	4	(1.22 ± 0.49)E+01	(1.88 ± 0.16)E+01	(7.95 ± 1.24)E+00
S-Area #2	4	(1.10 ± 0.51)E+01	(1.65 ± 0.11)E+01	(5.99 ± 1.27)E+00
S-Area #3	4	(8.37 ± 3.58)E+00	(1.33 ± 0.15)E+01	(5.63 ± 1.26)E+00
S-Area #4	4	(9.75 ± 3.00)E+00	(1.31 ± 0.15)E+01	(5.83 ± 1.12)E+00
Z-Area #1	4	(1.21 ± 0.37)E+01	(1.55 ± 0.15)E+01	(7.78 ± 1.35)E+00
Z-Area #2	4	(9.19 ± 2.73)E+00	(1.25 ± 0.15)E+01	(5.83 ± 1.10)E+00
Z-Area #3	4	(9.26 ± 2.02)E+00	(1.20 ± 0.14)E+01	(7.18 ± 1.34)E+00
Z-Area #4	4	(8.60 ± 0.32)E+00	(9.01 ± 1.32)E+00	(8.32 ± 1.20)E+00
Z-Area #5	4	(9.39 ± 1.42)E+00	(1.11 ± 0.14)E+01	(7.78 ± 1.37)E+00
Z-Area #6	4	(8.77 ± 1.34)E+00	(1.05 ± 0.14)E+01	(7.42 ± 1.16)E+00
Z-Area #7	4	(1.01 ± 0.30)E+01	(1.33 ± 0.15)E+01	(7.42 ± 1.14)E+00
Z-Area #8	4	(6.37 ± 4.41)E+00	(9.98 ± 1.32)E+00	(7.42 ± 1.16)E–01
Site Perimeter				
Allendale Gate	4	(8.99 ± 3.08)E+00	(1.34 ± 0.16)E+01	(6.24 ± 1.13)E+00
Barnwell Gate	4	(9.28 ± 2.29)E+00	(1.22 ± 0.16)E+01	(6.76 ± 1.13)E+00
D-Area	4	(9.06 ± 4.40)E+00	(1.52 ± 0.17)E+01	(4.78 ± 1.07)E+00
Darkhorse at Williston Gate	4	(7.64 ± 0.99)E+00	(8.52 ± 1.45)E+00	(6.76 ± 1.17)E+00

Table 38
Radioactivity in Vegetation (Quarterly Samples)

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
East Talatha	4	(1.04 ± 0.24)E+01	(1.24 ± 0.16)E+01	(7.35 ± 1.15)E+00
Green Pond	4	(1.13 ± 0.52)E+01	(1.89 ± 0.17)E+01	(7.95 ± 1.21)E+00
Highway 125 at Road A–14	4	(7.66 ± 0.78)E+00	(8.84 ± 1.22)E+00	(7.17 ± 1.41)E+00
Highway 21 at Highway 167	4	(1.01 ± 0.59)E+01	(1.77 ± 0.19)E+01	(5.15 ± 1.30)E+00
Highway 39 at Williston Gate	4	(1.09 ± 0.13)E+01	(1.22 ± 0.14)E+01	(9.45 ± 1.25)E+00
Jackson	4	(9.22 ± 1.67)E+00	(1.04 ± 0.16)E+01	(6.76 ± 1.17)E+00
Patterson Mill Road	4	(8.52 ± 2.71)E+00	(1.09 ± 0.13)E+01	(4.99 ± 1.04)E+00
Talatha Gate	4	(8.88 ± 4.56)E+00	(1.57 ± 0.16)E+01	(6.13 ± 1.35)E+00
West Jackson	4	(1.14 ± 0.53)E+01	(1.72 ± 0.16)E+01	(6.52 ± 1.38)E+00
Windsor Road	4	(1.67 ± 0.51)E+01	(2.43 ± 0.19)E+01	(1.30 ± 0.17)E+01
25-Mile Radius				
Allendale, S.C.	4	(9.33 ± 2.94)E+00	(1.11 ± 0.16)E+01	(4.93 ± 1.26)E+00
Langley, S.C.	4	(1.20 ± 0.26)E+01	(1.46 ± 0.15)E+01	(8.48 ± 1.46)E+00
Springfield, S.C.	4	(7.36 ± 0.67)E+00	(7.91 ± 1.45)E+00	(6.49 ± 1.21)E+00
Waynesboro, Ga.	4	(1.80 ± 0.61)E+01	(2.32 ± 0.19)E+01	(1.04 ± 0.15)E+01
100-Mile Radius				
Columbia, S.C.	4	(1.18 ± 0.33)E+01	(1.55 ± 0.17)E+01	(8.40 ± 1.24)E+00
Greenville, S.C.	4	(2.54 ± 0.67)E+01	(3.41 ± 0.22)E+01	(1.87 ± 0.16)E+01
Macon, Ga.	3	(1.83 ± 0.50)E+01	(2.30 ± 0.11)E+01	(1.30 ± 0.14)E+01
Savannah, Ga.	4	(1.17 ± 0.23)E+01	(1.51 ± 0.16)E+01	(1.01 ± 0.14)E+01
Gross Alpha, pCi/g				
On Site				
200–F #13	4	(2.46 ± 2.40)E+00	(5.66 ± 1.40)E+00	(2.23 ± 4.32)E–01
200–F #21	4	(2.55 ± 4.47)E–01	(7.91 ± 6.09)E–01	(–2.99 ± 2.66)E–01
200–H #10	4	(1.55 ± 2.16)E+00	(4.77 ± 1.84)E+00	(2.61 ± 5.24)E–01
200–H #22	4	(1.41 ± 1.30)E+00	(3.04 ± 0.99)E+00	(2.23 ± 4.35)E–01
643–26E–1	4	(1.02 ± 1.07)E+00	(2.44 ± 1.06)E+00	(–0.98 ± 6.51)E–01
643–26E–2	4	(0.91 ± 2.20)E+00	(4.19 ± 1.44)E+00	(–5.14 ± 4.17)E–01
S-Area #1	4	(1.10 ± 1.91)E+00	(3.92 ± 1.67)E+00	(–0.67 ± 4.26)E–01
S-Area #2	4	(2.41 ± 3.83)E+00	(8.03 ± 2.14)E+00	(–2.87 ± 2.68)E–01

Table 38
Radioactivity in Vegetation (Quarterly Samples)

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
S-Area #3	4	(0.87 ± 1.09)E+00	(2.17 ± 0.79)E+00	(–0.34 ± 4.44)E–01
S-Area #4	4	(1.08 ± 0.15)E+00	(1.27 ± 1.22)E+00	(8.98 ± 6.83)E–01
Z-Area #1	4	(0.99 ± 1.00)E+00	(2.12 ± 1.02)E+00	(–3.17 ± 2.93)E–01
Z-Area #2	4	(1.43 ± 1.43)E+00	(3.50 ± 1.27)E+00	(2.63 ± 4.97)E–01
Z-Area #3	4	(1.29 ± 1.28)E+00	(2.91 ± 1.52)E+00	(2.34 ± 4.58)E–01
Z-Area #4	4	(1.12 ± 1.93)E+00	(3.97 ± 2.43)E+00	(–2.66 ± 2.43)E–01
Z-Area #5	4	(2.60 ± 4.30)E+00	(9.01 ± 3.09)E+00	(–2.72 ± 2.43)E–01
Z-Area #6	4	(4.34 ± 5.36)E–01	(1.01 ± 0.71)E+00	(–0.23 ± 3.85)E–01
Z-Area #7	4	(3.88 ± 6.44)E–01	(1.33 ± 0.99)E+00	(–0.30 ± 3.65)E–01
Z-Area #8	4	(2.82 ± 2.21)E–01	(5.63 ± 5.80)E–01	(3.07 ± 5.17)E–02
Site Perimeter				
Allendale Gate	4	(0.16 ± 2.90)E–01	(2.67 ± 5.05)E–01	(–3.65 ± 3.28)E–01
Barnwell Gate	4	(1.08 ± 1.53)E+00	(3.29 ± 1.09)E+00	(–0.57 ± 3.71)E–01
D-Area	4	(1.96 ± 3.97)E+00	(7.91 ± 2.02)E+00	(–2.89 ± 2.52)E–01
Darkhorse at Williston Gate	4	(2.20 ± 3.04)E+00	(6.70 ± 1.67)E+00	(1.73 ± 3.96)E–01
East Talatha	4	(0.74 ± 1.35)E+00	(2.76 ± 0.96)E+00	(–0.50 ± 3.36)E–01
Green Pond	4	(7.15 ± 7.50)E–01	(1.32 ± 0.80)E+00	(–2.99 ± 2.62)E–01
Highway 125 at Road A–14	4	(4.93 ± 8.09)E–01	(1.46 ± 0.90)E+00	(–2.86 ± 2.55)E–01
Highway 21 at Highway 167	4	(3.22 ± 4.40)E+00	(9.74 ± 2.51)E+00	(4.20 ± 4.78)E–01
Highway 39 at Williston Gate	4	(2.76 ± 4.87)E+00	(1.01 ± 0.28)E+01	(1.73 ± 4.07)E–01
Jackson	4	(7.53 ± 7.64)E–01	(1.58 ± 0.84)E+00	(–0.52 ± 3.40)E–01
Patterson Mill Road	4	(1.91 ± 2.10)E+00	(4.75 ± 1.26)E+00	(2.67 ± 5.05)E–01
Talatha Gate	4	(5.84 ± 8.26)E–01	(1.57 ± 0.85)E+00	(–3.26 ± 3.06)E–01
West Jackson	4	(1.21 ± 0.77)E+00	(2.03 ± 1.15)E+00	(1.78 ± 4.10)E–01
Windsor Road	4	(1.15 ± 1.48)E+00	(3.18 ± 1.11)E+00	(–0.76 ± 5.41)E–01
25-Mile Radius				
Allendale, S.C.	4	(4.13 ± 4.00)E–01	(8.65 ± 6.84)E–01	(–0.19 ± 4.83)E–01
Langley, S.C.	4	(6.28 ± 8.34)E–01	(1.64 ± 0.88)E+00	(–0.68 ± 4.13)E–01
Springfield, S.C.	4	(3.56 ± 3.00)E–01	(6.82 ± 5.50)E–01	(–0.21 ± 3.86)E–01
Waynesboro, Ga.	4	(1.71 ± 4.56)E–01	(7.30 ± 8.17)E–01	(–3.31 ± 2.83)E–01

Table 38
Radioactivity in Vegetation (Quarterly Samples)

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
100-Mile Radius				
Columbia, S.C.	4	(1.61 ± 0.73)E+00	(2.41 ± 1.00)E+00	(7.03 ± 7.45)E–01
Greenville, S.C.	4	(1.43 ± 2.11)E+00	(4.55 ± 1.07)E+00	(–1.57 ± 8.55)E–01
Macon, Ga.	3	(5.01 ± 4.60)E–01	(7.92 ± 5.58)E–01	(–0.30 ± 3.63)E–01
Savannah, Ga.	4	(3.65 ± 4.84)E–01	(0.90 ± 1.52)E+00	(–0.63 ± 3.89)E–01

Table 39
Radioactivity in Vegetation (Outside the Solid Waste Disposal Facility Fences)

Page 1 of 2

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Cs-137, pCi/g				
OBG–10 Outside Burial Ground	2	(5.19 ± 0.72)E–01	(5.70 ± 0.92)E–01	(4.68 ± 0.57)E–01
OBG–12 Outside Burial Ground	2	(2.91 ± 1.43)E–01	(3.92 ± 0.39)E–01	(1.90 ± 0.46)E–01
OBG–13 Outside Burial Ground	1	(2.58 ± 0.65)E–01		
OBG–6 Outside Burial Ground	2	(3.26 ± 0.91)E–01	(3.90 ± 0.61)E–01	(2.61 ± 0.40)E–01
OBG–8 Outside Burial Ground	1	(1.23 ± 0.38)E–01		
OBG–9 Outside Burial Ground	3	(4.45 ± 3.58)E–01	(8.58 ± 0.61)E–01	(2.31 ± 0.54)E–01
Gross Beta, pCi/g				
OBG–1 Outside Burial Ground	4	(1.07 ± 0.58)E+01	(1.60 ± 0.14)E+01	(3.10 ± 1.01)E+00
OBG–10 Outside Burial Ground	4	(1.02 ± 0.42)E+01	(1.44 ± 0.14)E+01	(6.30 ± 1.13)E+00
OBG–11 Outside Burial Ground	4	(1.04 ± 0.07)E+01	(1.12 ± 0.15)E+01	(9.45 ± 1.24)E+00
OBG–12 Outside Burial Ground	3	(1.74 ± 1.59)E+01	(3.53 ± 0.23)E+01	(4.88 ± 1.09)E+00
OBG–13 Outside Burial Ground	3	(5.96 ± 2.48)E+00	(7.44 ± 1.39)E+00	(3.10 ± 1.01)E+00
OBG–2 Outside Burial Ground	4	(2.82 ± 3.80)E+01	(8.47 ± 0.36)E+01	(2.16 ± 0.94)E+00
OBG–3 Outside Burial Ground	4	(2.30 ± 1.70)E+01	(3.86 ± 0.22)E+01	(2.55 ± 0.96)E+00
OBG–4 Outside Burial Ground	2	(1.37 ± 0.46)E+01	(1.70 ± 0.15)E+01	(1.05 ± 0.13)E+01
OBG–5 Outside Burial Ground	4	(1.21 ± 0.42)E+01	(1.70 ± 0.15)E+01	(7.21 ± 1.20)E+00
OBG–6 Outside Burial Ground	4	(9.37 ± 3.56)E+00	(1.34 ± 0.14)E+01	(4.71 ± 1.09)E+00
OBG–7 Outside Burial Ground	4	(1.10 ± 0.27)E+01	(1.49 ± 0.14)E+01	(8.68 ± 1.45)E+00
OBG–8 Outside Burial Ground	4	(2.07 ± 0.88)E+01	(2.94 ± 0.20)E+01	(8.68 ± 1.43)E+00
OBG–9 Outside Burial Ground	4	(1.19 ± 0.21)E+01	(1.39 ± 0.15)E+01	(8.92 ± 1.21)E+00
Gross Alpha, pCi/g				
OBG–1 Outside Burial Ground	4	(0.88 ± 1.27)E+00	(2.60 ± 1.14)E+00	(–3.04 ± 2.62)E–01
OBG–10 Outside Burial Ground	4	(4.00 ± 5.24)E–01	(1.16 ± 0.78)E+00	(–0.22 ± 4.56)E–01
OBG–11 Outside Burial Ground	4	(–2.12 ± 2.09)E–01	(–0.18 ± 3.68)E–01	(–4.38 ± 3.84)E–01
OBG–12 Outside Burial Ground	3	(9.71 ± 7.47)E–01	(1.82 ± 1.20)E+00	(4.25 ± 4.92)E–01
OBG–13 Outside Burial Ground	3	(2.57 ± 3.38)E–01	(6.20 ± 6.50)E–01	(–0.48 ± 3.64)E–01
OBG–2 Outside Burial Ground	4	(5.84 ± 7.80)E–01	(1.63 ± 0.92)E+00	(–0.20 ± 1.18)E+00
OBG–3 Outside Burial Ground	4	(6.73 ± 5.24)E–01	(1.36 ± 0.91)E+00	(0.09 ± 1.07)E+00
OBG–4 Outside Burial Ground	2	(0.89 ± 2.45)E–01	(2.63 ± 5.40)E–01	(–0.84 ± 5.03)E–01
OBG–5 Outside Burial Ground	4	(9.04 ± 9.73)E–01	(2.00 ± 0.82)E+00	(–0.36 ± 4.47)E–01
OBG–6 Outside Burial Ground	4	(4.46 ± 4.20)E–01	(8.40 ± 7.04)E–01	(–0.53 ± 3.76)E–01

Table 39
Radioactivity in Vegetation (Outside the Solid Waste Disposal Facility Fences)

Page 2 of 2

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
OBG–7 Outside Burial Ground	4	(4.91 ± 4.94)E–01	(1.03 ± 0.65)E+00	(–0.29 ± 5.00)E–01
OBG–8 Outside Burial Ground	4	(5.56 ± 4.56)E–01	(8.75 ± 6.91)E–01	(–1.05 ± 4.61)E–01
OBG–9 Outside Burial Ground	4	(4.26 ± 4.48)E–01	(9.78 ± 6.09)E–01	(–0.51 ± 3.28)E–01

Table 40
Radioactivity in Vegetation (Composites from Seepage and Retention Basins)

Page 1 of 1

Location	pCi/g (Dry Weight)			
	Cs-137	Sr-89,90	Gross Alpha	Gross Beta
Note: Blank space indicates activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in vegetation was 1.00E–01 pCi/g.				
A-Area seepage basin[a]	(2.61 ± 0.50)E–01	(2.51 ± 0.16)E+00	(4.32 ± 4.73)E–02	(2.47 ± 0.18)E+00
C-Area seepage basin[b]	(1.50 ± 0.46)E–01		(8.87 ± 5.54)E–02	(4.55 ± 0.23)E+00
F-Area retention basin[c]	(1.59 ± 0.53)E–01	(2.53 ± 0.60)E–01	(2.77 ± 1.01)E–01	(1.11 ± 0.13)E+00
F-Area seepage basin[b]		(3.77 ± 0.88)E–01	(1.83 ± 0.76)E–01	(8.87 ± 1.23)E–01
H-Area retention basin[c]	(8.77 ± 0.21)E+00	(1.61 ± 0.03)E+01	(1.72 ± 0.84)E–01	(6.10 ± 0.27)E+00
H-Area seepage basin[b]		(4.30 ± 0.21)E+00	(7.76 ± 5.81)E–02	(3.10 ± 0.20)E+00
K-Area retention basin[a]		(5.92 ± 0.66)E–01	(7.76 ± 5.54)E–02	(1.05 ± 0.13)E+00
K-Area seepage basin[a]		(1.40 ± 0.10)E+00	(1.55 ± 3.55)E–02	(9.98 ± 1.28)E–01
L-Area chemical basin[a]		(7.98 ± 0.75)E–01	(2.38 ± 1.11)E–01	(1.39 ± 0.15)E+00
L-Area seepage basin[a]		(4.55 ± 0.60)E–01	(1.33 ± 0.68)E–01	(6.65 ± 1.11)E–01
P-Area seepage basin[a]	(1.70 ± 0.10)E+00	(6.71 ± 0.06)E+01	(2.72 ± 1.01)E–01	(1.50 ± 0.04)E+01
R-Area seepage basin[b]	(1.26 ± 0.46)E–01	(4.32 ± 0.16)E+00	(7.21 ± 5.32)E–02	(1.44 ± 0.14)E+00

a Four locations
b Eight locations
c Six locations

Table 41
Parameters Used for Adult Consumption Rates and for Atmospheric Dose Calculations[a]

Page 1 of 1

Pathway	Average Individual	Maximum Individual	Population
Fruits, vegetables, and grains (kg/yr)	163	276	163
Leafy vegetables (kg/yr)	21	43	21
Milk (L/yr)	120	230	120
Meat (beef) (kg/yr)	43	81	43
Inhalation (m^3/yr)	8,000	8,000	8,000
Fraction of external dose received after taking structural shielding into account	0.5	0.7	0.5

a Values developed by Savannah River Technology Center for Savannah River Site

Table 42
Release Locations for Maximum and Average Individual Doses

Page 1 of 1

	Release Source Area				
	F,H,P,K,C	M	D	Savannah River Technology Center	Diffuse & Fugitive
Release height, m	61	0	16	31	0
Release location Site coordinate					
East	58000	50041	20938	51863	58000
North	62000	104828	65284	106670	62000

Table 43
Meteorological Data

USNRC Computer Code-XOQDOQ, Version 2.0 Run Date: 93.071 (SRL 6/29/83 VERSION)
43824 Wind Stats H-Area 60 minute 62M 87–91 Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction: Extremely Unstable Conditions — **Atmospheric Stability Class A**

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.374	0.406	0.372	0.422	0.402	0.374	0.404	0.356
4.00	0.872	0.735	0.876	0.995	0.942	0.942	0.648	0.618
6.00	0.573	0.260	0.157	0.187	0.148	0.073	0.066	0.094
8.00	0.089	0.052	0.007	0.011	0.007	0.002	0.005	0.011
12.00	0.005	0.000	0.002	0.002	0.000	0.000	0.000	0.000
14.10	0.000	0.000	0.000	0.000	0.000	0:000	0.000	0.000
TOTAL	**1.91**	**1.45**	**1.41**	**1.62**	**1.50**	**1.39**	**1.12**	**1.08**

Joint Frequency Distribution of Wind Speed and Direction: Extremely Unstable Conditions — **Atmospheric Stability Class A**

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.358	0.347	0.450	0.392	0.454	0.434	0.370	0.413	6.328
4.00	0.739	0.721	1.002	1.282	1.294	0.942	0.534	0.602	13.746
6.00	0.139	0.139	0.208	0.242	0.274	0.235	0.141	0.240	3.176
8.00	0.021	0.018	0.016	0.037	0.032	0.021	0.014	0.055	0.397
12.00	0.000	0.007	0.009	0.009	0.002	0.007	0.002	0.009	0.055
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	**1.26**	**1.23**	**1.68**	**1.96**	**2.06**	**1.64**	**1.06**	**1.32**	**23.70**

Table 43
Meteorological Data

USNRC Computer Code-XOQDOQ, Version 2.0 Run Date: 93.071 (SRL 6/29/83 VERSION)
43824 Wind Stats H-Area 60 minute 62M 87–91 Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction: Moderately Unstable Conditions — Atmospheric Stability Class B

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.075	0.078	0.087	0.098	0.052	0.055	0.057	0.048
4.00	0.267	0.411	0.577	0.621	0.429	0.342	0.244	0.217
6.00	0.139	0.388	0.377	0.313	0.164	0.105	0.071	0.084
8.00	0.007	0.082	0.027	0.007	0.005	0.011	0.002	0.009
12.00	0.000	0.007	0.002	0.000	0.000	0.000	0.000	0.002
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	**0.49**	**0.97**	**1.07**	**1.04**	**0.65**	**0.51**	**0.37**	**0.36**

Joint Frequency Distribution of Wind Speed and Direction: Moderately Unstable Conditions — Atmospheric Stability Class B

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.078	0.071	0.046	0.050	0.046	0.075	0.052	0.071	1.038
4.00	0.324	0.329	0.477	0.671	0.559	0.372	0.251	0.210	6.300
6.00	0.187	0.212	0.317	0.507	0.511	0.356	0.126	0.089	3.945
8.00	0.050	0.037	0.052	0.103	0.171	0.214	0.059	0.014	0.851
12.00	0.002	0.002	0.007	0.007	0.064	0.064	0.007	0.002	0.167
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	**0.64**	**0.65**	**0.90**	**1.34**	**1.35**	**1.08**	**0.50**	**0.39**	**12.30**

Table 43
Meteorological Data

USNRC Computer Code-XOQDOQ, 43824 Wind Stats H-Area 60 minute | Version 2.0 62M 87–91 | Run Date: 93.071 (SRL 6/29/83 VERSION) Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction: Slightly Unstable Conditions — **Atmospheric Stability Class C**

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.032	0.057	0.091	0.071	0.059	0.046	0.055	0.048
4.00	0.173	0.573	1.125	1.031	0.600	0.408	0.411	0.370
6.00	0.116	0.539	1.303	0.742	0.354	0.192	0.217	0.253
8.00	0.014	0.098	0.196	0.082	0.018	0.032	0.032	0.059
12.00	0.002	0.011	0.000	0.002	0.002	0.005	0.000	0.027
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	**0.34**	**1.28**	**2.72**	**1.93**	**1.03**	**0.68**	**0.71**	**0.76**

Joint Frequency Distribution of Wind Speed and Direction: Slightly Unstable Conditions — **Atmospheric Stability Class C**

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.068	0.048	0.055	0.050	0.075	0.046	0.050	0.052	0.904
4.00	0.479	0.516	0.589	0.794	0.527	0.445	0.301	0.237	8.580
6.00	0.470	0.461	0.561	0.687	0.643	0.564	0.212	0.119	7.432
8.00	0.155	0.164	0.208	0.258	0.445	0.429	0.096	0.018	2.305
12.00	0.043	0.041	0.046	0.059	0.155	0.167	0.018	0.007	0.586
14.10	0.000	0.000	0.000	0.002	0.000	0.002	0.000	0.000	0.005
TOTAL	**1.22**	**1.23**	**1.46**	**1.85**	**1.85**	**1.65**	**0.68**	**0.43**	**19.81**

Table 43
Meteorological Data

USNRC Computer Code-XOQDOQ, Version 2.0 Run Date: 93.071 (SRL 6/29/83 VERSION)
43824 Wind Stats H-Area 60 minute 62M 87–91 Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction: Neutral Conditions — **Atmospheric Stability Class D**

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.018	0.048	0.055	0.037	0.055	0.030	0.055	0.068
4.00	0.103	0.436	1.072	0.888	0.552	0.504	0.705	0.691
6.00	0.123	0.434	0.853	0.584	0.395	0.440	0.653	1.164
8.00	0.011	0.052	0.098	0.023	0.005	0.011	0.046	0.180
12.00	0.000	0.023	0.023	0.000	0.002	0.000	0.000	0.007
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	**0.26**	**0.99**	**2.10**	**1.53**	**1.01**	**0.99**	**1.46**	**2.11**

Joint Frequency Distribution of Wind Speed and Direction: Neutral Conditions — **Atmospheric Stability Class D**

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.055	0.032	0.071	0.048	0.037	0.034	0.050	0.041	0.732
4.00	0.924	0.910	0.803	0.808	0.723	0.570	0.427	0.272	10.389
6.00	1.451	0.778	0.901	0.769	0.776	0.648	0.317	0.089	10.376
8.00	0.219	0.146	0.098	0.087	0.030	0.052	0.030	0.002	1.091
12.00	0.016	0.037	0.002	0.002	0.007	0.002	0.000	0.000	0.121
12.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	**2.67**	**1.90**	**1.88**	**1.71**	**1.57**	**1.31**	**0.82**	**0.40**	**22.71**

Table 43
Meteorological Data

USNRC Computer Code-XOQDOQ, Version 2.0 Run Date: 93.071 (SRL 6/29/83 VERSION)
43824 Wind Stats H-Area 60 minute 62M 87–91 Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction: Slightly Stable Conditions — **Atmospheric Stability Class E**

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.011	0.021	0.039	0.007	0.009	0.025	0.030	0.030
4.00	0.062	0.274	0.687	0.477	0.297	0.333	0.456	0.701
6.00	0.071	0.527	0.689	0.705	0.600	0.454	0.650	1.006
8.00	0.000	0.050	0.032	0.037	0.011	0.011	0.002	0.027
12.00	0.000	0.002	0.002	0.000	0.000	0.000	0.000	0.000
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	**0.14**	**0.87**	**1.45**	**1.23**	**0.92**	**0.82**	**1.14**	**1.76**

Joint Frequency Distribution of Wind Speed and Direction: Slightly Stable Conditions — **Atmospheric Stability Class E**

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.016	0.016	0.011	0.011	0.021	0.014	0.023	0.021	0.303
4.00	0.673	0.573	0.543	0.472	0.431	0.427	0.333	0.301	7.040
6.00	1.184	0.940	0.910	0.894	0.484	0.402	0.187	0.141	9.846
8.00	0.043	0.018	0.043	0.009	0.005	0.002	0.002	0.000	0.294
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
12.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	**1.92**	**1.55**	**1.51**	**1.39**	**0.94**	**0.84**	**0.55**	**0.46**	**17.49**

Table 43
Meteorological Data

USNRC Computer Code-XOQDOQ, Version 2.0 Run Date: 93.071 (SRL 6/29/83 VERSION)
43824 Wind Stats H-Area 60 minute 62M 87–91 Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction: Moderately Stable Conditions — **Atmospheric Stability Class F**

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.000	0.005	0.007	0.011	0.007	0.005	0.002	0.005
4.00	0.018	0.052	0.087	0.039	0.023	0.075	0.089	0.091
6.00	0.014	0.256	0.212	0.144	0.144	0.187	0.132	0.162
8.00	0.000	0.027	0.021	0.021	0.000	0.011	0.000	0.007
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	**0.03**	**0.34**	**0.33**	**0.21**	**0.17**	**0.28**	**0.22**	**0.26**

Joint Frequency Distribution of Wind Speed and Direction: Moderately Stable Conditions — **Atmospheric Stability Class F**

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.007	0.014	0.018	0.007	0.007	0.005	0.011	0.005	0.114
4.00	0.107	0.080	0.119	0.091	0.030	0.050	0.050	0.073	1.075
6.00	0.221	0.214	0.235	0.228	0.068	0.039	0.023	0.041	2.321
8.00	0.018	0.014	0.018	0.007	0.000	0.000	0.000	0.000	0.144
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	**0.35**	**0.32**	**0.39**	**0.33**	**0.10**	**0.09**	**0.08**	**0.12**	**3.65**

Table 43
Meteorological Data

USNRC Computer Code-XOQDOQ, Version 2.0 Run Date: 93.071 (SRL 6/29/83 VERSION)
43824 Wind Stats H-Area 60 minute 62M 87–91 Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction: Extremely Stable Conditions — **Atmospheric Stability Class G**

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.000	0.000	0.002	0.000	0.000	0.002	0.000	0.005
4.00	0.002	0.000	0.000	0.000	0.000	0.002	0.009	0.002
6.00	0.005	0.023	0.009	0.002	0.007	0.037	0.025	0.016
8.00	0.000	0.002	0.000	0.000	0.000	0.002	0.002	0.000
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	**0.01**	**0.03**	**0.01**	**0.00**	**0.01**	**0.04**	**0.04**	**0.02**

Joint Frequency Distribution of Wind Speed and Direction: Extremely Stable Conditions — **Atmospheric Stability Class G**

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.007	0.009	0.007	0.002	0.002	0.000	0.000	0.002	0.039
4.00	0.007	0.007	0.027	0.009	0.005	0.002	0.002	0.000	0.075
6.00	0.021	0.014	0.011	0.027	0.002	0.007	0.002	0.005	0.212
8.00	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.009
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	**0.03**	**0.03**	**0.05**	**0.04**	**0.01**	**0.01**	**0.00**	**0.01**	**0.34**

Table 44
50-Mile-Radius (80-km) Population Distribution Around SRS (1990 Census)

Page 1 of 1

Dir (Miles)	0.0–1.	1.–2.	2.–3.	3.–4.	4.–5.
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NNE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ESE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SSE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
WSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
WNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Total	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Dir (Miles)	5.–10.	10.–20.	20.–30.	30.–40.	40.–50.	Total
N	2.600E+01	5.321E+03	1.002E+04	5.067E+03	1.221E+04	3.264E+04
NNE	6.000E+00	1.320E+03	2.066E+03	4.445E+03	1.437E+04	2.220E+04
NE	1.000E+00	2.945E+03	2.928E+03	5.269E+03	1.020E+04	2.134E+04
ENE	2.700E+01	3.126E+03	4.483E+03	5.337E+03	4.077E+04	5.375E+04
E	1.550E+02	6.743E+03	5.305E+03	8.812E+03	4.334E+03	2.535E+04
ESE	3.600E+01	1.556E+03	1.931E+03	2.711E+03	3.253E+03	9.487E+03
SE	2.600E+01	5.470E+02	6.511E+03	6.685E+03	8.577E+03	2.235E+04
SSE	4.000E+01	3.910E+02	7.690E+02	1.356E+03	2.539E+03	5.095E+03
S	1.000E+00	5.580E+02	1.332E+03	7.251E+03	3.335E+03	1.248E+04
SSW	2.000E+00	8.970E+02	2.008E+03	4.181E+03	2.944E+03	1.003E+04
SW	1.700E+01	9.440E+02	2.240E+03	2.606E+03	2.660E+03	8.467E+03
WSW	6.000E+01	1.103E+03	7.112E+03	2.285E+03	5.818E+03	1.638E+04
W	5.500E+01	3.314E+03	7.941E+03	7.994E+03	6.780E+03	2.608E+04
WNW	4.490E+02	3.342E+03	1.069E+05	5.031E+04	1.155E+04	1.725E+05
NW	2.710E+02	5.899E+03	8.793E+04	2.657E+04	3.025E+03	1.237E+05
NNW	3.63E+02	1.803E+04	2.716E+04	6.665E+03	6.079E+03	5.830E+04
Total	1.535E+03	5.603E+04	2.766E+05	1.475E+05	1.384E+05	6.201E+05

Table 45
50-Mile-Radius (80-km) Milk, Meat, and Vegetation Production Around SRS

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Site Annual Milk Production (L)

Dir (miles)	0–5	5–10	10–20	20–30	30–40	40–50	Total
N	0.0	0.0	4.200E+04	6.900E+04	1.000E+06	5.300E+06	6.411E+06
NNE	0.0	0.0	4.200E+04	6.900E+04	2.100E+05	5.000E+05	8.210E+05
NE	0.0	0.0	3.200E+04	1.000E+06	2.700E+06	2.000E+06	5.732E+06
ENE	0.0	0.0	2.500E+04	1.200E+06	4.400E+06	5.200E+06	1.083E+07
E	0.0	0.0	2.500E+04	1.400E+06	3.900E+06	4.900E+06	1.023E+07
ESE	0.0	0.0	2.500E+04	5.600E+05	3.000E+04	4.900E+05	1.105E+06
SE	0.0	0.0	2.500E+04	0.000E+00	0.000E+00	0.000E+00	2.500E+03
SSE	0.0	0.0	4.800E+05	8.600E+05	1.200E+06	1.200E+06	3.740E+06
S	0.0	0.0	1.000E+06	2.100E+06	3.000E+06	3.500E+06	9.600E+06
SSW	0.0	0.0	9.900E+05	3.800E+06	7.400E+06	7.600E+06	1.979E+07
SW	0.0	0.0	9.900E+05	2.200E+06	5.800E+06	4.800E+06	1.379E+07
WSW	0.0	0.0	9.900E+05	1.700E+06	2.400E+06	3.500E+06	8.590E+06
W	0.0	0.0	6.700E+05	1.300E+06	2.200E+06	3.600E+06	7.770E+06
WNW	0.0	0.0	2.300E+05	1.100E+06	1.200E+06	2.000E+06	4.530E+06
NW	0.0	0.0	4.200E+04	3.800E+05	1.400E+06	1.000E+06	2.822E+06
NNW	0.0	0.0	4.200E+04	6.000E+04	1.700E+06	3.400E+06	5.211E+06
Total	**0.0**	**0.0**	**5.62E+06**	**1.781E+07**	**3.954E+07**	**4.899E+07**	**1.110E+08**

Site Annual Meat Production (kg)

Dir (miles)	0–5	5–10	10–20	20–30	30–40	40–50	Total
N	0.0	0.0	5.300E+04	8.800E+04	2.500E+05	9.800E+05	1.371E+06
NNE	0.0	0.0	5.300E+04	8.800E+04	2.000E+05	4.100E+05	7.510E+05
NE	0.0	0.0	7.100E+04	1.700E+05	3.500E+05	4.500E+05	1.041E+06
ENE	0.0	0.0	8.300E+04	2.000E+05	4.600E+05	5.700E+05	1.313E+06
E	0.0	0.0	8.300E+04	1.900E+05	3.400E+05	5.100E+05	1.123E+06
ESE	0.0	0.0	8.300E+04	1.900E+05	2.200E+05	2.500E+05	7.430E+05
SE	0.0	0.0	1.200E+05	2.100E+05	2.600E+05	3.000E+05	8.900E+05
SSE	0.0	0.0	1.100E+05	1.900E+05	2.600E+05	2.900E+05	8.500E+05
S	0.0	0.0	9.400E+04	1.500E+05	2.000E+05	2.700E+05	7.140E+05
SSW	0.0	0.0	9.500E+04	1.800E+05	2.900E+05	3.900E+05	9.550E+05
SW	0.0	0.0	9.500E+04	1.700E+05	2.700E+05	3.200E+05	8.550E+05

Table 45
50-Mile-Radius (80-km) Milk, Meat, and Vegetation Production Around SRS

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Site Annual Meat Production (kg), Cont'd.

Dir (miles)	0–5	5–10	10–20	20–30	30–40	40–50	Total
WSW	0.0	0.0	9.500E+04	1.600E+05	2.300E+05	4.000E+05	8.850E+05
W	0.0	0.0	5.800E+04	1.000E+05	2.100E+05	4.100E+05	7.780E+05
WNW	0.0	0.0	4.800E+04	6.200E+04	1.300E+05	2.900E+05	5.300E+05
NW	0.0	0.0	5.800E+04	8.000E+04	2.800E+05	2.700E+05	6.830E+05
NNW	0.0	0.0	5.300E+04	8.800E+04	3.300E+05	6.200E+05	1.091E+06
Total	**0.0**	**0.0**	**1.247E+06**	**2.316E+06**	**4.280E+06**	**6.730E+06**	**1.457E+07**

Site Annual Vegetation Production (kg)

Dir (miles)	0–5	5–10	10–20	20–30	30–40	40–50	Total
N	0.0	0.0	3.600E+05	6.000E+05	8.400E+05	8.700E+05	2.670E+06
NNE	0.0	0.0	3.600E+05	6.000E+05	5.100E+05	6.300E+03	1.476E+06
NE	0.0	0.0	3.600E+05	6.900E+05	1.000E+06	5.000E+05	2.550E+06
ENE	0.0	0.0	3.600E+05	6.600E+05	1.200E+06	1.500E+06	3.270E+06
E	0.0	0.0	3.600E+05	5.900E+05	8.500E+05	1.400E+06	3.200E+06
ESE	0.0	0.0	3.600E+05	2.200E+06	1.900E+06	1.100E+06	5.560E+06
SE	0.0	0.0	2.500E+06	4.500E+06	3.000E+06	1.100E+06	1.110E+07
SSE	0.0	0.0	1.700E+06	2.900E+06	3.600E+06	1.100E+06	9.300E+06
S	0.0	0.0	7.200E+04	5.400E+05	8.400E+05	9.700E+05	2.422E+06
SSW	0.0	0.0	3.500E+02	1.200E+05	2.500E+05	1.100E+05	4.804E+05
SW	0.0	0.0	3.500E+02	7.800E+02	2.200E+03	3.100E+05	3.133E+05
WSW	0.0	0.0	3.500E+02	5.800E+02	7.900E+03	2.900E+03	4.820E+03
W	0.0	0.0	4.500E+04	2.300E+04	1.700E+04	5.200E+04	1.370E+05
WNW	0.0	0.0	2.600E+05	3.800E+04	6.200E+04	1.100E+06	1.848E+06
NW	0.0	0.0	3.600E+05	4.300E+05	8.400E+05	1.100E+06	2.730E+06
NNW	0.0	0.0	3.600E+05	6.000E+05	8.400E+05	1.100E+06	2.900E+06
Total	**0.0**	**0.0**	**7.458E+06**	**1.449E+07**	**1.614E+07**	**1.232E+07**	**5.041E+07**

Table 46
Site-Specific Parameters Used with CAP88 Code Used for NESHAPS Calculations

Particle size, AMAD	
H-3, C-14, Kr-85	0
All other	1
Environmental dose commitment integrating period, yrs	
Maximum individual	40
Population	100
Meteorological data	1987-1991, H Area
Plume rise	None
Number of stacks	2
Stack heights, m	0 and 61
Height of lid, m	1000
Rainfall, cm/yr	122.4
Average air temperature, C	17.8
Surface roughness length, m	0.4
Height of wind measurements, m	61
Average wind speed, m/s	3.82
Population size	620,100
Food supply fractions (fraction from local sources)	
Vegetable	0.700
Meat	0.442
Milk	0.399

Table 47
Total Site Releases and Maximum Individual Effective Dose Equivalent by Radionuclide (CAP88 Dose Calculations for 1994 NESHAP Report to EPA)

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Radionuclide[a]	Releases (curies)	Maximum Individual EDE (mrem)	Percent of Dose
H-3 (oxide)	1.07E+05	1.45E-01	97.4
Pu-236,238	1.61E-03	1.62E-03	1.1
U-235,238	2.24E-03	8.64E-04	0.6
Pu-239[b]	7.59E-04	8.25E-04	0.6
I-129	3.80E-03	2.52E-04	0.2
I-135 (Xe-135m,Xe-135,Cs-135)	2.96E-01	1.02E-04	0.07
Am-241,243	5.62E-05	9.27E-05	0.6
H-3 (elemental)	5.29E-04	2.86E-05	0.02
Sr-85,89,90 (Y-90)[c]	2.11E-03	2.66E-05	0.02
Cm-242,3,4,8	1.61E-05	1.48E-05	0.01
Cs-137 (Ba-137m)	1.58E-04	7.67E-06	0.005
C-14	3.71E-02	2.41E-06	0.002
Co-57,60	6.16E-06	2.89E-07	0.0002
I-131	7.00E-05	5.73E-08	0.00004
I-133	1.98E-03	3.02E-08	0.00002
Xe-135	2.17E-02	1.25E-08	0.000008
Zn-65	4.44E-06	1.06E-08	0.000007
Ru-106 (Rh-106)	1.69E-08	3.12E-10	0.0000002
Cs-134	8.41E-09	1.29E-10	0.00000009
Eu-154	3.44E-10	1.29E-11	0.000000009
Ce-144 (Pr-144,144m)	1.13E-10	5.91E-13	0.0000000004
Eu-155	1.63E-10	2.45E-13	0.0000000002
Sb-125	7.27E-12	3.69E-14	0.00000000002
Zr-95 (Nb-95)	2.39E-11	3.43E-14	0.00000000002
Np-237	7.40E-15	1.36E-14	0.000000000009
Hg-203	2.00E-12	5.23E-16	0.0000000000004
S-35	6.85E-12	1.51E-16	0.0000000000001
Ni-63	2.06E-13	7.53E-18	0.000000000000005

a Radionuclides in parentheses are decay daughters that are included in effective dose equivalent (EDE) calculations.
b Includes gross alpha (assigned to Pu-239)
c Includes gross beta-gamma (assigned to Sr-90)

Table 47
Total Site Releases and Maximum Individual Effective Dose Equivalent by Radionuclide (CAP88 Dose Calculations for 1994 NESHAP Report to EPA)

Page 2 of 2

Radionuclide[a]	Releases (curies)	Maximum Individual EDE (mrem)	Percent of Dose
Be-7	1.50E-13	5.54E-18	0.000000000000004
Mn-54	1.50E-15	3.34E-18	0.000000000000002
Rb-86	2.00E-15	4.52E-19	0.0000000000000003
Sc-46	1.00E-16	2.22E-19	0.0000000000000001
Total		**1.48E-01**	

a Radionuclides in parentheses are decay daughters that are included in effective dose equivalent (EDE) calculations.

Table 48
NESHAP Report Data: CAP88 Compared With MAXIGASP

Page 1 of 1

	Maximum Individual Dose Commitment at Site Boundary from Atmospheric Releases			
	CAP88 Code		MAXIGASP Code	
	mrem[a]	Percent of Dose	mrem[a]	Percent of Dose
By Pathway				
Plume	1.37E–08	0.00001	1.09E–07	0.0001
Ground	6.14E–05	0.04	1.61E–04	0.2
Inhalation	4.38E–02	29.6	4.21E–02	47.7
Food[b]	1.04E–01	70.3	4.61E–02	52.2
Total	**1.48E–01**		**8.83E–02**	
By Radionuclide				
Gases and Vapors				
H-3[c]	1.45E–01	98.0	7.77E–02	88.0
I-129	2.52E–04	0.2	2.09E–03	2.4
Ar-41				
Kr-85				
I-131				
I-133				
Particulates				
Sr-89,90	2.65E–05	0.02	1.35E–04	0.2
Ru-106				
Cs-134,137				
U-235,238	8.64E–04	0.6	1.24E–03	1.4
Pu-238	1.62E–03	1.1	4.40E–03	5.0
Pu-239	8.25E–04	0.6	2.40E–03	2.7
Am-241,243	9.27E–05	0.06	1.87E–04	0.2
Cm-242,244	1.48E–05	0.01	9.43E–05	0.1
Total	**1.48E–01**		**8.83E–02**	

a Effective dose equivalent
b Meat, milk, and vegetables
c Dose from tritium in foods calculated with absolute humidity of 11 g water/cubic meter of air

Table 49
NESHAP Report Data: CAP88 Compared With POPGASP

Page 1 of 1

	Collective Committed Dose from Atmospheric Releases			
	CAP88 Code		POPGASP Code	
	Person-Rem[a]	Percent of Dose	Person-Rem[a]	Percent of Dose
By Pathway				
Plume	5.68E–05	0.0004	5.01E–07	0.00001
Ground	6.75E–03	0.04	2.30E–02	0.3
Inhalation	5.61E+00	35.0	4.72E+00	75.5
Food[b]	1.02E+01	64.9	1.50E+00	24.1
Total	**1.60E+01**		**6.25E+00**	
By Radionuclide				
Gases and Vapors				
H-3[c]	1.56E+01	97.6	5.58E+00	89.3
I-129	1.14E–02	0.07	7.10E–02	1.1
Particulates				
Sr-89,90	2.48E–03	0.02	3.92E–03	0.06
U-235,238	9.55E–02	0.6	1.13E–01	1.8
Pu-238	1.76E–01	1.1	3.02E–01	4.8
Pu-239	8.95E–02	0.6	1.59E–01	2.5
Am-241,243	1.02E–02	0.1	1.21E–02	0.2
Cm-242,244	1.59E–03	0.01		0.0
Total	**1.60E+01**		**6.25E+00**	

a Committed effective dose equivalent
b Meat, milk, and vegetables
c Dose from tritium in foods calculated with absolute humidity of 11 g water/cubic meter of air

Table 50
Parameters Used for Adult Consumption Rates and for Liquid Dose Calculations[a]

Page 1 of 1

Pathway	Average Individual	Maximum Individual	Population
Water consumption (L/yr)	370	730	370
Fish consumption (kg/yr)	9	19	9
Marine invertebrates (kg/yr)	2	8	2
Boating[b]	Not applicable	21	1,100,000
Swimming[b]	Not applicable	8.9	160,000
Shoreline recreation[b]	Not applicable	23	960,000
Water treatment plants[c]			
Water consumption (L/yr)	370	730	370

a Values developed by Savannah River Technology Center for Savannah River Site
b Maximum individual values are in units of hours/year; population values are in units of person-hours.
c Dose is calculated for the average individual, maximum individual, and population through the drinking water pathway from the downriver Beaufort-Jasper Water Treatment Plant near Beaufort, S.C., and the City of Savannah Industrial and Domestic Water Supply Plant (formerly Cherokee Hill Water Treatment Plant) at Port Wentworth, Ga.

Table 51
Site-Specific Parameters Used in Liquid Dose Calculations

Page 1 of 1

River flow rate at SRS for 1994 (cu ft/sec)[a]	9,611
River dilution in estuary	3
Transit time from process areas to river (hr)	24
Transit time from SRS to water treatment plants (hr)	72
Water treatment time (hr)	24
Edible aquatic food harvest (kg/yr)	
Fish – sport	35,000[b]
Fish – commercial	2,700[b]
Invertebrates – saltwater	390,000[b]
Irrigation[b]	None[b]
Shore width factor	0.2
Fish bioaccumulation factor for cesium	3,000

a The effective river flow rate was based on tritium measurements. The measured river flow rate was 12,271 cfs.
b Values were developed by Savannah River Technology Center for Savannah River Site.

Table 52
Maximum Individual Committed Dose at Site Perimeter from Atmospheric Releases Using Consumption of Cow Milk Pathway

Page 1 of 1

By Pathway

	Average Consumption		Maximum Consumption	
Pathway	Max.Individual Dose (mrem)[a]	Percent of Total Dose	Max.Individual Dose (mrem)[a]	Percent of Total Dose
Plume	1.09E–07	0.0002	1.09E–07	0.0001
Ground	1.61E–04	0.2	1.61E–04	0.2
Inhalation	4.21E–02	62.0	4.21E–02	47.7
Vegetation	1.78E–02	26.2	3.11E–02	35.2
Cow Milk	5.54E–03	8.2	1.06E–02	12.0
Meat	2.34E–03	3.4	4.41E–03	5.0
Total	**6.79E–02**		**8.83E–02**	

By Radionuclide

	Average Consumption		Maximum Consumption	
Radionuclide	Max.Individual Dose (mrem)[a]	Percent of Total Dose	Max.Individual Dose (mrem)[a]	Percent of Total Dose
Gases and Vapors				
H-3	5.97E–02	87.9	7.77E–02	88.0
C-14				
Ar-41				
Kr-85				
I-129	1.19E–03	1.8	2.09E–03	2.4
I-131				
I-133				
Particulates				
Sr-89,90	8.26E–04	0.1	1.35E–04	0.2
Ru-106				
Cs-134,137				
U-235,238	1.16E–03	1.7	1.24E–03	1.4
Pu-238	3.57E–03	5.3	4.40E–03	5.0
Pu-239	1.95E–03	2.9	2.40E–03	2.7
Am-241,243	1.51E–04	0.2	1.87E–04	0.2
Cm-242,244	7.90E–05	0.1	9.43E–05	0.1
Total	**6.79E–02**		**8.83E–02**	

a Committed effective dose equivalent

Table 53
Average Individual Committed Dose at Site Perimeter from Atmospheric Releases Using Consumption of Cow Milk Pathway

Page 1 of 1

By Pathway

Pathway	Individual Dose (mrem)[a]	Percent of Total Dose[a]
Plume	2.02E–08	<0.1
Ground	8.97E–05	0.2
Inhalation	2.57E–02	61.7
Vegetation	1.10E–02	26.4
Cow Milk	3.40E–03	8.2
Meat	1.44E–03	3.5
Total	**4.16E–02**	

By Radionuclide

Radionuclide	Individual Dose (mrem)[a]	Percent of Total Dose[b]
Gases and Vapors		
H-3	3.66E–02	88.0
I-129	7.66E–04	1.8
Particulates		
Sr-89,90	4.83E–05	0.1
U-235,238	6.79E–04	1.6
Pu-238	2.20E–03	5.3
Pu-239	1.17E–03	2.8
Am-241,243	8.97E–04	0.2
Cm-242,244	2.31E–05	0.1
Total	**4.16E–02**	

a Committed effective dose equivalent
b Isotopes contributing 0.1% or more of the total dose

Table 54
Maximum Individual Committed Dose at Site Perimeter from Atmospheric Releases Using Consumption of Goat Milk Pathway

Page 1 of 1

By Pathway

Pathway	Average Consumption		Maximum Consumption	
	Max.Individual Dose (mrem)[a]	Percent of Total Dose	Max.Individual Dose (mrem)[a]	Percent of Total Dose
Plume	1.09E–07	0.0001	1.09E–07	0.0001
Ground	1.61E–04	0.2	1.61E–04	0.2
Inhalation	4.21E–02	56.1	4.21E–02	41.2
Vegetation	1.78E–02	23.7	3.11E–02	30.5
Goat Milk	1.27E–02	16.9	2.43E–02	23.8
Meat	2.34E–03	3.1	4.41E–03	4.3
Total	**7.51E–02**		**1.02E–01**	

By Radionuclide

Radionuclide	Average Consumption		Maximum Consumption	
	Max.Individual Dose (mrem)[a]	Percent of Total Dose	Max.Individual Dose (mrem)[a]	Percent of Total Dose
Gases and Vapors				
H-3	6.68E–02	88.9	9.13E–02	89.6
I-129	1.22E–03	1.6	2.14E–03	2.1
Particulates				
Sr-89,90	8.41E–05	0.1	1.38E–04	0.1
U-235,238	1.16E–03	1.5	1.24E–03	1.2
Pu-238	3.57E–03	4.8	4.40E–03	4.3
Pu-239	1.95E–03	2.6	2.40E–03	2.4
Am-241,243	1.51E–04	0.2	1.87E–04	0.2
Cm-242,244	7.90E–05	0.1	9.43E–05	0.1
Total	**7.51E–02**		**1.02E–01**	

a Committed effective dose equivalent

Table 55
50-Mile Collective Dose from Atmospheric Releases

Page 1 of 1

By Pathway

Pathway	Population Dose Person-Rem[a]	Percent of Total Dose
Plume	5.01E–07	0.00001
Ground	2.30E–02	0.4
Inhalation	4.72E+00	75.5
Vegetation	9.18E+00	14.7
Cow Milk	4.69E–01	7.5
Meat	1.17E–01	1.9
Total	**6.25E+00**	

By Radionuclide

Radionuclide	Population Dose Person-Rem[a]	Percent of Total Dose
Gases and Vapors		
H-3	5.58E+00	89.3
C-14		
I-129	7.10E–02	1.1
I-131		
I-133		
Particulates		
Sr-89,90	3.92E–03	0.1
Ru-106		
Cs-134,137		
U-235,238	1.13E–01	1.8
Pu-238	3.02E–01	4.8
Pu-239	1.59E–01	2.5
Am-241,243	1.21E–02	0.2
Cm-242,244		
Total	**6.25E+00**	

a Committed effective dose equivalent

Table 56
Maximum Individual Committed Dose from Liquid Releases

Page 1 of 1

By Pathway

Pathway	Individual Dose, mrem[a]	Percent of Total Dose
Fish	7.26E-02	50.7
Water	7.05E-02	49.2
Shoreline	2.28E-04	0.2
Swimming	1.49E-07	0.0001
Boating	1.76E-07	0.0001
Total	**1.43E-01**	

By Radionuclide

Radionuclide	Individual Dose, mrem[a]	Percent of Total Dose
H-3	5.97E-02	41.7
Sr-89,90	7.60E-03	5.3
Tc-99	1.35E-06	0.001
I-129	2.45E-03	1.7
Cs-137	6.78E-02	47.3
Pm-147	2.05E-07	0.0001
U-235,238	2.27E-07	0.0002
Pu-239	5.75E-03	4.0
Total	**1.43E-01**	

a Committed effective dose equivalent

Table 57
Individual Committed Dose from Public Water Supplies at Beaufort-Jasper

Page 1 of 1

Average Consumption

Radionuclide	**Individual Dose, mrem**[a]	**Percent of Total Dose**
H-3	1.91E-02	82.8
Sr-89,90	1.40E-03	6.1
Tc-99	3.19E-07	0.001
I-129	5.75E-04	2.5
Cs-137	2.80E-04	1.2
Pm-147	4.07E-08	0.0002
U-235,238	6.95E-08	0.0003
Pu-239	1.73E-03	7.5
Total	**2.31E-02**	

Maximum Consumption

Radionuclide	**Individual Dose, mrem**[a]	**Percent of Total Dose**
H-3	3.78E-02	82.8
Sr-89,90	2.76E-03	6.1
Tc-99	6.29E-07	0.001
I-129	1.14E-03	2.5
Cs-137	5.52E-04	1.2
Pm-147	8.03E-08	0.0002
U-235,238	1.37E-07	0.0003
Pu-239	3.41E-03	7.5
Total	**4.56E-02**	

a Committed effective dose equivalent

Table 58
Individual Committed Dose from Public Water Supplies at Port Wentworth

Page 1 of 1

Average Consumption

Radionuclide	Individual Dose, mrem[a]	Percent of Total Dose
H-3	2.32E-02	82.8
Sr-89,90	1.69E-03	6.1
Tc-99	3.86E-07	0.001
I-129	6.97E-04	2.5
Cs-137	3.39E-04	1.2
Pm-147	4.93E-08	0.0002
U-235,238	8.43E-08	0.0003
Pu-239	2.09E-03	7.5
Total	**2.80E-02**	

Maximum Consumption

Radionuclide	Individual Dose, mrem[a]	Percent of Total Dose
H-3	4.57E-02	82.8
Sr-89,90	3.34E-03	6.1
Tc-99	7.62E-07	0.001
I-129	1.37E-03	2.5
Cs-137	6.68E-04	1.2
Pm-147	9.72E-08	0.0002
U-235,238	1.66E-07	0.0003
Pu-239	4.12E-03	7.5
Total	**5.52E-02**	

a Committed effective dose equivalent

Table 59
Collective Dose from Liquid Releases

Page 1 of 1

By Pathway

Pathway	Collective Dose, Person-Rem[a]	Percent of Total Dose
Sport Fish	1.31E-01	7.7
Commercial Fish	1.28E-03	0.1
Beaufort-Jasper	1.15E+00	67.2
Port Wentworth	4.19E-01	24.5
Salt Water Invertebrates	1.88E-04	0.01
Recreation-River	9.51E-03	0.6
Total	**1.71E+00**	

By Radionuclide

Radionuclide	Collective Dose, Person-Rem[a]	Percent of Total Dose
H-3	1.30E+00	76.1
Sr-89,90	1.01E-01	5.9
Tc-99	2.24E-05	0.001
I-129	4.05E-02	2.4
Cs-137	1.50E-01	8.8
Pm-147	2.93E-06	0.0002
U-235,238	4.91E-06	0.0003
Pu-239	1.18E-01	6.9
Total	**1.71E+00**	

a Committed effective dose equivalent

Table 60
Potential Doses from Irrigation Pathways

Page 1 of 1

Effective Dose Equivalent

Food Type[a]	Maximum Individual (mrem)	Population (Person-rem)
Vegetation	5.46E–02	3.41E+00
Leafy vegetable	8.50E–03	2.20E–01
Milk	2.14E–02	2.92E+00
Meat	6.96E–03	3.73E–01
Total	**9.15E–02**	**6.92E+00**

a Irrigated acreage for each food type assumed to be 1,000 acres

Table 61
Dose from Consumption of Fish from Creek Mouths and Highway 301

Page 1 of 2

Number of Composites[a]

Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239
BDC	Bass	1	1	1		
	Catfish	3	3	1	2	3
FMC	Panfish	3	3	1	2	2
	Catfish	3	3	3	3	3
L3R	Panfish	4	4	4	4	4
	Catfish	3	3	3	3	3
	Bass	1	1	1		
SC	Panfish	1	1			
	Catfish	3	3	3	3	2
	Bass	2	2	2		
U3R	Catfish	3	3	1	3	3
HWY 301	Panfish	4	4	2	2	3
	Catfish	2	2	2	2	1
	Bass	1	1	1	1	

Average Concentration in Composites (pCi/g)

Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239
BDC	Bass	9.13E-02	7.21E-03	9.37E-01	NA[b]	NA
	Catfish	2.49E-01	2.05E-02	5.79E-02	–5.80E-06	–1.31E-06
FMC	Panfish	8.01E-01	4.17E-02	2.09E-01	6.02E-06	2.26E-05
	Catfish	1.31E+00	3.12E-02	2.36E-01	3.70E-06	2.95E-06
L3R	Panfish	5.50E-02	7.86E-02	4.94E-01	2.17E-05	1.67E-05
	Catfish	8.67E-02	1.12E-02	7.23E-01	–9.60E-07	5.34E-06
	Bass	2.12E-01	1.31E-03	4.45E-01	0.00E+00	–6.10E-06
SC	Panfish	2.66E-01	1.66E-02	NA	NA	NA
	Catfish	2.23E-01	1.72E-02	2.37E-01	9.00E-07	4.51E-06
	Bass	1.12E+00	4.84E-03	1.34E+00	NA	NA
U3R	Catfish	1.51E-01	1.12E-02	6.97E-02	–1.75E-05	–2.26E-06
HWY 301	Panfish	7.07E-02	1.16E-02	7.76E-02	1.97E-06	–6.64E-06
	Catfish	1.01E-01	6.57E-03	6.29E-02	4.90E-06	2.39E-06
	Bass	1.48E-01	4.13E-03	7.01E-02	0.00E+00	NA

a Most composites were five fish, but one was four fish, one was three fish, and two were two fish.
b Not available

Table 61
Dose from Consumption of Fish from Creek Mouths and Highway 301

Page 2 of 2

Dose from Consumption of 19 kg/year (42 lbs), mrem[a,b]

Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239	Total
BDC	Bass	1.09E-04	1.78E-02	8.90E-01	NA[c]	NA	9.08E-01
	Catfish	3.52E-04	5.06E-02	5.50E-02			1.06E-01
FMC	Panfish	9.59E-04	1.03E-01	1.99E-01	4.35E-04	1.85E-03	3.05E-01
	Catfish	1.57E-03	7.71E-02	2.24E-01	2.67E-04	2.41E-04	3.03E-01
L3R	Panfish	6.58E-05	1.94E-01	4.69E-01	1.57E-03	1.36E-03	6.66E-01
	Catfish	1.04E-04	2.77E-02	6.87E-01		4.36E-04	7.15E-01
	Bass	2.54E-04	3.24E-03	4.23E-01	0.00E+00		4.26E-01
SC	Panfish	3.18E-04	4.10E-02	NA	NA	NA	4.13E-02
	Catfish	2.67E-04	4.25E-02	2.25E-01	6.50E-05	3.68E-04	2.68E-01
	Bass	1.34E-03	1.20E-02	1.27E+00	NA	NA	1.29E+00
U3R	Catfish	1.81E-04	2.77E-02	6.62E-02			9.41E-02
HWY 301	Panfish	8.46E-05	2.87E-02	7.37E-02	1.42E-04		1.03E-01
	Catfish	1.21E-04	1.62E-02	5.98E-02	3.54E-04	1.95E-04	7.67E-02
	Bass	1.77E-04	1.02E-02	6.66E-02	0.00E+00	NA	7.70E-02

a Dose is based on maximum consumption of 19 kg/year. To obtain dose from average consumption of fish (9 kg/year), multiply doses in this table by 0.474.
b Dose based on negative concentration of individual radionuclides in fish was not calculated (shaded) and was not used in the total dose column.
c Not available

Table 62
Calculated Doses to Aquatic Biota from SRS Releases

Page 1 of 1

Stream	Location	Flow, cfs	Dose to Biota, rad/d[a,b] Fish	Invertebrate	Algae
Upper Three Runs	Tims Branch 5 (Road C)	7	7.29E-04	8.18E-04	1.32E-04
Beaver Dam Creek	Below 400-D	79	1.26E-06	2.11E-06	6/24E-06
Four Mile Creek	Site No. 3	9	7.88E-04	9.80E-04	9.64E-04
Pen Branch	K–011	34	2.23E-05	3.59E-05	1.14E-04
Steel Creek	Steel Creek 2A above Road B	10	5.08E-04	6.05E-04	3.65E-04
Lower Three Runs	L3R1A above Road B	33	1.41E-06	3.38E-06	1.44E-05

Stream	Location	Flow, cfs	Dose to Biota, rad/d[a,b] Raccoon	Duck
Upper Three Runs	Tims Branch 5 (Road C)	7	2.49E-04	1.74E-03
Beaver Dam Creek	Below 400-D	79	2.89E-06	7.91E-05
Four Mile Creek	Site No. 3	9	5.81E-04	1.20E-02
Pen Branch	K–011	34	5.29E-05	1.53E-03
Steel Creek	Steel Creek 2A above Road B	10	3.16E-04	5.62E-03
Lower Three Runs	L3R1A above Road B	33	7.29E-06	2.17E-04

a Calculated with CRITR methodology incorporated in the LADTAP computer program
b The DOE limit is 1 rad/d.

Table 63
National Pollutant Discharge Elimination System Monitoring Data

Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Note: Permit levels can be found in WSRC NPDES Environmental Monitoring Program *(ESH–EMS–910110) or in the permit itself. The permit is available from the South Carolina Department of Health and Environmental Control.*						
Outfall A–001						
Effluent consists of the following types of wastewater: cooling water, steam condensate, and laboratory drain water.						
BOD	mg/L	14	2.40E+00	<1.00E+00	5	1.68E+00
FLO	MGD	13	2.88E+00	3.60E–02	13	5.13E–01
O&G	mg/L	13	1.80E+00	<1.00E+00	4	1.55E+00
PH	pH	13	8.10	6.10		
TMP	°C	13	28.00	12.00	13	21.15
TSS	mg/L	22	1.42E+02	<1.00E+00	6	2.60E+01
Outfall A–003						
Effluent consists of the following types of wastewater: cooling water and steam condensate.						
CR	mg/L	25	8.00E–03	<5.00E–03	5	7.00E–03
FLO	MGD	299	1.16E+00	4.52E–02	299	1.38E–01
O&G	mg/L	13	1.40E+00	<1.00E+00	2	1.20E+00
PH	pH	13	8.00	6.10		
TMP	°C	13	28.00	12.00	13	19.81
TSS	mg/L	13	8.00E+00	<1.00E+00	1	8.00E+00
Outfall A–005						
Effluent consists of the following types of wastewater: wastewater from animal holding area, steam condensate, steam cleaning wastewater, and cooling water.						
BOD	mg/L	14	6.40E+00	<1.00E+00	7	2.51E+00
FEC	#/100mL	14	20.	<2.	2	13.
FLO	MGD	13	4.32E+00	4.03E–01	13	7.46E–01
O&G	mg/L	13	1.60E+00	<1.00E+00	5	1.38E+00
PERCL	ug/L	14	<2.00E+00	<2.00E+00		
PH	pH	13	7.60	5.90		
TMP	°C	13	25.00	13.00	13	19.50

Table 63
National Pollutant Discharge Elimination System Monitoring Data

Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
TRICL	ug/L	14	4.80E+01	<2.00E+00	2	2.56E+01
TSS	mg/L	13	8.00E+00	<1.00E+00	2	5.00E+00
Outfall A–011						
Effluent consists of the following types of wastewater: cooling water.						
BOD	mg/L	13	2.00E+00	<1.00E+00	3	1.53E+00
FLO	MGD	125	4.32E+00	0.00E+00	123	1.23E–01
O&G	mg/L	14	2.40E+00	<1.00E+00	3	1.87E+00
PH	pH	14	8.20	6.10		
TMP	°C	14	32.00	12.00	14	21.29
TSS	mg/L	21	6.90E+01	<1.00E+00	9	1.36E+01
Outfall A–014						
Effluent consists of the following types of wastewater: air stripper wastewater and noncontact cooling water.						
BOD	mg/L	12	3.60E+00	<1.00E+00	11	2.08E+00
FLO	MGD	36	2.84E+00	3.60E–01	36	1.69E+00
O&G	mg/L	13	5.40E+00	<1.00E+00	5	2.38E+00
PERCL	ug/L	13	<2.00E+00	<2.00E+00		
PH	pH	39	7.47	6.00		
TCE	ug/L	12	<2.00E+00	<2.00E+00		
TMP	°C	38	24.00	10.00	38	20.86
TRICL	ug/L	13	3.60E+00	<2.00E+00	1	3.60E+00
TSS	mg/L	27	1.10E+01	<1.00E+00	17	2.41E+00
Outfall A–015						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	13	5.40E+00	<1.00E+00	11	3.25E+00
FEC	#/100mL	14	2.	<2.	1	2.
FLO	MGD	365	2.40E–01	0.00E+00	365	9.25E–02
PH	pH	12	8.01	7.30		
TSS	mg/L	13	9.00E+00	<1.00E+00	10	3.00E+00

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall C–001						
Effluent consists of the following types of wastewater: cooling water.						
FLO	MGD	365	2.59E–01	6.46E–03	365	3.02E–02
O&G	mg/L	16	2.00E+00	<1.00E+00	2	1.90E+00
PH	pH	16	7.00	6.00		
TMP	°C	16	25.50	6.00	16	17.28
TSS	mg/L	16	1.30E+01	<1.00E+00	7	4.14E+00
Outfall C–003						
Effluent consists of the following types of wastewater: cooling water.						
FLO	MGD	365	1.68E+00	1.10E–01	365	3.12E–01
O&G	mg/L	16	1.30E+00	<1.00E+00	1	1.30E+00
PH	pH	16	7.10	6.40		
TMP	°C	16	24.00	16.00	16	20.75
TSS	mg/L	16	1.00E+01	<1.00E+00	4	5.50E+00
Outfall C–004						
Effluent consists of the following types of wastewater: neutralization water, service wastewater, and C-Reactor cooling water.						
FLO	MGD	365	9.69E+00	4.72E–01	365	1.75E+00
O&G	mg/L	14	3.10E+00	<1.00E+00	4	1.65E+00
PH	pH	14	7.00	6.00		
TMP	°C	313	26.20	5.10	313	18.06
TSS	mg/L	14	9.20E+00	<1.00E+00	12	2.85E+00
Outfall C–004A						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	12	3.30E+00	<1.00E+00	9	2.18E+00
FEC	#/100mL	13	<2.	<2.		
FLO	MGD	365	3.00E–02	8.00E–04	365	1.25E–02
PH	pH	12	8.01	7.01		
TSS	mg/L	12	4.00E+00	<1.00E+00	10	2.30E+00

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall D–001						
Effluent consists of the following types of wastewater: cooling water, neutralization water, and heavy water.						
FLO	MGD	365	8.21E+01	3.36E+01	365	5.09E+01
O&G	mg/L	16	6.30E+00	<1.00E+00	6	2.48E+00
PH	pH	16	7.00	6.10		
TMP	°C	16	28.00	11.00	16	22.50
TSS	mg/L	16	1.40E+01	1.00E+00	16	9.76E+00
Outfall D–001A						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	13	3.10E+00	<1.00E+00	8	2.39E+00
FEC	#/100mL	14	<2.	<2.		
FLO	MGD	365	2.66E–02	3.00E–03	365	1.15E–02
PH	pH	12	8.01	7.01		
TSS	mg/L	13	7.00E+00	<1.00E+00	8	3.00E+00
Outfall D–001B						
Effluent consists of the following types of wastewater: coal pile runoff.						
FLO	MGD	365	0	0		
Outfall D–001C						
Effluent consists of the following types of wastewater: ash basin discharge.						
FLO	MGD	16	5.76E+00	2.97E+00	16	4.04E+00
O&G	mg/L	16	3.30E+00	<1.00E+00	3	2.03E+00
PH	pH	4	7.00	6.10		
TSS	mg/L	16	1.90E+01	2.00E+00	16	6.73E+00
Outfall D–003						
Effluent consists of the following types of wastewater: powerhouse washdown water and water treatment plant wastewater.						
FLO	MGD	364	1.29E+00	1.62E–01	364	2.98E–01
O&G	mg/L	16	3.90E+00	<1.00E+00	4	2.35E+00

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
PH	pH	16	7.20	6.40		
TSS	mg/L	16	1.90E+01	1.00E+00	16	4.18E+00
Outfall D–005						
Effluent consists of the following types of wastewater: water filter backwash overflow.						
FLO	MGD	13	0	0		
Outfall D–006						
Effluent consists of the following types of wastewater: cooling water, powerhouse washdown water, and heavy water process water.						
FEC	#/100mL	16	310.	8.	16	112.
FLO	MGD	366	7.11E+00	2.59E–02	366	1.74E+00
O&G	mg/L	16	3.20E+00	<1.00E+00	2	2.75E+00
PH	pH	15	7.00	6.00		
TMP	°C	359	27.60	3.50	359	20.34
TSS	mg/L	20	2.80E+01	2.00E+00	20	7.43E+00
Outfall DW–001						
Effluent consists of the following types of wastewater: washdown water from concrete transit mixer trucks.						
FLO	MGD	365	2.08E-01	0.00E+00	365	1.90E–03
PH	pH	4	8.20	6.60		
TSS	mg/L	3	8.00E+00	1.00E+00	3	5.33E+00
Outfall DW–002						
Effluent consists of the following types of wastewater: steam cleaning wastewater, stormwater runoff, and equipment wash water.						
FLO	MGD	27	5.04E–02	0.00E+00	27	1.82E–02
O&G	mg/L	28	1.42E+01	<1.00E+00	8	4.34E+00
PH	pH	16	7.70	6.30		
Outfall DW–003						
Effluent consists of the following types of wastewater: sanitary wastewater from DWPF (S-Area).						
BOD	mg/L	14	4.38E+01	<1.00E+00	13	6.34E+00
FEC	#/100mL	14	<2.	<2.		
FLO	MGD	365	4.22E–02	3.06E–03	365	1.47E–02

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
PH	pH	12	7.90	6.80		
TSS	mg/L	14	2.50E+01	<1.00E+00	12	6.67E+00
Outfall DW–004						
Effluent consists of the following types of wastewater: neutralization, cooling water, and steam condensate.						
BOD	mg/L	24	3.30E+00	<1.00E+00	22	1.68E+00
CHL	mg/L	25	1.60E–01	<1.00E–00	2	1.35E–01
FLO	MGD	56	1.80E–01	0.00E+00	56	4.22E–02
O&G	mg/L	24	6.30E+00	<1.00E+00	7	2.97E+00
PH	pH	24	8.00	6.50		
TMP	°C	24	27.00	14.00	24	21.52
TSS	mg/L	24	7.00E+00	<1.00E+00	19	3.19E+00
Outfall F–001						
Effluent consists of the following types of wastewater: nonprocess cooling water.						
FLO	MGD	13	2.16E+00	2.88E+00	13	2.99E–01
O&G	mg/L	13	8.00E+00	<1.00E+00	4	2.97E+00
PH	pH	13	7.70	6.60		
TMP	°C	13	27.00	15.00	13	22.94
TSS	mg/L	13	8.00E+00	<1.00E+00	6	4.17E+00
Outfall F–002						
Effluent consists of the following types of wastewater: nonprocess cooling water.						
FLO	MGD	13	2.52E+00	2.88E–02	13	2.61E=01
O&G	mg/L	13	2.80E+00	<1.00E+00	4	1.73E+00
PH	pH	13	7.90	5.90		
TMP	°C	13	27.00	12.00	13	19.42
TSS	mg/L	16	4.10E+01	<1.00E+00	4	1.20E+01
Outfall F–003						
Effluent consists of the following types of wastewater: cooling water and steam condensate.						
BOD	mg/L	13	2.40E+00	<1.00E+00	6	1.60E+00
FLO	MGD	13	1.01E+00	4.32E–02	13	1.64E–01

Table 63
National Pollutant Discharge Elimination System Monitoring Data

Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
O&G	mg/L	13	5.50E+00	<1.00E+00	5	2.08E+00
PH	pH	13	8.90	6.60		
TMP	°C	13	28.00	15.00	13	21.81
TSS	mg/L	13	1.90E+01	<1.00E+00	11	8.64E+00
Outfall F–003A						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	14	3.60E+00	<1.00E+00	14	1.92E+00
FEC	#/100mL	14	<2.	<2.		
FLO	MGD	365	1.24E–02	1.00E–03	365	5.00E–03
PH	pH	12	8.50	6.98		
TSS	mg/L	14	1.40E+01	4.00E+00	14	6.93E+00
Outfall F–005						
Effluent consists of the following types of wastewater: cooling water and steam condensate.						
FLO	MGD	13	7.20E–01	2.88E–02	13	1.30E–01
O&G	mg/L	13	9.20E+00	<1.00E+00	6	3.87E+00
PH	pH	13	7.70	6.10		
TMP	°C	13	27.00	14.00	13	22.54
TSS	mg/L	17	7.90E+01	<1.00E+00	9	1.19E+01
Outfall F–007						
Effluent consists of the following types of wastewater: ash basin discharge.						
FLO	MGD	13	0	0		
Outfall F–008						
Effluent consists of the following types of wastewater: neutralization, cooling water, steam condensate, process wastewater, and Outfall F-012 and Outfall F-013.						
AL	mg/L	7	1.21E+00	1.78E–01	7	3.83E–01
AN	mg/L	7	2.50E–01	<5.00E–02	1	2.50E–01
CR	mg/L	7	<2.00E–02	<5.00E–03		
CU	mg/L	7	1.30E–02	5.60E–03	4	8.40E–03
FLO	MGD	365	7.11E+00	5.04E–01	365	1.60E+00
HG	mg/L	7	<1.00E–04	<1.00E–04		

Table 63
National Pollutant Discharge Elimination System Monitoring Data

Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
MN	mg/L	7	2.63E–02	1.04E–02	7	1.42E–02
NI	mg/L	7	7.70E–03	<5.00E–03	1	7.70E–03
NO_3	mg/L	7	1.77E+00	4.20E–01	7	1.11E+00
O&G	mg/L	13	6.00E+00	<1.00E+00	4	2.72E+00
PB	mg/L	7	4.50E–03	<3.00E–03	1	4.50E–03
PH	pH	13	7.40	5.30		
TMP	°C	13	28.00	15.50	13	23.35
TSS	mg/L	13	9.00E+00	<1.00E+00	11	3.27E+00
U_3O_8	mg/L	7	<2.00E=02	<2.00E–02		
ZN	mg/L	7	5.58E–02	2.50E–02	7	3.69E–02
Outfall F–008A						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	13	3.10E+00	<1.00E+00	11	2.02E+00
FEC	#/100mL	14	<2.	<2.		
FLO	MGD	365	1.37E–01	2.09E–02	365	7.05E–02
PH	pH	12	7.80	6.99		
TSS	mg/L	13	6.00E+00	<1.00E+00	11	2.73E+00
Outfall F–012						
Effluent consists of the following types of wastewater: stormwater runoff retention basin effluent.						
AL	mg/L	22	6.38E–01	1.08E–01	22	2.37E–01
AN	mg/L	22	2.50E–01	<5.00E–02	4	1.27E–01
CR	mg/L	22	<2.00E–02	<5.00E–03		
CU	mg/L	22	3.80E–02	5.40E–03	13	1.32E–02
FLO	MGD	24	1.62E+00	0.00E+00	24	6.55E–01
HG	mg/L	22	1.90E–03	<1.00E–04	1	1.90E–03
MN	mg/L	22	2.49E–02	5.50E–03	22	1.15E–02
NI	mg/L	22	<5.00E–02	<5.00E–03		
NO_3	mg/L	22	2.62E+00	<2.00E–02	20	4.64E–01
PB	mg/L	22	1.67E–02	<3.00E–03	5	6.90E–03
PH	pH	22	8.80	6.60		

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
TSS	mg/L	22	1.10E+01	2.00E+00	22	5.58E+00
U_3O_8	mg/L	22	<2.00E–02	<2.00E–02		
ZN	mg/L	22	2.28E–01	5.20E–02	22	1.04E–01
Outfall F–013						
Effluent consists of the following types of wastewater: cooling water retention basin effluent.						
AL	mg/L	21	1.80E+00	1.00E–01	21	3.76E–01
AN	mg/L	21	2.40E–01	<5.00E–02	2	1.50E–01
CR	mg/L	21	<2.00E–02	<5.00E–03		
CU	mg/L	21	2.68E–02	8.90E–03	10	1.50E–02
FLO	MGD	23	9.65E–01	0.00E+00	23	6.03E–01
HG	mg/L	21	<1.00E–04	<1.00E–04		
MN	mg/L	21	3.63E–02	5.50E–03	21	1.73E–02
NI	mg/L	21	<5.00E–02	<5.00E–03		
N03	mg/L	21	5.40E–01	<2.00E–02	18	1.34E–01
PB	mg/L	21	8.50E–03	3.00E–03	10	5.50E–03
PH	pH	21	8.90	6.40		
TSS	mg/L	21	2.80E+01	1.70E+00	21	7.03E+00
U_3O_8	mg/L	21	<2.30E–02	<2.00E–02		
ZN	mg/L	21	3.31E–01	2.40E–02	21	1.32E–01
Outfall FS–001						
Effluent consists of the following types of wastewater: cooling water and greenhouse wastewater.						
FEC	#/100mL	14	2200.	<2.	9	520.
FLO	MGD	13	1.44E–01	2.16E–02	13	6.92E–02
Outfall FS–002						
Effluent consists of the following types of wastewater: cooling water and greenhouse wastewater.						
FLO	MGD	13	0	0		

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall H–002						
Effluent consists of the following types of wastewater: nonprocess cooling water and stormwater.						
C	mg/L	10	1.69E+00	<1.00E+00	7	1.48E+00
COD	mg/L	12	<1.00E+01	<1.00E+01		
FLO	MGD	16	2.16E–01	4.32E–02	16	8.91E–02
O&G	mg/L	16	9.30E+00	<1.00E+00	5	2.80E+00
PH	pH	16	7.00	·5.90		
TMP	°C	16	28.00	14.00	16	20.56
TSS	mg/L	16	1.00E+01	<1.00E+00	7	3.57E+00
Outfall H–004						
Effluent consists of the following types of wastewater: nonprocess cooling water.						
FLO	MGD	16	2.88E–02	1.44E–03	16	7.20E–03
O&G	mg/L	16	1.50E+00	<1.00E+00	2	1.30E+00
PH	pH	16	7.20	5.80		
TMP	°C	16	27.00	13.50	16	18.44
TSS	mg/L	16	4.00E+00	<1.00E+00	5	2.20E+00
Outfall H–006						
Effluent consists of the following types of wastewater: stormwater.						
C	mg/L	1	<1.00E+00	<1.00E+00		
COD	mg/L	1	<1.00E+01	<1.00E+01		
FLO	MGD	2	1.44E–03	0.00E+00	2	7.00E–04
O&G	mg/L	1	<1.00E+00	<1.00E+00		
PH	pH	1	6.60	6.60		
Outfall H–007						
Effluent consists of the following types of wastewater: cooling tower blowdown, air compressor cooling water, and freeze protection purge from a water tank filling line.						
CHL	mg/L	18	2.00E–01	<1.00E–01	1	2.00E–01
FLO	MGD	21	5.04E–01	0.00E+00	21	5.20E–02
O&G	mg/L	15	5.50E+00	<1.00E+00	5	2.40E+00
PH	pH	17	6.80	5.00		

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
TMP	°C	17	26.00	12.00	17	18.79
TSS	mg/L	15	1.90E+01	<1.00E+00	13	5.46E+00
Outfall H–008						
Effluent consists of the following types of wastewater: cooling water, steam condensate, neutralization wastewater, and powerhouse wastewater.						
FLO	MGD	365	1.23E+01	5.82E–01	365	2.19E+00
O&G	mg/L	16	5.10E+00	<1.00E+00	4	2.25E+00
PH	pH	16	7.30	5.30		
TMP	°C	16	26.00	15.00	16	21.25
TSS	mg/L	16	6.00E+00	1.00E+00	16	2.31E+00
Outfall H–008A						
Effluent consists of the following types of wastewater: ash basin discharge.						
FLO	MGD	16	1.69E+00	2.88E–03	16	7.08E–01
O&G	mg/L	16	6.70E+00	<1.00E+00	6	2.88E+00
PH	pH	16	7.10	4.60		
TSS	mg/L	16	1.90E+01	<1.00E+00	13	4.77E+00
Outfall H–012						
Effluent consists of the following types of wastewater: cooling and steam condensate, Replacement Tritium Facility's decontamination showers, floor drains, Outfall H-017, and Outfall H-018.						
AL	mg/L	9	3.12E+00	7.50E–02	9	4.48E–01
AN	mg/L	9	1.40E–01	<5.00E–02	3	1.13E–01
CR	mg/L	9	<2.00E–02	<5.00–03		
CU	mg/L	9	2.10E–02	<5.00E–03	6	1.37E–02
FLO	MGD	190	1.68E+00	8.64E–02	190	5.29E–01
HG	mg/L	9	<1.00E–04	<1.00E–04		
MN	mg/L	9	1.17E–01	9.50E–03	9	2.63E–02
NI	mg/L	9	<5.00E–02	<5.00–03		
NO_3	mg/L	9	9.52E+00	1.21+00	9	4.61E+00
O&G	mg/L	16	8.90E+00	<1.00E+00	4	3.38E+00
PB	mg/L	9	5.20E–03	<3.00E–03	1	5.20E–03
PH	pH	16	8.10	6.20		

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
SO_4	mg/L	9	2.23E+01	6.29E+00	9	1.33+01
TMP	°C	16	27.00	15.50	16	21.34
TSS	mg/L	16	3.30E+01	<1.00E+00	10	7.60E+00
U_3O_8	mg/L	9	<2.00E–02	<2.00E–02		
ZN	mg/L	9	1.33E–01	2.40E–02	9	4.83E–02
Outfall H–013						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	13	7.40E+00	<1.00E+00	12	3.87E+00
FEC	#/100mL	14	<2.	<2.		
FLO	MGD	365	9.09E–02	9.00E–03	365	3.70E–02
PH	pH	12	7.90	7.01		
TSS	mg/L	13	8.00E+00	<1.00E+00	9	4.00E+00
Outfall H-015 (facility not in service but point still on permit)						
Effluent consists of the following types of wastewater: noncontact cooling water, steam condensate, and cooling tower blowdown.						
Outfall H–016						
Effluent consists of the following types of wastewater: process water, cooling water, and stormwater.						
AL	mg/L	17	5.40E–02	<5.00E–02	1	5.40E–02
AN	mg/L	52	3.90E–01	<5.00E–02	6	1.82E–01
BOD	mg/L	51	2.80E+00	<1.00E+00	17	1.56E+00
CHL	mg/L	14	<1.00E–01	<1.00E–02		
CR	mg/L	52	<2.00E–02	<5.00E–03		
CU	mg/L	52	<1.00E–02	<5.00E–03		
FLO	MGD	365	2.86E–01	0.00E+00	365	5.96E–02
HG	mg/L	52	2.00E–04	<1.00E–04	1	2.00E–04
MN	mg/L	52	<5.00E–03	<5.00E–03		
NI	mg/L	17	<5.00E–02	<5.00E–03		
NO_3	mg/L	52	2.41E+01	1.38E+00	52	7.10E+00
O&G	mg/L	52	1.78E+01	<1.00E+00	15	2.75E+00
PB	mg/L	51	5.50E–03	<3.00E–03	1	5.50E–03

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
PH	pH	24	8.20	6.40		
TMP	°C	52	29.00	7.00	52	22.05
TSS	mg/L	52	5.00E+00	<1.00E+00	1	5.00E+00
U_3O_8	mg/L	17	<2.00E–02	<2.00E–02		
ZN	mg/L	52	3.30E–02	<5.00E–03	24	1.16E–02
Outfall H–017						
Effluent consists of the following types of wastewater: stormwater runoff retention basin effluent.						
AL	mg/L	35	9.04E–01	8.40E–02	35	2.50E–01
AN	mg/L	35	1.30E–01	<5.00E–02	3	1.10E–01
CR	mg/L	35	1.49E–01	<5.00E–03	2	9.65E–02
CU	mg/L	35	1.40E–02	<5.00E–03	12	1.11E–02
FLO	MGD	35	1.15E+00	7.73E–01	35	9.91E–01
HG	mg/L	35	1.70E–03	<1.00E–04	2	1.20E–03
MN	mg/L	35	6.28E–02	<3.00E–03	33	2.02E–02
NI	mg/L	35	<5.00E–02	<5.00E–03		
NO_3	mg/L	35	2.83E+02	<2.00E–02	31	9.41E+00
PB	mg/L	35	7.40E–03	<3.00E–03	8	4.80E–03
PH	pH	35	8.70	6.20		
TSS	mg/L	35	2.30E+01	3.00E+00	35	8.16E+00
U_3O_8	mg/L	35	<2.00E–02	<2.00E–02		
ZN	mg/L	35	6.90E–01	5.80E–02	35	1.84E–01
Outfall H–018						
Effluent consists of the following types of wastewater: cooling water retention basin effluent.						
AL	mg/L	5	3.88E–01	6.40E–02	5	1.51E–01
AN	mg/L	5	1.10E–01	<5.00E–02	1	1.10E–01
CR	mg/L	5	<2.00E–02	<5.00E–03		
CU	mg/L	5	1.64E–02	<1.00E–02	3	1.38E–02
FLO	MGD	5	1.42E+00	3.01E–01	5	9.23E–01
HG	mg/L	5	1.00E–04	<1.00E–04	1	1.00E–04
MN	mg/L	5	1.16E–02	<5.00E–03	4	9.20E–03

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
NI	mg/L	5	<5.00E–02	<5.00E–03		
NO_3	mg/L	5	1.40E–01	4.00E–02	5	7.40E–02
PB	mg/L	5	3.30E–03	<3.00E–03	1	3.30E–03
PH	pH	5	7.60	6.10		
TSS	mg/L	5	1.20E+01	2.00E+00	5	5.00E+00
U_3O_8	mg/L	5	<2.00E–02	<2.00E–02		
ZN	mg/L	5	1.48E–01	5.10E–02	5	9.30E–02
Outfall K–001						
Effluent consists of the following types of wastewater: cooling water.						
FLO	MGD	15	1.44E–03	0.00E+00	15	3.00E–04
O&G	mg/L	5	2.45E+01	<1.00E+00	3	9.90E+00
PH	pH	3	6.80	6.60		
SO_4	mg/L	3	8.50E+00	5.70E+00	3	6.90E+00
TMP	°C	3	13.00	6.50	3	8.67
TSS	mg/L	3	5.00E+00	2.00E+00	3	4.00E+00
Outfall K–006						
Effluent consists of the following types of wastewater: nonprocess cooling water, ash sluice leakage, and powerhouse wastewater.						
FLO	MGD	15	2.88E–02	0.00E+00	15	1.15E–02
O&G	mg/L	12	8.40E+00	<1.00E+00	6	3.38E+00
PH	pH	12	8.10	6.00		
TMP	°C	12	29.00	13.00	12	19.50
TSS	mg/L	12	1.00E+00	<1.00E+00	5	<1.00E+00
Outfall K–008						
Effluent consists of the following types of wastewater: nonprocess cooling water.						
FLO	MGD	16	1.08E–01	0.00E+00	16	2.36E–02
O&G	mg/L	5	<1.00E+00	<1.00E+00		
PH	pH	5	7.20	6.50		
TMP	DegC	5	20.00	7.00	5	17.00
TSS	mg/L	5	5.00E+00	<1.00E+00	3	3.33E+00

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall K–010						
Effluent consists of the following types of wastewater: nonprocess cooling water.						
FLO	MGD	13	2.88E–02	0.00E+00	13	4.70E–03
O&G	mg/L	12	1.16E+01	<1.00E+00	4	4.38E+00
PH	pH	9	8.00	6.50		
TMP	°C	9	29.00	10.00	9	20.11
TSS	mg/L	20	3.00E+01	<1.00E+00	17	9.41E+00
Outfall K–012						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	13	5.90E+00	<1.00E+00	11	2.74E+00
FEC	#/100mL	14	<2.	<2.		
FLO	MGD	365	3.33E–02	1.08E–04	365	8.10E–03
PH	pH	12	8.30	7.01		
TSS	mg/L	13	3.00E+00	<1.00E+00	8	1.50E+00
Outfall L–007						
Effluent consists of the following types of wastewater: treated low-activity wastewater, treated sanitary and neutralization tank waste, reactor cooling water, water treatment plant backflush, and reservoir overflow.						
FLO	MGD	365	9.05E+01	1.87E+01	365	4.34E+01
O&G	mg/L	16	2.10E+00	<1.00E+00	6	1.50E+00
PH	pH	16	7.50	6.30		
TMP	°C	327	25.80	6.10	327	18.01
TSS	mg/L	16	3.40E+01	1.00E+00	16	7.31E+00
Outfall L–007A						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	13	3.80E+00	<1.00E+00	9	1.83E+00
FEC	#/100mL	14	<2.	<2.		
FLO	MGD	365	4.52E–02	0.00E+00	365	6.70E–03
PH	pH	12	8.60	7.01		
TSS	mg/L	13	1.40E+01	2.00E+00	13	5.69E+00

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Outfall L–008

Effluent consists of the following types of wastewater: nonprocess cooling water and water reservoir sump wastewater.

Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
FLO	MGD	17	1.44E–01	2.16E–02	17	7.89E–02
O&G	mg/L	16	1.37E+01	<1.00E+00	9	3.12E+00
PH	pH	16	8.00	6.50		
TMP	°C	15	28.00	10.50	15	20.37
TSS	mg/L	16	1.00E+01	<1.00E+00	11	2.82E+00

Outfall L–010

Effluent consists of the following types of wastewater: stormwater.

Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
COD	mg/L	1	<1.00E+01	<1.00E+01		
FLO	MGD	6	5.76E–03	0.00E+00	6	1.00E–03
O&G	mg/L	1	2.00E+00	2.00E+00	1	2.00E+00
PH	pH	1	6.40	6.40		

Outfall M–004

Effluent consists of the following types of wastewater: Liquid Effluent Treatment Facility wastewater.

Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
AG	mg/L	5	6.00E–04	<5.00E–04	1	6.00E–04
AL	mg/L	37	5.10E–01	<5.00E–02	14	1.46E–01
CD	mg/L	8	<1.00E–01	<5.00E–03		
CN	mg/L	5	<5.00E–03	<5.00E–03		
CR	mg/L	8	<2.00E–01	<5.00E–03		
CU	mg/L	37	6.90E–03	<5.00E–03	2	6.20E–03
FLO	MGD	54	3.67E–02	0.00E+00	54	1.14E–02
NI	mg/L	36	6.51E–02	<1.50E–02	8	2.66E–02
NO_3	mg/L	21	1.79E+03	1.98E+02	21	1.18E+03
O&G	mg/L	37	1.22E+01	<1.00E+00	18	2.68E+00
PB	mg/L	37	3.50E–02	<3.00E–03	1	3.50E–02
PH	pH	29	7.40	6.70		
PHOS	mg/L	22	2.17E+01	1.53E–01	22	8.42E+00
TSS	mg/L	37	1.40E–01	<1.00E+00	36	4.72E+00

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
U_3O_8	mg/L	36	7.40E–02	<2.00E–02	4	5.38E–02
ZN	mg/L	7	3.55E–01	4.20E–02	5	1.26E–01
Outfall M–005						
Effluent consists of the following types of wastewater: air stripper.						
FLO	MGD	55	7.20E–01	4.61E–01	55	6.54E–01
PERCL	ug/L	55	<2.00E+00	<2.00E+00		
PH	pH	31	7.70	5.20		
TRICL	ug/L	55	<2.00E+00	<2.00E+00		
Outfall P–005						
Effluent consists of the following types of wastewater: ash basin discharge.						
FLO	MGD	16	0	0		
Outfall P–007						
Effluent consists of the following types of wastewater: Powerhouse wastewater and nonprocess cooling water.						
AL	mg/L	6	2.73E–01	1.06E–01	6	1.53E–01
FE	mg/L	6	6.37E–01	3.14E–01	6	4.22E–01
FLO	MGD	315	4.52E–01	0.00E+00	315	7.70E–02
O&G	mg/L	6	1.70E+00	<1.00E+00	3	1.33E+00
PH	pH	6	7.30	6.10		
TMP	°C	6	29.00	11.00	6	18.38
TSS	mg/L	6	1.40E+01	<1.00E+00	4	5.75E+00
Outfall P–013						
Effluent consists of the following types of wastewater: neutralization, reactor process, and cooling water.						
FLO	MGD	365	4.27E+01	1.29E+00	365	5.82E+00
O&G	mg/L	16	1.32E+01	<1.00E+00	6	3.87E+00
PH	pH	13	7.40	6.40		
TMP	°C	359	25.80	6.20	359	17.66
TSS	mg/L	13	1.30E+01	2.00E+00	13	3.85E+00

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall P–014						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	16	7.16E+01	<1.00E+00	11	8.15E+00
FEC	#/100mL	14	<2.	<2.		
FLO	MGD	365	2.98E–02	4.08E–03	365	1.14E–02
PH	pH	12	8.80	6.70		
TSS	mg/L	16	1.30E+01	1.00E+00	16	4.69E+00
Outfall P–019						
Effluent consists of the following types of wastewater: P-Reactor cooling water.						
FLO	MGD	364	6.66E+01	0.00E+00	364	8.17E+00
O&G	mg/L	15	7.40E+00	<1.00E+00	6	3.30E+00
PH	pH	12	7.70	6.10		
TMP	°C	347	26.20	4.60	347	18.12
TSS	mg/L	16	1.21E+02	<1.00E+00	12	1.57E+01
Outfall PP–001						
Effluent consists of the following types of wastewater: stormwater.						
FLO	MGD	8	1.08E–01	0.00E+00	8	2.95E–02
O&G	mg/L	6	2.00E+00	<1.00E+00	3	1.63E+00
PH	pH	6	6.90	5.70		
Outfall S–002 (CS–002)						
Effluent consists of the following types of wastewater: automotive shop and cooling wastewater.						
AL	mg/L	1	3.97E+00	3.97E+00	1	3.97E+00
BOD	mg/L	1	2.70E+00	2.70E+00	1	2.70E+00
FE	mg/L	1	4.60E+00	4.60E+00	1	4.60E+00
FLO	MGD	48	4.32.E–02	0.00E+00	48	9.00E–04
O&G	mg/L	1	1.60E+00	1.60E+00	1	1.60E+00
PH	pH	1	6.70	6.70		
TMP	°C	1	23.00	23.00	1	23.00
TSS	mg/L	1	4.80E+01	4.80E+01	1	4.80E+01

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall S–008						
Effluent consists of the following types of wastewater: stormwater runoff and cooling wastewater.						
FLO	MGD	9	0	0		
Outfall S–011						
Effluent consists of the following types of wastewater: sanitary wastewater from Central Shops wastewater treatment plant.						
BOD	mg/L	13	4.00E+00	<1.00E+00	10	2.03E+00
FEC	#/100mL	13	2.	<2.	1	2.
FLO	MGD	365	5.94E–02	4.40E–03	365	2.36E–02
PH	pH	12	8.40	7.01		
TSS	mg/L	13	6.00E+00	1.00E+00	13	3.23E+00
Outfall S–014						
Effluent consists of the following types of wastewater: stormwater.						
FLO	MGD	2	0	0		
Outfall SC–004						
Effluent consists of the following types of wastewater: Steel Creek water monitoring below the dam at Road A.						
AG	mg/L	12	<5.00E–04	<5.00E–04		
AS	mg/L	12	<5.00E–03	<3.00E–03		
BA	mg/L	12	2.55E–02	<5.00E–03	10	1.32E–02
CD	mg/L	12	<1.00E–02	<5.00E–03		
CR	mg/L	12	2.00E–02	<5.00E–03	1	2.00E–02
DO	mg/L	342	1.18E+01	0.00E+00	342	8.01E+00
FLO	MGD	365	1.28E+02	3.43E+01	365	5.41E+01
HG	mg/L	12	<1.00E–04	<1.00E–04		
NO_3	mg/L	12	1.90E–01	4.00E–02	12	8.42E–02
PB	mg/L	12	5.47E–02	<3.00E–03	3	2.55E–02
PH	pH	12	7.20	5.10		
PHOS	mg/L	12	1.53E–01	1.80E–02	12	3.50E–02
SE	mg/L	12	<6.00E–03	<3.00E–03		
TMP	°C	344	34.00	6.60	344	18.89

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall T–001						
Effluent consists of the following types of wastewater: artificial stream water.						
FLO	MGD	13	1.01E+00	0.00E+00	13	8.00E–02
Outfall T–005						
Effluent consists of the following types of wastewater: cooling water, boiler blowdown, and neutralized acid solutions.						
BOD	mg/L	9	1.90E+00	<1.00E+00	4	1.48E+00
FLO	MGD	15	7.20E–02	0.00E+00	15	1.17E–02
O&G	mg/L	9	1.50E+00	<1.00E+00	4	1.27E+00
PH	pH	9	8.80	6.70		
TMP	°C	9	27.00	10.00	9	19.00
TSS	mg/L	13	2.10E+01	<1.00E+00	9	9.11E+00
Outfall T–007						
Effluent consists of the following types of wastewater: sanitary wastewater from B-Area.						
BOD	mg/L	24	3.20E+00	<1.00E+00	20	2.22E+00
CHL	mg/L	24	1.21E+02	4.00E–01	24	3.14E+01
FEC	#/100mL	25	5.	<2.	1	5.
FLO	MGD	365	3.07E–02	0.00E+00	365	9.80E–03
PH	pH	24	8.70	7.01		
TSS	mg/L	24	5.00E+00	<1.00E+00	20	2.94E+00
Outfall X–004						
Effluent consists of the following types of wastewater: cooling water.						
FLO	MGD	363	1.68E–01	1.29E–02	363	3.61E–02
O&G	mg/L	16	1.80E+00	<1.00+00	5	1.34E+00
PH	pH	17	7.20	6.30		
TMP	°C	17	32.00	18.00	17	23.68
TSS	mg/L	16	5.00E+00	<1.00E+00	6	2.50E+00

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall X–008						
Effluent consists of the following types of wastewater: cooling water, cooling tower blowdown, and domestic water overflow.						
AL	mg/L	16	1.33E–01	<5.00E–02	5	9.84E–02
FE	mg/L	16	2.13E–00	6.25E–01	16	1.27E+00
FLO	MGD	16	8.50E–01	2.30E–01	16	4.03E–01
O&G	mg/L	16	3.00E+00	<1.00E+00	4	1.80E+00
PH	pH	18	7.30	5.70		
TMP	°C	18	28.00	18.00	18	23.06
TSS	mg/L	16	1.00E+01	<1.00E+00	14	3.81E+00
Outfall X–011						
Effluent consists of the following types of wastewater: cooling water, cooling tower blowdown, and domestic water overflow.						
FLO	MGD	14	1.44E–01	<1.44E–03	11	1.52E–02
Outfall X–013						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	7	4.10E+00	<1.00E+00	6	2.22E+00
FEC	#/100mL	7	<2.	<2.	4	
FLO	MGD	159	7.05E–03	2.30E–03	159	4.40E–03
PH	pH	7	8.50	7.01		
TSS	mg/L	7	6.00E+00	2.00E+00	7	3.43E+00
Outfall X–014						
Effluent consists of the following types of wastewater: treated wastewater from TNX–ETP.						
BEN	ug/L	53	8.90E–01	<8.00E–01	1	8.90E–01
BOD	mg/L	53	1.44E+01	<1.00E+00	47	3.99E+00
C	mg/L	53	1.50E+01	<1.00E+00	52	6.38E+00
FLO	MGD	365	5.50E–02	0.00E+00	365	6.30E–03
HG	ug/L	52	1.06E+00	<1.00E–01	34	3.02E–01
O&G	mg/L	53	8.90E+00	<1.00+00	17	3.29E+00
PH	mg/L	146	8.36	7.02		

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
PHE	pH	53	2.30E–02	<2.00E–03	20	5.00E–03
TSS	mg/L	52	5.00E+01	<1.00E+00	51	9.19E+00
Outfall Y–001						
Effluent consists of the following types of wastewater: cooling water and locomotive wash water.						
BOD	mg/L	2	2.80E+00	<1.00E+00	1	2.80E+00
FLO	MGD	12	1.44E–03	0.00E+00	12	2.00E–04
O&G	mg/L	2	1.70E+00	<1.00E+00	1	1.70E+00
PH	pH	2	6.40	6.20		
TMP	DegC	2	27.00	18.00	2	22.50
TSS	mg/L	2	8.00E+00	<1.00E+00	1	8.00E+00

Table 63
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0044903						

Note: Permit levels can be found in WSRC NPDES Environmental Monitoring Program *(ESH-EMS-910110) or in the permit itself. The permit is available from the South Carolina Department of Health and Environmental Control.*

Outfall A-001A

Effluent consists of the following types of wastewater: air stripper effluent.

Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
FLO	MGD	365	7.92E-02	0.00E+00	365	7.00E-02
PERCL	ug/L	50	<2.00E+00	<2.00E+00		
PH	pH	37	7.40	5.20		
TRICL	ug/L	50	<2.00E+00	<2.00E+00		

Outfall A-028 (facility not yet in service)

Effluent consists of the following types of wastewater: Powerhouse wastewater, water from floor drains, cooling water, and well flush water.

Outfall A-029 (facility not yet in service)

Effluent consists of the following types of wastewater: well flush water and tank overflow.

Outfall G-010 (facility not yet in service; this is the new central sanitary treatment plant)

Effluent consists of the following types of wastewater: treated sanitary wastewater.

Outfall K-018 (formerly Outfall K-011)

Effluent consists of the following types of wastewater: neutralization, K-Reactor cooling tower blowdown, and reservoir wastewater.

Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
AL	mg/L	26	5.10E-01	1.04E-01	26	2.00E-01
BOD	mg/L	24	4.40E+00	<1.00E+00	19	1.97E+00
CHL	mg/L	105	<1.00E-01	<1.00E-01		
FEC	#/100mL	23	98.	<2.	21	22.
FLO	MGD	365	4.91E+01	1.23E+01	365	2.58E+01
O&G	mg/L	26	9.70E+00	<1.00E+00	8	4.26E+00
PH	pH	365	7.60	5.80		
TMP	°C	365	25.90	6.10	365	18.42
TSS	mg/L	23	1.60E+01	<1.00E+00	22	3.82E+00

Table 63
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0044903						
Outfall PP–004 (facility not yet in service)						
Effluent consists of the following filter backwash wastewater.						
Outfall X–008A						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	12	3.80E+00	<1.00E+00	9	2.27E+00
FEC	#/100mL	15	<2.	<2.		
FLO	MGD	206	1.51E–02	2.10E–03	206	5.80E–03
PH	pH	12	8.50	7.10		
TSS	mg/L	12	8.40E+00	<1.00E+00	11	4.40E+00

Table 64
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Permit SCR000000

Measurement	Units	Type Sample/Concentration		
Outfall B–008				
		Background Grab	Composite	Composite
		11/10/94	7/28/94	12/22/94
BOD	mg/L	No flow	2.40	2.60
TSS	mg/L	No flow	5.00	1.60
OIL & GREASE	mg/L	No flow		
COD	mg/L	No flow	44.700	<10.0
TKN	mg/L	No flow	0.440	0.430
NO_2, NO_3	mg/L	No flow	0.130	0.290
PO_4–P	mg/L	No flow	0.109	0.063
TOC	mg/L	No flow	6.600	4.520
pH	pH	No flow		
AIR TEMP	°C	No flow		
WATER TEMP	°C	No flow		
RAIN GAUGE	in.		0.700	
TOTAL RAIN	in.		0.700	
RAIN DATE			7/27/94	12/21/94
LAST 0.1 RAIN		10/31/94	7/23/94	12/4/94

Table 64
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Permit SCR000000

Measurement	Units	Type Sample/Concentration						
Outfall CS–006								
		Background Grab	Background Grab	Grab	Composite	Composite	Composite	Composite
		10:00	11/10/94	6/27/94	1/28/94	3/2/94	3/11/94	3/25/94
BOD	mg/L	No flow	3.50	41.4	2.6	2.0	3.2	1.0
TSS	mg/L	No flow	12.00	210	66.00	8.0	31.0	14.0
OIL & GREASE	mg/L	No flow	<1.0	<1.0				
PHENOL	mg/L	No flow	0.0021	<0.002				
COD	mg/L	No flow	<10.0	<10	<10.0	<10.0	<10.0	<10
TKN	mg/L	No flow	<0.2	0.540	0.370	0.310	0.340	<0.02
NO_2, NO_3	mg/L	No flow	0.080	0.440	0.310	0.250	0.700	0.030
PO_4–P	mg/L	No flow	0.051	0.253	0.117	0.108	0.093	0.025
TOC	mg/L	No flow	4.720	5.000	7.800	4.700	4.100	3.100
AL	mg/L		0.1740	6.9500	5.5700	1.2600	2.5400	2.5400
AG	mg/L		<0.0005		<0.0005	0.0024	<0.0005	<0.0005
CD	mg/L							<0.01
CR	mg/L		<0.005	<0.02	<0.02	<0.2	<0.2	<0.02
CU	mg/L		<0.005	0.0140	<0.01	<0.1	<0.1	<0.01
FE	mg/L		2.6800	10.4000	4.0700	2.4200	3.8300	
HG	mg/L							<0.0001

Table 64
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Permit SCR000000

Measurement	Units	Type Sample/Concentration						
MG	mg/L		0.8020	2.7000	1.2800	0.9800	1.2200	
NI	mg/L		<0.005	<0.05	<0.05	<0.05	<0.05	
PB	mg/L		<0.003	0.0094	0.0055	0.003	0.0061	
ZN	mg/L		0.1220	0.140	0.0650	0.0540	0.0950	
BENZENE	mg/L		<0.8	<0.8				
TETRACHLOROETHYLENE	µg/L		<2.0	<2.0				
TRICHLOROETHYLENE	µg/L		<2.0	<2.0				
1,1,1–/ TRICHLOROETHYLENE	µg/L		<2.0	<2.0				
pH	pH		5.700	6.400				
AIR TEMP	°C		24.000	29.400				
WATER TEMP	°C		20.000	26.000				
DO	mg/L			10.600				
RAIN GAUGE	in.			1.5	0.440	2.180	0.900	1.720
TOTAL RAIN	in.			1.5	0.440	2.180	0.900	1.720
RAIN DATE				6/27/94	1/27/94	3/1/94	3/10/94	3/24/94
LAST 0.1 RAIN		7/23/94		6/26/94	1/17/94	3/1/94	3/10/94	3/13/94

Table 64
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Permit SCR000000

Measurement	Units	Type Sample/Concentration			
Outfall–CS–012A					
		Background Grab	Grab	Composite	Composite
		3/9/94	6/27/94	3/11/94	3/25/94
BOD	mg/L	No flow	38.40	7.90	6.90
TSS	mg/L	No flow	106.00	77.00	32.00
OIL & GREASE	mg/L	No flow	4.80		
CN	mg/L	No flow			
PHENOL	mg/L	No flow	0.0040		
COD	mg/L	No flow	16.20	<10.0	46.40
TKN	mg/L	No flow	0.33	0.66	0.83
NO_2, NO_3	mg/L	No flow	0.69	0.20	1.10
PO_4–P	mg/L	No flow	0.18	0.095	0.16
TOC	mg/L	No flow		4.30	6.80
AL	mg/L	No flow	4.6200	3.9400	1.9300
AG	mg/L	No flow	<0.0005	<0.0005	<0.0005
B	mg/L	No flow	<0.3	<0.03	<0.03
CR	mg/L	No flow	<0.02	<0.02	<0.02
CU	mg/L	No flow	0.0330	0.0340	0.0410
FE	mg/L	No flow	7.3100	6.4300	3.4000

Table 64
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Permit SCR000000

Measurement	Units	Type Sample/Concentration			
MG	mg/L	No flow	1.7500	1.8900	1.1500
MN	mg/L	No flow	0.2000	0.1960	0.1300
NI	mg/L		<0.05	<0.05	<0.05
PB	mg/L	No flow	0.0264	0.0210	0.0243
ZN	mg/L	No flow	0.2180	0.2440	0.2210
pH	pH	No flow	6.60		
AIR TEMP	°C	No flow	29.40		
WATER TEMP	°C	No flow	24.00		
DO	mg/L	No flow	11.80		
		3/9/94	**6/27/94**	**3/11/94**	**3/25/94**
RAIN GAUGE	in.		1.50	0.84	2.20
TOTAL RAIN	in.		App 1.5	0.84	2.20
RAIN DATE			6/27/94	3/10/94	3/24/94
LAST 0.1 RAIN		7/23/94		3/2/94	3/13/94

Outfall E–001

		Background Grab	Grab
		11/10/94	**9/16/94**
BOD	mg/L	2.5	1.4
TSS	mg/L	7.0	1.0

Table 64
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Permit SCR000000

Measurement	Units	Type Sample/Concentration	
TDS	mg/L	55.0	77.0
SO_4	mg/L	7.2	7.0
BROMIDE	mg/L	<2.0	<0.1
OIL & GREASE	mg/L	<1.0	2.7
CN	mg/L	<0.10	<0.005
PHENOL	mg/L		<0.002
COD	mg/L	<10.0	<10.0
NH_3–N	mg/L	<0.05	<0.05
TKN	mg/L	<0.2	1.320
NO_2, NO_3	mg/L	0.040	0.520
PO_4–P	mg/L	0.061	0.086
TOC	mg/L	3.050	4.300
AL	mg/L	4.1400	0.2070
AG	mg/L	<0.0005	<0.0005
AS	mg/L	<0.005	<0.005
B	mg/L	0.0510	0.0416
BA	mg/L	0.0187	0.0145
CD	mg/L	<0.005	<0.005
CR	mg/L	<0.005	<0.020
CU	mg/L	0.0056	<0.010
FE	mg/L	2.8400	0.2660

Table 64
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Permit SCR000000

Measurement	Units	Type Sample/Concentration	
HG	mg/L	<0.0001	<0.0001
MG	mg/L	1.2800	1.8600
MN	mg/L	0.0170	0.0342
NI	mg/L	<0.005	<0.015
PB	mg/L	<0.003	<0.003
SB	mg/L	<0.005	<0.05
SE	mg/L	<0.025	<0.005
SN	mg/L	<0.005	<0.005
U	mg/L	<0.02	<0.02
ZN	mg/L	0.0164	<0.010
MG (DISSOLVED)	mg/L	1.300	2.020
BENZENE	mg/L		<0.8
TETRACHLOROETHYLENE	µg/L	<2.0	<2.0
TRICHLOROETHYLENE	µg/L	<2.0	<2.0
1,1,1–/ TRICHLOROETHYLENE	µg/L	<2.0	<2.0
pH	pH	6.900	6.500
AIR TEMP	°C	24.000	24.000
WATER TEMP	°C	19.000	25.000
DO	mg/L		
RAIN GAUGE	in.		0.130

Table 64
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Permit SCR000000

Measurement	Units	Type Sample/Concentration			
TOTAL RAIN	in.		0.130		
RAIN DATE			9/16/94		
LAST 0.1 RAIN		10/31/94			
Outfall GS–002					
		Background Grab	**Grab**	**Composite**	**Composite**
		12/27/94	**6/27/94**	**7/28/94**	**12/22/94**
BOD	mg/L	No flow	38.4	5.4	2.3
TSS	mg/L		248.0	33.00	4.8
SO_4	mg/L		7.63	49.0	<1.0
OIL & GREASE	mg/L		11.6		
COD	mg/L		38.600	162.000	<10.0
NH_3–N	mg/L		<0.05	0.130	0.111
TKN	mg/L		1.070	1.870	0.460
NO_2, NO_3	mg/L		0.190	0.070	0.080
PO_4–P	mg/L		0.344	0.222	0.081
TOC	mg/L		5.100	52.000	1.550
CR	mg/L		0.0200	<0.02	<0.005
CU	mg/L		0.1800	0.0100	0.0109
HG	mg/L		<0.0001	<0.0001	<0.0001

Table 64
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Permit SCR000000

Measurement	Units	Type Sample/Concentration			
NI	mg/L		<0.05	<0.05	<0.005
PB	mg/L		5.3700	0.0076	0.0987
SB	mg/L		0.0480	<0.01	<0.005
SN	mg/L		<0.005	<0.01	<0.005
pH	pH		6.300		
AIR TEMP	°C		29.400		
WATER TEMP	°C		24.000		
DO	mg/L		11.200		
RAIN GAUGE	in.		1.500	0.940	1.600
TOTAL RAIN	in.		App 1.5	0.940	
RAIN DATE			6/27/94	7/27/94	12/21/94
LAST 0.1 RAIN		7/23/94	6/26/94	7/23/94	12/11/94

Outfall H–007A

		Background Grab	Composite	Composite
		11/10/94	**3/2/94**	**3/25/94**
BOD	mg/L	No flow	6.8	>76.7
TSS	mg/L	No flow	78.0	116.0
SO_4	mg/L	No flow	7.0	52.6
OIL & GREASE	mg/L	No flow		

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National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Permit SCR000000

Measurement	Units	Type Sample/Concentration		
COD	mg/L	No flow	14.100	189.000
TKN	mg/L	No flow	0.640	3.430
NO_2, NO_3	mg/L	No flow	1.330	0.590
PO_4–P	mg/L	No flow	0.237	0.347
TOC	mg/L	No flow	5.600	
AL	mg/L	No flow	1.2400	0.8980
FE	mg/L	No flow	1.8700	1.1600
pH	pH	No flow		
AIR TEMP	°C	No flow		
WATER TEMP	°C	No flow		
RAIN GAUGE	in.		1.75	2.180
TOTAL RAIN	in.		1.75	2.180
RAIN DATE			3/1/94	3/24/94
LAST 0.1 RAIN		10/31/94	2/23/94	3/13/94

Outfall K–002

		Background Grab	Composite
		11/10/94	**7/28/94**
BOD	mg/L	No flow	6.8
TSS	mg/L	No flow	64.0

Table 64
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration	
COD	mg/L	No flow	24.500
TKN	mg/L	No flow	0.530
NO_2, NO_3	mg/L	No flow	0.060
PO_4–P	mg/L	No flow	0.146
TOC	mg/L	No flow	8.200
pH	pH	No flow	
AIR TEMP	°C	No flow	
WATER TEMP	°C	No flow	
RAIN GAUGE	in.		1.210
TOTAL RAIN	in.		1.210
RAIN DATE			7/27/94
LAST 0.1 RAIN		10/31/94	7/23/94

Outfall K–004

		Background Grab
		7/27/94
BOD	mg/L	<1.0
TSS	mg/L	<1.0
OIL & GREASE	mg/L	<1.0
COD	mg/L	<10.0

Table 64
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Permit SCR000000

Measurement	Units	Type Sample/Concentration			
TKN	mg/L	<0.2			
NO_2, NO_3	mg/L	0.030			
PO_4–P	mg/L	0.043			
TOC	mg/L	<1.0			
pH	pH	6.500			
AIR TEMP	°C	26.000			
WATER TEMP	°C	25.000			
DO	mg/L	8.600			
TRC		<1.0			
LAST 0.1 RAIN		7/23/94			
Outfall G–020					
		Background Grab	**Background Grab**	**Grab**	**Composite**
		7/27/94	**11/10/94**	**6/27/94**	**7/27/94**
BOD	mg/L	No flow	No flow	41.4	1.8
TSS	mg/L	No flow	No flow	244.0	202.0
OIL & GREASE	mg/L	No flow	No flow	9.2	9.2
PHENOL	mg/L	No flow	No flow		
COD	mg/L	No flow	No flow	40.900	40.900
TKN	mg/L	No flow	No flow	1.230	1.230

Table 64
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration			
NO_2, NO_3	mg/L	No flow	No flow	0.230	0.230
PO_4–P	mg/L	No flow	No flow	0.346	0.346
TOC	mg/L	No flow	No flow	4.100	4.100
pH	pH	No flow	No flow	6.300	6.300
AIR TEMP	°C	No flow	No flow	29.400	29.400
WATER TEMP	°C	No flow	No flow	26.000	26.000
DO	mg/L	No flow	No flow	9.500	9.500
RAIN GAUGE	in.			1.500	1.500
TOTAL RAIN	in.			1.500	1.500
RAIN DATE				6/27/94	7/27/94
LAST 0.1 RAIN		7/23/94	10/31/94	6/26/94	7/23/94

Outfall S–005

		Background Grab
		11/10/94
BOD	mg/L	16.9
TSS	mg/L	19.0
SO_4	mg/L	9.3
OIL & GREASE	mg/L	<1.0
PHENOL	mg/L	<0.002

Table 64
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Permit SCR000000

Measurement	Units	Type Sample/Concentration
COD	mg/L	37.400
NH_3–N	mg/L	<0.05
TKN	mg/L	1.080
NO_2, NO_3	mg/L	2.520
PO_4–P	mg/L	0.620
TOC	mg/L	4.680
B	mg/L	0.0490
CR	mg/L	<0.005
CU	mg/L	0.0088
HG	mg/L	<0.0001
NI	mg/L	0.0056
ZN	mg/L	0.1080
BENZENE	mg/L	<0.8
TETRACHLOROETHYLENE	µg/L	<2.0
TRICHLOROETHYLENE	µg/L	<2.0
1,1,1–/ TRICHLOROETHYLENE	µg/L	<2.0
FECAL COLI		
pH	pH	6.600
AIR TEMP	°C	22.000
WATER TEMP	°C	19.000

Table 64
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration			
DO	mg/L				
TRC		0.190			
LAST 0.1 RAIN		10/31/94			

Outfall X–001

		Background Grab	Composite	Composite	Composite
		11/10/94	3/25/94	1/13/94	3/11/91
BOD	mg/L	No flow	27.7	2.3	3.5
TSS	mg/L	No flow	48.0	51.0	63.0
COD	mg/L	No flow	73.600	<10	<10.0
TKN	mg/L	No flow	1.570	0.400	0.340
NO_2, NO_3	mg/L	No flow	0.550	0.410	0.270
PO_4–P	mg/L	No flow	0.228	0.162	0.105
TOC	mg/L	No flow		2.600	3.000
AL	mg/L		1.5500		
AG	mg/L		<0.0005		
CD	mg/L	No flow		<0.01	<0.01
CR	mg/L	No flow	<0.2	<0.02	<0.02
CU	mg/L	No flow	0.0110	<0.01	<0.01
FE	mg/L		2.1500		

Table 64
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Permit SCR000000

Measurement	Units	Type Sample/Concentration			
HG	mg/L	No flow		<0.0001	<0.0001
MG	mg/L		0.8990		
NI	mg/L		<0.05		
PB	mg/L		0.0032		
ZN	mg/L		0.1450		
pH	pH	No flow			
AIR TEMP	°C	No flow			
WATER TEMP	°C	No flow			
RAIN GAUGE	in.		2.500	0.680	0.9
TOTAL RAIN	in.		2.500	0.680	0.9
RAIN DATE			3/24/94	1/11/94	3/10/94
LAST 0.1 RAIN		10/31/94	3/13/94	1/3/94	3/2/94

Table 65
Nonradiological Environmental Surveillance Detection/Report Limits

Parameter	Units	Quantitation Limit		Report Value Round to Nearest:
Note: "NA" denotes "not applicable."				
Temperature	°C	NA		0.1
pH	pH	NA		0.1
Dissolved oxygen	mg/L	<1		0.1
Conductivity	µmhos/cm	<0.1		1
Alkalinity	mg/L	<1		1
Ammonia nitrogen	mg/L	<0.2	<0.05	0.01
Chemical oxygen demand	mg/L	<20		1
Volatile solids	mg/L	<1		1
Fixed residue	mg/L	<1		1
Suspended solids	mg/L	<1		1
Total dissolved solids	mg/L	<1		1
Total solids	mg/L	<1		1
Turbidity	NTU	<0.05		<1 = 0.01
				1–10 = 0.1
				10–40 = 1
				40–100 = 5
				100–400 = 10
				400–1000 = 50
Chloride	mg/L	<1.0		1
Nitrate-nitrogen	mg/L	<0.10		0.01
Phosphate P	mg/L	<0.5		0.1
Sulfate	mg/L	<1		1
		First and Second Quarters	**Third and Fourth Quarters**	
Aluminum	mg/L	0.05	0.05	0.01
Cadmium	mg/L	0.01	0.005	0.01
Calcium	mg/L	0.05	0.05	0.01
Chromium	mg/L	0.02	0.005	0.01
Copper	mg/L	0.01	0.005	0.01
Iron	mg/L	0.02	0.02	0.01
Lead	mg/L	0.003	0.003	0.001

Table 65
Nonradiological Environmental Surveillance Detection/Report Limits

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Parameter	Units	Quantitation Limit		Report Value Round to Nearest:
		First and Second Quarters	Third and Fourth Quarters	
Magnesium	mg/L	0.05	0.05	0.01
Manganese	mg/L	0.005	0.005	0.001
Mercury	mg/L	0.0001	0.0001	0.0001
Nickel	mg/L	0.05	0.005	0.01
Sodium	mg/L	0.05	0.05	0.01
Zinc	mg/L	0.01	0.005	0.01
Total organic carbon	mg/L	<1.0	<1.0	0.1
Total kjeldahl nitrogen	mg/L	<0.20	<0.20	0.01

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SRS Stream Water Quality

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Note: "ND" denotes "none detected."

Tims Branch–5 (EMS and SCDHEC Sampling Location)

Parameter[a]	Units	Jan	Feb	Mar	April	May	June
Water volume	L	6.45E+8	6.59E+8	8.34E+8	4.73E+8	4.39E+8	3.33E+8
Temperature[b]	°C	11.1	16.0	16.8	16.6	15.5	20.2
pH[b]	pH	7.5	6.1	7.2	6.5	6.9	6.4
Dissolved oxygen[b]	mg/L	10.1	10.1	13.4	9.8	8.6	8.0
Conductivity[b]	µmhos/cm	50	123	90	83	102	54
Alkalinity	mg/L	12	13	13	15	17	17
Ammonia nitrogen	mg/L	ND	ND	0.05	ND	ND	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	3	2	6	6	4	6
Fixed residue	mg/L	9	5	12	7	6	12
Suspended solids	mg/L	11	7	18	13	10	18
Total dissolved solids	mg/L	24	88	65	76	79	67
Total solids	mg/L	35	95	83	89	89	85
Turbidity	NTU	12	12	13	13	9.2	16
Chloride	mg/L	3	3	3	3	4	3
Nitrate-nitrogen	mg/L	0.39	6.09	2.71	2.41	3.58	0.59
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	2	18	11	10	11	3
Aluminum	mg/L			0.50			0.30
Cadmium	mg/L			ND			ND
Calcium	mg/L			1.33			1.16
Chromium	mg/L			ND			ND
Copper	mg/L			ND			ND
Iron	mg/L			1.57			1.48
Lead	mg/L			ND			ND
Magnesium	mg/L			0.49			0.45
Manganese	mg/L			0.069			0.052
Mercury	mg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			13.50			14.20
Zinc	mg/L			ND			ND
Total kjeldahl nitrogen	mg/L	0.46	0.38	0.60	0.38	0.54	0.39
Total organic carbon	mg/L	4.5	2.6	4.0	3.1	2.6	3.8

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

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Tims Branch–5 (EMS and SCDHEC Sampling Location)

Parameter[a]	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	4.01E+8	3.71E+8	2.45E+8	6.34E+8	3.99E+8	5.09E+8
Temperature[b]	°C	22.0	23.0	17.5	14.9	15.4	9.0
pH[b]	pH	6.5	5.8	6.9	6.1	7.0	7.3
Dissolved oxygen[b]	mg/L	8.3	8.8	10.0	10.4	10.4	10.6
Conductivity[b]	µmhos/cm	50	56	60	60	60	52
Alkalinity	mg/L	16	18	18	16	15	16
Ammonia nitrogen	mg/L	ND	ND	ND	ND	ND	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	4	5	1	5	5	2
Fixed residue	mg/L	5	7	5	5	3	4
Suspended solids	mg/L	8	11	6	10	7	6
Total dissolved solids	mg/L	55	50	51	48	47	39
Total solids	mg/L	63	61	57	58	54	45
Turbidity	NTU	10	15	8.9	10	8.4	10
Chloride	mg/L	4	3	4	4	4	3
Nitrate-nitrogen	mg/L	0.35	0.32	0.93	0.68	1.17	0.59
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	2	1	2	4	5	2
Aluminum	mg/L			0.23			0.27
Cadmium	mg/L			ND			ND
Calcium	mg/L			1.07			0.99
Chromium	mg/L			ND			ND
Copper	mg/L			ND			0.02
Iron	mg/L			1.58			1.67
Lead	mg/L			ND			ND
Magnesium	mg/L			0.44			0.45
Manganese	mg/L			0.038			0.047
Mercury	mg/L			ND			ND
Nickel	mg/L			0.007			0.010
Sodium	mg/L			7.85			8.03
Zinc	mg/L			0.01			0.01
Total kjeldahl nitrogen	mg/L	0.52	0.24	0.24	ND	ND	ND
Total organic carbon	mg/L	3.9	3.2	2.8	4.7	3.4	3.3

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

Steel Creek-4 at Road A (EMS and SCDHEC Sampling Location)

Parameter[a]	Units	Jan	Feb	Mar	April	May	June
Water volume	L	5.91E+9	4.9E+9	6.14E+9	3.75E+9	6.42E+9	5.12E+9
Temperature[b]	°C	10.0	12.5	13.5	17.7	20.9	24.4
pH[b]	pH	7.4	6.5	5.1	6.7	6.9	6.4
Dissolved oxygen[b]	mg/L	10.0	11.8	14.8	9.1	8.6	7.1
Conductivity[b]	µmhos/cm	69	73	67	71	71	76
Alkalinity	mg/L	15	15	13	14	14	15
Ammonia nitrogen	mg/L	ND	ND	0.07	ND	ND	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	ND	1	2	5	1	2
Fixed residue	mg/L	1	1	3	7	2	2
Suspended solids	mg/L	1	2	5	12	3	4
Total dissolved solids	mg/L	46	53	43	50	49	58
Total solids	mg/L	47	55	48	62	52	62
Turbidity	NTU	2.1	1.8	3.2	4.9	1.5	2.4
Chloride	mg/L	7	7	7	7	7	8
Nitrate-nitrogen	mg/L	0.15	0.16	0.19	0.12	0.17	0.15
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	6	7	6	7	7	8
Aluminum	mg/L			0.08			0.13
Cadmium	mg/L			ND			ND
Calcium	mg/L			2.69			2.40
Chromium	mg/L			ND			ND
Copper	mg/L			ND			ND
Iron	mg/L			0.23			0.31
Lead	mg/L			ND			ND
Magnesium	mg/L			1.06			1.12
Manganese	mg/L			0.036			0.060
Mercury	mg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			7.79			8.72
Zinc	mg/L			ND			ND
Total kjeldahl nitrogen	mg/L	0.25	0.22	0.26	ND	0.25	0.57
Total organic carbon	mg/L	3.0	2.7	3.6	3.4	3.3	3.3

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

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SRS Stream Water Quality

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Steel Creek–4 at Road A (EMS and SCDHEC Sampling Location)

Parameter[a]	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	5.39E+9	7.33E+9	4.85E+9	8.20E+9	7.88E+9	7.13E+9
Temperature[b]	°C	27.8	28.0	23.8	22.0	19.0	13.9
pH[b]	pH	7.1	6.8	6.8	6.4	7.2	7.0
Dissolved oxygen[b]	mg/L	6.0	7.0	6.8	7.6	8.9	9.0
Conductivity[b]	µmhos/cm	80	69	70	70	70	66
Alkalinity	mg/L	16	16	14	15	12	16
Ammonia nitrogen	mg/L	ND	ND	ND	ND	ND	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	3	2	1	3	2	2
Fixed residue	mg/L	2	3	2	1	ND	1
Suspended solids	mg/L	5	4	3	3	2	3
Total dissolved solids	mg/L	55	51	48	33	40	41
Total solids	mg/L	60	55	51	36	42	44
Turbidity	NTU	3.7	3.2	2.6	2.6	2.9	2.0
Chloride	mg/L	8	8	7	7	7	7
Nitrate-nitrogen	mg/L	0.20	0.18	0.21	0.17	0.17	0.19
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	7	7	6	7	6	6
Aluminum	mg/L			0.25			0.28
Cadmium	mg/L			ND			ND
Calcium	mg/L			1.88			2.00
Chromium	mg/L			ND			ND
Copper	mg/L			ND			0.01
Iron	mg/L			0.52			0.59
Lead	mg/L			ND			0.006
Magnesium	mg/L			1.10			1.18
Manganese	mg/L			0.095			0.101
Mercury	mg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			7.90			7.19
Zinc	mg/L			ND			ND
Total kjeldahl nitrogen	mg/L	0.34	ND	0.26	ND	ND	0.82
Total organic carbon	mg/L	3.1	2.8	3.0	3.5	2.6	2.9

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

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Upper Three Runs–4 at Road A (EMS and SCDHEC Sampling Location)

Parameter[a]	Units	Jan	Feb	Mar	April	May	June
Water volume	L	1.85E+10	1.83E+10	2.61E+10	1.68E+10	1.51E+10	1.29E+10
Temperature[b]	°C	10.0	15.5	17.5	17.2	16.5	21.2
pH[b]	pH	7.5	5.8	6.8	6.2	6.6	6.2
Dissolved oxygen[b]	mg/L	9.9	9.2	10.1	9.5	9.1	7.2
Conductivity[b]	µmhos/cm	24	28	27	24	29	27
Alkalinity	mg/L	4	6	4	4	6	4
Ammonia nitrogen	mg/L	ND	0.02	0.03	ND	ND	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	1	2	3	5	5	6
Fixed residue	mg/L	3	3	4	4	6	5
Suspended solids	mg/L	4	4	7	8	10	11
Total dissolved solids	mg/L	35	26	29	25	31	28
Total solids	mg/L	39	30	36	33	41	39
Turbidity	NTU	4.0	4.6	4.8	5.2	4.3	ND
Chloride	mg/L	2	2	2	2	2	2
Nitrate-nitrogen	mg/L	0.20	0.30	0.28	0.24	0.33	0.24
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	2	3	2	2	2	2
Aluminum	mg/L			0.15			0.21
Cadmium	mg/L			ND			ND
Calcium	mg/L			1.57			1.72
Chromium	mg/L			ND			ND
Copper	mg/L			ND			ND
Iron	mg/L			0.36			0.63
Lead	mg/L			ND			ND
Magnesium	mg/L			0.33			0.35
Manganese	mg/L			0.014			0.027
Mercury	mg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			1.63			1.17
Zinc	mg/L			ND			ND
Total kjeldahl nitrogen	mg/L	ND	0.28	0.27	0.22	0.28	0.47
Total organic carbon	mg/L	3.3	3.7	4.0	3.2	2.3	3.3

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

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SRS Stream Water Quality

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Upper Three Runs–4 at Road A (EMS and SCDHEC Sampling Location)

Parameter[a]	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	1.78E+10	2.09E+10	1.17E+10	2.00E+10	2.05E+10	2.04E+10
Temperature[b]	°C	23.2	24.2	18.5	16.4	15.5	10.8
pH[b]	pH	6.6	5.8	6.8	5.3	7.2	6.7
Dissolved oxygen[b]	mg/L	7.5	8.0	8.8	8.4	9.0	9.1
Conductivity[b]	µmhos/cm	40	25	30	40	30	25
Alkalinity	mg/L	4	5	5	3	5	6
Ammonia nitrogen	mg/L	ND	ND	ND	ND	ND	ND
Chemical oxygen demand	mg/L	24	ND	ND	26	ND	ND
Volatile solids	mg/L	11	3	2	3	3	3
Fixed residue	mg/L	29	4	4	ND	ND	2
Suspended solids	mg/L	40	6	6	3	3	4
Total dissolved solids	mg/L	33	34	28	43	24	32
Total solids	mg/L	73	40	34	46	27	36
Turbidity	NTU	45	4.9	4.0	3.3	3.5	4.0
Chloride	mg/L	2	2	3	3	3	2
Nitrate-nitrogen	mg/L	0.23	0.02	0.29	0.16	0.24	0.20
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	2	2	2	4	2	2
Aluminum	mg/L			0.30			0.20
Cadmium	mg/L			ND			ND
Calcium	mg/L			1.66			1.67
Chromium	mg/L			ND			ND
Copper	mg/L			ND			ND
Iron	mg/L			0.73			0.57
Lead	mg/L			0.004			ND
Magnesium	mg/L			0.35			0.39
Manganese	mg/L			0.035			0.025
Mercury	mg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			1.61			1.60
Zinc	mg/L			0.01			0.01
Total kjeldahl nitrogen	mg/L	0.36	0.22	ND	ND	ND	0.38
Total organic carbon	mg/L	3.8	3.2	2.1	10.0	3.5	5.6

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

Four Mile Creek at Road A7 (EMS and SCDHEC Sampling Location)

Parameter[a]	Units	Jan	Feb	Mar	April	May	June
Water volume	L	1.17E+9	1.28E+9	1.82E+9	1.08E+9	8.66E+8	8.61E+8
Temperature[b]	°C	10.0	16.0	17.1	17.6	16.0	22.8
pH[b]	pH	7.1	6.0	5.6	6.4	6.8	6.3
Dissolved oxygen[b]	mg/L	9.3	9.1	8.6	8.5	8.6	7.2
Conductivity[b]	µmhos/cm	64	71	61	69	76	73
Alkalinity	mg/L	6	7	7	10	14	13
Ammonia nitrogen	mg/L	0.06	ND	0.06	ND	ND	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	7	1	3	4	1	2
Fixed residue	mg/L	21	3	6	ND	1	ND
Suspended solids	mg/L	27	4	9	4	2	2
Total dissolved solids	mg/L	42	54	49	61	57	70
Total solids	mg/L	69	58	58	65	59	72
Turbidity	NTU	16	5.5	9.3	3.4	3.5	2.4
Chloride	mg/L	3	3	3	3	3	3
Nitrate-nitrogen	mg/L	2.24	2.41	1.80	1.75	2.18	1.26
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	7	11	6	10	9	9
Aluminum	mg/L			0.55			0.13
Cadmium	mg/L			ND			ND
Calcium	mg/L			2.76			3.00
Chromium	mg/L			ND			ND
Copper	mg/L			ND			ND
Iron	mg/L			1.23			0.60
Lead	mg/L			ND			ND
Magnesium	mg/L			0.62			0.59
Manganese	mg/L			0.148			0.053
Mercury	mg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			7.04			9.50
Zinc	mg/L			0.01			ND
Total kjeldahl nitrogen	mg/L	0.50	0.25	0.35	0.28	0.22	0.39
Total organic carbon	mg/L	2.7	1.9	3.9	2.7	3.0	2.0

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

Four Mile Creek at Road A7 (EMS and SCDHEC Sampling Location)

Parameter[a]	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	9.31E+8	1.33E+9	6.49E+8	1.77E+9	1.23E+9	1.65E+9
Temperature[b]	°C	24.0	25.0	18.5	15.5	15.9	8.7
pH[b]	pH	6.1	6.4	6.8	5.7	7.1	6.8
Dissolved oxygen[b]	mg/L	5.6	8.1	8.3	8.7	9.1	10.0
Conductivity[b]	µmhos/cm	60	70	80	70	70	65
Alkalinity	mg/L	8	15	18	11	14	13
Ammonia nitrogen	mg/L	ND	ND	ND	ND	ND	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	2	2	2	2	3	2
Fixed residue	mg/L	5	5	3	2	ND	4
Suspended solids	mg/L	7	7	5	4	3	6
Total dissolved solids	mg/L	56	58	60	45	52	48
Total solids	mg/L	63	65	65	49	55	54
Turbidity	NTU	18	5.0	3.6	4.2	4.0	6.8
Chloride	mg/L	3	3	4	3	4	4
Nitrate-nitrogen	mg/L	1.07	1.61	1.76	1.39	2.23	1.68
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	8	7	7	8	6	7
Aluminum	mg/L			0.25			0.23
Cadmium	mg/L			ND			ND
Calcium	mg/L			2.87			3.14
Chromium	mg/L			ND			ND
Copper	mg/L			ND			0.01
Iron	mg/L			0.84			0.93
Lead	mg/L			ND			ND
Magnesium	mg/L			0.55			0.67
Manganese	mg/L			0.065			0.066
Mercury	mg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			7.96			7.11
Zinc	mg/L			0.01			0.01
Total kjeldahl nitrogen	mg/L	0.69	0.26	0.25	0.38	ND	0.33
Total organic carbon	mg/L	4.5	2.2	2.6	3.6	2.6	3.6

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

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Crouch Branch Parameter[a]	Units	Jan	Feb	Mar	April	May	June
Water volume	L	1.52E+7	1.30E+7	2.73E+7	2.42E+6	1.52E+6	1.17E+7
Temperature[b]	°C	10.5	13.5	17.9	15.6	15.9	19.0
pH[b]	pH	6.6	7.0	7.0	5.4	5.3	5.1
Dissolved oxygen[b]	mg/L	13.5	7.9	8.6	4.6	3.3	1.2
Conductivity[b]	µmhos/cm	90	95	98	76	80	74
Turbidity	NTU	200	8.2	80	22	20	22
Suspended solids	mg/L	62	11	55	12	9	46

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

Crouch Branch

Parameter[a]	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	1.97E+7	2.05E+7	3.67E+6	5.99E+7	6.61E+6	2.28E+7
Temperature[b]	°C	24.3	21.6	19.3	16.4	16.7	9.5
pH[b]	pH	6.6	6.4	6.4	6.6	5.4	6.5
Dissolved oxygen[b]	mg/L	6.2	4.9	9.6	5.8	7.0	7.8
Conductivity[b]	µmhos/cm	78	50	126	84	71	112
Turbidity	NTU	150	5.8	14	45	14	55
Suspended solids	mg/L	61	3	9	16	8	17

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

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Lower Three Runs–2

Parameter[a]	Units	Jan	Feb	Mar	April	May	June
Water volume	L	4.82E+9	6.38E+9	6.08E+9	6.21E+9	5.17E+9	6.46E+9
Temperature[b]	°C	12.0	12.0	15.2	17.7	18.4	22.2
pH[b]	pH	6.5	7.0	6.9	6.3	6.5	6.7
Dissolved oxygen[b]	mg/L	9.3	11.0	8.1	7.3	9.1	6.2
Conductivity[b]	µmhos/cm	87	63	58	75	70	84
Alkalinity	mg/L	35	20	22	2	25	32
Ammonia nitrogen	mg/L	0.02	0.02	0.05	ND	ND	0.05
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	2	1	3	4	3	4
Fixed residue	mg/L	3	1	3	ND	3	5
Suspended solids	mg/L	5	2	6	4	5	9
Total dissolved solids	mg/L	65	40	50	19	48	54
Total solids	mg/L	70	42	56	23	53	63
Turbidity	NTU	3.4	1.7	4.0	2.5	1.4	1.8
Chloride	mg/L	3	4	4	2	3	4
Nitrate-nitrogen	mg/L	0.17	0.13	0.17	0.27	0.14	0.18
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	2	4	3	1	3	3
Aluminum	mg/L			0.06			0.07
Cadmium	mg/L			ND			ND
Calcium	mg/L			10.30			9.50
Chromium	mg/L			ND			ND
Copper	mg/L			ND			0.02
Iron	mg/L			0.15			0.21
Lead	mg/L			ND			ND
Magnesium	mg/L			0.65			0.71
Manganese	mg/L			0.008			0.044
Mercury	mg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			2.84			3.32
Zinc	mg/L			ND			ND

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

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Lower Three Runs–2

Parameter[a]	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	5.40E+9	3.67E+9	3.05E+9	4.70E+9	3.34E+9	5.31E+9
Temperature[b]	°C	24.0	24.5	20.0	17.0	18.0	11.5
pH[b]	pH	7.3	6.7	7.3	6.2	6.5	6.6
Dissolved oxygen[b]	mg/L	6.4	10.0	9.3	8.5	7.4	9.8
Conductivity[b]	µmhos/cm	84	80	113	86	98	108
Alkalinity	mg/L	30	29	44	40	43	39
Ammonia nitrogen	mg/L	0.07	0.11	ND	0.21	ND	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	9	3	8	4	2	1
Fixed residue	mg/L	7	4	7	2	ND	2
Suspended solids	mg/L	16	6	15	5	2	2
Total dissolved solids	mg/L	59	59	67	72	70	64
Total solids	mg/L	75	65	82	77	72	66
Turbidity	NTU	6.9	3.8	5.4	9.6	1.6	5.1
Chloride	mg/L	4	5	4	4	4	3
Nitrate-nitrogen	mg/L	0.19	0.2	0.28	0.19	0.21	0.25
Phosphate P	mg/L	0.56	ND	ND	ND	ND	ND
Sulfate	mg/L	3	3	2	3	2	2
Aluminum	mg/L			0.08			0.07
Cadmium	mg/L			ND			ND
Calcium	mg/L			12.90			14.10
Chromium	mg/L			ND			ND
Copper	mg/L			ND			0.01
Iron	mg/L			0.59			0.23
Lead	mg/L			ND			0.004
Magnesium	mg/L			0.77			0.74
Manganese	mg/L			0.052			0.022
Mercury	mg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			3.28			2.29
Zinc	mg/L			ND			0.01

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

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McQueens Branch

Parameter[a]	Units	Jan	Feb	Mar	April	May	June
Water volume	L	1.22E+8	9.28E+7	1.95E+8	4.52E+7	1.12E+7	2.31E+7
Temperature[b]	°C	12.5	13.3	17.3	18.2	15.4	20.2
pH[b]	pH	5.6	7.0	6.8	5.6	5.8	6.2
Dissolved oxygen[b]	mg/L	12.8	9.7	8.5	8.1	8.1	6.7
Conductivity[b]	µmhos/cm	53	46	47	57	40	52
Turbidity	NTU	140	75	65	2.8	3.2	8.6
Suspended solids	mg/L	62	3	62	3	3	5

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

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McQueens Branch

Parameter[a]	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	2.81E+7	5.34E+7	4.41E+7	1.98E+8	7.78E+7	1.27E+8
Temperature[b]	°C	22.4	22.8	18.6	15.3	17.3	9.4
pH[b]	pH	7.2	6.8	6.4	6.7	5.3	7.1
Dissolved oxygen[b]	mg/L	6.6	7.6	9.1	8.6	9.8	10.1
Conductivity[b]	µmhos/cm	64	60	38	30	39	53
Turbidity	NTU	55	14	3.5	57	18	9.7
Suspended solids	mg/L	16	5	2	14	42	4

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

Pen Branch–3

Parameter[a]	Units	Jan	Feb	Mar	April	May	June
Water volume	L	3.63E+9	3.69E+9	5.62E+9	3.91E+9	4.21E+9	3.29E+9
Temperature[b]	°C	10.4	12.7	16.0	17.1	17.4	22.4
pH[b]	pH	6.7	7.3	6.9	6.2	6.5	6.8
Dissolved oxygen[b]	mg/L	11.4	11.0	8.2	9.2	9.3	8.1
Conductivity[b]	µmhos/cm	93	70	98	76	80	106
Alkalinity	mg/L	13	14	15	17	20	21
Ammonia nitrogen	mg/L	ND	ND	0.08	ND	ND	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	2	1	3	5	2	3
Fixed residue	mg/L	7	2	10	3	3	6
Suspended solids	mg/L	8	3	12	8	4	9
Total dissolved solids	mg/L	54	53	62	60	56	73
Total solids	mg/L	62	56	74	68	60	82
Turbidity	NTU	7.5	5.0	13	7.9	4.8	4.4
Chloride	mg/L	6	6	6	6	7	9
Nitrate-nitrogen	mg/L	0.28	0.29	0.32	0.26	0.37	0.34
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	7	8	7	7	7	8
Aluminum	mg/L			0.38			0.40
Cadmium	mg/L			ND			ND
Calcium	mg/L			5.20			4.80
Chromium	mg/L			ND			ND
Copper	mg/L			ND			0.04
Iron	mg/L			1.03			1.14
Lead	mg/L			ND			ND
Magnesium	mg/L			0.99			1.11
Manganese	mg/L			0.136			0.170
Mercury	mg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			6.92			9.06
Zinc	mg/L			0.01			ND

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

Pen Branch–3 Parameter[a]	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	3.21E+9	4.22E+9	3.13E+9	5.67E+9	3.56E+9	5.12E+9
Temperature[b]	°C	23.7	23.8	20.5	17.7	18.2	10.2
pH[b]	pH	6.7	6.3	7.1	6.9	6.2	6.8
Dissolved oxygen[b]	mg/L	7.4	14.8	9.5	8.6	9.5	9.5
Conductivity[b]	µmhos/cm	77	80	113	73	69	71
Alkalinity	mg/L	19	20	17	17	17	16
Ammonia nitrogen	mg/L	ND	0.11	ND	0.07	ND	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	4	3	5	5	3	1
Fixed residue	mg/L	4	6	5	9	3	4
Suspended solids	mg/L	7	9	10	13	6	5
Total dissolved solids	mg/L	59	64	74	50	53	49
Total solids	mg/L	66	73	84	63	59	54
Turbidity	NTU	6.6	8.5	6.7	7.1	4.8	6.8
Chloride	mg/L	6	7	7	6	6	5
Nitrate-nitrogen	mg/L	0.30	0.35	0.45	0.34	0.35	0.32
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	6	6	19	7	6	4
Aluminum	mg/L			0.35			0.54
Cadmium	mg/L			ND			ND
Calcium	mg/L			4.71			4.79
Chromium	mg/L			ND			ND
Copper	mg/L			0.01			0.09
Iron	mg/L			0.94			1.34
Lead	mg/L			ND			ND
Magnesium	mg/L			1.11			1.08
Manganese	mg/L			0.123			0.185
Mercury	mg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			6.23			5.41
Zinc	mg/L			0.01			0.01

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

Four Mile Creek–6

Parameter[a]	Units	Jan	Feb	Mar	April	May	June
Water volume	L	2.72E+9	1.65E+9	3.79E+9	2.40E+9	1.82E+9	1.55E+9
Temperature[b]	°C	10.7	14.2	16.9	17.9	16.4	22.8
pH[b]	pH	6.1	7.2	6.7	5.8	6.1	6.2
Dissolved oxygen[b]	mg/L	10.5	10.0	7.9	8.5	8.8	7.1
Conductivity[b]	µmhos/cm	66	63	49	60	60	55
Alkalinity	mg/L	11	8	8	10	14	12
Ammonia nitrogen	mg/L	0.07	0.02	0.04	ND	ND	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	3	1	7	1	1	2
Fixed residue	mg/L	9	5	16	ND	2	4
Suspended solids	mg/L	12	5	23	1	3	5
Total dissolved solids	mg/L	37	43	45	53	42	60
Total solids	mg/L	49	48	68	54	45	65
Turbidity	NTU	4.9	3.4	13	3.5	3.6	2.8
Chloride	mg/L	4	4	3	4	3	3
Nitrate-nitrogen	mg/L	1.12	1.38	1.03	0.93	1.14	0.75
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	5	8	5	5	5	5
Aluminum	mg/L			0.11			0.14
Cadmium	mg/L			ND			ND
Calcium	mg/L			3.00			3.07
Chromium	mg/L			ND			ND
Copper	mg/L			ND			ND
Iron	mg/L			0.41			0.71
Lead	mg/L			ND			ND
Magnesium	mg/L			0.62			0.53
Manganese	mg/L			0.028			0.096
Mercury	mg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			5.73			5.94
Zinc	mg/L			ND			ND

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

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Four Mile Creek–6

Parameter[a]	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	1.40E+9	2.00E+9	9.73E+8	2.01E+9	1.51E+9	2.62E+9
Temperature[b]	°C	23.4	23.0	18.0	15.8	16.9	9.1
pH[b]	pH	6.9	6.8	6.9	6.8	5.8	6.7
Dissolved oxygen[b]	mg/L	6.8	9.7	8.7	8.8	8.7	10.3
Conductivity[b]	µmhos/cm	62	60	60	52	57	56
Alkalinity	mg/L	10	14	14	10	12	12
Ammonia nitrogen	mg/L	0.08	0.07	ND	0.06	0.07	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	5	1	3	2	3	1
Fixed residue	mg/L	6	2	1	2	ND	3
Suspended solids	mg/L	11	3	3	4	3	4
Total dissolved solids	mg/L	47	47	40	41	45	45
Total solids	mg/L	58	50	43	45	48	49
Turbidity	NTU	8.0	2.9	2.2	6.6	3.5	11
Chloride	mg/L	3	4	4	3	4	4
Nitrate-nitrogen	mg/L	0.37	0.92	0.89	0.69	1.19	1.20
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	5	4	4	7	4	5
Aluminum	mg/L			0.11			0.13
Cadmium	mg/L			ND			ND
Calcium	mg/L			3.10			3.05
Chromium	mg/L			ND			ND
Copper	mg/L			ND			0.01
Iron	mg/L			0.52			0.69
Lead	mg/L			ND			ND
Magnesium	mg/L			0.28			0.62
Manganese	mg/L			0.044			0.059
Mercury	mg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			5.20			4.79
Zinc	mg/L			ND			0.01

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

Upper Three Runs–1A

Parameter[a]	Units	Jan	Feb	Mar	April	May	June
Water volume	L	8.34E+9	7.26E+9	8.51E+9	7.17E+9	6.68E+9	7.56E+9
Temperature[b]	°C	12.5	15.6	16.6	17.6	16.0	19.6
pH[b]	pH	5.8	7.4	6.0	5.5	5.7	7.4
Dissolved oxygen[b]	mg/L	9.3	9.4	6.3	8.9	8.6	7.2
Conductivity[b]	µmhos/cm	14	16	21	23	40	26
Alkalinity	mg/L	4	2	2	24	4	2
Ammonia nitrogen	mg/L	ND	ND	0.05	ND	ND	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	6	2	3	5	1	6
Fixed residue	mg/L	9	2	4	ND	1	8
Suspended solids	mg/L	15	4	6	5	2	14
Total dissolved solids	mg/L	29	47	25	49	19	38
Total solids	mg/L	44	51	31	54	21	52
Turbidity	NTU	8.7	2.1	3.7	1.7	1.7	6.7
Chloride	mg/L	3	2	2	3	2	2
Nitrate-nitrogen	mg/L	0.24	0.27	0.32	0.15	0.34	0.30
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	2	1	1	3	1	1
Aluminum	mg/L			0.11			0.07
Cadmium	mg/L			ND			ND
Calcium	mg/L			0.43			0.41
Chromium	mg/L			ND			ND
Copper	mg/L			ND			ND
Iron	mg/L			0.20			0.21
Lead	mg/L			ND			ND
Magnesium	mg/L			0.32			0.31
Manganese	mg/L			0.009			0.006
Mercury	mg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			1.27			1.30
Zinc	mg/L			0.01			0.02

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

Upper Three Runs–1A

Parameter[a]	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	8.42E+9	7.89E+9	7.03E+9	9.94E+9	9.18E+9	9.25E+9
Temperature[b]	°C	21.1	20.8	18.1	16.3	16.6	10.0
pH[b]	pH	6.9	7.5	6.6	6.3	4.8	7.3
Dissolved oxygen[b]	mg/L	7.9	15.1	8.6	9.0	8.1	10.2
Conductivity[b]	µmhos/cm	26	30	42	20	15	21
Alkalinity	mg/L	2	2	2	2	3	2
Ammonia nitrogen	mg/L	ND	0.09	ND	ND	ND	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	3	3	4	3	4	1
Fixed residue	mg/L	2	1	1	1	ND	2
Suspended solids	mg/L	5	4	5	4	4	3
Total dissolved solids	mg/L	15	24	18	15	16	18
Total solids	mg/L	20	28	23	19	20	21
Turbidity	NTU	2.8	2.6	2.2	3.0	1.6	2.3
Chloride	mg/L	3	3	2	2	2	2
Nitrate-nitrogen	mg/L	0.33	0.33	0.34	0.29	0.33	0.37
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	1	1	1	1	1	1
Aluminum	mg/L			0.07			0.09
Cadmium	mg/L			ND			ND
Calcium	mg/L			0.38			0.40
Chromium	mg/L			ND			ND
Copper	mg/L			ND			ND
Iron	mg/L			0.25			0.22
Lead	mg/L			ND			ND
Magnesium	mg/L			0.31			0.36
Manganese	mg/L			0.006			0.006
Mercury	mg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			1.31			1.33
Zinc	mg/L			ND			0.01

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 66
SRS Stream Water Quality

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Pesticides, Herbicides, and Volatile Organics

EMS samples from the following SCDHEC locations were analyzed monthly for the constituents listed below. Pesticides, herbicides, and volatile organics were not detected in any of the analyses.

Locations	Pesticides
Tims Branch–5	Aldrin
Four Mile Creek–A7	Alpha BHC
Steel Creek–4	Beta BHC
Upper Three Runs Creek–4 at Road A	Lindane
	alpha-Chlordane
	gamma-Chlordane
	tech-Chlordane
	4,4–DDD
	4,4–DDE
	4,4–DDT
	Dieldrin
	Endosulfan I
	Endosulfan II
	Endosulfan Sulfate
	Endrin
	Endrin Aldehyde
	Heptachlor
	Heptachlor Epoxide
	Methoxychlor
	Toxaphene
	Herbicides
	2, 4–D
	2, 4, 5–TP (Silvex)
	Volatile Organics
	111–Trichloroethane
	Trichloroethene
	Tetrachloroethene

Table 67
Savannah River Water Quality

River Mile–160 (Above SRS)

Parameter[a]	Units	Jan	Feb	Mar	April	May	June
Note: "ND" denotes "none detected."							
Water volume	L	5.75E+11	5.65E+11	8.73E+11	7.21E+11	6.13E+11	4.47E+11
Temperature[b]	°C	8.9	9.8	14.3	16.3	18.5	22.7
pH[b]	pH	6.1	6.2	6.0	6.2	6.7	6.2
Dissolved oxygen[b]	mg/L	11.6	11.2	11.6	10.5	8.3	6.7
Conductivity[b]	µmhos/cm	78	88	73	76	72	101
Alkalinity	mg/L	20	19	16	19	19	21
Ammonia nitrogen	mg/L	0.06	0.18	0.12	0.07	ND	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	1	2	1	5	2	2
Fixed residue	mg/L	3	3	7	9	9	5
Suspended solids	mg/L	4	5	8	14	10	7
Total dissolved solids	mg/L	53	85	66	70	60	85
Total solids	mg/L	57	90	74	84	70	92
Turbidity	NTU	6.6	7.8	18	10	7.1	6.6
Chloride	mg/L	7	8	7	7	6	10
Nitrate-nitrogen/NO_3	mg/L	0.23	0.23	0.28	0.27	0.31	0.41
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	6	8	7	7	7	9
Aluminum	mg/L			0.38			0.22
Cadmium	mg/L			ND			ND
Calcium	mg/L			3.43			3.67
Chromium	mg/L			ND			ND
Copper	mg/L			ND			ND
Iron	mg/L			0.63			0.54
Lead	mg/L			ND			ND
Magnesium	mg/L			1.30			1.40
Manganese	mg/L			0.067			0.079
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			8.98			11.20
Zinc	mg/L			ND			ND

a Metals are analyzed quarterly from a grab composite.
b Field measurements

Table 67
Savannah River Water Quality

River–160 (Above SRS)

Parameter[a]	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	1.02E+12	1.31E+12	7.58E+11	1.22E+12	8.81E+11	1.08E+11
Temperature[b]	°C	23.6	24.2	22.8	20.7	18.8	13.8
pH[b]	pH	6.8	7.0	6.8	6.6	6.7	6.1
Dissolved oxygen[b]	mg/L	8.0	6.4	7.1	7.2	9.0	9.3
Conductivity[b]	µmhos/cm	82	95	85	106	70	62
Alkalinity	mg/L	22	23	19	20	18	18
Ammonia nitrogen	mg/L	0.10	0.08	0.08	0.16	0.09	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	4	3	3	2	3	2
Fixed residue	mg/L	11	10	6	6	5	8
Suspended solids	mg/L	15	12	9	8	8	9
Total dissolved solids	mg/L	70	84	61	62	49	46
Total solids	mg/L	85	96	70	70	57	55
Turbidity	NTU	14	14	7.7	8.4	7.6	7.5
Chloride	mg/L	8	11	8	10	6	5
Nitrate-nitrogen/NO_3)	mg/L	0.33	0.37	0.43	0.43	0.30	0.27
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	7	8	8	9	6	5
Aluminum	mg/L			0.38			0.25
Cadmium	mg/L			ND			ND
Calcium	mg/L			3.74			3.64
Chromium	mg/L			ND			ND
Copper	mg/L			ND			ND
Iron	mg/L			0.79			0.52
Lead	mg/L			ND			ND
Magnesium	mg/L			1.30			1.55
Manganese	mg/L			0.103			0.092
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			9.57			8.19
Zinc	mg/L			0.01			0.01

a Metals are analyzed quarterly from a grab composite.
b Field measurements

Table 67
Savannah River Water Quality

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Plant Vogtle Discharge

Parameter[a]	Units	Jan	Feb	Mar	April	May	June
Water volume	L	6.33E+11	6.22E+11	9.60E+11	7.93E+11	6.74E+11	4.92E+11
Temperature[b]	°C	8.8	10.1	14.1	16.0	19.1	23.3
pH[b]	pH	6.0	5.8	6.1	6.4	6.5	6.3
Dissolved oxygen[b]	mg/L	11.5	9.2	10.1	9.5	7.6	6.6
Conductivity[b]	µmhos/cm	81	77	77	87	97	100
Alkalinity	mg/L	21	17	17	20	22	22
Ammonia nitrogen	mg/L	0.06	0.09	0.13	ND	0.08	0.08
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	1	2	2	6	3	3
Fixed residue	mg/L	6	5	14	13	14	10
Suspended solids	mg/L	6	7	16	18	17	12
Total dissolved solids	mg/L	59	54	66	75	70	83
Total solids	mg/L	65	61	82	93	87	95
Turbidity	NTU	6.7	7.5	19	11	9.9	12
Chloride	mg/L	10	7	7	7	9	10
Nitrate-nitrogen/NO_3)	mg/L	0.23	0.23	0.32	0.47	0.38	0.44
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	6	6	7	9	9	9
Aluminum	mg/L			0.24			0.32
Cadmium	mg/L			ND			ND
Calcium	mg/L			3.60			4.10
Chromium	mg/L			ND			ND
Copper	mg/L			ND			ND
Iron	mg/L			0.53			0.78
Lead	mg/L			ND			ND
Magnesium	mg/L			1.29			1.40
Manganese	mg/L			0.125			0.091
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			8.87			11.70
Zinc	mg/L			ND			ND

a Metals are analyzed quarterly from a grab composite.
b Field measurements

Table 67
Savannah River Water Quality

Plant Vogtle Discharge

Parameter[a]	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	1.12E+12	1.44E+12	8.34E+11	1.34E+12	9.69E+11	1.19E+11
Temperature[b]	°C	23.8	24.3	22.8	20.9	18.8	13.7
pH[b]	pH	6.5	7.2	6.3	6.7	6.6	6.1
Dissolved oxygen[b]	mg/L	6.6	6.9	7.0	6.4	7.5	8.2
Conductivity[b]	µmhos/cm	80	91	85	103	80	66
Alkalinity	mg/L	21	23	19	20	19	19
Ammonia nitrogen	mg/L	0.06	0.08	0.10	0.14	0.09	0.07
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	5	3	3	3	4	1
Fixed residue	mg/L	8	13	8	6	4	7
Suspended solids	mg/L	13	15	11	8	8	8
Total dissolved solids	mg/L	77	77	60	62	52	48
Total solids	mg/L	90	92	71	70	60	56
Turbidity	NTU	13	18	9.0	9.2	7.8	7.6
Chloride	mg/L	7	8	8	9	6	5
Nitrate-nitrogen/NO_3)	mg/L	0.31	0.39	0.48	0.41	0.30	0.29
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	6	8	8	8	6	6
Aluminum	mg/L			0.42			0.25
Cadmium	mg/L			ND			ND
Calcium	mg/L			4.15			3.74
Chromium	mg/L			ND			ND
Copper	mg/L			ND			ND
Iron	mg/L			0.93			0.55
Lead	mg/L			ND			ND
Magnesium	mg/L			1.36			1.43
Manganese	mg/L			0.122			0.089
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			8.84			7.56
Zinc	mg/L			0.01			0.01

a Metals are analyzed quarterly from a grab composite.
b Field measurements

Table 67
Savannah River Water Quality

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River Mile–120 (Below SRS)

Parameter[a]	Units	Jan	Feb	Mar	April	May	June
Water volume	L	5.92E+11	6.06E+11	9.39E+11	7.62E+11	6.10E+11	4.54E+11
Temperature[b]	°C	8.7	10.1	14.4	16.3	19.6	23.3
pH[b]	pH	6.0	5.9	6.5	6.0	6.4	6.5
Dissolved oxygen[b]	mg/L	10.7	10.6	10.6	8.7	7.1	6.6
Conductivity[b]	µmhos/cm	89	87	89	99	99	114
Alkalinity	mg/L	20	20	15	22	22	23
Ammonia nitrogen	mg/L	0.06	0.18	0.12	ND	0.07	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	1	2	3	6	2	2
Fixed residue	mg/L	7	9	15	13	11	14
Suspended solids	mg/L	8	11	18	19	13	15
Total dissolved solids	mg/L	64	57	72	81	75	105
Total solids	mg/L	72	68	90	100	88	120
Turbidity	NTU	7.5	6.5	21	11	10	12
Chloride	mg/L	9	7	9	10	10	11
Nitrate-nitrogen/NO_3)	mg/L	0.28	0.32	0.31	0.19	0.34	0.47
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	7	8	9	9	9	11
Aluminum	mg/L			0.78			0.39
Cadmium	mg/L			ND			ND
Calcium	mg/L			4.29			4.71
Chromium	mg/L			ND			ND
Copper	mg/L			ND			ND
Iron	mg/L			1.32			0.90
Lead	mg/L			0.003			ND
Magnesium	mg/L			1.32			1.46
Manganese	mg/L			0.088			0.081
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			9.80			13.00
Zinc	mg/L			ND			ND

a Metals are analyzed quarterly from a grab composite.
b Field measurements

Table 67
Savannah River Water Quality

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River Mile–120 (Below SRS)

Parameter[a]	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	1.17E+12	1.11E+12	1.00E+12	9.68E+11	1.54E+12	1.08E+12
Temperature[b]	°C	23.2	24.2	22.8	20.5	18.5	13.6
pH[b]	pH	6.0	7.2	6.2	6.6	6.4	6.0
Dissolved oxygen[b]	mg/L	5.8	6.3	6.7	6.9	7.2	8.0
Conductivity[b]	µmhos/cm	69	93	97	109	70	65
Alkalinity	mg/L	18	21	21	19	19	17
Ammonia nitrogen	mg/L	0.05	ND	0.08	0.09	ND	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	2	4	3	3	4	2
Fixed residue	mg/L	4	13	7	9	5	9
Suspended solids	mg/L	6	16	10	12	9	11
Total dissolved solids	mg/L	61	72	68	55	56	50
Total solids	mg/L	67	88	78	67	65	61
Turbidity	NTU	7.5	15	9.9	10	7.3	9.7
Chloride	mg/L	6	9	9	8	7	5
Nitrate-nitrogen/NO_3)	mg/L	0.28	0.42	0.45	0.38	0.29	0.30
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	5	9	9	8	7	6
Aluminum	mg/L			0.33			0.31
Cadmium	mg/L			ND			ND
Calcium	mg/L			4.17			4.08
Chromium	mg/L			ND			ND
Copper	mg/L			ND			ND
Iron	mg/L			0.81			0.79
Lead	mg/L			ND			ND
Magnesium	mg/L			1.38			1.52
Manganese	mg/L			0.075			0.095
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			8.80			7.77
Zinc	mg/L			ND			0.01

a Metals are analyzed quarterly from a grab composite.
b Field measurements

Table 68
Savannah River Water Quality:
Georgia Department of Natural Resources and EMS Sampling Location

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Parameter	Units	June	Duplicate	December	Duplicate
Key: "ND" denotes "none detected."					
681-5G[a]					
Field Analyses					
Temperature	Deg. C.	23.8		16.4	
Dissolved oxygen	mg/L	7.3		8.4	
Laboratory Analyses					
pH		7.1	7.0	7.0	7.0
Conductivity	µMHO/cm	99	90	63	64
Alkalinity	mg/L	21	22	18	18
Ammonia-N	mg/L	0.07	0.07	0.05	ND
COD	mg/L	ND	ND	ND	ND
Vol Solids	mg/L	2	2	1	1
Fixed Residue	mg/L	8	7	5	7
Sus Solids	mg/L	10	9	6	8
Tot Dis Solids	mg/L	80	88	46	45
Total Solids	mg/L	90	97	52	53
Turbidity	NTU	7.1	6.5	8	7.9
Chloride	mg/L	9	9	5	5
Nitrate-N	mg/L	0.39	0.37	0.27	0.26
Phosphate-P	mg/L	ND	ND	ND	ND
Sulfate	mg/L	9	9	5	5
Offsite Analyses					
Aluminum	mg/L	0.17	0.17	0.25	0.22
Cadmium	mg/L	ND	ND	ND	ND
Calcium	mg/L	3.97	3.93	3.06	3.01
Chromium	mg/L	ND	ND	ND	ND
Copper	mg/L	ND	ND	ND	ND
Iron	mg/L	0.46	0.44	0.53	0.47
Lead	mg/L	ND	ND	ND	ND
Magnesium	mg/L	1.38	1.37	1.42	1.41
Manganese	mg/L	0.065	0.069	0.087	0.086

a This location is sampled monthly by the Georgia Department of Natural Resources and twice yearly by the Environmental Monitoring Section. These results are those of Environmental Monitoring Section samples, which were analyzed by TMA/Eberline, Inc.

Table 68
Savannah River Water Quality:
Georgia Department of Natural Resources and EMS Sampling Location

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Parameter	Units	June	Duplicate	December	Duplicate
Mercury	mg/L	ND	ND	ND	ND
Nickel	mg/L	ND	ND	ND	ND
Sodium	mg/L	12.70	12.60	6.18	6.03
Zinc	mg/L	ND	ND	ND	ND

Table 69
Fecal Coliform Bacteria in SRS Streams and Savannah River

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Location	Colonies/100mL			Number of Samples	Number of Exceedances	Period of Time
Note: The U3R–4 location is sampled weekly and monthly. Thus, the location is listed twice for each month's data.						
	JAN MIN	JAN MAX	GEO MEAN[a]			
RIVER–120	20	52	32	5	0	1/3 – 2/1
VOGTLE DISCHARGE	8	64	27	5	0	1/3 – 2/1
RIVER–160	16	42	29	5	0	1/3 – 2/1
U3R–1	80	123	97	5	0	1/3 – 2/1
U3R–4[b]	40	230	93	5	0	1/3 – 2/1
FM–6	10	139	43	5	0	1/3 – 2/1
PB–3	26	96	52	5	0	1/3 – 2/1
400–D	6	44	17	5	0	1/3 – 2/1
L3R–3	125	490	191	5	1	1/3 – 2/1
SC–4	39	39	39	1	0	1/12
TB–5	510	510	510	1	1	1/12
FM–A7	290	290	290	1	0	1/12
U3R–4[c]	120	120	120	1	0	1/12

Location	Colonies/100mL			Number of Samples	Number of Exceedances	Period of Time
	FEB MIN	FEB MAX	GEO MEAN[a]			
RIVER–120	36	100	57	4	0	2/7 – 2/31
VOGTLE DISCHARGE	33	108	53	4	0	2/7 – 3/1
RIVER–160	19	131	50	4	0	2/7 – 3/1
U3R–1	58	94	68	4	0	2/7 – 3/1
U3R–4[b]	64	108	80	4	0	2/7 – 3/1
FM–6	34	82	50	4	0	2/7 – 3/1
PB–3	44	110	77	4	0	2/7 – 3/1
400–D	16	210	42	4	0	2/7 – 3/1
L3R–3	74	154	101	4	0	2/7 – 3/1
SC–4	20	20	20	1	0	2/9
TB–5	430	430	430	1	1	2/9
FM–A7	21	21	21	1	0	2/9
U3R–4[c]	70	70	70	1	0	2/9

a The standard for South Carolina states that the fecal coliform count should not exceed a geometric mean of 200/100 mL, based on five consecutive samples during any 30-day period, nor shall more than 10 percent of the total samples during any 30-day period exceed 400/100 mg/L.
b Weekly samples
c Monthly sample

Table 69
Fecal Coliform Bacteria in SRS Streams and Savannah River

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Location	Colonies/100mL			Number of Samples	Number of Exceedances	Period of Time
	MAR MIN	MAR MAX	GEO MEAN[a]			
RIVER–120	10	151	41	4	0	3/7 – 3/29
VOGTLE DISCHARGE	10	86	37	4	0	3/7 – 3/29
RIVER–160	15	116	44	4	0	3/7 – 3/29
U3R–1	64	121	90	4	0	3/7 – 3/29
U3R–4[b]	76	300	115	4	0	3/7 – 3/29
FM–6	48	470	92	4	1	3/7 – 3/29
PB–3	40	270	100	4	0	3/7 – 3/29
400–D	6	18	12	4	0	3/7 – 3/29
L3R–3	40	128	79	4	0	3/7 – 3/29
SC–4	144	144	144	1	0	3/10
TB–5	1172	1172	1172	1	1	3/10
FM–A7	2100	2100	2100	1	1	3/10
U3R–4[c]	280	280	280	1	0	3/10

Location	Colonies/100mL			Number of Samples	Number of Exceedances	Period of Time
	APR MIN	APR MAX	GEO MEAN[a]			
RIVER–120	11	149	41	4	0	4/4 – 4/26
VOGTLE DISCHARGE	19	68	31	4	0	4/4 – 4/26
RIVER–160	8	56	22	4	0	4/4 – 4/26
U3R–1	80	112	96	4	0	4/4 – 4/26
U3R–4[b]	52	280	93	4	0	4/4 – 4/26
FM–6	29	64	49	4	0	4/4 – 4/26
PB–3	34	88	52	4	0	4/4 – 4/26
400–D	6	16	12	4	0	4/4 – 4/26
L3R–3	106	154	124	4	0	4/4 – 4/26
SC–4	16	16	16	1	0	4/6
TB–5	450	450	450	1	1	4/6
FM–A7	54	54	54	1	0	4/6
U3R–4[c]	90	90	90	1	0	4/6

a The standard for South Carolina states that the fecal coliform count should not exceed a geometric mean of 200/100 mL, based on five consecutive samples during any 30-day period, nor shall more than 10 percent of the total samples during any 30-day period exceed 400/100 mg/L.
b Weekly samples
c Monthly sample

Table 69
Fecal Coliform Bacteria in SRS Streams and Savannah River

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Location	Colonies/100mL			Number of Samples	Number of Exceedances	Period of Time
	MAY MIN	MAY MAX	GEO MEAN[a]			
RIVER–120	5	38	11	4	0	5/2 – 5/24
VOGTLE DISCHARGE	3	48	19	4	0	5/2 – 5/24
RIVER–160	24	250	60	4	0	5/2 – 5/24
U3R–1	72	881	159	4	1	5/2 – 5/24
U3R–4[b]	66	360	110	4	0	5/2 – 5/24
FM–6	13	50	30	4	0	5/2 – 5/24
PB–3	8	70	23	4	0	5/2 – 5/24
40-D	8	24	15	4	0	5/2 – 5/24
L3R–3	62	149	83	4	0	5/2 – 5/24
SC–4	6	6	6	1	0	5/5
TB–5	120	120	120	1	0	5/5
FM–A7	600	600	600	1	1	5/5
U3R–4[c]	102	102	102	1	0	5/5

Location	Colonies/100mL			Number of Samples	Number of Exceedances	Period of Time
	JUNE MIN	JUNE MAX	GEO MEAN[a]			
RIVER–120	8	270	30	5	0	5/31 – 6/28
VOGTLE DISCHARGE	8	5700	108	5	1	5/31 – 6/28
RIVER–160	11	550	45	5	1	5/31 – 6/28
681–5G	11	11	11	1	0	6/22
U3R–1	88	2400	236	5	2	5/31 – 6/28
U3R–4[b]	38	1127	328	5	4	5/31 – 6/28
FM–6	42	378	128	5	0	5/31 – 6/28
PB–3	16	230	49	5	0	5/31 – 6/28
400–D	9	809	61	5	1	5/31 – 6/28
L3R–3	48	1636	318	5	4	5/31 – 6/28
SC–4	16	16	16	1	0	6/2
TB–5	350	350	350	1	0	6/2
FM–A7	58	58	58	1	0	6/2
U3R–4[c]	116	116	116	1	0	6/2

a The standard for South Carolina states that the fecal coliform count should not exceed a geometric mean of 200/100 mL, based on five consecutive samples during any 30-day period, nor shall more than 10 percent of the total samples during any 30-day period exceed 400/100 mg/L.
b Weekly samples
c Monthly sample

Table 69
Fecal Coliform Bacteria in SRS Streams and Savannah River

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Location	Colonies/100mL			Number of Samples	Number of Exceedances	Period of Time
	JUL MIN	JUL MAX	GEO MEAN[a]			
RIVER–120	19	110	42	4	0	7/5 – 7/26
VOGTLE DISCHARGE	18	483	65	4	1	7/5 – 7/26
RIVER–160	36	2800	311	4	3	7/5 – 7/26
U3R–1	92	108	100	4	0	7/5 – 7/26
U3R–4[b]	36	452	106	4	1	7/5 – 7/26
FM–6	50	82	64	4	0	7/5 – 7/26
PB–3	26	48	39	4	0	7/5 – 7/26
400–D	48	410	109	4	1	7/5 – 7/26
L3R–3	70	108	82	4	0	7/5 – 7/26
SC–4	70	70	70	1	0	7/14
TB–5	249	249	249	1	0	7/14
FM–A7	1400	1400	1400	1	1	7/14
U3R–4[c]	754	754	754	1	1	7/14

Location	Colonies/100mL			Number of Samples	Number of Exceedances	Period of Time
	AUG MIN	AUG MAX	GEO MEAN[a]			
RIVER–120	34	126	55	5	0	8/1 – 8/30
VOGTLE DISCHARGE	6	106	36	5	0	8/1 – 8/30
RIVER–160	18	845	89	5	1	8/1 – 8/30
U3R–1	78	300	127	5	0	8/1 – 8/30
U3R–4[b]	88	210	126	5	0	8/1 – 8/30
FM–6	23	56	35	5	0	8/1 – 8/30
PB–3	26	84	46	5	0	8/1 – 8/30
400–D	23	102	41	5	0	8/1 – 8/30
L3R–3	82	230	126	5	0	8/1 – 8/30
SC–4	21	21	21	1	0	8/1
TB–5	50	50	50	1	0	8/1
FM–A7	200	200	200	1	0	8/1
U3R–4[c]	142	142	142	1	0	8/1

a The standard for South Carolina states that the fecal coliform count should not exceed a geometric mean of 200/100 mL, based on five consecutive samples during any 30-day period, nor shall more than 10 percent of the total samples during any 30-day period exceed 400/100 mg/L.
b Weekly samples
c Monthly sample

Table 69
Fecal Coliform Bacteria in SRS Streams and Savannah River

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Location	SEP MIN	Colonies/100mL SEP MAX	GEO MEAN[a]	Number of Samples	Number of Exceedances	Period of Time
RIVER–120	11	40	22	4	0	9/6 – 9/27
VOGTLE DISCHARGE	16	240	60	4	0	9/6 – 9/27
RIVER–160	32	620	80	4	1	9/6 – 9/27
U3R–1	123	423	194	4	1	9/6 – 9/27
U3R–4[b]	112	340	166	4	0	9/6 – 9/27
FM–6	34	54	46	4	0	9/6 – 9/27
PB–3	24	52	37	4	0	9/6 – 9/27
400–D	15	100	44	4	0	9/6 – 9/27
L3R–3	86	100	93	4	0	9/6 – 9/27
SC–4	16	16	16	1	0	9/22
TB–5	430	430	430	1	1	9/22
FM–A7	56	56	56	1	0	9/22
U3R–4[c]	169	169	169	1	0	9/22

Location	OCT MIN	Colonies/100mL OCT MAX	GEO MEAN[a]	Number of Samples	Number of Exceedances	Period of Time
RIVER–120	44	210	99	3	0	10/10 – 10/25
VOGTLE DISCHARGE	38	129	75	3	0	10/10 – 10/25
RIVER–160	21	270	67	3	0	10/10 – 10/25
U3R–1	40	2400	337	5	3	10/3 – 10/31
U3R–4[b]	114	470	191	3	1	10/10 – 10/25
FM–6	68	149	106	3	0	10/10 – 10/25
PB–3	29	60	41	3	0	10/10 – 10/25
400–D	7	47	24	3	0	10/10 – 10/25
L3R–3	102	560	186	3	1	10/10 – 10/25
SC–4	14	14	14	1	0	10/5
TB–5	390	390	390	1	0	10/5
FM–A7	54	54	54	1	0	10/5
U3R–4[c]	290	290	290	1	0	10/5

a The standard for South Carolina states that the fecal coliform count should not exceed a geometric mean of 200/100 mL, based on five consecutive samples during any 30-day period, nor shall more than 10 percent of the total samples during any 30-day period exceed 400/100 mg/L.
b Weekly samples
c Monthly sample

Table 69
Fecal Coliform Bacteria in SRS Streams and Savannah River

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Location	Colonies/100mL			Number of Samples	Number of Exceedances	Period of Time
	NOV MIN	NOV MAX	GEO MEAN[a]			
RIVER–120	16	46	31	5	0	11/1 – 11/29
VOGTLE DISCHARGE	5	78	21	5	0	11/1 – 11/29
RIVER–160	16	88	40	5	0	11/1 – 11/29
U3R–1	46	520	202	4	2	11/7 – 11/29
U3R–4[b]	25	500	172	5	1	11/1 – 11/29
FM–6	39	134	69	5	0	11/1 – 11/29
PB–3	15	188	56	5	0	11/1 – 11/29
400–D	5	82	21	5	0	11/1 – 11/29
L3R–3	13	530	111	5	1	11/1 – 11/29
SC–4	15	15	15	1	0	11/9
TB–5	161	161	161	1	0	11/9
FM–A7	94	94	94	1	0	11/9
U3R–4[c]	90	90	90	1	0	11/9

Location	Colonies/100mL			Number of Samples	Number of Exceedances	Period of Time
	DEC MIN	DEC MAX	GEO MEAN[a]			
RIVER–120	25	470	70	4	1	12/5 – 12/27
VOGTLE DISCHARGE	ND	290	34	4	0	12/5 – 12/27
RIVER–160	13	200	42	4	0	12/5 – 12/27
681–5G	210	210	210	1	0	12/27
U3R–1	28	250	92	4	0	12/5 – 12 – 27
U3R–4[b]	94	405	155	4	1	12/5 – 12/27
FM–6	36	52	43	4	0	12/5 – 12/27
PB–3	34	78	59	4	0	12/5 – 12/27
400–D	15	96	31	4	0	12/5 – 12/27
L3R–3	141	290	195	4	0	12/5 – 12/27
SC–4	20	20	20	1	0	12/12
TB–5	102	102	102	1	0	12/12
FM–A7	76	76	76	1	0	12/12
U3R–4[c]	290	290	290	1	0	12/12

a The standard for South Carolina states that the fecal coliform count should not exceed a geometric mean of 200/100 mL, based on five consecutive samples during any 30-day period, nor shall more than 10 percent of the total samples during any 30-day period exceed 400/100 mg/L.
b Weekly samples
c Monthly sample

Table 70
Fecal Coliform Bacteria in NPDES Locations

Location	Month	Colonies/100mL	Exceeded Limit	Date
A–005	January	None detected	No	1/5
	February	None detected	No	2/7
		20	No	2/7
		None detected	No	2/14
	March	None detected	No	3/17
	April	None detected	No	4/11
	May	5	No	5/12
		6	No	5/12
	June	None detected	No	6/23
		None detected	No	6/23
	July	None detected	No	7/14
		None detected	No	7/14
	August	None detected	No	8/3
A–015	January	2	No	1/12
	February	None detected	No	2/9
	April	None detected	No	4/6
	May	None detected	No	5/4
	June	None detected	No	6/8
	July	None detected	No	7/13
	August	None detected	No	8/3
C–004A	January	None detected	No	1/5
	February	None detected	No	2/9
	March	None detected	No	4/6
	May	None detected	No	5/4
	June	None detected	No	6/8
	July	None detected	No	7/13
	August	None detected	No	8/3
D–001A	January	None detected	No	1/12
	February	None detected	No	2/9
	April	None detected	No	4/13
	May	None detected	No	5/4
	June	None detected	No	6/8
	July	None detected	No	7/13
	August	None detected	No	8/3

Table 70
Fecal Coliform Bacteria in NPDES Locations

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Location	Month	Colonies/100mL	Exceeded Limit	Date
D–006	January	66	No	1/5
	February	15	No	2/3
	March	270	No	3/7
		266	No	3/8
		(>200 Avg[a])	Yes	
	April	38	No	4/21
		38	No	4/21
	May	18	No	5/19
	June	52	No	6/23
	July	82	No	7/5
		72	No	7/6
	August	146	No	8/2
		210	No	8/2
DW–3	January	None detected	No	1/5
	February	None detected	No	2/23
	April	None detected	No	4/6
	May	None detected	No	5/4
	June	None detected	No	6/8
	July	None detected	No	7/13
	August	None detected	No	8/3
F–001	September	None detected	No	9/12
		None detected	No	9/13
		None detected	No	9/14
		None detected	No	9/15
		None detected	No	9/16
F–002	September	None detected	No	9/16
F–003	September	None detected	No	9/12
		None detected	No	9/13
		None detected	No	9/14
		None detected	No	9/15
		None detected	No	9/16
F–003A	January	None detected	No	1/12
	February	None detected	No	2/9
	April	None detected	No	4/6
	May	None detected	No	5/18
	June	None detected	No	6/8

a The average for the two samples is greater than 200 counts, but neither individual sample exceeded 400 counts.

Table 70
Fecal Coliform Bacteria in NPDES Locations

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Location	Month	Colonies/100mL	Exceeded Limit	Date
	July	None detected	No	7/13
	August	None detected	No	8/10
F–008A	January	None detected	No	1/5
	February	None detected	No	2/9
	April	None detected	No	4/6
	May	None detected	No	5/4
	June	None detected	No	6/8
	July	None detected	No	7/13
	August	None detected	No	8/3
FS–001	January	None detected	No	1/6
	February	None detected	No	2/7
	April	None detected	No	4/7
	May	None detected	No	5/9
	June	None detected	No	6/16
	July	110	No	7/12
	August	350	No	8/2
H–013	January	None detected	No	1/12
	February	None detected	No	2/9
	April	None detected	No	4/6
	May	None detected	No	5/4
	June	None detected	No	6/8
	July	None detected	No	7/13
	August	None detected	No	8/3
HP–6	September	None detected	No	9/12
		None detected	No	9/13
		None detected	No	9/14
		None detected	No	9/15
K–018	January	4	No	1/10
		26	No	1/11
	February	7	No	2/2
		14	No	2/14
	March	88	No	3/7
	April	10	No	4/4
		18	No	4/5
	May	None detected	No	5/11
		3	No	5/10
	June	None detected	No	6/20
		None detected	No	6/20
	July	10	No	7/12

Table 70
Fecal Coliform Bacteria in NPDES Locations

Page 4 of 5

Location	Month	Colonies/100mL	Exceeded Limit	Date
		8	No	7/13
	August	26	No	8/9
		14	No	8/9
		13	No	8/10
	September	19	No	9/15
		23	No	9/15
		98	No	9/16
K–12	January	None detected	No	1/5
	February	None detected	No	2/9
	April	None detected	No	4/6
	May	None detected	No	5/4
	June	None detected	No	6/8
	July	None detected	No	7/13
	August	None detected	No	8/17
L–007A	January	None detected	No	1/12
	February	None detected	No	2/9
	April	None detected	No	4/6
	May	None detected	No	5/4
	June	None detected	No	6/8
	July	None detected	No	7/13
	August	None detected	No	8/3
P–14	January	None detected	No	1/5
		None detected	No	1/12
	February	None detected	No	2/16
	March	None detected	No	4/16
	May	None detected	No	5/4
	June	None detected	No	6/8
	July	None detected	No	7/13
	August	None detected	No	8/3
S–011	January	None detected	No	1/5
	February	None detected	No	2/9
	April	None detected	No	4/6
	May	2	No	5/4
	June	None detected	No	6/8
	July	None detected	No	7/13
	August	None detected	No	8/3

Table 70
Fecal Coliform Bacteria in NPDES Locations

Location	Month	Colonies/100mL	Exceeded Limit	Date
T–7	January	None detected	No	1/12
		None detected	No	1/19
	February	None detected	No	2/9
		None detected	No	2/16
	April	None detected	No	4/6
		None detected	No	4/13
	May	None detected	No	5/4
		None detected	No	5/11
	June	None detected	No	6/8
		None detected	No	6/15
	July	None detected	No	7/13
		None detected	No	7/20
	August	None detected	No	8/3
		None detected	No	8/10
X–008A	July	None detected	No	7/13
		None detected	No	7/20
	August	None detected	No	8/3
		None detected	No	8/10
X–013	January	None detected	No	1/12
	February	None detected	No	2/9
	April	None detected	No	4/6
	May	None detected	No	5/4
	June	None detected	No	6/8
		None detected	No	6/15

Table 71
Chlorocarbon Monitoring Results from A-Area Wells

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Location	Date	111 Trichloroethane TMA[a]	(µg/L) Trichloroethylene TMA[a]	Tetrachloroethylene TMA[a]
Note: The chlorocarbon monitoring program was discontinued in September 1994.				
3/700 Area Domestic H_2O				
905–82A	Jan–94	None detected	None detected	None detected
905–82A	Feb–94	None detected	None detected	None detected
905–82A	Mar–94	None detected	None detected	None detected
905–112G	Feb–94	None detected	None detected	None detected
905–113G	Feb–94	None detected	None detected	None detected
3/700 Area Drinking H_2O				
735–A	Jan–94	None detected	None detected	None detected
735–A	Feb–94	None detected	None detected	None detected
735–A	Mar–94	None detected	3.9	None detected
784–A	Jan–94	None detected	None detected	None detected
784–A	Feb–94	None detected	None detected	None detected
784–A	Mar–94	None detected	None detected	None detected
TSC Backup Domestic H_2O				
905–68A	Jan–94	None detected	None detected	None detected
905–68A	Feb–94	None detected	None detected	None detected
905–68A	Mar–94	None detected	None detected	None detected
3/700 Area Process H_2O Wells				
905–20A	Jan–94	None detected	71	2.6
905–20A	Feb–94	None detected	79	None detected
905–20A	Mar–94	None detected	95	2.4
Service H_2O	Jan–94	None detected	20	None detected
Service H_2O	Feb–94		Sample not pulled	
Service H_2O	Mar–94	None detected	32	None detected
905–53A	Jan–94		Well out of service	
905–53A	Feb–94		Well out of service	
905–53A	Mar–94		Well out of service	

a Analyses performed by TMA/Eberline, Inc.

Table 71
Chlorocarbon Monitoring Results from A-Area Wells

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		(µg/L)		
		111 Trichloroethane	Trichloroethylene	Tetrachloroethylene
Location	Date	TMA[a]	TMA[a]	TMA[a]
Other SRS Domestic H_2O Supplies				
400–D	Feb–94	None detected	None detected	None detected
3/700 Area Domestic H_2O				
905–82A	Apr–94	None detected	None detected	None detected
905–82A	May–94	None detected	None detected	None detected
905–82A	Jun–94	None detected	None detected	None detected
905–112G	May–94	None detected	None detected	None detected
905–113G	May–94	None detected	None detected	None detected
3/700 Area Drinking H_2O				
735–A	Apr–94	None detected	None detected	None detected
735–A	May–94	None detected	None detected	None detected
735–A	Jun–94		Samples destroyed during transport	
784–A	May–94	None detected	3	None detected
784–A	Jun–94	None detected	19	None detected
TSC Backup Domestic H_2O				
905–68A	Apr–94	None detected	None detected	None detected
905–68A	May–94	None detected	None detected	None detected
905–68A	Jun–94	None detected	None detected	None detected
3/700 Area Process H_2O Wells				
905–20A	Apr–94	None detected	130	None detected
905–20A	May–94	None detected	170	2.1
905–20A	Jun–94	None detected	53	2.3
Service H_2O	Apr–94	None detected	None detected	None detected
Service H_2O	May–94		Sample not pulled	
Service H_2O	Jun–94		Sample not pulled	
905–53A	Apr–94		Well out of service	
905–53A	May–94		Well out of service	
905–53A	Jun–94		Well out of service	

a Analyses performed by TMA/Eberline, Inc.

Table 71
Chlorocarbon Monitoring Results from A-Area Wells

Page 3 of 4

Location	Date	(µg/L) 111 Trichloroethane TMA[a]	Trichloroethylene TMA[a]	Tetrachloroethylene TMA[a]
Other SRS Domestic H_2O Supplies				
400–D	May–94	None detected	None detected	None detected
3/700 Area Domestic H_2O				
905–82A	Jul–94	None detected	None detected	None detected
905–82A	Aug–94	None detected	None detected	None detected
905–82A	Sep–94	None detected	None detected	None detected
905–112G	Aug–94	None detected	None detected	None detected
905–113G	Aug–94		Sample not pulled	
3/700 Area Drinking H_2O				
735–A	Jul–94	None detected	None detected	None detected
735–A	Aug–94	None detected	None detected	None detected
735–A	Sep–94	None detected	None detected	None detected
784–A	Jul–94	None detected	None detected	None detected
784–A	Sep–94	None detected	None detected	None detected
TSC Backup				
905–68A	Jul–94	None detected	None detected	None detected
Domestic H_2O				
905–68A	Aug–94	None detected	None detected	None detected
905–68A	Sep–94	None detected	None detected	None detected
3/700 Area Process H_2O Wells				
905–20A	Jul–94		Well out of service	
905–20A	Aug–94		Well out of service	
905–20A	Sep–94		Well out of service	
Service H_2O	Jul–94		Sample not pulled	
Service H_2O	Aug–94		Sample not pulled	
Service H_2O	Sep–94		Sample not pulled	
905–53A	Jul–94		Well out of service	
905–53A	Aug–94	None detected	160	9.2
905–53A	Sep–94	None detected	140	11

a Analyses performed by TMA/Eberline, Inc.

Table 71
Chlorocarbon Monitoring Results from A-Area Wells

Page 4 of 4

Location	Date	111 Trichloroethane TMA[a] ($\mu g/L$)	Trichloroethylene TMA[a] ($\mu g/L$)	Tetrachloroethylene TMA[a] ($\mu g/L$)
Other SRS Domestic H_2O Supplies				
400–D	Aug–94	None detected	None detected	None detected
905–82A	Oct–94		Well out of service	
905–82A	Nov–94		Well out of service	
905–82A	Dec–94		Well out of service	
905–112G	Nov–94		Well out of service	
905–113G	Nov–94		Well out of service	
3/700 Area Drinking H_2O				
735–A	Oct–94	None detected	None detected	None detected
735–A	Nov–94	None detected	None detected	None detected
735–A	Dec–94	None detected	None detected	None detected
784–A	Nov–94	None detected	None detected	None detected
784–A	Dec–94	None detected	None detected	None detected
TSC Backup Domestic H_2O				
905–68A	Oct–94		Well out of service	
905–68A	Nov–94		Well out of service	
905–68A	Dec–94		Well out of service	
3/700 Area Process H_2O Wells				
905–20A	Oct–94		Well out of service	
905–20A	Nov–94		Well out of service	
905–20A	Dec–94		Well out of service	
Service H_2O	Oct–94		Sample not pulled	
Service H_2O	Nov–94		Sample not pulled	
Service H_2O	Dec–94		Sample not pulled	
905–53A	Oct–94		Well out of service	
905–53A	Nov–94		Well out of service	
905–53A	Dec–94		Well out of service	
Other SRS Domestic H_2O Supplies				
400–D	Nov–94	None detected	None detected	None detected

a Analyses performed by TMA/Eberline, Inc.

Table 72
Pesticides and Herbicides in Water and Sediment from Site Streams and Savannah River

Samples from the following locations were analyzed annually for the constituents listed below. All analyses (pesticides results reported by subcontracted offsite laboratory Shealy Environmental Services, Inc., and herbicides results reported by subcontracted offsite laboratory ThermoAnalytical/ERG) were below the detection limits.

Locations	Pesticides	Water Lower Limit of Detection (LLD)—µg/L	Sediment Lower Limit of Detection (LLD)—µg/kg
Steel Creek–4	Aldrin	0.05	8.33
PAR Pond Pumphouse	Alpha-BHC	0.05	8.33
Lower Three Runs–3	Beta-BHC	0.05	8.33
Upper Three Runs at Road A	Delta-BHC	0.05	8.33
Four Mile Creek at Road A	Lindane	0.05	8.33
Pen Branch at Road A	Chlordane	0.50	83.3
Upper Three Runs at Road F	4,4–DDD	0.05	8.33
River 2 (River Mile 160)	4,4–DDE	0.05	8.33
River 10 (River Mile 120)	4,4–DDT	0.05	8.33
	Dieldrin	0.05	8.33
	Endosulfan I	0.05	8.33
	Endosulfan II	0.05	8.33
	Endosulfan sulfate	0.05	8.33
	Endrin	0.05	8.33
	Endrin aldehyde	0.05	8.33
	Endrin ketone	0.05	8.33
	Heptachlor	0.05	8.33
	Heptachlor epoxide	0.05	8.33
	Methoxychlor	0.20	33.3
	Toxaphene	5.0	833

Herbicides		
2,4–D	5.00	<LLD
2,4,5–TP (Silvex)	5.00	<LLD

a The LLDs for herbicides in sediment range from 5µ/kg to 2100 µ/kg because of differences in percent solid in samples.

Table 73
Inorganic Contaminants in Sediment

Page 1 of 2

Inorganics Constituent	mg/L Upper Three Runs at Road 1A (U3R–1A) Control	Tinker Creek Kennedy Pond Road (Control)	Steel Creek Road A (SC-4)	Lower Three Runs Patterson Mill (L3R–2)	Pen Branch Road A	Four Mile Creek Road A
Cyanide	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aluminum	<.347	0.155	0.186	0.201	0.310	0.313
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.279	0.281	0.640	0.602	0.618	1.240
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.009
Calcium	3.420	33.100	18.300	48.9	10.300	11.700
Chromium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.010	<0.10	<0.01	<0.01	<0.01	<0.01
Iron	0.244	0.136	0.196	0.057	0.278	0.325
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	0.772	0.601	1.37	2.04	0.867	0.611
Manganese	<0.184	<0.901	<7.18	<1.13	<2.9	<32.7
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	<0.015	<0.015	<0.015	<0.015	<0.015	0.036
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Uranium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Zinc	0.095	0.136	0.281	0.275	0.326	0.51

Table 73
Inorganic Contaminants in Sediment

Page 2 of 2

Inorganics Constituent	mg/L Beaver Dam Creek 400 Area (400–D)	Upper Three Runs Road A (U3R–4)	River 2 River Mile 160 (Control)	River 3B Plant Vogtle (Vogtle Discharge)	River 10 River Mile 120
Cyanide	<0.01	<0.01	<0.01	<0.01	<0.01
Aluminum	0.499	0.505	0.119	<0.075	0.100
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.742	0.266	0.384	0.481	0.355
Cadmium	<0.05	<0.05	<0.05	<0.05	<0.05
Calcium	15.100	2.870	6.210	11.600	5.310
Chromium	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	0.011	<0.01	0.01	0.01	0.01
Iron	0.196	0.318	<0.030	0.217	0.059
Lead	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	2.14	0.267	1.49	1.92	1.29
Manganese	<12.4	<1.09	<0.035	<5.16	<0.059
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	0.043	<0.015	<0.015	<0.015	<0.015
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.01	<0.01	<0.01	<0.01	<0.01
Uranium	<0.02	<0.02	<0.02	<0.02	<0.02
Zinc	0.253	0.16	<.027	0.127	0.032

Table 74
Mercury in Fish Flesh

Location/Species	Mercury (µg Hg/g – Parts Per Million)								
	Analytical Results						Min	Max	Mean
Four Mile Creek @ Creek Mouth									
Bream	0.10	0.10	0.10	0.23	0.27		0.10	0.27	0.16
Catfish	0.07	0.10	0.10	0.27	0.30		0.07	0.30	0.17
Beaver Dam Creek									
Bass	0.79						0.79	0.79	
Bream	0.42	0.69					0.42	0.69	0.55
Beaver Dam Creek @ Creek Mouth									
Bream	0.07	0.20					0.07	0.20	0.135
Catfish	0.13	0.13	0.17	0.20	0.20		0.13	0.20	0.166
Hwy 17–A Bridge									
Bass	0.10	0.13	0.17	0.20	0.47		0.10	0.47	0.214
Bream	0.07	0.10	0.10	0.10	0.13		0.07	0.13	0.10
Catfish	0.23	0.27	0.30	0.30	0.30		0.23	0.30	0.28
L-Lake									
Bass	0.70	0.73	0.80	0.83	0.83		0.70	0.83	0.778
Lower Three Runs @ Creek Mouth									
Bream	0.20	0.50	0.50	0.53	0.53	0.63	0.20	0.63	0.48
Catfish	0.33	0.36	0.42	0.45	0.45		0.33	0.45	0.402
Crappie	0.17					0.17	0.17		
PAR Pond									
Bass	1.13	1.20	1.23	1.30	1.57	1.83	1.13	1.83	1.376
Steel Creek–4									
Bass	0.70	0.77	0.87	1.10	1.20	2.10	0.70	2.10	1.123

Table 74
Mercury in Fish Flesh

Location/Species	Mercury (µg Hg/g – Parts Per Million)							
	Analytical Results					Min	Max	Mean
Steel Creek @ Creek Mouth								
Bream	0.07	0.13	0.13			0.07	0.13	0.11
Catfish	0.13	0.17	0.23	0.34	0.54	0.13	0.54	0.282
Crappie	0.10					0.10	0.10	
Warmouth	0.23					0.23	0.23	
Savannah River @ U.S. Highway 301								
Bream	0.20	0.20	0.23	0.27	0.53	0.20	0.53	0.286
Catfish	0.13	0.17	0.33	0.40	0.50	0.13	0.50	0.306
Stokes Bluff Landing								
Catfish	0.20	0.20	0.27	0.33	0.53	0.20	0.53	0.306
Upper Three Runs @ Creek Mouth								
Bream	0.07					0.07	0.07	
Catfish	0.13	0.13	0.17	0.17	0.27	0.13	0.27	0.174
West Bank Landing								
Bass	0.20	0.83				0.20	0.83	0.515
Bream	0.20					0.20	0.20	

Table 75
Blind Sample Results for pH Field Measurements

Page 1 of 2

Sample Identification	pH Units		Difference
	Measured Value	Actual Value	
BpH–01–1	4.18	4.10	0.08 units
BpH–01–2	6.85	6.92	0.07 units
BpH–01–3	9.20	9.11	0.09 units
BpH–02–1	4.13	4.03	0.10 units
BpH–02–2	6.90	6.86	0.04 units
BpH–02–3	9.20	9.08	0.12 units
BpH–03–1	7.38	7.48	0.10 units
BpH–03–2	3.99	4.05	0.06 units
BpH–03–3	8.87	9.16	0.29 units
BpH–04–1	7.30	7.45	0.15 units
BpH–04–2	6.87	6.87	0.00 units
BpH–04–3	9.12	9.14	0.02 units
BpH–05–1	4.06	4.05	0.01 units
BpH–05–2	6.80	6.88	0.08 units
BpH–05–3	10.30	10.52	0.22 units
BpH–06–1	6.85	6.90	0.05 units
BpH–06–2	4.01	4.04	0.03 units
BpH–06–3	7.45	7.43	0.02 units
BpH–06–4	10.00	10.34	0.34 units
BpH–07–1	6.80	6.85	0.05 units
BpH–07–2	7.50	7.46	0.04 units
BpH–07–3	9.00	9.10	0.10 units
BpH–08–1	6.85	6.92	0.07 units
BpH–08–2	7.35	7.51	0.16 units
BpH–09–1	4.00	3.94	0.06 units
BpH–09–2	6.80	6.88	0.08 units
BpH–09–3	9.10	9.17	0.07 units
BpH–10–1	3.98	4.00	0.02 units
BpH–10–2	6.50	6.82	0.32 units
BpH–10–3	9.11	9.13	0.02 units
BpH–11–1	4.06	3.99	0.07 units
BpH–11–2	6.80	6.80	0.00 units

Table 75
Blind Sample Results for pH Field Measurements

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Sample Identification	pH Units: Measured Value	pH Units: Actual Value	Difference
BpH–11–3	8.70	9.11	0.41 units
BpH–12–1	4.10	4.02	0.08 units
BpH–12–2	6.80	6.85	0.05 units
BpH–12–3	8.90	9.16	0.26 units

Table 76
Blind Sample Results for Conductivity Field Measurements

Page 1 of 2

Sample Identification	(µmhos/cm) Measured Value	Actual Value	Difference
BC–01–1	75	76	1.06%
BC–01–2	111	109	1.93 %
BC–01–3	130	131	0.76 %
BC–02–1	84	76	10.52 %
BC–02–2	108	100	8.00 %
BC–02–4	127	126	0.79 %
BC–03–1	109	112	2.67 %
BC–03–2	134	131	2.29 %
BC–03–3	148	149	0.67 %
BC–04–1	111	104	6.73 %
BC–04–2	155	147	5.44 %
BC–04–3	143	146	2.05 %
BC–05–1	75	74	1.35 %
BC–05–2	146	146	0.00 %
BC–05–3	180	201	10.45 %
BC–06–1	124	123	0.81 %
BC–06–2	100	101	0.99 %
BC–06–3	109	112	2.68 %
BC–06–4	135	135	0.00 %
BC–07–1	184	186	1.08 %
BC–07–2	70	64	9.38 %
BC–07–3	100	99	1.01 %
BC–08–1	183	186	1.61 %
BC–08–2	70	64	9.37 %
BC–08–3	99	101	1.98 %
BC–09–1	74	74	0.00 %
BC–09–2	192	194	1.03 %
BC–09–3	100	102	1.96 %
BC–10–1	75	75	0.00 %
BC–10–2	197	198	0.51 %
BC–10–3	100	100	0.00 %
BC–11–1	70	75	6.67 %

Table 76
Blind Sample Results for Conductivity Field Measurements

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Sample Identification	Measured Value (µmhos/cm)	Actual Value (µmhos/cm)	Difference
BC–11–2	130	135	3.70 %
BC–11–3	175	177	1.13 %
BC–12–1	76	72	5.56 %
BC–12–2	148	142	4.23 %
BC–12–3	175	178	1.69 %

Table 77
EMS Blind Sample Results for Tritium

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Sample Date	pCi/mL SRS Value	pCi/mL Known Value	Ratio	Range Lower Control Limit[a]	Range Upper Control Limit[a]
01–12–94	2.40 ± 0.71	2.25	1.06	0.5	4.1
02–11–94	4.59 ± 0.76	4.54	1.01	2.7	6.3
03–17–94	4.28 ± 0.79	4.55	0.94	2.8	6.4
04–15–94	10.50 ± 0.56	9.73	1.08	7.9	11.5
05–19–94	2.75 ± 0.40	3.01	0.91	1.2	4.8
06–16–94	10.70 ± 0.96	11.01	0.97	9.2	12.8
07–20–94	2.99 ± 0.41	3.44	0.87	1.6	5.2
08–19–94	2.55 ± 0.42	2.27	1.12	0.5	4.1
09–19–94	4.81 ± 0.87	4.98	0.97	3.2	6.8
10–19–94	2.68 ± 0.70	2.68	1.00	0.9	4.5

a Control limit is the known value ± three times the expected precision of 0.6.

Table 78
EMS Blind Sample Results for Gamma-Emitting Radionuclides

Sample Number	Nuclide	pCi/L Found Value	pCi/L Actual Value	Ratio Found/Actual	Range Lower Control Limit[a]	Range Upper Control Limit[a]
123	Co-60	29.8 ± 3.8	30 ± 2.9	0.99	21.3	38.6
	Zn-65	160 ± 13	150 ± 9	1.07	124	176
	Ru-106	210 ± 40	201 ± 12	1.04	166	236
	Cs-134	52 ± 3.5	59 ± 2.9	0.88	50.3	67.6
	Cs-137	40.8 ± 4.6	40 ± 2.9	1.02	31.3	48.6
	Ba-133	76 ± 6	79 ± 4.6	0.96	65.2	92.8
131	Co-60	49.6 ± 3.2	50 ± 2.9	0.99	41.3	58.6
	Zn-65	144 ± 12	134 ± 8	1.07	111	157
	Ru-106	214 ± 30	252 ± 14	0.85	209	295
	Cs-134	34 ± 3	40 ± 2.9	0.85	31.3	48.6
	Cs-137	53 ± 5	49 ± 2.9	1.08	40.3	57.7
	Ba-133	72 ± 4	98 ± 6	0.73	81	115

a Control limit is the actual value ± three times the expected precision.

Table 79
NPDES Blind Sample Results

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NPDES Site	Parameter Sampled	Units	Result 1	Result 2	Difference
Note:	*The laboratory performing the analyses was ThermoAnalytical, Inc. (TMA).*				
F–013	Lead	mg/L	<0.003	<0.003	<0.003
F–013	Ammonia	mg/L	<0.05	<0.05	<0.05
A–011	Biochemical Oxygen Demand	mg/L	<1	1.1	<1.1
H–017	Ammonia	mg/L	<0.05	<0.05	<0.05
H–017	Aluminum	mg/L	0.228	0.212	0.016
H–017	Mercury	mg/L	<0.0001	<0.0001	<0.0001
H–017	Silver	mg/L	<0.0005	<0.0005	<0.0005
X–014	Total Organic Carbon	mg/L	8.6	8.7	–0.1
X–014	Benzene	ug/L	<0.8	<0.8	<0.8
SC–4	Arsenic	mg/L	<0.003	<0.003	<0.003
SC–4	Chromium	mg/L	<0.02	<0.02	<0.02
SC–4	Selenium	mg/L	<0.003	<0.003	<0.003
SC–4	Silver	mg/L	<0.0005	<0.0005	<0.0005
SC–4	Barium	mg/L	<0.005	<0.005	<0.005
D–003	Total Suspended Solids	mg/L	3	2	1
H–002	Chemical Oxygen Demand	mg/L	<10	<10	<10
H–012	Sulfate	$mgSO_4/L$	6.29	6.53	–0.24
M–004	Aluminum	mg/L	<0.05	<0.05	<0.05
M–004	Copper	mg/L	<.1	<.1	<.1
M–004	Phosphorous	mgP/L	21.7	22.2	–0.5
SC–4	Arsenic	mg/L	<0.003	<0.003	<0.003
SC–4	Selenium	mg/L	<0.003	<0.003	<0.003
SC–4	Barium	mg/L	0.0098	0.0098	0
K–018	Oil and Grease	mg/L	<1	<1	<1
F–012	Chromium	mg/L	<0.02	<0.02	<0.02
F–012	Manganese	mg/l	0.0067	0.0072	–0.0005
	Volatile Organic Analyses:				
A–001	Trichloroethylene	ug/l	<2.0	<2.0	<2.0
A–001	Tetrachloroethylene	ug/l	<2.0	<2.0	<2.0
A–001	1,1,1–Trichloroethane	ug/l	<2.0	<2.0	<2.0
X–014	Mercury	mg/L	0.0002	0.00014	0.00006
H–016	Chromium	mg/L	<0.02	<0.02	<0.02

Table 79
NPDES Blind Sample Results

NPDES Site	Parameter Sampled	Units	Result 1	Result 2	Difference
F–012	Uranium	mg/L	<0.02	<0.02	<0.02
A–014	Biochemical Oxygen Demand	mg/L	1.6	2.1	–0.5
X–014	Phenol	mg/L	<0.002	<0.002	<0.002
X–014	Total Suspended Solids	mg/L	9	8	1
D–001C	Oil and Grease	mg/L	3.3	4.1	–0.8
H–016	Copper	mg/L	<0.005	<0.005	<0.005
H–016	Uranium	mg/L	<0.02	<0.02	<0.02
X–014	Benzene	mg/L	<0.08	<0.08	<0.08
H–017	Nickel	mg/L	<0.015	<0.015	<0.015
M–004	Cadmium	mg/L	<0.005	<0.005	<0.005
M–004	Cadmium	mg/L	<0.005	<0.005	<0.005
	Volatile Organic Analyses:				
A–005	Trichloroethylene	ug/l	<2	<2	<2
A–005	Tetrachloroethylene	ug/l	<2	<2	<2
A–005	1,1,1–Trichloroethane	ug/l	<2	<2	<2
	Volatile Organic Analyses:				
735–A	Trichloroethylene	ug/l	<2	<2	<2
735–A	Tetrachloroethylene	ug/l	<2	<2	<2
735–A	1,1,1–Trichloroethane	ug/l	<2	<2	<2

Table 80
NPDES Duplicate Sample Results

Sample	Analyte	Units	Result 1	Result 2	Difference
Note: The laboratory performing the analyses was ThermoAnalytical, Inc. (TMA).					
D–001	Total Suspended Solids	mg/L	7	6	1
D–001	Oil and Grease	mg/L	<1	<1	<1
A–001	Biochemical Oxygen Demand	mg/L	2.4	2.3	0.1
A–001	Total Suspended Solids	mg/L	<1	<1	<1
A–001	Oil and Grease	mg/L	<1	<1	<1
A–003	Oil and Grease	mg/L	<1	<1	<1
A–003	Chromium	mg/L	<0.02	<0.02	<0.02
A–005	Total Suspended Solids	mg/L	<1	<1	<1
A–005	Oil and Grease	mg/L	<1	<1	<1
A–011	Total Suspended Solids	mg/L	69	70	1
A–011	Oil and Grease	mg/L	<1	<1	<1
A–003	Chromium	mg/L	<0.02	<0.02	<0.02
H–016	Ammonia	mgN/L	<0.05	<0.05	<0.05
M–004	Nitrates	mgN/L	1240	1360	120
M–004	Uranium	mg/L	0.068	0.090	0.022
K–001	Oil and Grease	mg/L	26.1	22.9	3.2
M–004	Nitrates	mgN/L	1290	1310	20
M–004	Phosphate	mgP/L	9.00	9.56	0.56
M–004	Aluminum	mg/L	<0.25	<0.25	<0.25
M–004	Copper	mg/L	<0.05	<0.05	<0.05
M–004	Lead	mg/L	<0.15	<0.15	<0.15
M–004	Nickel	mg/L	<0.25	<0.25	<0.25
M–004	Uranium	mg/L	<0.02	<0.02	<0.02
K–001	Oil and Grease	mg/L	<1	<1	<1
K–001	Total Suspended Solids	mg/L	2	4	2
K–010	Oil and Grease	mg/L	1.4	<1	1.4
K–010	Total Suspended Solids	mg/L	2	2	0
K–008	Total Suspended Solids	mg/L	1	<1	1
X–014	Oil and Grease	mg/L	<1	<1	<1
X–014	Phenol	mg/L	0.005	0.008	0.003
X–014	Benzene	ug/L	<0.8	<0.8	<0.8
X–014	Total Organic Carbon	mg/L	3.3	3.3	0

Table 80
NPDES Duplicate Sample Results

Sample	Analyte	Units	Result 1	Result 2	Difference
F–001	Oil and Grease	mg/L	<1	<1	<1
F–001	Total Suspended Solids	mg/L	<1	<1	<1
F–003	Biochemical Oxygen Demand	mg/L	<1	<1	<1
F–003	Total Suspended Solids	mg/L	<1	1	1
C–001	Oil and Grease	mg/L	<1	<1	<1
C–001	Total Suspended Solids	mg/L	2	4	2
D–001	Oil and Grease	mg/L	<1	<1	<1
D–001	Total Suspended Solids	mg/L	5	4	1
A–003	Oil and Grease	mg/L	<1	<1	<1
A–003	Total Suspended Solids	mg/L	<1	1	1
A–003	Chromium	mg/L	<0.02	<0.02	<0.02
A–005	Biochemical Oxygen Demand	mg/L	<1	<1	<1
A–005	Total Suspended Solids	mg/L	2	1	1
A–001	Biochemical Oxygen Demand	mg/L	<1	<1	<1
A–001	Total Suspended Solids	mg/L	<1	<1	<1
A–003	Trichloroethylene	ug/L	<2	<2	<2
A–003	Tetrachloroethylene	ug/L	<2	<2	<2
A–003	1,1,1–Trichloroethane	ug/L	<2	<2	<2
A–005	Trichloroethylene	ug/L	<2	<2	<2
A–005	Tetrachloroethylene	ug/L	<2	<2	<2
A–005	1,1,1–Trichloroethane	ug/L	<2	<2	<2
A–001A	Trichloroethylene	ug/L	<2	<2	<2
A–001A	Tetrachloroethylene	ug/L	<2	<2	<2
A–001A	1,1,1–Trichloroethane	ug/L	<2	<2	<2
A–001	Trichloroethylene	ug/L	<2	<2	<2
A–001	Tetrachloroethylene	ug/L	<2	<2	<2
A–001	1,1,1–Trichloroethane	ug/L	<2	<2	<2
H–002	Total Organic Carbon	mg/L	<1	<1	<1
H–007	Oil and Grease	mg/L	1.3	<1.0	1.3
H–002	Chemical Oxygen Demand	mg/L	<10	<10	<10
DW–004	Biochemical Oxygen Demand	mg/L	3.3	4.4	1.1
H–016	Ammonia	mgN/L	<0.05	<0.05	<0.05
H–016	Nitrates	mgN/L	1.38	1.41	0.03

Table 80
NPDES Duplicate Sample Results

Sample	Analyte	Units	Result 1	Result 2	Difference
H-016	Chromium	mg/L	<0.02	<0.02	<0.02
H-016	Copper	mg/L	<0.01	<0.01	<0.01
H-016	Manganese	mg/L	<0.005	<0.005	<0.005
H-016	Mercury	mg/L	<0.0001	<0.0001	<0.0001
H-016	Nickel	mg/L	<0.05	<0.05	<0.05
H-016	Uranium	mg/L	<0.02	<0.02	<0.02
H-016	Zinc	mg/L	<0.01	<0.01	<0.01
SC-4	Arsenic	mg/L	<0.003	<0.003	<0.003
SC-4	Barium	mg/L	0.0151	0.0135	0.0016
SC-4	Selenium	mg/L	<0.003	<0.003	<0.003
A-001A	Trichloroethylene	ug/L	<2	<2	<2
A-001A	Tetrachloroethylene	ug/L	<2	<2	<2
A-001A	1,1,1-Trichloroethane	ug/L	<2	<2	<2
P-007	Aluminum	mg/L	0.138	0.280	0.142
P-007	Iron	mg/L	0.398	0.574	0.176
K-018	Total Suspended Solids	mg/L	4	5	1
K-018	Biochemical Oxygen Demand	mg/L	4.1	5.9	1.8
D-001C	Oil and Grease	mg/L	<1	<1	<1
D-001C	Total Suspended Solids	mg/L	19	18	1
C-003	Oil and Grease	mg/L	<1	<1	<1
C-003	Total Suspended Solids	mg/L	2	1	1
C-004	Oil and Grease	mg/L	<1	<1	<1
C-004	Total Suspended Solids	mg/L	3	2	1
X-008	Iron	mg/L	2.0	1.97	0.03
X-014	Phenol	mg/L	0.002	<0.002	0.002
X-014	Benzene	ug/L	<0.08	<0.08	<0.08
X-014	Total Organic Carbon	mg/L	8.8	9.4	0.6
F-002	Oil and Grease	mg/L	<1	<1	<1
F-002	Total Suspended Solids	mg/L	<1	<1	<1
F-003	Oil and Grease	mg/L	<1	<1	<1
F-003	Biochemical Oxygen Demand	mg/L	<1	<1	<1
F-003	Total Suspended Solids	mg/L	2	2	0
M-004	Phosphate	mgP/L	14.0	16.2	2.2

Table 80
NPDES Duplicate Sample Results

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Sample	Analyte	Units	Result 1	Result 2	Difference
H–016	Ammonia	mgN/L	<0.05	<0.05	<0.05
H–016	Nitrates	mgN/L	5.27	5.35	0.08
H–016	Aluminum	mg/L	<0.05	0.105	0.105
H–016	Chromium	mg/L	<0.02	<0.02	<0.02
H–016	Copper	mg/L	<0.01	<0.01	<0.01
H–016	Lead	mg/L	<0.003	<0.003	<0.003
H–016	Manganese	mg/L	<0.005	<0.005	<0.005
H–016	Mercury	mg/L	<0.0001	<0.0001	<0.0001
H–016	Nickel	mg/L	<0.05	<0.05	<0.05
H–016	Uranium	mg/L	<0.02	<0.02	<0.02
H–016	Zinc	mg/L	<0.01	<0.01	<0.01
F–013	Ammonia	mgN/L	<0.05	<0.05	<0.05
F–013	Nitrates	mgN/L	<0.02	0.03	0.03
F–013	Aluminum	mg/L	0.191	0.168	0.023
F–013	Chromium	mg/L	<0.02	<0.02	<0.02
F–013	Copper	mg/L	<0.01	<0.01	<0.01
F–013	Lead	mg/L	<0.003	<0.003	<0.003
F–013	Manganese	mg/L	0.0074	0.0067	0.0007
F–013	Mercury	mg/L	<0.0001	<0.0001	<0.0001
F–013	Nickel	mg/L	<0.05	<0.05	<0.05
F–013	Silver	mg/L	<0.005	<0.005	<0.005
F–013	Uranium	mg/L	<0.02	<0.02	<0.02
F–013	Zinc	mg/L	0.087	0.087	0
H–008A	Oil and Grease	mg/L	<1.0	2.7	2.7
H–008A	Total Suspended Solids	mg/L	5	5	0
H–008	Oil and Grease	mg/L	1.2	<1.0	1.2
H–008	Total Suspended Solids	mg/L	4	6	2
A–011	Biochemical Oxygen Demand	mg/L	<1.0	2.6	2.6
A–011	Total Suspended Solids	mg/L	18	7	11
A–001	Trichloroethylene	ug/L	<2	<2	<2
A–001	Tetrachloroethylene	ug/L	<2	<2	<2
A–001	1,1,1–Trichloroethane	ug/L	<2	<2	<2
A–011	Trichloroethylene	ug/L	<2	<2	<2

Table 80
NPDES Duplicate Sample Results

Sample	Analyte	Units	Result 1	Result 2	Difference
A–011	Tetrachloroethylene	ug/L	<2	<2	<2
A–011	1,1,1–Trichloroethane	ug/L	<2	<2	<2
H–017	Ammonia	mgN/L	<0.05	<0.05	<0.05
H–017	Nitrates	mgN/L	0.02	0.04	0.02
H–017	Aluminum	mg/L	0.113	0.111	0.002
H–017	Chromium	mg/L	0.044	0.042	0.002
H–017	Copper	mg/L	<0.01	<0.01	<0.01
H–017	Lead	mg/L	<0.003	<0.003	<0.003
H–017	Manganese	mg/L	<0.005	<0.005	<0.005
H–017	Mercury	mg/L	<0.0001	<0.0001	<0.0001
H–017	Nickel	mg/L	<0.05	<0.05	<0.05
H–017	Silver	mg/L	0.00051	<0.0005	0.0005
H–017	Uranium	mg/L	<0.02	<0.02	<0.02
H–017	Zinc	mg/L	0.130	0.125	0.005
M–005	Trichloroethylene	ug/L	<2	<2	<2
M–005	Tetrachloroethylene	ug/L	<2	<2	<2
M–005	1,1,1–Trichloroethane	ug/L	<2	<2	<2
H–017	Ammonia	mgN/L	<0.05	<0.05	<0.05
H–017	Nitrates	mgN/L	0.08	0.08	0
H–017	Aluminum	mg/L	0.228	0.217	0.011
H–017	Chromium	mg/L	<0.02	<0.02	<0.02
H–017	Copper	mg/L	<0.01	<0.01	<0.01
H–017	Lead	mg/L	<0.003	<0.003	<0.003
H–017	Manganese	mg/L	0.0109	0.0113	0.0004
H–017	Mercury	mg/L	<0.0001	<0.0001	<0.0001
H–017	Nickel	mg/L	<0.05	<0.05	<0.05
H–017	Silver	mg/L	<0.0005	<0.0005	<0.0005
H–017	Uranium	mg/L	<0.02	<0.02	<0.02
H–017	Zinc	mg/L	0.218	0.216	0.002
DW–002	Oil and Grease	mg/L	3.6	4.8	1.2
A–001A	Trichloroethylene	ug/L	<2	<2	<2
A–001A	Tetrachloroethylene	ug/L	<2	<2	<2
A–001A	1,1,1–Trichloroethane	ug/L	<2	<2	<2

Table 80
NPDES Duplicate Sample Results

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Sample	Analyte	Units	Result 1	Result 2	Difference
P–007	Total Suspended Solids	mg/L	3	3	0
P–007	Iron	mg/L	0.487	0.534	0.047
H–016	Ammonia	mgN/L	<0.05	<0.05	<0.05
H–016	Nitrates	mgN/L	5.06	6.45	1.39
H–016	Aluminum	mg/L	<0.05	<0.05	<0.05
H–016	Chromium	mg/L	<0.02	<0.02	<0.02
H–016	Copper	mg/L	<0.01	<0.01	<0.01
H–016	Lead	mg/L	<0.003	<0.003	<0.003
H–016	Manganese	mg/L	<0.005	<0.005	<0.005
H–016	Mercury	mg/L	<0.0001	<0.0001	<0.0001
H–016	Nickel	mg/L	<0.05	<0.05	<0.05
H–016	Uranium	mg/L	<0.02	<0.02	<0.02
H–016	Zinc	mg/L	<0.01	<0.01	<0.01
X–014	Phenol	mg/L	0.002	0.004	0.002
X–014	Benzene	ug/L	<0.8	<0.8	<0.8
X–014	Total Organic Carbon	mg/L	10	11	1
X–014	Biochemical Oxygen Demand	mg/L	2.1	1.9	0.2
SC–4	Arsenic	mg/L	<0.003	<0.003	<0.003
SC–4	Barium	mg/L	<0.005	<0.005	<0.005
SC–4	Chromium	mg/L	<0.02	<0.02	<0.02
SC–4	Selenium	mg/L	<0.003	<0.003	<0.003
SC–4	Silver	mg/L	<0.0005	<0.0005	<0.0005
F–012	Copper	mg/L	<0.01	<0.01	<0.01
F–012	Lead	mg/L	<0.03	<0.003[a]	<0.03
F–012	Manganese	mg/L	0.0141	0.0135	0.0006
F–012	Mercury	mg/L	<0.0001	<0.0001	<0.0001
F–012	Nickel	mg/L	<0.05	<0.05	<0.05
F–012	Zinc	mg/L	0.091	0.092	0.001
A–005	Biochemical Oxygen Demand	mg/L	2.0	3.2	1.2
DW–004	Biochemical Oxygen Demand	mg/L	1.4	1.2	0.2
DW–004	Total Suspended Solids	mg/L	2	3	1
A–003	Trichloroethylene	ug/L	<2	<2	<2

a Dilution affected detection limit.

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NPDES Duplicate Sample Results

Sample	Analyte	Units	Result 1	Result 2	Difference
A–003	Tetrachloroethylene	ug/L	<2	<2	<2
A–003	1,1,1–Trichloroethane	ug/L	<2	<2	<2
A–005	Trichloroethylene	ug/L	<2	<2	<2
A–005	Tetrachloroethylene	ug/L	<2	<2	<2
A–005	1,1,1–Trichloroethane	ug/L	<2	<2	<2
A–011	Trichloroethylene	ug/L	<2	<2	<2
A–011	Tetrachloroethylene	ug/L	<2	<2	<2
A–011	1,1,1–Trichloroethane	ug/L	<2	<2	<2
DW–004	Oil and Grease	mg/L	<1	<1	<1
M–OO4	Nitrates	mgN/L	1790	1350	440
M–OO4	Phosphate	mgP/L	17.9	18.6	0.7
M–OO4	Aluminum	mg/L	<0.5	<0.5	<0.5
M–OO4	Copper	mg/L	<0.1	<0.1	<0.1
M–OO4	Lead	mg/L	<0.03	<0.03	<0.03
M–OO4	Nickel	mg/L	<0.5	<0.5	<0.5
M–OO4	Uranium	mg/L	<0.02	<0.02	<0.02
X–008	Aluminum	mg/L	0.098	0.103	0.005
X–008	Iron	mg/L	1.61	1.67	0.06
D–003	Total Suspended Solids	mg/L	3	3	0
D–003	Oil and Grease	mg/L	<1	<1	<1
D–006	Oil and Grease	mg/L	<1	<1	<1
D–006	Total Suspended Solids	mg/L	5	4	1
F–003	Biochemical Oxygen Demand	mg/L	1.3	<1	1.3
F–003	Total Suspended Solids	mg/L	7	6	1
F–005	Oil and Grease	mg/L	1.2	<1.0	1.2
F–005	Total Suspended Solids	mg/L	<1	1	1
H–002	Oil and Grease	mg/L	<1	<1	<1
H–002	Total Suspended Solids	mg/L	2	1	1
H–002	Chemical Oxygen Demand	mg/L	<10	<10	<10
H–004	Oil and Grease	mg/L	<1	<1	<1
H–004	Total Suspended Solids	mg/L	<1	<1	<1
H–012	Total Suspended Solids	mg/L	6	6	0
H–012	Sulfate	$mgSO_4/L$	6.29	6.36	0.07

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Sample	Analyte	Units	Result 1	Result 2	Difference
D–006	Fecal Coliform	#/100ml	38	38	0
H–012	Oil and Grease	mg/L	<1	<1	<1
H–004	Oil and Grease	mg/L	<1	<1	<1
F–008	Total Suspended Solids	mg/L	3	3	0
F–008	Oil and Grease	mg/L	<1	<1	<1
A–014	Trichloroethylene	ug/L	<2	<2	<2
A–014	Tetrachloroethylene	ug/L	<2	<2	<2
A–014	1,1,1–Trichloroethane	ug/L	<2	<2	<2
X–014	Benzene	ug/L	<0.8	<0.8	<0.8
A–014	Oil and Grease	mg/L	1.6	<1.0	1.6
X–014	Mercury	mg/L	0.20	0.16	0.04
X–014	Total Organic Carbon	mg/L	9.9	9.6	0.3
M–005	Trichloroethylene	ug/L	<2	<2	<2
M–005	Tetrachloroethylene	ug/L	<2	<2	<2
M–005	1,1,1–Trichloroethane	ug/L	<2	<2	<2
F–012	Nitrates	mgN/L	0.03	0.05	0.02
F–012	Chromium	mg/L	<0.02	<0.02	<0.02
F–012	Manganese	mg/L	0.0067	0.0068	0.0001
L–007	Total Suspended Solids	mg/L	13	7	6
A–001	Biochemical Oxygen Demand	mg/L	1.1	2.2	1.1
A–001	Total Suspended Solids	mg/L	<1	<1	<1
A–003	Chromium	mg/L	<0.02	<0.02	<0.02
A–005	Biochemical Oxygen Demand	mg/L	1.4	1.2	0.2
A–005	Total Suspended Solids	mg/L	<1	<1	<1
A–011	Oil and Grease	mg/L	<1.0	1	1
A–011	Biochemical Oxygen Demand	mg/L	<1	<1	<1
L–008	Total Suspended Solids	mg/L	2	2	0
M–004	Total Suspended Solids	mg/L	6	5	1
M–004	Nitrates	mgN/L	1680	1680	0
M–004	Phosphate	mgP/L	21.7	21.5	0.2
A–001	Trichloroethylene	ug/L	<2	<2	<2
A–001	Tetrachloroethylene	ug/L	<2	<2	<2
A–001	1,1,1–Trichloroethane	ug/L	<2	<2	<2

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Sample	Analyte	Units	Result 1	Result 2	Difference
A–005	Trichloroethylene	ug/L	3.2	2.8	0.4
A–005	Tetrachloroethylene	ug/L	<2	<2	<2
A–005	1,1,1–Trichloroethane	ug/L	<2	<2	<2.
K–018	Oil and Grease	mg/L	<1	<1	<1
K–018	Total Suspended Solids	mg/L	5	4	1
K–018	Biochemical Oxygen Demand	mg/L	1.1	1.9	0.8
SC–4	Arsenic	mg/L	<0.003	<0.003	<0.003
SC–4	Barium	mg/L	0.0098	0.0132	0.0034
SC–4	Selenium	mg/L	<0.003	<0.003	<0.003
H–017	Nitrates	mgN/L	0.05	0.05	0
H–017	Aluminum	mg/L	0.188	0.162	0.026
H–017	Copper	mg/L	<0.01	<0.01	<0.01
H–017	Lead	mg/L	<0.003	<0.003	<0.003
H–017	Manganese	mg/L	0.0262	0.0269	0.0007
H–017	Mercury	mg/L	<0.0001	<0.0001	<0.0001
H–017	Nickel	mg/L	<0.05	<0.05	<0.05
H–017	Uranium	mg/L	<0.02	<0.02	<0.02
H–017	Zinc	mg/L	<0.01	<0.01	<0.01
A–005	Fecal Coliform	#/100ml	5	6	1
A–014	Trichloroethylene	ug/L	3.6	4.0	0.4
A–014	Tetrachloroethylene	ug/L	<2	<2	<2
A–014	1,1,1–Trichloroethane	ug/L	<2	<2	<2
SC–4	Nitrates	mgN/L	0.05	0.07	0.02
SC–4	Cadmium	mg/L	<0.01	<0.01	<0.01
SC–4	Chromium	mg/L	<0.02	<0.02	<0.02
SC–4	Lead	mg/L	<0.003	<0.003	<0.003
SC–4	Mercury	mg/L	<0.0001	<0.0001	<0.0001
DW–004	Biochemical Oxygen Demand	mg/L	2.4	2.8	0.4
X–014	Phenol	mg/L	<0.002	<0.002	<0.002
X–014	Benzene	ug/L	<0.8	<0.8	<0.8
X–014	Total Organic Carbon	mg/L	9.9	9.4	0.5
H–016	Biochemical Oxygen Demand	mg/L	<1	1.1	1.1
H–016	Total Suspended Solids	mg/L	<1	<1	<1

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Sample	Analyte	Units	Result 1	Result 2	Difference
H–016	Aluminum	mg/L	<0.05	<0.05	<0.05
H–016	Copper	mg/L	<0.01	<0.01	<0.01
H–016	Manganese	mg/L	<0.005	<0.005	<0.005
H–016	Nickel	mg/L	<0.05	<0.05	<0.05
H–016	Uranium	mg/L	<0.02	<0.02	<0.02
H–016	Zinc	mg/L	<0.01	<0.01	<0.01
H–012	Total Suspended Solids	mg/L	1	1	0
K–010	Oil and Grease	mg/L	<1	<1	<1
K–006	Oil and Grease	mg/L	1.7	<1	1.7
K–006	Total Suspended Solids	mg/L	1	120	119
T–005	Biochemical Oxygen Demand	mg/L	1.8	1.6	0.2
T–005	Total Suspended Solids	mg/L	1.8	1.6	0.2
P–007	Oil and Grease	mg/L	1.7	2.7	1
P–007	Total Suspended Solids	mg/L	14	30	16
P–007	Iron	mg/L	0.356	0.427	0.071
L–008	Oil and Grease	mg/L	1.5	2.4	0.9
L–007	Oil and Grease	mg/L	1.8	2.4	0.6
L–007	Total Suspended Solids	mg/L	8	7	1
A–011	Trichloroethylene	ug/L	<2	<2	<2
A–011	Tetrachloroethylene	ug/L	<2	<2	<2
A–011	1,1,1–Trichloroethane	ug/L	<2	<2	<2
K–018	Fecal Coliform	#/100ml	<2	<2	<2
A–005	Fecal Coliform	#/100ml	<2	<2	<2
C–001	Total Suspended Solids	mg/L	1	<1	1
D–001	Total Suspended Solids	mg/L	10	11	1
X–008	Oil and Grease	mg/L	<1	<1	<1
X–008	Aluminum	mg/L	<0.05	<0.05	<0.05
X–008	Iron	mg/L	0.625	1.17	0.545
X–004	Oil and Grease	mg/L	1	<1	1
A–001A	Trichloroethylene	ug/L	<2	<2	<2
A–001A	Tetrachloroethylene	ug/L	<2	<2	<2
A–001A	1,1,1–Trichloroethane	ug/L	<2	<2	<2
X–014	Phenol	mg/L	<0.002	<0.002	<0.002

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Sample	Analyte	Units	Result 1	Result 2	Difference
X–014	Benzene	ug/L	<0.08	<0.08	<0.08
X–014	Total Organic Carbon	mg/L	11	12	1
H–016	Oil and Grease	mg/L	<1	<1	<1
H–016	Ammonia	mgN/L	<0.05	<0.05	<0.05
H–016	Nitrates	mgN/L	4.78	4.51	0.27
H–016	Aluminum	mg/L	<0.05	<0.05	<0.05
H–016	Chromium	mg/L	<0.02	<0.02	<0.02
H–016	Copper	mg/L	<0.01	<0.01	<0.01
H–016	Lead	mg/L	<0.003	<0.003	<0.003
H–016	Manganese	mg/L	<0.005	<0.005	<0.005
H–016	Mercury	mg/L	<0.0001	<0.0001	<0.0001
H–016	Nickel	mg/L	<0.05	<0.05	<0.05
H–016	Zinc	mg/L	0.010	0.011	0.001
H–012	Oil and Grease	mg/L	1.4	2.2	0.8
H–012	Ammonia	mgN/L	0.14	0.05	0.09
H–012	Nitrates	mgN/L	9.52	9.13	0.39
H–012	Aluminum	mg/L	0.075	0.072	0.003
H–012	Copper	mg/L	0.011	0.013	0.002
H–012	Lead	mg/L	<0.003	<0.003	<0.003
H–012	Manganese	mg/L	0.0096	0.0092	0.0004
H–012	Mercury	mg/L	<0.0001	<0.0001	<0.0001
H–012	Nickel	mg/L	<0.05	<0.05	<0.05
H–012	Silver	mg/L	<0.0005	<0.0005	<0.0005
H–012	Uranium	mg/L	<0.02	<0.02	<0.02
H–012	Zinc	mg/L	0.030	0.023	0.007
K–010	Total Suspended Solids	mg/L	15	11	4
F–001	Total Suspended Solids	mg/L	8	5	3
F–003	Biochemical Oxygen Demand	mg/L	<1.0	2.8	2.8
F–003	Total Suspended Solids	mg/L	2	4	2
F–008	Ammonia	mgN/L	<0.05	<0.05	<0.05
F–008	Nitrates	mgN/L	1.00	0.96	0.04
F–008	Aluminum	mg/L	0.211	0.195	0.016
F–008	Copper	mg/L	<1	<1	<1

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Sample	Analyte	Units	Result 1	Result 2	Difference
F–008	Lead	mg/L	<0.003	<0.003	<0.003
F–008	Manganese	mg/L	0.0148	0.0136	0.0012
F–008	Mercury	mg/L	<0.0001	<0.0001	<0.0001
F–008	Nickel	mg/L	<0.05	<0.05	<0.05
F–008	Silver	mg/L	<0.0005	<0.0005	<0.0005
F–008	Uranium	mg/L	<0.02	<0.02	<0.02
F–008	Zinc	mg/L	0.034	0.034	0
X–014	Biochemical Oxygen Demand	mg/L	1.8	2.0	0.2
X–014	Total Suspended Solids	mg/L	5	4	1
T–005	Oil and Grease	mg/L	1.4	<1.0	1.4
A–003	Oil and Grease	mg/L	1.4	1.7	0.3
A–003	Total Suspended Solids	mg/L	<1	<1	<1
A–003	Chromium	mg/L	<1	<1	<1
A–001	Biochemical Oxygen Demand	mg/L	<1	<1	<1
A–001	Total Suspended Solids	mg/L	<1	<1	<1
A–005	Total Suspended Solids	mg/L	<1	<1	<1
A–003	Trichloroethylene	ug/L	<2	<2	<2
A–003	Tetrachloroethylene	ug/L	<2	<2	<2
A–003	1,1,1–Trichloroethane	ug/L	<2	<2	<2
A–001	Trichloroethylene	ug/L	<2	<2	<2
A–001	Tetrachloroethylene	ug/L	<2	<2	<2
A–001	1,1,1–Trichloroethane	ug/L	<2	<2	<2
A–005	Trichloroethylene	ug/L	<2	<2	<2
A–005	Tetrachloroethylene	ug/L	48	47	1
A–005	1,1,1–Trichloroethane	ug/L	5.0	4.7	0.3
SC–004	Nitrates	mgN/L	0.08	1.36	1.28
SC–004	Arsenic	mg/L	<0.003	<0.003	<0.003
SC–004	Cadmium	mg/L	<0.01	<0.01	<0.01
SC–004	Chromium	mg/L	<0.02	<0.02	<0.02
A–005	Fecal Coliform	#/100ml	<2	<2	<2
A–014	Trichloroethylene	ug/L	<2	<2	<2
A–014	Tetrachloroethylene	ug/L	<2	<2	<2
A–014	1,1,1–Trichloroethane	ug/L	<2	<2	<2

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Sample	Analyte	Units	Result 1	Result 2	Difference
A–011	Trichloroethylene	ug/L	<2	<2	<2
A–011	Tetrachloroethylene	ug/L	<2	<2	<2
A–011	1,1,1–Trichloroethane	ug/L	<2	<2	<2
A–014	Biochemical Oxygen Demand	mg/L	1.6	2.0	0.4
A–014	Total Suspended Solids	mg/L	<1	<1	<1
A–011	Oil and Grease	mg/L	<1	<1	<1
A–011	Biochemical Oxygen Demand	mg/L	<1	<1	<1
A–011	Total Suspended Solids	mg/L	<1	<1	<1
C–001	Oil and Grease	mg/L	<1	<1	<1
C–003	Oil and Grease	mg/L	<1	<1	<1
C–003	Total Suspended Solids	mg/L	<1	<1	<1
C–004	Oil and Grease	mg/L	3.1	2.6	0.5
C–004	Total Suspended Solids	mg/L	<1	<1	<1
D–001	Oil and Grease	mg/L	6.3	<1	6.3
D–001C	Total Suspended Solids	mg/L	2	1	1
DW–004	Biochemical Oxygen Demand	mg/L	1.0	2.2	1.2
DW–004	Total Suspended Solids	mg/L	1	2	1
F–001	Oil and Grease	mg/L	8.0	2.9	5.1
F–002	Total Suspended Solids	mg/L	<1	<1	<1
H–008A	Total Suspended Solids	mg/L	4	4	0
H–008	Total Suspended Solids	mg/L	6	7	1
F–003	Lead	mg/L	0.247	0.244	0.003
F–003	Lead	mg/L	0.172	0.173	0.001
F–012	Ammonia	mgN/L	<0.05	<0.05	<0.05
F–012	Nitrates	mgN/L	0.98	0.98	0
F–012	Aluminum	mg/L	0.108	0.163	0.055
F–012	Chromium	mg/L	<0.02	<0.02	<0.02
F–012	Copper	mg/L	0.010	0.013	0.003
F–012	Lead	mg/L	<0.003	<0.003	<0.003
F–012	Manganese	mg/L	0.0132	0.0145	0.0013
F–012	Mercury	mg/L	<0.0001	<0.0001	<0.0001
F–012	Nickel	mg/L	<0.05	<0.05	<0.05
F–012	Silver	mg/L	<0.0005	<0.0005	<0.0005

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Sample	Analyte	Units	Result 1	Result 2	Difference
F–012	Uranium	mg/L	<0.02	<0.02	<0.02
F–012	Zinc	mg/L	0.087	0.087	0
H–017	Ammonia	mgN/L	<0.05	<0.05	<0.05
H–017	Nitrates	mgN/L	0.42	0.43	0.01
H–017	Aluminum	mg/L	0.084	0.123	0.039
H–017	Chromium	mg/L	<0.02	<0.02	<0.02
H–017	Copper	mg/L	0.013	0.020	0.007
H–017	Lead	mg/L	<0.003	<0.003	<0.003
H–017	Manganese	mg/L	0.0126	0.0137	0.0011
H–017	Mercury	mg/L	<0.0001	<0.0001	<0.0001
H–017	Nickel	mg/L	<0.05	<0.05	<0.05
H–017	Silver	mg/L	<0.0005	<0.0005	<0.0005
H–017	Uranium	mg/L	<0.02	<0.02	<0.02
H–017	Zinc	mg/L	0.111	0.115	0.004
K–010	Oil and Grease	mg/L	11.6	12.4	0.8
K–018	Biochemical Oxygen Demand	mg/L	1.4	1.0	0.4
K–018	Total Suspended Solids	mg/L	4	4	0
P–013	Oil and Grease	mg/L	13.2	13.2	0
M–004	Nitrates	mg/L	471	548	77
M–004	Cadmium	mg/L	<0.1	<0.1	<0.1
M–004	Chromium	mg/L	<0.2	<0.2	<0.2
K–018	Fecal Coliform	#/100ml	26	14	12
D–006	Fecal Coliform	#/100ml	146	210	64
X–014	Phenol	mg/L	<0.002	<0.002	<0.002
X–014	Benzene	ug/L	<0.8	<0.8	<0.8
A–011	Trichloroethylene	ug/L	<2	<2	<2
A–011	Tetrachloroethylene	ug/L	<2	<2	<2
A–011	1,1,1–Trichloroethane	ug/L	<2	<2	<2
H–016	Biochemical Oxygen Demand	mg/L	1.4	<1.0	1.4
H–016	Total Suspended Solids	mg/L	<1	<1	<1
H–016	Nitrates	mgN/L	10.2	10.3	0.1
H–016	Aluminum	mg/L	<0.05	<0.05	<0.05
H–016	Chromium	mg/L	<0.005	<0.005	<0.005

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Sample	Analyte	Units	Result 1	Result 2	Difference
H–016	Copper	mg/L	<0.005	<0.005	<0.005
H–016	Lead	mg/L	<0.003	<0.003	<0.003
H–016	Manganese	mg/L	<0.005	<0.005	<0.005
H–016	Mercury	mg/L	<0.0001	<0.0001	<0.0001
H–016	Nickel	mg/L	<0.005	<0.005	<0.005
H–016	Zinc	mg/L	0.0099	0.09	0.0801
H–008A	Oil and Grease	mg/L	1.8	1.1	0.7
H–008	Oil and Grease	mg/L	1	<1	1
H–012	Ammonia	mgN/L	<0.05	<0.05	<0.05
H–012	Nitrates	mgN/L	4.76	4.50	0.26
H–012	Mercury	mg/L	<0.0001	0.00011	0.00011
H–012	Uranium	mg/L	<0.02	<0.02	<0.02
P–013	Total Suspended Solids	mg/L	2	2	0
X–014	Phenol	mg/L	<0.002	<0.002	<0.002
X–014	Benzene	ug/L	<0.8	<0.8	<0.8
X–014	Total Organic Carbon	mg/L	6.3	6.4	0.1
X–014	Biochemical Oxygen Demand	mg/L	<1	<1	<1
K–010	Total Suspended Solids	mg/L	25	20	5
K–018	Oil and Grease	mg/L	<1	<1	<1
H–012	Aluminum	mg/L	0.100	0.104	0.004
H–012	Chromium	mg/L	<0.02	<0.02	<0.02
H–012	Copper	mg/L	0.017	0.015	0.002
H–012	Lead	mg/L	<0.003	<0.003	<0.003
H–012	Manganese	mg/L	0.0095	0.0092	0.0003
H–012	Nickel	mg/L	<0.015	<0.015	<0.015
H–012	Silver	mg/L	<0.0005	<0.0005	<0.0005
H–012	Zinc	mg/L	0.029	0.026	0.003
A–011	Biochemical Oxygen Demand	mg/L	1.2	1.2	0
A–011	Total Suspended Solids	mg/L	2	<1	2
F–002	Oil and Grease	mg/L	<1	<1	<1
F–005	Oil and Grease	mg/L	<1	1.1	1.1
F–005	Total Suspended Solids	mg/L	13	13	0
F–008	Total Suspended Solids	mg/L	7	2	5

Table 80
NPDES Duplicate Sample Results

Sample	Analyte	Units	Result 1	Result 2	Difference
D–001C	Oil and Grease	mg/L	3.3	3.1	0.2
A–001	Total Suspended Solids	mg/L	<1	<1	<1
A–001A	Trichloroethylene	ug/L	<2	<2	<2
A–001A	Tetrachloroethylene	ug/L	<2	<2	<2
A–001A	1,1,1–Trichloroethane	ug/L	<2	<2	<2
A–001	Trichloroethylene	ug/L	<2	<2	<2
A–001	Tetrachloroethylene	ug/L	<2	<2	<2
A–001	1,1,1–Trichloroethane	ug/L	<2	<2	<2
A–005	Trichloroethylene	ug/L	<2	<2	<2
A–005	Tetrachloroethylene	ug/L	<2	<2	<2
A–005	1,1,1–Trichloroethane	ug/L	<2	<2	<2
K–018	Fecal Coliform	#/100ml	19	23	4
H–017	Ammonia	mgN/L	<0.05	<0.05	<0.05
H–017	Nitrates	mgN/L	0.17	0.16	0.01
H–017	Mercury	mg/L	<0.0001	<0.0001	<0.0001
H–017	Uranium	mg/L	<0.02	<0.02	<0.02
A–003	Chromium	mg/L	<0.005	<0.005	<0.005
A–011	Biochemical Oxygen Demand	mg/L	<1	<1	<1
A–011	Total Suspended Solids	mg/L	1	2	1
F–002	Oil and Grease	mg/L	<1	<1	<1
F–002	Total Suspended Solids	mg/L	5	4	1
F–003	Oil and Grease	mg/L	1	<1	1
F–003	Biochemical Oxygen Demand	mg/L	<1	<1	<1
F–003	Total Suspended Solids	mg/L	11	8	3
A–014	Biochemical Oxygen Demand	mg/L	1.3	2.0	0.7
A–014	Total Suspended Solids	mg/L	2	2	0
H–017	Aluminum	mg/L	0.219	0.308	0.089
H–017	Chromium	mg/L	<0.02	<0.02	<0.02
H–017	Copper	mg/L	0.01	<0.01	<0.01
H–017	Lead	mg/L	0.0059	0.0037	0.0022
H–017	Manganese	mg/L	0.0085	0.0081	0.0004
H–017	Nickel	mg/L	<0.015	<0.015	<0.015
H–017	Aluminum	mg/L	<0.0005	<0.0005	<0.0005

Table 80
NPDES Duplicate Sample Results

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Sample	Analyte	Units	Result 1	Result 2	Difference
H–017	Zinc	mg/L	0.155	0.138	0.017
H–008A	Oil and Grease	mg/L	<1	<1	<1
H–008A	Total Suspended Solids	mg/L	14	8	6
H–008	Total Suspended Solids	mg/L	2	2	0
H–008	Oil and Grease	mg/L	<1	<1	<1
A–001	Trichloroethylene	ug/L	<2	<2	<2
A–001	Tetrachloroethylene	ug/L	<2	<2	<2
A–001	1,1,1–Trichloroethane	ug/L	<2	<2	<2
A–011	Trichloroethylene	ug/L	<2	<2	<2
A–011	Tetrachloroethylene	ug/L	<2	<2	<2
A–011	1,1,1–Trichloroethane	ug/L	<2	<2	<2
D–001C	Oil and Grease	mg/L	<1	<1	<1
D–001C	Total Suspended Solids	mg/L	5	6	1
C–003	Oil and Grease	mg/L	1.3	1.3	0
C–003	Total Suspended Solids	mg/L	3	3	0
C–004	Oil and Grease	mg/L	1.3	1.8	0.5
C–004	Total Suspended Solids	mg/L	3	3	0
K–018	Fecal Coliform	#/100ml	27	9	18
D–006	Fecal Coliform	#/100ml	270	210	60
A–014	Trichloroethylene	ug/L	<2	<2	<2
A–014	Tetrachloroethylene	ug/L	<2	<2	<2
A–014	1,1,1–Trichloroethane	ug/L	<2	<2	<2
M–005	Trichloroethylene	ug/L	<2	<2	<2
M–005	Tetrachloroethylene	ug/L	<2	<2	<2
M–005	1,1,1–Trichloroethane	ug/L	<2	<2	<2
A–003	Oil and Grease	mg/L	<1	<1	<1
A–003	Total Suspended Solids	mg/L	<1	<1	<1
A–003	Chromium	mg/L	0.0076	0.0072	0.0004
A–001	Total Suspended Solids	mg/L	1	1	0
A–001	Biochemical Oxygen Demand	mg/L	<1	<1	<1
A–005	Biochemical Oxygen Demand	mg/L	<1	<1	<1
A–005	Total Suspended Solids	mg/L	<1	<1	<1
A–003	Trichloroethylene	ug/L	<2	<2	<2

Table 80
NPDES Duplicate Sample Results

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Sample	Analyte	Units	Result 1	Result 2	Difference
A–003	Tetrachloroethylene	ug/L	<2	<2	<2
A–003	1,1,1–Trichloroethane	ug/L	<2	<2	<2
A–001	Trichloroethylene	ug/L	<2	<2	<2
A–001	Tetrachloroethylene	ug/L	<2	<2	<2
A–001	1,1,1–Trichloroethane	ug/L	<2	<2	<2
A–005	Trichloroethylene	ug/L	<2	<2	<2
A–005	Tetrachloroethylene	ug/L	<2	<2	<2
A–005	1,1,1–Trichloroethane	ug/L	<2	<2	<2
F–003	Biochemical Oxygen Demand	mg/L	<1	<1	<1
F–003	Total Suspended Solids	mg/L	2	5	3
F–001	Total Suspended Solids	mg/L	3	2	1
F–008	Ammonia	mgN/L	<0.05	<0.05	<0.05
F–008	Nitrates	mgN/L	0.89	1.10	0.21
F–008	Aluminum	mg/L	0.273	0.26	0.013
F–008	Chromium	mg/L	0.005	0.005	0
F–008	Copper	mg/L	0.0083	0.0076	0.0007
F–008	Lead	mg/L	<0.003	<0.003	<0.003
F–008	Manganese	mg/L	0.0104	0.0100	0.0004
F–008	Mercury	mg/L	<0.0001	<0.0001	<0.0001
F–008	Nickel	mg/L	<0.005	<0.005	<0.005
F–008	Silver	mg/L	<0.0005	<0.0005	<0.0005
F–008	Uranium	mg/L	<0.02	<0.02	<0.02
F–008	Zinc	mg/L	0.0405	0.0387	0.0018
D–001	Total Suspended Solids	mg/L	8	9	1
C–001	Total Suspended Solids	mg/L	<1	<1	<1
H–007	Oil and Grease	mg/L	2.9	7.2	4.3
H–007	Total Suspended Solids	mg/L	<1	<1	<1
H–016	Oil and Grease	mg/L	<1	<1	<1
K–010	Total Suspended Solids	mg/L	1	1	0
X–004	Oil and Grease	mg/L	<1	<1	<1
X–008	Oil and Grease	mg/L	<1	<1	<1
A–001A	Trichloroethylene	ug/L	<2	<2	<2
A–001A	Tetrachloroethylene	ug/L	<2	<2	<2

Table 80
NPDES Duplicate Sample Results

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Sample	Analyte	Units	Result 1	Result 2	Difference
A–001A	1,1,1–Trichloroethane	ug/L	<2	<2	<2
X–014	Oil and Grease	mg/L	<1	2.7	2.7
X–014	Phenol	mg/L	<0.002	<0.002	<0.002
X–014	Benzene	ug/L	<0.8	<0.8	<0.8
X–014	Biochemical Oxygen Demand	mg/L	2.4	2.1	0.3
X–014	Total Suspended Solids	mg/L	7	8	1
X–014	Mercury	mg/L	0.26	0.24	0.02
X–014	Total Organic Carbon	mg/L	8.67	10.5	1.83

Table 81
QAP Interlaboratory Comparison of Analytical Results

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Nuclide	SRS Value[a]	QAP[b] Value	SRS/QAP Ratio	Lower Control Limit[c]	Upper Control Limit[c]
March–June 1994					
Air					
Ce-144	91. ± 8.	128.	0.71	89.6	166.
Co-57	9. ± 1.	12.5	0.72	8.75	16.2
Co-60	59. ± 5.	70.2	0.84	49.1	91.3
Cs-137	34. ± 3.	40.	0.85	28.	52.
Mn-54	28. ± 4.	33.5	0.84	23.4	43.5
Pu-238	0.375 ± 0.093	0.334	1.12	.234	.434
Pu-239	0.362 ± 0.09	0.31	1.17	.217	.403
Sb-125	20. ± 3.	23.3	0.86	16.3	30.3
Sr-90	0.61 ± 0.34	0.716	0.85	.501	.931
U-Ug	10.6 ± 0.2	15.8	0.67	11.1	20.5
Soil					
Cs-137	168. ± 9.	141.	1.19	98.7	183.
K-40	407. ± 39.	337.	1.21	236.	438.
Pu-238	11.3 ± 0.96	11.2	1.01	7.84	14.6
Pu-239	3.8 ± 0.36	3.56	1.07	2.49	4.63
Sr-90	4.9 ± 2.8	8.79	0.56	6.15	11.4
Vegetation					
Co-60	32. ± 3.	30.3	1.06	21.2	39.4
Cs-137	453. ± 39.	384.	1.18	.269	499.
K-40	940. ± 95.	805.	1.17	564.	1046.
Pu-239	3.88 ± 0.81	3.9	0.99	2.73	5.07
Sr-90	443. ± 26.	575.	0.77	402.	748.
Water					
Co-60	103. ± 3.	101.	1.02	70.7	131.
Cs-134	151. ± 3.	154.	0.98	108.	200.
Cs-137	100. ± 3.	93.7	1.07	65.6	122.
H-3	152. ± 11.	187.	0.81	131.	243.
Mn-54	94. ± 2.	98.2	0.96	68.7	128.
Pu-238	1.04 ± 0.09	0.941	1.11	.659	1.22
Pu-239	0.96 ± 0.08	0.956	1.00	.669	1.24
Sr-90	29.8 ± 3.6	28.6	1.04	20.	37.2
U-Ug	0.028 ± 0.002	0.041	0.68	.029	.053

a Values are Bq/L, Bq/Kg, Bq/filter, except U, whose values are ug/g and ug/filter.
b Quality Assessment Program (QAP) conducted by the DOE Environmental Measurements Laboratory
c Control limits are ± 30% of QAP value.

Table 81
QAP Interlaboratory Comparison of Analytical Results

Nuclide	SRS Value[a]	QAP[b] Value	SRS/QAP Ratio	Lower Control Limit[c]	Upper Control Limit[c]
September–December 1994					
Air					
Ce-144	64. ± 5.	81.4	0.79	57.	106.
Co-57	10.7 ± 0.5	12.9	0.83	9.03	16.8
Co-60	9.3 ± 0.7	10.2	0.91	7.14	13.3
Cs-134	20. ± 3.	21.1	0.95	14.8	27.4
Cs-137	9.6 ± 0.2	10.4	0.92	7.28	13.5
Mn-54	6.1 ± 0.5	6.69	0.91	4.68	8.7
Pu-238	0.05 ± 0.005	0.072	0.69	.05	.094
Pu-239	0.448 ± 0.032	0.648	0.69	.454	.842
Ru-106	5.7 ± 0.4	5.75	0.99	4.03	7.47
Sb-125	25. ± 3.	25.3	0.99	17.7	32.9
Sr-90	0.88 ± 0.08	1.33	0.66	.931	1.73
Soil					
Cs-137	306. ± 7.	280.	1.09	196.	364.
K-40	453. ± 19.	428.	1.06	300.	556.
Pu-238	0.037 ± 0.011	0.31	0.12	.217	.403
Pu-239	1.106 ± 0.095	7.78	0.14	5.45	10.1
Vegetation					
Co-60	11. ± 3.	10.7	1.03	7.49	13.9
Cs-137	158. ± 13.	148.	1.07	104.	192.
K-40	909. ± 31.	808.	1.13	566.	1050.
Pu-238	0.1 ± 0.02	0.0917	1.09	.064	.119
Pu-239	1.6 ± 0.13	1.25	1.28	.875	1.62
Sr-90	336. ± 45.	535.	0.63	374.	696.
Water					
Ce-144	426. ± 6.	491.	0.87	344.	638.
Co-60	338. ± 7.	317.	1.07	222.	412.
Cs-134	52. ± 1.	53.	0.98	37.1	68.9
Cs-137	51. ± 1.	46.6	1.09	32.6	60.6
H-3	108. ± 20.	113.	0.96	79.1	147.
Mn-54	103. ± 1.	108.	0.95	75.6	140.
Pu-238	1.055 ± 0.077	1.06	1.00	.742	1.38
Pu-239	0.574 ± 0.045	0.602	0.95	.421	.783
Sr-90	60.8 ± 4.5	68.6	0.89	48.	89.2

a Values are Bq/L, Bq/Kg, Bq/filter, except U, whose values are ug/g and ug/filter.
b Quality Assessment Program (QAP) conducted by the DOE Environmental Measurements Laboratory
c Control limits are ± 30% of QAP value.

Table 82
QAD Interlaboratory Comparison of Analytical Results

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Nuclide	Sample Date	SRS Value	QAD[a] Value	SRS/QAD Ratio	Range: Lower Control Limit[b]	Range: Upper Control Limit[b]
Air Filter Samples (pCi/filter)						
Alpha	08–26–94	40 ± 4	35 ± 9	1.14	19.4	50.6
Beta	08–26–94	49 ± 3	56 ± 10	0.88	38.7	73.3
Cs-137	08–26–94	17 ± 3	15 ± 5	1.13	6.3	23.7
Milk Samples (pCi/L)						
Cs-137	09–30–94	64 ± 4	59 ± 5	1.08	50.3	67.7
I-131	09–30–94	75 ± 6	75 ± 8	1.00	61.2	88.8
K-40	09–30–94	1685 ± 92	1715 ± 86	0.98	1566	1864
Sr-90	09–30–94	13 ± 3	15 ± 5	0.87	6.3	23.7
Water Samples (pCi/L)						
Alpha	01–28–94	11 ± 12	15 ± 5	0.73	6.3	23.7
	04–19–94	97 ± 18	86 ± 22	1.13	47.9	124.1
	07–22–94	23 ± 10	32 ± 8	0.72	18.2	45.8
	10–18–94	48 ± 4.4	57 ± 14	0.84	32.8	81.2
	10–28–94	45 ± 18	57 ± 14	0.79	32.8	81.2
Ba-133	06–10–94	91.7 ± 12	98 ± 10	0.94	80.7	115.3
	11–04–94	74 ± 8	73 ± 7	1.01	60.9	85.1
Beta	01–28–94	47 ± 30	62 ± 10	0.76	44.7	79.3
	04–19–94	95 ± 4.5	117 ± 18	0.81	85.8	148.2
	07–22–94	11 ± 5	10 ± 5	1.10	1.3	18.7
	10–18–94	113 ± 4.8	142 ± 21	0.80	105.6	178.4
	10–28–94	34 ± 15	23 ± 5	1.48	14.3	31.7
Co-60	04–19–94	21 ± 5	20 ± 5	1.05	11.3	28.7
	06–10–94	51 ± 7	50 ± 5	1.02	41.3	58.7
	10–18–94	39 ± 3	40 ± 5	0.98	31.3	48.7
	11–04–94	58 ± 7	59 ± 5	0.98	50.3	67.7

a Environmental Protection Agency Quality Assurance Division (QAD)
b Control limits are established by the Environmental Protection Agency QAD.

Table 82
QAD Interlaboratory Comparison of Analytical Results

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Nuclide	Sample Date	SRS Value	QAD[a] Value	SRS/QAD Ratio	Range: Lower Control Limit[b]	Range: Upper Control Limit[b]
Cs-134	04–19–94	33 ± 7	34 ± 5	0.97	25.3	42.7
	06–10–94	37 ± 6	40 ± 5	0.93	31.3	48.7
	10–18–94	18 ± 3	20 ± 5	0.90	11.3	28.7
	11–04–94	20 ± 5	24 ± 5	0.83	15.3	32.7
Cs-137	04–19–94	32 ± 8	29 ± 5	1.10	20.3	37.7
	06–10–94	53.3 ± 10	49 ± 5	1.09	40.3	57.7
	10–18–94	49 ± 3	39 ± 5	1.26	30.3	47.7
	11–04–94	55 ± 8	49 ± 5	1.12	40.3	57.7
H-3	03–04–94	4473 ± 180	4936 ± 494	0.91	4081	5791
	08–05–94	9733 ± 328	9951 ± 995	0.98	8229	11673
Pu-239	03–11–94	26.9 ± 1.8	27.6 ± 2.8	0.97	22.8	32.4
Ru-106	06–10–94	238 ± 73	252 ± 25	0.94	208.7	295.3
Sr-89	01–14–94	23.3 ± 5.9	25 ± 5	0.93	16.3	33.7
	04–19–94	12 ± 3.8	20 ± 5	0.60	11.3	28.7
	07–15–94	28 ± 5	30 ± 5	0.93	21.3	38.7
Sr-90	01–14–94	14.3 ± 4.2	15 ± 5	0.95	6.3	23.7
	04–19–94	14 ± 3.5	14 ± 5	1.00	5.3	22.7
	07–15–94	16 ± 5	20 ± 5	0.80	11.3	28.7
	10–18–94	18 ± 14	15 ± 5	1.20	6.3	23.7
U	02–11–94	10.4 ± 1.2	10.1 ± 3.0	1.03	4.9	15.3
Zn-65	06–10–94	145 ± 26	134 ± 13	1.08	111.5	156.5
	11–04–94	117 ± 20	100 ± 10	1.17	82.7	117.3

a Environmental Protection Agency Quality Assurance Division (QAD)
b Control limits are established by the Environmental Protection Agency QAD.

Table 83
Metals Analysis on Split Duplicate Samples

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Parameter	RM–160 ThermoAnalytical	RM–160 Weston	4MA–7 ThermoAnalytical	4MA–7 Weston
First Quarter				
Aluminum	0.375	0.713	0.545	0.629
Cadmium	<.01	<.01	<.01	<.01
Calcium	3.43	3.74	2.76	2.98
Chromium	<.02	<.02	<.02	<.02
Copper	<.01	<.01	<.01	<.01
Iron	0.625	0.436	1.23	1.38
Lead	<.003	0.003	<.003	0.003
Magnesium	1.3	1.39	0.62	0.665
Manganese	0.068	0.073	0.148	0.16
Mercury	<.2	<.2	<.2	<.2
Nickel	<.05	<.05	<.05	<.05
Sodium	8.98	9.87	7.04	7.62
Zinc	<.01	<.01	<.01	<.01

Second Quarter	Vogtle ThermoAnalytical	Vogtle Weston	TB–5 ThermoAnalytical	TB–5 Weston
Aluminum	0.321	0.366	0.304	0.229
Cadmium	<.01	<.01	<.01	<.01
Calcium	4.1	3.84	1.16	0.707
Chromium	<.02	<.02	<.02	<.02
Copper	<.01	<.01	<.01	<.01
Iron	0.776	0.765	1.48	0.93
Lead	<.003	0.003	<.003	0.003
Magnesium	1.4	1.35	0.453	0.297
Manganese	0.091	0.087	0.052	0.03
Mercury	<.2	<.2	<.2	<.2
Nickel	<.05	<.05	<.05	<.05
Sodium	11.7	11.1	14.2	8.43
Zinc	<.01	0.055	<.01	0.056

Table 83
Metals Analysis on Split Duplicate Samples

	RM–120		U3R–4	
Parameter	ThermoAnalytical	Weston	ThermoAnalytical	Weston
Third Quarter				
Aluminum	0.328	0.13	0.304	0.149
Cadmium	<.005	0.002	<.005	0.002
Calcium	4.17	2.82	1.66	1.27
Chromium	<.005	0.004	<.005	0.004
Copper	<.005	0.004	<.005	0.004
Iron	0.805	0.439	0.732	0.438
Lead	<.003	0.003	0.0038	0.0031
Magnesium	1.38	0.958	0.354	0.242
Manganese	0.0754	0.044	0.0349	0.0234
Mercury	<.0001	0.0002	<.0001	0.0002
Nickel	<.005	0.004	<.005	0.004
Sodium	8.8	5.88	1.61	1.15
Zinc	<.005	0.0125	0.0108	0.0446

	SC–4		L3R–2	
Fourth Quarter	ThermoAnalytical	Weston	ThermoAnalytical	Weston
Aluminum	0.282	0.111	0.074	0.0904
Cadmium	<0.005	0.00047	<0.005	0.00047
Calcium	2.00	2.11	14.1	14.5
Chromium	<0.005	0.0001	<0.005	0.001
Copper	0.0069	0.0035	0.0055	0.0023
Iron	0.588	0.441	0.230	0.251
Lead	0.0056	0.0053	0.0043	0.0083
Magnesium	1.18	1.10	0.740	0.710
Manganese	0.101	0.0979	0.0223	0.0227
Mercury	<0.0001	0.00007	<0.0001	0.00007
Nickel	<0.005	0.00068	<0.005	0.00054
Sodium	7.19	6.360	2.29	1.960
Zinc	<0.005	0.0049	0.0063	0.0072

Table 84
Metals Analysis on Split Blind Quarterly Composites

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	Weston				ThermoAnalytical, Inc.			
Metals	Duplicate 1	Duplicate 2	Duplicate 3	Average	Duplicate 1	Duplicate 2	Duplicate 3	Average
First Quarter								
Aluminum	0.207	0.136	0.138	0.160	0.185	0.158	0.162	0.168
Cadmium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Calcium	4.010	3.870	4.000	3.960	3.76	3.79	3.86	3.80
Chromium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	0.005	0.005	0.006	0.010	<0.01	<0.01	<0.01	<0.01
Iron	0.485	0.418	0.418	0.438	0.445	0.430	0.430	0.435
Lead	0.003	0.003	0.003	0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	0.699	0.675	0.696	0.690	0.662	0.664	0.683	0.670
Manganese	0.044	0.043	0.043	0.043	0.042	0.042	0.042	0.042
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Sodium	4.670	4.520	4.630	4.607	4.34	4.35	4.50	4.40
Zinc	0.008	0.008	0.009	0.010	<0.01	<0.01	<0.01	<0.01
Second Quarter								
Aluminum	0.172	0.154	0.184	0.170	0.173	0.132	0.159	0.155
Cadmium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Calcium	3.290	3.430	3.410	3.377	3.610	3.710	3.650	3.657
Chromium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Table 84
Metals Analysis on Split Blind Quarterly Composites

	Weston				ThermoAnalytical, Inc.			
Metals	Duplicate 1	Duplicate 2	Duplicate 3	Average	Duplicate 1	Duplicate 2	Duplicate 3	Average
Iron	0.471	0.476	0.493	0.480	0.489	0.459	0.486	0.478
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	0.646	0.660	0.658	0.655	0.682	0.701	0.709	0.679
Manganese	0.054	0.056	0.055	0.055	0.057	0.058	0.058	0.058
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Sodium	4.670	4.740	4.740	4.717	4.880	4.940	5.010	4.943
Zinc	0.055	0.055	0.055	0.055	<0.01	<0.01	<0.01	<0.01
Third Quarter								
Aluminum	0.104	0.125	0.0993	0.109	0.164	0.121	0.165	0.150
Cadmium	<.002	<.002	<.002	<.002	<.005	<.005	<.005	<.005
Calcium	2.73	2.91	2.58	2.740	4.14	3.98	3.95	4.023
Chromium	<.004	<.004	<.004	<.004	<.005	<.005	<.005	<.005
Copper	<.004	<.004	<.004	<.004	<.005	<.005	<.005	<.005
Iron	0.332	0.369	0.342	0.348	0.56	0.493	0.543	0.532
Lead	<.003	<.003	<.003	<.003	0.003	0.0048	0.0037	0.004
Magnesium	0.556	0.577	0.428	0.520	0.742	0.698	0.702	0.714
Manganese	0.0315	0.0347	0.0332	0.033	0.0557	0.053	0.053	0.054
Mercury	<.0002	<.0002	<.0002	<.0002	<.0001	<.0001	<.0001	<.0001
Nickel	<.004	<.004	<.004	<.004	<.005	<.005	<.005	<.005

Table 84
Metals Analysis on Split Blind Quarterly Composites

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	Weston				ThermoAnalytical, Inc.			
Metals	Duplicate 1	Duplicate 2	Duplicate 3	Average	Duplicate 1	Duplicate 2	Duplicate 3	Average
Sodium	2.88	3.11	2.94	2.977	4.63	4.48	4.54	4.550
Zinc	0.0096	0.0219	0.0362	0.023	0.0061	0.0058	0.0058	0.006
Fourth Quarter								
Aluminum	0.189	0.160	0.181	0.177	0.128	0.127	0.139	0.130
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	4.44	4.41	4.42	4.42	4.55	4.58	4.62	4.58
Chromium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0172	0.0174	0.0180	0.0175	0.0144	0.0145	0.0153	0.0147
Iron	0.570	0.518	0.554	0.547	0.496	0.499	0.510	0.502
Lead	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	0.730	0.728	0.718	0.725	0.709	0.699	0.699	0.702
Manganese	0.0605	0.0586	0.0590	0.0594	0.0554	0.0563	0.057	0.0562
Mercury	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Sodium	3.94	3.90	3.83	3.89	3.17	3.24	3.28	3.23
Zinc	0.0066	0.0076	0.0055	0.0066	0.0094	0.0066	0.0098	0.0086

Table 85
Lower Three Runs Creek Survey—Soil Results

Trail	Direction	Location	Depth (Inches)	Pu-238 (pCi/g) MDC=8.6E–04	Pu-239 (pCi/g) MDC=8.6E–04 pCi/g	Sr-89,90 (pCi/g) MDC=9.45E–02 pCi/g	Cs-137 (pCi/g) MDC= 0.024 pCi/g	Co-60 (pCi/g) MDC= 0.029 pCi/g
1	W	HG	0–3	0.00212 ± 0.00034	0.00417 ± 0.00049	<MDC	0.163 ± 0.027	<MDC
1	W	HG	3–6	0.00102 ± 0.00031	0.0136 ± 0.0012	<MDC	0.58 ± 0.059	<MDC
1	W	HG	6–9	0.00137 ± 0.00033	0.0155 ± 0.001	<MDC	0.251 ± 0.034	<MDC
1	W	HG	9–12	0.00097 ± 0.00037	0.0152 ± 0.0013	<MDC	0.163 ± 0.027	<MDC
1	W	FP	0–3	0.00397 ± 0.00065	0.0464 ± 0.0024	<MDC	1.49 ± 0.14	<MDC
1	W	FP	3–6	0.00329 ± 0.00041	0.0523 ± 0.002	<MDC	2.33 ± 0.11	<MDC
1	W	FP	6–9	0.00204 ± 0.00047	0.0243 ± 0.0017	<MDC	1.39 ± 0.07	<MDC
1	W	FP	9–12	<MDC	0.0152 ± 0.0013	<MDC	0.424 ± 0.057	<MDC
1	W	BA	0–3	0.00206 ± 0.00146	0.077 ± 0.0055	0.22 ± 0.03	31.3 ± 0.26	0.097 ± 0.021
1	W	BA	3–6	<MDC	0.0373 ± 0.0027	<MDC	15.8 ± 0.163	<MDC
1	W	BA	6–9	0.00137 ± 0.00048	0.0225 ± 0.0018	<MDC	9.84 ± 0.119	<MDC
1	W	BA	9–12	<MDC	0.0118 ± 0.0015	<MDC	5.88 ± 0.094	<MDC
1	E	BA	0–3	0.00432 ± 0.00036	0.0647 ± 0.0017	<MDC	56.8 ± 0.375	<MDC
1	E	BA	3–6	0.00463 ± 0.00086	0.0749 ± 0.0035	<MDC	66.5 ± 0.392	<MDC
1	E	BA	6–9	0.00258 ± 0.0004	0.0314 ± 0.0015	<MDC	32.8 ± 0.254	<MDC
1	E	BA	9–12	<MDC	0.00566 ± 0.00066	<MDC	8.16 ± 0.121	<MDC

Key: E–East, N–North, S–South, W–West; BA–Bank, FP–Flood plain, HG–High ground; MDC–Typical minimum detectable concentration, I–Interferences in chemical preparation, NA–Not analyzed, SM–Sample missing

Table 85
Lower Three Runs Creek Survey—Soil Results

Trail	Direc-tion	Loca-tion	Depth (inches)	Pu-238 (pCi/g) MDC=8.6E–04	Pu-239 (pCi/g) MDC=8.6E–04 pCi/g	Sr-89,90 (pCi/g) MDC=9.45E–02 pCi/g	Cs-137 (pCi/g) MDC= 0.024 pCi/g	Co-60 (pCi/g) MDC= 0.029 pCi/g
1	E	FP	0–3	0.0058 ± 0.00095	0.0579 ± 0.0031	<MDC	4.42 ± 0.178	<MDC
1	E	FP	3–6	0.00451 ± 0.00054	0.0581 ± 0.0022	<MDC	1.02 ± 0.114	<MDC
1	E	FP	6–9	0.00231 ± 0.00036	0.0243 ± 0.0012	<MDC	0.761 ± 0.07	<MDC
1	E	FP	9–12	0.00153 ± 0.00032	0.00902 ± 0.00077	<MDC	0.603 ± 0.091	<MDC
1	E	HG	0–3	0.00243 ± 0.00039	0.0276 ± 0.0014	<MDC	1.67 ± 0.08	<MDC
1	E	HG	3–6	0.001 ± 0.00021	0.0134 ± 0.0008	<MDC	0.781 ± 0.297	<MDC
1	E	HG	6–9	<MDC	0.00809 ± 0.00099	<MDC	0.402 ± 0.041	<MDC
1	E	HG	9–12	<MDC	0.00717 ± 0.00069	<MDC	0.299 ± 0.036	<MDC
2	W	HG	0–3	0.00095 ± 0.00024	0.00237 ± 0.00039	<MDC	0.266 ± 0.051	<MDC
2	W	HG	3–6	0.00143 ± 0.00058	0.00118 ± 0.00053	<MDC	0.147 ± 0.025	<MDC
2	W	HG	6–9	0.00204 ± 0.00036	0.0173 ± 0.0011	<MDC	<MDC	<MDC
2	W	HG	9–12	0.00326 ± 0.00042	0.0134 ± 0.0009	<MDC	0.356 ± 0.042	<MDC
2	W	FP	0–3	0.00135 ± 0.0003	<MDC	<MDC	0.044 ± 0.018	<MDC
2	W	FP	3–6	<MDC	<MDC	<MDC	0.034 ± 0.012	<MDC
2	W	FP	6–9	<MDC	<MDC	<MDC	0.101 ± 0.02	<MDC
2	W	FP	9–12	<MDC	<MDC	<MDC	<MDC	<MDC
2	W	BA	0–3	0.00498 ± 0.00063	0.0244 ± 0.0015	0.17 ± 0.03	14.9 ± 0.21	<MDC
2	W	BA	3–6	SM	SM	SM	SM	<MDC
2	W	BA	6–9	SM	SM	SM	SM	<MDC
2	W	BA	9–12	SM	SM	SM	SM	<MDC
2	E	BA	0–3	0.00521 ± 0.00071	0.0826 ± 0.0033	0.12 ± 0.02	54.5 ± 0.412	<MDC

Table 85
Lower Three Runs Creek Survey—Soil Results

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Trail	Direc-tion	Loca-tion	Depth (Inches)	Pu-238 (pCi/g) MDC=8.6E–04	Pu-239 (pCi/g) MDC=8.6E–04 pCi/g	Sr-89,90 (pCi/g) MDC=9.45E–02 pCi/g	Cs-137 (pCi/g) MDC= 0.024 pCi/g	Co-60 (pCi/g) MDC= 0.029 pCi/g
2	E	BA	3–6	0.00784 ± 0.0005	0.0882 ± 0.0022	0.12 ± 0.02	64.3 ± 0.499	<MDC
2	E	BA	6–9	0.00489 ± 0.00066	0.074 ± 0.0029	0.15 ± 0.03	54 ± 0.412	0.111 ± 0.024
2	E	BA	9–12	0.00302 ± 0.00058	0.037 ± 0.002	<MDC	31 ± 0.327	<MDC
2	E	FP	0–3	0.00101 ± 0.00021	0.00889 ± 0.00063	<MDC	6.44 ± 0.119	<MDC
2	E	FP	3–6	<MDC	0.0031 ± 0.00047	<MDC	5.58 ± 0.081	<MDC
2	E	FP	6–9	<MDC	0.00181 ± 0.00031	<MDC	1.62 ± 0.052	<MDC
2	E	FP	9–12	<MDC	0.00243 ± 0.00045	<MDC	1.13 ± 0.045	<MDC
2	E	HG	0–3	0.00768 ± 0.00151	0.0296 ± 0.003	<MDC	1.94 ± 0.09	<MDC
2	E	HG	3–6	0.00137 ± 0.00037	0.0144 ± 0.0011	<MDC	0.659 ± 0.32	<MDC
2	E	HG	6–9	<MDC	0.00408 ± 0.0005	<MDC	0.201 ± 0.039	<MDC
2	E	HG	9–12	<MDC	0.00163 ± 0.00044	<MDC	0.127 ± 0.03	<MDC
5	W	HG	0–3	<MDC	0.0106 ± 0.0017	<MDC	0.721 ± 0.043	<MDC
5	W	HG	3–6	<MDC	0.0142 ± 0.0009	<MDC	0.506 ± 0.43	<MDC
5	W	HG	6–9	<MDC	0.0103 ± 0.0088	<MDC	0.454 ± 0.035	<MDC
5	W	HG	9–12	<MDC	0.00698 ± 0.00167	<MDC	0.37 ± 0.039	<MDC
5	W	FP	0–3	0.00516 ± 0.00066	0.0754 ± 0.0029	0.15 ± 0.02	77.3 ± 0.576	<MDC
5	W	FP	3–6	<MDC	0.00843 ± 0.00061	<MDC	6.4 ± 0.112	<MDC
5	W	FP	6–9	<MDC	0.00193 ± 0.00035	<MDC	2.2 ± 0.056	<MDC
5	W	FP	9–12	<MDC	0.00095 ± 0.00022	<MDC	1.22 ± 0.055	<MDC
5	W	BA	0–3	0.00169 ± 0.00034	0.0166 ± 0.0011	NA	17.7 ± 0.658	<MDC
5	W	BA	3–6	0.00104 ± 0.00055	0.012 ± 0.0016	<MDC	5.9 ± 0.135	<MDC

Table 85
Lower Three Runs Creek Survey—Soil Results

Trail	Direction	Location	Depth (Inches)	Pu-238 (pCi/g) MDC=8.6E–04	Pu-239 (pCi/g) MDC=8.6E–04 pCi/g	Sr-89,90 (pCi/g) MDC=9.45E–02 pCi/g	Cs-137 (pCi/g) MDC= 0.024 pCi/g	Co-60 (pCi/g) MDC= 0.029 pCi/g
5	W	BA	6–9	0.00322 ± 0.00084	0.0544 ± 0.0034	0.17 ± 0.33	42.7 ± 0.33	<MDC
5	W	BA	9–12	0.00171 ± 0.00032	0.0207 ± 0.0012	<MDC	17.8 ± 0.241	0.133 ± 0.0025
5	E	BA	0–3	0.0009 ± 0.00043	0.0186 ± 0.0018	<MDC	4.29 ± 0.112	<MDC
5	E	BA	3–6	0.00105 ± 0.00039	0.0139 ± 0.0013	<MDC	2.73 ± 0.087	<MDC
5	E	BA	6–9	<MDC	0.00587 ± 0.00069	<MDC	1.63 ± 0.071	<MDC
5	E	BA	9–12	<MDC	0.00343 ± 0.00056	<MDC	0.885 ± 0.045	<MDC
5	E	FP	0–3	0.00226 ± 0.00041	0.0248 ± 0.0014	<MDC	13.8 ± 0.201	<MDC
5	E	FP	3–6	0.00185 ± 0.00035	0.0179 ± 0.0011	<MDC	10.6 ± 0.174	<MDC
5	E	FP	6–9	<MDC	0.00978 ± 0.0012	<MDC	6.04 ± 0.106	<MDC
5	E	FP	9–12	<MDC	0.00156 ± 0.00042	<MDC	1.33 ± 0.053	<MDC
5	E	HG	0–3	0.00201 ± 0.00056	0.0138 ± 0.0015	<MDC	1.03 ± 0.052	<MDC
5	E	HG	3–6	0.00105 ± 0.00033	0.015 ± 0.0012	<MDC	0.566 ± 0.047	<MDC
5	E	HG	6–9	<MDC	0.0103 ± 0.0008	<MDC	0.313 ± 0.033	<MDC
5	E	HG	9–12	0.00129 ± 0.00049	0.00715 ± 0.00116	<MDC	0.113 ± 0.019	<MDC
7	W	HG	0–3	0.00115 ± 0.00025	0.0102 ± 0.0008	<MDC	0.707 ± 0.044	<MDC
7	W	HG	3–6	<MDC	0.00701 ± 0.00049	<MDC	0.347 ± 0.05	<MDC
7	W	HG	6–9	<MDC	0.00127 ± 0.00027	<MDC	0.085 ± 0.022	<MDC
7	W	HG	9–12	<MDC	0.00116 ± 0.00034	<MDC	<MDC	<MDC
7	W	FP	0–3	0.00132 ± 0.0003	<MDC	<MDC	0.768 ± 0.045	<MDC
7	W	FP	3–6	<MDC	0.00286 ± 0.00039	<MDC	2.85 ± 0.076	<MDC
7	W	FP	6–9	<MDC	0.00685 ± 0.00098	<MDC	7.6 ± 0.127	<MDC

Table 85
Lower Three Runs Creek Survey—Soil Results

Trail	Direc-tion	Loca-tion	Depth (Inches)	Pu-238 (pCi/g) MDC=8.6E–04	Pu-239 (pCi/g) MDC=8.6E–04 pCi/g	Sr-89,90 (pCi/g) MDC=9.45E–02 pCi/g	Cs-137 (pCi/g) MDC= 0.024 pCi/g	Co-60 (pCi/g) MDC= 0.029 pCi/g
7	W	FP	9–12	<MDC	0.00604 ± 0.00061	<MDC	8.22 ± 0.125	<MDC
7	W	BA	0–3	<MDC	0.00532 ± 0.00071	<MDC	8.54 ± 0.172	<MDC
7	W	BA	3–6	<MDC	0.00769 ± 0.00068	<MDC	7.74 ± 0.129	<MDC
7	W	BA	6–9	<MDC	0.00779 ± 0.00067	<MDC	6.02 ± 0.103	<MDC
7	W	BA	9–12	<MDC	0.00127 ± 0.00019	<MDC	NA	<MDC
7	E	BA	0–3	I	I	0.29 ± 0.04	15.3 ± 0.196	<MDC
7	E	BA	3–6	0.0018 ± 0.00066	0.00971 ± 0.00151	0.17 ± 0.02	10.7 ± 0.157	<MDC
7	E	BA	6–9	I	I	0.13 ± 0.02	13.2 ± 0.183	<MDC
7	E	BA	9–12	I	I	0.12 ± 0.02	13.8 ± 0.183	<MDC
7	E	FP	0–3	0.0052 ± 0.00041	0.00736 ± 0.00018	0.17 ± 0.03	83.3 ± 0.509	0.209 ± 0.035
7	E	FP	3–6	0.00456 ± 0.00053	0.0725 ± 0.0026	0.21 ± 0.03	86.8 ± 0.539	0.104 ± 0.032
7	E	FP	6–9	0.0024 ± 0.00043	0.042 ± 0.0019	0.32 ± 0.04	47.6 ± 0.55	<MDC
7	E	FP	9–12	<MDC	0.0153 ± 0.001	0.15 ± 0.02	22.5 ± 0.244	<MDC
7	E	HG	0–3	0.00093 ± 0.0003	0.0104 ± 0.0009	<MDC	2.66 ± 0.1	<MDC
7	E	HG	3–6	0.00098 ± 0.00034	0.0115 ± 0.0011	<MDC	3.86 ± 0.097	<MDC
7	E	HG	6–9	<MDC	0.0107 ± 0.0008	<MDC	4.03 ± 0.096	<MDC
7	E	HG	9–12	<MDC	0.0116 ± 0.0008	<MDC	3.92 ± 0.341	<MDC
10	W	HG	0–3	<MDC	0.00733 ± 0.00069	<MDC	0.433 ± 0.045	<MDC
10	W	HG	3–6	<MDC	0.0144 ± 0.0009	<MDC	0.693 ± 0.049	<MDC
10	W	HG	6–9	<MDC	0.0129 ± 0.0009	<MDC	0.432 ± 0.033	<MDC
10	W	HG	9–12	<MDC	0.00797 ± 0.00081	<MDC	0.377 ± 0.04	<MDC

Table 85
Lower Three Runs Creek Survey—Soil Results

Trail	Direction	Location	Depth (Inches)	Pu-238 (pCi/g) MDC=8.6E–04	Pu-239 (pCi/g) MDC=8.6E–04 pCi/g	Sr-89,90 (pCi/g) MDC=9.45E–02 pCi/g	Cs-137 (pCi/g) MDC= 0.024 pCi/g	Co-60 (pCi/g) MDC= 0.029 pCi/g
10	W	FP	0–3	<MDC	0.00796 ± 0.00065	<MDC	0.363 ± 0.035	<MDC
10	W	FP	3–6	0.00088 ± 0.00031	0.0116 ± 0.0012	<MDC	0.227 ± 0.021	<MDC
10	W	FP	6–9	<MDC	0.0113 ± 0.0015	<MDC	0.518 ± 0.04	<MDC
10	W	FP	9–12	<MDC	0.0067 ± 0.0007	<MDC	0.407 ± 0.035	<MDC
10	W	BA	0–3	0.00091 ± 0.00037	0.00857 ± 0.00099	<MDC	7.8 ± 0.139	<MDC
10	W	BA	3–6	<MDC	0.00782 ± 0.00071	<MDC	7.89 ± 0.15	<MDC
10	W	BA	6–9	0.001 ± 0.00045	0.00475 ± 0.00101	<MDC	6.75 ± 0.13	<MDC
10	W	BA	9–12	<MDC	0.0051 ± 0.00068	<MDC	3.68 ± 0.084	<MDC
10	E	BA	0–3	0.00152 ± 0.00048	0.0217 ± 0.0019	<MDC	26.2 ± 0.262	<MDC
10	E	BA	3–6	0.0447 ± 0.0224	0.166 ± 0.0431	<MDC	14.2 ± 0.201	<MDC
10	E	BA	6–9	0.0017 ± 0.0008	0.0104 ± 0.0017	<MDC	9.43 ± 0.149	<MDC
10	E	BA	9–12	<MDC	0.00274 ± 0.00041	<MDC	3.77 ± 0.112	<MDC
10	E	FP	0–3	<MDC	0.0304 ± 0.002	<MDC	5.62 ± 0.109	<MDC
10	E	FP	3–6	0.00117 ± 0.0006	0.0232 ± 0.0018	<MDC	5.72 ± 0.14	<MDC
10	E	FP	6–9	<MDC	0.00349 ± 0.00041	<MDC	1.46 ± 0.069	<MDC
10	E	FP	9–12	<MDC	0.00401 ± 0.00046	<MDC	1.14 ± 0.059	<MDC
10	E	HG	0–3	0.00109 ± 0.00035	0.0107 ± 0.0092	<MDC	1.63 ± 0.076	<MDC
10	E	HG	3–6	0.00115 ± 0.00032	0.0148 ± 0.0011	<MDC	1.31 ± 0.067	<MDC
10	E	HG	6–9	<MDC	0.00185 ± 0.00039	<MDC	0.199 ± 0.356	<MDC
10	E	HG	9–12	<MDC	<MDC	<MDC	<MDC	<MDC
11	E	BA	0–3	<MDC	0.00206 ± 0.00045	<MDC	0.495 ± 0.045	<MDC

Table 85
Lower Three Runs Creek Survey—Soil Results

Trail	Direc-tion	Loca-tion	Depth (Inches)	Pu-238 (pCi/g) MDC=8.6E–04	Pu-239 (pCi/g) MDC=8.6E–04 pCi/g	Sr-89,90 (pCi/g) MDC=9.45E–02 pCi/g	Cs-137 (pCi/g) MDC= 0.024 pCi/g	Co-60 (pCi/g) MDC= 0.029 pCi/g
11	E	BA	3–6	<MDC	0.00155 ± 0.00061	<MDC	NA	<MDC
11	E	BA	6–9	I	I	<MDC	0.735 ± 0.058	<MDC
11	E	BA	9–12	<MDC	0.00405 ± 0.00088	<MDC	2.51 ± 0.083	<MDC
11	E	FP	0–3	I	I	<MDC	1.25 ± 0.072	<MDC
11	E	FP	3–6	I	I	<MDC	0.746 ± 0.053	<MDC
11	E	FP	6–9	I	I	<MDC	0.347 ± 0.047	<MDC
11	E	FP	9–12	I	I	<MDC	<MDC	<MDC
11	E	HG	0–3	0.00221 ± 0.00089	0.0273 ± 0.0026	0.12 ± 0.02	0.977 ± 0.059	<MDC
11	E	HG	3–6	I	I	<MDC	0.584 ± 0.042	<MDC
11	E	HG	6–9	I	I	<MDC	<MDC	<MDC
11	E	HG	9–12	I	I	<MDC	0.268 ± 0.038	<MDC

Table 86
Lower Three Runs Creek Survey—Vegetation Results[a]

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Trail	Direction	Location	Gross Alpha (pCi/g) MDC=1.246 pCi/g	Gross Beta (pCi/g) MDC=3.1 pCi/g	Tritium Oxide (HTO) MDC= 0.45 pCi/mL Free Water	Cs-137 (pCi/g) MDC= 0.1 pCi/g
Key:	*E–East W–West*	*BA–Bank FP–Flood plain HG–High ground*	*MDC–Typical minimum detectable concentration*			
1	W	HG	<MDC	5.6 ± 1.2	0.32 ± 0.04	0.7 ± 0.1
1	W	FP	<MDC	5.9 ± 1.2	0.39 ± 0.05	4.9 ± 0.2
1	W	BA	<MDC	8.1 ± 1.3	0.25 ± 0.03	5.6 ±0.6
1	E	BA	11.1 ± 3.1	14.1 ± 1.6	0.11 ± 0.04	0.9 ± 0.2
1	E	FP	1.5 ± 1.01	15 ± 1.6	0.13 ± 0.02	0.8 ± 0.1
1	E	HG	2.88 ± 1.43	9.8 ± 1.4	0.3 ± 0.04	2 ± 0.1
2	W	HG	<MDC	17.3 ± 1.6	0.03 ± 0.02	0.8 ± 0.1
2	W	FP	<MDC	10.4 ± 1.4	0.04 ± 0.02	0.1 ± 0.1
2	W	BA	<MDC	56.4 ± 2.7	0.03 ± 0.01	116 ± 0.5
2	E	BA	<MDC	24.6 ± 1.9	0.09 ± 0.05	10.9 ± 0.4
2	E	FP	1.32 ± 0.89	21.3 ± 1.8	0.04 ± 0.03	5.9 ± 0.2
2	E	HG	<MDC	13. ± 1.5	0.04 ± 0.04	<MDC
5	W	HG	<MDC	7.5 ± 1.3	0.01 ± 0.03	2.1 ± 0.1
5	W	FP	<MDC	74.8 ± 3.1	0.2 ± 0.03	92.1 ± 0.7
5	W	BA	1.55 ± 1.03	25.3 ± 2	0.18 ± 0.03	24.8 ± 0.4
5	E	BA	6.9 ± 1.91	86.3 ± 3.3	0.06 ± 0.01	32 ± 0.5

a All results are expressed in dry weight.

Table 86
Lower Three Runs Creek Survey—Vegetation Results[a]

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Trail	Direction	Location	Gross Alpha (pCi/g) MDC=1.246 pCi/g	Gross Beta (pCi/g) MDC=3.1 pCi/g	Tritium Oxide (HTO) MDC= 0.45 pCi/mL Free Water	Cs-137 (pCi/g) MDC= 0.1 pCi/g
5	E	FP	<MDC	55.8 ± 2.6	0.1 ± 0.03	44.8 ± 0.6
5	E	HG	2.82 ± 1.26	18.4 ± 1.7	0.07 ± 0.03	1.1 ± 0.1
7	W	HG	<MDC	10.5 ± 1.4	0.09 ± 0.02	0.4 ± 0.1
7	W	FP	1.35 ± 1.14	31.6 ± 2.2	0.11 ± 0.03	32.6 ± 0.5
7	W	BA	2.23 ± 1.36	15.2 ± 1.6	0.13 ± 0.02	60 ± 0.4
7	E	BA	<MDC	64.4 ± 3	0.07 ± 0.02	47.2 ± 0.5
7	E	FP	1.52 ± 0.87	30.5 ± 2	0.11 ± 0.02	30.7 ± 0.4
7	E	HG	<MDC	24.3 ± 2	0.09 ± 0.03	13.6 ± 0.2
10	W	HG	<MDC	8.8 ± 1.3	0.09 ± 0.02	1.3 ± 0.1
10	W	FP	<MDC	8.8 ± 1.3	0.11 ± 0.02	0.2 ± 0
10	W	BA	<MDC	3.9 ± 1.1	0.21 ± 0.02	3.4 ± 0.1
10	E	BA	<MDC	8.2 ± 1.3	0.17 ± 0.02	1.5 ± 0.1
10	E	FP	<MDC	8.8 ± 1.3	0.08 ± 0.02	0.3 ± 0
10	E	HG	<MDC	7.6 ± 1.2	0.15 ± 0.02	0.4 ± 0
11	E	BA	<MDC	8 ± 1.2	0.09 ± 0.02	<MDC
11	E	FP	<MDC	4 ± 1	0.18 ± 0.03	<MDC
11	E	HG	<MDC	14 ± 1.4	0.13 ± 0.03	<MDC

a All results are expressed in dry weight.

Table 87
Savannah River Swamp (Creek Plantation) Survey—Soil Results

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Trail	Distance (Feet From Savannah River)	Cs-137 (pCi/g) MDC= 0.024 pCi/g	Sr-89,90 (pCi/g) MDC=9.45E–02 pCi/g	Co-60 (pCi/g) MDC= 0.029 pCi/g
1	2150	45.7 ± 0.3	0.154 ± 0.027	<MDC
2	3100	69.5 ± 0.3	0.105 ± 0.025	0.21 ± 0.18
3	920	43.4 ± 0.1	<MDC	<MDC
4	1900	100 ± 0.4	<MDC	0.35 ± 0.02
5	2100	72.2 ± 0.4	0.154 ± 0.027	0.29 ± 0.30
6	2530	17.3 ± 0.2	<MDC	<MDC
7	2700	198 ± 0.2	<MDC	0.17 ± 0.02
8	2900	59.5 ± 0.3	<MDC	0.14 ± 0.02
9	2205	51.5 ± 0.4	0.108 ± 0.02	<MDC
10	100	16.3 ± 0.2	<MDC	<MDC

Key: MDC–Typical minimum detectable concentration

Table 88
Savannah River Swamp (Creek Plantation) Survey—Vegetation Results

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Trail	Distance (Feet From Savannah River)	Cs-137 (pCi/g) MDC= 0.024 pCi/g	Sr-89,90 (pCi/g) MDC=9.45E–02 pCi/g	Co-60 (pCi/g) MDC= 0.1 pCi/g
1	2150	10.6 ± 0.21	0.146 ± 0.084	0.26 ± 0.04
2	3100	1.05 ± 0.09	0.692 ± 0.087	<MDC
3	920	<MDC	<MDC	<MDC
4	1900	7.38 ± 0.55	0.507 ± 0.086	<MDC
5	2100	2.43 ± 0.13	<MDC	<MDC
6	2530	27 ± 0.49	<MDC	<MDC
7	2700	13.5 ± 0.17	<MDC	0.25 ± 0.03
8	2900	7.41 ± 0.26	0.235 ± 0.072	<MDC
9	2205	6.87 ± 0.56	<MDC	<MDC
10	100	<MDC	<MDC	<MDC

Key: *MDC denotes "typical minimum detectable concentration."*

Table 89
Savannah River Swamp (Creek Plantation) Survey—1990, 1991, 1993, 1994 Results

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Trail	Distance (Feet from Savannah River)		Soil, Cs-137 (pCi/g) MDC= 0.024 pCi/g	Soil, Sr-89,90 (pCi/g) MDC=9.45E–02 pCi/g	Soil, Co-60 (pCi/g) MDC= 0.029 pCi/g	Veg, Cs-137 (pCi/g) MDC= 0.1 pCi/g	Veg, Sr-89,90 (pCi/g) MDC=9.45E–02 pCi/g	Veg, Co-60 (pCi/g) MDC= 0.1 pCi/g
1	2150							
		1990	<MDC	2.10E–01	<MDC	1.51E+01	1.60E–01	1.50E–01
		1991	1.38E+01	<MDC	<MDC	4.00E–01	5.20E–01	<MDC
		1993	1.05E+02	<MDC	3.40E–01	2.75+01	<MDC	<MDC
		1994	4.57E+01	1.54E–01	<MDC	1.06E+01	1.46E–01	2.57E–01
2	3100							
		1990	<MDC	<MDC	<MDC	<MDC	6.50E–01	<MDC
		1991	1.10E+00	<MDC	<MDC	<MDC	<MDC	<MDC
		1993	5.79E+01	<MDC	<MDC	5.00E–01	1.22E–01	<MDC
		1994	6.95E+01	1.02E–01	2.08E–01	1.05E+00	6.92E–01	<MDC
3	920							
		1990	8E–01	<MDC	4.00E–01	<MDC	2.50E–01	<MDC
		1991	2.60E+00	<MDC	<MDC	<MDC	2.40E–01	<MDC
		1993	1.60E+00	<MDC	<MDC	<MDC	<MDC	<MDC
		1994	4.34E+01	<MDC	<MDC	<MDC	<MDC	<MDC

Note: MDC denotes "typical minimum detectable concentration."

Table 89
Savannah River Swamp (Creek Plantation) Survey—1990, 1991, 1993, 1994 Results

Page 2 of 4

Trail	Distance (Feet from Savannah River)		Soil, Cs-137 (pCi/g) MDC= 0.024 pCi/g	Soil, Sr-89,90 (pCi/g) MDC=9.45E–02 pCi/g	Soil, Co-60 (pCi/g) MDC= 0.029 pCi/g	Veg, Cs-137 (pCi/g) MDC= 0.1 pCi/g	Veg, Sr-89,90 (pCi/g) MDC=9.45E–02 pCi/g	Veg, Co-60 (pCi/g) MDC= 0.1 pCi/g
4	1900							
		1990	9.22E+01	1.40E–01	5.00E–01	1.11E+01	3.20E–01	<MDC
		1991	7.60E+01	<MDC	3.00E–01	5.70E+00	3.40E–01	<MDC
		1993	4.77E+01	<MDC	2.00E–01	1.34E+01	4.81E–01	<MDC
		1994	1.00E+02	7.44E–02	3.47E–01	7.38E+00	5.07E–01	<MDC
5	2105							
		1990	5.82E+01	1.90E–01	4.00E–01	1.40E+00	4.60E–01	<MDC
		1991	<MDC	<MDC	<MDC	<MDC	<MDC	<MDC
		1993	3.21E+01	<MDC	<MDC	6.67E+00	2.45E–01	<MDC
		1994	7.22E+01	1.54E–01	2.90E–01	2.43E+00	<MDC	<MDC
6	2530							
		1990	4.14E+01	1.00E–01	2.00E–01	4.50E+00	7.00E–01	<MDC
		1991	6.88E+01	<MDC	1.00E–01	1.76E+01	9.70E–01	<MDC
		1993	7.02E+01	1.60E–01	<MDC	3.87E+01	9.92E–01	<MDC
		1994	1.73E+01	<MDC	<MDC	2.70E+01	<MDC	<MDC

Table 89
Savannah River Swamp (Creek Plantation) Survey—1990, 1991, 1993, 1994 Results

Page 3 of 4

Trail	Distance (Feet from Savannah River)		Soil, Cs-137 (pCi/g) MDC= 0.024 pCi/g	Soil, Sr-89,90 (pCi/g) MDC=9.45E–02 pCi/g	Soil, Co-60 (pCi/g) MDC= 0.029 pCi/g	Veg, Cs-137 (pCi/g) MDC= 0.1 pCi/g	Veg, Sr-89,90 (pCi/g) MDC=9.45E–02 pCi/g	Veg, Co-60 (pCi/g) MDC= 0.1 pCi/g
7	2700							
		1990	2.99E+01	<MDC	<MDC	<MDC	<MDC	<MDC
		1991	2.77E+02	<MDC	1.00E+00	<MDC	2.50E–01	<MDC
		1993	3.11E+01	1.30E–01	<MDC	2.00E+00	5.33E–01	<MDC
		1994	1.98E+02	<MDC	1.70E–01	1.35E+01	<MDC	2.51E–01
8	2900							
		1990	6.64E+01	<MDC	<MDC	5.40E+00	2.80E–01	<MDC
		1991	6.80E+01	<MDC	1.00E–01	2.30E+00	1.80E–01	<MDC
		1993	3.77E+01	1.30E–01	1.00E–01	5.60E+00	2.57E–01	<MDC
		1994	5.95E+01	<MDC	1.38E–01	7.41E+00	2.35E–01	<MDC
9	2205							
		1990	6.15E+01	1.70E–01	2.00E–01	1.34E+01	5.20E–01	<MDC
		1991	3.66E+01	<MDC	2.00E–01	7.20E+00	2.40E–01	<MDC
		1993	3.79E+01	1.50E–01	<MDC	1.08E+00	7.22E–01	<MDC
		1994	5.15E+01	1.08E–01	<MDC	6.87E+00	<MDC	<MDC

Table 89
Savannah River Swamp (Creek Plantation) Survey—1990, 1991, 1993, 1994 Results

Trail	Distance (Feet from Savannah River)	Soil, Cs-137 (pCi/g) MDC= 0.024 pCi/g	Soil, Sr-89,90 (pCi/g) MDC=9.45E–02 pCi/g	Soil, Co-60 (pCi/g) MDC= 0.029 pCi/g	Veg, Cs-137 (pCi/g) MDC= 0.1 pCi/g	Veg, Sr-89,90 (pCi/g) MDC=9.45E–02 pCi/g	Veg, Co-60 (pCi/g) MDC= 0.1 pCi/g
10	100						
	1990	1.91E+01	<MDC	1.00E–01	5.00E–01	2.60E–01	<MDC
	1991	2.24E+01	<MDC	<MDC	1.07E+01	2.40E–01	<MDC
	1993	2.34E+01	<MDC	<MDC	1.59E+00	1.36E–01	<MDC
	1994	1.63E+01	<MDC	<MDC	<MDC	<MDC	<MDC

Errata from 1993 Report

The following information was either incorrect in, or missing from, *Savannah River Site Environmental Data for 1993*, WSRC–TR–94–077:

Page iv, under Constituent, Nitrate as nitrogen should have been listed, along with its corresponding symbol in the Symbol column, NO_3–N.

Page v, under Constituent, Uranium-308 should have been Uranium (tested as a heavy metal), and the corresponding symbol should have been U_3O_8.

Pages 175, 176, 177, 179, 180, 181, and 184 contained an incorrect symbol for Uranium (tested as a heavy metal); the symbol should have been U_3O_8.