Savannah River Site Environmental Data for 1999

by

M. Arnett

Westinghouse Savannah River Company

Savannah River Site

Aiken, South Carolina 29808

A. Mamatey

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Savannah River Site Environmental Data for 1999

Editors

Margaret W. Arnett
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Westinghouse Savannah River Company
Savannah River Site, Aiken, SC 29808

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Preface

This document presents data from Savannah River Site routine effluent monitoring and environmental surveillance programs. Information in the book is summarized in the *Savannah River Site Environmental Report for 1999* (WSRC-TR-99-00299). Information about the environmental monitoring program, including a complete description of 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.

Because of the data table columns' space requirements, many abbreviations have been used. To assist the reader, lists of radionuclide and chemical nomenclature and sampling location abbreviations are included following this introduction. Units of measure, scientific notation, and conversion charts also should help the reader. A collection of maps showing radiological and nonradiological sampling locations completes this introductory section.

The first few tables include lists of the media sampled and of minimum detectable concentrations for various analyses/media. A table of nonradiological environmental surveillance detection/report limits also is included. Following these explanatory tables are data tables with radiological and nonradiological effluent monitoring results, radiological and nonradiological environmental surveillance results, dose estimates, and quality assurance data.

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 these discrepancies. Sample collection problems, such as loss of power to the sampling site or inaccessibility to the sampling site (because of locked gates, flooding, etc.) may have occurred. Also, results for collected samples can be rejected for reasons such 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 arithmetic mean concentrations.

The following should aid the reader in interpreting the data:

- Analytical results and their corresponding uncertainties generally are reported with up to three significant figures. This is a function of the computer software used and may imply greater accuracy in the reported results than the analyses would allow. However, EMS attempts to report the correct number of significant figures that are appropriate for the result measurement uncertainty.
- An uncertainty quoted with means represents the standard deviation of the mean value. This number is calculated from the results themselves and is not weighted by the uncertainties of the individual results.
- All values represent the weighted average of all acceptable analyses of a sample for a particular analyte. Samples may have undergone multiple analyses for quality assurance purposes or to determine if radionuclides are present. For certain radionuclides, quantifiable concentrations may be below the minimum detectable activity of the analysis, in which case the actual concentration value is presented to satisfy DOE reporting guidelines.
- The reported uncertainty of a single measurement reflects only the counting error—not other components of random and systematic error in the measurement process—so some results may imply a greater confidence than the determination would suggest.
- The generic term "dose," as used in the report, refers to the committed effective dose equivalent (50-year committed dose) from internal deposition of radionuclides and to the effective dose equivalent attributable to beta/gamma radiation from sources external to the body.

Copies of environmental reports may be obtained by contacting

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Contents

List of Sampling Location Maps	v
List of Tables	vii
Radionuclide and Chemical Nomenclature	xi
Sampling Location Abbreviations and Other Abbreviations	xv
Units of Measure, Scientific Notation, and Conversion Tables	xvii

List of Sampling Location Maps

Figure 1	Radiological Sampling Locations — Air Surveillance	xix
Figure 2	Radiological Sampling Locations — Surface Water (SRS Stream and Savannah River Water)	xx
Figure 3	Radiological and Nonradiological Sampling Locations — Fish	xxi
Figure 4	Radiological Sampling Locations — Soil	xxii
Figure 5	Radiological Sampling Locations — Sediment	xxiii
Figure 6	Radiological Sampling Locations — Vegetation	xxiv
Figure 7	Nonradiological Sampling Locations — Liquid Effluent (NPDES)	xxv
Figure 8	Nonradiological Sampling Locations — Surface Water (SRS Stream and Savannah River Water)	xxvi
Figure 9	Drinking Water Systems	xxvii
Figure 10	Nonradiological Sampling Locations — SRS Stream and Savannah River Sediment ...	xxviii

List of Tables

Sampling

Table 1	Sample Media Information	1
Table 2	Representative Minimum Detectable Concentrations for Radiological Analyses	5
Table 3	Nonradiological Environmental Surveillance Detection/Report Limits	11

Radiological Effluent Monitoring

Table 4	Radioactive Atmospheric Releases by Source	13
Table 5	Radioactive Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE Derived Concentration Guides	16
Table 6	Radioactive Liquid Releases by Source (Including Direct and Seepage Basin Migration Releases)	22
Table 7	Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual Average Radionuclide Concentrations to DOE Derived Concentration Guides	23

Radiological Environmental Surveillance

Table 8	Radioactivity in Air	28
Table 9	Tritium in Rainwater	39
Table 10	Radioactivity in Rain Ion Columns	40
Table 11	Thermoluminescent Dosimeter (TLD) Results — Site Perimeter Stations	45
Table 12	Thermoluminescent Dosimeter (TLD) Results — Environmental Surveillance (Air Monitoring) Stations	46
Table 13	Thermoluminescent Dosimeter (TLD) Results — Population Centers	47
Table 14	Thermoluminescent Dosimeter (TLD) Results — Vogtle Electric Generating Plant Vicinity	48
Table 15	Radioactivity in Seepage Basin Water	49
Table 16	Radioactivity in Savannah River Site Stream Water	51
Table 17	Calculated Migration of Radioactivity from Seepage Basins	65
Table 18	Estimated Tritium Transport in SRS Streams and the Savannah River	66
Table 19	Transport of Actinides in Savannah River Site Streams	69

Table 20	Radioactivity in Savannah River Water	70
Table 21	Summary of Savannah River Site Tritium Transport, 1960–1999	73
Table 22	Radioactivity in Drinking Water	74
Table 23	Radioactivity in Terrestrial Food Products — Greens, Fruit, and Beef	90
Table 24	Radioactivity in Terrestrial Food Products — Milk	92
Table 25	Radioactivity in Aquatic Food Products — Freshwater Fish	93
Table 26	Radioactivity in Aquatic Food Products — Saltwater Fish	109
Table 27	Radioactivity in Aquatic Food Products — Shellfish	110
Table 28	Radioactivity in Soil	111
Table 29	Radioactivity in River and Stream Sediment	112
Table 30	Radioactivity in Grassy Vegetation	116

Potential Radiation Doses

Table 31	Meteorological Data	118
Table 32	80-km-Radius (50-Mile) Population Distribution Around SRS (1990 Census)	125
Table 33	80-km-Radius (50-Mile) Milk, Meat, and Vegetation Production Around SRS as of 1991	126
Table 34	Airborne Release Locations for Maximally Exposed Individual Dose	128
Table 35	Parameters Used for Adult Consumption Rates and for Atmospheric Dose Calculations	129
Table 36	Site-Specific Parameters Used with CAP88 Code Used for NESHAPS Calculations	130
Table 37	Parameters Used for Adult Consumption Rates and for Liquid Dose Calculations	131
Table 38	Site-Specific Parameters Used in Liquid Dose Calculations	132
Table 39	Committed Dose to the Maximally Exposed Individual from Atmospheric Releases (MAXIGASP Code — Using Consumption of Cow Milk Pathway)	133
Table 40	Committed Dose to the Maximally Exposed Individual from Atmospheric Releases (MAXIGASP Code — Using Consumption of Goat Milk Pathway)	134
Table 41	80-km (50-Mile) Collective Dose from Atmospheric Releases (POPGASP Code)	135
Table 42	Total Site Airborne Releases and Maximally Exposed Individual Effective Dose Equivalent by Radionuclide (CAP88 Dose Calculations for 1999 NESHAP Report to EPA)	136

Table 43	NESHAP Airborne-Dose Report Data — CAP88 Compared with MAXDOSE-SR	139
Table 44	NESHAP Airborne-Dose Report Data — CAP88 Compared with POPGASP	140
Table 45	Committed Dose to Maximally Exposed Individual from Liquid Releases	141
Table 46	Committed Dose to Maximally Exposed Individual from Public Water Supplies at Beaufort-Jasper Water Treatment Plant	142
Table 47	Committed Dose to Maximally Exposed Individual from Public Water Supplies at the City of Savannah Industrial and Domestic Water Supply Plant (near Port Wentworth, Georgia)	143
Table 48	Collective Dose from Liquid Releases	144
Table 49	Potential Doses from Irrigation Pathways	145
Table 50	Dose from Consumption of Fish from New Savannah Bluff Lock and Dam, SRS Creek Mouths, and River Mile 120	146
Table 51	Calculated Doses to Aquatic Biota from SRS Releases	148

Nonradiological Effluent Monitoring

Table 52	Toxic Air Pollutant Emissions (1998)	149
Table 53	National Pollutant Discharge Elimination System Monitoring Data	156
Table 54	National Pollutant Discharge Elimination System Toxicity Monitoring Data	166
Table 55	National Pollutant Discharge Elimination System Stormwater Monitoring Data	167
Table 56	National Pollutant Discharge Elimination System Land Application Monitoring Data	184

Nonradiological Environmental Surveillance

Table 57	Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides	186
Table 58	Sediment Surveillance — Inorganic Contaminants, Pesticides, and Herbicides	218
Table 59	Fish Surveillance — Mercury	220

Quality Assurance

Table 60	Blind Sample Results for pH Field Measurements	222
Table 61	Blind Sample Results for Tritium	223
Table 62	QAP Interlaboratory Comparison of Analytical Results	224
Table 63	Quality Assurance/Quality Control Standards	229

Table 64	
NPDES Duplicate Sample Results	230
Table 65	
NPDES Blind Sample Results	235
Table 66	
SRS Stream and Savannah River Water Quality Duplicate Sample Results	239

Radionuclide and Chemical Nomenclature

Nomenclature and Half-Life for Radionuclides					
Radionuclide	Symbol	Half-Life ^{a,b}	Radionuclide	Symbol	Half-Life ^{a,b}
Actinium-228	Ac-228	6.15 h	Niobium-94	Nb-94	2.0E4 y
Americium-241	Am-241	432.7 y	Niobium-95	Nb-95	34.97 d
Americium-243	Am-243	7370 y	Plutonium-238	Pu-238	87.7 y
Antimony-124	Sb-124	60.2 d	Plutonium-239	Pu-239	2.41E4 y
Antimony-125	Sb-125	2.758 y	Plutonium-240	Pu-240	6560 y
Beryllium-7	Be-7	53.28 d	Plutonium-241	Pu-241	14.4 y
Bismuth-212	Bi-212	2.14 m	Plutonium-242	Pu-242	3.75E5 y
Bismuth-214	Bi-214	19.9 m	Potassium-40	K-40	1.27E9 y
Carbon-14	C-14	5714 y	Praseodymium-144	Pr-144	17.28 m
Cerium-141	Ce-141	32.5 d	Promethium-147	Pm-147	2.6234 y
Cerium-144	Ce-144	284.6 d	Protactinium-231	Pa-231	3.28E4 y
Cesium-134	Cs-134	2.065 y	Protactinium-233	Pa-233	27.0 d
Cesium-137	Cs-137	30.07 y	Radium-226	Ra-226	1599 y
Chromium-51	Cr-51	27.702 d	Radium-228	Ra-228	5.76 y
Cobalt-57	Co-57	271.8 d	Radon-222	Rn-222	3.8235 d
Cobalt-58	Co-58	70.88 d	Ruthenium-103	Ru-103	39.27 d
Cobalt-60	Co-60	5.271 y	Ruthenium-106	Ru-106	1.020 y
Curium-242	Cm-242	162.8 d	Selenium-75	Se-75	119.78 d
Curium-244	Cm-244	18.1 y	Selenium-79	Se-79	6.5E5 y
Curium-246	Cm-246	4.76E3 y	Sodium-22	Na-22	2.604 y
Europium-152	Eu-152	13.54 y	Strontium-89	Sr-89	50.52 d
Europium-154	Eu-154	8.593 y	Strontium-90	Sr-90	28.78 y
Europium-155	Eu-155	4.75 y	Technetium-99	Tc-99	2.13E5 y
Iodine-129	I-129	1.57E7 y	Thallium-208	Tl-208	3.053 m
Iodine-131	I-131	8.0207 d	Thorium-228	Th-228	1.913 y
Krypton-85	Kr-85	10.76 y	Thorium-230	Th-230	7.54E4 y
Lead-212	Pb-212	10.64 h	Thorium-232	Th-232	1.40E10 y
Lead-214	Pb-214	27 m	Thorium-234	Th-234	24.10 d
Manganese-54	Mn-54	312.1 d	Tin-126	Sn-126	2.5E5 y
Mercury-203	Hg-203	46.61 d	Tritium (Hydrogen-3)	H-3	12.32 y
Neptunium-237	Np-237	2.14E6 y	Uranium-232	U-232	69.8 y
Neptunium-239	Np-239	2.355 d	Uranium-233	U-233	1.592E5 y
Nickel-59	Ni-59	7.6E4 y	Uranium-234	U-234	2.46E5 y
Nickel-63	Ni-63	100 y			

a m=minute; h = hour; d = day; y = year

b Reference: Chart of the Nuclides, 15th edition, revised 1996, General Electric Company

Nomenclature and Half-Life for Radionuclides, Continued					
Radionuclide	Symbol	Half-life ^{a,b}	Radionuclide	Symbol	Half-life ^{a,b}
Uranium-235	U-235	7.04E8 y	Yttrium-90	Y-90	2.67 d
Uranium-236	U-236	2.342E7 y	Zinc-65	Zn-65	243.8 d
Uranium-238	U-238	4.47E9 y	Zirconium-95	Zr-95	64.02 d
Xenon-135	Xe-135	9.10 h			

a m=minute; h = hour; d = day; y = year

b Reference: Chart of the Nuclides, 15th edition, revised 1996, General Electric Company

Nomenclature for Elements and Chemical Constituent Analyses			
Constituent	Symbol	Constituent	Symbol
<i>Note: Some of the symbols listed in this table came from various databases used to format the data tables in this book and are included here to assist the reader in understanding the tables.</i>			
Aluminum	Al (or AL)	Oil and Grease	O&G
Ammonia	NH ₃	pH	pH (or PH)
Ammonia as Nitrogen	NH ₃ -N (or AN)	Phenol	PHE
Antimony	Sb (or SB)	Phosphorus	P
Arsenic	As (or AS)	Phosphate	PO ₄ (or PO ₄ -P or PO ₄ -P)
Barium	Ba (or BA)	Polychlorinated Biphenyl	PCB
Biological Oxygen Demand	BOD	Potassium	K
Benzene	BEN	Radium	Ra
Beryllium	Be	Selenium	Se (or SE)
Boron	B	Silver	Ag (or AG)
Cadmium	Cd (or CD)	Sodium	Na
Calcium	Ca	Sulfate	SO ₄ (or SO ₄)
Carbon	C	Temperature	TMP (or T or TEMP)
Chemical Oxygen Demand	COD	Tetrachloroethylene (Perchloroethylene)	PERCL
Chlorine	Cl (or CHL)	Trichloroethylene	TRICL
Chromium	Cr (or CR)	1,1,1-Trichloroethane	TCE
cis-1,2-dichloroethene	1,2-DCE	Tin	SN
Cobalt	Co	Total Dissolved Solids	TDS
Copper	Cu (or CU)	Total Kjeldahl Nitrogen	TKN
Cyanide	CN	Total Organic Carbon	TOC
Dissolved Oxygen	DO	Total Organic Halogens	TOH
Fecal Coliform	FEC	Total Phosphates	TPO ₄ (or Total Phos)
Fixed Residues	FR	Total Phosphorus	TP
Flow	FLO	Total Suspended Solids	TSS
Iron	Fe (or FE)	Total Volatile Solids	TVS
Lead	Pb (or PB)	Uranium	U
Lithium	Li	Vinyl Chloride	VC
Magnesium	Mg (or MG)	Volatile Organic Compound	VOC
Manganese	Mn (or MN)	Volatile Solids	VS
Mercury	Hg (or HG)	Zinc	Zn (or ZN)
Nickel	Ni (or NI)		
Nitrate as Nitrogen	NO ₃ -N		
Nitrite as Nitrogen	NO ₂ -N		
Nitrite, Nitrate	NO ₂ , NO ₃ (or NO ₂ , NO ₃ or NO ₂ /NO ₃)

Sampling Location Abbreviations and Other Abbreviations

Abbreviation	Location Name/Other Applicable Information
4M	Four Mile
4MC	Four Mile Creek
681-5G	Georgia Department of Natural Resources/Environmental Monitoring Section sampling site
A-14	Road A-14
AAP	Aiken Airport
ATTA	Advanced Tactical Training Area
AUG L&D	Augusta Lock and Dam
ALLEN	Allendale Gate
BARN	Barnwell Gate
BDC	Beaver Dam Creek
BG	Burial Ground
BGN	Burial Ground North
BGS	Burial Ground South
CSWTF	Central Sanitary Wastewater Treatment Facility
DARK H	Dark Horse
E TAL	East Talatha
FM	Four Mile
FMC	Four Mile Creek (Fourmile Branch)
GR PND	Green Pond
HP	HP (sampling location designation only; not an actual abbreviation)
HWY	Highway
IBG	Indian Burial Ground
IGB	Indian Grave Branch
JACK	Jackson
L3R	Lower Three Runs
LSB	L-Area Seepage Basin
LTR	Lower Three Runs
NSB L&D	New Savannah Bluff Lock & Dam
PB	Pen Branch
PATT MR	Patterson Mill Road
PMR	Patterson Mill Road
PSB	P-Area Seepage Basin
RM	River Mile
SATA	Small Arms Training Area (pistol range)
SAV 1	Savannah 1
SAV 2	Savannah 2
SC	Steel Creek
SWDF	Solid Waste Disposal Facility
TB	Tims Branch
TC	Tinker Creek
TCR	Tabernacle Church Road
TNX	Multipurpose Pilot Plant Campus
U3R	Upper Three Runs
UTR	Upper Three Runs
WIND	Windsor Road
W JACK	West Jackson

Sample Locations Known By More Than One Abbreviation

Augusta Lock and Dam; New Savannah Bluff Lock and Dam
Beaver Dam Creek; 400-D
Four Mile Creek-6; Four Mile Creek at Leigh Road
Highway 301; US 301
Lower Three Runs-2; Lower Three Runs Creek at Patterson Mill
R-Area downstream of R-1; 100-R
River Mile 120; River 10; R-10
River Mile 140; R-8A
River Mile 150.4; R-3B
River Mile 160; River 2; R-2
Steel Creek-4; Steel Creek-4 at Road A; SC at Highway 125
Tinker Creek at Kennedy Pond; Tinker Creek-1; TC/KP
Upper Three Runs-4 at Road A; U3R-Rd A
Vogtle Discharge; River 3B; R-3B; River Mile 150.4

Other Abbreviations and Acronyms Used in This Book

AMAD	Activity Median Aerodynamic Diameter
DCG	Derived Concentration Guide
DEG C	Degrees Centigrade
DOE	Department of Energy
Dup, DUP	Duplicate
EML	Department of Energy's Environmental Measurements Laboratory
ETF	Effluent Treatment Facility
GP	Georgia Power
MDA	Minimum Detectable Activity
MDC	Minimum Detectable Concentration
MDL	Minimum Detectable Limit
MGD	Million Gallons Per Day
ND	Not Detected
NF	No Flow
NPDES	National Pollutant Discharge Elimination System
NRC	Nuclear Regulatory Commission
ORA	Operations Recreation Association
PAR	"P and R" Pond
PQL	Practical Quantitation Limit
QAP	Quality Assurance Program
RBOF	Receiving Basin for Offsite Fuel
Rep, REP	Replicate
RR	Railroad Yard
SCDHEC	South Carolina Department of Health and Environmental Control
SRS	Savannah River Site
SRTC	Savannah River Technology Center
SU	Standard Units
SWDF	Solid Waste Disposal Facility
TCLP	Toxicity Characteristic Leaching Procedure
TLD	Thermoluminescent Dosimeter
USGS	United States Geological Survey
WSRC	Westinghouse Savannah River Company

Units of Measure, Scientific Notation, and Conversion Tables

Units of Measure		Units of Measure	
Symbol	Name	Symbol	Name
<i>Temperature</i>		<i>Concentration</i>	
°C	degrees Centigrade	ppb	parts per billion
°F	degrees Fahrenheit	ppm	parts per million
<i>Time</i>		<i>Rate</i>	
d	day	cfs	cubic feet per second
h	hour	gpm	gallons per minute
y	year		
<i>Length</i>		<i>Conductivity</i>	
cm	centimeter	μmho	micromho
ft	foot		
in.	inch		
km	kilometer		
m	meter	<i>Radioactivity</i>	
mm	millimeter	Ci	curie
μm	micrometer	cpm	counts per minute
<i>Mass</i>		mCi	millicurie
g	gram	μCi	microcurie
kg	kilogram	pCi	picocurie
mg	milligram	Bq	becquerel
μg	microgram		
<i>Area</i>		<i>Radiation Dose</i>	
mi ²	square mile	mrad	millirad
ft ²	square foot	mrem	millirem
		Sv	sievert
		mSv	millisievert
		μSv	microsievert
<i>Volume</i>		R	roentgen
gal	gallon	mR	milliroentgen
L	liter	μR	microroentgen
mL	milliliter	Gy	gray

Fractions and Multiples of Units				
Multiple	Decimal Equivalent	Prefix	Symbol	Report Format
10^6	1,000,000	mega-	M	E+06
10^3	1,000	kilo-	k	E+03
10^2	100	hecto-	h	E+02
10	10	deka-	da	E+01
10^{-1}	0.1	deci-	d	E-01
10^{-2}	0.01	centi-	c	E-02
10^{-3}	0.001	milli-	m	E-03
10^{-6}	0.000001	micro-	μ	E-06
10^{-9}	0.000000001	nano-	n	E-09
10^{-12}	0.000000000001	pico-	p	E-12
10^{-15}	0.000000000000001	femto-	f	E-15
10^{-18}	0.000000000000000001	atto-	a	E-18

Conversion Table (Units of Radiation Measure)		
Current System	<i>Système International</i>	Conversion
curie (Ci)	becquerel (Bq)	1 Ci = 3.7×10^{10} Bq
rad (radiation absorbed dose)	gray (Gy)	1 rad = 0.01 Gy
rem (roentgen equivalent man)	sievert (Sv)	1 rem = 0.01 Sv

Conversion Table					
Multiply	By	To Obtain	Multiply	By	To Obtain
in.	2.54	cm	cm	0.394	in.
ft	0.305	m	m	3.28	ft
mi	1.61	km	km	0.621	mi
lb	0.4536	kg	kg	2.205	lb
liq qt-U.S.	0.946	L	L	1.057	liq qt-U.S.
ft ²	0.093	m ²	m ²	10.764	ft ²
mi ²	2.59	km ²	km ²	0.386	mi ²
ft ³	0.028	m ³	m ³	35.31	ft ³
d/m	0.450	pCi	pCi	2.22	d/m
pCi	10^{-6}	μ Ci	μ Ci	10^6	pCi
pCi/L (water)	10^{-9}	μ Ci/mL (water)	μ Ci/mL (water)	10^9	pCi/L (water)
pCi/m ³ (air)	10^{-12}	μ Ci/mL (air)	μ Ci/mL (air)	10^{12}	pCi/m ³ (air)

EPD/GIS Map

Figure 1 Radiological Sampling Locations — Air Surveillance

EPD/GIS Map

Figure 2 Radiological Sampling Locations — Surface Water (SRS Stream and Savannah River Water)

Figure 3 Radiological and Nonradiological Sampling Locations — Fish

Figure 4 Radiological Sampling Locations — Soil

EPD/GIS Map

Figure 5 Radiological Sampling Locations — Sediment

Figure 6 Radiological Sampling Locations — Vegetation

Figure 7 Nonradiological Sampling Locations — Liquid Effluent (NPDES)

EPD/GIS Map

Figure 8 Nonradiological Sampling Locations — Surface Water (SRS Stream and Savannah River Water)

EPD/GIS Map

Figure 9 Drinking Water Systems

EPD/GIS Map

Figure 10 Nonradiological Sampling Locations — SRS Stream and Savannah River Sediment

Table 1
Sample Media Information

Page 1 of 4

Matrix	Analytical Parameter	Representative Aliquot
Surveillance Air		
<i>On site</i>	Gamma	746 m ³
	Gross alpha	746 m ³
	Gross beta	746 m ³
	Tritium	3 m ³
	Strontium-89,90	746 m ³
	Plutonium-238,239	746 m ³
<i>Site perimeter</i>	Gamma	746 m ³
	Gross alpha	746 m ³
	Gross beta	746 m ³
	Tritium	3 m ³
	Strontium-89,90	746 m ³
	Plutonium-238,239	746 m ³
<i>25-mile radius</i>	Gamma	746 m ³
	Gross alpha	746 m ³
	Gross beta	746 m ³
	Tritium	3 m ³
	Strontium-89,90	746 m ³
	Plutonium-238,239	746 m ³
<i>100-mile radius</i>	Gamma	746 m ³
	Gross alpha	746 m ³
	Gross beta	746 m ³
	Tritium	3 m ³
	Strontium-89,90	746 m ³
	Plutonium-238,239	746 m ³

Table 1
Sample Media Information

Page 2 of 4

Matrix	Analytical Parameter	Representative Aliquot
Effluent Water	Gamma	1 L
	Gross alpha	1 L
	Gross beta	1 L
	Tritium	5 mL
	Strontium-89,90	1 L
	Actinides	1 L
Stream Water	Gamma	1 L
	Gross alpha	1 L
	Gross beta	1 L
	Tritium	5 mL
	Strontium-89,90	1 L
	Actinides	1 L
River Water	Gamma	5 L
	Gross alpha	1 L
	Gross beta	1 L
	Tritium	5 mL
	Strontium-89,90	1 L
	Plutonium 238,239	1 L
Drinking Water	Gamma	1 L
	Gross alpha	1 L
	Gross beta	1 L
	Tritium	5 mL
	Strontium-89,90	1 L
	Actinides	1 L
Groundwater	Total activity	5 mL
Wet/Dry Deposition (Rainwater)	Gamma	0.37 m ²
	Gross alpha	0.093 m ² (1/4 sample)

Table 1
Sample Media Information

Page 3 of 4

Matrix	Analytical Parameter	Representative Aliquot
Wet/Dry Deposition (Rainwater), cont.		
	Gross beta	0.093 m ² (1/4 sample)
	Tritium	5 mL
	Strontium-89,90	0.031 m ² (1/12 sample)
	Plutonium 238,239	0.031 m ² (1/12 sample)
Soil		
	Gamma	650 g
	Gross alpha	0.5 g
	Gross beta	0.5 g
	Strontium-89,90	20 g
	Plutonium-238,239	10 g
Sediment		
	Gamma	650 g
	Gross alpha	0.1 g
	Gross beta	0.1 g
	Strontium-89,90	20 g
	Plutonium-238,239	10 g
Vegetation		
	Gamma	200 g
	Gross alpha	0.5 g
	Gross beta	0.5 g
	Tritium	5 mL
	Strontium-89,90	5 g
	Plutonium-238,239	10 g
	Actinides	10 g
Fish		
Edible	Gamma	200 g
	Gross alpha	1.5 g
	Gross beta	1.5 g
	Tritium	5 mL
	Strontium-89,90	200 g
	Plutonium-238,239	200 g

Table 1
Sample Media Information

Page 4 of 4

Matrix	Analytical Parameter	Representative Aliquot
Fish, cont.		
Nonedible	Gamma	200 g
	Gross alpha	0.5 g
	Gross beta	0.5 g
	Strontium-89,90	25 g
Panfish	Gamma	200 g
	Gross alpha	1.5 g
	Gross beta	1.5 g
	Tritium	5 mL
	Strontium-89,90	100 g
	Plutonium-238,239	100 g
Deer/Hogs		
Muscle	Gamma	200 g
	Strontium-89,90	100 g
Bone	Strontium-89,90	1 g
Oysters/Crabs		
	Gamma	200 g
	Gross alpha	0.5 g
	Gross beta	0.5 g
	Strontium-89,90	100 g
Foods		
	Gamma	1000 g
	Strontium-89,90	20 g
	Tritium	5 mL
	Plutonium-238,239	100 g
Milk		
	Gamma	1 L
	Tritium	5 mL
	Strontium-90	500 mL

Table 2
Representative Minimum Detectable Concentrations for Radiological Analyses

Page 1 of 6

Note: The minimum detectable concentrations (MDCs) are calculated at the 95-percent confidence level using instrument background measurements and typical detector efficiencies, decay times, and counting intervals. Chemical recoveries and air filter collection efficiencies are assumed to be 100 percent, except for Pu, U, Am, and Cm species for which typical chemical recoveries are used. Sample sizes are given in table 1, "Sample Media Information." The MDCs for actual samples may be different because of variations in the sample preparation, size, and content, and because of variations in the chemical recoveries, counting efficiencies, reagent blanks, decay time, counting time, and instrument backgrounds.

Nuclide	Onsite Air	Site Perimeter Air	25-Mile Radius Air	Savannah Air
	pCi/m ³	pCi/m ³	pCi/m ³	pCi/m ³
H-3	1.50E+01	1.50E+01	1.50E+01	1.50E+01
Be-7	5.63E-02	5.76E-02	5.70E-02	5.70E-02
K-40	1.41E-01	1.34E-01	1.40E-01	1.40E-01
Co-58	1.05E-02	1.03E-02	1.00E-02	1.00E-02
Co-60	1.05E-02	1.07E-02	1.10E-02	1.10E-02
Ru-103	1.01E-02	1.02E-02	1.00E-02	1.00E-02
Ru-106	8.85E-02	8.71E-02	8.80E-02	8.80E-02
I-131	1.65E-02	1.61E-02	1.60E-02	1.60E-02
Cs-134	8.44E-03	8.45E-03	8.40E-03	8.40E-03
Cs-137	8.04E-03	8.18E-03	8.20E-03	8.20E-03
Ce-141	1.17E-02	1.15E-02	1.20E-02	1.20E-02
Ce-144	3.26E-02	3.22E-02	3.30E-02	3.30E-02
Sr-89,90	1.85E-03	1.85E-03	1.85E-03	1.85E-03
Sr-90				
U-234				
U-235				
U-238				
Pu-238	2.79E-05	2.79E-05	2.79E-05	2.79E-05
Pu-239	2.82E-05	2.82E-05	2.82E-05	2.82E-05
Am-241				
Cm-244				
Gross alpha	1.10E-03	1.10E-03	1.10E-03	1.10E-03
Gross beta	1.90E-03	1.90E-03	1.90E-03	1.90E-03
Total activity				

Table 2
Representative Minimum Detectable Concentrations for Radiological Analyses

Page 2 of 6

Nuclide	Rainwater ^a	Stream/Effluent Water	River Water
	pCi/m ²	pCi/L	pCi/L
H-3	1.23E+03	1.20E+03	4.40E+02
Be-7	1.70E+02	4.70E+01	1.10E+01
K-40	4.10E+02	1.30E+01	2.50E+01
Co-58	3.00E+01	7.40E+00	1.20E+00
Co-60	3.20E+01	9.10E+00	1.90E+00
Ru-103	2.80E+01	6.70E+00	1.30E+00
Ru-106	2.80E+02	5.90E+01	1.10E+01
I-131	7.20E+01	1.60E+01	2.30E+00
Cs-134	2.70E+01	5.80E+00	1.30E+00
Cs-137	2.60E+01	7.10E+00	1.40E+00
Ce-141	3.60E+01	8.50E+00	1.50E+00
Ce-144	1.30E+02	2.90E+01	5.90E+00
Sr-89,90	4.50E+01	1.40E+00 ^b	1.40E+00
Sr-90			
U-234		1.80E-02	
U-235		1.00E-02	
U-238		1.80E-02	
Pu-238	6.40E-01	8.56E-03	1.92E-02
Pu-239	6.80E-01	8.00E-03	2.10E-02
Am-241		8.87E-03	
Cm-244		7.80E-03	
Gross alpha	8.60E+00	8.00E-01	8.00E-01
Gross beta	1.50E+01	1.40E+00	1.40E+00
Total activity			

a Values, except for tritium, reflect wet/dry deposition.

b The Sr-89,90 value is for a 1-liter sample.

Table 2
Representative Minimum Detectable Concentrations for Radiological Analyses

Page 3 of 6

Nuclide	Groundwater	Drinking Water	Soil/Sediment	Vegetation
	pCi/L	pCi/L	pCi/g	pCi/g
H-3		4.40E+02		1.80E-01
Be-7		4.70E+01	3.40E-01	4.20E-01
K-40		1.30E+01	5.50E-01	1.40E+00
Co-58		7.40E+00	4.40E-02	5.50E-02
Co-60		9.10E+00	4.70E-02	5.70E-02
Ru-103		6.70E+00	5.00E-02	5.00E-02
Ru-106		5.90E+01	3.20E-01	4.50E-01
I-131		1.60E+01	8.00E-02	8.80E-02
Cs-134		5.80E+00	3.80E-02	4.40E-02
Cs-137		7.10E+00	4.20E-02	4.90E-02
Ce-141		8.50E+00	7.80E-02	8.40E-02
Ce-144		2.90E+01	3.00E-01	3.40E-01
Sr-89,90		1.40E+00	7.20E-02	1.40E-02
Sr-90				
U-234				2.60E-03
U-235				1.00E-03
U-238				4.60E-03
Pu-238			1.96E-03	2.00E-03
Pu-239			1.90E-03	2.10E-03
Am-241				8.90E-04
Cm-244				7.80E-04
Gross alpha		8.00E-01	8.00E+00	1.60E+00
Gross beta		1.40E+00	1.40E+01	2.90E+00
Total activity	2.30E+03			

Table 2
Representative Minimum Detectable Concentrations for Radiological Analyses

Page 4 of 6

Nuclide	Highway 301 Fish	River Mouth Fish	Onsite Fish	Panfish
	pCi/g	pCi/g	pCi/g	pCi/g
H-3	5.72E-02	5.72E-02	5.72E-02	5.72E-02
Be-7	7.20E-01	1.50E+00	5.00E-01	
K-40	3.50E-01	9.30E-01	6.70E-01	
Co-58	5.50E-02	1.10E-01	7.40E-02	
Co-60	2.40E-02	4.60E-02	5.20E-02	
Ru-103	1.40E-01	3.00E-01	1.00E-01	
Ru-106	2.10E-01	4.20E-01	4.90E-01	
I-131			6.80E+00	
Cs-134	2.20E-02	3.80E-02	4.50E-02	
Cs-137	2.10E-02	4.00E-02	4.20E-02	
Ce-141	3.80E-01	7.10E-01	1.60E-01	
Ce-144	1.70E-01	3.70E-01	2.30E-01	
Sr-89,90			7.20E-03	
Sr-90				
U-234				
U-235				
U-238				
Pu-238	1.00E-04	1.00E-04	1.00E-04	2.00E-04
Pu-239	1.00E-04	1.00E-04	1.00E-04	2.10E-04
Am-241				
Cm-244				
Gross alpha			9.54E-01	5.30E-01
Gross beta			1.83E-01	9.5E-01
Total activity				

Table 2
Representative Minimum Detectable Concentrations for Radiological Analyses

Page 5 of 6

Nuclide	Nonedible Fish	Oysters/Crabs	Food Products	Milk
	pCi/g	pCi/g	pCi/g	pCi/L
H-3			1.80E-01	4.40E+02
Be-7		5.00E-01	2.30E-01	1.80E+01
K-40		6.70E-01	1.20E-01	4.30E+01
Co-58		7.40E-02	2.10E-02	2.50E+00
Co-60		5.20E-02	7.50E-03	2.80E+00
Ru-103		1.00E-01	5.00E-02	2.40E+00
Ru-106		4.90E-01	7.20E-02	2.30E+01
I-131		6.80E+00		2.90E+00
Cs-134		4.50E-02	7.30E-03	2.40E+00
Cs-137		4.20E-02	7.20E-03	2.70E+00
Ce-141		1.60E-01	9.80E-02	2.80E+00
Ce-144		2.30E-01	4.00E-02	1.20E+01
Sr-89,90	5.60E-02	1.40E-02	7.20E-02	3.95E+00
Sr-90				5.80E+00
U-234				
U-235				
U-238				
Pu-238			2.00E-04	
Pu-239			2.10E-04	
Am-241				
Cm-244				
Gross alpha	1.60E+00	1.60E+00		4.40E-01
Gross beta	2.90E+00	2.90E+00		2.90E-03
Total activity				

Table 2
Representative Minimum Detectable Concentrations for Radiological Analyses

Page 6 of 6

Nuclide	Deer Muscle	Deer Bone
	pCi/g	pCi/g
H-3		
Be-7	5.00E-01	
K-40	6.70E-01	
Co-58	7.40E-02	
Co-60	5.20E-02	
Ru-103	1.00E-01	
Ru-106	4.90E-01	
I-131	6.80E+00	
Cs-134	4.50E-02	
Cs-137	4.20E-02	
Ce-141	1.60E-01	
Ce-144	2.30E-01	
Sr-89,90	1.40E-02	1.40E+00
Sr-90		
U-234		
U-235		
U-238		
Pu-238		
Pu-239		
Am-241		
Cm-244		
Gross alpha		
Gross beta		
Total activity		

Table 3
Nonradiological Environmental Surveillance Detection/Report Limits

Page 1 of 2

Parameter	Units	Quantitation Value	Report Value Round to the nearest:
<i>Note: "NA" denotes "not applicable."</i>			
Field Measurements			
Temperature	°C	NA	0.1
pH	SU	NA	0.1
Dissolved oxygen (DO)	mg/L	1.0	0.1
General Water Quality Parameters			
Conductivity	µmhos/cm	NA	1
Chemical Oxygen Demand (COD)	mg/L	20	1
Mercury in Fish Flesh	µg/g	0.008	0.01
Total Suspended Solids (TSS)	mg/L	3	1
Nitrogen-Nitrite (NO ₃ -N)	mg/L	0.05	0.01
Nitrogen-Nitrate (NO ₂ -N)	mg/L	0.02	0.01
Total Phosphorus	mg/L	0.01	0.01
Total Organic Carbon (TOC)	mg/L	1.0	0.1
Total Oil and Grease	mg/L	1.0	0.1
Biological Oxygen Demand (BOD)	mg/L	2.0	1
Metals			
Aluminum (Al)	mg/L	0.05	0.01
Cadmium (Cd)	mg/L	0.002	0.0001
Calcium (Ca)	mg/L	0.100	0.1
Chromium (Cr)	mg/L	0.005	0.0001
Copper (Cu)	mg/L	0.005	0.0001
Iron (Fe)	mg/L	0.020	0.1
Lead (Pb)	mg/L	0.003	0.0001
Magnesium (Mg)	mg/L	0.050	0.1
Manganese (Mn)	mg/L	0.005	0.01
Mercury (Hg)	mg/L	0.0001	0.00001
Nickel (Ni)	mg/L	0.010	0.001
Sodium (Na)	mg/L	0.100	1
Zinc (Zn)	mg/L	0.005	0.001
Pesticides			
Aldrin	µg/L	0.03	0.01
Alpha-BHC	µg/L	0.03	0.01

Table 3
Nonradiological Environmental Surveillance Detection/Report Limits

Page 2 of 2

Parameter	Units	Quantitation Value	Report Value Round to the nearest:
Pesticides (cont.)			
Beta-BHC	µg/L	0.03	0.01
Delta-BHC	µg/L	0.03	0.01
Lindane	µg/L	0.03	0.01
Chlordane	µg/L	0.06	0.01
4,4-DDD	µg/L	0.03	0.01
4,4-DDE	µg/L	0.03	0.01
4,4-DDT	µg/L	0.03	0.01
Dieldrin	µg/L	0.03	0.01
Endosulfan I	µg/L	0.03	0.01
Endosulfan II	µg/L	0.03	0.01
Endosulfan sulfate	µg/L	0.03	0.01
Endrin	µg/L	0.03	0.01
Endrin aldehyde	µg/L	0.03	0.01
Endrin ketone	µg/L	0.05	0.01
Heptachlor	µg/L	0.03	0.01
Heptachlor epoxide	µg/L	0.03	0.01
Methoxychlor	µg/L	0.12	0.01
Toxaphene	µg/L	0.30	0.01
Herbicides			
2,4-D	µg/L	2.4	0.1
2,4,5-TP (Silvex)	µg/L	0.61	0.01
Volatile Organic Compounds			
Cis-1,2-Dichloroethene	µg/L	2.0	0.1
Tetrachloroethene	µg/L	2.0	0.1
1,1,1-Trichloroethane	µg/L	2.0	0.1
Trichloroethene	µg/L	2.0	0.1
Vinyl Chloride	µg/L	2.0	0.1

Table 4
Radioactive Atmospheric Releases by Source

Page 1 of 3

Radio-nuclide	Curies ^a						Total
	Reactors	Separations ^b	Reactor Materials	Heavy Water	SRTC ^c	Diffuse and Fugitive ^d	
<i>Note: Blank spaces indicate no quantifiable activity.</i>							
GASES AND VAPORS							
H-3(oxide)	3.04E+03	3.02E+04		2.31E+02		4.71E+02	3.39E+04
H-3(elem.)		1.77E+04					1.77E+04
H-3 Total	3.04E+03	4.79E+04		2.31E+02		4.71E+02	5.16E+04
C-14		2.50E-02				4.92E-04	2.55E-02
Kr-85		3.74E+04					3.74E+04
Xe-135		1.94E-02					1.94E-02
I-129		4.77E-03				2.50E-03	7.27E-03
I-131					1.01E-05		1.01E-05
I-133					1.25E-04		1.25E-04
PARTICULATES							
Cr-51						1.21E-04	1.21E-04
Co-57		4.69E-08				2.01E-10	4.71E-08
Co-58						1.27E-04	1.27E-04
Co-60		1.00E-06		1.18E-06		1.28E-04	1.30E-04
Ni-59						1.02E-09	1.02E-09
Ni-63						5.89E-07	5.89E-07
Zn-65						2.23E-05	2.23E-05
Sr-89,90		3.11E-04				7.02E-04	1.01E-03
Zr-95						1.71E-05	1.71E-05
Nb-94						3.95E-10	3.95E-10
Nb-95						1.13E-04	1.13E-04
Tc-99						6.22E-05	6.22E-05
Ru-103						4.23E-05	4.23E-05
Sb-124						2.23E-10	2.23E-10
Sb-125						5.27E-05	5.27E-05
Sn-126						3.13E-15	3.13E-15
Cs-134		5.72E-08				1.31E-04	1.31E-04
Cs-137	2.32E-05	8.41E-03	3.36E-07			6.11E-03	1.45E-02

^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

Table 4
Radioactive Atmospheric Releases by Source

Page 2 of 3

Radio-nuclide	Curies ^a					Diffuse and Fugitive ^d	Total
	Reactors	Separations ^b	Reactor Materials	Heavy Water	SRTC ^c		
Ce-141						4.16E-05	4.16E-05
Ce-144						1.45E-04	1.45E-04
Pr-144						3.45E-09	3.45E-09
Pm-147						3.49E-09	3.49E-09
Eu-152						1.21E-10	1.21E-10
Eu-154						5.74E-06	5.74E-06
Eu-155						1.10E-06	1.10E-06
Hg-203						2.23E-10	2.23E-10
Pb-214						2.23E-10	2.23E-10
Ra-226						1.25E-05	1.25E-05
Ra-228						1.87E-05	1.87E-05
Ac-228						1.66E-06	1.66E-06
Th-228						2.75E-07	2.75E-07
Th-230						1.22E-05	1.22E-05
Th-232						1.64E-06	1.64E-06
Th-234						4.10E-06	4.10E-06
Pa-233						2.23E-10	2.23E-10
U-232			1.33E-08				1.33E-08
U-233						2.38E-06	2.38E-06
U-234		2.02E-05	1.41E-05			5.29E-05	8.72E-05
U-235		1.34E-06	2.68E-06			5.89E-06	9.91E-06
U-236						5.20E-09	5.20E-09
U-238		3.61E-05	1.07E-05			9.49E-05	1.42E-04
Np-237						2.23E-10	2.23E-10
Np-239						4.51E-09	4.51E-09
Pu-238		5.27E-04	7.16E-09			1.45E-03	1.98E-03
Pu-239		1.34E-04	2.39E-08			1.68E-05	1.51E-04
Pu-240						1.46E-06	1.46E-06
Pu-241						6.47E-05	6.47E-05
Pu-242						1.53E-08	1.53E-08

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

Table 4
Radioactive Atmospheric Releases by Source

Page 3 of 3

Radio-nuclide	Curies ^a						Total
	Reactors	Separations ^b	Reactor Materials	Heavy Water	SRTC ^c	Diffuse and Fugitive ^d	
Am-241		3.01E-05	1.46E-08			8.44E-06	3.86E-05
Am-243						4.28E-06	4.28E-06
Cm-242						3.10E-07	3.10E-07
Cm-244		2.59E-05	1.69E-08			6.74E-06	3.27E-05
Cm-246						2.91E-06	2.91E-06
Alpha	5.09E-04	4.46E-05	7.23E-05	1.05E-05	1.75E-06	1.47E-03	2.11E-03
Nonvolatile Beta	1.19E-03	3.27E-04	1.84E-03	1.23E-04		2.74E-02	3.09E-02

a One curie equals 3.7×10^{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

Table 5
Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides

Page 1 of 6

Stack/Facility	Radionuclide	Quantity Released During 1999 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1999 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
<i>Note: Blank spaces indicate no quantifiable activity.</i>					
A-Area (Savannah River Technology Center)					
794-A Sandfilter Discharge	I-131	1.01E+01	9.54E+14	3.45E-14	4.00E-10
	I-133	1.25E+02	9.54E+14	2.27E-12	2.00E-09
C-Area (C-Reactor)					
728-N Stack	Cs-137	4.96E-01	7.09E+13	9.67E-15	4.00E-10
C-Area Main Stack (148')	H-3(oxide)	2.63E+08	9.94E+14	2.64E-07	1.00E-07
D-Area (Heavy Water Rework)					
420-D Stack	H-3(oxide)	2.00E+08	1.47E+14	1.36E-06	1.00E-07
421-2D Stack	H-3(oxide)	3.05E+07	1.11E+14	2.75E-07	1.00E-07
	Co-60	1.18E+00	1.11E+14	7.01E-14	8.00E-11
772-D Stack	H-3(oxide)	8.53E+06	1.53E+14	5.58E-08	1.00E-07
F-Area (Separations and Waste Management)					
235-F Sandfilter Discharge	U-234	5.40E-01	5.64E+14	9.90E-16	9.00E-14
	U-235	1.02E-02	5.64E+14	4.08E-18	1.00E-13
	U-238	6.46E-01	5.64E+14	1.15E-15	1.00E-13
	Pu-239	3.39E-03	5.64E+14	1.99E-17	2.00E-14
	Am-241	1.58E-02	5.64E+14	2.71E-17	2.00E-14
241-F Miscellaneous Exhaust	Cs-137	1.11E+00	2.23E+13	5.38E-14	4.00E-10
241-F Purge Exhaust	Cs-137	3.61E+00	4.91E+13	8.30E-14	4.00E-10
241-F Tank Annulus Exhaust	Cs-137	5.10E+00	2.82E+14	2.79E-14	4.00E-10
291-F Stack Isokinetic	Sr-89,90	1.59E+02	3.19E+15	5.69E-14	9.00E-12
	I-131	2.11E+01	3.19E+15	6.75E-14	4.00E-10
	Xe-135	1.94E+04	3.19E+15	1.24E-10	8.00E-08
	Cs-137	3.20E+01	3.19E+15	2.22E-14	4.00E-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 5
Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides

Page 2 of 6

Stack/Facility	Radionuclide	Quantity Released During 1999 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1999 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
6.1 Dissolver Stack	U-234	1.05E+01	3.19E+15	3.41E-15	9.00E-14
	U-235	1.11E+00	3.19E+15	3.82E-16	1.00E-13
	U-238	2.74E+01	3.19E+15	8.60E-15	1.00E-13
	Pu-238	3.89E+00	3.19E+15	1.25E-15	3.00E-14
	Pu-239	9.58E+01	3.19E+15	3.03E-14	2.00E-14
	Am-241	9.28E+00	3.19E+15	2.96E-15	2.00E-14
	Cm-244	1.87E+00	3.19E+15	6.08E-16	4.00E-14
	Cs-137	7.24E-01	2.15E+12	2.48E-13	4.00E-10
	Am-241	2.97E-01	2.15E+12	9.75E-13	2.00E-14
	Cs-137	3.34E-01	2.14E+12	2.14E-13	4.00E-10
6.4 Dissolver Stack	Pu-238	3.26E-01	2.14E+12	5.69E-12	3.00E-14
	Pu-239	1.07E+01	2.14E+12	1.87E-10	2.00E-14
	Am-241	1.59E+01	2.14E+12	1.12E-11	2.00E-14
	Cm-244	3.53E-04	2.14E+12	6.17E-15	4.00E-14
	U-234	1.44E-01	2.32E+15	7.20E-17	9.00E-14
	U-238	1.72E-01	2.32E+15	8.92E-17	1.00E-13
	Pu-238	3.02E-02	2.32E+15	1.11E-17	3.00E-14
772-4F Stack	Pu-239	3.17E-03	2.32E+15	6.56E-17	2.00E-14
	Am-241	1.11E-02	2.32E+15	-4.00E-18	2.00E-14
	Cm-244	4.81E-03	2.32E+15	-6.74E-18	4.00E-14
	Sr-89,90	4.62E+00	8.91E+13	1.47E-13	9.00E-12
	Cs-137	8.37E-01	8.91E+13	4.50E-14	4.00E-10
	U-234	1.23E+00	3.56E+13	3.45E-14	9.00E-14
A Line Stack (221-1F)	U-235	7.21E-02	3.56E+13	2.39E-15	1.00E-13
	U-238	1.72E+00	3.56E+13	4.84E-14	1.00E-13
	Pu-238	4.23E-02	3.56E+13	1.40E-15	3.00E-14
	Pu-239	5.30E-01	3.56E+13	1.52E-14	2.00E-14

^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 5

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

Page 3 of 6

Stack/Facility	Radionuclide	Quantity Released During 1999 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1999 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
	Am-241	9.73E-02	3.56E+13	3.12E-15	2.00E-14
	Cm-244	1.16E-01	3.56E+13	3.50E-15	4.00E-14
H-Area (Separations and Waste Management)					
241-H Miscellaneous Exhaust	Cs-137	1.29E+01	3.02E+14	4.61E-14	4.00E-10
241-H Purge Exhaust	Cs-134	5.72E-02	1.06E+14	4.26E-14	2.00E-10
	Cs-137	3.23E+01	1.06E+14	3.03E-13	4.00E-10
241-H Tank Annulus Exhaust	Cs-137	3.85E+01	7.29E+14	4.77E-14	4.00E-10
244-H Vessel Vent Exhaust	Co-57	4.69E-02	5.78E+12	4.00E-13	2.00E-09
	Co-60	1.00E+00	5.78E+12	2.55E-13	8.00E-11
	Cs-137	1.64E+01	5.78E+12	2.92E-12	4.00E-10
291-H Stack Isokinetic	Sr-89,90	5.55E+00	3.96E+15	1.02E-14	9.00E-12
	Cs-137	2.06E+00	3.96E+15	2.18E-14	4.00E-10
	U-234	1.05E-01	3.96E+15	1.17E-17	9.00E-14
	U-238	5.17E-02	3.96E+15	1.34E-18	1.00E-13
	Pu-238	8.02E+01	3.96E+15	2.03E-14	3.00E-14
	Pu-239	1.34E+01	3.96E+15	3.49E-15	2.00E-14
	Am-241	2.23E+00	3.96E+15	5.74E-16	2.00E-14
	Cm-244	1.48E-01	3.96E+15	5.45E-17	4.00E-14
299-H Bldg. Stack & HP Hood	Cs-137	1.59E+00	2.66E+14	1.40E-14	4.00E-10
H-CIF 261-H (Off Gas)	Cs-137	8.25E+03	1.78E+14	4.60E-11	4.00E-10
	U-234	3.98E+00	1.78E+14	2.44E-14	9.00E-14
	U-235	2.24E-02	1.78E+14	9.64E-16	1.00E-13
	U-238	1.60E+00	1.78E+14	9.74E-15	1.00E-13
	Pu-238	4.40E+02	1.78E+14	2.54E-12	3.00E-14
	Pu-239	1.20E+01	1.78E+14	6.86E-14	2.00E-14

^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 5
Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides

Page 4 of 6

Stack/Facility	Radionuclide	Quantity Released During 1999 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1999 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
	Am-241	1.16E+00	1.78E+14	1.03E-14	2.00E-14
	Cm-244	2.38E+01	1.78E+14	1.37E-13	4.00E-14
K-Area (K-Reactor)					
K-Area Disassembly	Cs-137	1.63E+01	1.35E+15	2.67E-14	4.00E-10
K-Area Main Stack (148')	H-3(oxide)	1.16E+09	1.87E+15	6.21E-07	1.00E-07
L-Area (L-Reactor)					
L-Area Disassembly	Cs-137	6.38E+00	1.18E+15	3.81E-14	4.00E-10
L-Area Main Stack (148')	H-3(oxide)	5.53E+08	2.61E+15	2.12E-07	1.00E-07
M-Area (Reactor Materials)					
321-M Machining Room Stack	U-234	8.15E+00	4.80E+13	2.07E-13	9.00E-14
	U-235	1.66E+00	4.80E+13	4.42E-14	1.00E-13
	U-238	3.50E-02	4.80E+13	1.02E-15	1.00E-13
	Pu-239	3.46E-03	4.80E+13	-1.43E-17	2.00E-14
	Am-241	5.38E-03	4.80E+13	1.56E-16	2.00E-14
321-M Stacks	U-234	4.28E+00	4.91E+14	9.06E-15	9.00E-14
	U-235	8.04E-01	4.91E+14	1.72E-15	1.00E-13
	U-238	4.87E-01	4.91E+14	1.03E-15	1.00E-13
	Pu-238	7.16E-03	4.91E+14	1.91E-17	3.00E-14
	Pu-239	2.04E-02	4.91E+14	2.60E-17	2.00E-14
	Am-241	8.01E-03	4.91E+14	-1.59E-18	2.00E-14
	Cm-244	1.62E-02	4.91E+14	2.48E-17	4.00E-14
	Cs-137	3.36E-01	8.95E+12	5.15E-13	4.00E-10
	U-232	1.33E-02	8.95E+12	2.03E-14	2.70E-18
M-Area VTF	U-234	1.71E+00	8.95E+12	2.24E-13	9.00E-14
	U-235	2.19E-01	8.95E+12	2.63E-14	1.00E-13
	U-238	1.02E+01	8.95E+12	1.27E-12	1.00E-13

^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 5
Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides

Page 5 of 6

Stack/Facility	Radionuclide	Quantity Released During 1999 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1999 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
	Am-241	1.19E-03	8.95E+12	-4.92E-17	2.00E-14
	Cm-244	7.21E-04	8.95E+12	7.80E-16	4.00E-14
S-Area (Defense Waste Processing Facility)					
221-S Personnel Area (Zone 2)	Sr-89,90	2.26E+01	1.64E+15	9.61E-14	9.00E-12
	Cs-137	1.02E+01	1.64E+15	1.35E-14	4.00E-10
	U-234	1.73E+00	1.64E+15	1.38E-15	9.00E-14
	U-235	7.86E-02	1.64E+15	2.81E-17	1.00E-13
	U-238	1.74E+00	1.64E+15	1.40E-15	1.00E-13
	Pu-238	1.47E+00	1.64E+15	9.79E-16	3.00E-14
	Pu-239	1.82E-01	1.64E+15	1.85E-16	2.00E-14
	Am-241	3.99E-01	1.64E+15	1.04E-16	2.00E-14
250-S Glass Waste Bldg #1488	U-234	5.43E-04	1.89E+11	4.99E-15	9.00E-14
	U-238	1.44E-03	1.89E+11	8.08E-15	1.00E-13
	Pu-238	3.13E-04	1.89E+11	3.13E-15	3.00E-14
	Am-241	2.55E-04	1.89E+11	9.08E-16	2.00E-14
	Cm-244	9.13E-06	1.89E+11	9.84E-16	4.00E-14
250-S Glass Waste Bldg #1509	U-234	7.64E-04	1.89E+11	7.36E-15	9.00E-14
	U-238	8.91E-04	1.89E+11	6.05E-15	1.00E-13
	Pu-238	4.79E-04	1.89E+11	7.30E-16	3.00E-14
	Pu-239	9.28E-05	1.89E+11	9.41E-16	2.00E-14
	Am-241	5.95E-05	1.89E+11	2.37E-16	2.00E-14
250-S Glass Waste Bldg #3928	Sr-89,90	1.30E-02	1.86E+11	5.32E-13	9.00E-12
	U-234	5.20E-04	1.86E+11	4.75E-15	9.00E-14
	U-238	1.20E-03	1.86E+11	6.18E-15	1.00E-13
	Pu-238	6.04E-04	1.86E+11	1.84E-14	3.00E-14

^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 5
Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides

Page 6 of 6

Stack/Facility	Radionuclide	Quantity Released During 1999 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1999 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
250-S Glass Waste Bldg #3940	Am-241	1.21E-04	1.86E+11	1.09E-15	2.00E-14
	U-234	8.72E-04	1.85E+11	5.41E-15	9.00E-14
	U-235	1.38E-05	1.85E+11	8.55E-16	1.00E-13
	U-238	1.11E-03	1.85E+11	6.06E-15	1.00E-13
	Pu-238	4.05E-04	1.85E+11	3.41E-15	3.00E-14
	Pu-239	1.68E-05	1.85E+11	-9.84E-17	2.00E-14
291-S Vit. Process (Zone 1)	Am-241	4.43E-04	1.85E+11	2.57E-15	2.00E-14
	Sr-89,90	1.15E+02	1.54E+15	1.92E-13	9.00E-12
	U-234	1.74E+00	1.54E+15	1.70E-15	9.00E-14
	U-235	4.96E-02	1.54E+15	-1.14E-16	1.00E-13
	U-238	2.48E+00	1.54E+15	2.04E-15	1.00E-13
	Pu-238	8.84E-01	1.54E+15	7.14E-16	3.00E-14
511-S Low Pt. Pump Pit	Pu-239	1.01E+00	1.54E+15	7.17E-16	2.00E-14
	Am-241	6.72E-01	1.54E+15	4.23E-16	2.00E-14
	Sr-89,90	3.76E+00	2.26E+14	7.93E-14	9.00E-12
	U-234	2.24E-01	2.26E+14	1.18E-15	9.00E-14
	U-238	2.70E-01	2.26E+14	1.47E-15	1.00E-13
	Pu-238	2.60E-02	2.26E+14	1.81E-16	3.00E-14
	Pu-239	2.39E-02	2.26E+14	8.34E-17	2.00E-14
	Am-241	7.08E-02	2.26E+14	3.34E-16	2.00E-14
Tritium					
232-H Line 1&2 Stack (200ft)	H-3(el)	1.14E+10	1.33E+15	8.59E-06	2.00E-02
	H-3(oxide)	6.70E+09	1.33E+15	5.02E-06	1.00E-07
232-H Line 3 Stack (200ft)	H-3(el)	4.61E+08	2.46E+14	1.87E-06	2.00E-02
	H-3(oxide)	4.72E+09	2.46E+14	1.92E-05	1.00E-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
Radioactive Liquid Releases by Source
(Including Direct and Seepage Basin Migration Releases)

Page 1 of 1

Curies ^a						
Radio-nuclide	Reactors	Separations ^b	Reactor Materials	Heavy Water/TNX	Savannah River Technology Center	Total
<i>Note: Blank spaces indicate no quantifiable activity.</i>						
H-3	1.40E+03	4.68E+03		2.13E+02	1.46E+00	6.29E+03
Sr-89,90	1.37E-02	1.20E-01				1.34E-01
Co-60		4.94E-04				4.94E-04
I-129		7.82E-02				7.82E-02
Cs-137	3.24E-04	1.02E-01				1.02E-01 ^c
U-234	3.93E-03	8.60E-02	1.24E-02	4.88E-06	8.39E-05	1.02E-01
U-235	2.50E-04	6.33E-04			2.99E-06	8.86E-04
U-238	3.10E-03	1.08E-02	1.37E-02	1.00E-05	7.92E-05	2.77E-02
Pu-238		9.98E-05		1.14E-06	7.73E-06	1.09E-04
Pu-239	9.96E-05	1.97E-06				1.02E-04
Am-241		1.83E-06	1.16E-05			1.34E-05
Cm-244		1.26E-06				1.26E-06
Alpha	6.45E-04	2.05E-02	3.56E-03	1.04E-03	5.25E-03	3.10E-02
Nonvolatile Beta	2.40E-02	2.23E-02	9.97E-04	3.21E-03	4.63E-03	5.51E-02

a One curie equals 3.7E+10 Becquerels.

b Includes separations, waste management, and tritium facilities

c For conservatism, the higher release value (2.40E-01 Ci) calculated from River Mile 120 fish concentrations was used for dose calculations [see chapter 7, "Potential Radiation Doses," of the *SRS Environmental Report for 1999* (WSRC-TR-99-00299)].

Table 7
Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual
Average Radionuclide Concentrations to DOE Derived Concentration Guides

Page 1 of 5

Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1999 (Ci)	Average Effluent Concentration During 1999 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
<i>Note: "MDL" denotes "minimum detectable level."</i>					
A-Area (Savannah River Technology Center)					
TB-2 Outfall at Road 1A	H-3	1.46E+00	1.75E-06	2.00E-03	8.76E-04
	Cs-137	Below MDL	4.02E-10	3.00E-06	1.34E-04
	U-234	8.39E-05	1.10E-10	6.00E-07	1.84E-04
	U-235	2.99E-06	5.22E-12	6.00E-07	8.70E-06
	U-238	7.92E-05	1.07E-10	6.00E-07	1.78E-04
	Pu-238	7.73E-06	1.07E-11	4.00E-08	2.67E-04
Sum of Fractions —					1.65E-03
D-Area (Heavy Water Rework)					
400-D Effluent Discharge	H-3	2.13E+02	1.07E-04	2.00E-03	5.33E-02
	Sr-89,90	Below MDL	2.87E-10	1.00E-06	2.87E-04
	Cs-137	Below MDL	3.48E-10	3.00E-06	1.16E-04
Sum of Fractions —					5.37E-02
F-Area (Separations and Waste Management)					
F-01	H-3	4.60E-02	5.76E-07	2.00E-03	2.88E-04
	Sr-89,90	3.19E-06	2.90E-10	1.00E-06	2.90E-04
	Cs-137	Below MDL	2.56E-10	3.00E-06	8.54E-05
Sum of Fractions —					6.63E-04
F-012 281-8F Retention Basin	H-3	8.66E-01	1.60E-05	2.00E-03	8.02E-03
	Sr-89,90	Below MDL	3.50E-09	1.00E-06	3.50E-03
	Cs-137	2.41E-03	3.39E-08	3.00E-06	1.13E-02
Sum of Fractions —					2.28E-02
F-013 200-F Cooling Basin	H-3	5.23E-02	3.60E-06	2.00E-03	1.80E-03
	Sr-89,90	4.24E-05	1.85E-08	1.00E-06	1.85E-02
	Cs-137	1.71E-04	1.09E-08	3.00E-06	3.62E-03
Sum of Fractions —					2.39E-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 7
Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual
Average Radionuclide Concentrations to DOE Derived Concentration Guides

Page 2 of 5

Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1999 (Ci)	Average Effluent Concentration During 1999 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
FM-3 F-Area Effluent	H-3	1.18E+00	6.47E-07	2.00E-03	3.23E-04
	Sr-89,90	Below MDL	7.16E-10	1.00E-06	7.16E-04
	Cs-137	3.48E-04	1.22E-09	3.00E-06	4.08E-04
	Sum of Fractions — 1.45E-03				
U3R-2 F Storm Sewer	H-3	4.66E-02	4.34E-07	2.00E-03	2.17E-04
	Sr-89,90	Below MDL	4.46E-10	1.00E-06	4.46E-04
	Cs-137	Below MDL	-1.06E-11	3.00E-06	0.00E+00
	U-234	1.10E-05	9.68E-11	6.00E-07	1.61E-04
	U-235	6.89E-07	9.36E-12	6.00E-07	1.56E-05
	U-238	2.80E-05	2.74E-10	6.00E-07	4.56E-04
	Pu-238	3.23E-06	2.88E-11	4.00E-08	7.20E-04
	Pu-239	1.96E-06	1.90E-11	3.00E-08	6.33E-04
	Am-241	1.83E-06	1.76E-11	3.00E-08	5.85E-04
	Cm-244	1.26E-06	1.40E-11	6.00E-08	2.34E-04
Sum of Fractions — 3.47E-03					
H-Area (Separations and Waste Management)					
FM-1C H-Area Effluent	H-3	8.61E+00	9.04E-06	2.00E-03	4.52E-03
	Sr-89,90	1.31E-04	9.46E-10	1.00E-06	9.46E-04
	Cs-137	1.30E-03	4.34E-09	3.00E-06	1.45E-03
	Sum of Fractions — 6.91E-03				
H-004	H-3	3.25E-01	9.62E-06	2.00E-03	4.81E-03
	Sr-89,90	Below MDL	4.90E-10	1.00E-06	4.90E-04
	Cs-137	Below MDL	3.80E-10	3.00E-06	1.27E-04
	U-234	1.86E-06	6.20E-11	6.00E-07	1.03E-04
	U-238	1.88E-07	1.51E-11	6.00E-07	2.51E-05
	Pu-238	7.97E-07	3.20E-11	4.00E-08	8.00E-04
	Pu-239	8.97E-09	5.33E-13	3.00E-08	1.78E-05
Sum of Fractions — 6.37E-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 7

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

Page 3 of 5

Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1999 (Ci)	Average Effluent Concentration During 1999 (μCi/mL)	DOE DCGs ^a (μCi/mL)	Fraction of DOE DCG
H-017 281-8H Retention Basin	H-3	2.29E-01	6.20E-06	2.00E-03	3.10E-03
	Sr-89,90	1.72E-03	3.73E-08	1.00E-06	3.73E-02
	Cs-137	2.12E-02	3.40E-07	3.00E-06	1.13E-01
	Sum of Fractions —				1.54E-01
H-018 200-H Cooling Basin	H-3	5.15E-01	1.83E-05	2.00E-03	9.13E-03
	Sr-89,90	4.71E-04	3.68E-08	1.00E-06	3.68E-02
	Cs-137	4.35E-03	2.18E-07	3.00E-06	7.25E-02
	Sum of Fractions —				1.18E-01
HP-52 H-Area Tank Farm	H-3	9.33E-01	1.17E-06	2.00E-03	5.87E-04
	Sr-89,90	Below MDL	2.73E-10	1.00E-06	2.73E-04
	Cs-137	8.96E-04	2.48E-09	3.00E-06	8.26E-04
	Sum of Fractions —				1.69E-03
H-ETF					
U3R-2A ETF Outfall at Road C	H-3	7.93E+02	1.07E-02	2.00E-03	5.34E+00
	Co-0	4.94E-06	7.79E-10	5.00E-02	1.56E-08
	Sr-89,90	3.29E-05	3.74E-09	1.00E-06	3.74E-03
	Cs-137	1.84E-02	2.38E-07	3.00E-06	7.95E-02
	Sum of Fractions —				5.42E+00
K-Area (K-Reactor)					
K-Canal	H-3	3.26E-01	5.94E-07	2.00E-03	2.97E-04
	Sr-89,90	Below MDL	3.26E-10	1.00E-06	3.26E-04
	Cs-137	Below MDL	3.46E-10	3.00E-06	1.15E-04
	Sum of Fractions —				7.38E-04

^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 7
Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual
Average Radionuclide Concentrations to DOE Derived Concentration Guides

Page 4 of 5

Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1999 (Ci)	Average Effluent Concentration During 1999 (μCi/mL)	DOE DCGs ^a (μCi/mL)	Fraction of DOE DCG
L-Area (L-Reactor)					
L-07	H-3	6.24E+00	7.23E-07	2.00E-03	3.62E-04
	Sr-89,90	Below MDL	2.65E-10	1.00E-06	2.65E-04
	Cs-137	Below MDL	-6.87E-11	3.00E-06	0.00E+00
	Sum of Fractions — 6.26E-04				
M-Area (Reactor Materials)					
TB-3 M-Area Effluent at Road D	Cs-137	Below MDL	2.52E-10	3.00E-06	8.39E-05
	U-234	1.28E-05	1.34E-11	6.00E-07	2.24E-05
	U-238	6.20E-06	9.18E-12	6.00E-07	1.53E-05
	Am-241	1.16E-05	1.07E-11	3.00E-08	3.57E-04
	Sum of Fractions — 4.78E-04				
P-Area (P-Reactor)					
105-R Sumps	H-3	6.09E-01	2.12E-04	2.00E-03	1.06E-01
	Sr-89,90	4.67E-05	1.83E-08	1.00E-06	1.83E-02
	Cs-137	3.24E-04	1.22E-07	3.00E-06	4.05E-02
	Sum of Fractions — 1.65E-01				
S-Area					
S-004	H-3	3.25E-01	1.30E-05	2.00E-03	6.52E-03
	Sr-89,90	Below MDL	4.82E-10	1.00E-06	4.82E-04
	Cs-137	3.02E-06	5.87E-10	3.00E-06	1.96E-04
	U-234	3.07E-07	2.33E-11	6.00E-07	3.89E-05
	U-238	1.40E-07	1.72E-11	6.00E-07	2.87E-05
	Pu-238	5.81E-07	2.63E-11	4.00E-08	6.57E-04
	Sum of Fractions — 7.92E-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 7
Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual
Average Radionuclide Concentrations to DOE Derived Concentration Guides

Page 5 of 5

Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1999 (Ci)	Average Effluent Concentration During 1999 (μCi/mL)	DOE DCGs ^a (μCi/mL)	Fraction of DOE DCG
TNX Area					
TNX-008	H-3	3.48E-01	8.36E-07	2.00E-03	4.18E-04
	Cs-137	Below MDL	2.41E-10	3.00E-06	8.03E-05
	U-234	4.88E-06	1.21E-11	6.00E-07	2.02E-05
	U-238	1.00E-05	2.41E-11	6.00E-07	4.01E-05
	Pu-238	1.14E-06	4.43E-12	4.00E-08	1.11E-04
				Sum of Fractions — 6.70E-04	
Tritium					
HP-15 Tritium Facility Outfall	H-3	1.34E+00	1.31E-05	2.00E-03	6.55E-03
	Sr-89,90	3.21E-06	3.56E-10	1.00E-06	3.56E-04
	Cs-137	Below MDL	5.24E-11	3.00E-06	1.75E-05
				Sum of Fractions — 6.93E-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
Radioactivity in Air

Page 1 of 11

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Silica Gel				
H-3, pCi/cu m				
On Site				
Burial Ground North	26	(1.48 $\pm$ 0.17)E+02	(4.23 $\pm$ 0.15)E+02	(1.04 $\pm$ 0.90)E+01
Site Perimeter				
Allendale Gate	26	(6.80 $\pm$ 1.45)E+00	(2.10 $\pm$ 0.19)E+01	(-0.76 $\pm$ 1.11)E+01
Barnwell Gate	26	(1.24 $\pm$ 0.17)E+01	(3.62 $\pm$ 1.17)E+01	(2.41 $\pm$ 2.59)E+00
D-Area	26	(2.17 $\pm$ 0.24)E+01	(4.37 $\pm$ 0.90)E+01	(3.06 $\pm$ 1.04)E+00
Darkhorse @ Williston Gate	26	(1.22 $\pm$ 0.17)E+01	(3.09 $\pm$ 0.90)E+01	(-0.28 $\pm$ 1.14)E+01
East Talatha	26	(1.93 $\pm$ 0.54)E+01	(1.45 $\pm$ 0.07)E+02	(0.70 $\pm$ 2.28)E+00
Green Pond	26	(1.45 $\pm$ 0.18)E+01	(4.79 $\pm$ 0.93)E+01	(-2.30 $\pm$ 2.40)E+00
Highway 21/167	26	(1.34 $\pm$ 0.15)E+01	(3.09 $\pm$ 1.48)E+01	(1.70 $\pm$ 9.87)E+00
Jackson	26	(1.59 $\pm$ 0.24)E+01	(5.12 $\pm$ 1.03)E+01	(-0.25 $\pm$ 2.09)E+00
Patterson Mill Road	25	(9.28 $\pm$ 1.82)E+00	(3.09 $\pm$ 0.86)E+01	(-1.04 $\pm$ 1.22)E+01
Talatha Gate	26	(1.56 $\pm$ 0.21)E+01	(4.75 $\pm$ 1.04)E+01	(1.75 $\pm$ 5.24)E+00
West Jackson	26	(1.16 $\pm$ 0.19)E+01	(4.03 $\pm$ 1.19)E+01	(-1.18 $\pm$ 1.24)E+01
Windsor Road	26	(1.73 $\pm$ 0.45)E+01	(1.23 $\pm$ 0.05)E+02	(0.79 $\pm$ 2.12)E+00
25-Mile Radius				
Aiken Airport	25	(1.00 $\pm$ 0.30)E+01	(7.42 $\pm$ 0.54)E+01	(-7.93 $\pm$ 7.28)E+00
Augusta Lock and Dam 614	26	(1.33 $\pm$ 0.41)E+01	(1.00 $\pm$ 0.06)E+02	(-0.16 $\pm$ 1.85)E-01
Highway 301 @ State Line	25	(4.67 $\pm$ 1.07)E+00	(1.63 $\pm$ 1.05)E+01	(-0.55 $\pm$ 1.16)E+01
100-Mile Radius				
Savannah, Ga.	12	(5.75 $\pm$ 2.45)E+00	(2.30 $\pm$ 0.87)E+01	(-0.89 $\pm$ 1.25)E+01
Filter Paper				
Co-60, pCi/cu m				
On Site				
Burial Ground North	52	(5.94 $\pm$ 5.69)E-04	(7.08 $\pm$ 3.28)E-03	(-1.05 $\pm$ 0.49)E-02
Site Perimeter				
Allendale Gate	52	(6.20 $\pm$ 6.25)E-04	(1.10 $\pm$ 0.36)E-02	(-1.16 $\pm$ 2.21)E-02
Barnwell Gate	52	(1.28 $\pm$ 0.54)E-03	(1.10 $\pm$ 0.48)E-02	(-7.94 $\pm$ 3.07)E-03
D-Area	52	(4.93 $\pm$ 8.00)E-04	(2.34 $\pm$ 0.55)E-02	(-1.99 $\pm$ 3.47)E-02
Darkhorse @ Williston Gate	52	(1.41 $\pm$ 5.61)E-04	(1.16 $\pm$ 1.34)E-02	(-7.89 $\pm$ 3.31)E-03

Table 8
Radioactivity in Air

Page 2 of 11

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
East Talatha	52	$(2.86 \pm 5.49)E-04$	$(8.78 \pm 3.34)E-03$	$(-8.25 \pm 4.35)E-03$
Green Pond	52	$(1.18 \pm 0.60)E-03$	$(1.52 \pm 2.08)E-02$	$(-9.00 \pm 4.49)E-03$
Highway 21/167	52	$(5.35 \pm 4.78)E-04$	$(8.49 \pm 3.93)E-03$	$(-6.53 \pm 3.31)E-03$
Jackson	52	$(-2.20 \pm 6.35)E-04$	$(8.77 \pm 4.71)E-03$	$(-9.01 \pm 4.06)E-03$
Patterson Mill Road	52	$(2.43 \pm 5.54)E-04$	$(8.35 \pm 2.22)E-03$	$(-1.03 \pm 0.32)E-02$
Talatha Gate	52	$(1.85 \pm 6.94)E-04$	$(9.65 \pm 5.22)E-03$	$(-1.16 \pm 0.59)E-02$
West Jackson	50	$(4.98 \pm 6.26)E-04$	$(1.04 \pm 0.43)E-02$	$(-6.45 \pm 4.59)E-03$
Windsor Road	52	$(1.20 \pm 0.58)E-03$	$(8.36 \pm 5.91)E-03$	$(-7.48 \pm 4.40)E-03$
25-Mile Radius				
Aiken Airport	52	$(2.27 \pm 5.06)E-04$	$(1.37 \pm 0.46)E-02$	$(-7.55 \pm 5.04)E-03$
Augusta Lock and Dam 614	52	$(3.28 \pm 4.93)E-04$	$(9.20 \pm 3.57)E-03$	$(-7.03 \pm 4.20)E-03$
Highway 301 @ State Line	52	$(5.71 \pm 8.00)E-04$	$(2.61 \pm 5.38)E-02$	$(-1.05 \pm 0.48)E-02$
100-Mile Radius				
Savannah, Ga.	24	$(1.27 \pm 1.04)E-03$	$(1.22 \pm 0.49)E-02$	$(-7.20 \pm 3.56)E-03$
Cs-137, pCi/cu m				
On Site				
Burial Ground North	52	$(-0.76 \pm 4.12)E-04$	$(5.22 \pm 4.00)E-03$	$(-1.04 \pm 0.43)E-02$
Site Perimeter				
Allendale Gate	52	$(3.49 \pm 4.83)E-04$	$(9.22 \pm 3.07)E-03$	$(-1.06 \pm 1.65)E-02$
Barnwell Gate	52	$(0.97 \pm 5.10)E-04$	$(1.02 \pm 0.42)E-02$	$(-8.18 \pm 3.76)E-03$
D-Area	52	$(5.96 \pm 4.39)E-04$	$(8.16 \pm 3.65)E-03$	$(-5.69 \pm 4.47)E-03$
Darkhorse @ Williston Gate	52	$(-8.58 \pm 4.24)E-04$	$(6.27 \pm 3.74)E-03$	$(-6.66 \pm 3.37)E-03$
East Talatha	52	$(4.98 \pm 4.65)E-04$	$(7.36 \pm 3.16)E-03$	$(-8.45 \pm 3.39)E-03$
Green Pond	52	$(9.49 \pm 5.62)E-04$	$(1.32 \pm 0.43)E-02$	$(-8.30 \pm 3.38)E-03$
Highway 21/167	52	$(2.57 \pm 4.68)E-04$	$(6.88 \pm 3.48)E-03$	$(-9.48 \pm 4.70)E-03$
Jackson	52	$(8.11 \pm 5.69)E-04$	$(1.18 \pm 0.37)E-02$	$(-1.04 \pm 0.36)E-02$
Patterson Mill Road	52	$(0.16 \pm 4.29)E-04$	$(7.60 \pm 4.17)E-03$	$(-6.85 \pm 3.55)E-03$
Talatha Gate	52	$(-0.85 \pm 5.53)E-04$	$(9.96 \pm 2.92)E-03$	$(-7.10 \pm 4.00)E-03$
West Jackson	50	$(3.28 \pm 5.43)E-04$	$(1.21 \pm 0.30)E-02$	$(-5.33 \pm 3.37)E-03$
Windsor Road	52	$(-6.18 \pm 4.73)E-04$	$(6.34 \pm 3.91)E-03$	$(-1.04 \pm 0.52)E-02$
25-Mile Radius				
Aiken Airport	52	$(6.67 \pm 4.65)E-04$	$(7.07 \pm 4.10)E-03$	$(-7.45 \pm 2.85)E-03$
Augusta Lock and Dam 614	52	$(-2.57 \pm 4.43)E-04$	$(7.42 \pm 3.27)E-03$	$(-8.56 \pm 3.35)E-03$

Table 8
Radioactivity in Air

Page 3 of 11

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Highway 301 @ State Line	52	$(-7.55 \pm 4.96)E-04$	$(6.30 \pm 5.65)E-03$	$(-1.61 \pm 4.49)E-02$
100-Mile Radius				
Savannah, Ga.	24	$(-0.85 \pm 6.22)E-04$	$(4.49 \pm 4.36)E-03$	$(-6.19 \pm 4.14)E-03$
Sr-89,90, pCi/cu m				
On Site				
Burial Ground North	1	$(9.84 \pm 8.74)E-04$		
Site Perimeter				
Allendale Gate	1	$(2.02 \pm 8.24)E-04$		
Barnwell Gate	1	$(1.69 \pm 8.60)E-04$		
D-Area	1	$(0.78 \pm 1.02)E-03$		
Darkhorse @ Williston Gate	1	$(1.07 \pm 0.95)E-03$		
East Talatha	1	$(2.19 \pm 0.92)E-03$		
Green Pond	1	$(0.50 \pm 1.33)E-03$		
Highway 21/167	1	$(6.96 \pm 9.31)E-04$		
Jackson	1	$(-5.59 \pm 8.11)E-04$		
Patterson Mill Road	1	$(1.00 \pm 0.91)E-03$		
Talatha Gate	1	$(1.51 \pm 1.02)E-03$		
West Jackson	1	$(3.73 \pm 0.24)E-02$		
Windsor Road	1	$(5.42 \pm 9.22)E-04$		
25-Mile Radius				
Aiken Airport	1	$(2.09 \pm 0.95)E-03$		
Augusta Lock and Dam 614	1	$(5.71 \pm 9.22)E-04$		
Highway 301 @ State Line	1	$(6.01 \pm 9.71)E-04$		
100-Mile Radius				
Savannah, Ga.	1	$(1.85 \pm 9.42)E-04$		
U-234, pCi/cu m				
On Site				
Burial Ground North	1	$(1.59 \pm 6.51)E-06$		
Site Perimeter				
Allendale Gate	1	$(-4.49 \pm 5.36)E-06$		
Barnwell Gate	1	$(2.40 \pm 0.91)E-05$		
D-Area	1	$(1.64 \pm 0.86)E-05$		
Darkhorse @ Williston Gate	1	$(-3.29 \pm 4.63)E-06$		

Table 8
Radioactivity in Air

Page 4 of 11

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
East Talatha	1	(6.44 $\pm$ 5.68)E-06		
Green Pond	1	(1.03 $\pm$ 3.53)E-05		
Highway 21/167	1	(4.58 $\pm$ 7.39)E-06		
Jackson	1	(2.70 $\pm$ 0.89)E-05		
Patterson Mill Road	1	(1.45 $\pm$ 0.82)E-05		
Talatha Gate	1	(-1.59 $\pm$ 0.35)E-05		
West Jackson	1	(-3.53 $\pm$ 5.73)E-06		
Windsor Road	1	(-0.34 $\pm$ 6.25)E-06		
25-Mile Radius				
Aiken Airport	1	(5.56 $\pm$ 6.58)E-06		
Augusta Lock and Dam 614	1	(0.52 $\pm$ 7.01)E-06		
Highway 301 @ State Line	1	(8.44 $\pm$ 8.07)E-06		
100-Mile Radius				
Savannah, Ga.	1	(7.23 $\pm$ 7.07)E-06		
U-235, pCi/cu m				
On Site				
Burial Ground North	1	(7.20 $\pm$ 4.19)E-06		
Site Perimeter				
Allendale Gate	1	(2.14 $\pm$ 2.14)E-06		
Barnwell Gate	1	(1.10 $\pm$ 0.50)E-05		
D-Area	1	(-1.67 $\pm$ 1.19)E-06		
Darkhorse @ Williston Gate	1	(5.68 $\pm$ 3.18)E-06		
East Talatha	1	(1.05 $\pm$ 0.43)E-05		
Green Pond	1	(2.47 $\pm$ 1.76)E-05		
Highway 21/167	1	(0.73 $\pm$ 2.66)E-06		
Jackson	1	(1.61 $\pm$ 0.58)E-05		
Patterson Mill Road	1	(1.14 $\pm$ 0.51)E-05		
Talatha Gate	1	(7.95 $\pm$ 4.02)E-06		
West Jackson	1	(1.51 $\pm$ 2.46)E-06		
Windsor Road	1	(5.75 $\pm$ 3.85)E-06		
25-Mile Radius				
Aiken Airport	1	(2.06 $\pm$ 2.07)E-06		
Augusta Lock and Dam 614	1	(-9.39 $\pm$ 9.43)E-07		

Table 8
Radioactivity in Air

Page 5 of 11

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Highway 301 @ State Line	1	$(2.73 \pm 2.74)E-06$		
100-Mile Radius				
Savannah, Ga.	1	$(6.95 \pm 4.05)E-06$		
U-238, pCi/cu m				
On Site				
Burial Ground North	1	$(1.79 \pm 0.79)E-05$		
Site Perimeter				
Allendale Gate	1	$(9.72 \pm 6.30)E-06$		
Barnwell Gate	1	$(1.77 \pm 0.76)E-05$		
D-Area	1	$(3.31 \pm 5.85)E-06$		
Darkhorse @ Williston Gate	1	$(0.78 \pm 4.20)E-06$		
East Talatha	1	$(2.19 \pm 0.68)E-05$		
Green Pond	1	$(3.11 \pm 3.37)E-05$		
Highway 21/167	1	$(-0.10 \pm 5.11)E-06$		
Jackson	1	$(9.11 \pm 5.92)E-06$		
Patterson Mill Road	1	$(1.13 \pm 0.70)E-05$		
Talatha Gate	1	$(-2.95 \pm 4.27)E-06$		
West Jackson	1	$(5.62 \pm 5.95)E-06$		
Windsor Road	1	$(1.02 \pm 0.64)E-05$		
25-Mile Radius				
Aiken Airport	1	$(1.28 \pm 0.65)E-05$		
Augusta Lock and Dam 614	1	$(6.95 \pm 6.99)E-06$		
Highway 301 @ State Line	1	$(6.43 \pm 6.64)E-06$		
100-Mile Radius				
Savannah, Ga.	1	$(3.78 \pm 5.64)E-06$		
Pu-238, pCi/cu m				
On Site				
Burial Ground North	1	$(-6.81 \pm 1.49)E-06$		
Site Perimeter				
Allendale Gate	1	$(-3.41 \pm 2.18)E-06$		
Barnwell Gate	1	$(-3.82 \pm 2.49)E-06$		
D-Area	1	$(-2.38 \pm 2.32)E-06$		
Darkhorse @ Williston Gate	1	$(-4.90 \pm 0.79)E-06$		

Table 8
Radioactivity in Air

Page 6 of 11

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
East Talatha	1	$(-0.46 \pm 3.01)E-06$		
Green Pond	1	$(-2.63 \pm 0.40)E-05$		
Highway 21/167	1	$(-5.39 \pm 2.79)E-06$		
Jackson	1	$(-4.02 \pm 0.24)E-06$		
Patterson Mill Road	1	$(-2.21 \pm 2.11)E-06$		
Talatha Gate	1	$(-2.25 \pm 2.47)E-06$		
West Jackson	1	$(-4.37 \pm 0.26)E-06$		
Windsor Road	1	$(-6.44 \pm 1.35)E-06$		
25-Mile Radius				
Aiken Airport	1	$(-4.02 \pm 0.24)E-06$		
Augusta Lock and Dam 614	1	$(-2.37 \pm 2.34)E-06$		
Highway 301 @ State Line	1	$(-4.42 \pm 0.27)E-06$		
100-Mile Radius				
Savannah, Ga.	1	$(-0.78 \pm 3.15)E-06$		
Pu-239, pCi/cu m				
On Site				
Burial Ground North	1	$(-0.93 \pm 2.89)E-06$		
Site Perimeter				
Allendale Gate	1	$(7.09 \pm 3.97)E-06$		
Barnwell Gate	1	$(0.00 \pm 0.00)E+00$		
D-Area	1	$(0.71 \pm 2.57)E-06$		
Darkhorse @ Williston Gate	1	$(5.61 \pm 3.74)E-06$		
East Talatha	1	$(3.42 \pm 3.01)E-06$		
Green Pond	1	$(0.00 \pm 0.00)E+00$		
Highway 21/167	1	$(0.00 \pm 0.00)E+00$		
Jackson	1	$(6.28 \pm 3.63)E-06$		
Patterson Mill Road	1	$(3.47 \pm 3.08)E-06$		
Talatha Gate	1	$(4.93 \pm 3.50)E-06$		
West Jackson	1	$(0.00 \pm 0.00)E+00$		
Windsor Road	1	$(0.66 \pm 2.39)E-06$		
25-Mile Radius				
Aiken Airport	1	$(0.67 \pm 2.42)E-06$		
Augusta Lock and Dam 614	1	$(8.53 \pm 4.77)E-06$		

Table 8
Radioactivity in Air

Page 7 of 11

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Highway 301 @ State Line	1	$(1.44 \pm 2.34)E-06$		
100-Mile Radius				
Savannah, Ga.	1	$(1.41 \pm 2.29)E-06$		
Am-241, pCi/cu m				
On Site				
Burial Ground North	1	$(-0.04 \pm 2.32)E-06$		
Site Perimeter				
Allendale Gate	1	$(1.08 \pm 0.50)E-05$		
Barnwell Gate	1	$(4.22 \pm 3.83)E-06$		
D-Area	1	$(6.91 \pm 4.25)E-06$		
Darkhorse @ Williston Gate	1	$(1.35 \pm 0.60)E-05$		
East Talatha	1	$(5.59 \pm 4.30)E-06$		
Green Pond	1	$(1.53 \pm 1.62)E-05$		
Highway 21/167	1	$(1.63 \pm 0.67)E-05$		
Jackson	1	$(1.20 \pm 0.51)E-05$		
Patterson Mill Road	1	$(7.51 \pm 4.49)E-06$		
Talatha Gate	1	$(1.04 \pm 0.58)E-05$		
West Jackson	1	$(1.27 \pm 0.58)E-05$		
Windsor Road	1	$(1.58 \pm 0.65)E-05$		
25-Mile Radius				
Aiken Airport	1	$(9.28 \pm 4.78)E-06$		
Augusta Lock and Dam 614	1	$(3.19 \pm 4.47)E-06$		
Highway 301 @ State Line	1	$(1.44 \pm 0.61)E-05$		
100-Mile Radius				
Savannah, Ga.	1	$(6.64 \pm 4.52)E-06$		
Cm-244, pCi/cu m				
On Site				
Burial Ground North	1	$(4.40 \pm 3.10)E-06$		
Site Perimeter				
Allendale Gate	1	$(0.00 \pm 0.00)E+00$		
Barnwell Gate	1	$(-1.50 \pm 1.07)E-06$		
D-Area	1	$(0.00 \pm 0.00)E+00$		
Darkhorse @ Williston Gate	1	$(0.00 \pm 0.00)E+00$		

Table 8
Radioactivity in Air

Page 8 of 11

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
East Talatha	1	(0.00 $\pm$ 0.00)E+00		
Green Pond	1	(1.15 $\pm$ 1.15)E-05		
Highway 21/167	1	(2.34 $\pm$ 2.34)E-06		
Jackson	1	(0.00 $\pm$ 0.00)E+00		
Patterson Mill Road	1	(1.46 $\pm$ 2.38)E-06		
Talatha Gate	1	(1.68 $\pm$ 2.72)E-06		
West Jackson	1	(0.00 $\pm$ 0.00)E+00		
Windsor Road	1	(4.49 $\pm$ 3.19)E-06		
25-Mile Radius				
Aiken Airport	1	(0.00 $\pm$ 0.00)E+00		
Augusta Lock and Dam 614	1	(4.04 $\pm$ 3.56)E-06		
Highway 301 @ State Line	1	(0.70 $\pm$ 2.54)E-06		
100-Mile Radius				
Savannah, Ga.	1	(-1.54 $\pm$ 1.09)E-06		
Gross Alpha, pCi/cu m				
On Site				
Burial Ground North	52	(1.94 $\pm$ 0.13)E-03	(4.61 $\pm$ 0.75)E-03	(3.53 $\pm$ 3.08)E-04
Site Perimeter				
Allendale Gate	52	(2.01 $\pm$ 0.15)E-03	(5.11 $\pm$ 0.77)E-03	(1.98 $\pm$ 2.81)E-04
Barnwell Gate	52	(2.02 $\pm$ 0.15)E-03	(4.87 $\pm$ 0.95)E-03	(4.17 $\pm$ 3.49)E-04
D-Area	52	(1.92 $\pm$ 0.16)E-03	(6.68 $\pm$ 3.18)E-03	(-0.46 $\pm$ 2.96)E-04
Darkhorse @ Williston Gate	52	(2.10 $\pm$ 0.14)E-03	(4.62 $\pm$ 0.72)E-03	(3.00 $\pm$ 2.16)E-04
East Talatha	52	(1.83 $\pm$ 0.13)E-03	(4.37 $\pm$ 0.77)E-03	(-0.92 $\pm$ 2.23)E-04
Green Pond	52	(2.20 $\pm$ 0.16)E-03	(5.17 $\pm$ 0.83)E-03	(6.07 $\pm$ 3.88)E-04
Highway 21/167	52	(2.03 $\pm$ 0.14)E-03	(4.96 $\pm$ 0.81)E-03	(5.34 $\pm$ 3.82)E-04
Jackson	52	(1.82 $\pm$ 0.15)E-03	(4.43 $\pm$ 0.74)E-03	(0.11 $\pm$ 3.39)E-04
Patterson Mill Road	52	(2.04 $\pm$ 0.15)E-03	(5.54 $\pm$ 1.45)E-03	(3.38 $\pm$ 3.22)E-04
Talatha Gate	52	(2.03 $\pm$ 0.15)E-03	(5.15 $\pm$ 0.86)E-03	(3.86 $\pm$ 3.92)E-04
West Jackson	50	(2.19 $\pm$ 0.15)E-03	(5.45 $\pm$ 0.95)E-03	(2.85 $\pm$ 3.21)E-04
Windsor Road	52	(2.11 $\pm$ 0.13)E-03	(4.39 $\pm$ 0.54)E-03	(4.94 $\pm$ 2.55)E-04
25-Mile Radius				
Aiken Airport	52	(1.83 $\pm$ 0.13)E-03	(4.58 $\pm$ 0.91)E-03	(2.37 $\pm$ 2.89)E-04
Augusta Lock and Dam 614	52	(1.98 $\pm$ 0.15)E-03	(5.14 $\pm$ 0.84)E-03	(4.24 $\pm$ 3.71)E-04

Table 8
Radioactivity in Air

Page 9 of 11

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Highway 301 @ State Line	52	(2.10 $\pm$ 0.18)E-03	(6.51 $\pm$ 1.01)E-03	(2.25 $\pm$ 3.35)E-04
100-Mile Radius				
Savannah, Ga.	24	(2.07 $\pm$ 0.20)E-03	(3.74 $\pm$ 0.74)E-03	(2.94 $\pm$ 3.15)E-04
Gross Beta, pCi/cu m				
On Site				
Burial Ground North	52	(1.90 $\pm$ 0.09)E-02	(3.67 $\pm$ 0.17)E-02	(9.18 $\pm$ 0.94)E-03
Site Perimeter				
Allendale Gate	52	(1.95 $\pm$ 0.08)E-02	(3.75 $\pm$ 0.16)E-02	(8.86 $\pm$ 0.89)E-03
Barnwell Gate	52	(1.96 $\pm$ 0.09)E-02	(3.89 $\pm$ 0.17)E-02	(7.71 $\pm$ 0.91)E-03
D-Area	52	(1.95 $\pm$ 0.10)E-02	(3.67 $\pm$ 0.18)E-02	(7.47 $\pm$ 0.95)E-03
Darkhorse @ Williston Gate	52	(1.92 $\pm$ 0.09)E-02	(3.71 $\pm$ 0.12)E-02	(6.99 $\pm$ 0.58)E-03
East Talatha	52	(1.91 $\pm$ 0.09)E-02	(3.43 $\pm$ 0.16)E-02	(2.98 $\pm$ 0.69)E-03
Green Pond	52	(1.96 $\pm$ 0.08)E-02	(4.08 $\pm$ 0.19)E-02	(1.04 $\pm$ 0.11)E-02
Highway 21/167	52	(1.93 $\pm$ 0.09)E-02	(3.82 $\pm$ 0.18)E-02	(7.25 $\pm$ 0.89)E-03
Jackson	52	(1.74 $\pm$ 0.08)E-02	(3.30 $\pm$ 0.17)E-02	(8.02 $\pm$ 0.92)E-03
Patterson Mill Road	52	(1.88 $\pm$ 0.09)E-02	(4.29 $\pm$ 0.30)E-02	(8.81 $\pm$ 0.93)E-03
Talatha Gate	52	(1.93 $\pm$ 0.09)E-02	(3.82 $\pm$ 0.20)E-02	(1.00 $\pm$ 0.12)E-02
West Jackson	50	(2.09 $\pm$ 0.10)E-02	(4.04 $\pm$ 0.17)E-02	(9.91 $\pm$ 0.98)E-03
Windsor Road	52	(1.98 $\pm$ 0.08)E-02	(3.60 $\pm$ 0.12)E-02	(1.01 $\pm$ 0.07)E-02
25-Mile Radius				
Aiken Airport	52	(1.87 $\pm$ 0.09)E-02	(3.95 $\pm$ 0.16)E-02	(8.52 $\pm$ 0.87)E-03
Augusta Lock and Dam 614	52	(1.86 $\pm$ 0.09)E-02	(4.20 $\pm$ 0.18)E-02	(9.54 $\pm$ 0.96)E-03
Highway 301 @ State Line	52	(2.04 $\pm$ 0.11)E-02	(4.77 $\pm$ 0.19)E-02	(7.95 $\pm$ 0.94)E-03
100-Mile Radius				
Savannah, Ga.	24	(1.88 $\pm$ 0.15)E-02	(3.16 $\pm$ 0.16)E-02	(6.11 $\pm$ 0.85)E-03
Charcoal				
Co-60, pCi/cu m				
On Site				
Burial Ground North	1	(4.39 $\pm$ 3.55)E-03		
Site Perimeter				
Allendale Gate	1	(0.55 $\pm$ 3.32)E-03		
Barnwell Gate	1	(2.76 $\pm$ 3.10)E-03		
D-Area	1	(-1.15 $\pm$ 3.85)E-03		

Table 8
Radioactivity in Air

Page 10 of 11

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Darkhorse @ Williston Gate	1	$(-0.86 \pm 3.35)E-03$		
East Talatha	1	$(1.31 \pm 2.71)E-03$		
Green Pond	1	$(-1.18 \pm 0.56)E-02$		
Highway 21/167	1	$(-4.52 \pm 3.43)E-03$		
Jackson	1	$(-7.16 \pm 3.55)E-03$		
Patterson Mill Road	1	$(-1.27 \pm 3.17)E-03$		
Talatha Gate	1	$(-3.91 \pm 3.78)E-03$		
West Jackson	1	$(7.57 \pm 3.26)E-03$		
Windsor Road	1	$(4.39 \pm 3.84)E-03$		
25-Mile Radius				
Aiken Airport	1	$(1.98 \pm 3.64)E-03$		
Augusta Lock and Dam 614	1	$(1.91 \pm 3.72)E-03$		
Highway 301 @ State Line	1	$(-0.25 \pm 3.66)E-03$		
100-Mile Radius				
Savannah, Ga.	1	$(-1.49 \pm 3.95)E-03$		
Cs-137, pCi/cu m				
On Site				
Burial Ground North	1	$(2.52 \pm 3.24)E-03$		
Site Perimeter				
Allendale Gate	1	$(6.51 \pm 3.11)E-03$		
Barnwell Gate	1	$(7.62 \pm 3.87)E-03$		
D-Area	1	$(-1.64 \pm 3.68)E-03$		
Darkhorse @ Williston Gate	1	$(-3.02 \pm 3.59)E-03$		
East Talatha	1	$(1.79 \pm 2.84)E-03$		
Green Pond	1	$(1.11 \pm 4.78)E-03$		
Highway 21/167	1	$(2.39 \pm 3.44)E-03$		
Jackson	1	$(8.50 \pm 3.32)E-03$		
Patterson Mill Road	1	$(3.50 \pm 3.29)E-03$		
Talatha Gate	1	$(2.10 \pm 4.09)E-03$		
West Jackson	1	$(3.34 \pm 3.70)E-03$		
Windsor Road	1	$(0.35 \pm 3.99)E-03$		
25-Mile Radius				
Aiken Airport	1	$(0.26 \pm 3.59)E-03$		

Table 8
Radioactivity in Air

Page 11 of 11

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Augusta Lock and Dam 614	1	(2.33 $\pm$ 3.31)E-03		
Highway 301 @ State Line	1	(-1.21 $\pm$ 4.00)E-03		
100-Mile Radius				
Savannah, Ga.	1	(-1.61 $\pm$ 3.54)E-03		

Table 9
Tritium in Rainwater

Page 1 of 1

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/L				
On Site				
Burial Ground North	25	$(2.73 \pm 0.53)E+03$	$(1.23 \pm 0.05)E+04$	$(0.64 \pm 3.80)E+02$
Site Perimeter				
Allendale Gate	26	$(1.69 \pm 1.00)E+02$	$(2.15 \pm 0.30)E+03$	$(-4.80 \pm 3.00)E+02$
Barnwell Gate	25	$(4.92 \pm 3.20)E+02$	$(8.03 \pm 0.31)E+03$	$(-5.11 \pm 2.85)E+02$
D-Area	26	$(4.83 \pm 1.04)E+02$	$(1.43 \pm 0.31)E+03$	$(-5.99 \pm 3.71)E+02$
Darkhorse @ Williston Gate	26	$(1.14 \pm 0.70)E+02$	$(8.94 \pm 3.59)E+02$	$(-5.35 \pm 2.84)E+02$
East Talatha	25	$(2.99 \pm 0.91)E+02$	$(1.36 \pm 0.37)E+03$	$(-6.07 \pm 4.18)E+02$
Green Pond	25	$(1.62 \pm 0.67)E+02$	$(7.45 \pm 1.82)E+02$	$(-3.99 \pm 4.95)E+02$
Highway 21/167	25	$(2.94 \pm 1.04)E+02$	$(2.03 \pm 0.47)E+03$	$(-6.89 \pm 3.82)E+02$
Jackson	25	$(2.61 \pm 0.94)E+02$	$(1.28 \pm 0.41)E+03$	$(-4.52 \pm 3.41)E+02$
Patterson Mill Road	25	$(1.87 \pm 0.63)E+02$	$(1.01 \pm 0.33)E+03$	$(-2.82 \pm 4.27)E+02$
Talatha Gate	25	$(3.29 \pm 1.21)E+02$	$(2.47 \pm 0.30)E+03$	$(-4.36 \pm 2.76)E+02$
West Jackson	25	$(1.91 \pm 0.74)E+02$	$(9.21 \pm 3.04)E+02$	$(-5.69 \pm 4.23)E+02$
Windsor Road	26	$(3.17 \pm 1.08)E+02$	$(1.86 \pm 0.36)E+03$	$(-5.47 \pm 3.71)E+02$
25-Mile Radius				
Aiken Airport	25	$(3.08 \pm 4.95)E+01$	$(7.27 \pm 4.44)E+02$	$(-4.15 \pm 2.73)E+02$
Augusta Lock and Dam 614	25	$(8.01 \pm 5.30)E+01$	$(5.74 \pm 4.00)E+02$	$(-3.53 \pm 3.90)E+02$
Highway 301 @ State Line	25	$(7.39 \pm 5.90)E+01$	$(7.49 \pm 3.51)E+02$	$(-4.71 \pm 3.43)E+02$
100-Mile Radius				
Savannah, Ga.	25	$(-0.86 \pm 5.56)E+01$	$(5.42 \pm 3.47)E+02$	$(-6.31 \pm 2.76)E+02$

Table 10
Radioactivity in Rain Ion Columns

Page 1 of 5

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Co-60, pCi/sq m				
On Site				
Burial Ground North	13	(2.64 $\pm$ 2.87)E+00	(1.96 $\pm$ 0.75)E+01	(-1.77 $\pm$ 0.97)E+01
Site Perimeter				
D-Area	13	(-1.11 $\pm$ 2.60)E+00	(1.29 $\pm$ 0.96)E+01	(-1.57 $\pm$ 0.85)E+01
Darkhorse @ Williston Gate	13	(3.89 $\pm$ 2.60)E+00	(1.82 $\pm$ 0.99)E+01	(-1.30 $\pm$ 0.85)E+01
Green Pond	13	(1.45 $\pm$ 2.61)E+00	(1.82 $\pm$ 0.82)E+01	(-1.23 $\pm$ 1.06)E+01
Patterson Mill Road	13	(2.68 $\pm$ 2.58)E+00	(1.98 $\pm$ 0.94)E+01	(-1.94 $\pm$ 0.91)E+01
25-Mile Radius				
Highway 301 @ State Line	13	(1.66 $\pm$ 3.04)E+00	(2.62 $\pm$ 1.16)E+01	(-1.47 $\pm$ 0.76)E+01
100-Mile Radius				
Savannah, Ga.	13	(-2.87 $\pm$ 2.04)E+00	(1.37 $\pm$ 1.25)E+01	(-1.27 $\pm$ 1.00)E+01
Cs-137, pCi/sq m				
On Site				
Burial Ground North	13	(-2.35 $\pm$ 2.14)E+00	(1.35 $\pm$ 0.88)E+01	(-1.42 $\pm$ 0.96)E+01
Site Perimeter				
D-Area	13	(0.98 $\pm$ 2.09)E+00	(1.34 $\pm$ 0.85)E+01	(-1.03 $\pm$ 0.93)E+01
Darkhorse @ Williston Gate	13	(0.30 $\pm$ 2.40)E+00	(1.52 $\pm$ 0.92)E+01	(-1.68 $\pm$ 0.85)E+01
Green Pond	13	(0.23 $\pm$ 2.82)E+00	(1.64 $\pm$ 1.00)E+01	(-1.55 $\pm$ 0.85)E+01
Patterson Mill Road	13	(9.04 $\pm$ 1.92)E+00	(1.89 $\pm$ 0.82)E+01	(-5.52 $\pm$ 8.86)E+00
25-Mile Radius				
Highway 301 @ State Line	13	(2.73 $\pm$ 3.13)E+00	(2.47 $\pm$ 0.96)E+01	(-1.51 $\pm$ 0.90)E+01
100-Mile Radius				
Savannah, Ga.	13	(-0.07 $\pm$ 3.33)E+00	(1.58 $\pm$ 0.86)E+01	(-2.02 $\pm$ 0.94)E+01
Sr-89,90, pCi/sq m				
On Site				
Burial Ground North	1	(-0.30 $\pm$ 1.41)E+00		
Site Perimeter				
D-Area	1	(0.21 $\pm$ 1.32)E+00		
Darkhorse @ Williston Gate	1	(1.25 $\pm$ 1.40)E+00		
Green Pond	1	(0.59 $\pm$ 1.05)E+00		
Patterson Mill Road	1	(-1.17 $\pm$ 1.33)E+00		
25-Mile Radius				
Highway 301 @ State Line	1	(-0.82 $\pm$ 1.39)E+00		

Table 10
Radioactivity in Rain Ion Columns

Page 2 of 5

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
100-Mile Radius				
Savannah, Ga.	1	$(-0.69 \pm 1.38)E+00$		
U-234, pCi/sq m				
On Site				
Burial Ground North	1	$(1.83 \pm 0.66)E-01$		
Site Perimeter				
D-Area	1	$(2.22 \pm 3.26)E-02$		
Darkhorse @ Williston Gate	1	$(8.62 \pm 4.85)E-02$		
Green Pond	1	$(1.16 \pm 0.55)E-01$		
Patterson Mill Road	1	$(9.93 \pm 4.80)E-02$		
25-Mile Radius				
Highway 301 @ State Line	1	$(1.32 \pm 0.59)E-01$		
100-Mile Radius				
Savannah, Ga.	1	$(8.97 \pm 3.51)E-02$		
U-235, pCi/sq m				
On Site				
Burial Ground North	1	$(4.57 \pm 3.26)E-02$		
Site Perimeter				
D-Area	1	$(2.27 \pm 2.28)E-02$		
Darkhorse @ Williston Gate	1	$(1.44 \pm 2.34)E-02$		
Green Pond	1	$(4.42 \pm 3.13)E-02$		
Patterson Mill Road	1	$(-1.54 \pm 1.09)E-02$		
25-Mile Radius				
Highway 301 @ State Line	1	$(1.33 \pm 0.59)E-01$		
100-Mile Radius				
Savannah, Ga.	1	$(3.15 \pm 1.93)E-02$		
U-238, pCi/sq m				
On Site				
Burial Ground North	1	$(1.14 \pm 0.59)E-01$		
Site Perimeter				
D-Area	1	$(4.58 \pm 4.51)E-02$		
Darkhorse @ Williston Gate	1	$(-3.51 \pm 2.61)E-02$		
Green Pond	1	$(0.10 \pm 3.62)E-02$		
Patterson Mill Road	1	$(0.74 \pm 3.59)E-02$		

Table 10
Radioactivity in Rain Ion Columns

Page 3 of 5

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
25-Mile Radius				
Highway 301 @ State Line	1	(3.05 $\pm$ 4.26)E-02		
100-Mile Radius				
Savannah, Ga.	1	(4.22 $\pm$ 3.19)E-02		
Pu-238, pCi/sq m				
On Site				
Burial Ground North	1	(-3.58 $\pm$ 0.22)E-02		
Site Perimeter				
D-Area	1	(-3.05 $\pm$ 1.98)E-02		
Darkhorse @ Williston Gate	1	(-0.67 $\pm$ 2.56)E-02		
Green Pond	1	(-3.05 $\pm$ 1.97)E-02		
Patterson Mill Road	1	(-1.94 $\pm$ 1.64)E-02		
25-Mile Radius				
Highway 301 @ State Line	1	(-1.82 $\pm$ 1.76)E-02		
100-Mile Radius				
Savannah, Ga.	1	(-3.95 $\pm$ 0.67)E-02		
Pu-239, pCi/sq m				
On Site				
Burial Ground North	1	(-3.54 $\pm$ 2.92)E-02		
Site Perimeter				
D-Area	1	(-2.45 $\pm$ 2.58)E-02		
Darkhorse @ Williston Gate	1	(-1.85 $\pm$ 2.48)E-02		
Green Pond	1	(-6.01 $\pm$ 0.71)E-02		
Patterson Mill Road	1	(1.17 $\pm$ 3.27)E-02		
25-Mile Radius				
Highway 301 @ State Line	1	(-4.21 $\pm$ 1.88)E-02		
100-Mile Radius				
Savannah, Ga.	1	(-5.78 $\pm$ 0.69)E-02		
Am-241, pCi/sq m				
On Site				
Burial Ground North	1	(-2.86 $\pm$ 2.98)E-02		
Site Perimeter				
D-Area	1	(4.10 $\pm$ 5.01)E-02		
Darkhorse @ Williston Gate	1	(-4.55 $\pm$ 2.91)E-02		

Table 10
Radioactivity in Rain Ion Columns

Page 4 of 5

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Green Pond	1	$(3.16 \pm 4.98)E-02$		
Patterson Mill Road	1	$(1.44 \pm 4.26)E-02$		
25-Mile Radius				
Highway 301 @ State Line	1	$(4.48 \pm 4.72)E-02$		
100-Mile Radius				
Savannah, Ga.	1	$(1.60 \pm 3.15)E-02$		
Cm-244, pCi/sq m				
On Site				
Burial Ground North	1	$(2.11 \pm 2.11)E-02$		
Site Perimeter				
D-Area	1	$(-7.77 \pm 7.79)E-03$		
Darkhorse @ Williston Gate	1	$(0.00 \pm 0.29)E+00$		
Green Pond	1	$(-1.53 \pm 1.09)E-02$		
Patterson Mill Road	1	$(0.00 \pm 0.33)E+00$		
25-Mile Radius				
Highway 301 @ State Line	1	$(-6.71 \pm 6.71)E-03$		
100-Mile Radius				
Savannah, Ga.	1	$(1.96 \pm 1.39)E-02$		
Gross Alpha, pCi/sq m				
On Site				
Burial Ground North	13	$(2.84 \pm 1.19)E+00$	$(1.45 \pm 0.47)E+01$	$(-1.73 \pm 2.08)E+00$
Site Perimeter				
D-Area	13	$(2.07 \pm 0.92)E+00$	$(8.24 \pm 4.27)E+00$	$(-3.14 \pm 1.46)E+00$
Darkhorse @ Williston Gate	13	$(1.31 \pm 0.52)E+00$	$(4.60 \pm 3.07)E+00$	$(-2.22 \pm 1.84)E+00$
Green Pond	13	$(1.17 \pm 0.64)E+00$	$(5.17 \pm 2.91)E+00$	$(-1.44 \pm 1.65)E+00$
Patterson Mill Road	13	$(1.14 \pm 1.12)E+00$	$(1.22 \pm 0.47)E+01$	$(-2.71 \pm 2.19)E+00$
25-Mile Radius				
Highway 301 @ State Line	13	$(1.76 \pm 1.23)E+00$	$(1.22 \pm 0.51)E+01$	$(-1.38 \pm 2.10)E+00$
100-Mile Radius				
Savannah, Ga.	13	$(2.58 \pm 1.47)E+00$	$(1.45 \pm 0.32)E+01$	$(-3.44 \pm 1.85)E+00$
Gross Beta, pCi/sq m				
On Site				
Burial Ground North	13	$(1.08 \pm 0.32)E+02$	$(4.21 \pm 0.17)E+02$	$(2.43 \pm 0.56)E+01$

Table 10
Radioactivity in Rain Ion Columns

Page 5 of 5

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Site Perimeter				
D-Area	13	$(6.84 \pm 2.45)E+01$	$(3.39 \pm 0.13)E+02$	$(5.65 \pm 4.86)E+00$
Darkhorse @ Williston Gate	13	$(5.55 \pm 1.32)E+01$	$(1.67 \pm 0.10)E+02$	$(4.29 \pm 3.69)E+00$
Green Pond	13	$(5.87 \pm 1.60)E+01$	$(2.08 \pm 0.08)E+02$	$(4.66 \pm 2.67)E+00$
Patterson Mill Road	13	$(5.87 \pm 1.33)E+01$	$(1.56 \pm 0.10)E+02$	$(9.38 \pm 4.73)E+00$
25-Mile Radius				
Highway 301 @ State Line	13	$(6.73 \pm 2.22)E+01$	$(3.15 \pm 0.13)E+02$	$(1.14 \pm 0.49)E+01$
100-Mile Radius				
Savannah, Ga.	13	$(8.81 \pm 2.36)E+01$	$(3.39 \pm 0.13)E+02$	$(2.08 \pm 3.68)E+00$

Table 11
Thermoluminescent Dosimeter (TLD) Results —
Site Perimeter Stations

Page 1 of 1

Quarterly Exposure in mR/Day
 Yearly Exposure in mR/Year

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
Notes: 1. mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location. 2. An 18% uncertainty is associated with each result. 3. Blank spaces indicate missing TLD results.					
PP-15	0.24	0.21	0.22		80
PP-42	0.26	0.22	0.24	0.22	84
PP-48	0.23	0.19	0.21	0.20	75
PP-51	0.24	0.19	0.21	0.20	75
PP-57D	0.23	0.20	0.21	0.19	74
PP-61B	0.24	0.20	0.21	0.20	75
PP-65D	0.27	0.24	0.25	0.23	88
PP-72B	0.24	0.19	0.22	0.20	76
PP-75D	0.21	0.18	0.19	0.17	67

Table 12
Thermoluminescent Dosimeter (TLD) Results —
Environmental Surveillance (Air Monitoring) Stations

Page 1 of 1

Quarterly Exposure in mR/Day
 Yearly Exposure in mR/Year

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
Notes: 1. mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location. 2. An 18% uncertainty is associated with each result. 3. Blank spaces indicate missing TLD results.					
Burial Ground North	0.36	0.33	0.36	0.34	124
Aiken Gate	0.26	0.23	0.24	0.22	85
Allendale Gate	0.21	0.18	0.21	0.17	68
Barnwell Gate	0.25	0.22	0.23	0.22	81
D-Area	0.23	0.21		0.21	77
Dark Horse	0.24	0.21	0.23	0.21	79
East Talatha	0.23	0.19	0.20	0.19	72
Green Pond	0.23	0.21	0.22	0.19	76
Hwy 21/167	0.30	0.28	0.29	0.27	101
Jackson	0.25	0.22	0.23	0.22	82
Patterson Mill Rd	0.21	0.19	0.20	0.18	70
West Jackson	0.29	0.26	0.27	0.25	95
Windsor Rd	0.18	0.17	0.18	0.17	61
Aiken Airport	0.22	0.17	0.19	0.17	67
Augusta Lock & Dam	0.24	0.19	0.22	0.21	77
Hwy 301	0.29	0.23		0.23	87
Savannah 1	0.22	0.20	0.23	0.19	77
Savannah 2	0.17	0.16	0.21	0.17	64

Table 13
Thermoluminescent Dosimeter (TLD) Results —
Population Centers

Page 1 of 1

Quarterly Exposure in mR/Day
 Yearly Exposure in mR/Year

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
Notes: 1. mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location. 2. An 18% uncertainty is associated with each result. 3. Blank spaces indicate missing TLD results.					
Barnwell	0.25	0.19	0.29	0.25	86
Beech Island	0.35	0.31	0.37	0.32	117
Girard	0.36			0.32	106
Jackson	0.27	0.22	0.29	0.25	88
Martin	0.20	0.16	0.23	0.19	68
McBean	0.34			0.30	99
New Ellenton	0.30	0.25	0.33	0.29	101
Williston	0.34	0.29	0.36	0.31	113
Windsor	0.17	0.14	0.20	0.16	59

Table 14
Thermoluminescent Dosimeter (TLD) Results —
Vogtle Electric Generating Plant Vicinity

Page 1 of 1

Quarterly Exposure in mR/Day
 Yearly Exposure in mR/Year

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
Notes: 1. mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location. 2. An 18% uncertainty is associated with each result. 3. Blank spaces indicate missing TLD results.					
GAP 1H	0.21	0.18	0.23	0.19	74
GAP 1L	0.21	0.18	0.22	0.19	73
GAP 2H	0.23	0.20	0.24	0.21	79
GAP 2L	0.23	0.20	0.24	0.21	80
GAP 3H	0.23	0.21	0.26	0.22	84
GAP 3L		0.21	0.25	0.22	83
GAP 4H	0.28	0.25	0.29	0.26	98
GAP 4L	0.26	0.24	0.28	0.25	94
GAP 5H	0.22	0.19	0.23	0.19	76
GAP 5L	0.17	0.15	0.19	0.16	61
NRC 1	0.30	0.21	0.20	0.37	89
NRC 2	0.24	0.16	0.15	0.26	67
NRC 3	0.24	0.17	0.15	0.27	68
NRC 4	0.28	0.20	0.18	0.32	81
NRC 5	0.34	0.24	0.22	0.39	98
NRC 6	0.27	0.19	0.18	0.29	77
NRC 7	0.26	0.19	0.17	0.30	75
NRC 8	0.16	0.15	0.14	0.26	58

Table 15
Radioactivity in Seepage Basin Water

Page 1 of 2

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/L				
E-05	12	$(6.24 \pm 2.63)E+03$	$(3.04 \pm 0.08)E+04$	$(7.52 \pm 3.97)E+02$
E-06	1	$(1.20 \pm 0.43)E+03$		
EAV Basin North (E-004)	12	$(5.03 \pm 0.80)E+03$	$(1.04 \pm 0.03)E+04$	$(1.82 \pm 0.38)E+03$
EAV Basin South (E-003)	1	$(7.29 \pm 0.53)E+03$		
SWDF Basin North (E-002)	12	$(8.18 \pm 0.76)E+03$	$(1.19 \pm 0.05)E+04$	$(2.67 \pm 0.39)E+03$
SWDF Basin South (E-001)	12	$(1.19 \pm 0.22)E+04$	$(2.92 \pm 0.05)E+04$	$(3.89 \pm 0.29)E+03$
Co-60, pCi/L				
E-05	12	$(1.54 \pm 0.62)E+00$	$(4.20 \pm 2.16)E+00$	$(-3.79 \pm 2.21)E+00$
E-06	1	$(-1.71 \pm 1.74)E+00$		
EAV Basin North (E-004)	12	$(7.29 \pm 7.46)E-01$	$(5.07 \pm 2.65)E+00$	$(-3.47 \pm 2.47)E+00$
EAV Basin South (E-003)	1	$(2.46 \pm 1.08)E+00$		
SWDF Basin North (E-002)	12	$(1.29 \pm 0.61)E+00$	$(5.87 \pm 2.39)E+00$	$(-2.06 \pm 2.32)E+00$
SWDF Basin South (E-001)	12	$(1.33 \pm 0.80)E+00$	$(7.17 \pm 2.81)E+00$	$(-2.41 \pm 2.43)E+00$
Cs-137, pCi/L				
E-05	12	$(3.19 \pm 6.35)E-01$	$(3.81 \pm 2.40)E+00$	$(-2.27 \pm 2.10)E+00$
E-06	1	$(-0.64 \pm 1.87)E+00$		
EAV Basin North (E-004)	12	$(1.85 \pm 3.64)E-01$	$(2.89 \pm 2.19)E+00$	$(-1.36 \pm 1.96)E+00$
EAV Basin South (E-003)	1	$(0.11 \pm 1.15)E+00$		
SWDF Basin North (E-002)	12	$(1.51 \pm 0.52)E+00$	$(4.73 \pm 1.91)E+00$	$(-0.89 \pm 2.34)E+00$
SWDF Basin South (E-001)	12	$(1.37 \pm 0.96)E+00$	$(1.06 \pm 0.58)E+01$	$(-2.02 \pm 2.01)E+00$
Gross Alpha, pCi/L				
E-05	12	$(7.26 \pm 1.98)E-01$	$(1.67 \pm 0.83)E+00$	$(-4.59 \pm 5.01)E-01$
E-06	1	$(1.97 \pm 0.85)E+00$		
EAV Basin North (E-004)	12	$(1.15 \pm 0.21)E+00$	$(2.80 \pm 0.82)E+00$	$(1.62 \pm 3.47)E-01$
EAV Basin South (E-003)	1	$(2.41 \pm 0.89)E+00$		
SWDF Basin North (E-002)	12	$(9.35 \pm 2.44)E-01$	$(2.80 \pm 1.02)E+00$	$(-2.95 \pm 4.06)E-01$
SWDF Basin South (E-001)	12	$(6.20 \pm 1.97)E-01$	$(1.73 \pm 0.69)E+00$	$(-2.21 \pm 4.85)E-01$

Table 15
Radioactivity in Seepage Basin Water

Page 2 of 2

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Gross Beta, pCi/L				
E-05	12	$(4.09 \pm 0.55)E+00$	$(7.33 \pm 1.04)E+00$	$(1.88 \pm 1.06)E+00$
E-06	1	$(3.39 \pm 0.95)E+00$		
EAV Basin North (E-004)	12	$(3.25 \pm 0.30)E+00$	$(5.13 \pm 0.82)E+00$	$(1.68 \pm 1.02)E+00$
EAV Basin South (E-003)	1	$(2.31 \pm 0.88)E+00$		
SWDF Basin North (E-002)	12	$(5.61 \pm 0.32)E+00$	$(7.71 \pm 1.29)E+00$	$(3.53 \pm 0.96)E+00$
SWDF Basin South (E-001)	12	$(4.10 \pm 0.26)E+00$	$(5.56 \pm 1.14)E+00$	$(2.44 \pm 0.87)E+00$

Table 16
Radioactivity in Savannah River Site Stream Water

Page 1 of 14

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/L				
Tims Branch				
TB-5 near Road C	26	$(8.07 \pm 0.70)E+02$	$(1.52 \pm 0.33)E+03$	$(1.48 \pm 3.61)E+02$
Upper Three Runs				
Crouch Branch at Road 4	26	$(1.12 \pm 0.04)E+04$	$(1.43 \pm 0.06)E+04$	$(7.53 \pm 0.50)E+03$
McQueen Branch at Road F	26	$(1.08 \pm 0.08)E+04$	$(2.94 \pm 0.04)E+04$	$(6.66 \pm 0.49)E+03$
U3R-1A Treadway Bridge Road 8-1	52	$(3.82 \pm 0.39)E+02$	$(1.01 \pm 0.37)E+03$	$(-2.55 \pm 2.04)E+02$
U3R-3 at Road C	26	$(5.65 \pm 1.01)E+03$	$(2.02 \pm 0.07)E+04$	$(8.59 \pm 3.71)E+02$
U3R-4 at Road A	26	$(6.65 \pm 1.44)E+03$	$(3.32 \pm 0.08)E+04$	$(8.78 \pm 3.15)E+02$
U3R-F3	10	$(9.49 \pm 2.97)E+02$	$(2.75 \pm 0.44)E+03$	$(-0.79 \pm 3.53)E+02$
Four Mile Creek				
C-Canal	26	$(2.62 \pm 0.28)E+03$	$(9.40 \pm 0.27)E+03$	$(1.76 \pm 0.28)E+03$
Caster Creek—southeast of C-Area	6	$(2.98 \pm 0.20)E+03$	$(3.63 \pm 0.37)E+03$	$(2.37 \pm 0.25)E+03$
FM-2 at Road 4	26	$(1.49 \pm 0.12)E+04$	$(2.91 \pm 0.07)E+04$	$(5.49 \pm 0.19)E+03$
FM-2B above F-Area effluent	26	$(5.25 \pm 0.25)E+04$	$(7.35 \pm 0.52)E+04$	$(2.92 \pm 0.44)E+04$
FM-3A below F-Area effluent	26	$(1.08 \pm 0.04)E+06$	$(1.69 \pm 0.02)E+06$	$(8.68 \pm 0.12)E+05$
FM-6 at Road A-12.2	26	$(1.91 \pm 0.03)E+05$	$(2.27 \pm 0.02)E+05$	$(1.65 \pm 0.01)E+05$
FM-A7 at Road A-7	26	$(3.27 \pm 0.10)E+05$	$(4.27 \pm 0.03)E+05$	$(2.37 \pm 0.02)E+05$
H-008 Outfall	6	$(1.49 \pm 0.24)E+03$	$(2.42 \pm 0.25)E+03$	$(6.93 \pm 4.24)E+02$
HP-50 Tritium Facility Outfall	26	$(2.49 \pm 0.37)E+04$	$(7.85 \pm 0.09)E+04$	$(6.12 \pm 0.40)E+03$
Twin Lakes—west of C-Area	6	$(1.48 \pm 0.05)E+04$	$(1.58 \pm 0.04)E+04$	$(1.31 \pm 0.06)E+04$
Pen Branch				
IGB-21 800 feet south of Road 6-1	6	$(3.75 \pm 0.75)E+05$	$(4.81 \pm 0.10)E+05$	$(4.35 \pm 9.82)E+03$
K-011 Outfall at B Road	6	$(2.56 \pm 0.07)E+05$	$(2.79 \pm 0.03)E+05$	$(2.41 \pm 0.02)E+05$
PB-3 at Road A-13.2	26	$(1.03 \pm 0.03)E+05$	$(1.35 \pm 0.02)E+05$	$(7.15 \pm 0.14)E+04$
Steel Creek				
SC-2A 1 mile above Road B	26	$(2.80 \pm 0.06)E+05$	$(3.21 \pm 0.02)E+05$	$(1.90 \pm 0.03)E+05$
SC-4 Steel Creek at Road A	26	$(6.26 \pm 0.45)E+03$	$(1.18 \pm 0.05)E+04$	$(3.03 \pm 0.41)E+03$

Table 16
Radioactivity in Savannah River Site Stream Water

Page 2 of 14

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Lower Three Runs Creek				
L3R-1A at Road B	26	(1.06 $\pm$ 0.09)E+03	(2.15 $\pm$ 0.38)E+03	(1.13 $\pm$ 3.72)E+02
L3R-2 Patterson Mill Road	26	(2.36 $\pm$ 0.17)E+03	(4.80 $\pm$ 0.30)E+03	(1.11 $\pm$ 0.37)E+03
L3R-3 at Highway 125	20	(1.32 $\pm$ 0.09)E+03	(1.92 $\pm$ 0.41)E+03	(4.84 $\pm$ 3.90)E+02
R-Area downstream of R-1	26	(4.05 $\pm$ 0.85)E+04	(2.16 $\pm$ 0.01)E+05	(3.30 $\pm$ 0.47)E+03
Co-60, pCi/L				
Tims Branch				
TB-5 near Road C	20	(6.58 $\pm$ 6.76)E-01	(6.67 $\pm$ 2.91)E+00	(-4.32 $\pm$ 2.09)E+00
Upper Three Runs				
Crouch Branch at Road 4	26	(5.13 $\pm$ 5.35)E-01	(5.19 $\pm$ 2.22)E+00	(-5.46 $\pm$ 2.16)E+00
McQueen Branch at Road F	26	(8.41 $\pm$ 4.62)E-01	(5.94 $\pm$ 2.57)E+00	(-3.32 $\pm$ 2.43)E+00
U3R-1A Treadway Bridge Road 8-1	38	(3.16 $\pm$ 3.85)E-01	(4.62 $\pm$ 2.72)E+00	(-4.58 $\pm$ 2.48)E+00
U3R-3 at Road C	26	(6.08 $\pm$ 5.52)E-01	(6.60 $\pm$ 2.57)E+00	(-4.88 $\pm$ 2.80)E+00
U3R-4 at Road A	26	(8.20 $\pm$ 4.55)E-01	(5.50 $\pm$ 2.44)E+00	(-2.33 $\pm$ 2.41)E+00
U3R-F3	10	(9.82 $\pm$ 7.74)E-01	(6.59 $\pm$ 2.50)E+00	(-0.19 $\pm$ 1.28)E+01
Four Mile Creek				
C-Canal	26	(6.48 $\pm$ 4.74)E-01	(6.51 $\pm$ 2.75)E+00	(-4.23 $\pm$ 2.21)E+00
FM-2 at Road 4	26	(7.25 $\pm$ 3.63)E-01	(4.18 $\pm$ 2.17)E+00	(-2.34 $\pm$ 2.50)E+00
FM-2B above F-Area effluent	26	(-0.52 $\pm$ 5.24)E-01	(4.99 $\pm$ 2.19)E+00	(-7.54 $\pm$ 2.30)E+00
FM-3A below F-Area effluent	26	(4.55 $\pm$ 4.02)E-01	(4.92 $\pm$ 1.97)E+00	(-4.31 $\pm$ 2.45)E+00
FM-6 at Road A-12.2	26	(-1.38 $\pm$ 3.82)E-01	(3.13 $\pm$ 2.87)E+00	(-4.32 $\pm$ 2.37)E+00
FM-A7 at Road A-7	26	(7.70 $\pm$ 4.89)E-01	(4.73 $\pm$ 2.52)E+00	(-5.84 $\pm$ 2.44)E+00
H-008 Outfall	6	(1.47 $\pm$ 0.99)E+00	(4.42 $\pm$ 2.23)E+00	(-2.72 $\pm$ 1.37)E+00
HP-50 Tritium Facility Outfall	26	(7.30 $\pm$ 4.47)E-01	(6.84 $\pm$ 2.05)E+00	(-3.45 $\pm$ 2.52)E+00
Pen Branch				
K-011 Outfall at B Road	6	(3.94 $\pm$ 7.63)E-01	(2.31 $\pm$ 1.99)E+00	(-2.59 $\pm$ 2.48)E+00
PB-3 at Road A-13.2	26	(7.19 $\pm$ 4.96)E-01	(5.10 $\pm$ 2.10)E+00	(-4.59 $\pm$ 1.76)E+00
Steel Creek				
SC-2A 1 mile above Road B	26	(7.17 $\pm$ 4.97)E-01	(5.03 $\pm$ 2.26)E+00	(-4.99 $\pm$ 2.51)E+00
SC-4 Steel Creek at Road A	26	(5.31 $\pm$ 4.30)E-01	(5.21 $\pm$ 1.77)E+00	(-3.13 $\pm$ 2.40)E+00

Table 16
Radioactivity in Savannah River Site Stream Water

Page 3 of 14

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Lower Three Runs Creek				
L3R-1A at Road B	20	$(1.09 \pm 0.52)E+00$	$(6.51 \pm 3.45)E+00$	$(-2.54 \pm 2.07)E+00$
L3R-2 Patterson Mill Road	26	$(-4.29 \pm 4.96)E-01$	$(4.96 \pm 2.37)E+00$	$(-5.13 \pm 2.16)E+00$
L3R-3 at Highway 125	20	$(4.98 \pm 5.77)E-01$	$(6.18 \pm 2.47)E+00$	$(-4.81 \pm 2.39)E+00$
R-Area downstream of R-1	26	$(2.08 \pm 5.35)E-01$	$(6.18 \pm 2.84)E+00$	$(-4.01 \pm 2.83)E+00$
Cs-137, pCi/L				
Tims Branch				
TB-5 near Road C	20	$(-0.04 \pm 5.85)E-01$	$(4.03 \pm 2.28)E+00$	$(-4.98 \pm 2.72)E+00$
Upper Three Runs				
Crouch Branch at Road 4	26	$(1.17 \pm 0.48)E+00$	$(5.19 \pm 2.32)E+00$	$(-3.35 \pm 2.00)E+00$
McQueen Branch at Road F	26	$(3.92 \pm 3.81)E+00$	$(9.85 \pm 0.14)E+01$	$(-5.06 \pm 2.34)E+00$
U3R-1A Treadway Bridge Road 8-1	38	$(5.08 \pm 4.82)E-01$	$(1.26 \pm 0.40)E+01$	$(-4.63 \pm 2.57)E+00$
U3R-3 at Road C	26	$(5.46 \pm 4.64)E-01$	$(5.49 \pm 2.05)E+00$	$(-2.87 \pm 2.36)E+00$
U3R-4 at Road A	26	$(0.77 \pm 3.69)E-01$	$(3.62 \pm 2.34)E+00$	$(-5.03 \pm 2.43)E+00$
U3R-F3	10	$(1.54 \pm 2.19)E+00$	$(2.03 \pm 1.30)E+01$	$(-3.19 \pm 1.87)E+00$
Four Mile Creek				
C-Canal	26	$(-1.72 \pm 4.40)E-01$	$(5.57 \pm 2.32)E+00$	$(-4.19 \pm 2.39)E+00$
FM-2 at Road 4	26	$(1.20 \pm 0.15)E+01$	$(2.95 \pm 0.49)E+01$	$(2.13 \pm 2.54)E+00$
FM-2B above F-Area effluent	26	$(1.17 \pm 0.16)E+01$	$(3.63 \pm 0.48)E+01$	$(3.68 \pm 1.80)E+00$
FM-3A below F-Area effluent	26	$(9.55 \pm 3.90)E-01$	$(4.08 \pm 2.35)E+00$	$(-2.98 \pm 2.21)E+00$
FM-6 at Road A-12.2	26	$(4.65 \pm 0.77)E+00$	$(1.15 \pm 0.32)E+01$	$(-2.39 \pm 2.43)E+00$
FM-A7 at Road A-7	26	$(8.95 \pm 1.09)E+00$	$(2.61 \pm 0.39)E+01$	$(0.15 \pm 3.02)E+00$
H-008 Outfall	6	$(3.59 \pm 1.09)E+00$	$(6.30 \pm 1.37)E+00$	$(-1.37 \pm 1.99)E+00$
HP-50 Tritium Facility Outfall	26	$(2.63 \pm 0.53)E+00$	$(9.09 \pm 2.90)E+00$	$(-3.76 \pm 2.09)E+00$
Pen Branch				
K-011 Outfall at B Road	6	$(-0.79 \pm 1.12)E+00$	$(4.77 \pm 2.44)E+00$	$(-2.24 \pm 1.23)E+00$
PB-3 at Road A-13.2	26	$(1.85 \pm 4.80)E-01$	$(4.44 \pm 2.29)E+00$	$(-5.57 \pm 2.56)E+00$
Steel Creek				
SC-2A 1 mile above Road B	26	$(3.08 \pm 0.56)E+00$	$(9.63 \pm 3.76)E+00$	$(-1.85 \pm 2.49)E+00$
SC-4 Steel Creek at Road A	26	$(1.43 \pm 4.13)E-01$	$(3.76 \pm 2.47)E+00$	$(-5.76 \pm 2.36)E+00$

Table 16
Radioactivity in Savannah River Site Stream Water

Page 4 of 14

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Lower Three Runs Creek				
L3R-1A at Road B	20	$(3.36 \pm 1.02)E+00$	$(2.10 \pm 0.50)E+01$	$(-2.01 \pm 2.34)E+00$
L3R-2 Patterson Mill Road	26	$(1.73 \pm 0.47)E+00$	$(5.23 \pm 1.98)E+00$	$(-2.76 \pm 2.59)E+00$
L3R-3 at Highway 125	20	$(9.54 \pm 3.91)E-01$	$(4.71 \pm 2.65)E+00$	$(-1.71 \pm 2.61)E+00$
R-Area downstream of R-1	26	$(2.19 \pm 0.18)E+01$	$(4.19 \pm 0.48)E+01$	$(6.20 \pm 2.58)E+00$
Sr-89,90, pCi/L				
Tims Branch				
TB-5 near Road C	1	$(0.46 \pm 1.22)E+00$		
Upper Three Runs				
Crouch Branch at Road 4	1	$(9.09 \pm 4.83)E-01$		
McQueen Branch at Road F	1	$(3.89 \pm 5.04)E-01$		
U3R-1A Treadway Bridge Road 8-1	1	$(-0.66 \pm 5.93)E-01$		
U3R-3 at Road C	1	$(3.56 \pm 5.04)E-01$		
U3R-4 at Road A	1	$(1.25 \pm 0.47)E+00$		
U3R-F3	9	$(1.42 \pm 2.69)E-01$	$(1.33 \pm 1.12)E+00$	$(-1.02 \pm 0.97)E+00$
Four Mile Creek				
C-Canal	6	$(0.51 \pm 1.34)E-01$	$(4.69 \pm 3.65)E-01$	$(-4.59 \pm 3.35)E-01$
C-Canal	1	$(0.91 \pm 1.26)E+00$		
FM-2 at Road 4	20	$(4.16 \pm 0.37)E+00$	$(7.64 \pm 0.90)E+00$	$(1.64 \pm 0.66)E+00$
FM-2 at Road 4	1	$(1.07 \pm 0.40)E+00$		
FM-2B above F-Area effluent	20	$(7.98 \pm 1.88)E+00$	$(3.39 \pm 0.35)E+01$	$(2.49 \pm 0.68)E+00$
FM-2B above F-Area effluent	1	$(4.52 \pm 1.47)E+00$		
FM-3A below F-Area effluent	20	$(7.41 \pm 0.93)E-01$	$(1.80 \pm 0.48)E+00$	$(1.89 \pm 5.47)E-01$
FM-3A below F-Area effluent	1	$(2.82 \pm 4.12)E-01$		
FM-6 at Road A-12.2	1	$(3.88 \pm 1.44)E+00$		
FM-A7 at Road A-7	20	$(8.17 \pm 1.10)E+00$	$(2.30 \pm 0.19)E+01$	$(2.49 \pm 0.47)E+00$
FM-A7 at Road A-7	1	$(1.05 \pm 0.18)E+01$		
HP-50 Tritium Facility Outfall	1	$(3.33 \pm 2.94)E-01$		

Table 16
Radioactivity in Savannah River Site Stream Water

Page 5 of 14

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Pen Branch				
IGB-21 800 feet south of Road 6-1	1	$(0.97 \pm 3.75)E-01$		
PB-3 at Road A-13.2	1	$(-0.03 \pm 1.19)E+00$		
Steel Creek				
SC-2A 1 mile above Road B	1	$(-0.58 \pm 4.19)E-01$		
SC-4 Steel Creek at Road A	1	$(-0.36 \pm 1.17)E+00$		
Lower Three Runs Creek				
L3R-1A at Road B	1	$(1.43 \pm 1.29)E+00$		
L3R-2 Patterson Mill Road	1	$(-0.80 \pm 3.58)E-01$		
L3R-3 at Highway 125	1	$(2.37 \pm 3.86)E-01$		
R-Area downstream of R-1	1	$(5.22 \pm 4.06)E-01$		
U-234, pCi/L				
Tims Branch				
TB-5 near Road C	1	$(1.78 \pm 0.22)E-01$		
Upper Three Runs				
Crouch Branch at Road 4	1	$(1.83 \pm 4.23)E-03$		
McQueen Branch at Road F	1	$(1.30 \pm 0.66)E-02$		
U3R-1A Treadway Bridge Road 8-1	1	$(5.63 \pm 5.74)E-03$		
U3R-3 at Road C	1	$(2.39 \pm 0.81)E-02$		
U3R-4 at Road A	6	$(5.32 \pm 0.94)E-02$	$(9.30 \pm 1.59)E-02$	$(2.73 \pm 0.80)E-02$
U3R-4 at Road A	1	$(1.28 \pm 0.70)E-02$		
U3R-F3	8	$(2.92 \pm 0.54)E-01$	$(5.04 \pm 0.47)E-01$	$(9.06 \pm 5.49)E-02$
Four Mile Creek				
C-Canal	1	$(2.54 \pm 0.81)E-02$		
FM-2 at Road 4	1	$(3.66 \pm 6.04)E-03$		
FM-2B above F-Area effluent	1	$(-8.13 \pm 2.98)E-03$		
FM-3A below F-Area effluent	1	$(-1.87 \pm 4.09)E-03$		
FM-6 at Road A-12.2	6	$(4.02 \pm 2.52)E-01$	$(1.65 \pm 0.12)E+00$	$(5.56 \pm 1.06)E-02$
FM-6 at Road A-12.2	1	$(9.66 \pm 5.71)E-03$		
FM-A7 at Road A-7	1	$(2.96 \pm 0.89)E-02$		

Table 16
Radioactivity in Savannah River Site Stream Water

Page 6 of 14

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
HP-50 Tritium Facility Outfall	1	(2.14 $\pm$ 4.25)E-03		
Pen Branch				
PB-3 at Road A-13.2	6	(3.95 $\pm$ 1.19)E-02	(9.50 $\pm$ 1.49)E-02	(1.75 $\pm$ 0.74)E-02
PB-3 at Road A-13.2	1	(-8.53 $\pm$ 2.44)E-03		
Steel Creek				
SC-2A 1 mile above Road B	1	(9.06 $\pm$ 6.31)E-03		
SC-4 Steel Creek at Road A	1	(1.98 $\pm$ 4.31)E-03		
Lower Three Runs Creek				
L3R-1A at Road B	1	(7.98 $\pm$ 5.86)E-03		
L3R-2 Patterson Mill Road	6	(5.72 $\pm$ 0.90)E-02	(9.72 $\pm$ 1.47)E-02	(3.98 $\pm$ 0.85)E-02
L3R-2 Patterson Mill Road	1	(1.39 $\pm$ 0.65)E-02		
L3R-3 at Highway 125	1	(8.48 $\pm$ 6.12)E-03		
R-Area downstream of R-1	1	(3.98 $\pm$ 4.36)E-03		
U-235, pCi/L				
Tims Branch				
TB-5 near Road C	1	(1.28 $\pm$ 0.62)E-02		
Upper Three Runs				
Crouch Branch at Road 4	1	(-1.45 $\pm$ 0.81)E-03		
McQueen Branch at Road F	1	(6.41 $\pm$ 3.73)E-03		
U3R-1A Treadway Bridge Road 8-1	1	(-4.33 $\pm$ 0.79)E-03		
U3R-3 at Road C	1	(-5.88 $\pm$ 1.38)E-03		
U3R-4 at Road A	6	(3.08 $\pm$ 2.16)E-03	(7.90 $\pm$ 4.43)E-03	(-6.57 $\pm$ 2.74)E-03
U3R-4 at Road A	1	(1.42 $\pm$ 2.31)E-03		
U3R-F3	8	(1.11 $\pm$ 0.20)E-02	(1.87 $\pm$ 1.12)E-02	(4.10 $\pm$ 4.45)E-03
Four Mile Creek				
C-Canal	1	(0.64 $\pm$ 2.32)E-03		
FM-2 at Road 4	1	(1.57 $\pm$ 2.56)E-03		
FM-2B above F-Area effluent	1	(-6.88 $\pm$ 6.89)E-04		
FM-3A below F-Area effluent	1	(1.33 $\pm$ 2.16)E-03		
FM-6 at Road A-12.2	6	(3.48 $\pm$ 2.53)E-02	(1.59 $\pm$ 0.22)E-01	(-7.27 $\pm$ 7.30)E-04

Table 16
Radioactivity in Savannah River Site Stream Water

Page 7 of 14

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
FM-6 at Road A-12.2	1	$(-5.11 \pm 1.13)E-03$		
FM-A7 at Road A-7	1	$(5.74 \pm 3.84)E-03$		
HP-50 Tritium Facility Outfall	1	$(-0.01 \pm 2.33)E-03$		
Pen Branch				
PB-3 at Road A-13.2	6	$(2.84 \pm 1.94)E-03$	$(6.69 \pm 3.89)E-03$	$(-5.09 \pm 2.49)E-03$
PB-3 at Road A-13.2	1	$(1.32 \pm 2.14)E-03$		
Steel Creek				
SC-2A 1 mile above Road B	1	$(0.00 \pm 0.03)E+00$		
SC-4 Steel Creek at Road A	1	$(-1.56 \pm 2.85)E-03$		
Lower Three Runs Creek				
L3R-1A at Road B	1	$(0.07 \pm 3.23)E-03$		
L3R-2 Patterson Mill Road	6	$(5.17 \pm 2.17)E-03$	$(1.49 \pm 0.57)E-02$	$(-0.24 \pm 3.72)E-03$
L3R-2 Patterson Mill Road	1	$(1.61 \pm 2.27)E-03$		
L3R-3 at Highway 125	1	$(-0.74 \pm 2.16)E-03$		
R-Area downstream of R-1	1	$(-3.60 \pm 0.22)E-03$		
U-238, pCi/L				
Tims Branch				
TB-5 near Road C	1	$(2.16 \pm 0.24)E-01$		
Upper Three Runs				
Crouch Branch at Road 4	1	$(-0.77 \pm 3.29)E-03$		
McQueen Branch at Road F	1	$(2.01 \pm 0.66)E-02$		
U3R-1A Treadway Bridge Road 8-1	1	$(1.49 \pm 0.64)E-02$		
U3R-3 at Road C	1	$(3.23 \pm 0.86)E-02$		
U3R-4 at Road A	6	$(6.16 \pm 0.43)E-02$	$(7.86 \pm 1.40)E-02$	$(4.61 \pm 1.01)E-02$
U3R-4 at Road A	1	$(9.29 \pm 5.45)E-03$		
U3R-F3	8	$(9.74 \pm 1.31)E-02$	$(1.52 \pm 0.20)E-01$	$(4.23 \pm 3.45)E-02$
Four Mile Creek				
C-Canal	1	$(7.16 \pm 4.52)E-03$		
FM-2 at Road 4	1	$(-0.87 \pm 2.84)E-03$		
FM-2B above F-Area effluent	1	$(5.50 \pm 3.94)E-03$		

Table 16
Radioactivity in Savannah River Site Stream Water

Page 8 of 14

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
FM-3A below F-Area effluent	1	(1.24 $\pm$ 0.53)E-02		
FM-6 at Road A-12.2	6	(5.02 $\pm$ 2.94)E-01	(1.96 $\pm$ 0.14)E+00	(9.32 $\pm$ 1.42)E-02
FM-6 at Road A-12.2	1	(2.43 $\pm$ 0.77)E-02		
FM-A7 at Road A-7	1	(5.18 $\pm$ 1.04)E-02		
HP-50 Tritium Facility Outfall	1	(8.34 $\pm$ 5.17)E-03		
Pen Branch				
PB-3 at Road A-13.2	6	(3.02 $\pm$ 0.85)E-02	(5.59 $\pm$ 1.07)E-02	(4.99 $\pm$ 4.55)E-03
PB-3 at Road A-13.2	1	(5.14 $\pm$ 4.05)E-03		
Steel Creek				
SC-2A 1 mile above Road B	1	(1.02 $\pm$ 0.51)E-02		
SC-4 Steel Creek at Road A	1	(-2.58 $\pm$ 2.76)E-03		
Lower Three Runs Creek				
L3R-1A at Road B	1	(-2.28 $\pm$ 3.18)E-03		
L3R-2 Patterson Mill Road	6	(4.66 $\pm$ 0.70)E-02	(7.93 $\pm$ 1.27)E-02	(2.99 $\pm$ 0.74)E-02
L3R-2 Patterson Mill Road	1	(2.83 $\pm$ 4.15)E-03		
L3R-3 at Highway 125	1	(1.41 $\pm$ 4.99)E-03		
R-Area downstream of R-1	1	(2.22 $\pm$ 4.07)E-03		
Pu-238, pCi/L				
Tims Branch				
TB-5 near Road C	1	(4.29 $\pm$ 3.22)E-03		
Upper Three Runs				
Crouch Branch at Road 4	1	(9.39 $\pm$ 1.48)E-02		
McQueen Branch at Road F	1	(2.85 $\pm$ 0.30)E-01		
U3R-1A Treadway Bridge Road 8-1	1	(4.03 $\pm$ 2.98)E-03		
U3R-3 at Road C	1	(0.67 $\pm$ 2.85)E-03		
U3R-4 at Road A	6	(-0.04 $\pm$ 2.03)E-03	(7.16 $\pm$ 5.07)E-03	(-6.75 $\pm$ 0.35)E-03
U3R-4 at Road A	1	(6.23 $\pm$ 1.16)E-02		
U3R-F3	8	(1.64 $\pm$ 0.43)E-02	(3.88 $\pm$ 1.01)E-02	(0.48 $\pm$ 1.38)E-02

Table 16
Radioactivity in Savannah River Site Stream Water

Page 9 of 14

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Four Mile Creek				
C-Canal	1	(2.00 $\pm$ 0.23)E-01		
FM-2 at Road 4	1	(2.20 $\pm$ 0.25)E-01		
FM-2B above F-Area effluent	1	(3.28 $\pm$ 0.81)E-02		
FM-3A below F-Area effluent	1	(2.93 $\pm$ 0.29)E-01		
FM-6 at Road A-12.2	6	(5.28 $\pm$ 2.33)E-03	(1.38 $\pm$ 0.66)E-02	(0.32 $\pm$ 3.93)E-03
FM-6 at Road A-12.2	1	(-1.10 $\pm$ 0.07)E-03		
FM-A7 at Road A-7	1	(1.03 $\pm$ 0.15)E-01		
HP-50 Tritium Facility Outfall	1	(3.22 $\pm$ 0.22)E+00		
Pen Branch				
PB-3 at Road A-13.2	6	(-0.39 $\pm$ 2.28)E-03	(8.31 $\pm$ 4.84)E-03	(-7.43 $\pm$ 0.78)E-03
PB-3 at Road A-13.2	1	(2.86 $\pm$ 0.29)E-01		
Steel Creek				
SC-2A 1 mile above Road B	1	(2.87 $\pm$ 0.29)E-01		
SC-4 Steel Creek at Road A	1	(1.84 $\pm$ 0.23)E-01		
Lower Three Runs Creek				
L3R-1A at Road B	1	(4.02 $\pm$ 2.97)E-03		
L3R-2 Patterson Mill Road	6	(-2.40 $\pm$ 1.02)E-03	(2.16 $\pm$ 2.17)E-03	(-5.44 $\pm$ 2.15)E-03
L3R-2 Patterson Mill Road	1	(7.47 $\pm$ 3.76)E-03		
L3R-3 at Highway 125	1	(2.31 $\pm$ 2.53)E-03		
R-Area downstream of R-1	1	(-1.73 $\pm$ 0.63)E-03		
Pu-239, pCi/L				
Tims Branch				
TB-5 near Road C	1	(0.00 $\pm$ 0.03)E+00		
Upper Three Runs				
Crouch Branch at Road 4	1	(-0.49 $\pm$ 2.04)E-03		
McQueen Branch at Road F	1	(1.09 $\pm$ 2.76)E-03		
U3R-1A Treadway Bridge Road 8-1	1	(5.14 $\pm$ 2.99)E-03		
U3R-3 at Road C	1	(3.07 $\pm$ 2.70)E-03		
U3R-4 at Road A	6	(-7.45 $\pm$ 3.51)E-04	(0.00 $\pm$ 0.03)E+00	(-1.98 $\pm$ 1.15)E-03

Table 16
Radioactivity in Savannah River Site Stream Water

Page 10 of 14

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
U3R-4 at Road A	1	(1.05 $\pm$ 2.73)E-03		
U3R-F3	8	(7.79 $\pm$ 2.42)E-03	(1.97 $\pm$ 0.99)E-02	(-0.01 $\pm$ 1.12)E-02
Four Mile Creek				
C-Canal	1	(4.83 $\pm$ 3.84)E-03		
FM-2 at Road 4	1	(-0.07 $\pm$ 1.97)E-03		
FM-2B above F-Area effluent	1	(-0.92 $\pm$ 1.84)E-03		
FM-3A below F-Area effluent	1	(7.89 $\pm$ 4.38)E-03		
FM-6 at Road A-12.2	6	(0.89 $\pm$ 1.16)E-03	(3.63 $\pm$ 3.19)E-03	(-4.63 $\pm$ 1.21)E-03
FM-6 at Road A-12.2	1	(3.58 $\pm$ 2.54)E-03		
FM-A7 at Road A-7	1	(5.17 $\pm$ 3.86)E-03		
HP-50 Tritium Facility Outfall	1	(5.05 $\pm$ 1.01)E-02		
Pen Branch				
PB-3 at Road A-13.2	6	(1.22 $\pm$ 0.57)E-03	(3.26 $\pm$ 2.87)E-03	(-6.90 $\pm$ 6.92)E-04
PB-3 at Road A-13.2	1	(4.32 $\pm$ 3.55)E-03		
Steel Creek				
SC-2A 1 mile above Road B	1	(6.65 $\pm$ 3.91)E-03		
SC-4 Steel Creek at Road A	1	(-1.09 $\pm$ 2.39)E-03		
Lower Three Runs Creek				
L3R-1A at Road B	1	(4.54 $\pm$ 3.03)E-03		
L3R-2 Patterson Mill Road	6	(2.84 $\pm$ 2.20)E-03	(1.30 $\pm$ 0.53)E-02	(-1.43 $\pm$ 1.01)E-03
L3R-2 Patterson Mill Road	1	(-3.04 $\pm$ 0.94)E-03		
L3R-3 at Highway 125	1	(2.33 $\pm$ 2.68)E-03		
R-Area downstream of R-1	1	(3.61 $\pm$ 2.56)E-03		
Am-241, pCi/L				
Tims Branch				
TB-5 near Road C	1	(-5.22 $\pm$ 4.73)E-03		
Upper Three Runs				
Crouch Branch at Road 4	1	(2.56 $\pm$ 4.32)E-03		
McQueen Branch at Road F	1	(4.02 $\pm$ 5.80)E-03		
U3R-1A Treadway Bridge Road 8-1	1	(1.97 $\pm$ 0.70)E-02		

Table 16
Radioactivity in Savannah River Site Stream Water

Page 11 of 14

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
U3R-3 at Road C	1	$(-3.00 \pm 1.85)E-03$		
U3R-4 at Road A	1	$(1.67 \pm 4.41)E-03$		
U3R-F3	8	$(6.75 \pm 2.42)E-03$	$(2.04 \pm 1.31)E-02$	$(-2.05 \pm 4.54)E-03$
Four Mile Creek				
C-Canal	1	$(0.13 \pm 4.14)E-03$		
FM-2 at Road 4	1	$(-5.93 \pm 2.82)E-03$		
FM-2B above F-Area effluent	1	$(-3.21 \pm 3.26)E-03$		
FM-3A below F-Area effluent	1	$(-2.42 \pm 3.36)E-03$		
FM-6 at Road A-12.2	1	$(1.70 \pm 0.64)E-02$		
FM-A7 at Road A-7	1	$(9.80 \pm 5.73)E-03$		
HP-50 Tritium Facility Outfall	1	$(3.16 \pm 0.84)E-02$		
Pen Branch				
PB-3 at Road A-13.2	1	$(-5.98 \pm 2.22)E-03$		
Steel Creek				
SC-2A 1 mile above Road B	1	$(-0.32 \pm 3.93)E-03$		
SC-4 Steel Creek at Road A	1	$(2.04 \pm 0.74)E-02$		
Lower Three Runs Creek				
L3R-1A at Road B	1	$(4.03 \pm 3.99)E-03$		
L3R-2 Patterson Mill Road	1	$(1.93 \pm 0.69)E-02$		
L3R-3 at Highway 125	1	$(-7.52 \pm 4.53)E-03$		
R-Area downstream of R-1	1	$(8.70 \pm 5.15)E-03$		
Cm-244, pCi/L				
Tims Branch				
TB-5 near Road C	1	$(0.83 \pm 3.30)E-03$		
Upper Three Runs				
Crouch Branch at Road 4	1	$(-0.08 \pm 2.24)E-03$		
McQueen Branch at Road F	1	$(4.06 \pm 3.51)E-03$		
U3R-1A Treadway Bridge Road 8-1	1	$(1.90 \pm 3.20)E-03$		
U3R-3 at Road C	1	$(5.59 \pm 4.14)E-03$		

Table 16
Radioactivity in Savannah River Site Stream Water

Page 12 of 14

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
U3R-4 at Road A	1	(1.16 $\pm$ 2.69)E-03		
U3R-F3	8	(2.72 $\pm$ 2.77)E-02	(2.21 $\pm$ 0.31)E-01	(-2.88 $\pm$ 0.73)E-03
Four Mile Creek				
C-Canal	1	(0.66 $\pm$ 1.85)E-03		
FM-2 at Road 4	1	(6.50 $\pm$ 3.85)E-03		
FM-2B above F-Area effluent	1	(-1.18 $\pm$ 0.05)E-03		
FM-3A below F-Area effluent	1	(2.22 $\pm$ 0.63)E-02		
FM-6 at Road A-12.2	1	(-1.83 $\pm$ 1.82)E-03		
FM-A7 at Road A-7	1	(5.68 $\pm$ 3.44)E-03		
HP-50 Tritium Facility Outfall	1	(6.99 $\pm$ 3.52)E-03		
Pen Branch				
PB-3 at Road A-13.2	1	(1.93 $\pm$ 2.20)E-03		
Steel Creek				
SC-2A 1 mile above Road B	1	(3.46 $\pm$ 3.10)E-03		
SC-4 Steel Creek at Road A	1	(5.88 $\pm$ 3.39)E-03		
Lower Three Runs Creek				
L3R-1A at Road B	1	(-1.88 $\pm$ 1.78)E-03		
L3R-2 Patterson Mill Road	1	(1.69 $\pm$ 0.56)E-02		
L3R-3 at Highway 125	1	(-1.63 $\pm$ 2.86)E-03		
R-Area downstream of R-1	1	(2.16 $\pm$ 3.36)E-03		
Gross Alpha, pCi/L				
Tims Branch				
TB-5 near Road C	26	(3.13 $\pm$ 0.29)E+00	(6.69 $\pm$ 1.13)E+00	(7.92 $\pm$ 3.68)E-01
Upper Three Runs				
Crouch Branch at Road 4	26	(3.70 $\pm$ 0.62)E-01	(1.20 $\pm$ 0.47)E+00	(-3.12 $\pm$ 1.79)E-01
McQueen Branch at Road F	26	(2.27 $\pm$ 0.29)E+00	(6.63 $\pm$ 1.12)E+00	(-1.14 $\pm$ 2.26)E-01
U3R-1A Treadway Bridge Road 8-1	52	(3.67 $\pm$ 0.17)E+00	(6.30 $\pm$ 0.98)E+00	(1.68 $\pm$ 0.48)E+00
U3R-3 at Road C	26	(2.46 $\pm$ 0.15)E+00	(4.19 $\pm$ 0.71)E+00	(9.66 $\pm$ 4.06)E-01
U3R-4 at Road A	26	(3.04 $\pm$ 0.35)E+00	(8.94 $\pm$ 1.04)E+00	(8.15 $\pm$ 3.68)E-01
U3R-F3	10	(1.40 $\pm$ 0.43)E+00	(3.59 $\pm$ 1.30)E+00	(-1.35 $\pm$ 1.98)E+00

Table 16
Radioactivity in Savannah River Site Stream Water

Page 13 of 14

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Four Mile Creek				
C-Canal	26	$(9.97 \pm 0.78)E-01$	$(1.98 \pm 0.53)E+00$	$(1.30 \pm 3.75)E-01$
FM-2 at Road 4	26	$(2.40 \pm 0.38)E+00$	$(8.83 \pm 1.17)E+00$	$(2.97 \pm 2.01)E-01$
FM-2B above F-Area effluent	26	$(1.01 \pm 0.52)E+01$	$(1.07 \pm 0.08)E+02$	$(-0.58 \pm 6.13)E-01$
FM-3A below F-Area effluent	26	$(2.37 \pm 0.26)E+00$	$(7.57 \pm 1.05)E+00$	$(7.68 \pm 4.64)E-01$
FM-6 at Road A-12.2	26	$(4.84 \pm 1.10)E+00$	$(2.09 \pm 0.24)E+01$	$(1.50 \pm 3.29)E-01$
FM-A7 at Road A-7	26	$(9.18 \pm 2.26)E+00$	$(5.13 \pm 0.29)E+01$	$(7.37 \pm 4.46)E-01$
H-008 Outfall	6	$(3.64 \pm 0.58)E+00$	$(5.63 \pm 0.70)E+00$	$(1.98 \pm 0.39)E+00$
HP-50 Tritium Facility Outfall	26	$(8.52 \pm 0.84)E+00$	$(1.95 \pm 0.32)E+01$	$(-1.25 \pm 2.20)E-01$
Pen Branch				
IGB-21 800 feet south of Road 6-1	1	$(6.53 \pm 5.21)E-01$		
K-011 Outfall at B Road	6	$(8.87 \pm 9.26)E-02$	$(4.34 \pm 2.45)E-01$	$(-1.29 \pm 1.66)E-01$
PB-3 at Road A-13.2	26	$(3.47 \pm 0.77)E-01$	$(1.27 \pm 0.53)E+00$	$(-1.50 \pm 2.84)E-01$
Steel Creek				
SC-2A 1 mile above Road B	26	$(8.30 \pm 1.00)E-01$	$(2.33 \pm 0.39)E+00$	$(-0.26 \pm 2.35)E-01$
SC-4 Steel Creek at Road A	26	$(1.49 \pm 0.23)E+00$	$(4.04 \pm 0.75)E+00$	$(-0.08 \pm 2.66)E-01$
Lower Three Runs Creek				
L3R-1A at Road B	26	$(1.55 \pm 0.74)E+00$	$(1.81 \pm 0.25)E+01$	$(-3.32 \pm 2.76)E-01$
L3R-2 Patterson Mill Road	26	$(9.15 \pm 1.01)E-01$	$(2.14 \pm 0.77)E+00$	$(1.94 \pm 2.49)E-01$
L3R-3 at Highway 125	20	$(1.46 \pm 0.28)E+00$	$(4.58 \pm 0.94)E+00$	$(-2.31 \pm 1.53)E-01$
R-Area downstream of R-1	26	$(8.36 \pm 1.39)E-01$	$(3.08 \pm 0.98)E+00$	$(-1.85 \pm 3.25)E-01$
Gross Beta, pCi/L				
Tims Branch				
TB-5 near Road C	26	$(1.80 \pm 0.16)E+00$	$(4.65 \pm 0.72)E+00$	$(7.98 \pm 4.52)E-01$
Upper Three Runs				
Crouch Branch at Road 4	26	$(1.04 \pm 0.09)E+00$	$(1.98 \pm 0.59)E+00$	$(-0.15 \pm 4.52)E-01$
McQueen Branch at Road F	26	$(2.71 \pm 0.21)E+00$	$(4.79 \pm 0.82)E+00$	$(1.05 \pm 0.41)E+00$
U3R-1A Treadway Bridge Road 8-1	52	$(1.93 \pm 0.24)E+00$	$(1.31 \pm 0.10)E+01$	$(6.78 \pm 5.50)E-01$
U3R-3 at Road C	26	$(1.44 \pm 0.13)E+00$	$(2.64 \pm 0.57)E+00$	$(2.05 \pm 4.62)E-01$

Table 16
Radioactivity in Savannah River Site Stream Water

Page 14 of 14

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
U3R-4 at Road A	26	$(1.68 \pm 0.19)E+00$	$(5.48 \pm 0.71)E+00$	$(6.58 \pm 5.24)E-01$
U3R-F3	10	$(2.36 \pm 0.89)E+00$	$(5.24 \pm 1.47)E+00$	$(-5.01 \pm 4.20)E+00$
Four Mile Creek				
C-Canal	26	$(9.85 \pm 0.83)E-01$	$(2.06 \pm 0.58)E+00$	$(1.27 \pm 4.18)E-01$
FM-2 at Road 4	26	$(1.53 \pm 0.14)E+01$	$(3.21 \pm 0.14)E+01$	$(5.15 \pm 0.44)E+00$
FM-2B above F-Area effluent	26	$(3.11 \pm 0.88)E+01$	$(1.72 \pm 0.07)E+02$	$(6.59 \pm 3.59)E+00$
FM-3A below F-Area effluent	26	$(4.92 \pm 0.25)E+00$	$(8.78 \pm 0.86)E+00$	$(2.93 \pm 0.48)E+00$
FM-6 at Road A-12.2	26	$(1.83 \pm 0.20)E+01$	$(4.64 \pm 0.20)E+01$	$(7.21 \pm 0.76)E+00$
FM-A7 at Road A-7	26	$(2.41 \pm 0.20)E+01$	$(5.34 \pm 0.22)E+01$	$(3.18 \pm 0.93)E+00$
H-008 Outfall	6	$(6.15 \pm 0.55)E+00$	$(8.68 \pm 0.56)E+00$	$(4.91 \pm 0.45)E+00$
HP-50 Tritium Facility Outfall	26	$(5.05 \pm 0.40)E+00$	$(1.19 \pm 0.11)E+01$	$(1.14 \pm 0.49)E+00$
Pen Branch				
IGB-21 800 feet south of Road 6-1	1	$(2.27 \pm 0.66)E+00$		
K-011 Outfall at B Road	6	$(1.28 \pm 0.19)E+00$	$(1.74 \pm 0.44)E+00$	$(5.13 \pm 2.76)E-01$
PB-3 at Road A-13.2	26	$(9.58 \pm 1.02)E-01$	$(1.90 \pm 0.52)E+00$	$(-0.20 \pm 4.34)E-01$
Steel Creek				
SC-2A 1 mile above Road B	26	$(3.35 \pm 0.19)E+00$	$(5.02 \pm 0.47)E+00$	$(1.94 \pm 0.41)E+00$
SC-4 Steel Creek at Road A	26	$(1.54 \pm 0.12)E+00$	$(2.54 \pm 0.58)E+00$	$(4.46 \pm 4.15)E-01$
Lower Three Runs Creek				
L3R-1A at Road B	26	$(4.60 \pm 1.05)E+00$	$(2.93 \pm 0.15)E+01$	$(1.68 \pm 0.44)E+00$
L3R-2 Patterson Mill Road	26	$(2.06 \pm 0.16)E+00$	$(3.99 \pm 0.79)E+00$	$(6.58 \pm 5.05)E-01$
L3R-3 at Highway 125	20	$(2.16 \pm 0.28)E+00$	$(5.39 \pm 0.75)E+00$	$(8.53 \pm 4.61)E-01$
R-Area downstream of R-1	26	$(2.19 \pm 0.19)E+01$	$(4.72 \pm 0.19)E+01$	$(6.52 \pm 0.65)E+00$

Table 17
Calculated Migration of Radioactivity from Seepage Basins

Page 1 of 1

Location	Source Description	1995	1996	1997	1998	1999
Tritium (Curies)						
FMA7-(FM3A+FM2B)	200-F seepage basins to Four Mile Creek	2,370	1,620	1,000	1,477	648
FM2B-(FM1C+H017+H018+HP52)	200-H seepage basins to Four Mile Creek	528	505	400	515	258
FM3A-(FM3+F012+F013)	200-H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek	4,010	3,200	2,960	3,488	2,090
(U3R-4)-(Direct)	SWDF to Upper Three Runs	326	164	267	386	467
PB-3-K Canal	K-Area retention basin to Indian Grave Branch	1,650	1,290	2,150	3,089	1,160
SC2A	100-P seepage basin to Steel Creek ^a	355	320	393	507	369
Total Strontium (Millicuries)						
FMA7-(FM3A+FM2B)	200-F seepage basins to Four Mile Creek	111	68.2	105	84.3	59.3
FM2B-(FM1C+H017+H018+HP52)	200-H seepage basins to Four Mile Creek	40	31.3	0.4	45.2	18.7
FM3A-(FM3+F012+F013)	200-H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek				0.77	.09
Cesium-137 (Millicuries)						
FMA7-(FM3A+FM2B)	200-F seepage basins to Four Mile Creek	b	29.8	b	55.5	17.8
FM2B-(FM1C+H017+H018+HP52)	200-H seepage basins to Four Mile Creek	b	17.4	11.4	b	34.8
FM3A-(FM3+F012+F013)	200-H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek				b	b
Iodine-129 (Millicuries)						
FMA7	200-F and 200-H seepage basins and Solid Waste Disposal Facility to Four Mile Creek	10	78.2	78.2 ^c	78.2 ^c	78.2 ^c

a Includes some secondary effluent releases from P-Area when effluent was diverted from PAR Pond

b Not detected

c Measured iodine-129 results were not available for 1997, 1998, and 1999 from the Savannah River Technology Laboratory. This value was measured in 1996.

Table 18
Estimated Tritium Transport in SRS Streams and the Savannah River

Page 1 of 3

Area	Release Point	Direct Releases (Curies)				
		1995	1996	1997	1998	1999
Reactor						
100-P	PAR Pond overflow to Lower Three Runs Creek (L3R2)	56	47	46	110	87
100-R	105-R sumps to PAR Pond					1
100-L	L-Lake overflow to Steel Creek (SC4)	472	376	715	(243) ^a	(152) ^a
	*Process sewer to L-Lake					
	*Reactor heat exchanger cooling water to L-Lake					
	*Combined in 1992 (L007)	(11) ^a	(10) ^a	(6) ^a	(3) ^a	6
100-K	(K-Canal)	11	12	2	1	1
100-C	Process Sewer to Four Mile Creek (C-Canal)	3	2	1	b	b
	Subtotal	542	437	764	111	95
Separations						
200-F	Effluent to Four Mile Creek	2	1	1	1	2
	Effluent to Upper Three Runs	1	2	1	2	1
200-H	Effluent to Four Mile Creek	9	7	9	8	10
	Effluent to Upper Three Runs	14	11	15	2	2
	Effluent Treatment Facility	142	308	382	567	793
	Subtotal	168	329	408	580	808
D-Area and TNX						
400-D	Process sewer to Beaver Dam Creek (400-D)	628	183	402	398	213
TNX	TNX-008				1	1
	Subtotal	628	183	402	399	214
A-Area						
700-A	Effluent to Tims Branch (TB-2)				2	2
	Subtotal				2	2
	Total Direct Releases ^c	1,340	949	1,570	1092	1,119

a Not used in totals because release was counted elsewhere

b Discontinued in 1998

c Because of rounding, sums of individual columns might not equal totals.

Table 18
Estimated Tritium Transport in SRS Streams and the Savannah River

Page 2 of 3

Area	Release Point	Migration (Curies)				
		1995	1996	1997	1998	1999
200-F&H	Solid Waste Disposal Facility and General Separations Area to Upper Three Runs	(326) ^a	(164) ^a	267	386	467
200-F&H	Solid Waste Disposal Facility (FM3A-FM3) and H-Area seepage basin to Four Mile Creek	4,010	3,200	2,960	3,488	2,090
	200-F seepage basin to Four Mile Creek	2,370	1,620	1,000	1,477	648
	200-H seepage basin to Four Mile Creek	528	505	400	515	258
100-K	904-88G to Indian Grave Branch and Pen Branch	1,650 ^b	1,290 ^b	2,150	3,090	1,160
100-P	Seepage basin to Steel Creek	(355) ^c	(320) ^c	(393) ^c	507	369
	Subtotal	8,560	6,610	6,780	9,463	4,992
	Total Direct Releases and Migration^d	9,900	7,560	8,350	10,555	6,111

Area	Release Point	Stream Transport (Curies)				
		1995	1996	1997	1998	1999
F&H	Upper Three Runs at Road A (U3R4)	483	485	665	957	1,260
400-D	Beaver Dam Creek at swamp	628	183	402	398	213
F&H	Four Mile Creek at Road A13 (FM6)	7,350	4,620	4,570	5,790	3,420
100-K	Pen Branch at Road A (PB3)	2,440	2,310	2,150	3,090	1,160
100-L	Steel Creek at Road A (SC4)	472	376	715	243	152
100-P	Lower Three Runs at Road B (L3R2)	56	47	46	110	87
	Total^d	11,430	8,020	8,550	10,588	6,292

a Not used in totals because migration release was counted as part of transport total

b Beginning in 1995, this value was determined from K018-K-Canal. The K018 location was discontinued in 1997. The value is now (PB-3) - (K-Canal).

c Not used in totals because release was counted as part of direct release

d Because of rounding, sums of individual columns might not equal totals.

Table 18
Estimated Tritium Transport in SRS Streams and the Savannah River

Page 3 of 3

	River Transport (Curies)				
	1995	1996	1997	1998	1999
Tritium measured in the Savannah River below SRS (RM 120)	12,600	10,090	9,030	10,600	6,420
Tritium measured in the Savannah River above SRS (RM 160)	1,940	1,140	1,330	1,180	608
Tritium measured in the Savannah River below SRS (downriver minus upriver) ^a	10,660	8,950	7,700	9,420	5,810

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

Table 19
Transport of Actinides in Savannah River Site Streams

Page 1 of 1

Location	Source Description	1996	1997	1998	1999
Uranium-234 (Curies)					
FM-6	stream transport	6.08E-04	4.35E-03	1.62E-02	8.60E-02
U3R-4	stream transport	6.38E-03	1.88E-02	2.38E-02	1.24E-02
PB-3	stream transport	5.47E-04	2.94E-03	1.74E-03	7.28E-04
L3R-2	stream transport	6.45E-04	1.51E-03	4.96E-03	3.20E-03
SC-4	stream transport	a	a	a	a
Uranium-235 (Curies)					
FM-6	stream transport	5.47E-06	1.63E-04	1.07E-03	6.32E-04
U3R-4	stream transport	2.04E-04	5.63E-04	6.37E-04	b
PB-3	stream transport	5.31E-06	2.24E-05	4.60E-05	b
L3R-2	stream transport	1.28E-05	2.67E-05	2.56E-05	2.50E-04
SC-4	stream transport	a	a	a	a
Uranium-238 (Curies)					
FM-6	stream transport	8.09E-04	5.27E-03	2.00E-02	1.08E-02
U3R-4	stream transport	8.89E-03	2.06E-02	2.79E-02	1.37E-02
PB-3	stream transport	4.66E-04	2.76E-03	1.32E-03	4.92E-04
L3R-2	stream transport	3.55E-04	1.07E-03	3.77E-03	2.61E-03
SC-4	stream transport	a	a	a	a
Plutonium-238 (Curies)					
FM-6	stream transport	1.38E-04	1.11E-04	1.99E-04	9.52E-05
U3R-4	stream transport	2.53E-03	8.48E-04	7.99E-04	b
PB-3	stream transport	5.29E-05	1.74E-05	4.00E-05	b
L3R-2	stream transport	8.30E-05	2.50E-05	4.50E-04	b
SC-4	stream transport	a	a	a	a
Plutonium-239 (Curies)					
FM-6	stream transport	b	b	1.15E-05	b
U3R-4	stream transport	b	b	6.71E-05	b
PB-3	stream transport	b	b	2.96E-05	b
L3R-2	stream transport	b	b	1.28E-05	9.96E-05
SC-4	stream transport	a	a	a	a

a Not analyzed

b Below minimum detectable concentration (1.0E-11μCi/mL)

Table 20
Radioactivity in Savannah River Water

Page 1 of 3

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/L				
River Mile 120	53	(1.19 $\pm$ 0.06)E+03	(2.21 $\pm$ 0.12)E+03	(2.85 $\pm$ 0.80)E+02
River Mile 140	53	(1.46 $\pm$ 0.07)E+03	(2.76 $\pm$ 0.12)E+03	(3.37 $\pm$ 0.90)E+02
River Mile 150.0	53	(2.02 $\pm$ 0.06)E+03	(3.27 $\pm$ 0.11)E+03	(9.09 $\pm$ 0.95)E+02
River Mile 150.4	53	(1.92 $\pm$ 0.25)E+03	(8.42 $\pm$ 0.10)E+03	(-9.25 $\pm$ 7.75)E+01
River Mile 160	53	(8.72 $\pm$ 1.64)E+01	(3.56 $\pm$ 1.27)E+02	(-1.50 $\pm$ 0.77)E+02
Co-60, pCi/L				
River Mile 120	53	(1.99 $\pm$ 0.55)E-01	(9.93 $\pm$ 7.32)E-01	(-6.22 $\pm$ 3.86)E-01
River Mile 140	53	(2.42 $\pm$ 0.78)E-01	(1.68 $\pm$ 0.67)E+00	(-1.88 $\pm$ 1.30)E+00
River Mile 150.0	53	(1.36 $\pm$ 0.69)E-01	(1.26 $\pm$ 0.73)E+00	(-1.03 $\pm$ 0.41)E+00
River Mile 150.4	53	(1.45 $\pm$ 0.78)E-01	(2.71 $\pm$ 0.79)E+00	(-1.06 $\pm$ 1.01)E+00
River Mile 160	53	(1.29 $\pm$ 0.55)E-01	(1.58 $\pm$ 0.63)E+00	(-1.09 $\pm$ 0.89)E+00
Cs-137, pCi/L				
River Mile 120	53	(2.58 $\pm$ 4.17)E-02	(8.03 $\pm$ 3.88)E-01	(-5.32 $\pm$ 3.85)E-01
River Mile 140	53	(1.62 $\pm$ 0.64)E-01	(8.58 $\pm$ 5.70)E-01	(-8.43 $\pm$ 3.96)E-01
River Mile 150.0	53	(2.10 $\pm$ 3.70)E-02	(5.05 $\pm$ 3.29)E-01	(-9.61 $\pm$ 6.07)E-01
Sr-89,90, pCi/L				
River Mile 120	1	(2.61 $\pm$ 1.65)E-01		
River Mile 140	1	(2.17 $\pm$ 0.74)E-01		
River Mile 150.0	1	(7.96 $\pm$ 8.58)E-02		
River Mile 150.4	1	(4.51 $\pm$ 7.71)E-02		
River Mile 150.4	53	(4.95 $\pm$ 6.29)E-02	(1.36 $\pm$ 0.62)E+00	(-0.98 $\pm$ 1.34)E+00
River Mile 160	1	(0.85 $\pm$ 1.00)E-01		
River Mile 160	53	(8.37 $\pm$ 5.18)E-02	(1.07 $\pm$ 0.60)E+00	(-1.33 $\pm$ 0.83)E+00
U-234, pCi/L				
River Mile 120	1	(8.81 $\pm$ 2.04)E-03		
River Mile 140	1	(5.25 $\pm$ 1.24)E-03		
River Mile 150.0	1	(9.21 $\pm$ 2.36)E-03		
River Mile 150.4	1	(1.42 $\pm$ 0.34)E-02		
River Mile 160	1	(1.04 $\pm$ 0.25)E-02		

Table 20
Radioactivity in Savannah River Water

Page 2 of 3

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
U-235, pCi/L				
River Mile 120	1	$(-3.19 \pm 3.80)E-04$		
River Mile 140	1	$(3.05 \pm 4.89)E-04$		
River Mile 150.0	1	$(1.36 \pm 0.97)E-03$		
River Mile 150.4	1	$(5.80 \pm 9.41)E-04$		
River Mile 160	1	$(4.13 \pm 6.70)E-04$		
U-238, pCi/L				
River Mile 120	1	$(7.39 \pm 1.93)E-03$		
River Mile 140	1	$(4.75 \pm 1.28)E-03$		
River Mile 150.0	1	$(6.64 \pm 2.24)E-03$		
River Mile 150.4	1	$(1.17 \pm 0.33)E-02$		
River Mile 160	1	$(5.33 \pm 2.02)E-03$		
Pu-238, pCi/L				
River Mile 120	1	$(-5.96 \pm 1.96)E-04$		
River Mile 140	1	$(-1.94 \pm 0.10)E-04$		
River Mile 150.0	1	$(-0.80 \pm 5.09)E-04$		
River Mile 150.4	1	$(-3.94 \pm 0.21)E-04$		
River Mile 160	1	$(-3.94 \pm 0.19)E-04$		
Pu-239, pCi/L				
River Mile 120	1	$(-2.37 \pm 7.09)E-04$		
River Mile 140	1	$(-3.39 \pm 3.98)E-04$		
River Mile 150.0	1	$(0.03 \pm 1.00)E-03$		
River Mile 150.4	1	$(-1.18 \pm 0.77)E-03$		
River Mile 160	1	$(-9.04 \pm 4.90)E-04$		
Am-241, pCi/L				
River Mile 120	1	$(6.17 \pm 1.62)E-03$		
River Mile 140	1	$(2.48 \pm 4.19)E-04$		
River Mile 150.0	1	$(1.61 \pm 1.16)E-03$		
River Mile 150.4	1	$(1.62 \pm 1.51)E-03$		
River Mile 160	1	$(1.82 \pm 1.31)E-03$		

Table 20
Radioactivity in Savannah River Water

Page 3 of 3

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Cm-244, pCi/L				
River Mile 120	1	(9.55 $\pm$ 7.49)E-04		
River Mile 140	1	(-3.16 $\pm$ 2.58)E-04		
River Mile 150.0	1	(0.76 $\pm$ 7.35)E-04		
River Mile 150.4	1	(-1.19 $\pm$ 0.24)E-03		
River Mile 160	1	(-8.00 $\pm$ 5.90)E-04		
Gross Alpha, pCi/L				
River Mile 120	53	(2.08 $\pm$ 0.38)E-01	(9.78 $\pm$ 4.18)E-01	(-2.58 $\pm$ 1.65)E-01
River Mile 140	53	(1.18 $\pm$ 0.43)E-01	(6.96 $\pm$ 4.40)E-01	(-4.17 $\pm$ 3.66)E-01
River Mile 150.0	53	(1.27 $\pm$ 0.46)E-01	(1.14 $\pm$ 0.53)E+00	(-3.75 $\pm$ 3.28)E-01
River Mile 150.4	53	(5.50 $\pm$ 0.93)E-01	(2.67 $\pm$ 0.91)E+00	(-5.52 $\pm$ 2.76)E-01
River Mile 160	53	(5.93 $\pm$ 4.90)E-02	(9.83 $\pm$ 5.93)E-01	(-5.89 $\pm$ 3.05)E-01
Gross Beta, pCi/L				
River Mile 120	53	(2.12 $\pm$ 0.08)E+00	(3.50 $\pm$ 0.52)E+00	(6.61 $\pm$ 3.64)E-01
River Mile 140	53	(2.35 $\pm$ 0.09)E+00	(3.81 $\pm$ 0.74)E+00	(5.01 $\pm$ 3.64)E-01
River Mile 150.0	53	(2.12 $\pm$ 0.09)E+00	(3.69 $\pm$ 0.83)E+00	(9.54 $\pm$ 4.59)E-01
River Mile 150.4	53	(2.58 $\pm$ 0.11)E+00	(4.32 $\pm$ 0.74)E+00	(7.16 $\pm$ 5.04)E-01
River Mile 160	53	(2.22 $\pm$ 0.07)E+00	(3.53 $\pm$ 0.70)E+00	(9.21 $\pm$ 3.85)E-01

Table 21
Summary of Savannah River Site Tritium Transport, 1960–1999

Page 1 of 1

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
1995	9,900	11,400	10,700
1996	7,560	8,020	8,950
1997	8,350	8,550	7,700
1998	10,555	10,588	9,420
1999	6,111	6,292	5,810

^a Includes direct releases to streams and migration from 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 22
Radioactivity in Drinking Water

Page 1 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
<i>Note: Results of special analyses of radon and radium in drinking water are discussed in chapter 6, "Radiological Environmental Surveillance," of the SRS Environmental Report for 1999 (WSRC-TR-99-00299).</i>				
H-3, pCi/L				
On Site				
192-K Treatment Facility	4	(1.09 $\pm$ 0.87)E+02	(2.91 $\pm$ 1.37)E+02	(-1.22 $\pm$ 0.77)E+02
192-K Treatment Facility	1	(7.28 $\pm$ 9.85)E+01		
483-7D Treatment Facility	4	(-0.45 $\pm$ 2.78)E+01	(7.01 $\pm$ 9.79)E+01	(-6.22 $\pm$ 7.69)E+01
483-7D Treatment Facility	1	(-4.45 $\pm$ 9.76)E+01		
617-G Advanced Tactical Training Area	1	(0.28 $\pm$ 1.23)E+02		
618-G Class. Yard Lunchroom	1	(-8.32 $\pm$ 9.68)E+01		
661-G Firing Range (pumphouse)	1	(7.82 $\pm$ 1.27)E+02		
681-3G Domestic Water Faucet	1	(0.15 $\pm$ 1.23)E+02		
701-12G Patrol Gate 7	1	(2.66 $\pm$ 1.25)E+02		
701-13G Patrol Gate 6	1	(2.44 $\pm$ 0.12)E+03		
701-3G Barnwell Gate	1	(6.68 $\pm$ 9.67)E+01		
701-4G Williston Gate	1	(1.11 $\pm$ 1.23)E+02		
701-5G Talatha Gate	4	(7.58 $\pm$ 0.42)E+02	(8.44 $\pm$ 1.17)E+02	(6.52 $\pm$ 0.82)E+02
701-6G Jackson Gate	1	(5.65 $\pm$ 9.84)E+01		
701-8G Patrol Gate 8	1	(1.45 $\pm$ 0.11)E+03		
704-16G Central Sanitary Wastewater Treatment Facility	1	(0.24 $\pm$ 1.22)E+02		
709-1G L-Area Fire Demo	1	(-8.37 $\pm$ 9.74)E+01		
730-4B Lunchroom	2	(3.90 $\pm$ 1.01)E+01	(0.49 $\pm$ 1.22)E+02	(2.89 $\pm$ 5.48)E+01
735-7G PAR Pond Limnology Lab	1	(-1.33 $\pm$ 1.23)E+02		
737-G PAR Pond Radioecology Lab	1	(-0.61 $\pm$ 1.22)E+02		
782-3A Treatment Facility	4	(-1.49 $\pm$ 3.69)E+01	(5.49 $\pm$ 9.90)E+01	(-8.59 $\pm$ 7.80)E+01
782-3A Treatment Facility	1	(2.42 $\pm$ 9.69)E+01		
905-106K Well	1	(0.22 $\pm$ 1.22)E+02		
905-112G Well	1	(-1.41 $\pm$ 1.34)E+02		
905-113G Well	1	(2.04 $\pm$ 1.37)E+02		

Table 22
Radioactivity in Drinking Water

Page 2 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
905-125B Well	1	(0.46 $\pm$ 1.36)E+02		
905-136D Well	1	(0.55 $\pm$ 1.22)E+02		
905-3D Well	1	(-0.00 $\pm$ 1.21)E+02		
905-67B Well	1	(2.55 $\pm$ 0.85)E+02		
905-95K Well	1	(-1.35 $\pm$ 0.86)E+02		
EMS Sampler				
Beaufort Water Works	25	(1.01 $\pm$ 0.06)E+03	(1.61 $\pm$ 0.08)E+03	(4.09 $\pm$ 0.82)E+02
Treatment Plants – Raw				
Beaufort Public Water Works	12	(1.06 $\pm$ 0.08)E+03	(1.47 $\pm$ 0.11)E+03	(5.70 $\pm$ 0.57)E+02
N. Augusta Public Water Works	12	(6.03 $\pm$ 3.38)E+01	(2.91 $\pm$ 1.42)E+02	(-1.53 $\pm$ 1.51)E+02
Savannah Public Water Works	12	(9.95 $\pm$ 0.96)E+02	(1.63 $\pm$ 0.12)E+03	(6.14 $\pm$ 0.81)E+02
Treatment Plants – Finished				
Beaufort Public Water Works	12	(9.72 $\pm$ 0.67)E+02	(1.33 $\pm$ 0.12)E+03	(4.96 $\pm$ 0.80)E+02
N. Augusta Public Water Works	12	(3.43 $\pm$ 3.34)E+01	(1.83 $\pm$ 0.76)E+02	(-2.18 $\pm$ 1.51)E+02
Savannah Public Water Works	12	(9.65 $\pm$ 0.62)E+02	(1.27 $\pm$ 0.16)E+03	(6.03 $\pm$ 0.92)E+02
Co-60, pCi/L				
On Site				
192-K Treatment Facility	4	(1.43 $\pm$ 1.25)E+00	(3.74 $\pm$ 2.77)E+00	(-2.03 $\pm$ 2.17)E+00
192-K Treatment Facility	1	(-1.05 $\pm$ 2.75)E+00		
483-7D Treatment Facility	4	(-1.30 $\pm$ 9.84)E-01	(2.27 $\pm$ 2.10)E+00	(-2.41 $\pm$ 1.85)E+00
483-7D Treatment Facility	1	(2.76 $\pm$ 2.32)E+00		
617-G Advanced Tactical Training Area	1	(2.65 $\pm$ 2.46)E+00		
618-G Class. Yard Lunchroom	1	(-1.04 $\pm$ 2.40)E+00		
661-G Firing Range (pumphouse)	1	(-0.94 $\pm$ 2.49)E+00		
681-3G Domestic Water Faucet	1	(-0.79 $\pm$ 2.54)E+00		
701-12G Patrol Gate 7	1	(1.17 $\pm$ 2.42)E+00		
701-13G Patrol Gate 6	1	(4.73 $\pm$ 2.47)E+00		
701-3G Barnwell Gate	1	(0.70 $\pm$ 1.97)E+00		

Table 22
Radioactivity in Drinking Water

Page 3 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
701-4G Williston Gate	1	$(-4.44 \pm 2.46)E+00$		
701-5G Talatha Gate	4	$(3.12 \pm 1.56)E+00$	$(5.79 \pm 1.43)E+00$	$(-0.82 \pm 2.23)E+00$
701-6G Jackson Gate	1	$(0.20 \pm 1.37)E+00$		
701-8G Patrol Gate 8	1	$(0.62 \pm 1.33)E+00$		
704-16G Central Sanitary Wastewater Treatment Facility	1	$(4.83 \pm 2.40)E+00$		
709-1G L-Area Fire Demo	1	$(2.64 \pm 2.32)E+00$		
730-4B Lunchroom	2	$(1.53 \pm 0.78)E+00$	$(2.31 \pm 2.54)E+00$	$(0.75 \pm 2.51)E+00$
735-7G PAR Pond Limnology Lab	1	$(1.57 \pm 2.56)E+00$		
737-G PAR Pond Radioecology Lab	1	$(1.12 \pm 2.57)E+00$		
782-3A Treatment Facility	4	$(1.98 \pm 1.51)E+00$	$(5.08 \pm 2.46)E+00$	$(-2.11 \pm 2.34)E+00$
782-3A Treatment Facility	1	$(3.40 \pm 2.36)E+00$		
905-106K Well	1	$(-0.78 \pm 2.52)E+00$		
905-112G Well	1	$(0.21 \pm 1.97)E+00$		
905-113G Well	1	$(1.69 \pm 1.25)E+00$		
905-125B Well	1	$(2.17 \pm 2.35)E+00$		
905-136D Well	1	$(2.32 \pm 2.50)E+00$		
905-3D Well	1	$(0.57 \pm 2.52)E+00$		
905-67B Well	1	$(1.70 \pm 1.97)E+00$		
905-95K Well	1	$(2.11 \pm 2.33)E+00$		
EMS Sampler				
Beaufort Water Works	25	$(1.33 \pm 0.69)E+00$	$(1.17 \pm 1.05)E+01$	$(-3.99 \pm 1.90)E+00$
Treatment Plants - Raw				
Beaufort Public Water Works	12	$(1.36 \pm 0.77)E+00$	$(4.85 \pm 2.26)E+00$	$(-2.56 \pm 2.06)E+00$
N. Augusta Public Water Works	12	$(-2.77 \pm 7.72)E-01$	$(5.63 \pm 2.42)E+00$	$(-4.14 \pm 2.56)E+00$
Savannah Public Water Works	12	$(5.59 \pm 8.32)E-01$	$(4.70 \pm 2.40)E+00$	$(-5.05 \pm 2.21)E+00$
Treatment Plants - Finished				
Beaufort Public Water Works	12	$(0.73 \pm 6.70)E-01$	$(3.17 \pm 2.25)E+00$	$(-4.70 \pm 1.99)E+00$

Table 22
Radioactivity in Drinking Water

Page 4 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
N. Augusta Public Water Works	12	$(2.49 \pm 8.20)E-01$	$(3.91 \pm 2.39)E+00$	$(-5.52 \pm 2.14)E+00$
Savannah Public Water Works	12	$(1.34 \pm 1.06)E+00$	$(8.65 \pm 3.80)E+00$	$(-3.38 \pm 2.61)E+00$
Cs-137, pCi/L				
On Site				
192-K Treatment Facility	4	$(0.21 \pm 1.25)E+00$	$(2.90 \pm 2.22)E+00$	$(-3.17 \pm 2.15)E+00$
192-K Treatment Facility	1	$(0.60 \pm 2.28)E+00$		
483-7D Treatment Facility	4	$(9.31 \pm 3.03)E-01$	$(1.40 \pm 2.18)E+00$	$(0.09 \pm 2.23)E+00$
483-7D Treatment Facility	1	$(1.40 \pm 2.37)E+00$		
617-G Advanced Tactical Training Area	1	$(1.57 \pm 2.55)E+00$		
618-G Class. Yard Lunchroom	1	$(1.57 \pm 1.94)E+00$		
661-G Firing Range (pumphouse)	1	$(0.66 \pm 1.88)E+00$		
681-3G Domestic Water Faucet	1	$(1.05 \pm 2.12)E+00$		
701-12G Patrol Gate 7	1	$(1.18 \pm 2.13)E+00$		
701-13G Patrol Gate 6	1	$(1.00 \pm 2.08)E+00$		
701-3G Barnwell Gate	1	$(3.87 \pm 2.41)E+00$		
701-4G Williston Gate	1	$(-3.06 \pm 2.14)E+00$		
701-5G Talatha Gate	4	$(3.77 \pm 1.78)E+00$	$(8.38 \pm 3.41)E+00$	$(-0.29 \pm 1.38)E+00$
701-6G Jackson Gate	1	$(1.03 \pm 1.31)E+00$		
701-8G Patrol Gate 8	1	$(-0.49 \pm 1.31)E+00$		
704-16G Central Sanitary Wastewater Treatment Facility	1	$(1.54 \pm 2.61)E+00$		
709-1G L-Area Fire Demo	1	$(0.10 \pm 2.35)E+00$		
730-4B Lunchroom	2	$(1.64 \pm 0.60)E+00$	$(2.23 \pm 2.17)E+00$	$(1.04 \pm 1.93)E+00$
735-7G PAR Pond Limnology Lab	1	$(-0.63 \pm 2.58)E+00$		
737-G PAR Pond Radioecology Lab	1	$(0.01 \pm 2.56)E+00$		
782-3A Treatment Facility	4	$(0.51 \pm 1.18)E+00$	$(3.60 \pm 2.33)E+00$	$(-1.78 \pm 2.14)E+00$
782-3A Treatment Facility	1	$(0.44 \pm 1.93)E+00$		
905-106K Well	1	$(-0.34 \pm 2.20)E+00$		
905-112G Well	1	$(-2.87 \pm 2.31)E+00$		

Table 22
Radioactivity in Drinking Water

Page 5 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
905-113G Well	1	$(-1.33 \pm 1.20)E+00$		
905-125B Well	1	$(1.76 \pm 2.52)E+00$		
905-136D Well	1	$(0.47 \pm 2.49)E+00$		
905-3D Well	1	$(-4.04 \pm 2.38)E+00$		
905-67B Well	1	$(4.14 \pm 2.25)E+00$		
905-95K Well	1	$(1.06 \pm 2.24)E+00$		
EMS Sampler				
Beaufort Water Works	25	$(2.11 \pm 4.22)E-01$	$(7.63 \pm 9.17)E+00$	$(-2.61 \pm 1.99)E+00$
Treatment Plants - Raw				
Beaufort Public Water Works	12	$(2.06 \pm 5.47)E-01$	$(3.14 \pm 1.77)E+00$	$(-3.77 \pm 2.17)E+00$
N. Augusta Public Water Works	12	$(-4.27 \pm 5.96)E-01$	$(3.44 \pm 2.46)E+00$	$(-3.79 \pm 2.08)E+00$
Savannah Public Water Works	12	$(-7.59 \pm 7.50)E-01$	$(3.71 \pm 2.15)E+00$	$(-5.04 \pm 3.33)E+00$
Treatment Plants - Finished				
Beaufort Public Water Works	12	$(-3.06 \pm 5.37)E-01$	$(3.87 \pm 2.02)E+00$	$(-3.63 \pm 2.09)E+00$
N. Augusta Public Water Works	12	$(-5.00 \pm 7.91)E-01$	$(4.25 \pm 2.12)E+00$	$(-4.41 \pm 2.30)E+00$
Savannah Public Water Works	12	$(9.95 \pm 7.03)E-01$	$(5.33 \pm 2.57)E+00$	$(-2.73 \pm 2.32)E+00$
Sr-89,90, pCi/L				
On Site				
192-K Treatment Facility	1	$(5.84 \pm 4.17)E-01$		
483-7D Treatment Facility	1	$(0.05 \pm 3.78)E-01$		
617-G Advanced Tactical Training Area	1	$(-0.58 \pm 3.22)E-01$		
618-G Class. Yard Lunchroom	1	$(-0.07 \pm 2.74)E-01$		
661-G Firing Range (pumphouse)	1	$(1.16 \pm 2.49)E-01$		
681-3G Domestic Water Faucet	1	$(2.75 \pm 3.27)E-01$		
701-12G Patrol Gate 7	1	$(1.21 \pm 0.42)E+00$		
701-13G Patrol Gate 6	1	$(3.30 \pm 4.08)E-01$		
701-3G Barnwell Gate	1	$(1.63 \pm 3.91)E-01$		
701-4G Williston Gate	1	$(3.32 \pm 3.79)E-01$		

Table 22
Radioactivity in Drinking Water

Page 6 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
701-5G Talatha Gate	4	(1.32 $\pm$ 2.53)E-01	(7.93 $\pm$ 5.61)E-01	(-4.34 $\pm$ 3.73)E-01
701-6G Jackson Gate	1	(5.36 $\pm$ 2.88)E-01		
701-8G Patrol Gate 8	1	(0.10 $\pm$ 3.42)E-01		
704-16G Central Sanitary Wastewater Treatment Facility	1	(-1.71 $\pm$ 2.97)E-01		
709-1G L-Area Fire Demo	1	(-0.60 $\pm$ 3.57)E-01		
735-7G PAR Pond Limnology Lab	1	(-1.35 $\pm$ 3.43)E-01		
737-G PAR Pond Radioecology Lab	1	(0.63 $\pm$ 3.22)E-01		
782-3A Treatment Facility	1	(0.99 $\pm$ 3.91)E-01		
905-106K Well	1	(1.41 $\pm$ 3.95)E-01		
905-112G Well	1	(3.12 $\pm$ 2.35)E-01		
905-113G Well	1	(3.24 $\pm$ 3.34)E-01		
905-125B Well	1	(1.53 $\pm$ 3.16)E-01		
905-136D Well	1	(8.01 $\pm$ 4.46)E-01		
905-3D Well	1	(3.96 $\pm$ 4.00)E-01		
905-67B Well	1	(0.04 $\pm$ 3.15)E-01		
905-95K Well	1	(-0.84 $\pm$ 3.51)E-01		
U-234, pCi/L				
On Site				
192-K Treatment Facility	1	(2.24 $\pm$ 2.58)E-03		
483-7D Treatment Facility	1	(5.17 $\pm$ 4.25)E-03		
617-G Advanced Tactical Training Area	1	(1.26 $\pm$ 0.59)E-02		
618-G Class. Yard Lunchroom	1	(6.08 $\pm$ 0.83)E-02		
661-G Firing Range (pumphouse)	1	(-0.71 $\pm$ 3.78)E-03		
681-3G Domestic Water Faucet	1	(-1.93 $\pm$ 2.85)E-03		
701-12G Patrol Gate 7	1	(-1.37 $\pm$ 3.80)E-03		
701-13G Patrol Gate 6	1	(1.00 $\pm$ 0.36)E-02		
701-3G Barnwell Gate	1	(1.10 $\pm$ 1.78)E-03		
701-4G Williston Gate	1	(-7.29 $\pm$ 0.99)E-03		
701-5G Talatha Gate	4	(0.02 $\pm$ 3.16)E-03	(6.08 $\pm$ 4.20)E-03	(-6.09 $\pm$ 1.75)E-03

Table 22
Radioactivity in Drinking Water

Page 7 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
701-6G Jackson Gate	1	$(-5.10 \pm 3.25)E-03$		
701-8G Patrol Gate 8	1	$(2.37 \pm 3.78)E-03$		
704-16G Central Sanitary Wastewater Treatment Facility	1	$(-1.85 \pm 3.99)E-03$		
709-1G L-Area Fire Demo	1	$(-1.57 \pm 4.24)E-03$		
735-7G PAR Pond Limnology Lab	1	$(-1.59 \pm 4.50)E-03$		
737-G PAR Pond Radioecology Lab	1	$(4.75 \pm 5.21)E-03$		
782-3A Treatment Facility	1	$(1.01 \pm 0.42)E-02$		
905-106K Well	1	$(3.90 \pm 3.70)E-03$		
905-112G Well	1	$(3.56 \pm 3.77)E-03$		
905-113G Well	1	$(1.47 \pm 0.63)E-02$		
905-125B Well	1	$(4.84 \pm 1.01)E-02$		
905-136D Well	1	$(8.16 \pm 4.64)E-03$		
905-3D Well	1	$(1.46 \pm 3.09)E-03$		
905-67B Well	1	$(3.58 \pm 0.95)E-02$		
905-95K Well	1	$(6.51 \pm 3.84)E-03$		
U-235, pCi/L				
On Site				
192-K Treatment Facility	1	$(-7.34 \pm 7.37)E-04$		
483-7D Treatment Facility	1	$(3.60 \pm 3.19)E-03$		
617-G Advanced Tactical Training Area	1	$(-6.28 \pm 2.27)E-03$		
618-G Class. Yard Lunchroom	1	$(6.19 \pm 3.08)E-03$		
661-G Firing Range (pumphouse)	1	$(-1.47 \pm 0.78)E-03$		
681-3G Domestic Water Faucet	1	$(-7.04 \pm 2.45)E-03$		
701-12G Patrol Gate 7	1	$(2.20 \pm 3.32)E-03$		
701-13G Patrol Gate 6	1	$(1.17 \pm 1.99)E-03$		
701-3G Barnwell Gate	1	$(0.00 \pm 0.03)E+00$		
701-4G Williston Gate	1	$(0.75 \pm 2.34)E-03$		
701-5G Talatha Gate	4	$(0.57 \pm 1.14)E-03$	$(2.52 \pm 3.65)E-03$	$(-2.40 \pm 0.80)E-03$
701-6G Jackson Gate	1	$(-0.07 \pm 2.26)E-03$		

Table 22
Radioactivity in Drinking Water

Page 8 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
701-8G Patrol Gate 8	1	$(-2.23 \pm 2.64)E-03$		
704-16G Central Sanitary Wastewater Treatment Facility	1	$(5.41 \pm 4.07)E-03$		
709-1G L-Area Fire Demo	1	$(3.55 \pm 3.97)E-03$		
735-7G PAR Pond Limnology Lab	1	$(-8.53 \pm 0.53)E-03$		
737-G PAR Pond Radioecology Lab	1	$(-7.04 \pm 2.46)E-03$		
782-3A Treatment Facility	1	$(4.14 \pm 2.95)E-03$		
905-106K Well	1	$(0.65 \pm 2.37)E-03$		
905-112G Well	1	$(1.47 \pm 2.39)E-03$		
905-113G Well	1	$(6.28 \pm 4.21)E-03$		
905-125B Well	1	$(3.62 \pm 3.20)E-03$		
905-136D Well	1	$(0.00 \pm 0.03)E+00$		
905-3D Well	1	$(6.51 \pm 4.08)E-03$		
905-67B Well	1	$(-7.48 \pm 7.50)E-04$		
905-95K Well	1	$(0.00 \pm 0.03)E+00$		
U-238, pCi/L				
On Site				
192-K Treatment Facility	1	$(3.26 \pm 3.53)E-03$		
483-7D Treatment Facility	1	$(-0.14 \pm 3.36)E-03$		
617-G Advanced Tactical Training Area	1	$(6.58 \pm 4.08)E-03$		
618-G Class. Yard Lunchroom	1	$(4.78 \pm 0.74)E-02$		
661-G Firing Range (pumphouse)	1	$(2.03 \pm 0.70)E-02$		
681-3G Domestic Water Faucet	1	$(-1.26 \pm 1.95)E-03$		
701-12G Patrol Gate 7	1	$(2.92 \pm 3.17)E-03$		
701-13G Patrol Gate 6	1	$(5.92 \pm 3.00)E-03$		
701-3G Barnwell Gate	1	$(4.33 \pm 3.37)E-03$		
701-4G Williston Gate	1	$(2.91 \pm 3.16)E-03$		
701-5G Talatha Gate	4	$(-2.31 \pm 0.90)E-03$	$(0.35 \pm 1.46)E-03$	$(-3.61 \pm 2.70)E-03$
701-6G Jackson Gate	1	$(0.89 \pm 2.39)E-03$		
701-8G Patrol Gate 8	1	$(6.00 \pm 3.84)E-03$		

Table 22
Radioactivity in Drinking Water

Page 9 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
704-16G Central Sanitary Wastewater Treatment Facility	1	(1.88 $\pm$ 2.63)E-03		
709-1G L-Area Fire Demo	1	(5.17 $\pm$ 3.52)E-03		
735-7G PAR Pond Limnology Lab	1	(3.44 $\pm$ 3.69)E-03		
737-G PAR Pond Radioecology Lab	1	(1.72 $\pm$ 3.97)E-03		
782-3A Treatment Facility	1	(1.27 $\pm$ 0.51)E-02		
905-106K Well	1	(6.16 $\pm$ 4.36)E-03		
905-112G Well	1	(1.49 $\pm$ 4.52)E-03		
905-113G Well	1	(3.07 $\pm$ 0.90)E-02		
905-125B Well	1	(6.68 $\pm$ 1.24)E-02		
905-136D Well	1	(-1.30 $\pm$ 1.75)E-03		
905-3D Well	1	(-4.03 $\pm$ 0.99)E-03		
905-67B Well	1	(5.32 $\pm$ 1.11)E-02		
905-95K Well	1	(5.28 $\pm$ 3.74)E-03		
Pu-238, pCi/L				
On Site				
192-K Treatment Facility	1	(1.53 $\pm$ 3.44)E-03		
483-7D Treatment Facility	1	(-1.54 $\pm$ 2.14)E-03		
617-G Advanced Tactical Training Area	1	(7.27 $\pm$ 6.22)E-03		
618-G Class. Yard Lunchroom	1	(2.36 $\pm$ 1.83)E-03		
661-G Firing Range (pumphouse)	1	(1.21 $\pm$ 1.97)E-03		
681-3G Domestic Water Faucet	1	(5.65 $\pm$ 6.77)E-03		
701-12G Patrol Gate 7	1	(2.29 $\pm$ 2.29)E-03		
701-13G Patrol Gate 6	1	(0.95 $\pm$ 1.84)E-03		
701-3G Barnwell Gate	1	(-2.13 $\pm$ 0.11)E-03		
701-4G Williston Gate	1	(4.67 $\pm$ 3.31)E-03		
701-5G Talatha Gate	4	(-1.63 $\pm$ 0.75)E-03	(0.12 $\pm$ 2.11)E-03	(-3.43 $\pm$ 0.17)E-03
701-6G Jackson Gate	1	(-2.60 $\pm$ 1.51)E-03		
701-8G Patrol Gate 8	1	(-7.38 $\pm$ 7.39)E-04		

Table 22
Radioactivity in Drinking Water

Page 10 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
704-16G Central Sanitary Wastewater Treatment Facility	1	(1.32 $\pm$ 2.13)E-03		
709-1G L-Area Fire Demo	1	(-2.27 $\pm$ 1.32)E-03		
735-7G PAR Pond Limnology Lab	1	(1.10 $\pm$ 0.71)E-02		
737-G PAR Pond Radioecology Lab	1	(2.03 $\pm$ 0.80)E-02		
782-3A Treatment Facility	1	(1.18 $\pm$ 2.92)E-03		
905-106K Well	1	(1.76 $\pm$ 2.76)E-03		
905-112G Well	1	(8.53 $\pm$ 4.68)E-03		
905-113G Well	1	(5.84 $\pm$ 4.43)E-03		
905-125B Well	1	(3.16 $\pm$ 0.88)E-02		
905-136D Well	1	(6.65 $\pm$ 4.68)E-03		
905-3D Well	1	(0.73 $\pm$ 2.52)E-03		
905-67B Well	1	(9.35 $\pm$ 5.61)E-03		
905-95K Well	1	(7.33 $\pm$ 4.62)E-03		
Pu-239, pCi/L				
On Site				
192-K Treatment Facility	1	(-2.12 $\pm$ 2.28)E-03		
483-7D Treatment Facility	1	(-0.81 $\pm$ 2.13)E-03		
617-G Advanced Tactical Training Area	1	(-0.79 $\pm$ 2.82)E-03		
618-G Class. Yard Lunchroom	1	(-7.38 $\pm$ 4.27)E-04		
661-G Firing Range (pumphouse)	1	(-6.44 $\pm$ 6.46)E-04		
681-3G Domestic Water Faucet	1	(-5.58 $\pm$ 1.55)E-03		
701-12G Patrol Gate 7	1	(0.00 $\pm$ 0.04)E+00		
701-13G Patrol Gate 6	1	(3.04 $\pm$ 2.25)E-03		
701-3G Barnwell Gate	1	(0.48 $\pm$ 1.87)E-03		
701-4G Williston Gate	1	(8.51 $\pm$ 4.75)E-03		
701-5G Talatha Gate	4	(-4.49 $\pm$ 8.84)E-04	(1.45 $\pm$ 3.15)E-03	(-2.79 $\pm$ 0.73)E-03
701-6G Jackson Gate	1	(4.14 $\pm$ 3.64)E-03		
701-8G Patrol Gate 8	1	(0.65 $\pm$ 2.37)E-03		

Table 22
Radioactivity in Drinking Water

Page 11 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
704-16G Central Sanitary Wastewater Treatment Facility	1	$(-1.40 \pm 0.99)E-03$		
709-1G L-Area Fire Demo	1	$(-3.02 \pm 1.52)E-03$		
735-7G PAR Pond Limnology Lab	1	$(-0.01 \pm 3.81)E-03$		
737-G PAR Pond Radioecology Lab	1	$(-0.71 \pm 1.85)E-03$		
782-3A Treatment Facility	1	$(1.22 \pm 3.00)E-03$		
905-106K Well	1	$(0.55 \pm 1.95)E-03$		
905-112G Well	1	$(-0.08 \pm 2.19)E-03$		
905-113G Well	1	$(2.17 \pm 2.18)E-03$		
905-125B Well	1	$(-7.17 \pm 7.19)E-04$		
905-136D Well	1	$(0.56 \pm 3.13)E-03$		
905-3D Well	1	$(-1.99 \pm 0.61)E-03$		
905-67B Well	1	$(0.00 \pm 0.03)E+00$		
905-95K Well	1	$(-1.48 \pm 2.37)E-03$		
Am-241, pCi/L				
On Site				
192-K Treatment Facility	1	$(0.03 \pm 3.21)E-03$		
483-7D Treatment Facility	1	$(0.47 \pm 3.51)E-03$		
617-G Advanced Tactical Training Area	1	$(1.66 \pm 0.72)E-02$		
618-G Class. Yard Lunchroom	1	$(-1.90 \pm 4.32)E-03$		
661-G Firing Range (pumphouse)	1	$(-3.33 \pm 3.56)E-03$		
681-3G Domestic Water Faucet	1	$(1.49 \pm 0.66)E-02$		
701-12G Patrol Gate 7	1	$(2.64 \pm 0.81)E-02$		
701-13G Patrol Gate 6	1	$(0.84 \pm 2.59)E-03$		
701-3G Barnwell Gate	1	$(3.21 \pm 4.26)E-03$		
701-4G Williston Gate	1	$(-4.47 \pm 3.44)E-03$		
701-5G Talatha Gate	4	$(5.57 \pm 4.20)E-03$	$(1.34 \pm 0.62)E-02$	$(-6.04 \pm 2.30)E-03$
701-6G Jackson Gate	1	$(1.07 \pm 4.70)E-03$		
701-8G Patrol Gate 8	1	$(-5.79 \pm 3.65)E-03$		

Table 22
Radioactivity in Drinking Water

Page 12 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
704-16G Central Sanitary Wastewater Treatment Facility	1	$(-6.83 \pm 2.57)E-03$		
709-1G L-Area Fire Demo	1	$(-3.05 \pm 3.69)E-03$		
735-7G PAR Pond Limnology Lab	1	$(1.32 \pm 0.61)E-02$		
737-G PAR Pond Radioecology Lab	1	$(2.96 \pm 3.93)E-03$		
782-3A Treatment Facility	1	$(-0.89 \pm 2.77)E-03$		
905-106K Well	1	$(1.19 \pm 0.59)E-02$		
905-112G Well	1	$(3.00 \pm 5.03)E-03$		
905-113G Well	1	$(-3.43 \pm 3.43)E-03$		
905-125B Well	1	$(0.79 \pm 4.53)E-03$		
905-136D Well	1	$(0.34 \pm 3.43)E-03$		
905-3D Well	1	$(-1.51 \pm 2.90)E-03$		
905-67B Well	1	$(1.12 \pm 0.69)E-02$		
905-95K Well	1	$(4.73 \pm 4.65)E-03$		
Cm-244, pCi/L				
On Site				
192-K Treatment Facility	1	$(-2.32 \pm 1.82)E-03$		
483-7D Treatment Facility	1	$(-0.86 \pm 2.89)E-03$		
617-G Advanced Tactical Training Area	1	$(6.68 \pm 3.86)E-03$		
618-G Class. Yard Lunchroom	1	$(2.82 \pm 2.42)E-03$		
661-G Firing Range (pumphouse)	1	$(-1.21 \pm 0.62)E-03$		
681-3G Domestic Water Faucet	1	$(2.05 \pm 2.05)E-03$		
701-12G Patrol Gate 7	1	$(9.30 \pm 4.35)E-03$		
701-13G Patrol Gate 6	1	$(-4.18 \pm 0.17)E-03$		
701-3G Barnwell Gate	1	$(-4.14 \pm 0.17)E-03$		
701-4G Williston Gate	1	$(5.36 \pm 3.45)E-03$		
701-5G Talatha Gate	4	$(4.87 \pm 7.05)E-04$	$(2.56 \pm 2.80)E-03$	$(-5.99 \pm 0.24)E-04$
701-6G Jackson Gate	1	$(1.32 \pm 1.91)E-03$		
701-8G Patrol Gate 8	1	$(-5.97 \pm 0.25)E-04$		

Table 22
Radioactivity in Drinking Water

Page 13 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
704-16G Central Sanitary Wastewater Treatment Facility	1	$(-5.97 \pm 0.24)E-04$		
709-1G L-Area Fire Demo	1	$(-1.24 \pm 0.64)E-03$		
735-7G PAR Pond Limnology Lab	1	$(0.00 \pm 0.03)E+00$		
737-G PAR Pond Radioecology Lab	1	$(0.00 \pm 0.03)E+00$		
782-3A Treatment Facility	1	$(-0.24 \pm 2.76)E-03$		
905-106K Well	1	$(-4.87 \pm 0.75)E-03$		
905-112G Well	1	$(-4.08 \pm 0.17)E-03$		
905-113G Well	1	$(-4.08 \pm 0.17)E-03$		
905-125B Well	1	$(-1.05 \pm 2.68)E-03$		
905-136D Well	1	$(-4.82 \pm 0.70)E-03$		
905-3D Well	1	$(-0.86 \pm 2.89)E-03$		
905-67B Well	1	$(6.97 \pm 4.85)E-03$		
905-95K Well	1	$(-4.14 \pm 0.18)E-03$		
Gross Alpha, pCi/L				
On Site				
192-K Treatment Facility	4	$(1.31 \pm 0.96)E-01$	$(4.02 \pm 4.26)E-01$	$(-0.27 \pm 4.87)E-01$
192-K Treatment Facility	1	$(6.58 \pm 5.42)E-01$		
483-7D Treatment Facility	4	$(6.71 \pm 1.04)E-01$	$(8.66 \pm 6.21)E-01$	$(3.76 \pm 6.02)E-01$
483-7D Treatment Facility	1	$(1.75 \pm 6.68)E-01$		
617-G Advanced Tactical Training Area	1	$(4.31 \pm 3.61)E-01$		
618-G Class. Yard Lunchroom	1	$(1.26 \pm 0.53)E+00$		
661-G Firing Range (pumphouse)	1	$(2.88 \pm 0.57)E+00$		
681-3G Domestic Water Faucet	1	$(4.11 \pm 2.96)E-01$		
701-12G Patrol Gate 7	1	$(1.00 \pm 0.59)E+00$		
701-13G Patrol Gate 6	1	$(1.49 \pm 0.59)E+00$		
701-3G Barnwell Gate	1	$(1.64 \pm 4.09)E-01$		
701-4G Williston Gate	1	$(-0.16 \pm 3.10)E-01$		
701-5G Talatha Gate	4	$(9.23 \pm 0.73)E+00$	$(1.08 \pm 0.07)E+01$	$(7.86 \pm 0.94)E+00$
701-6G Jackson Gate	1	$(2.85 \pm 0.67)E+00$		

Table 22
Radioactivity in Drinking Water

Page 14 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
701-8G Patrol Gate 8	1	(3.44 $\pm$ 3.71)E-01		
704-16G Central Sanitary Wastewater Treatment Facility	1	(9.77 $\pm$ 4.42)E-01		
709-1G L-Area Fire Demo	1	(-2.29 $\pm$ 4.08)E-01		
730-4B Lunchroom	2	(6.29 $\pm$ 0.73)E-01	(7.01 $\pm$ 4.02)E-01	(5.56 $\pm$ 5.78)E-01
735-7G PAR Pond Limnology Lab	1	(2.73 $\pm$ 3.50)E-01		
737-G PAR Pond Radioecology Lab	1	(3.01 $\pm$ 3.45)E-01		
782-3A Treatment Facility	4	(2.15 $\pm$ 1.27)E+00	(5.91 $\pm$ 1.28)E+00	(4.32 $\pm$ 4.88)E-01
782-3A Treatment Facility	1	(7.83 $\pm$ 6.42)E-01		
905-106K Well	1	(1.73 $\pm$ 0.59)E+00		
905-112G Well	1	(1.13 $\pm$ 0.66)E+00		
905-113G Well	1	(3.10 $\pm$ 0.92)E+00		
905-125B Well	1	(5.91 $\pm$ 1.19)E+00		
905-136D Well	1	(4.07 $\pm$ 4.54)E-01		
905-3D Well	1	(2.44 $\pm$ 4.20)E-01		
905-67B Well	1	(-0.13 $\pm$ 7.94)E-01		
905-95K Well	1	(1.32 $\pm$ 0.58)E+00		
EMS Sampler				
Beaufort Water Works	25	(2.83 $\pm$ 1.02)E-01	(1.64 $\pm$ 0.93)E+00	(-5.67 $\pm$ 5.17)E-01
Treatment Plants - Raw				
Beaufort Public Water Works	12	(2.87 $\pm$ 1.20)E-01	(1.10 $\pm$ 0.73)E+00	(-1.85 $\pm$ 3.03)E-01
N. Augusta Public Water Works	12	(2.87 $\pm$ 1.59)E-01	(1.52 $\pm$ 0.71)E+00	(-3.88 $\pm$ 2.47)E-01
Savannah Public Water Works	12	(1.96 $\pm$ 0.62)E-01	(5.94 $\pm$ 4.10)E-01	(-1.36 $\pm$ 2.33)E-01
Treatment Plants - Finished				
Beaufort Public Water Works	12	(1.18 $\pm$ 0.98)E-01	(7.20 $\pm$ 7.60)E-01	(-4.75 $\pm$ 3.04)E-01
N. Augusta Public Water Works	12	(-1.80 $\pm$ 0.46)E-01	(2.28 $\pm$ 3.09)E-01	(-4.09 $\pm$ 2.49)E-01
Savannah Public Water Works	12	(-0.26 $\pm$ 1.27)E-01	(8.78 $\pm$ 6.01)E-01	(-6.39 $\pm$ 3.37)E-01

Table 22
Radioactivity in Drinking Water

Page 15 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Gross Beta, pCi/L				
On Site				
192-K Treatment Facility	4	(2.32 $\pm$ 0.53)E+00	(3.86 $\pm$ 0.70)E+00	(1.54 $\pm$ 0.56)E+00
192-K Treatment Facility	1	(3.44 $\pm$ 0.69)E+00		
483-7D Treatment Facility	4	(3.77 $\pm$ 0.54)E+00	(5.39 $\pm$ 0.94)E+00	(3.13 $\pm$ 0.69)E+00
483-7D Treatment Facility	1	(4.48 $\pm$ 0.85)E+00		
617-G Advanced Tactical Training Area	1	(1.26 $\pm$ 0.47)E+00		
618-G Class. Yard Lunchroom	1	(2.38 $\pm$ 0.46)E+00		
661-G Firing Range (pumphouse)	1	(1.47 $\pm$ 0.47)E+00		
681-3G Domestic Water Faucet	1	(2.75 $\pm$ 0.53)E+00		
701-12G Patrol Gate 7	1	(2.13 $\pm$ 0.62)E+00		
701-13G Patrol Gate 6	1	(1.19 $\pm$ 0.63)E+00		
701-3G Barnwell Gate	1	(2.50 $\pm$ 5.66)E-01		
701-4G Williston Gate	1	(1.50 $\pm$ 0.54)E+00		
701-5G Talatha Gate	4	(2.59 $\pm$ 0.28)E+00	(2.98 $\pm$ 0.58)E+00	(1.81 $\pm$ 0.61)E+00
701-6G Jackson Gate	1	(2.19 $\pm$ 0.59)E+00		
701-8G Patrol Gate 8	1	(2.13 $\pm$ 0.58)E+00		
704-16G Central Sanitary Wastewater Treatment Facility	1	(2.70 $\pm$ 4.15)E-01		
709-1G L-Area Fire Demo	1	(2.51 $\pm$ 0.64)E+00		
730-4B Lunchroom	2	(8.80 $\pm$ 0.16)E-01	(8.96 $\pm$ 5.53)E-01	(8.64 $\pm$ 4.50)E-01
735-7G PAR Pond Limnology Lab	1	(2.86 $\pm$ 0.56)E+00		
737-G PAR Pond Radioecology Lab	1	(1.27 $\pm$ 0.48)E+00		
782-3A Treatment Facility	4	(1.89 $\pm$ 0.44)E+00	(3.20 $\pm$ 0.96)E+00	(1.39 $\pm$ 0.56)E+00
782-3A Treatment Facility	1	(2.41 $\pm$ 0.65)E+00		
905-106K Well	1	(2.57 $\pm$ 0.61)E+00		
905-112G Well	1	(1.28 $\pm$ 0.79)E+00		
905-113G Well	1	(2.81 $\pm$ 0.89)E+00		
905-125B Well	1	(3.10 $\pm$ 0.92)E+00		
905-136D Well	1	(4.38 $\pm$ 0.71)E+00		

Table 22
Radioactivity in Drinking Water

Page 16 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
905-3D Well	1	(4.07 $\pm$ 0.69)E+00		
905-67B Well	1	(1.33 $\pm$ 0.88)E+00		
905-95K Well	1	(3.13 $\pm$ 0.66)E+00		
EMS Sampler				
Beaufort Water Works	25	(1.96 $\pm$ 0.22)E+00	(4.79 $\pm$ 1.28)E+00	(-1.16 $\pm$ 9.35)E-01
Treatment Plants – Raw				
Beaufort Public Water Works	12	(1.75 $\pm$ 0.12)E+00	(2.44 $\pm$ 0.66)E+00	(1.05 $\pm$ 0.60)E+00
N. Augusta Public Water Works	12	(1.75 $\pm$ 0.21)E+00	(2.75 $\pm$ 0.51)E+00	(5.12 $\pm$ 4.76)E-01
Savannah Public Water Works	12	(2.11 $\pm$ 0.19)E+00	(3.00 $\pm$ 0.71)E+00	(1.23 $\pm$ 0.48)E+00
Treatment Plants – Finished				
Beaufort Public Water Works	12	(1.72 $\pm$ 0.14)E+00	(2.36 $\pm$ 0.69)E+00	(8.47 $\pm$ 5.92)E-01
N. Augusta Public Water Works	12	(1.54 $\pm$ 0.13)E+00	(2.29 $\pm$ 0.64)E+00	(7.99 $\pm$ 3.17)E-01
Savannah Public Water Works	12	(2.05 $\pm$ 0.15)E+00	(2.75 $\pm$ 0.65)E+00	(1.34 $\pm$ 0.46)E+00

Table 23
Radioactivity in Terrestrial Food Products — Greens, Fruit, and Beef

Page 1 of 2

Location	H-3 (pCi/g $\pm\sigma$)	Co-60 (pCi/g $\pm\sigma$)	Cs-137 (pCi/g $\pm\sigma$)	Sr-89,90 (pCi/g $\pm\sigma$)	Pu-238 (pCi/g $\pm\sigma$)	Pu-239 (pCi/g $\pm\sigma$)
Notes: 1. All results except those for H-3 are expressed in dry weight. 2. Samples of food are collected one time per year; they are collected from one location within each of the quadrants and from a control location within an extended (10 to 25 miles beyond the perimeter) southeast quadrant.						
Greens						
NE Quadrant 0-10 Miles	(-1.35 $\pm$ 2.38)E-02	(7.28 $\pm$ 3.91)E-03	(-6.77 $\pm$ 3.16)E-03	(4.74 $\pm$ 1.11)E-02	(-1.25 $\pm$ 3.16)E-05	(1.33 $\pm$ 3.42)E-05
NW Quadrant 0-10 Miles	(1.47 $\pm$ 0.30)E-01	(6.71 $\pm$ 1.82)E-03	(2.29 $\pm$ 1.63)E-03	(2.49 $\pm$ 0.70)E-02	(0.48 $\pm$ 2.92)E-05	(-3.20 $\pm$ 2.54)E-05
SE Quadrant 0-10 Miles	(1.74 $\pm$ 0.29)E-01	(1.19 $\pm$ 0.69)E-02	(9.90 $\pm$ 5.96)E-03	(8.84 $\pm$ 2.15)E-02	(1.44 $\pm$ 6.22)E-05	(-9.53 $\pm$ 4.39)E-05
SE Quadrant 10-25 Miles	(2.15 $\pm$ 0.35)E-01	(0.12 $\pm$ 3.15)E-03	(-1.62 $\pm$ 2.59)E-03	(1.19 $\pm$ 0.92)E-02	(-3.21 $\pm$ 3.93)E-05	(-6.15 $\pm$ 3.35)E-05
SW Quadrant 0-10 Miles	(1.82 $\pm$ 0.41)E-01	(-3.29 $\pm$ 3.34)E-03	(-0.86 $\pm$ 3.20)E-03	(2.71 $\pm$ 0.99)E-02	(-1.32 $\pm$ 2.47)E-05	(-0.05 $\pm$ 1.47)E-05
Fruit						
NE Quadrant 0-10 Miles	(-3.40 $\pm$ 1.86)E-02	(1.71 $\pm$ 2.93)E-03	(-1.38 $\pm$ 3.16)E-03	(0.57 $\pm$ 2.42)E-02	(0.39 $\pm$ 3.33)E-04	(-0.23 $\pm$ 1.49)E-04
NW Quadrant 0-10 Miles	(-1.09 $\pm$ 2.38)E-02	(2.45 $\pm$ 1.89)E-03	(-0.33 $\pm$ 1.66)E-03	(1.13 $\pm$ 2.70)E-02	(1.55 $\pm$ 4.66)E-04	(0.27 $\pm$ 2.66)E-04
SE Quadrant 0-10 Miles	(-5.35 $\pm$ 2.47)E-02	(1.21 $\pm$ 0.54)E-02	(-0.80 $\pm$ 2.80)E-03	(1.23 $\pm$ 2.48)E-02	(0.94 $\pm$ 3.22)E-04	(0.06 $\pm$ 1.13)E-04
SE Quadrant 10-25 Miles	(1.19 $\pm$ 0.02)E+00	(6.49 $\pm$ 3.00)E-03	(1.90 $\pm$ 3.16)E-03	(-0.29 $\pm$ 1.72)E-02	(0.28 $\pm$ 2.54)E-04	(0.20 $\pm$ 1.53)E-04
SW Quadrant 0-10 Miles	(-0.55 $\pm$ 1.63)E-02	(7.64 $\pm$ 3.45)E-03	(5.96 $\pm$ 2.94)E-03	(-3.34 $\pm$ 2.41)E-02	(0.26 $\pm$ 1.38)E-03	(-0.39 $\pm$ 8.11)E-04

Table 23
Radioactivity in Terrestrial Food Products — Greens, Fruit, and Beef

Page 2 of 2

Location	H-3 (pCi/g $\pm\sigma$)	Co-60 (pCi/g $\pm\sigma$)	Cs-137 (pCi/g $\pm\sigma$)	Sr-89,90 (pCi/g $\pm\sigma$)	Pu-238 (pCi/g $\pm\sigma$)	Pu-239 (pCi/g $\pm\sigma$)
Beef						
NE Quadrant 0-10 Miles	(1.39 $\pm$ 0.45)E-01	(-2.73 $\pm$ 5.62)E-03	(1.32 $\pm$ 0.12)E-01	(1.24 $\pm$ 1.29)E-02	(0.74 $\pm$ 4.95)E-05	(-3.12 $\pm$ 1.38)E-05
NW Quadrant 0-10 Miles	(1.33 $\pm$ 0.57)E-01	(-8.19 $\pm$ 5.72)E-03	(-0.62 $\pm$ 4.70)E-03	(7.90 $\pm$ 0.32)E-03	(4.63 $\pm$ 0.17)E-05	(-1.27 $\pm$ 0.75)E-05
SE Quadrant 0-10 Miles	(1.42 $\pm$ 0.64)E-01	(1.04 $\pm$ 6.11)E-03	(-3.27 $\pm$ 5.25)E-03	(-0.40 $\pm$ 1.96)E-02	(2.08 $\pm$ 1.00)E-04	(-1.22 $\pm$ 3.27)E-05
SE Quadrant 10-25 Miles	(6.10 $\pm$ 6.28)E-02	(-3.40 $\pm$ 6.48)E-03	(1.38 $\pm$ 0.68)E-02	(1.98 $\pm$ 2.02)E-02	(1.40 $\pm$ 2.93)E-05	(-2.76 $\pm$ 1.42)E-05
SW Quadrant 0-10 Miles	(1.03 $\pm$ 0.63)E-01	(1.52 $\pm$ 6.25)E-03	(7.49 $\pm$ 4.83)E-03	(0.71 $\pm$ 1.41)E-02	(-3.11 $\pm$ 1.72)E-05	(-4.04 $\pm$ 2.18)E-05

Table 24
Radioactivity in Terrestrial Food Products — Milk

Page 1 of 1

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/L				
Dairy — major distributor	12	(6.24 $\pm$ 4.37)E+01	(2.21 $\pm$ 0.87)E+02	(-1.64 $\pm$ 1.26)E+02
Denmark, S.C.	12	(8.27 $\pm$ 2.18)E+01	(1.89 $\pm$ 1.10)E+02	(-0.45 $\pm$ 1.34)E+02
Girard, Ga., dairy	11	(1.28 $\pm$ 0.39)E+02	(3.18 $\pm$ 1.30)E+02	(-1.11 $\pm$ 0.71)E+02
Gracewood, Ga., dairy	12	(1.01 $\pm$ 0.33)E+02	(2.72 $\pm$ 1.33)E+02	(-0.78 $\pm$ 1.50)E+02
Jackson, S.C., dairy	5	(5.45 $\pm$ 0.46)E+02	(6.66 $\pm$ 1.25)E+02	(4.12 $\pm$ 1.30)E+02
Waynesboro, Ga., dairy	12	(5.89 $\pm$ 3.35)E+01	(1.80 $\pm$ 1.32)E+02	(-1.95 $\pm$ 1.35)E+02
Co-60, pCi/L				
Dairy — major distributor	12	(9.24 $\pm$ 5.18)E-01	(3.76 $\pm$ 1.28)E+00	(-1.98 $\pm$ 1.43)E+00
Denmark, S.C.	12	(-1.09 $\pm$ 5.16)E-01	(3.22 $\pm$ 1.13)E+00	(-2.90 $\pm$ 1.89)E+00
Girard, Ga., dairy	11	(9.87 $\pm$ 5.98)E-01	(3.76 $\pm$ 1.29)E+00	(-3.03 $\pm$ 1.63)E+00
Gracewood, Ga., dairy	12	(9.00 $\pm$ 6.57)E-01	(6.08 $\pm$ 1.77)E+00	(-3.22 $\pm$ 1.66)E+00
Jackson, S.C., dairy	5	(1.03 $\pm$ 0.70)E+00	(3.47 $\pm$ 1.22)E+00	(-0.72 $\pm$ 1.25)E+00
Waynesboro, Ga., dairy	12	(2.12 $\pm$ 6.25)E-01	(2.82 $\pm$ 1.30)E+00	(-3.81 $\pm$ 1.70)E+00
Cs-137, pCi/L				
Dairy — major distributor	12	(1.57 $\pm$ 0.48)E+00	(4.08 $\pm$ 1.40)E+00	(-1.62 $\pm$ 1.13)E+00
Denmark, S.C.	12	(4.27 $\pm$ 0.56)E+00	(7.14 $\pm$ 1.43)E+00	(6.05 $\pm$ 8.67)E-01
Girard, Ga., dairy	11	(1.39 $\pm$ 0.50)E+00	(4.54 $\pm$ 1.36)E+00	(-0.84 $\pm$ 1.10)E+00
Gracewood, Ga., dairy	12	(1.59 $\pm$ 0.36)E+00	(4.49 $\pm$ 1.33)E+00	(-1.98 $\pm$ 9.82)E-01
Jackson, S.C., dairy	5	(1.41 $\pm$ 1.03)E+00	(3.70 $\pm$ 1.62)E+00	(-2.45 $\pm$ 1.14)E+00
Waynesboro, Ga., dairy	12	(1.19 $\pm$ 0.32)E+00	(2.44 $\pm$ 0.96)E+00	(-5.81 $\pm$ 8.63)E-01
Sr-89,90, pCi/L				
Dairy — major distributor	1	(2.11 $\pm$ 1.03)E+00		
Denmark, S.C.	1	(2.55 $\pm$ 1.05)E+00		
Girard, Ga., dairy	1	(2.15 $\pm$ 1.03)E+00		
Gracewood, Ga., dairy	1	(2.63 $\pm$ 1.05)E+00		
Jackson, S.C., dairy	1	(1.71 $\pm$ 1.01)E+00		
Waynesboro, Ga., dairy	1	(5.52 $\pm$ 1.65)E+00		

Table 25
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 1 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/g				
Off Site (Edible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	(1.81 $\pm$ 0.96)E-02	(3.43 $\pm$ 3.69)E-02	(0.13 $\pm$ 2.59)E-02
Bream	3	(2.93 $\pm$ 0.85)E-02	(4.62 $\pm$ 3.55)E-02	(1.94 $\pm$ 3.38)E-02
Catfish	3	(3.88 $\pm$ 0.91)E-02	(5.22 $\pm$ 3.40)E-02	(2.15 $\pm$ 2.45)E-02
Shad	3	(2.94 $\pm$ 1.13)E-02	(4.83 $\pm$ 2.97)E-02	(0.92 $\pm$ 3.21)E-02
Beaver Dam Creek River Mouth				
Bass	3	(6.68 $\pm$ 1.43)E-02	(9.45 $\pm$ 6.14)E-02	(4.65 $\pm$ 5.55)E-02
Bream	3	(1.10 $\pm$ 0.26)E-01	(1.59 $\pm$ 0.61)E-01	(6.96 $\pm$ 6.04)E-02
Catfish	3	(1.72 $\pm$ 0.12)E-01	(1.95 $\pm$ 0.62)E-01	(1.57 $\pm$ 0.62)E-01
Four Mile Creek River Mouth				
Bass	3	(7.38 $\pm$ 1.12)E-01	(9.43 $\pm$ 0.56)E-01	(5.57 $\pm$ 0.35)E-01
Bream	3	(6.84 $\pm$ 1.18)E-01	(9.10 $\pm$ 0.55)E-01	(5.15 $\pm$ 0.51)E-01
Catfish	3	(1.29 $\pm$ 0.08)E+00	(1.39 $\pm$ 0.03)E+00	(1.14 $\pm$ 0.04)E+00
Shad	3	(7.06 $\pm$ 0.58)E-01	(7.75 $\pm$ 0.59)E-01	(5.91 $\pm$ 0.60)E-01
Hwy-301 Bridge Area				
Bass	3	(2.23 $\pm$ 0.09)E-01	(2.38 $\pm$ 0.34)E-01	(2.06 $\pm$ 0.30)E-01
Bream	3	(2.55 $\pm$ 0.03)E-01	(2.61 $\pm$ 0.34)E-01	(2.51 $\pm$ 0.31)E-01
Catfish	3	(2.56 $\pm$ 0.33)E-01	(3.21 $\pm$ 0.24)E-01	(2.18 $\pm$ 0.37)E-01
Shad	3	(2.52 $\pm$ 0.08)E-01	(2.64 $\pm$ 0.49)E-01	(2.37 $\pm$ 0.49)E-01
L3R Creek River Mouth				
Bass	3	(2.54 $\pm$ 0.13)E-01	(2.79 $\pm$ 0.56)E-01	(2.38 $\pm$ 0.49)E-01
Bream	3	(2.52 $\pm$ 0.18)E-01	(2.82 $\pm$ 0.35)E-01	(2.20 $\pm$ 0.27)E-01
Catfish	3	(2.02 $\pm$ 0.26)E-01	(2.33 $\pm$ 0.33)E-01	(1.51 $\pm$ 0.24)E-01
Steel Creek River Mouth				
Bass	3	(5.03 $\pm$ 0.07)E-01	(5.17 $\pm$ 0.36)E-01	(4.94 $\pm$ 0.36)E-01
Bream	3	(6.32 $\pm$ 0.11)E-01	(6.53 $\pm$ 0.37)E-01	(6.17 $\pm$ 0.37)E-01
Catfish	3	(9.11 $\pm$ 7.34)E-01	(2.38 $\pm$ 0.04)E+00	(1.74 $\pm$ 0.31)E-01
Shad	3	(5.24 $\pm$ 0.10)E-01	(5.38 $\pm$ 0.53)E-01	(5.04 $\pm$ 0.55)E-01
U3R Creek River Mouth				
Bass	3	(3.09 $\pm$ 1.60)E-02	(6.28 $\pm$ 4.79)E-02	(1.39 $\pm$ 3.44)E-02
Bream	3	(7.32 $\pm$ 3.09)E-02	(1.10 $\pm$ 0.41)E-01	(1.18 $\pm$ 3.44)E-02
Catfish	3	(1.35 $\pm$ 0.72)E-01	(2.79 $\pm$ 0.34)E-01	(4.96 $\pm$ 3.43)E-02

Table 25
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 2 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Co-60, pCi/g				
Off Site (Edible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(0.32 \pm 1.10)E-02$	$(2.52 \pm 1.40)E-02$	$(-0.88 \pm 1.45)E-02$
Bream	3	$(1.49 \pm 2.14)E-03$	$(0.49 \pm 1.47)E-02$	$(-0.25 \pm 1.36)E-02$
Catfish	3	$(5.94 \pm 9.48)E-03$	$(2.18 \pm 1.46)E-02$	$(-1.10 \pm 1.37)E-02$
Shad	3	$(1.19 \pm 1.34)E-02$	$(3.35 \pm 1.47)E-02$	$(-1.27 \pm 1.47)E-02$
Beaver Dam Creek River Mouth				
Bass	3	$(2.16 \pm 0.54)E-02$	$(2.93 \pm 1.43)E-02$	$(1.11 \pm 1.45)E-02$
Bream	3	$(-0.83 \pm 7.45)E-03$	$(0.89 \pm 1.36)E-02$	$(-1.55 \pm 0.95)E-02$
Catfish	3	$(5.73 \pm 7.81)E-03$	$(1.57 \pm 1.37)E-02$	$(-0.97 \pm 1.32)E-02$
Four Mile Creek River Mouth				
Bass	3	$(3.58 \pm 7.33)E-03$	$(1.80 \pm 1.48)E-02$	$(-0.58 \pm 1.56)E-02$
Bream	3	$(-0.52 \pm 1.25)E-02$	$(1.65 \pm 1.59)E-02$	$(-2.69 \pm 1.24)E-02$
Catfish	3	$(1.70 \pm 1.09)E-02$	$(3.80 \pm 1.51)E-02$	$(0.17 \pm 1.37)E-02$
Shad	3	$(1.10 \pm 0.79)E-02$	$(2.26 \pm 1.36)E-02$	$(-0.40 \pm 1.39)E-02$
Hwy-17 Bridge Area				
Bass	3	$(3.08 \pm 1.05)E-02$	$(4.41 \pm 1.90)E-02$	$(1.01 \pm 1.85)E-02$
Bream	3	$(1.18 \pm 0.19)E-02$	$(1.55 \pm 1.92)E-02$	$(0.94 \pm 2.10)E-02$
Catfish	3	$(2.14 \pm 0.45)E-02$	$(3.03 \pm 2.16)E-02$	$(1.58 \pm 2.09)E-02$
Hwy-301 Bridge Area				
Bass	3	$(-0.29 \pm 3.04)E-03$	$(4.33 \pm 7.65)E-03$	$(-6.03 \pm 4.66)E-03$
Bream	3	$(4.59 \pm 3.05)E-03$	$(1.06 \pm 0.63)E-02$	$(0.63 \pm 4.88)E-03$
Catfish	3	$(-0.90 \pm 2.06)E-03$	$(3.20 \pm 6.15)E-03$	$(-3.27 \pm 4.81)E-03$
Shad	3	$(-0.58 \pm 4.98)E-03$	$(9.26 \pm 4.69)E-03$	$(-6.89 \pm 4.86)E-03$
L3R Creek River Mouth				
Bass	3	$(-3.27 \pm 7.77)E-03$	$(0.80 \pm 1.49)E-02$	$(-1.82 \pm 1.38)E-02$
Bream	3	$(2.63 \pm 0.17)E-02$	$(2.96 \pm 1.14)E-02$	$(2.37 \pm 1.39)E-02$
Catfish	3	$(1.27 \pm 1.60)E-02$	$(4.41 \pm 1.85)E-02$	$(-0.85 \pm 1.29)E-02$
Steel Creek River Mouth				
Bass	3	$(4.01 \pm 0.83)E-03$	$(0.53 \pm 1.39)E-02$	$(0.24 \pm 1.40)E-02$
Bream	3	$(9.50 \pm 3.55)E-03$	$(1.61 \pm 1.45)E-02$	$(0.40 \pm 1.33)E-02$
Catfish	3	$(2.01 \pm 7.30)E-03$	$(1.29 \pm 1.14)E-02$	$(-1.19 \pm 1.55)E-02$
Shad	3	$(-4.05 \pm 9.70)E-03$	$(1.36 \pm 1.27)E-02$	$(-1.98 \pm 1.49)E-02$

Table 25
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 3 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Stokes Bluff Landing				
Bass	3	$(8.69 \pm 8.25)E-03$	$(2.35 \pm 1.77)E-02$	$(-0.50 \pm 2.16)E-02$
Bream	3	$(2.11 \pm 0.26)E-02$	$(2.39 \pm 2.43)E-02$	$(1.59 \pm 1.67)E-02$
Catfish	3	$(0.96 \pm 5.23)E-03$	$(1.13 \pm 1.97)E-02$	$(-0.58 \pm 2.12)E-02$
U3R Creek River Mouth				
Bass	3	$(-0.84 \pm 1.24)E-02$	$(0.79 \pm 1.61)E-02$	$(-3.27 \pm 1.77)E-02$
Bream	3	$(1.62 \pm 0.93)E-02$	$(3.48 \pm 1.57)E-02$	$(0.60 \pm 1.60)E-02$
Catfish	3	$(-1.05 \pm 0.90)E-02$	$(0.72 \pm 1.60)E-02$	$(-2.20 \pm 1.67)E-02$
Off Site (Nonedible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(0.78 \pm 6.58)E-03$	$(1.15 \pm 1.30)E-02$	$(-1.11 \pm 1.52)E-02$
Bream	3	$(1.95 \pm 0.50)E-02$	$(2.56 \pm 1.17)E-02$	$(0.97 \pm 1.52)E-02$
Catfish	3	$(8.54 \pm 2.02)E-03$	$(1.23 \pm 1.35)E-02$	$(0.54 \pm 1.36)E-02$
Shad	3	$(1.74 \pm 0.69)E-02$	$(3.13 \pm 1.48)E-02$	$(1.00 \pm 1.55)E-02$
Beaver Dam Creek River Mouth				
Bass	3	$(0.08 \pm 1.13)E-02$	$(1.36 \pm 1.32)E-02$	$(-2.17 \pm 1.30)E-02$
Bream	3	$(1.25 \pm 0.61)E-02$	$(1.91 \pm 1.35)E-02$	$(0.04 \pm 1.50)E-02$
Catfish	3	$(0.98 \pm 1.36)E-02$	$(3.71 \pm 1.46)E-02$	$(-0.55 \pm 1.47)E-02$
Four Mile Creek River Mouth				
Bass	3	$(0.26 \pm 1.47)E-02$	$(2.94 \pm 1.56)E-02$	$(-2.13 \pm 1.71)E-02$
Bream	3	$(9.33 \pm 7.72)E-03$	$(1.71 \pm 1.53)E-02$	$(-0.61 \pm 1.52)E-02$
Catfish	3	$(3.27 \pm 1.59)E-02$	$(6.42 \pm 1.93)E-02$	$(1.32 \pm 0.97)E-02$
Shad	3	$(0.18 \pm 1.82)E-02$	$(3.14 \pm 1.48)E-02$	$(-3.13 \pm 1.43)E-02$
Hwy-301 Bridge Area				
Bass	3	$(5.46 \pm 4.35)E-03$	$(1.36 \pm 0.59)E-02$	$(-1.18 \pm 4.89)E-03$
Bream	3	$(-4.59 \pm 3.74)E-03$	$(2.65 \pm 4.63)E-03$	$(-9.84 \pm 5.10)E-03$
Catfish	3	$(-8.70 \pm 3.29)E-03$	$(-2.22 \pm 4.71)E-03$	$(-1.29 \pm 0.46)E-02$
Shad	3	$(4.67 \pm 4.81)E-03$	$(1.43 \pm 0.64)E-02$	$(-0.66 \pm 5.01)E-03$
L3R Creek River Mouth				
Bass	3	$(2.06 \pm 0.98)E-02$	$(3.06 \pm 1.44)E-02$	$(0.11 \pm 1.69)E-02$
Bream	3	$(2.14 \pm 0.56)E-02$	$(3.24 \pm 1.90)E-02$	$(1.40 \pm 1.44)E-02$
Catfish	3	$(1.58 \pm 7.08)E-03$	$(1.54 \pm 1.37)E-02$	$(-0.80 \pm 1.11)E-02$

Table 25
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 4 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Steel Creek River Mouth				
Bass	3	$(1.70 \pm 0.46)E-02$	$(2.61 \pm 1.31)E-02$	$(1.22 \pm 1.18)E-02$
Bream	3	$(3.74 \pm 7.47)E-03$	$(1.86 \pm 1.35)E-02$	$(-0.48 \pm 1.39)E-02$
Catfish	3	$(-8.51 \pm 5.85)E-03$	$(0.32 \pm 1.36)E-02$	$(-1.53 \pm 1.44)E-02$
Shad	3	$(1.36 \pm 0.53)E-02$	$(2.35 \pm 1.18)E-02$	$(0.55 \pm 1.31)E-02$
U3R Creek River Mouth				
Bass	3	$(-0.03 \pm 1.27)E-02$	$(2.29 \pm 1.42)E-02$	$(-2.10 \pm 1.65)E-02$
Bream	3	$(1.25 \pm 1.08)E-02$	$(3.36 \pm 1.49)E-02$	$(-0.23 \pm 1.50)E-02$
Catfish	3	$(0.81 \pm 1.24)E-02$	$(2.83 \pm 1.34)E-02$	$(-1.46 \pm 1.48)E-02$
On Site (Edible)				
L-Lake				
Bass	3	$(2.19 \pm 0.09)E-02$	$(2.36 \pm 2.18)E-02$	$(2.05 \pm 1.80)E-02$
Bream	3	$(1.43 \pm 0.50)E-02$	$(1.96 \pm 1.59)E-02$	$(0.43 \pm 1.89)E-02$
L3R-2 Patterson Mill Road				
Bass	3	$(0.61 \pm 7.02)E-03$	$(1.46 \pm 1.90)E-02$	$(-0.74 \pm 1.87)E-02$
Bream	3	$(-0.19 \pm 2.30)E-02$	$(4.28 \pm 2.08)E-02$	$(-3.36 \pm 1.96)E-02$
PAR Pond				
Bass	3	$(1.28 \pm 1.05)E-02$	$(3.38 \pm 1.89)E-02$	$(0.21 \pm 1.97)E-02$
Bream	3	$(1.81 \pm 8.90)E-03$	$(1.14 \pm 1.98)E-02$	$(-1.60 \pm 1.78)E-02$
Pond B				
Bass	3	$(1.22 \pm 1.91)E-02$	$(4.36 \pm 1.89)E-02$	$(-2.22 \pm 2.14)E-02$
Bream	3	$(3.70 \pm 1.82)E-03$	$(0.69 \pm 1.95)E-02$	$(0.05 \pm 1.84)E-02$
Cs-137, pCi/g				
Off Site (Edible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(1.31 \pm 0.21)E-02$	$(1.57 \pm 1.26)E-02$	$(0.90 \pm 1.31)E-02$
Bream	3	$(2.06 \pm 0.52)E-02$	$(2.89 \pm 1.27)E-02$	$(1.11 \pm 1.25)E-02$
Catfish	3	$(5.01 \pm 1.32)E-02$	$(7.60 \pm 2.05)E-02$	$(3.29 \pm 1.64)E-02$
Shad	3	$(4.05 \pm 1.12)E-02$	$(5.94 \pm 2.07)E-02$	$(2.07 \pm 1.24)E-02$
Beaver Dam Creek River Mouth				
Bass	3	$(1.79 \pm 0.66)E-01$	$(2.49 \pm 0.27)E-01$	$(4.73 \pm 1.94)E-02$
Bream	3	$(3.38 \pm 0.38)E-02$	$(3.89 \pm 1.39)E-02$	$(2.64 \pm 1.60)E-02$
Catfish	3	$(6.84 \pm 0.95)E-02$	$(8.31 \pm 2.47)E-02$	$(5.07 \pm 2.43)E-02$

Table 25
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 5 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Four Mile Creek River Mouth				
Bass	3	$(2.01 \pm 0.48)E-01$	$(2.96 \pm 0.30)E-01$	$(1.51 \pm 0.23)E-01$
Bream	3	$(3.02 \pm 2.14)E-02$	$(6.98 \pm 1.43)E-02$	$(-0.34 \pm 1.47)E-02$
Catfish	3	$(9.23 \pm 3.68)E-02$	$(1.66 \pm 0.23)E-01$	$(5.33 \pm 2.36)E-02$
Shad	3	$(1.95 \pm 0.70)E-01$	$(2.90 \pm 0.36)E-01$	$(5.84 \pm 1.99)E-02$
Hwy-17 Bridge Area				
Bass	3	$(6.94 \pm 1.75)E-02$	$(9.35 \pm 2.78)E-02$	$(3.54 \pm 2.03)E-02$
Bream	3	$(2.00 \pm 1.14)E-02$	$(3.97 \pm 2.02)E-02$	$(0.02 \pm 1.57)E-02$
Catfish	3	$(4.50 \pm 0.45)E-02$	$(5.04 \pm 2.89)E-02$	$(3.62 \pm 1.94)E-02$
Hwy-301 Bridge Area				
Bass	3	$(3.20 \pm 2.17)E-01$	$(7.54 \pm 0.41)E-01$	$(9.16 \pm 1.05)E-02$
Bream	3	$(3.65 \pm 0.33)E-02$	$(4.27 \pm 0.80)E-02$	$(3.15 \pm 0.72)E-02$
Catfish	3	$(5.19 \pm 0.27)E-02$	$(5.72 \pm 0.81)E-02$	$(4.80 \pm 0.94)E-02$
Shad	3	$(4.21 \pm 0.41)E-02$	$(4.96 \pm 0.65)E-02$	$(3.54 \pm 0.77)E-02$
L3R Creek River Mouth				
Bass	3	$(8.15 \pm 1.22)E-02$	$(1.05 \pm 0.20)E-01$	$(6.46 \pm 2.27)E-02$
Bream	3	$(3.16 \pm 0.28)E-02$	$(3.66 \pm 2.02)E-02$	$(2.68 \pm 1.40)E-02$
Catfish	3	$(1.17 \pm 0.30)E-01$	$(1.61 \pm 0.26)E-01$	$(6.05 \pm 2.46)E-02$
Steel Creek River Mouth				
Bass	3	$(5.98 \pm 1.90)E-01$	$(9.20 \pm 0.65)E-01$	$(2.62 \pm 0.28)E-01$
Bream	3	$(6.07 \pm 1.22)E-02$	$(8.51 \pm 2.50)E-02$	$(4.68 \pm 2.36)E-02$
Catfish	3	$(1.03 \pm 0.08)E-01$	$(1.19 \pm 0.25)E-01$	$(9.33 \pm 2.23)E-02$
Shad	3	$(9.56 \pm 1.67)E-02$	$(1.26 \pm 0.26)E-01$	$(6.81 \pm 1.98)E-02$
Stokes Bluff Landing				
Bass	3	$(8.65 \pm 4.28)E-02$	$(1.36 \pm 0.26)E-01$	$(0.12 \pm 1.84)E-02$
Bream	3	$(3.32 \pm 1.13)E-02$	$(5.34 \pm 2.05)E-02$	$(1.44 \pm 2.13)E-02$
Catfish	3	$(5.78 \pm 2.63)E-02$	$(9.79 \pm 3.48)E-02$	$(0.82 \pm 2.16)E-02$
U3R Creek River Mouth				
Bass	3	$(6.03 \pm 1.58)E-02$	$(9.00 \pm 1.74)E-02$	$(3.62 \pm 1.66)E-02$
Bream	3	$(4.67 \pm 1.96)E-02$	$(7.94 \pm 2.51)E-02$	$(1.15 \pm 1.33)E-02$
Catfish	3	$(3.15 \pm 0.69)E-02$	$(4.22 \pm 1.74)E-02$	$(1.86 \pm 1.49)E-02$

Table 25
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 6 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Off Site (Nonedible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	(1.64 $\pm$ 1.72)E-02	(4.74 $\pm$ 1.90)E-02	(-1.19 $\pm$ 1.35)E-02
Bream	3	(1.22 $\pm$ 1.19)E-02	(3.15 $\pm$ 1.82)E-02	(-0.96 $\pm$ 1.23)E-02
Catfish	3	(3.92 $\pm$ 0.55)E-02	(4.81 $\pm$ 1.37)E-02	(2.93 $\pm$ 1.22)E-02
Shad	3	(3.13 $\pm$ 0.66)E-02	(4.14 $\pm$ 2.24)E-02	(1.88 $\pm$ 1.33)E-02
Beaver Dam Creek River Mouth				
Bass	3	(1.00 $\pm$ 0.11)E-01	(1.21 $\pm$ 0.19)E-01	(8.20 $\pm$ 1.84)E-02
Bream	3	(3.56 $\pm$ 1.02)E-02	(5.46 $\pm$ 1.39)E-02	(1.96 $\pm$ 1.28)E-02
Catfish	3	(4.37 $\pm$ 1.50)E-02	(7.33 $\pm$ 1.75)E-02	(2.43 $\pm$ 1.44)E-02
Four Mile Creek River Mouth				
Bass	3	(1.30 $\pm$ 0.16)E-01	(1.46 $\pm$ 0.27)E-01	(9.85 $\pm$ 2.45)E-02
Bream	3	(3.96 $\pm$ 2.20)E-02	(7.18 $\pm$ 1.95)E-02	(-0.23 $\pm$ 1.36)E-02
Catfish	3	(5.19 $\pm$ 1.35)E-02	(7.38 $\pm$ 1.46)E-02	(2.73 $\pm$ 1.45)E-02
Shad	3	(7.72 $\pm$ 1.41)E-02	(1.04 $\pm$ 0.18)E-01	(5.72 $\pm$ 2.16)E-02
Hwy-301 Bridge Area				
Bass	3	(1.29 $\pm$ 0.05)E-01	(1.39 $\pm$ 0.14)E-01	(1.22 $\pm$ 0.11)E-01
Bream	3	(1.94 $\pm$ 0.14)E-02	(2.12 $\pm$ 0.82)E-02	(1.66 $\pm$ 0.65)E-02
Catfish	3	(3.05 $\pm$ 0.18)E-02	(3.24 $\pm$ 0.79)E-02	(2.70 $\pm$ 0.77)E-02
Shad	3	(2.82 $\pm$ 0.66)E-02	(4.09 $\pm$ 0.72)E-02	(1.85 $\pm$ 0.61)E-02
L3R Creek River Mouth				
Bass	3	(4.59 $\pm$ 0.76)E-02	(6.06 $\pm$ 2.01)E-02	(3.55 $\pm$ 1.90)E-02
Bream	3	(1.17 $\pm$ 0.73)E-02	(2.61 $\pm$ 1.43)E-02	(0.24 $\pm$ 1.37)E-02
Catfish	3	(6.36 $\pm$ 0.68)E-02	(7.27 $\pm$ 1.85)E-02	(5.02 $\pm$ 2.04)E-02
Steel Creek River Mouth				
Bass	3	(6.48 $\pm$ 0.42)E-01	(7.11 $\pm$ 0.51)E-01	(5.69 $\pm$ 0.47)E-01
Bream	3	(2.82 $\pm$ 0.09)E-02	(2.93 $\pm$ 1.39)E-02	(2.64 $\pm$ 1.42)E-02
Catfish	3	(5.53 $\pm$ 0.21)E-02	(5.93 $\pm$ 2.17)E-02	(5.24 $\pm$ 2.20)E-02
Shad	3	(5.33 $\pm$ 0.74)E-02	(6.35 $\pm$ 2.82)E-02	(3.90 $\pm$ 2.09)E-02
U3R Creek River Mouth				
Bass	3	(1.46 $\pm$ 0.42)E-02	(2.29 $\pm$ 1.40)E-02	(0.88 $\pm$ 1.35)E-02
Bream	3	(3.08 $\pm$ 2.47)E-02	(8.01 $\pm$ 1.95)E-02	(0.53 $\pm$ 1.49)E-02
Catfish	3	(3.66 $\pm$ 2.04)E-02	(7.66 $\pm$ 1.96)E-02	(0.97 $\pm$ 1.44)E-02

Table 25
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 7 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
On Site (Edible)				
L-Lake				
Bass	3	$(6.44 \pm 0.17)E-01$	$(6.60 \pm 0.59)E-01$	$(6.10 \pm 0.64)E-01$
Bream	3	$(2.80 \pm 0.16)E-01$	$(2.97 \pm 0.41)E-01$	$(2.48 \pm 0.42)E-01$
L3R-2 Patterson Mill Road				
Bass	3	$(5.65 \pm 0.26)E+00$	$(6.15 \pm 0.34)E+00$	$(5.27 \pm 0.29)E+00$
Bream	3	$(2.78 \pm 0.18)E+00$	$(3.07 \pm 0.18)E+00$	$(2.46 \pm 0.15)E+00$
PAR Pond				
Bass	3	$(9.96 \pm 0.21)E+00$	$(1.03 \pm 0.05)E+01$	$(9.60 \pm 0.51)E+00$
Bream	3	$(2.64 \pm 0.13)E+00$	$(2.88 \pm 0.18)E+00$	$(2.43 \pm 0.15)E+00$
Pond B				
Bass	3	$(6.67 \pm 0.04)E+01$	$(6.73 \pm 0.34)E+01$	$(6.61 \pm 0.34)E+01$
Bream	3	$(2.85 \pm 0.06)E+01$	$(2.97 \pm 0.15)E+01$	$(2.78 \pm 0.14)E+01$
Sr-89,90, pCi/g				
Off Site (Edible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(8.24 \pm 6.66)E-03$	$(1.83 \pm 0.52)E-02$	$(-4.36 \pm 5.21)E-03$
Bream	3	$(1.72 \pm 0.83)E-02$	$(3.37 \pm 1.29)E-02$	$(7.05 \pm 9.50)E-03$
Catfish	3	$(9.96 \pm 2.83)E-03$	$(1.43 \pm 0.49)E-02$	$(4.63 \pm 4.42)E-03$
Shad	3	$(5.56 \pm 3.07)E-03$	$(1.10 \pm 0.48)E-02$	$(0.38 \pm 4.10)E-03$
Beaver Dam Creek River Mouth				
Bass	3	$(5.13 \pm 2.55)E-03$	$(8.88 \pm 3.87)E-03$	$(0.25 \pm 4.49)E-03$
Bream	3	$(1.78 \pm 0.83)E-02$	$(3.43 \pm 1.02)E-02$	$(8.60 \pm 3.92)E-03$
Catfish	3	$(3.89 \pm 1.22)E-03$	$(6.07 \pm 3.71)E-03$	$(1.86 \pm 3.46)E-03$
Four Mile Creek River Mouth				
Bass	3	$(1.28 \pm 0.08)E-02$	$(1.43 \pm 0.42)E-02$	$(1.15 \pm 0.28)E-02$
Bream	3	$(2.01 \pm 0.63)E-02$	$(2.96 \pm 1.00)E-02$	$(8.27 \pm 8.84)E-03$
Catfish	3	$(3.52 \pm 1.27)E-03$	$(4.85 \pm 2.58)E-03$	$(0.99 \pm 1.85)E-03$
Shad	3	$(1.61 \pm 0.50)E-02$	$(2.44 \pm 0.54)E-02$	$(7.26 \pm 2.15)E-03$
Hwy-301 Bridge Area				
Bass	3	$(6.66 \pm 1.70)E-03$	$(8.80 \pm 2.63)E-03$	$(3.31 \pm 4.02)E-03$
Bream	3	$(1.11 \pm 0.65)E-02$	$(2.06 \pm 0.92)E-02$	$(-0.12 \pm 1.09)E-02$
Catfish	3	$(8.16 \pm 2.78)E-03$	$(1.20 \pm 0.39)E-02$	$(2.76 \pm 3.35)E-03$
Shad	3	$(8.27 \pm 3.93)E-03$	$(1.61 \pm 0.54)E-02$	$(3.61 \pm 4.74)E-03$

Table 25
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 8 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
L3R Creek River Mouth				
Bass	3	$(3.80 \pm 0.43)E-03$	$(4.66 \pm 1.95)E-03$	$(3.27 \pm 1.92)E-03$
Bream	3	$(3.61 \pm 0.70)E-02$	$(4.66 \pm 1.07)E-02$	$(2.28 \pm 0.95)E-02$
Catfish	3	$(8.30 \pm 7.47)E-04$	$(2.31 \pm 1.87)E-03$	$(-0.06 \pm 1.80)E-03$
Steel Creek River Mouth				
Bass	3	$(1.47 \pm 0.32)E-02$	$(2.08 \pm 0.53)E-02$	$(1.04 \pm 0.33)E-02$
Bream	3	$(1.60 \pm 0.45)E-02$	$(2.39 \pm 0.78)E-02$	$(8.53 \pm 8.76)E-03$
Catfish	3	$(3.17 \pm 1.48)E-03$	$(6.13 \pm 3.17)E-03$	$(1.59 \pm 4.22)E-03$
Shad	3	$(9.84 \pm 1.56)E-03$	$(1.29 \pm 0.48)E-02$	$(7.67 \pm 3.06)E-03$
U3R Creek River Mouth				
Bass	3	$(6.82 \pm 0.03)E-03$	$(6.85 \pm 1.50)E-03$	$(6.77 \pm 3.61)E-03$
Bream	3	$(7.71 \pm 3.28)E-03$	$(1.11 \pm 0.71)E-02$	$(1.15 \pm 6.48)E-03$
Catfish	3	$(-1.11 \pm 1.43)E-03$	$(1.74 \pm 4.15)E-03$	$(-2.62 \pm 2.57)E-03$
Off Site (Nonedible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(1.68 \pm 0.68)E-01$	$(3.04 \pm 0.52)E-01$	$(8.65 \pm 1.28)E-02$
Bream	3	$(2.70 \pm 0.29)E-01$	$(3.11 \pm 0.52)E-01$	$(2.14 \pm 0.48)E-01$
Catfish	3	$(1.86 \pm 0.10)E-01$	$(2.01 \pm 0.47)E-01$	$(1.66 \pm 0.45)E-01$
Shad	3	$(1.33 \pm 0.10)E-01$	$(1.52 \pm 0.31)E-01$	$(1.22 \pm 0.19)E-01$
Beaver Dam Creek River Mouth				
Bass	3	$(1.92 \pm 0.20)E-01$	$(2.29 \pm 0.33)E-01$	$(1.59 \pm 0.42)E-01$
Bream	3	$(3.57 \pm 0.58)E-01$	$(4.51 \pm 0.56)E-01$	$(2.51 \pm 0.47)E-01$
Catfish	3	$(1.99 \pm 0.67)E-01$	$(3.26 \pm 0.51)E-01$	$(9.93 \pm 3.67)E-02$
Four Mile Creek River Mouth				
Bass	3	$(7.85 \pm 1.96)E-02$	$(1.11 \pm 0.20)E-01$	$(4.36 \pm 1.97)E-02$
Bream	3	$(2.33 \pm 0.81)E-01$	$(3.47 \pm 0.54)E-01$	$(7.75 \pm 1.75)E-02$
Catfish	3	$(2.36 \pm 0.22)E-01$	$(2.80 \pm 0.38)E-01$	$(2.13 \pm 0.32)E-01$
Shad	3	$(1.58 \pm 0.55)E-01$	$(2.56 \pm 0.34)E-01$	$(6.54 \pm 2.32)E-02$
Hwy-301 Bridge Area				
Bass	3	$(2.45 \pm 0.47)E-01$	$(3.30 \pm 0.51)E-01$	$(1.69 \pm 0.43)E-01$
Bream	3	$(3.26 \pm 0.38)E-01$	$(4.02 \pm 0.54)E-01$	$(2.88 \pm 0.49)E-01$
Catfish	3	$(2.53 \pm 0.46)E-01$	$(3.45 \pm 0.40)E-01$	$(2.02 \pm 0.33)E-01$
Shad	3	$(6.68 \pm 2.05)E-02$	$(1.01 \pm 0.42)E-01$	$(2.98 \pm 3.77)E-02$

Table 25
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 9 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
L3R Creek River Mouth				
Bass	3	$(1.94 \pm 0.41)E-01$	$(2.45 \pm 0.35)E-01$	$(1.13 \pm 0.28)E-01$
Bream	3	$(2.19 \pm 0.63)E-01$	$(3.09 \pm 0.50)E-01$	$(9.90 \pm 3.67)E-02$
Catfish	3	$(1.17 \pm 0.63)E-01$	$(2.41 \pm 0.47)E-01$	$(3.96 \pm 1.98)E-02$
Steel Creek River Mouth				
Bass	3	$(2.34 \pm 0.47)E-01$	$(2.94 \pm 0.50)E-01$	$(1.42 \pm 0.43)E-01$
Bream	3	$(1.86 \pm 0.36)E-01$	$(2.45 \pm 0.48)E-01$	$(1.20 \pm 0.42)E-01$
Catfish	3	$(2.51 \pm 0.49)E-01$	$(3.50 \pm 0.52)E-01$	$(2.01 \pm 0.45)E-01$
Shad	3	$(1.36 \pm 0.57)E-01$	$(2.49 \pm 0.33)E-01$	$(6.98 \pm 2.33)E-02$
U3R Creek River Mouth				
Bass	3	$(2.88 \pm 0.46)E-01$	$(3.67 \pm 0.55)E-01$	$(2.09 \pm 0.31)E-01$
Bream	3	$(2.60 \pm 0.21)E-01$	$(3.00 \pm 0.49)E-01$	$(2.27 \pm 0.46)E-01$
Catfish	3	$(1.16 \pm 0.33)E-01$	$(1.74 \pm 0.46)E-01$	$(6.02 \pm 1.57)E-02$
Pu-238, pCi/g				
Off Site (Edible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(1.41 \pm 0.94)E-05$	$(3.07 \pm 2.51)E-05$	$(-0.19 \pm 4.72)E-05$
Bream	3	$(-2.40 \pm 5.75)E-05$	$(4.00 \pm 7.29)E-05$	$(-1.39 \pm 0.42)E-04$
Catfish	3	$(-1.55 \pm 0.72)E-05$	$(-0.44 \pm 1.71)E-05$	$(-2.91 \pm 1.32)E-05$
Shad	3	$(7.95 \pm 1.28)E-06$	$(0.98 \pm 1.57)E-05$	$(0.55 \pm 1.90)E-05$
Beaver Dam Creek River Mouth				
Bass	3	$(-3.52 \pm 0.90)E-05$	$(-1.72 \pm 5.05)E-05$	$(-0.45 \pm 1.71)E-04$
Bream	3	$(2.93 \pm 3.99)E-05$	$(1.09 \pm 1.20)E-04$	$(-1.46 \pm 4.56)E-05$
Catfish	3	$(1.44 \pm 1.06)E-05$	$(0.32 \pm 1.71)E-04$	$(-0.05 \pm 1.07)E-04$
Four Mile Creek River Mouth				
Bass	3	$(-0.21 \pm 1.16)E-05$	$(2.10 \pm 3.30)E-05$	$(-0.15 \pm 1.17)E-04$
Bream	3	$(2.59 \pm 2.11)E-05$	$(4.73 \pm 3.71)E-05$	$(-1.62 \pm 2.79)E-05$
Catfish	3	$(1.98 \pm 1.51)E-05$	$(4.56 \pm 4.33)E-05$	$(-0.68 \pm 7.61)E-05$
Shad	3	$(3.61 \pm 3.53)E-05$	$(1.07 \pm 0.99)E-04$	$(-0.01 \pm 2.08)E-04$
Hwy-301 Bridge Area				
Bass	3	$(-0.45 \pm 1.21)E-05$	$(1.56 \pm 2.10)E-05$	$(-2.63 \pm 1.04)E-05$
Bream	3	$(-1.63 \pm 0.25)E-05$	$(-1.26 \pm 2.85)E-05$	$(-2.10 \pm 4.51)E-05$
Catfish	3	$(-1.66 \pm 0.65)E-05$	$(-0.40 \pm 6.70)E-05$	$(-2.59 \pm 8.65)E-05$
Shad	3	$(5.35 \pm 3.01)E-05$	$(0.97 \pm 1.44)E-04$	$(-0.44 \pm 6.08)E-05$

Table 25
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 10 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
L3R Creek River Mouth				
Bass	3	$(-0.71 \pm 1.18)E-04$	$(5.10 \pm 4.15)E-05$	$(-3.07 \pm 1.69)E-04$
Bream	3	$(3.22 \pm 2.95)E-05$	$(7.64 \pm 6.00)E-05$	$(-2.38 \pm 4.10)E-05$
Catfish	3	$(-0.96 \pm 2.74)E-05$	$(0.36 \pm 3.29)E-04$	$(-0.59 \pm 1.81)E-04$
Steel Creek River Mouth				
Bass	3	$(0.26 \pm 8.50)E-06$	$(1.72 \pm 2.77)E-05$	$(-9.19 \pm 6.71)E-06$
Bream	3	$(-0.24 \pm 1.94)E-05$	$(3.04 \pm 2.68)E-05$	$(-3.68 \pm 1.66)E-05$
Catfish	3	$(-2.32 \pm 0.70)E-05$	$(-1.38 \pm 1.48)E-05$	$(-3.67 \pm 1.67)E-05$
Shad	3	$(-1.16 \pm 0.38)E-04$	$(-7.66 \pm 3.88)E-05$	$(-1.92 \pm 0.96)E-04$
U3R Creek River Mouth				
Bass	3	$(-1.68 \pm 0.60)E-05$	$(-4.88 \pm 5.09)E-06$	$(-2.37 \pm 7.30)E-05$
Bream	3	$(-0.41 \pm 2.95)E-05$	$(4.54 \pm 4.02)E-05$	$(-0.57 \pm 1.61)E-04$
Catfish	3	$(-6.01 \pm 7.34)E-05$	$(4.62 \pm 6.95)E-05$	$(-2.01 \pm 1.10)E-04$
Pu-239, pCi/g				
Off Site (Edible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(-2.57 \pm 3.55)E-05$	$(1.56 \pm 1.21)E-05$	$(-9.63 \pm 2.44)E-05$
Bream	3	$(-1.20 \pm 0.16)E-04$	$(-8.82 \pm 2.62)E-05$	$(-1.39 \pm 0.44)E-04$
Catfish	3	$(-7.78 \pm 3.63)E-06$	$(-0.06 \pm 1.83)E-05$	$(-1.23 \pm 2.11)E-05$
Shad	3	$(1.16 \pm 0.82)E-05$	$(2.54 \pm 2.31)E-05$	$(-0.31 \pm 1.19)E-05$
Beaver Dam Creek River Mouth				
Bass	3	$(-1.36 \pm 2.53)E-05$	$(0.31 \pm 2.35)E-04$	$(-5.70 \pm 4.24)E-05$
Bream	3	$(-8.14 \pm 6.37)E-05$	$(0.98 \pm 6.02)E-05$	$(-2.04 \pm 0.68)E-04$
Catfish	3	$(0.62 \pm 1.41)E-05$	$(0.22 \pm 1.41)E-04$	$(-2.19 \pm 9.91)E-05$
Four Mile Creek River Mouth				
Bass	3	$(-0.85 \pm 1.35)E-05$	$(0.19 \pm 2.17)E-04$	$(-2.43 \pm 1.89)E-05$
Bream	3	$(-1.10 \pm 1.01)E-05$	$(-0.08 \pm 2.35)E-05$	$(-3.13 \pm 2.98)E-05$
Catfish	3	$(-1.50 \pm 1.65)E-05$	$(0.15 \pm 1.67)E-04$	$(-4.22 \pm 2.74)E-05$
Shad	3	$(-2.58 \pm 6.12)E-06$	$(0.82 \pm 7.34)E-05$	$(-0.13 \pm 1.53)E-04$
Hwy-301 Bridge Area				
Bass	3	$(0.18 \pm 1.08)E-05$	$(2.14 \pm 3.05)E-05$	$(-1.58 \pm 8.32)E-05$
Bream	3	$(-4.57 \pm 1.88)E-05$	$(-1.34 \pm 0.87)E-05$	$(-7.87 \pm 3.57)E-05$
Catfish	3	$(-4.35 \pm 1.03)E-05$	$(-2.36 \pm 7.04)E-05$	$(-5.80 \pm 7.95)E-05$
Shad	3	$(-1.25 \pm 0.64)E-04$	$(-4.12 \pm 2.42)E-05$	$(-2.50 \pm 0.93)E-04$

Table 25
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 11 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
L3R Creek River Mouth				
Bass	3	$(-1.09 \pm 1.11)E-04$	$(4.36 \pm 4.67)E-05$	$(-3.25 \pm 2.11)E-04$
Bream	3	$(-4.32 \pm 1.98)E-05$	$(-0.42 \pm 2.92)E-05$	$(-6.85 \pm 4.41)E-05$
Catfish	3	$(-1.86 \pm 2.18)E-05$	$(0.22 \pm 2.09)E-04$	$(-0.53 \pm 1.52)E-04$
Steel Creek River Mouth				
Bass	3	$(-1.40 \pm 0.28)E-05$	$(-1.02 \pm 0.60)E-05$	$(-1.94 \pm 2.35)E-05$
Bream	3	$(0.70 \pm 4.24)E-06$	$(0.56 \pm 2.04)E-05$	$(-0.78 \pm 2.43)E-05$
Catfish	3	$(1.91 \pm 9.93)E-06$	$(1.68 \pm 3.80)E-05$	$(-1.69 \pm 0.96)E-05$
Shad	3	$(-9.32 \pm 3.07)E-05$	$(-5.94 \pm 7.22)E-05$	$(-1.54 \pm 1.35)E-04$
U3R Creek River Mouth				
Bass	3	$(-3.57 \pm 2.25)E-05$	$(2.26 \pm 9.26)E-06$	$(-7.58 \pm 7.89)E-05$
Bream	3	$(-5.90 \pm 3.25)E-05$	$(-0.93 \pm 2.90)E-05$	$(-1.20 \pm 1.31)E-04$
Catfish	3	$(1.73 \pm 2.11)E-05$	$(5.70 \pm 8.04)E-05$	$(-1.50 \pm 4.07)E-05$
Gross Alpha, pCi/g				
Off Site (Edible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(-9.14 \pm 9.21)E-02$	$(0.55 \pm 1.57)E-01$	$(-2.61 \pm 1.14)E-01$
Bream	3	$(-0.92 \pm 1.18)E-01$	$(1.36 \pm 1.69)E-01$	$(-2.61 \pm 1.14)E-01$
Catfish	3	$(-4.02 \pm 7.87)E-02$	$(1.08 \pm 1.76)E-01$	$(-1.61 \pm 1.33)E-01$
Shad	3	$(-9.23 \pm 2.39)E-02$	$(-0.59 \pm 1.38)E-01$	$(-1.39 \pm 1.16)E-01$
Beaver Dam Creek River Mouth				
Bass	3	$(-0.56 \pm 4.19)E-02$	$(0.72 \pm 1.85)E-01$	$(-0.72 \pm 1.54)E-01$
Bream	3	$(0.19 \pm 4.76)E-02$	$(0.94 \pm 2.34)E-01$	$(-0.65 \pm 1.62)E-01$
Catfish	3	$(0.80 \pm 1.48)E-01$	$(3.75 \pm 2.26)E-01$	$(-0.85 \pm 1.03)E-01$
Four Mile Creek River Mouth				
Bass	3	$(-5.58 \pm 3.12)E-02$	$(0.07 \pm 1.50)E-01$	$(-0.88 \pm 1.31)E-01$
Bream	3	$(-0.18 \pm 4.35)E-02$	$(0.66 \pm 1.64)E-01$	$(-0.83 \pm 1.40)E-01$
Catfish	3	$(-2.68 \pm 2.85)E-02$	$(0.30 \pm 1.88)E-01$	$(-0.57 \pm 1.49)E-01$
Shad	3	$(3.62 \pm 8.86)E-02$	$(2.13 \pm 2.53)E-01$	$(-0.56 \pm 2.03)E-01$
Hwy-17 Bridge Area				
Bass	3	$(-1.17 \pm 0.16)E-01$	$(-0.96 \pm 1.31)E-01$	$(-1.49 \pm 2.06)E-01$
Bream	3	$(-6.28 \pm 1.85)E-02$	$(-0.39 \pm 1.51)E-01$	$(-0.99 \pm 1.34)E-01$
Catfish	3	$(-6.87 \pm 5.80)E-02$	$(0.47 \pm 2.06)E-01$	$(-1.33 \pm 1.74)E-01$

Table 25
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 12 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Hwy-301 Bridge Area				
Bass	3	$(-7.63 \pm 8.26)E-02$	$(0.65 \pm 1.85)E-01$	$(-2.22 \pm 1.04)E-01$
Bream	3	$(-9.91 \pm 2.59)E-02$	$(-0.59 \pm 1.58)E-01$	$(-1.48 \pm 1.36)E-01$
Catfish	3	$(-1.25 \pm 0.28)E-01$	$(-0.76 \pm 1.27)E-01$	$(-1.72 \pm 1.35)E-01$
Shad	3	$(2.97 \pm 3.87)E-02$	$(1.07 \pm 1.24)E-01$	$(-0.10 \pm 1.49)E-01$
L3R Creek River Mouth				
Bass	3	$(-9.17 \pm 1.38)E-02$	$(-0.72 \pm 1.29)E-01$	$(-1.18 \pm 1.71)E-01$
Bream	3	$(-7.21 \pm 6.63)E-02$	$(-0.02 \pm 1.95)E-01$	$(-2.05 \pm 1.02)E-01$
Catfish	3	$(-6.15 \pm 5.48)E-02$	$(0.47 \pm 1.55)E-01$	$(-1.31 \pm 1.11)E-01$
Steel Creek River Mouth				
Bass	3	$(-1.27 \pm 4.02)E-02$	$(0.59 \pm 1.95)E-01$	$(-0.80 \pm 1.68)E-01$
Bream	3	$(-4.26 \pm 6.15)E-02$	$(0.26 \pm 1.95)E-01$	$(-1.65 \pm 1.50)E-01$
Catfish	3	$(-2.91 \pm 4.34)E-02$	$(0.56 \pm 1.86)E-01$	$(-0.87 \pm 1.52)E-01$
Shad	3	$(2.12 \pm 5.54)E-02$	$(1.32 \pm 2.38)E-01$	$(-0.37 \pm 2.03)E-01$
Stokes Bluff Landing				
Bass	3	$(-2.42 \pm 9.81)E-02$	$(1.08 \pm 2.24)E-01$	$(-2.16 \pm 1.58)E-01$
Bream	3	$(4.17 \pm 1.59)E-01$	$(7.34 \pm 4.48)E-01$	$(2.50 \pm 2.18)E-01$
Catfish	3	$(3.31 \pm 8.90)E-02$	$(1.40 \pm 1.90)E-01$	$(-1.43 \pm 1.25)E-01$
U3R Creek River Mouth				
Bass	3	$(-0.85 \pm 7.21)E-02$	$(0.78 \pm 1.96)E-01$	$(-1.52 \pm 1.22)E-01$
Bream	3	$(2.04 \pm 1.32)E-01$	$(4.47 \pm 2.34)E-01$	$(-0.08 \pm 1.45)E-01$
Catfish	3	$(-1.10 \pm 0.23)E-01$	$(-0.84 \pm 1.54)E-01$	$(-1.57 \pm 1.01)E-01$
Off Site (Nonedible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	$(-3.17 \pm 0.18)E-01$	$(-2.96 \pm 5.05)E-01$	$(-3.52 \pm 6.45)E-01$
Bream	3	$(1.10 \pm 3.98)E-01$	$(6.63 \pm 9.54)E-01$	$(-6.63 \pm 6.03)E-01$
Catfish	3	$(-3.23 \pm 0.75)E-01$	$(-2.24 \pm 4.33)E-01$	$(-4.69 \pm 4.21)E-01$
Shad	3	$(2.92 \pm 6.05)E-01$	$(1.50 \pm 1.02)E+00$	$(-3.71 \pm 4.25)E-01$
Beaver Dam Creek River Mouth				
Bass	3	$(-4.10 \pm 1.75)E-01$	$(-0.61 \pm 4.97)E-01$	$(-6.12 \pm 3.57)E-01$
Bream	3	$(2.97 \pm 2.57)E-01$	$(7.65 \pm 7.39)E-01$	$(-1.22 \pm 6.25)E-01$
Catfish	3	$(-2.21 \pm 4.46)E-01$	$(5.24 \pm 8.63)E-01$	$(-1.02 \pm 0.56)E+00$
Four Mile Creek River Mouth				
Bass	3	$(-8.65 \pm 2.19)E-01$	$(-4.37 \pm 4.79)E-01$	$(-1.16 \pm 0.61)E+00$

Table 25
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 13 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Bream	3	$(-3.98 \pm 2.97)E-01$	$(0.19 \pm 1.01)E+00$	$(-7.75 \pm 9.09)E-01$
Catfish	3	$(9.73 \pm 4.65)E-01$	$(1.66 \pm 1.12)E+00$	$(0.86 \pm 6.98)E-01$
Shad	3	$(-2.62 \pm 1.37)E-01$	$(-0.37 \pm 5.35)E-01$	$(-5.10 \pm 4.56)E-01$
Hwy-301 Bridge Area				
Bass	3	$(-1.53 \pm 9.73)E-02$	$(1.78 \pm 6.65)E-01$	$(-1.27 \pm 6.45)E-01$
Bream	3	$(-1.00 \pm 1.70)E-01$	$(2.09 \pm 6.25)E-01$	$(-3.77 \pm 4.89)E-01$
Catfish	3	$(-4.13 \pm 3.30)E-01$	$(2.44 \pm 6.49)E-01$	$(-7.95 \pm 4.17)E-01$
Shad	3	$(-4.34 \pm 1.06)E-01$	$(-2.44 \pm 4.86)E-01$	$(-6.09 \pm 3.54)E-01$
L3R Creek River Mouth				
Bass	3	$(-4.98 \pm 0.85)E-01$	$(-3.87 \pm 4.76)E-01$	$(-6.64 \pm 7.82)E-01$
Bream	3	$(-3.24 \pm 0.17)E-01$	$(-3.08 \pm 6.02)E-01$	$(-3.57 \pm 7.55)E-01$
Catfish	3	$(-2.54 \pm 3.62)E-01$	$(2.01 \pm 5.81)E-01$	$(-9.69 \pm 5.05)E-01$
Steel Creek River Mouth				
Bass	3	$(-5.48 \pm 1.52)E-01$	$(-3.02 \pm 5.77)E-01$	$(-8.25 \pm 4.04)E-01$
Bream	3	$(-6.25 \pm 3.87)E-01$	$(-0.83 \pm 8.87)E-01$	$(-1.37 \pm 0.72)E+00$
Catfish	3	$(-2.73 \pm 1.51)E-01$	$(-0.12 \pm 5.77)E-01$	$(-5.33 \pm 4.76)E-01$
Shad	3	$(2.79 \pm 2.64)E-01$	$(6.63 \pm 6.84)E-01$	$(-2.28 \pm 3.72)E-01$
U3R Creek River Mouth				
Bass	3	$(-5.16 \pm 1.48)E-01$	$(-2.21 \pm 6.31)E-01$	$(-6.64 \pm 3.91)E-01$
Bream	3	$(-4.29 \pm 0.40)E-01$	$(-3.55 \pm 6.27)E-01$	$(-4.93 \pm 4.56)E-01$
Catfish	3	$(-0.42 \pm 1.95)E-01$	$(3.47 \pm 5.59)E-01$	$(-2.44 \pm 4.65)E-01$
On Site (Edible)				
L-Lake				
Bass	3	$(7.91 \pm 4.90)E-02$	$(1.65 \pm 1.90)E-01$	$(-0.05 \pm 1.57)E-01$
Bream	3	$(0.85 \pm 1.12)E-01$	$(3.03 \pm 3.45)E-01$	$(-0.70 \pm 1.53)E-01$
L3R-2 Patterson Mill Road				
Bass	3	$(1.39 \pm 2.01)E-01$	$(5.39 \pm 2.82)E-01$	$(-1.00 \pm 1.75)E-01$
Bream	3	$(0.35 \pm 1.06)E-01$	$(1.69 \pm 2.01)E-01$	$(-1.74 \pm 1.72)E-01$
PAR Pond				
Bass	3	$(4.84 \pm 0.51)E-01$	$(5.51 \pm 2.98)E-01$	$(3.84 \pm 2.69)E-01$
Bream	3	$(-4.94 \pm 1.41)E-01$	$(-3.08 \pm 4.63)E-01$	$(-7.70 \pm 3.77)E-01$
Pond B				
Bass	3	$(1.73 \pm 0.42)E+00$	$(2.54 \pm 0.65)E+00$	$(1.13 \pm 0.28)E+00$
Bream	3	$(4.08 \pm 0.66)E-01$	$(5.36 \pm 3.11)E-01$	$(3.16 \pm 2.92)E-01$

Table 25
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 14 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Gross Beta, pCi/g				
Off Site (Edible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	(2.39 $\pm$ 0.31)E+00	(2.99 $\pm$ 0.43)E+00	(1.98 $\pm$ 0.35)E+00
Bream	3	(2.27 $\pm$ 0.29)E+00	(2.61 $\pm$ 0.41)E+00	(1.69 $\pm$ 0.32)E+00
Catfish	3	(2.45 $\pm$ 0.27)E+00	(2.93 $\pm$ 0.37)E+00	(2.00 $\pm$ 0.34)E+00
Shad	3	(1.96 $\pm$ 0.21)E+00	(2.19 $\pm$ 0.35)E+00	(1.54 $\pm$ 0.32)E+00
Beaver Dam Creek River Mouth				
Bass	3	(2.28 $\pm$ 0.27)E+00	(2.77 $\pm$ 0.41)E+00	(1.85 $\pm$ 0.37)E+00
Bream	3	(2.21 $\pm$ 0.43)E+00	(2.95 $\pm$ 0.43)E+00	(1.46 $\pm$ 0.35)E+00
Catfish	3	(1.42 $\pm$ 0.20)E+00	(1.77 $\pm$ 0.26)E+00	(1.09 $\pm$ 0.33)E+00
Four Mile Creek River Mouth				
Bass	3	(2.34 $\pm$ 0.32)E+00	(2.66 $\pm$ 0.36)E+00	(1.69 $\pm$ 0.32)E+00
Bream	3	(1.96 $\pm$ 0.21)E+00	(2.35 $\pm$ 0.35)E+00	(1.64 $\pm$ 0.36)E+00
Catfish	3	(1.44 $\pm$ 0.06)E+00	(1.55 $\pm$ 0.35)E+00	(1.33 $\pm$ 0.38)E+00
Shad	3	(2.07 $\pm$ 0.17)E+00	(2.33 $\pm$ 0.43)E+00	(1.75 $\pm$ 0.40)E+00
Hwy-17 Bridge Area				
Bass	3	(2.05 $\pm$ 0.17)E+00	(2.28 $\pm$ 0.30)E+00	(1.72 $\pm$ 0.34)E+00
Bream	3	(1.79 $\pm$ 0.21)E+00	(2.20 $\pm$ 0.32)E+00	(1.51 $\pm$ 0.30)E+00
Catfish	3	(1.93 $\pm$ 0.24)E+00	(2.36 $\pm$ 0.42)E+00	(1.53 $\pm$ 0.38)E+00
Hwy-301 Bridge Area				
Bass	3	(2.01 $\pm$ 0.29)E+00	(2.58 $\pm$ 0.40)E+00	(1.61 $\pm$ 0.36)E+00
Bream	3	(1.63 $\pm$ 0.17)E+00	(1.83 $\pm$ 0.39)E+00	(1.29 $\pm$ 0.34)E+00
Catfish	3	(2.37 $\pm$ 0.28)E+00	(2.80 $\pm$ 0.41)E+00	(1.85 $\pm$ 0.33)E+00
Shad	3	(2.12 $\pm$ 0.18)E+00	(2.46 $\pm$ 0.35)E+00	(1.84 $\pm$ 0.24)E+00
L3R Creek River Mouth				
Bass	3	(2.11 $\pm$ 0.21)E+00	(2.51 $\pm$ 0.36)E+00	(1.78 $\pm$ 0.39)E+00
Bream	3	(2.32 $\pm$ 0.05)E+00	(2.41 $\pm$ 0.41)E+00	(2.23 $\pm$ 0.39)E+00
Catfish	3	(2.47 $\pm$ 0.32)E+00	(3.08 $\pm$ 0.43)E+00	(2.00 $\pm$ 0.33)E+00
Steel Creek River Mouth				
Bass	3	(2.59 $\pm$ 0.20)E+00	(2.79 $\pm$ 0.42)E+00	(2.19 $\pm$ 0.40)E+00
Bream	3	(1.59 $\pm$ 0.20)E+00	(1.86 $\pm$ 0.38)E+00	(1.21 $\pm$ 0.34)E+00
Catfish	3	(3.16 $\pm$ 0.49)E+00	(4.09 $\pm$ 0.47)E+00	(2.41 $\pm$ 0.40)E+00
Shad	3	(1.54 $\pm$ 0.11)E+00	(1.69 $\pm$ 0.39)E+00	(1.34 $\pm$ 0.31)E+00

Table 25
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 15 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Stokes Bluff Landing				
Bass	3	(2.29 $\pm$ 0.07)E+00	(2.36 $\pm$ 0.43)E+00	(2.16 $\pm$ 0.42)E+00
Bream	3	(1.80 $\pm$ 0.22)E+00	(2.17 $\pm$ 0.38)E+00	(1.40 $\pm$ 0.33)E+00
Catfish	3	(2.20 $\pm$ 0.10)E+00	(2.34 $\pm$ 0.37)E+00	(2.00 $\pm$ 0.36)E+00
U3R Creek River Mouth				
Bass	3	(2.34 $\pm$ 0.22)E+00	(2.77 $\pm$ 0.37)E+00	(2.05 $\pm$ 0.38)E+00
Bream	3	(2.02 $\pm$ 0.38)E+00	(2.66 $\pm$ 0.37)E+00	(1.36 $\pm$ 0.31)E+00
Catfish	3	(2.91 $\pm$ 0.37)E+00	(3.64 $\pm$ 0.32)E+00	(2.43 $\pm$ 0.40)E+00
Off Site (Nonedible)				
New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)				
Bass	3	(2.18 $\pm$ 0.29)E+00	(2.75 $\pm$ 0.95)E+00	(1.85 $\pm$ 0.95)E+00
Bream	3	(1.24 $\pm$ 0.25)E+00	(1.68 $\pm$ 0.97)E+00	(8.16 $\pm$ 8.98)E-01
Catfish	3	(1.32 $\pm$ 0.09)E+00	(1.43 $\pm$ 0.87)E+00	(1.14 $\pm$ 0.64)E+00
Shad	3	(1.82 $\pm$ 0.35)E+00	(2.46 $\pm$ 1.12)E+00	(1.27 $\pm$ 0.90)E+00
Beaver Dam Creek River Mouth				
Bass	3	(1.35 $\pm$ 0.70)E+00	(2.39 $\pm$ 0.69)E+00	(0.25 $\pm$ 7.90)E-01
Bream	3	(8.67 $\pm$ 2.12)E-01	(1.27 $\pm$ 0.90)E+00	(5.61 $\pm$ 8.83)E-01
Catfish	3	(2.59 $\pm$ 0.12)E+00	(2.73 $\pm$ 1.04)E+00	(2.35 $\pm$ 1.02)E+00
Four Mile Creek River Mouth				
Bass	3	(2.34 $\pm$ 0.76)E+00	(3.54 $\pm$ 1.11)E+00	(9.41 $\pm$ 9.42)E-01
Bream	3	(2.34 $\pm$ 0.24)E+00	(2.66 $\pm$ 1.06)E+00	(1.88 $\pm$ 1.04)E+00
Catfish	3	(3.74 $\pm$ 0.48)E+00	(4.66 $\pm$ 1.11)E+00	(3.05 $\pm$ 1.07)E+00
Shad	3	(1.50 $\pm$ 0.30)E+00	(1.89 $\pm$ 0.90)E+00	(9.18 $\pm$ 8.53)E-01
Hwy-301 Bridge Area				
Bass	3	(1.31 $\pm$ 0.02)E+00	(1.33 $\pm$ 0.90)E+00	(1.27 $\pm$ 0.91)E+00
Bream	3	(7.93 $\pm$ 4.74)E-01	(1.70 $\pm$ 0.89)E+00	(1.12 $\pm$ 8.22)E-01
Catfish	3	(1.29 $\pm$ 0.28)E+00	(1.80 $\pm$ 0.92)E+00	(8.48 $\pm$ 8.87)E-01
Shad	3	(1.69 $\pm$ 0.41)E+00	(2.46 $\pm$ 0.69)E+00	(1.06 $\pm$ 0.89)E+00
L3R Creek River Mouth				
Bass	3	(1.36 $\pm$ 0.20)E+00	(1.66 $\pm$ 0.94)E+00	(9.96 $\pm$ 8.75)E-01
Bream	3	(1.38 $\pm$ 0.41)E+00	(2.09 $\pm$ 1.00)E+00	(0.68 $\pm$ 1.05)E+00
Catfish	3	(1.05 $\pm$ 0.41)E+00	(1.58 $\pm$ 0.94)E+00	(2.33 $\pm$ 8.38)E-01
Steel Creek River Mouth				
Bass	3	(1.91 $\pm$ 0.23)E+00	(2.36 $\pm$ 1.00)E+00	(1.65 $\pm$ 0.95)E+00

Table 25
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 16 of 16

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Bream	3	(2.29 $\pm$ 0.46)E+00	(2.80 $\pm$ 1.09)E+00	(1.37 $\pm$ 1.03)E+00
Catfish	3	(1.26 $\pm$ 0.21)E+00	(1.59 $\pm$ 0.95)E+00	(8.80 $\pm$ 9.04)E-01
Shad	3	(1.22 $\pm$ 0.29)E+00	(1.78 $\pm$ 0.91)E+00	(9.21 $\pm$ 6.08)E-01
U3R Creek River Mouth				
Bass	3	(2.21 $\pm$ 0.74)E+00	(3.65 $\pm$ 1.06)E+00	(1.22 $\pm$ 0.89)E+00
Bream	3	(2.00 $\pm$ 0.55)E+00	(2.60 $\pm$ 1.02)E+00	(9.01 $\pm$ 8.87)E-01
Catfish	3	(2.01 $\pm$ 0.39)E+00	(2.75 $\pm$ 0.93)E+00	(1.43 $\pm$ 0.90)E+00
On Site (Edible)				
L-Lake				
Bass	3	(1.94 $\pm$ 0.25)E+00	(2.34 $\pm$ 0.37)E+00	(1.48 $\pm$ 0.33)E+00
Bream	3	(1.84 $\pm$ 0.32)E+00	(2.39 $\pm$ 0.59)E+00	(1.30 $\pm$ 0.33)E+00
L3R-2 Patterson Mill Road				
Bass	3	(5.94 $\pm$ 0.31)E+00	(5.94 $\pm$ 0.54)E+00	(5.94 $\pm$ 0.54)E+00
Bream	3	(4.07 $\pm$ 0.67)E+00	(5.41 $\pm$ 0.52)E+00	(3.39 $\pm$ 0.39)E+00
PAR Pond				
Bass	3	(8.29 $\pm$ 0.22)E+00	(8.51 $\pm$ 0.58)E+00	(7.84 $\pm$ 0.55)E+00
Bream	3	(3.31 $\pm$ 0.56)E+00	(4.40 $\pm$ 1.07)E+00	(2.53 $\pm$ 0.98)E+00
Pond B				
Bass	3	(5.55 $\pm$ 0.66)E+01	(6.83 $\pm$ 0.17)E+01	(4.60 $\pm$ 0.08)E+01
Bream	3	(2.15 $\pm$ 0.05)E+01	(2.20 $\pm$ 0.08)E+01	(2.06 $\pm$ 0.08)E+01

Table 26
Radioactivity in Aquatic Food Products — Saltwater Fish

Page 1 of 1

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
<i>Note: 1. Only edible portions were analyzed. 2. Saltwater fish are collected downstream of the Highway 17 Bridge.</i>				
Co-60, pCi/g				
Marine Mullet	3	(5.45 $\pm$ 6.80)E-03	(1.88 $\pm$ 1.39)E-02	(-0.35 $\pm$ 1.75)E-02
Red Fish (drum)	3	(0.02 $\pm$ 1.69)E-02	(3.27 $\pm$ 1.54)E-02	(-2.43 $\pm$ 1.74)E-02
Sea Trout	1	(1.07 $\pm$ 1.52)E-02		
Cs-137, pCi/g				
Marine Mullet	3	(1.13 $\pm$ 0.64)E-02	(2.08 $\pm$ 1.23)E-02	(-0.10 $\pm$ 1.33)E-02
Red Fish (drum)	3	(1.38 $\pm$ 0.95)E-02	(3.11 $\pm$ 1.96)E-02	(-0.17 $\pm$ 1.33)E-02
Sea Trout	1	(-2.58 $\pm$ 1.30)E-02		
Gross Alpha, pCi/g				
Marine Mullet	3	(3.81 $\pm$ 9.35)E-02	(2.24 $\pm$ 2.21)E-01	(-0.73 $\pm$ 1.56)E-01
Red Fish (drum)	3	(-3.67 $\pm$ 9.15)E-02	(1.40 $\pm$ 2.05)E-01	(-1.66 $\pm$ 1.35)E-01
Sea Trout	1	(-2.06 $\pm$ 0.90)E-01		
Gross Beta, pCi/g				
Marine Mullet	3	(2.00 $\pm$ 0.22)E+00	(2.43 $\pm$ 0.40)E+00	(1.73 $\pm$ 0.39)E+00
Red Fish (drum)	3	(2.49 $\pm$ 0.06)E+00	(2.61 $\pm$ 0.41)E+00	(2.43 $\pm$ 0.40)E+00
Sea Trout	1	(1.93 $\pm$ 0.30)E+00		

Table 27

Radioactivity in Aquatic Food Products — Shellfish

Page 1 of 1

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Co-60, pCi/g				
Downstream of Highway 17 Bridge to Savannah River Mouth	2	$(0.57 \pm 1.43)E-02$	$(1.99 \pm 1.50)E-02$	$(-0.86 \pm 1.34)E-02$
Cs-137, pCi/g				
Downstream of Highway 17 Bridge to Savannah River Mouth	2	$(4.65 \pm 1.22)E-03$	$(0.59 \pm 1.30)E-02$	$(0.34 \pm 1.25)E-02$
Sr-89,90, pCi/g				
Downstream of Highway 17 Bridge to Savannah River Mouth	2	$(1.94 \pm 5.46)E-04$	$(0.74 \pm 3.26)E-03$	$(-0.35 \pm 3.21)E-03$
Gross Alpha, pCi/g				
Downstream of Highway 17 Bridge to Savannah River Mouth	2	$(2.26 \pm 0.01)E-01$	$(2.26 \pm 1.53)E-01$	$(2.25 \pm 1.98)E-01$
Gross Beta, pCi/g				
Downstream of Highway 17 Bridge to Savannah River Mouth	2	$(7.35 \pm 3.12)E-01$	$(1.05 \pm 0.26)E+00$	$(4.23 \pm 2.09)E-01$

Table 28
Radioactivity in Soil

Page 1 of 1

Location	pCi/g $\pm$ σ ; dry weight; 0-8 cm depth			
	Co-60	Cs-137	Sr-89,90	Pu-238
F-Area				Pu-239
2000 Feet West	(-1.41 $\pm$ 1.21)E-02	(1.93 $\pm$ 0.31)E-01	(3.63 $\pm$ 1.61)E-02	(3.26 $\pm$ 0.32)E-02
H-Area				
2000 Feet East	(0.42 $\pm$ 1.28)E-02	(3.30 $\pm$ 0.37)E-01	(4.82 $\pm$ 2.38)E-02	(4.60 $\pm$ 1.35)E-03
Z-Area				
#3	(0.44 $\pm$ 1.23)E-02	(1.16 $\pm$ 0.25)E-01	(2.88 $\pm$ 1.85)E-02	(1.47 $\pm$ 0.68)E-03
Burial Ground				
643-26E-2	(-0.24 $\pm$ 1.89)E-02	(0.10 $\pm$ 2.72)E-02	(-0.63 $\pm$ 1.77)E-02	(-0.96 $\pm$ 4.16)E-04
25-Mile Radius				
Highway 301 @ State Line	(-1.89 $\pm$ 2.44)E-02	(5.55 $\pm$ 0.58)E-01	(0.74 $\pm$ 1.83)E-02	(-0.25 $\pm$ 5.00)E-04
100-Mile Radius				
Savannah, Ga.	(2.19 $\pm$ 6.93)E-03	(1.63 $\pm$ 0.17)E-01	(-0.11 $\pm$ 2.03)E-02	(1.39 $\pm$ 0.62)E-03
				(4.20 $\pm$ 0.98)E-03

Table 29
Radioactivity in River and Stream Sediment

Page 1 of 4

Location		1997	1998	1999
Co-60, pCi/g (dry weight)				
Savannah River	River Mile			
Highway 301	118.7	(9.31 ± 2.94)E-02	(4.95 ± 1.26)E-02	(4.35 ± 1.79)E-02
Lower 3 Runs Mouth	129.0	(1.90 ± 1.41)E-02	(-1.34 ± 1.63)E-02	(3.59 ± 1.84)E-02
Below Little Hell Landing	134.0	(-0.28 ± 1.11)E-02	(1.38 ± 1.66)E-02	(0.14 ± 1.62)E-02
Below Four Mile Creek	150.0	(0.05 ± 6.60)E-03	(-0.94 ± 1.51)E-02	(-0.48 ± 1.95)E-02
R-3A above Vogtle	151.0	(-2.11 ± 2.32)E-02	(-1.43 ± 1.51)E-02	(2.56 ± 1.83)E-02
Beaver Dam Creek Mouth	152.1	(-0.79 ± 1.08)E-02	(-0.51 ± 1.78)E-02	(3.97 ± 2.17)E-02
Upper 3 Runs Mouth	157.2	(-1.09 ± 1.28)E-02	(-0.00 ± 4.31)E-02	(0.81 ± 2.64)E-02
Demier Landing	160.0	(-1.93 ± 1.12)E-02	(-0.88 ± 1.75)E-02	(2.17 ± 2.28)E-02
SRS Streams				
FM-2 at Road 4		(1.10 ± 0.62)E-02	(8.67 ± 1.13)E-02	(1.95 ± 1.01)E-02
FM-3A below F-Area effluent		(-1.26 ± 1.77)E-02	(0.84 ± 1.08)E-02	(0.68 ± 1.68)E-02
Four Mile A-7A (beaver pond)		(1.35 ± 0.13)E-01	(9.14 ± 1.72)E-02	(6.18 ± 0.36)E-01
Four Mile Creek Swamp discharge		(1.05 ± 0.09)E-01	(7.77 ± 0.90)E-02	(1.74 ± 1.18)E-02
Four Mile Creek at Road A-7		(5.66 ± 0.73)E-02	(-8.07 ± 9.78)E-03	(6.29 ± 1.53)E-02
L3R-1A at Road B		(0.86 ± 1.06)E-02	(-1.89 ± 0.96)E-02	(2.01 ± 1.70)E-02
Pen Branch Swamp discharge		(-4.69 ± 3.23)E-02	(5.85 ± 3.48)E-02	(5.85 ± 3.91)E-02
R-Area downstream of R-1		(1.65 ± 0.63)E-02	(1.55 ± 0.14)E-01	(5.14 ± 0.26)E-01
SC-2A 1 mile above Road B		(0.37 ± 1.16)E-02	(0.94 ± 1.02)E-02	(3.22 ± 0.69)E-02
SC-4 Steel Creek at Road A		(7.69 ± 0.92)E-02	(2.30 ± 0.19)E-01	(7.91 ± 1.28)E-02
TB-4A		(1.12 ± 0.71)E-02	(3.16 ± 1.37)E-02	a
TB-4B		(-1.39 ± 1.49)E-02	(0.15 ± 1.35)E-02	a
TB-5 near Road C		(0.45 ± 1.20)E-02	(4.38 ± 2.85)E-02	(-1.59 ± 1.81)E-02
Tinker Creek 1		(-1.14 ± 1.11)E-02	(-0.88 ± 1.02)E-02	(-2.19 ± 2.96)E-02
U3R-1A Treadway Bridge Road 8-1		(0.22 ± 1.55)E-02	(-0.09 ± 1.53)E-02	(-0.04 ± 2.48)E-02
Cs-137, pCi/g (dry weight)				
Savannah River	River Mile			
Highway 301	118.7	(5.13 ± 0.37)E-01	(3.63 ± 0.25)E-01	(8.57 ± 2.37)E-02
Lower 3 Runs Mouth	129.0	(1.24 ± 0.06)E+00	(1.85 ± 1.68)E-02	(1.17 ± 0.21)E-01
Below Little Hell Landing	134.0	(2.10 ± 1.17)E-02	(6.16 ± 2.20)E-02	(4.20 ± 1.51)E-02
Below Four Mile Creek	150.0	(-2.19 ± 8.79)E-03	(2.23 ± 1.43)E-02	(1.04 ± 1.94)E-02
R-3A above Vogtle	151.0	(1.82 ± 2.32)E-02	(1.18 ± 1.39)E-02	(2.77 ± 0.33)E-01
Beaver Dam Creek Mouth	152.1	(7.42 ± 1.70)E-02	(3.02 ± 2.09)E-02	(7.55 ± 3.03)E-02

a Sampling location discontinued in 1999

Table 29
Radioactivity in River and Stream Sediment

Page 2 of 4

Location		1997	1998	1999
Upper 3 Runs Mouth	157.2	(1.97 ± 0.23)E-01	(2.15 ± 0.16)E+00	(3.77 ± 0.43)E-01
Demier Landing	160.0	(2.85 ± 1.02)E-02	(-0.11 ± 1.51)E-02	(5.90 ± 2.56)E-02
SRS Streams				
FM-2 at Road 4		(6.90 ± 0.22)E+00	(3.13 ± 0.08)E+01	(4.08 ± 0.15)E+01
FM-3A below F-Area effluent		(6.24 ± 0.50)E-01	(4.29 ± 0.36)E-01	(1.19 ± 0.08)E+00
Four Mile A-7A (beaver pond)		(1.89 ± 0.06)E+01	(1.03 ± 0.05)E+01	(1.01 ± 0.04)E+02
Four Mile Creek Swamp discharge		(2.62 ± 0.09)E+00	(1.74 ± 0.06)E+00	(6.70 ± 0.48)E-01
Four Mile Creek at Road A-7		(6.12 ± 0.20)E+00	(1.66 ± 0.09)E+00	(1.15 ± 0.06)E+01
L3R-1A at Road B		(7.05 ± 0.50)E-01	(1.05 ± 0.21)E-01	(5.90 ± 0.47)E-01
Pen Branch Swamp discharge		(1.47 ± 0.11)E+00	(2.13 ± 0.14)E+00	(2.04 ± 0.15)E+00
R-Area downstream of R-1		(1.39 ± 0.05)E+00	(4.80 ± 0.15)E+01	(4.10 ± 0.15)E+02
SC-2A 1 mile above Road B		(1.10 ± 0.06)E+00	(4.65 ± 0.35)E-01	(1.15 ± 0.05)E+00
SC-4 Steel Creek at Road A		(1.57 ± 0.06)E+00	(1.36 ± 0.05)E+01	(4.51 ± 0.17)E+00
TB-4A		(1.97 ± 1.14)E-02	(8.90 ± 3.31)E-02	a
TB-4B		(4.55 ± 1.84)E-02	(-2.83 ± 1.68)E-02	a
TB-5 near Road C		(-1.32 ± 1.54)E-02	(1.67 ± 4.41)E-02	(2.63 ± 0.32)E-01
Tinker Creek 1		(7.69 ± 2.72)E-02	(7.68 ± 2.61)E-02	(5.26 ± 0.63)E-01
U3R-1A Treadway Bridge Road 8-1		(8.54 ± 3.63)E-02	(1.45 ± 0.25)E-01	(2.85 ± 0.44)E-01
Sr-89,90, pCi/g (dry weight)				
Savannah River	River Mile			
Highway 301	118.7	(2.92 ± 1.38)E-02	(2.93 ± 2.05)E-02	(2.64 ± 1.75)E-02
Lower 3 Runs Mouth	129.0	(1.23 ± 1.73)E-02	(2.70 ± 2.20)E-02	(6.96 ± 2.68)E-02
Below Little Hell Landing	134.0	(0.35 ± 2.03)E-02	(1.00 ± 2.06)E-02	(9.19 ± 2.88)E-02
Below Four Mile Creek	150.0	(3.32 ± 2.29)E-02	(1.56 ± 2.14)E-02	(4.72 ± 2.38)E-02
R-3A above Vogtle	151.0	(2.81 ± 2.09)E-02	(-0.38 ± 1.99)E-02	(3.05 ± 2.54)E-02
Beaver Dam Creek Mouth	152.1	(0.92 ± 1.98)E-02	(1.89 ± 2.11)E-02	(2.44 ± 2.28)E-02
Upper 3 Runs Mouth	157.2	(2.48 ± 2.02)E-02	(9.67 ± 3.45)E-02	(1.29 ± 2.20)E-02
Demier Landing	160.0	(0.36 ± 2.04)E-02	(1.06 ± 0.35)E-01	(-0.44 ± 2.02)E-02
SRS Streams				
FM-2 at Road 4		(2.38 ± 2.45)E-02	(1.45 ± 0.18)E-01	(4.41 ± 0.50)E-01
FM-3A below F-Area effluent		(5.28 ± 2.63)E-02	(3.33 ± 2.07)E-02	(1.81 ± 0.39)E-01
Four Mile A-7A (beaver pond)		(7.16 ± 0.53)E-01	(4.37 ± 0.39)E-01	(1.70 ± 0.09)E+00
Four Mile Creek Swamp discharge		(3.14 ± 0.39)E-01	(2.78 ± 0.33)E-01	(1.70 ± 0.38)E-01
Four Mile Creek at Road A-7		(3.79 ± 0.30)E-01	(9.26 ± 2.60)E-02	(9.58 ± 0.67)E-01

a Sampling location discontinued in 1999

Table 29
Radioactivity in River and Stream Sediment

Page 3 of 4

Location	1997	1998	1999	
L3R-1A at Road B	(-2.19 ± 2.13)E-02	(3.88 ± 2.95)E-02	(1.32 ± 0.36)E-01	
Pen Branch Swamp discharge	(0.75 ± 2.34)E-02	(0.37 ± 1.18)E-02	(1.79 ± 2.03)E-02	
R-Area downstream of R-1	(1.39 ± 2.38)E-02	(1.85 ± 0.38)E-01	(3.09 ± 0.45)E-01	
SC-2A 1 mile above Road B	(0.74 ± 2.34)E-02	(2.37 ± 2.86)E-02	(1.86 ± 3.01)E-02	
SC-4 Steel Creek at Road A	(2.38 ± 2.45)E-02	(1.59 ± 0.26)E-01	(3.96 ± 3.12)E-02	
TB-4A	(1.06 ± 1.67)E-02	(2.60 ± 2.89)E-02	a	
TB-4B	(-1.20 ± 2.19)E-02	(0.44 ± 2.74)E-02	a	
TB-5 near Road C	(2.07 ± 2.42)E-02	(0.87 ± 2.77)E-02	(6.13 ± 3.26)E-02	
Tinker Creek 1	(-1.56 ± 2.17)E-02	(1.46 ± 2.82)E-02	(2.38 ± 2.41)E-02	
U3R-1A Treadway Bridge Road 8-1	(-0.85 ± 2.22)E-02	(1.46 ± 2.82)E-02	(1.23 ± 2.95)E-02	
U-235, pCi/g (dry weight)				
SRS Streams				
TB-4A	(1.42 ± 0.07)E+00	(2.53 ± 0.12)E+00	a	
TB-5 near Road C	(0.00 ± 0.00)E+00	(0.00 ± 0.00)E+00	(1.64 ± 0.11)E+00	
Pu-238, pCi/g (dry weight)				
Savannah River	River Mile			
Highway 301	118.7	(-4.53 ± 1.93)E-03	(2.21 ± 1.13)E-03	(0.27 ± 1.13)E-03
Lower 3 Runs Mouth	129.0	(6.15 ± 8.22)E-04	(1.87 ± 0.94)E-03	(0.79 ± 2.18)E-03
Below Little Hell Landing	134.0	(-2.75 ± 5.66)E-04	(-0.13 ± 1.64)E-03	(2.63 ± 9.03)E-04
Below Four Mile Creek	150.0	(6.87 ± 9.02)E-04	(4.55 ± 1.30)E-03	(0.86 ± 1.83)E-03
R-3A above Vogtle	151.0	(2.80 ± 0.98)E-03	(4.55 ± 6.85)E-04	(-1.22 ± 0.56)E-03
Beaver Dam Creek Mouth	152.1	(0.06 ± 3.21)E-04	(1.14 ± 0.58)E-03	(-0.19 ± 5.21)E-04
Upper 3 Runs Mouth	157.2	(3.27 ± 1.21)E-03	(9.65 ± 2.63)E-03	(-0.31 ± 1.16)E-03
Demier Landing	160.0	(-1.53 ± 1.04)E-03	(1.39 ± 1.02)E-03	(1.01 ± 1.34)E-03
SRS Streams				
FM-2 at Road 4		(8.53 ± 1.04)E-02	(7.34 ± 0.49)E-01	(4.44 ± 0.31)E-01
FM-3A below F-Area effluent		(7.58 ± 2.27)E-03	(-5.20 ± 7.32)E-04	(3.73 ± 1.16)E-03
Four Mile A-7A (beaver pond)		(2.60 ± 0.27)E-01	(1.92 ± 0.19)E-01	(1.60 ± 0.10)E+00
Four Mile Creek Swamp discharge		(1.13 ± 0.24)E-02	(1.35 ± 0.26)E-02	(3.46 ± 1.47)E-03
Four Mile Creek at Road A-7		(9.99 ± 1.14)E-02	(6.37 ± 1.63)E-03	(2.37 ± 0.19)E-01
L3R-1A at Road B		(-1.17 ± 1.01)E-03	(3.16 ± 1.48)E-03	(0.12 ± 1.05)E-03
Pen Branch Swamp discharge		(1.17 ± 1.92)E-03	(6.82 ± 1.44)E-03	(4.15 ± 1.26)E-03
R-Area downstream of R-1		(9.53 ± 5.23)E-04	(2.76 ± 0.42)E-02	(5.47 ± 0.66)E-02
SC-2A 1 mile above Road B		(4.65 ± 1.70)E-03	(1.21 ± 1.14)E-03	(1.72 ± 0.81)E-03

^a Sampling location discontinued in 1999

Table 29
Radioactivity in River and Stream Sediment

Page 4 of 4

Location		1997	1998	1999
SC-4 Steel Creek at Road A		(6.59 ± 1.86)E-03	(7.88 ± 0.62)E-02	(2.02 ± 0.31)E-02
TB-4A		(-1.68 ± 6.59)E-04	(0.61 ± 1.00)E-03	a
TB-4B		(3.90 ± 8.22)E-04	(7.89 ± 6.50)E-04	a
TB-5 near Road C		(3.27 ± 8.42)E-04	(-0.47 ± 4.93)E-04	(2.21 ± 1.10)E-03
Tinker Creek 1		(-0.06 ± 1.22)E-03	(7.11 ± 8.05)E-04	(0.51 ± 1.08)E-03
U3R-1A Treadway Bridge Road 8-1		(0.21 ± 1.08)E-03	(5.74 ± 7.14)E-04	(8.25 ± 7.86)E-04
Pu-239, pCi/g (dry weight)				
Savannah River	River Mile			
Highway 301	118.7	(2.36 ± 2.48)E-03	(1.36 ± 1.08)E-03	(-1.71 ± 1.53)E-03
Lower 3 Runs Mouth	129.0	(-3.85 ± 9.78)E-04	(2.22 ± 1.19)E-03	(-0.76 ± 1.66)E-03
Below Little Hell Landing	134.0	(1.07 ± 0.93)E-03	(0.52 ± 1.27)E-03	(-7.58 ± 5.84)E-04
Below Four Mile Creek	150.0	(-2.76 ± 7.25)E-04	(1.84 ± 0.93)E-03	(-1.21 ± 0.96)E-03
R-3A above Vogtle	151.0	(1.03 ± 1.18)E-03	(-3.94 ± 7.06)E-04	(-1.24 ± 0.85)E-03
Beaver Dam Creek Mouth	152.1	(7.28 ± 3.59)E-04	(-2.03 ± 3.51)E-04	(1.77 ± 1.25)E-03
Upper 3 Runs Mouth	157.2	(3.97 ± 1.95)E-03	(3.33 ± 0.51)E-02	(1.69 ± 1.62)E-03
Demier Landing	160.0	(-0.47 ± 1.05)E-03	(-4.62 ± 5.61)E-04	(1.32 ± 1.43)E-03
SRS Streams				
FM-2 at Road 4		(3.13 ± 2.11)E-03	(3.03 ± 0.37)E-02	(4.27 ± 0.49)E-02
FM-3A below F-Area effluent		(1.50 ± 0.33)E-02	(5.09 ± 1.72)E-03	(4.87 ± 0.49)E-02
Four Mile A-7A (beaver pond)		(1.24 ± 0.15)E-01	(7.03 ± 0.90)E-02	(7.74 ± 0.47)E-01
Four Mile Creek Swamp discharge		(4.95 ± 1.48)E-03	(6.81 ± 1.81)E-03	(2.39 ± 8.23)E-04
Four Mile Creek at Road A-7		(5.58 ± 0.75)E-02	(6.63 ± 1.66)E-03	(1.14 ± 0.11)E-01
L3R-1A at Road B		(-1.98 ± 0.96)E-03	(-4.54 ± 5.51)E-04	(-5.68 ± 6.89)E-04
Pen Branch Swamp discharge		(2.35 ± 0.44)E-02	(3.22 ± 0.35)E-02	(1.46 ± 0.28)E-02
R-Area downstream of R-1		(1.08 ± 0.55)E-03	(8.56 ± 0.87)E-02	(2.70 ± 0.22)E-01
SC-2A 1 mile above Road B		(3.91 ± 1.72)E-03	(0.85 ± 1.15)E-03	(3.80 ± 1.19)E-03
SC-4 Steel Creek at Road A		(3.19 ± 1.44)E-03	(7.24 ± 0.59)E-02	(9.94 ± 2.15)E-03
TB-4A		(1.27 ± 0.93)E-03	(1.64 ± 1.20)E-03	a
TB-4B		(3.90 ± 8.21)E-04	(3.00 ± 5.46)E-04	a
TB-5 near Road C		(-0.28 ± 1.26)E-03	(-1.48 ± 3.86)E-04	(1.02 ± 0.18)E-02
Tinker Creek 1		(1.32 ± 2.19)E-03	(1.60 ± 1.01)E-03	(7.80 ± 2.06)E-03
U3R-1A Treadway Bridge Road 8-1		(-1.06 ± 0.80)E-03	(4.23 ± 1.58)E-03	(5.70 ± 1.57)E-03

a Sampling location discontinued in 1999

Table 30
Radioactivity in Grassy Vegetation

Page 1 of 2

Location	H-3 (pCi/g)	Co-60 (pCi/g)	Cs-137 (pCi/g)	Sr-89,90 (pCi/g)	Pu-238 (pCi/g)
<i>Note: One grassy vegetation sample is collected from each location once per year.</i>					
On Site					
Burial Ground North	(1.38 ± 0.04)E+00	(1.06 ± 0.52)E-01	(0.15 ± 2.38)E-02	(7.67 ± 5.07)E-02	(4.91 ± 8.96)E-04
Site Perimeter					
D-Area	(4.31 ± 3.61)E-02	(-5.88 ± 3.90)E-02	(3.20 ± 3.32)E-02	(2.65 ± 0.61)E-01	(-6.13 ± 5.27)E-04
Darkhorse @ Williston Gate	(-2.35 ± 3.03)E-02	(0.17 ± 3.08)E-02	(1.33 ± 0.39)E-01	(4.35 ± 0.66)E-01	(1.87 ± 5.70)E-04
Green Pond	(2.56 ± 6.98)E-02	(-0.25 ± 3.85)E-02	(6.49 ± 3.50)E-02	(3.90 ± 0.53)E-01	(8.70 ± 5.78)E-04
Patterson Mill Road	(-4.26 ± 3.52)E-02	(5.16 ± 2.82)E-02	(4.00 ± 0.55)E-01	(4.59 ± 0.62)E-01	(-1.07 ± 0.44)E-03
25-Mile Radius					
Highway 301 @ State Line	(4.03 ± 6.23)E-02	(0.89 ± 3.50)E-02	(-4.02 ± 3.13)E-02	(4.23 ± 3.21)E-02	(5.36 ± 5.05)E-04
100-Mile Radius					
Savannah, Ga.	(3.90 ± 5.32)E-02	(-2.49 ± 2.10)E-02	(2.10 ± 1.98)E-02	(5.09 ± 2.59)E-02	(0.27 ± 1.15)E-02

Table 30
Radioactivity in Grassy Vegetation

Page 2 of 2

Location	Pu-239 (pCi/g)	Gross Alpha (pCi/g)	Gross Beta (pCi/g)
On Site			
Burial Ground North	(8.90 ± 9.80)E-04	(-3.05 ± 5.06)E-01	(1.80 ± 0.15)E+01
Site Perimeter			
D-Area	(0.63 ± 5.63)E-04	(1.48 ± 0.73)E+00	(7.39 ± 1.09)E+00
Darkhorse @ Williston Gate	(9.47 ± 6.35)E-04	(-3.47 ± 3.84)E-01	(8.78 ± 1.15)E+00
Green Pond	(1.26 ± 4.34)E-04	(7.39 ± 6.20)E-01	(1.20 ± 0.13)E+01
Patterson Mill Road	(0.80 ± 1.13)E-03	(3.23 ± 5.06)E-01	(8.32 ± 1.12)E+00
25-Mile Radius			
Highway 301 @ State Line	(1.18 ± 4.07)E-04	(2.30 ± 6.33)E-01	(1.90 ± 0.16)E+01
100-Mile Radius			
Savannah, Ga.	(0.17 ± 6.28)E-03	(3.20 ± 5.53)E-01	(1.04 ± 0.09)E+01

Table 31
Meteorological Data

Page 1 of 7

USNRC Computer Code-XOQDOQ,
43848 Wind Stats H-Area 60 minute

Version 2.0
62M 92-96

Run Date: 98.077 (SRL 6/29/83 VERSION)
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	0.445	0.420	0.449	0.436	0.440	0.379	0.331	0.376
4.00	0.997	0.791	0.983	1.163	1.106	0.805	0.620	0.504
6.00	0.787	0.465	0.292	0.244	0.160	0.132	0.146	0.096
8.00	0.112	0.137	0.009	0.011	0.002	0.011	0.014	0.002
12.00	0.011	0.007	0.000	0.000	0.000	0.002	0.000	0.000
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	2.352	1.820	1.733	1.854	1.708	1.329	1.111	0.978

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	0.376	0.369	0.497	0.536	0.399	0.406	0.301	0.381	6.541
4.00	0.689	0.862	1.090	1.473	1.305	0.844	0.509	0.579	14.320
6.00	0.192	0.221	0.324	0.335	0.367	0.308	0.141	0.267	4.477
8.00	0.011	0.027	0.036	0.075	0.046	0.068	0.016	0.064	0.643
12.00	0.000	0.002	0.002	0.009	0.021	0.023	0.000	0.009	0.087
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	1.268	1.481	1.949	2.428	2.138	1.649	0.967	1.300	26.068

Table 31
Meteorological Data

Page 2 of 7

USNRC Computer Code-XOQDOQ,
43848 Wind Stats H-Area 60 minute

Version 2.0
62M 92-96

Run Date: 98.077 (SRL 6/29/83 VERSION)
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	0.046	0.082	0.082	0.073	0.050	0.034	0.030	0.059
4.00	0.312	0.504	0.602	0.682	0.461	0.342	0.219	0.223
6.00	0.123	0.440	0.481	0.422	0.180	0.137	0.109	0.151
8.00	0.002	0.116	0.048	0.023	0.018	0.018	0.025	0.025
12.00	0.000	0.014	0.000	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	0.483	1.156	1.213	1.200	0.709	0.531	0.383	0.460

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	0.048	0.071	0.068	0.089	0.032	0.062	0.064	0.052	0.942
4.00	0.342	0.303	0.461	0.584	0.395	0.344	0.176	0.208	6.158
6.00	0.205	0.265	0.395	0.639	0.477	0.315	0.123	0.123	4.584
8.00	0.014	0.046	0.132	0.189	0.353	0.246	0.043	0.009	1.309
12.00	0.000	0.002	0.018	0.055	0.105	0.096	0.025	0.005	0.322
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.609	0.687	1.074	1.556	1.362	1.063	0.431	0.397	13.315

Table 31
Meteorological Data

Page 3 of 7

USNRC Computer Code-XOQDOQ,
43848 Wind Stats H-Area 60 minute

Version 2.0
62M 92-96

Run Date: 98.077 (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	0.039	0.046	0.052	0.046	0.027	0.043	0.057	0.071
4.00	0.198	0.600	1.234	0.842	0.618	0.360	0.342	0.388
6.00	0.084	0.579	1.070	0.607	0.426	0.326	0.315	0.360
8.00	0.000	0.091	0.287	0.114	0.064	0.052	0.114	0.155
12.00	0.000	0.009	0.007	0.011	0.007	0.007	0.014	0.048
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.321	1.325	2.650	1.620	1.142	0.788	0.842	1.022

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	0.055	0.046	0.041	0.036	0.034	0.034	0.052	0.039	0.718
4.00	0.486	0.556	0.618	0.725	0.543	0.422	0.251	0.239	8.422
6.00	0.411	0.447	0.607	0.627	0.666	0.598	0.230	0.064	7.417
8.00	0.107	0.217	0.281	0.347	0.536	0.426	0.082	0.007	2.880
12.00	0.041	0.062	0.062	0.105	0.210	0.148	0.021	0.002	0.753
14.10	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.000	0.007
TOTAL	1.100	1.328	1.609	1.842	1.994	1.628	0.636	0.351	20.197

Table 31
Meteorological Data

Page 4 of 7

USNRC Computer Code-XOQDOQ,
43848 Wind Stats H-Area 60 minute

Version 2.0
62M 92-96

Run Date: 98.077 (SRL 6/29/83 VERSION)
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	0.009	0.032	0.027	0.032	0.036	0.034	0.036	0.048
4.00	0.109	0.392	1.168	0.728	0.529	0.440	0.541	0.639
6.00	0.073	0.445	1.122	0.618	0.559	0.534	0.661	1.008
8.00	0.000	0.034	0.080	0.034	0.023	0.025	0.039	0.296
12.00	0.002	0.000	0.005	0.002	0.000	0.000	0.005	0.039
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.193	0.903	2.402	1.414	1.147	1.033	1.282	2.030

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	0.016	0.048	0.050	0.039	0.014	0.011	0.039	0.027	0.499
4.00	0.759	0.789	0.716	0.730	0.600	0.483	0.381	0.294	9.298
6.00	1.259	0.737	0.949	0.917	0.741	0.705	0.358	0.103	10.787
8.00	0.242	0.148	0.135	0.068	0.052	0.039	0.030	0.002	1.247
12.00	0.032	0.023	0.018	0.002	0.027	0.005	0.000	0.000	0.160
14.10	0.000	0.000	0.000	0.000	0.023	0.005	0.000	0.000	0.027
TOTAL	2.308	1.745	1.868	1.756	1.457	1.248	0.808	0.426	22.018

Table 31
Meteorological Data

Page 5 of 7

USNRC Computer Code-XOQDOQ,
43848 Wind Stats H-Area 60 minute

Version 2.0
62M 92-96

Run Date: 98.077 (SRL 6/29/83 VERSION)
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	0.000	0.005	0.014	0.002	0.005	0.014	0.014	0.021
4.00	0.034	0.244	0.643	0.246	0.217	0.315	0.369	0.477
6.00	0.036	0.591	0.750	0.762	0.509	0.513	0.625	0.755
8.00	0.000	0.011	0.023	0.025	0.021	0.014	0.009	0.027
12.00	0.000	0.000	0.000	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	0.070	0.851	1.430	1.037	0.752	0.856	1.017	1.280

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	0.032	0.021	0.007	0.007	0.009	0.007	0.011	0.007	0.173
4.00	0.529	0.543	0.452	0.525	0.353	0.278	0.267	0.249	5.740
6.00	0.953	0.876	0.889	0.855	0.392	0.338	0.242	0.125	9.211
8.00	0.041	0.030	0.055	0.009	0.009	0.007	0.002	0.000	0.283
12.00	0.000	0.000	0.000	0.005	0.014	0.002	0.000	0.000	0.023
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	1.555	1.470	1.403	1.401	0.777	0.632	0.522	0.381	15.430

Table 31
Meteorological Data

Page 6 of 7

USNRC Computer Code-XOQDOQ,
43848 Wind Stats H-Area 60 minute

Version 2.0
62M 92-96

Run Date: 98.077 (SRL 6/29/83 VERSION)
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	0.002	0.002	0.000	0.000	0.000	0.000	0.002	0.002
4.00	0.007	0.064	0.084	0.018	0.016	0.036	0.057	0.050
6.00	0.016	0.212	0.130	0.100	0.096	0.178	0.155	0.155
8.00	0.000	0.014	0.002	0.000	0.002	0.005	0.002	0.005
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	0.025	0.292	0.216	0.118	0.114	0.219	0.216	0.212

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	0.002	0.000	0.002	0.009	0.000	0.000	0.000	0.000	0.023
4.00	0.087	0.071	0.062	0.103	0.021	0.027	0.041	0.068	0.812
6.00	0.171	0.135	0.182	0.235	0.059	0.048	0.023	0.030	1.925
8.00	0.002	0.002	0.005	0.009	0.000	0.000	0.005	0.000	0.052
12.00	0.000	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	0.000
TOTAL	0.262	0.208	0.251	0.356	0.080	0.075	0.069	0.098	2.812

Table 31
Meteorological Data

Page 7 of 7

USNRC Computer Code-XOQDOQ,
43848 Wind Stats H-Area 60 minute

Version 2.0
62M 92-96

Run Date: 98.077 (SRL 6/29/83 VERSION)
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	0.000	0.000	0.000	0.000	0.000	0.000
4.00	0.000	0.007	0.002	0.000	0.000	0.002	0.000	0.000
6.00	0.002	0.014	0.009	0.002	0.002	0.014	0.014	0.011
8.00	0.000	0.000	0.000	0.000	0.000	0.000	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	0.002	0.021	0.011	0.002	0.002	0.016	0.016	0.011

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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4.00	0.007	0.002	0.002	0.002	0.002	0.002	0.000	0.005	0.034
6.00	0.011	0.014	0.007	0.016	0.002	0.000	0.002	0.002	0.123
8.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
12.00	0.000	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	0.000
TOTAL	0.018	0.016	0.009	0.018	0.004	0.002	0.002	0.007	0.159

Table 32
80-km-Radius (50-Mile) Population Distribution Around SRS (1990 Census)

Page 1 of 1

Dir (Miles) ^a	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

^a No one lives within 5 miles of the center of SRS because all areas within this distance are inside the site boundary.

Table 33
80-km-Radius (50-Mile) Milk, Meat, and Vegetation Production Around SRS
as of 1991

Page 1 of 2

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+03	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 33
80-km-Radius (50-Mile) Milk, Meat, and Vegetation Production Around SRS
as of 1991

Page 2 of 2

Site Annual Meat Production (kg), cont.

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	1.173E+04
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 34
Airborne Release Locations for Maximally Exposed Individual Dose

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 35
Parameters Used for Adult Consumption Rates
and for Atmospheric Dose Calculations

Page 1 of 1

Pathway	Maximally Exposed Individual	Population
<i>Note: Values were determined by the Savannah River Technology Center for SRS.</i>		
Fruits, vegetables, and grains (kg/yr)	276	163
Leafy vegetables (kg/yr)	43	21
Cow milk (L/yr)	230	120
Goat milk (L/yr)	230	n/a
Meat (beef) (kg/yr)	81	43
Inhalation (m ³ /yr)	8,000	8,000
Fraction of external dose received after taking structural shielding into account	0.7	0.5

Table 36
Site-Specific Parameters Used with CAP88 Code Used for NESHAPS
Calculations

Page 1 of 1

Particle size, AMAD ^a	
H-3, C-14, Kr-85	0
All other	1
Meteorological data	1992-96; 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	3.92
Population size	620,100
Food supply fractions (fraction from local sources)	
Vegetable	0.70
Meat	0.44
Milk	0.40

^a Activity Median Aerodynamic Diameter

Table 37
Parameters Used for Adult Consumption Rates
and for Liquid Dose Calculations

Page 1 of 1

Pathway	Maximally Exposed Individual	Population
<i>Note: Values were determined by the Savannah River Technology Center for SRS.</i>		
Water consumption (L/yr)	730	370
Fish consumption (kg/yr)	19	9
Marine invertebrates (kg/yr)	Not applicable	2
Boating ^a	21	1,100,000
Swimming ^a	8.9	160,000
Shoreline recreation ^a	23	960,000
Water treatment plants ^b		
Water consumption (L/yr)	730	370

- a Maximum individual values are in units of hours/year. Population values are in units of person-hours/year and are applicable to the 80-kilometer population of 620,100.
- b The drinking water pathway dose is calculated for the maximally exposed individual and for the population served by the downriver Beaufort-Jasper Water Treatment Plant (75,000 people) near Beaufort, S.C., and the City of Savannah Industrial and Domestic Water Supply Plant (10,000 people) at Port Wentworth, Ga.

Table 38
Site-Specific Parameters Used in Liquid Dose Calculations

Page 1 of 1

Savannah River flow rate at Highway 301 for 1999 (cu ft/sec) ^a	5,920
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 – salt water	390,000 ^b
Irrigation (acres devoted to each of the four major food types)	None ^c
Shore width factor	0.2
Fish bioaccumulation factor for cesium	3,000 ^b

a The effective river flow rate was based on tritium measurements. The 1999 USGS measured river flow rate was 6,160 cfs.

b Values determined by SRTC for SRS [Hamby, 1991].

c Irrigation is considered a "special case" scenario. The food produced on each 1,000-acre parcel is assumed to be eaten by the 80-kilometer population of 620,100.

Table 39
Committed Dose to the Maximally Exposed Individual from Atmospheric Releases
(MAXIGASP Code — Using Consumption of Cow Milk Pathway)

Page 1 of 1

By Pathway	Maximally Exposed Individual Dose (mrem) ^a	Percent of Total Dose
Plume	8.45E-05	0.1
Ground	5.86E-04	1.0
Inhalation	2.76E-02	48.3
Vegetation	2.54E-02	44.4
Cow milk	2.62E-03	4.6
Meat	9.75E-04	1.7
Total	5.72E-02	
By Radionuclide	Maximally Exposed Individual Dose (mrem) ^a	Percent of Total Dose ^b
<i>Gases and Vapors</i>		
H-3	1.59E-02	27.8
C-14	5.33E-06	0.01
Kr-85	8.45E-05	0.1
I-129	2.42E-03	4.2
I-131	5.95E-06	0.01
<i>Particulates</i>		
Co-60	1.09E-05	0.02
Sr-90	3.00E-05	0.1
Cs-134	5.98E-06	0.01
Cs-137	7.62E-04	1.3
Th-232	1.09E-05	0.02
U-232	3.08E-06	0.01
U-234	6.71E-04	1.2
U-235	1.20E-04	0.2
U-238	5.01E-04	0.9
Pu-238	4.72E-03	8.2
Pu-239	3.00E-04	0.5
Pu-240	4.36E-06	0.01
Pu-241	3.80E-06	0.01
Am-241	8.53E-05	0.1
Am-243	1.32E-05	0.02
Cm-244	3.76E-05	0.1
Alpha	2.38E-02	41.6
Nonvolatile beta	7.72E-03	13.5
Total	5.72E-02	

a Committed effective dose equivalent

b Radionuclides contributing 0.01% or more of the total dose

Table 40
Committed Dose to the Maximally Exposed Individual from Atmospheric Releases (MAXIGASP Code — Using Consumption of Goat Milk Pathway)

Page 1 of 1

By Pathway	Maximally Exposed Individual Dose (mrem) ^a	Percent of Total Dose
Plume	8.45E-05	0.1
Ground	5.86E-04	1.0
Inhalation	2.76E-02	45.7
Vegetation	2.54E-02	42.1
Goat milk	5.73E-03	9.5
Meat	9.75E-04	1.6
Total	6.04E-02	
By Radionuclide	Maximally Exposed Individual Dose (mrem) ^a	Percent of Total Dose ^b
<i>Gases and Vapors</i>		
H-3	1.87E-02	31.0
C-14	5.51E-06	0.01
Kr-85	8.45E-05	0.1
I-129	2.48E-03	4.1
I-131	6.70E-06	0.01
<i>Particulates</i>		
Co-60	1.09E-05	0.02
Sr-90	3.00E-05	0.05
Cs-134	7.38E-06	0.01
Cs-137	8.56E-04	1.4
Th-232	1.09E-05	0.02
U-234	6.71E-04	1.1
U-235	1.20E-04	0.2
U-238	5.01E-04	0.8
Pu-238	4.72E-03	7.8
Pu-239	3.00E-04	0.5
Am-241	8.53E-05	0.1
Am-243	1.32E-05	0.02
Cm-244	3.76E-05	0.1
Alpha	2.38E-02	39.4
Nonvolatile beta	7.87E-03	13.0
Total	6.04E-02	

a Committed effective dose equivalent

b Radionuclides contributing 0.01% or more of the total dose

Table 41
80-km (50-Mile) Collective Dose from Atmospheric Releases (POPGASP Code)

Page 1 of 1

By Pathway	Population Dose (person-rem) ^a	Percent of Total Dose
Plume	9.53E-03	0.4
Ground	6.93E-02	2.7
Inhalation	1.80E+00	69.8
Vegetation	5.06E-01	19.6
Cow milk	1.59E-01	6.2
Meat	3.48E-02	1.3
Total	2.58E+00	
By Radionuclide	Population Dose (person-rem) ^a	Percent of Total Dose ^b
<i>Gases and Vapors</i>		
H-3	1.55E+00	60.09
C-14	2.38E-04	0.01
Kr-85	9.53E-03	0.37
I-129	1.18E-01	4.57
<i>Particulates</i>		
Co-60	9.84E-04	0.04
Sr-90	1.68E-03	0.07
Cs-134	3.97E-04	0.02
Cs-137	7.66E-02	2.97
Ra-228	3.22E-04	0.01
Th-230	1.18E-03	0.05
Th-232	7.98E-04	0.03
U-234	3.48E-03	0.13
U-235	3.83E-04	0.01
U-238	5.21E-03	0.20
Pu-238	3.29E-01	12.76
Pu-239	2.79E-02	1.08
Pu-240	2.70E-04	0.01
Pu-241	2.35E-04	0.01
Am-241	7.33E-03	0.28
Am-243	8.15E-04	0.03
Cm-244	3.21E-03	0.12
Cm-246	5.70E-04	0.02
Alpha	3.90E-01	15.12
Nonvolatile beta	5.12E-02	1.99
Total	2.58E+00	

a Committed effective dose equivalent

b Radionuclides contributing 0.1% or more of the total dose

Table 42
Total Site Airborne Releases and Maximally Exposed Individual
Effective Dose Equivalent by Radionuclide
(CAP88 Dose Calculations for 1999 NESHAP Report to EPA)

Page 1 of 3

Radionuclide ^a	Releases (curies)	Maximally Exposed Individual EDE (mrem)	Percent of Dose
H-3 (oxide)	3.39E+04	4.43E-02	86.49
Alpha	2.11E-03	2.46E-03	4.80
Pu-238	1.98E-03	2.15E-03	4.20
Cs-137	1.45E-02	8.10E-04	1.58
Nonvolatile beta	3.09E-02	4.43E-04	0.86
I-129	7.27E-03	4.04E-04	0.79
Kr-85	3.74E+04	2.24E-04	0.44
Pu-239	1.51E-04	1.76E-04	0.34
Am-241	3.86E-05	6.41E-05	0.13
U-238	1.42E-04	5.52E-05	0.11
U-234	8.72E-05	3.79E-05	0.07
Cm-244	3.27E-05	2.86E-05	0.06
Sr-89,90	1.01E-03	1.45E-05	0.03
Th-230	1.22E-05	1.07E-05	0.02
Am-243	4.28E-06	7.88E-06	0.02
Co-60	1.30E-04	6.69E-06	0.01
Cm-246	2.91E-06	5.47E-06	0.01
U-235	9.91E-06	4.22E-06	0.01
Cs-134	1.31E-04	2.33E-06	0.005
Ra-228	1.87E-05	2.15E-06	0.004
Th-232	1.64E-06	2.05E-06	0.004
Pu-240	1.46E-06	1.77E-06	0.003
C-14	2.55E-02	1.61E-06	0.003
Pu-241	6.47E-05	1.25E-06	0.002
U-233	2.38E-06	1.08E-06	0.002
Ra-226	1.25E-05	9.82E-07	0.002

- a The radionuclides that follow were listed as diffuse and fugitive releases but were not included in the dose calculations; the reasons appear in parentheses.
 Ba-137m, Pa-234, Pb-212, Pr-144, Pr-144m, Rh-106, and Y-90 (progeny radionuclides that are included with their parent radionuclides in dose calculations)
 Se-79, I-131, Ce-139, Ti-208, Cf-249, Cf-251, Pm-144, Pm-146, Y-88, and Zr-95 (short-lived radionuclides with very low dose potential and/or not in the CAP88 radionuclide library)
 U-233,234 (emission added to U-234)
 U-235,236 (emission added to U-235)
 Cm-243,244 (emission added to Cm-244)

Table 42
Total Site Airborne Releases and Maximally Exposed Individual
Effective Dose Equivalent by Radionuclide
(CAP88 Dose Calculations for 1999 NESHAP Report to EPA)

Page 2 of 3

Radionuclide ^a	Releases (curies)	Maximally Exposed Individual EDE (mrem)	Percent of Dose
H-3 (elem.)	1.77E+04	9.24E-07	0.002
Ce-144	1.45E-04	6.69E-07	0.001
Sb-125	5.27E-05	2.93E-07	0.001
Eu-154	5.74E-06	2.35E-07	0.0005
Th-228	2.75E-07	2.21E-07	0.0004
Co-58	1.27E-04	1.34E-07	0.0003
Tc-99	6.22E-05	9.34E-08	0.0002
Zn-65	2.23E-05	6.18E-08	0.0001
Nb-95	1.13E-04	5.59E-08	0.0001
U-232	1.33E-08	3.19E-08	0.0001
Zr-95	1.71E-05	2.68E-08	0.0001
Cm-242	3.10E-07	1.84E-08	0.00004
Pu-242	1.53E-08	1.77E-08	0.00003
Ru-103	4.23E-05	1.51E-08	0.00003
Xe-135	1.94E-02	7.98E-09	0.00002
I-131	1.01E-05	6.72E-09	0.00001
Ce-141	4.16E-05	5.30E-09	0.00001
U-236	5.20E-09	2.21E-09	0.000004
I-133	1.25E-04	2.09E-09	0.000004
Cr-51	1.21E-04	1.97E-09	0.000004
Eu-155	1.10E-06	1.79E-09	0.000003
Th-234	4.10E-06	1.48E-09	0.000003
Ac-228	1.66E-06	3.97E-10	0.000001
Np-237	2.23E-10	3.74E-10	0.000001
Nb-94	3.95E-10	5.63E-11	0.0000001
Co-57	4.71E-08	2.55E-11	0.00000005
Ni-63	5.89E-07	2.27E-11	0.00000004
Eu-152	1.21E-10	5.99E-12	0.00000001
Pm-147	3.49E-09	5.58E-13	0.000000001
Sb-124	2.23E-10	3.88E-13	0.000000001
Np-239	4.51E-09	6.60E-14	0.0000000001
Hg-203	2.23E-10	6.32E-14	0.0000000001
Ni-59	1.02E-09	5.28E-14	0.0000000001

Table 42
Total Site Airborne Releases and Maximally Exposed Individual
Effective Dose Equivalent by Radionuclide
(CAP88 Dose Calculations for 1999 NESHAP Report to EPA)

Page 3 of 3

Radionuclide ^a	Releases (curies)	Maximally Exposed Individual EDE (mrem)	Percent of Dose
Pa-233	2.23E-10	4.07E-14	0.0000000001
Sn-126	3.13E-15	7.98E-16	0.000000000002
Pb-214	2.23E-10	3.21E-16	0.000000000001
Total		5.12E-02	

Table 43
NESHAP Airborne-Dose Report Data — CAP88 Compared with MAXDOSE-SR

Page 1 of 1

	Maximally Exposed Individual Dose at Site Boundary			
	CAP88 Code		MAXDOSE-SR Code	
	Millirem ^a	Percent of Dose	Millirem ^a	Percent of Dose ^b
By Pathway				
Plume	1.51E-04	0.3	8.45E-05	0.1
Ground	8.23E-04	1.6	5.86E-04	1.0
Inhalation	1.69E-02	33.0	2.76E-02	48.3
Food ^c	3.33E-02	65.1	2.90E-02	50.7
Total	5.12E-02		5.72E-02	
By Radionuclide				
<i>Gases and Vapors</i>				
H-3 ^d	4.43E-02	86.5	1.59E-02	27.8
C-14	1.61E-06	0.003	5.33E-06	0.01
Kr-85	2.24E-04	0.4	8.45E-05	0.1
I-129	4.04E-04	0.8	2.42E-03	4.2
I-131	6.72E-09	0.00001	5.95E-06	0.01
<i>Particulates</i>				
Co-60	6.69E-06	0.01	1.09E-05	0.02
Sr-90	1.45E-05	0.03	3.00E-05	0.1
Cs-134	2.33E-06	0.005	5.98E-06	0.01
Cs-137	8.10E-04	1.6	7.62E-04	1.3
Th-232	2.05E-06	0.004	1.09E-05	0.02
U-232	3.19E-08	0.0001	3.08E-06	0.01
U-234	3.79E-05	0.1	6.71E-04	1.2
U-235	4.22E-06	0.01	1.20E-04	0.2
U-238	5.52E-05	0.1	5.01E-04	0.9
Pu-238	2.15E-03	4.2	4.72E-03	8.2
Pu-239	1.76E-04	0.3	3.00E-04	0.5
Pu-240	1.77E-06	0.003	4.36E-06	0.01
Pu-241	1.25E-06	0.002	3.80E-06	0.01
Am-241	6.41E-05	0.1	8.53E-05	0.1
Am-243	7.88E-06	0.02	1.32E-05	0.02
Cm-244	2.86E-05	0.1	3.76E-05	0.1
Alpha	2.46E-03	4.8	2.38E-02	41.6
Nonvolatile beta	4.43E-04	0.9	7.72E-03	13.5
Total	5.12E-02		5.72E-02	

a Committed effective dose equivalent

b Radionuclides contributing 0.01 percent or more from MAXDOSE-SR output

c Meat, milk, and vegetables

d Dose from tritium in foods calculated with absolute humidity of 11.4 g water/cubic meter of air

Table 44
NESHAP Airborne-Dose Report Data — CAP88 Compared with POPGASP

Page 1 of 1

	Collective Dose from Atmospheric Releases			
	CAP88 Code		POPGASP Code	
	Person-rem ^a	Percent of Dose	Person-rem ^a	Percent of Dose ^b
By Pathway				
Plume	1.81E-02	0.4	9.53E-03	0.4
Ground	9.27E-02	1.8	6.93E-02	2.7
Inhalation	1.97E+00	38.3	1.80E+00	69.8
Food ^c	3.06E+00	59.5	7.00E-01	27.1
Total	5.14E+00		2.58E+00	
By Radionuclide				
<i>Gases and Vapors</i>				
H-3 ^d	4.46E+00	86.8	1.55E+00	60.1
C-14	1.53E-04	0.003	2.38E-04	0.01
Kr-85	2.69E-02	0.5	9.53E-03	0.4
I-129	1.80E-02	0.4	1.18E-01	4.6
<i>Particulates</i>				
Co-60	7.58E-04	0.01	9.84E-04	0.04
Sr-90	1.13E-03	0.0	1.68E-03	0.1
Cs-134	2.52E-04	0.005	3.97E-04	0.02
Cs-137	9.20E-02	1.8	7.66E-02	3.0
Ra-228	2.22E-04	0.004	3.22E-04	0.01
Th-230	1.08E-03	0.02	1.18E-03	0.05
Th-232	2.13E-04	0.004	7.98E-04	0.03
U-234	3.84E-03	0.1	3.48E-03	0.1
U-235	4.28E-04	0.01	3.83E-04	0.01
U-238	5.59E-03	0.1	5.21E-03	0.2
Pu-238	2.15E-01	4.2	3.29E-01	12.8
Pu-239	1.76E-02	0.3	2.79E-02	1.1
Pu-240	1.76E-04	0.003	2.70E-04	0.01
Pu-241	1.23E-04	0.002	2.35E-04	0.01
Am-241	6.52E-03	0.1	7.33E-03	0.3
Am-243	7.97E-04	0.02	8.15E-04	0.0
Cm-244	2.91E-03	0.1	3.21E-03	0.1
Cm-246	5.53E-04	0.01	5.70E-02	0.02
Alpha	2.46E-01	4.79	3.90E-01	15.12
Nonvolatile beta	3.46E-02	0.67	5.12E-02	1.99
Total	5.14E+00		2.58E+00	

a Committed effective dose equivalent

b Radionuclides contributing 0.01 percent or more from POPGASP output

c Meat, milk, and vegetables

d Dose from tritium in foods calculated with absolute humidity of 11.4 g water/cubic meter of air

Table 45
Committed Dose to Maximally Exposed Individual from Liquid Releases

Page 1 of 1

By Pathway	Individual Dose (mrem) ^a	Percent of Total Dose
Fish	1.36E-01	61.03
Water	8.59E-02	38.54
Shoreline	9.34E-04	0.42
Swimming	2.36E-05	0.01
Boating	3.45E-07	0.0002
Total	2.23E-01	
By Radionuclide	Individual Dose (mrem) ^a	Percent of Total Dose
H-3 (oxide)	5.60E-02	25.08
Co-60	6.22E-06	0.003
Sr-89,90	4.28E-03	1.91
I-129	4.22E-03	1.89
Cs-137	1.32E-01	59.11
U-234	3.85E-03	1.72
U-235	3.37E-05	0.015
U-238	9.26E-04	0.41
Pu-238	6.24E-05	0.03
Pu-239	6.61E-05	0.03
Am-241	1.37E-05	0.006
Cm-244	6.60E-07	0.0003
Alpha	2.01E-02	9.00
Nonvolatile beta	1.76E-03	0.79
Total	2.23E-01	

^a Committed effective dose equivalent

Table 46
Committed Dose to Maximally Exposed Individual from Public Water Supplies
at Beaufort-Jasper Water Treatment Plant

Page 1 of 1

Radionuclide	Individual Dose, mrem ^a	Percent of Total Dose
H-3 (oxide)	4.47E-02	63.72
Co-60	1.45E-06	0.002
Sr-89,90	1.96E-03	2.80
I-129	2.47E-03	3.52
Cs-137	1.35E-03	1.93
U-234	2.99E-03	4.27
U-235	2.50E-05	0.04
U-238	7.19E-04	1.03
Pu-238	4.67E-05	0.07
Pu-239	4.95E-05	0.07
Am-241	6.80E-06	0.01
Cm-244	3.27E-07	0.0005
Alpha	1.50E-02	21.40
Nonvolatile beta	8.08E-04	1.15
Total	7.01E-02	

^a Committed effective dose equivalent

Table 47
Committed Dose to Maximally Exposed Individual from Public Water Supplies
at the City of Savannah Industrial and Domestic Water Supply Plant
(near Port Wentworth, Georgia)

Page 1 of 1

Radionuclide	Individual Dose, mrem ^a	Percent of Total Dose
H-3 (oxide)	4.43E-02	63.71
Co-60	1.44E-06	0.002
Sr-89,90	1.95E-03	2.80
I-129	2.45E-03	3.52
Cs-137	1.34E-03	1.93
U-234	2.97E-03	4.27
U-235	2.48E-05	0.04
U-238	7.13E-04	1.03
Pu-238	4.64E-05	0.07
Pu-239	4.91E-05	0.07
Am-241	6.75E-06	0.01
Cm-244	3.24E-07	0.0005
Alpha	1.49E-02	21.41
Nonvolatile beta	8.02E-04	1.15
Total	6.96E-02	

^a Committed effective dose equivalent

Table 48
Collective Dose from Liquid Releases

Page 1 of 1

By Pathway	Collective Dose (person-rem) ^a	Percent of Total Dose
Sport fish	2.51E-01	6.33
Commercial fish	1.94E-02	0.49
Beaufort-Jasper	2.67E+00	67.30
Port Wentworth	3.53E-01	8.91
Saltwater invertebrates	6.33E-01	15.97
Shoreline exposure	3.90E-02	0.98
Swimming	4.25E-04	0.01
Boating	1.81E-05	0.0005
Total	3.96E+00	
By Radionuclide	Collective Dose (person-rem) ^a	Percent of Total Dose
H-3	1.93E+00	48.79
Co-60	4.31E-04	0.01
Sr-89,90	9.58E-02	2.42
I-129	1.33E-01	3.36
Cs-137	3.59E-01	9.08
U-234	1.35E-01	3.41
U-235	1.19E-03	0.03
U-238	3.24E-02	0.82
Pu-238	3.80E-03	0.1
Pu-239	4.02E-03	0.1
Am-241	1.60E-03	0.04
Cm-244	7.67E-05	0.002
Alpha	1.22E+00	30.84
Nonvolatile beta	3.94E-02	1.00
Total	3.96E+00	

^a Committed effective dose equivalent

Table 49
Potential Doses from Irrigation Pathways

Page 1 of 1

Food Type ^a	Maximally Exposed Individual (mrem) ^b	Population (person-rem) ^b
Vegetation	1.01E-01	6.33E+00
Leafy vegetable	1.58E-02	4.07E-01
Milk	2.28E-02	3.11E+00
Meat	6.88E-03	3.68E-01
Total	1.46E-01	1.02E+01

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

b Committed effective dose equivalent

Table 50
Dose from Consumption of Fish from New Savannah Bluff Lock and Dam,
SRS Creek Mouths, and River Mile 120

Page 1 of 2

Average Concentration in Composites, pCi/g ^a						
Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239
NSB L&D ^b	Bass	1.81E-02	8.20E-03	1.31E-02	1.41E-05	-2.57E-05
	Catfish	3.88E-02	9.96E-03	5.01E-02	-1.55E-05	-7.78E-06
	Panfish	2.93E-02	1.72E-02	2.06E-02	-2.40E-05	-1.20E-04
U3R Mouth	Bass	3.09E-02	6.82E-03	6.03E-02	-1.68E-05	-3.57E-05
	Catfish	1.35E-01	-1.11E-03	3.15E-02	-6.00E-05	1.73E-05
	Panfish	7.32E-02	7.71E-03	4.67E-02	-4.10E-06	-5.90E-05
BDC Mouth	Bass	6.68E-02	5.13E-03	1.79E-01	-3.52E-05	-1.36E-05
	Catfish	1.72E-01	3.89E-03	6.84E-02	1.44E-05	6.20E-06
	Panfish	1.10E-01	1.78E-02	3.38E-02	2.93E-05	-8.10E-05
FMC Mouth	Bass	7.38E+01	1.28E-02	2.01E-01	-2.10E-06	-8.50E-06
	Catfish	1.29E-00	3.52E-03	9.23E-02	1.98E-05	-1.50E-05
	Panfish	6.84E-01	2.01E-02	3.02E-02	2.59E-05	-1.10E-05
SC Mouth	Bass	5.03E-01	1.47E-02	5.98E-01	3.00E-07	-1.40E-05
	Catfish	9.10E-01	3.81E-03	1.10E-01	-2.32E-05	1.90E-06
	Panfish	6.32E-01	1.60E-02	6.07E-02	-2.40E-06	6.90E-07
L3R Mouth	Bass	2.54E-01	3.80E-03	8.15E-02	-7.00E-05	-1.09E-04
	Catfish	2.02E-01	8.30E-04	1.17E-01	-9.60E-06	-1.86E-05
	Panfish	2.52E-01	3.61E-02	3.16E-02	3.22E-05	-4.32E-05
RM 120	Bass	2.23E-01	6.66E-03	3.20E-01	-4.50E-06	1.80E-06
	Catfish	2.56E-01	8.16E-03	5.19E-02	-1.66E-05	-4.35E-05
	Panfish	2.55E-01	1.11E-02	3.65E-02	-1.95E-05	-4.53E-05

a Each composite included five fish; three composites of each species type were collected at each sampling location.

b New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)

Table 50
Dose from Consumption of Fish from New Savannah Bluff Lock and Dam,
SRS Creek Mouths, and River Mile 120

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
NSB L&D ^c	Bass	2.17E-05	2.03E-02	1.24E-02	1.02E-03	0.00E+00	3.37E-02
	Catfish	4.64E-05	2.46E-02	4.76E-02	0.00E+00	0.00E+00	7.22E-02
	Panfish	3.51E-05	4.25E-02	1.96E-02	0.00E+00	0.00E+00	6.21E-02
U3R Mouth	Bass	3.70E-05	1.68E-02	5.73E-02	0.00E+00	0.00E+00	7.42E-02
	Catfish	1.62E-04	0.00E+00	2.99E-02	0.00E+00	1.41E-03	3.15E-02
	Panfish	8.76E-05	1.90E-02	4.44E-02	0.00E+00	0.00E+00	6.35E-02
BDC Mouth	Bass	8.00E-05	1.27E-02	1.70E-01	0.00E+00	0.00E+00	1.83E-01
	Catfish	2.06E-04	9.61E-03	6.50E-02	1.04E-03	5.07E-04	7.63E-02
	Panfish	1.32E-04	4.40E-02	3.21E-02	2.12E-03	0.00E+00	7.83E-02
FMC Mouth	Bass	8.83E-04	3.16E-02	1.91E-01	0.00E+00	0.00E+00	2.23E-01
	Catfish	1.54E-03	8.69E-03	8.77E-02	1.43E-03	0.00E+00	9.94E-02
	Panfish	8.19E-04	4.96E-02	2.87E-02	1.87E-03	0.00E+00	8.10E-02
SC Mouth	Bass	6.02E-04	3.63E-02	5.68E-01	2.17E-05	0.00E+00	6.05E+01
	Catfish	1.09E-03	9.41E-03	1.05E-01	0.00E+00	1.55E-04	1.15E-01
	Panfish	7.57E-04	3.95E-02	5.77E-02	0.00E+00	5.64E-05	9.80E-02
L3R Mouth	Bass	3.04E-04	9.39E-03	7.74E-02	0.00E+00	0.00E+00	8.71E-02
	Catfish	2.42E-04	2.05E-03	1.11E-01	0.00E+00	0.00E+00	1.13E-01
	Panfish	3.02E-04	8.92E-02	3.00E-02	2.32E-03	0.00E+00	1.22E-01
RM 120	Bass	2.67E-04	1.65E-02	3.04E-01	0.00E+00	1.47E-04	3.21E-01
	Catfish	3.06E-04	2.02E-02	4.93E-02	0.00E+00	0.00E+00	6.98E-02
	Panfish	3.05E-04	2.74E-02	3.47E-02	0.00E+00	0.00E+00	6.24E-02

a Dose was based on maximum consumption of 19 kg/year; to obtain dose from average consumption of fish (9 kg/year), multiply doses in table by 0.474.

b Dose based on negative concentration of individual radionuclides in fish was assumed to be 0.00 mrem.

c New Savannah Bluff Lock and Dam (formerly Augusta Lock and Dam)

Table 51
Calculated Doses to Aquatic Biota from SRS Releases

Page 1 of 1

Stream	Location	Flow, cfs	Dose to Biota, rad/d ^{a,b}				
			Fish	Shellfish	Algae	Raccoon	Duck
Upper Three Runs	U3R-4	202	1.16E-05	1.44E-05	8.52E-06	6.52E-06	8.85E-05
Beaver Dam Creek	400-D	5	1.43E-04	2.32E-05	5.53E-05	2.44E-04	5.84E-04
Four Mile Creek	FM-3	3	3.34E-03	4.14E-03	2.79E-03	2.21E-03	3.92E-02
Pen Branch	PB-3	14	2.51E-05	2.61E-05	3.01E-05	6.30E-06	9.45E-05
Steel Creek	SC-2A	2	4.99E-05	1.18E-04	4.90E-04	2.45E-04	7.18E-03
Lower Three Runs	L3R-2	22	3.75E-06	6.19E-06	1.53E-05	8.06E-06	2.19E-04

^a Calculated with CRITR methodology incorporated in the LADTAPII computer program

^b The DOE limit is 1 rad/d.

Table 52
Toxic Air Pollutant Emissions (1998)

Page 1 of 7

Pollutant	Chemical Abstract Number (CAS)	Actual Emissions (Tons/Year)
<i>Note: Emissions are calculated each year as part of an annual emissions inventory. In 1999, operating data were compiled and emissions calculated for 1998 operations for all site air emission sources. Because this process, which begins in January, requires up to 6 months to complete, this report provides 1998 emissions only. Actual emissions for 1999 will be compiled and reported in depth in the SRS Environmental Report for 2000 and in SRS Environmental Data for 2000.</i>		
ACETALDEHYDE	75-7-0	2.215E-01
ACETAMIDE	60-35-5	7.727E-05
ACETONITRILE	75-5-8	1.525E+00
2-ACETYLAMINOFLUORINE	53-96-3	7.727E-05
ACROLEIN	107-2-8	9.470E-03
ALIPHATIC POLYISOCYANATE	28182-81-2	7.930E-04
ALLYL CHLORIDE	107-5-1	7.727E-03
P-AMINODIPHENYL	92-67-1	7.727E-05
AMMONIUM CHLORIDE	12125-2-9	4.254E-04
AMMONIUM THIOCYANATE	1762-95-4	5.500E-04
ANILINE	62-53-3	1.117E-02
O-ANISIDINE	90-4-0	7.727E-05
P-ANISIDINE	104-94-9	7.727E-05
ANTIMONY	7440-36-0	1.667E-03
ANTIMONY COMPOUNDS	a	2.809E-04
ANTIMONY OXIDE	1327-33-9	1.609E-04
ARSENIC	7440-38-2	6.692E-03
BENZENE	71-43-2	6.381E+00
BERYLLIUM	7440-41-7	9.943E-04
BERYLLIUM OXIDE	1304-56-9	1.190E-06
BIPHENYL	92-52-4	1.211E-02
BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	9.851E-03
BROMOFORM	75-25-2	5.913E-01
1,3-BUTADIENE	106-99-0	6.073E-02
BUTANETHIOL	109-79-5	7.727E-03
CADMIUM	7440-43-9	1.495E-03

a No CAS number

Table 52
Toxic Air Pollutant Emissions (1998)

Page 2 of 7

Pollutant	Chemical Abstract Number (CAS)	Actual Emissions (Tons/Year)
CADMIUM OXIDE	1306-19-0	2.125E-04
CALCIUM CYANAMIDE	156-62-7	7.727E-05
CAPROLACTAM, VAPOR	105-60-2	1.538E-03
CAPTAN	133-6-2	7.727E-05
CARBARYL	63-25-2	7.727E-05
CARBON DISULFIDE	75-15-0	3.417E-03
CARBON TETRACHLORIDE	56-23-5	2.474E-03
CATECHOL	120-80-9	7.727E-05
CHLORDANE	57-74-9	1.487E-03
CHLORINE	7782-50-5	2.172E-02
CHLOROACETIC ACID	79-11-8	7.727E-05
CHLOROBENZENE	108-90-7	1.403E-03
CHLOROBENZILATE	510-15-6	7.727E-05
CHLOROFORM	67-66-3	7.547E+00
P-CHLORONITROBENZENE	100-0-5	7.727E-05
CHLOROPRENE	126-99-8	7.727E-03
CHROMIUM (+6) COMPOUNDS	a	5.587E-05
CHROMIUM COMPOUNDS	a	7.746E-04
COBALT	7440-48-4	6.365E-04
COBALT COMPOUNDS	a	6.239E-06
COBALT NITRATE HEXAHYDRATE	10026-22-9	4.843E-15
COBALTOUS FORMATE	544-18-3	1.228E-12
COBALTOUS OXIDE	1307-96-6	3.285E-10
CRESOL	1319-77-3	7.251E-04
CUMENE	98-82-8	1.566E-02
CYANAMIDE	420-4-2	7.727E-03
CYANIDE	57-12-5	1.079E-03
CYANIDE COMPOUNDS	a	1.157E-03
CYANOACETAMIDE	107-91-5	7.727E-05

a No CAS number

Table 52
Toxic Air Pollutant Emissions (1998)

Page 3 of 7

Pollutant	Chemical Abstract Number (CAS)	Actual Emissions (Tons/Year)
2,4-D, SALTS AND ESTERS	94-75-7	4.123E-04
DDE	72-55-9	7.727E-05
DIAZOMETHANE	334-88-3	7.727E-05
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	7.727E-05
DIBUTYL PHTHALATE	84-74-2	4.762E-04
P-DICHLOROBENZENE	106-46-7	6.495E-11
DICHLORVOS	62-73-7	7.727E-05
DIETHANOLAMINE	111-42-2	1.003E-03
N,N-DIETHYLANILINE	121-69-7	7.727E-05
DIETHYL SULFATE	64-67-5	7.727E-05
DIMETHYL CARBAMOYL CHLORIDE	79-44-7	7.727E-03
DIMETHYLFORMAMIDE	68-12-2	2.081E-05
1,1-DIMETHYL HYDRAZINE	57-14-7	7.727E-03
1,2-DIMETHYL HYDRAZINE	540-73-8	7.727E-03
M-DINITROBENZENE	99-65-0	7.777E-05
4-DIMETHYLAMINOAZOBENZENE	60-11-7	7.727E-05
4,6-DINITRO-O-CRESOL	534-52-1	7.727E-05
2,4-DINITROPHENOL	51-28-5	3.790E-07
2,4-DINITROTOLUENE	121-14-2	7.195E-04
1,4-DIOXANE	123-91-1	6.920E-04
DIPHENYLMERCURY	587-85-9	5.047E-03
1,2-EPOXYBUTANE	106-88-7	7.727E-03
ETHANETHIOL	75-8-1	7.727E-03
ETHANOLAMINE	141-43-5	1.663E-02
ETHYL ACRYLATE	140-88-5	7.727E-03
ETHYL BENZENE	100-41-4	6.528E-01
ETHYL CHLORIDE	75-0-3	8.624E-13
ETHYLENE DIBROMIDE	106-93-4	2.816E-06
ETHYLENE DICHLORIDE	107-6-2	1.141E-04
ETHYLENE GLYCOL (CLYCOL)	107-21-1	2.382E-01
ETHYLIDENE DICHLORIDE	75-34-3	2.595E-03

Table 52
Toxic Air Pollutant Emissions (1998)

Page 4 of 7

Pollutant	Chemical Abstract Number (CAS)	Actual Emissions (Tons/Year)
FORMALDEHYDE	50-0-0	1.578E+00
FORMIC ACID	64-18-6	3.766E+00
FURFURYL ALCOHOL	98-0-0	7.727E-05
GLYCIDALDEHYDE	765-34-4	7.727E-03
HEPTACHLOR	76-44-8	1.455E-05
HEPTACHLOR EPOXIDE	1024-57-3	9.410E-08
HEXACHLOROBENZENE	118-74-1	1.300E-04
HEXACHLOROBUTADIENE	87-68-3	4.378E-04
HEXACHLOROCYCLOHEXANE	608-73-1	7.727E-05
HEXACHLOROCYCLOPENTADIENE	77-47-4	5.396E-04
HEXACHLOROETHANE	67-72-1	2.348E-05
HEXACHLORONAPHTHALENE	1335-87-1	7.727E-05
HEXAMETHYLENE-1,6-DIISOCYANATOHEXANE	822-6-0	2.764E-04
HEXAMETHYLPHOSPHORAMIDE	680-31-9	7.727E-05
HEXANE	110-54-3	4.925E+00
HYDRAZINE	302-1-2	6.949E-04
HYDROCHLORIC ACID (HYDROGEN CHLORIDE)	7647-1-0	3.954E+01
HYDROGEN CYANIDE	74-90-8	5.430E-01
HYDROGEN SULFIDE	7783-6-4	5.100E+00
HYDROQUINONE	123-31-9	6.500E-02
ISOPHORONE	78-59-1	7.027E-03
KEPONE	143-50-0	7.727E-05
LEAD ARSENATE	7645-25-2	7.727E-05
LEAD(+2) ARSENATE	7784-40-9	7.727E-05
LINDANE	58-89-9	3.742E-06
MALATHION	121-75-5	5.303E-04
MALEIC ANHYDRIDE	108-31-6	5.580E-07
MANGANESE	7439-96-5	5.137E-01
MANGANESE COMPOUNDS	a	1.212E-04

a No CAS number

Table 52
Toxic Air Pollutant Emissions (1998)

Page 5 of 7

Pollutant	Chemical Abstract Number (CAS)	Actual Emissions (Tons/Year)
MANGANOUS NITRATE	10377-66-9	5.251E-16
MERCURY (ELEMENTAL)	7439-97-6	5.007E-02
METHOXYCHLOR	72-43-5	2.895E-02
METHYL ALCOHOL	67-56-1	7.321E+00
METHYL BROMIDE	74-83-9	3.990E-10
METHYL CHLORIDE	74-87-3	2.491E-04
4,4-METHYLENEDIANILINE	101-77-9	7.727E-05
METHYL ETHYL KETONE (2-BUTANONE)	78-93-3	1.516E-01
METHYL IODIDE	74-88-4	3.110E-08
METHYL ISOBUTYL KETONE	108-10-1	6.504E-01
METHYL METHACRYLATE	80-62-6	1.848E-03
METHYL TERT-BUTYL ETHER	1634-4-4	7.814E-01
METHYLENE CHLORIDE	75-9-2	7.533E+00
METHYL CHLOROFORM (1,1,1-TRICHLOROETHANE)	71-55-6	5.814E-02
MINERAL OIL	8012-95-1	3.706E-04
MIREX	2385-85-5	8.984E-05
NAPHTHALENE	91-20-3	8.673E-03
A-NAPHTHYLAMINE	134-32-7	7.736E-05
B-NAPHTHYLAMINE	91-59-8	7.727E-05
NICKEL	7440-2-0	9.390E-02
NICKEL OXIDE	1313-99-1	6.153E-04
NICKEL SULFATE	7786-81-4	7.727E-05
NITRIC ACID	7697-37-2	1.043E+01
P-NITROANILINE	100-1-6	7.852E-05
NITROBENZENE	98-95-3	5.004E-03
4-NITROBIPHENYL	92-93-3	7.727E-05
NITROGLYCERIN	55-63-0	7.727E-05
P-NITROPHENOL	100-2-7	1.192E-05
1-NITROPROPANE	108-3-2	5.409E-04
2-NITROPROPANE	79-46-9	5.463E-04
N-NITROSO-N-METHYLUREA	684-93-5	1.545E-04

Table 52
Toxic Air Pollutant Emissions (1998)

Page 6 of 7

Pollutant	Chemical Abstract Number (CAS)	Actual Emissions (Tons/Year)
N-NITROSODIMETHYLAMINE	62-75-9	1.545E-04
N-NITROSOMORPHOLINE	59-89-2	7.727E-05
P-NITROSOPHENOL	104-91-6	1.961E-04
P-NITROTOLUENE	99-99-0	7.727E-05
OCTACHLORONAPHTHALENE	2234-13-1	7.727E-05
OXALIC ACID	144-62-7	8.186E-03
PARAQUAT	1910-42-5	7.727E-05
PHENOL	108-95-2	1.179E-01
P-PHENYLENEDIAMINE	106-50-3	7.727E-05
PHOSPHORIC ACID	7664-38-2	8.637E-01
PICRIC ACID	88-89-1	7.727E-05
POLYCHLORINATED BIPHENYLS (PCB)	a	1.630E-03
POLYCYCLIC ORGANIC MATTER	a	2.060E-02
POTASSIUM PERMANGANATE	7722-64-7	1.653E-04
POTASSIUM THIOCYANATE	333-20-0	2.590E-04
PROPANE SULFONE	1120-71-4	7.727E-05
PROPIONALDEHYDE	123-38-6	7.727E-03
PROPOXUR	114-26-1	9.727E-05
PROPYLENE DICHLORIDE	78-87-5	7.727E-03
PROPYLENE OXIDE	75-56-9	4.500E-07
1,2-PROPYLENIMINE	75-55-8	4.636E-04
PYRETHRUM	8003-34-7	6.940E-09
QUINOLINE	91-22-5	7.727E-05
QUINONE	106-51-4	7.727E-05
ROTENONE	83-79-4	7.727E-05
SELENIUM	7782-49-2	1.171E-03
SELENIUM COMPOUNDS	a	2.707E-05
SELENIUM DIOXIDE	7446-8-4	6.100E-04
SELENIUM SULFIDE	7446-34-6	8.499E-07

a No CAS number

Table 52
Toxic Air Pollutant Emissions (1998)

Page 7 of 7

Pollutant	Chemical Abstract Number (CAS)	Actual Emissions (Tons/Year)
SODIUM HYDROXIDE (CAUSTIC SODA)	1310-73-2	1.329E+00
STYRENE	100-42-5	1.734E-02
SULFURIC ACID	7664-93-9	7.648E-02
1,1,2,2-TETRACHLOROETHANE	79-34-5	6.320E-04
TETRACHLOROETHYLENE (PERCHLOROETHYLENE)	127-18-4	1.289E+01
TITANIUM TETRACHLORIDE	7550-45-0	6.954E-04
TOLUENE	108-88-3	2.143E+00
2,4-TOLUENEDIAMINE	95-80-7	7.727E-05
TOLUENE-2,4-DIISOCYANATE	584-84-9	5.319E-06
O-TOLUIDINE	95-53-4	7.727E-05
TOXAPHENE	8001-35-2	8.702E-02
1,2,4-TRICHLOROBENZENE	120-82-1	1.345E-04
1,1,2-TRICHLOROETHANE	79-00-5	6.028E-03
TRICHLOROETHYLENE (TCE)	79-1-6	2.371E+00
2,4,5-TRICHLOROPHENOL	95-95-4	1.073E-04
TRIETHYLAMINE	121-44-8	2.000E-05
TRIFLURALIN	1582-9-8	7.727E-05
2,2,4-TRIMETHYLPENTANE	540-84-1	5.150E-02
VINYL ACETATE	108-5-4	7.919E-03
VINYL CHLORIDE	75-1-4	2.268E-03
VINYLDENE CHLORIDE	75-35-4	7.731E-09
(M)-XYLENE	108-38-3	2.074E-01
XYLENE (MIXED ISOMERS)	1330-20-7	5.575E+00
O-XYLENE	95-47-6	5.783E-01
P-XYLENE	106-42-3	3.022E-01
XYLIDINE	1300-73-8	7.727E-05

Table 53
National Pollutant Discharge Elimination System Monitoring Data

Page 1 of 10

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.

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Outfall A-01						
<i>Effluent consists of the following types of wastewater: noncontact cooling water, steam condensate, laboratory drain water, cooling tower overflow, steam-cleaning-rack wastewater, well flush water, groundwater air stripper effluent from outfall A-1A, and stormwater.</i>						
BOD	mg/L	22	6.40E+00	0.00E+00	22	8.27E-01
CHL	mg/L	42	8.00E-02	0.00E+00	42	1.90E-03
CU	mg/L	93	1.10E-01	0.00E+00	93	2.40E-02
FLO	MGD	30	2.59E+00	1.73E-01	30	1.22E+00
HG	mg/L	94	2.30E-04	0.00E+00	93	4.01E-05
O&G	mg/L	12	2.10E+00	0.00E+00	12	7.17E-01
PB	mg/L	93	1.10E-02	0.00E+00	93	1.72E-04
PERCL	µg/L	3	0.00E+00	0.00E+00	3	0.00E+00
PH	SU	12	8.29E+00	6.68E+00		
TMP	DEG C	12	2.30E+01	1.52E+01	12	1.93E+01
TRICL	µg/L	3	0.00E+00	0.00E+00	3	0.00E+00
TSS	mg/L	60	1.30E+01	0.00E+00	60	2.15E+00
Outfall A-1A						
<i>Effluent consists of the following type of wastewater: groundwater air stripper effluent.</i>						
FLO	MGD	15	4.51E-01	7.92E-02	15	4.12E-01
PERCL	µg/L	15	0.00E+00	0.00E+00	15	0.00E+00
TRICL	µg/L	15	2.40E+00	0.00E+00	15	1.60E-01
Outfall A-11						
<i>Effluent consists of the following types of wastewater: fire station building drains, air conditioner condensate, well flush water, noncontact cooling water, steam condensate, liquid effluent treatment facility process effluent from Outfall M-04, air stripper effluent from outfall M-05, and stormwater.</i>						
BOD	mg/L	12	3.53E+01	0.00E+00	12	3.36E+00
CU	mg/L	12	0.00E+00	0.00E+00	12	0.00E+00
FLO	MGD	49	2.40E+00	7.76E-02	49	7.88E-01
HG	mg/L	13	1.40E-04	0.00E+00	13	1.08E-05
PB	mg/L	12	0.00E+00	0.00E+00	12	0.00E+00

Table 53
National Pollutant Discharge Elimination System Monitoring Data

Page 2 of 10

Permit SC0000175

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Outfall A-11 (cont.)						
PH	SU	12	7.46E+00	6.47E+00		
TRICL	mg/L	5	0.00E+00	0.00E+00	5	0.00E+00
TSS	mg/L	12	1.00E+01	1.00E+00	12	3.58E+00
Outfall D-1A						
<i>Effluent consists of the following type of wastewater: sanitary wastewater.</i>						
BOD	mg/L	12	1.07E+01	0.00E+00	12	4.19E+00
DO	mg/L	12	8.70E+00	2.50E+00	12	5.68E+00
FEC	mg/L	12	1.40E+01	0.00E+00	12	1.67E+00
FLO	MGD	365	2.84E-02	3.04E-04	365	5.63E-03
PH	SU	12	7.40E+00	6.90E+00		
TSS	mg/L	12	1.45E+01	1.20E+00	12	6.17E+00
Outfall F-01						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water, cooling tower blowdown, and stormwater.</i>						
CHL	mg/L	14	1.09E+00	1.90E-01	14	6.36E-01
FLO	MGD	13	1.01E-01	4.32E-02	13	6.99E-02
PH	mg/L	14	8.39E+00	7.11E+00		
TMP	DEG C	13	2.80E+01	1.66E+01	13	2.25E+01
TSS	mg/L	15	3.90E+01	0.00E+00	15	3.00E+00
Outfall F-02						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water, cooling tower blowdown, and stormwater.</i>						
FLO	MGD	15	1.15E-01	1.44E-02	15	6.11E-02
PH	SU	15	8.42E+00	7.22E+00		
TMP	DEG C	15	2.80E+01	1.83E+01	15	2.29E+01
TSS	mg/L	15	1.00E+00	0.00E+00	15	2.00E-01
Outfall F-03						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water, steam condensate, cooling tower blowdown, process water, and stormwater.</i>						
FLO	MGD	12	0.00E+00	0.00E+00	12	0.00E+00

Table 53
National Pollutant Discharge Elimination System Monitoring Data

Page 3 of 10

Permit SC0000175

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Outfall F-05						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water and steam condensate from the plutonium fabrication facility, well flush water, and stormwater.</i>						
FLO	MGD	15	9.79E-02	1.01E-02	15	3.76E-02
O&G	mg/L	15	7.60E+00	0.00E+00	15	6.13E-01
PH	SU	15	8.08E+00	7.18E+00		
TMP	DEG C	15	2.70E+01	1.69E+01	15	2.22E+01
TSS	MG/L	16	1.50E+01	0.00E+00	16	3.13E+00

Outfall F-08

Effluent consists of the following types of wastewater: water from power operations and waste management cooling towers, separations cooling water, steam condensate, process wastewater, laundry effluent, water tank overflow, stormwater, and radiological retention basin cooling water.

CU	mg/L	12	8.70E-03	0.00E+00	12	3.06E-03
FLO	MGD	365	5.56E+00	5.04E-01	365	1.54E+00
HG	mg/L	12	1.00E-04	0.00E+00	12	1.67E-05
PB	mg/L	12	0.00E+00	0.00E+00	12	0.00E+00
PH	SU	12	7.78E+00	6.71E+00		
TMP	DEG C	12	2.90E+01	1.80E+01	12	2.43E+01
TSS	mg/L	12	4.00E+00	0.00E+00	12	2.17E+00

Outfall G-10

Effluent consists of the following type of wastewater: Centralized Sanitary Wastewater Treatment Facility wastewater.

AN-Summer	mg/L	8	6.96E+00	1.83E-01	8	1.40E+00
AN-Winter	mg/L	16	1.64E+00	1.24E-01	16	4.37E-01
BOD	mg/L	24	1.23E+01	3.40E+00	24	6.29E+00
CU	mg/L	13	5.20E-02	1.70E-02	13	2.75E-02
DO	mg/L	26	9.90E+00	5.30E+00	26	6.96E+00
FEC	mg/L	24	1.20E+02	0.00E+00	24	1.53E+01
FLO	MGD	365	4.99E-01	1.73E-02	365	1.81E-01
PB	MG/L	13	3.90E-02	0.00E+00	13	3.00E-03
PH	SU	26	7.80E+00	6.80E+00		
TSS	mg/L	24	3.04E+01	3.20E+00	24	1.56E+01

Table 53
National Pollutant Discharge Elimination System Monitoring Data

Page 4 of 10

Permit SC0000175

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Outfall H-02						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water and stormwater.</i>						
FLO	MGD	365	7.76E-01	6.46E-03	365	7.36E-02
O&G	mg/L	14	1.00E+00	0.00E+00	14	7.14E-02
PH	SU	13	8.41E+00	6.64E+00		
TMP	DEG C	14	2.60E+01	9.00E+00	14	1.98E+01
TSS	mg/L	14	3.00E+00	0.00E+00	14	1.57E+00
Outfall H-04						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water, CIF nonprocess wastewater, steam condensate, and stormwater.</i>						
FLO	MGD	15	1.58E-02	2.88E-03	15	7.18E-03
PH	SU	15	7.52E+00	6.48E+00	15	6.84E+00
TMP	mg/L	15	2.60E+01	9.00E+00	15	2.00E+01
TSS	mg/L	14	2.00E+00	0.00E+00	14	6.43E-01
Outfall H-07						
<i>Effluent consists of the following types of wastewater: air compressor cooling water, cooling tower blowdown, and stormwater.</i>						
FLO	mg/L	13	6.52E-03	0.00E+00	13	6.76E-04
O&G	mg/L	2	0.00E+00	0.00E+00	2	0.00E+00
PH	SU	2	6.15E+00	5.79E+00		
TSS	mg/L	2	3.00E+00	3.00E+00	2	3.00E+00
Outfall H-08						
<i>Effluent consists of the following types of wastewater: water from power operations and waste management cooling towers, steam condensate, ash basin overflow, water tank overflow, neutralization system discharge, water laboratory discharge, well-flush water, powerhouse drains, and stormwater.</i>						
FLO	MGD	49	2.45E+00	3.17E-01	49	8.87E-01
PB	mg/L	12	0.00E+00	0.00E+00	12	0.00E+00
PH	mg/L	12	8.41E+00	6.36E+00		
TSS	mg/L	12	3.00E+00	0.00E+00	12	2.00E+00

Table 53
National Pollutant Discharge Elimination System Monitoring Data

Page 5 of 10

Permit SC0000175

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Outfall H-12						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water, cooling tower and air compressor blowdown, stormwater, In-tank Precipitation Facility neutralized flush water, and radiological retention basin cooling water.</i>						
CU	mg/L	12	1.50E-02	0.00E+00	12	4.63E-03
FLO	mg/L	41	4.43E+00	5.49E-02	41	5.79E-01
PB	mg/L	12	0.00E+00	0.00E+00	12	0.00E+00
PH	SU	12	7.69E+00	6.61E+00		
TMP	mg/L	12	2.70E+01	1.20E+01	12	2.06E+01
TSS	mg/L	12	2.00E+00	0.00E+00	12	6.67E-01

Outfall H-16

Effluent consists of the following type of wastewater: F-Area/H-Area Effluent Treatment Facility process wastewater.

AG	mg/L	47	0.00E+00	0.00E+00	47	0.00E+00
BOD	mg/L	47	3.07E+01	0.00E+00	47	2.75E+00
CD	mg/L	47	0.00E+00	0.00E+00	47	0.00E+00
CR	mg/L	47	1.90E-02	0.00E+00	47	5.72E-04
CU	mg/L	47	9.10E-03	0.00E+00	47	5.70E-04
FLO	MGD	47	1.58E-01	5.31E-02	47	1.12E-01
HG	mg/L	47	3.00E-03	0.00E+00	47	1.56E-04
NI	mg/L	47	1.20E+00	0.00E+00	47	2.55E-02
O&G	mg/L	47	5.30E+00	0.00E+00	47	4.40E-01
PB	mg/L	47	0.00E+00	0.00E+00	47	0.00E+00
PH	SU	47	8.05E+00	6.23E+00		
TSS	mg/L	47	1.30E+01	0.00E+00	47	2.17E+00
ZN	mg/L	47	9.90E-02	0.00E+00	47	2.28E-02

Outfall K-06

Effluent consists of the following types of wastewater: powerhouse wastewater, package boiler blowdown, cooling tower overflow, and stormwater.

CHL	mg/L	4	5.00E-02	0.00E+00	4	1.25E-02
FLO	MGD	13	1.12E-01	0.00E+00	13	1.68E-02
O&G	mg/L	5	1.40E+00	0.00E+00	5	7.40E-01
PH	SU	5	8.01E+00	7.12E+00		

Table 53
National Pollutant Discharge Elimination System Monitoring Data

Page 6 of 10

Permit SC0000175

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Outfall K-06 (cont.)						
TSS	mg/L	5	9.00E+00	0.00E+00	5	2.60E+00
Outfall K-10						
<i>Effluent consists of the following type of wastewater: Infrequent diversion from outfall K-18.</i>						
FLO	MGD	12	0.00E+00	0.00E+00	12	0.00E+00
Outfall K-12						
<i>Effluent consists of the following type of wastewater: sanitary wastewater.</i>						
BOD	mg/L	11	8.40E+00	0.00E+00	11	4.46E+00
DO	mg/L	11	7.80E+00	1.20E+00	11	3.70E+00
FEC	mg/L	11	6.00E+00	0.00E+00	11	1.27E+00
FLO	MGD	365	1.42E-02	0.00E+00	365	3.76E-03
PH	SU	12	7.60E+00	7.00E+00		
TSS	mg/L	12	1.06E+01	8.00E-01	12	5.09E+00
Outfall K-18						
<i>Effluent consists of the following types of wastewater: building 105-K noncontact cooling water and process sewer flow, 186-K Basin overflow, and water plant wastewater and treated sanitary wastewater from outfall K-12.</i>						
AL	mg/L	6	2.40E-01	0.00E+00	6	1.31E-01
FLO	MGD	6	4.52E-01	2.87E-01	6	4.00E-01
O&G	mg/L	6	0.00E+00	0.00E+00	6	0.00E+00
PH	SU	6	7.74E+00	6.98E+00		
TSS	mg/L	6	5.00E+00	1.00E+00	6	2.83E+00
Outfall L-07						
<i>Effluent consists of the following types of wastewater: 186-L Basin overflow, treated sanitary wastewater from outfall L-7A, and process sewer/reactor building drains.</i>						
FLO	MGD	365	9.05E+00	6.01E+00	365	6.90E+00
O&G	mg/L	6	1.50E+00	0.00E+00	6	2.50E-01
PH	SU	6	8.19E+00	7.01E+00		
TSS	mg/L	6	1.20E+01	0.00E+00	6	3.83E+00

Table 53
National Pollutant Discharge Elimination System Monitoring Data

Page 7 of 10

Permit SC0000175

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Outfall L-7A						
<i>Effluent consists of the following type of wastewater: sanitary wastewater.</i>						
BOD	mg/L	12	6.60E+00	0.00E+00	12	2.36E+00
DO	mg/L	12	8.90E+00	3.80E+00	12	5.66E+00
FEC	#/100mL	12	8.00E+00	0.00E+00	12	1.00E+00
FLO	MGD	365	3.37E-02	0.00E+00	365	2.63E-03
PH	SU	12	7.40E+00	6.70E+00		
TSS	mg/L	12	1.72E+01	3.60E+00	12	7.83E+00

Outfall L-08*Effluent consists of the following types of wastewater: engine house cooling water and stormwater.*

FLO	MGD	6	8.35E-02	2.26E-02	6	5.72E-02
O&G	mg/L	6	1.40E+00	0.00E+00	6	2.33E-01
PH	SU	6	7.70E+00	6.60E+00		
TSS	mg/L	6	7.00E+00	0.00E+00	6	1.67E+00

Outfall M-04*Effluent consists of the following types of wastewater: Liquid Effluent Treatment Facility process wastewater.*

AL	mg/L	8	2.50E-01	0.00E+00	8	1.16E-01
AN	mg/L	8	4.53E+00	0.00E+00	8	1.61E+00
CN	mg/L	8	1.00E-02	0.00E+00	8	2.50E-03
CR	mg/L	8	0.00E+00	0.00E+00	8	0.00E+00
FLO	MGD	8	7.20E-03	4.31E-03	8	5.84E-03
NI	mg/L	8	7.60E-02	3.80E-02	8	5.15E-02
PB	mg/L	8	1.50E-02	0.00E+00	8	1.88E-03
PH	SU	8	7.37E+00	6.47E+00		
TSS	mg/L	8	4.00E+00	0.00E+00	8	1.13E+00

Outfall M-05*Effluent consists of the following type of wastewater: groundwater air stripper effluent.*

FLO	MGD	15	7.20E-01	5.76E-01	15	6.18E-01
PERCL	µg/L	15	0.00E+00	0.00E+00	15	0.00E+00
TRICL	µg/L	15	0.00E+00	0.00E+00	15	0.00E+00

Table 53
National Pollutant Discharge Elimination System Monitoring Data

Page 8 of 10

Permit SC0000175

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Outfall PP-1						
<i>Effluent consists of the following type of wastewater: manganese greensand filter backwash/rinse water.</i>						
FE	mg/L	4	2.91E-01	9.90E-02	4	2.10E-01
FLO	MGD	5	1.22E-03	3.28E-04	5	8.02E-04
MN	mg/L	5	1.26E+01	1.70E+00	5	7.34E+00
PH	SU	6	6.89E+00	6.29E+00		
TSS	mg/L	5	3.00E+00	0.00E+00	5	1.40E+00
Outfall S-04						
<i>Effluent consists of the following types of wastewater: DWPF nonprocess wastewater—including cooling tower blowdown, neutralization wastewater, and infrequent flushing/rinsing activities.</i>						
FLO	MGD	12	1.24E-01	7.49E-02	12	9.45E-02
PH	SU	12	8.22E+00	7.29E+00		
TSS	mg/L	12	1.40E+01	0.00E+00	12	2.92E+00
ZN	mg/L	12	3.70E+00	7.40E-02	12	5.61E-01
Outfall X-04						
<i>Effluent consists of the following types of wastewater: welding quench sink water, steam condensate, and stormwater.</i>						
FLO	MGD	13	1.96E-02	2.59E-04	13	4.08E-03
PH	SU	14	7.50E+00	4.23E+00		
TSS	mg/L	14	4.00E+00	0.00E+00	14	1.00E+00
Outfall X-08						
<i>Effluent consists of the following types of wastewater: noncontact cooling water, domestic well overflow, treated sanitary wastewater from outfall X-8A, treated process water from outfall X-8B, treated groundwater from outfall X-8C, and stormwater.</i>						
FLO	MGD	14	5.90E-01	1.73E-01	14	3.39E-01
PH	SU	14	7.47E+00	6.15E+00		
TSS	mg/L	14	3.00E+00	0.00E+00	14	1.21E+00
Outfall X-8A						
<i>Effluent consists of the following type of wastewater: sanitary wastewater. (Note: one data point, for fecal coliform, was a > value and was used in the computation at face value.)</i>						
BOD	mg/L	11	1.07E+01	0.00E+00	11	4.88E+00
DO	mg/L	11	10.0E+00	4.00E+00	11	7.54E+00
FEC	#/100 mL	11	2.00E+00	0.00E+00	11	1.82E-01

Table 53
National Pollutant Discharge Elimination System Monitoring Data

Page 9 of 10

Permit SC0000175

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Outfall X-8A (cont.)						
FLO	MGD	365	4.75E-03	0.00E+00	365	1.62E-03
PH	SU	11	7.40E+00	6.40E+00		
TSS	mg/L	11	1.60E+01	0.00E+00	11	7.85E+00

Outfall X-8B

Effluent consists of the following type of wastewater: treated process water from the TNX Effluent Treatment Plant.

BEN	µg/L	22	1.10E+00	0.00E+00	22	5.00E-02
BOD	mg/L	22	3.70E+00	0.00E+00	22	4.86E-01
C	mg/L	22	1.16E+01	0.00E+00	22	3.90E+00
FLO	MGD	23	2.40E-02	1.00E-03	23	2.07E-02
HG	mg/L	22	5.80E-03	0.00E+00	22	9.54E-04
PH	SU	22	7.56E+00	7.02E+00		
PHE	mg/L	21	2.30E-02	0.00E+00	21	4.47E-03
TSS	mg/L	22	1.20E+01	1.00E+00	22	4.68E+00

Outfall X-8C

Effluent consists of the following type of wastewater: treated groundwater air stripper effluent.

FLO	MGD	12	1.17E-01	0.00E+00	12	6.84E-02
PERCL	µg/L	12	0.00E+00	0.00E+00	12	0.00E+00
TRICL	µg/L	12	0.00E+00	0.00E+00	12	0.00E+00

Outfall X-19

Effluent consists of the following type of wastewater: treated groundwater.

1,2-DCE	µg/L	2	0.00E+00	0.00E+00	2	0.00E+00
FLO	MGD	12	0.00E+00	0.00E+00	12	8.88E-04
PERCL	µg/L	2	0.00E+00	0.00E+00	2	0.00E+00
TRICL	µg/L	2	0.00E+00	0.00E+00	2	2.85E+00
VC	µg/L	2	0.00E+00	0.00E+00	2	0.00E+00

Table 53
National Pollutant Discharge Elimination System Monitoring Data

Page 10 of 10

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
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Permit SCG250162

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.

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
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Outfall 001

Effluent consists of the following types of wastewater: once-through noncontact cooling water.

FLO	MGD	5	0.00E+00	0.00E+00	5	0.00E+00
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Table 54
National Pollutant Discharge Elimination System Toxicity Monitoring Data

Page 1 of 1

Measurement	Number of Samples	Pass	Fail
Permit SC0000175			
<i>Note: Toxicity requirements can be found in WSRC's NPDES industrial discharge permit, which is available from the South Carolina Department of Health and Environmental Control. Toxicity analysis is a pass/fail test; failure indicates that the tested water was toxic to the test organisms.</i>			
Outfall A-01			
<i>Effluent consists of the following types of wastewater: noncontact cooling water, steam condensate, laboratory drain water, cooling tower overflow, steam cleaning oil/water separation, well-flushing operations, air conditioning condensate, A-1A air stripper discharge, and stormwater.</i>			
Chronic Toxicity	12	0	12
Outfall A-11			
<i>Effluent consists of the following types of wastewater: fire station floor drains, air conditioning condensate, well flushing operations, cooling water, steam condensate, Liquid Effluent Treatment Facility discharge, M-Area air stripper discharge, and stormwater.</i>			
Chronic Toxicity	12	5	7
Outfall G-10			
<i>Effluent consists of the following types of wastewater: sanitary treatment facility.</i>			
Acute Toxicity	5	5	0
Chronic Toxicity	2	2	0
Outfall X-08			
<i>Effluent consists of the following types of wastewater: noncontact cooling water, domestic well overflow water, treated sanitary wastewater from outfall X-08A, treated process water from outfall X-8B, treated groundwater from outfall X-8C, and stormwater.</i>			
Acute Toxicity	12	11	1
Outfall X-19			
<i>Effluent consists of the following types of wastewater: treated groundwater.</i>			
Acute Toxicity	1	1	0

Table 55
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Page 1 of 17

Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall N-006		Background Grab	Composite	Composite	Grab	Grab
O&G	mg/L	No Flow			<1.0	<1.0
TSS	mg/L	No Flow	21	70	57	11
BOD	mg/L	No Flow	<2.0	2.1	2.2	<2.0
NO ₂ ,NO ₃	mg/L	No Flow	0.053	0.024	<0.020	<0.020
PO ₄ -P	mg/L	No Flow	0.155	0.017	0.295	0.065
COD	mg/L	No Flow	19.5	23.3	55.2	26.1
TOC	mg/L	No Flow	8.9	6.6	16	6.2
TKN	mg/L	No Flow	0.489	1.400	1.010	1.140
Phenol	mg/L	No Flow			<0.0060	<0.0060
AL	mg/L	No Flow	0.82	0.66	2.3	0.5
Boron	mg/L	No Flow	0.27	<0.050	<0.050	0.15
CR	mg/L	No Flow	<0.0050	<0.0050	<0.0050	<0.0050
CU	mg/L	No Flow	<0.0050	0.007	0.0078	<0.0050
FE	mg/L	No Flow	2.5	0.77	9.10	2.2
PB	mg/L	No Flow	<0.0030	<0.0030	<0.0030	<0.0030
MN	mg/L	No Flow	0.32	0.082	1.2	0.12
NI	mg/L	No Flow	<0.010	<0.010	<0.010	<0.010
AG	mg/L	No Flow	<0.0050	<0.0050	<0.0050	<0.0050
ZN	mg/L	No Flow	0.35	0.2	1.4	0.075

Table 55
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Page 2 of 17

Type Sample/Concentration

Measurement Units

Permit SCR0000000

Outfall N-006 (cont.)

pH	SU	Background Grab	Composite	Composite	Grab	Grab
WATER TEMP	°C	No Flow			6.21	6.30
RAIN GAUGE	in.	No Flow			21	26
TOTAL RAIN	in.	No Flow			0.16	0.75
RAIN DATE		No Flow	1.8	0.93	1.8	1.25
LAST .01 RAIN			10/12/99	10/4/99	10/12/99	7/22/99
BACKGROUND DATE		3/31/99	10/4/99	9/30/99	10/4/99	7/18/99

Outfall N-12A

Background Grab

O&G	mg/L	No Flow
TSS	mg/L	No Flow
BOD	mg/L	No Flow
NO ₂ , NO ₃	mg/L	No Flow
PO ₄ -P	mg/L	No Flow
COD	mg/L	No Flow
TOC	mg/L	No Flow
TKN	mg/L	No Flow
Phenol	mg/L	No Flow
AL	mg/L	No Flow

Table 55
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Page 3 of 17

Measurement Units Type Sample/Concentration

Permit SCR000000

Background Grab

Outfall N-12A (cont.)

Boron	mg/L	No Flow
CR	mg/L	No Flow
CU	mg/L	No Flow
FE	mg/L	No Flow
PB	mg/L	No Flow
MG	mg/L	No Flow
MN	mg/L	No Flow
NI	mg/L	No Flow
AG	mg/L	No Flow
ZN	mg/L	No Flow
pH	SU	No Flow
WATER TEMP	°C	No Flow
RAIN GAUGE	in.	No Flow
TOTAL RAIN	in.	No Flow
RAIN DATE		
LAST 0.1 RAIN		
BACKGROUND DATE		3/31/99

Table 55
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Page 4 of 17

Measurement	Units	Type Sample/Concentration		
Permit SCR000000				
Outfall E-001		Background Grab	Grab	Grab
O&G	mg/L	No Flow	<1.0	<1.0
TSS	mg/L	No Flow	10	13
BOD	mg/L	No Flow	6.6	5.7
TDS	mg/L	No Flow	60	64
NH3-N	mg/L	No Flow	0.109	0.233
NO2/NO3	mg/L	No Flow	0.084	0.173
PO4-P	mg/L	No Flow	0.261	0.024
COD	mg/L	No Flow	46.3	39.5
TOC	mg/L	No Flow	16	16
TKN	mg/L	No Flow	0.464	1.43
Phenol	mg/L	No Flow	0.008	<0.0060
SO4	mg/L	No Flow	3.57	9.83
Bromide	mg/L	No Flow	<1.00	<1.00
CN	mg/L	No Flow	0.011	<0.010
AL	mg/L	No Flow	0.13	0.86
SB	mg/L	No Flow	<0.0050	<0.0050
AS	mg/L	No Flow	<0.0050	<0.0050
BA	mg/L	No Flow	0.05	0.038
Boron	mg/L	No Flow	<0.050	0.22

Table 55
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Page 5 of 17

Measurement	Units	Type Sample/Concentration	
Permit SCR0000000			
Outfall E-001 (cont.)			
CD	mg/L	Background Grab	Grab
CR	mg/L	No Flow	<0.0020
CU	mg/L	No Flow	<0.0050
FE	mg/L	No Flow	<0.0050
PB	mg/L	No Flow	0.46
MG	mg/L	No Flow	<0.0030
MN	mg/L	No Flow	0.07
HG	mg/L	No Flow	0.051
NI	mg/L	No Flow	<0.00010
SE	mg/L	No Flow	<0.010
AG	mg/L	No Flow	<0.0050
SN	mg/L	No Flow	<0.0050
U	mg/L	No Flow	<0.050
ZN	mg/L	No Flow	<0.500
MG (dissolved)	mg/L	No Flow	0.032
Tetrachloroethylene	µg/L	No Flow	0.7
Trichloroethylene	µg/L	No Flow	<2.0
1,1,1-Trichloroethylene	µg/L	No Flow	<2.0

Table 55
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Page 6 of 17

Measurement **Units** **Type Sample/Concentration**

Permit SCR0000000

Outfall E-001 (cont.)

pH	SU	Background Grab	Grab	Grab
		No Flow	6.9	7.84
WATER TEMP	°C	No Flow	23	30
RAIN GAUGE	in.	No Flow	0.20	0.43
TOTAL RAIN	in.	No Flow	0.54	0.45
RAIN DATE			9/15/99	8/16/99
LAST 0.1 RAIN			9/10/99	7/28/99
BACKGROUND DATE		3/31/99		

Outfall H-007A

O&G	mg/L	Background Grab	Composite	Composite	Grab	Grab
		No Flow			1.4	<1.0
BOD	mg/L	No Flow	2.4	<2.0	28.1	7
TSS	mg/L	No Flow	9	28	17	125
NO ₂ -NO ₃	mg/L	No Flow	1.62	63.3	1.63	0.874
PO ₄ -P	mg/L	No Flow	0.086	0.125	0.103	0.214
COD	mg/L	No Flow	98.2	22.4	25.2	42.9
TOC	mg/L	No Flow	4.7	3.2	8.6	9.1
TKN	mg/L	No Flow	0.530	1.33	0.589	1.93
Sulfate	mg/L	No Flow	5.98	4.04	8.12	5.52
Aluminum	mg/L	No Flow	0.44	0.92	0.36	2.1

Table 55
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Page 7 of 17

Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall H-007A (cont.)		Background Grab	Composite	Composite	Grab	Grab
Copper	mg/L	No Flow	0.012	0.0086	0.0085	<0.0050
Iron	mg/L	No Flow	0.36	0.92	0.22	2.7
pH	SU	No Flow			6.53	6.90
WATER TEMP	°C	No Flow			25	31
RAIN GAUGE	in.	No Flow			0.29	0.75
TOTAL RAIN	in.	No Flow	1.4	1.25	1.4	1.25
RAIN DATE			7/6/99	7/22/99	7/6/99	7/22/99
LAST 0.1 RAIN			6/28/99	7/18/99	6/28/99	7/18/99
BACKGROUND DATE		3/31/99				
Outfall K-002		Background Grab	Composite	Grab		
O&G	mg/L	No Flow		<1.0		
BOD	mg/L	No Flow	17	2.9		
TSS	mg/L	No Flow	37	7		
COD	mg/L	No Flow	<10	31.8		
NO ₂ ,NO ₃	mg/L	No Flow	1.41	0.394		
PO ₄ -P	mg/L	No Flow	0.058	0.106		
TKN	mg/L	No Flow	0.413	0.501		
TOC	mg/L	No Flow	8.3	8.4		

Table 55
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Page 8 of 17

Type Sample/Concentration

Units

Measurement

Permit SCR0000000

Outfall K-002 (cont.)

Copper	mg/L	Background Grab	Composite	Grab
pH	SU	No Flow	0.0067	0.010
WATER TEMP	°C	No Flow		6.95
RAIN GAUGE	in.	No Flow		23
TOTAL RAIN	in.	No Flow	0.75	0.34
RAIN DATE			7/6/99	0.67
LAST 0.1 RAIN				9/15/99
BACKGROUND DATE		3/31/99	6/28/99	8/24/99

Outfall K-004

O&G	mg/L	Background Grab	Composite	Grab
BOD	mg/L	No Flow	15.9	<1.0
TSS	mg/L	No Flow	20	6.8
COD	mg/L	No Flow	41.5	7
NO ₂ ,NO ₃	mg/L	No Flow	0.426	11.5
PO ₄ -P	mg/L	No Flow	0.177	<0.020
TKN	mg/L	No Flow	0.526	0.02
TOC	mg/L	No Flow	13	0.102
Sulfate	mg/L	No Flow	3.85	4.2
				11.5

Table 55
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Page 9 of 17

Measurement	Units	Type Sample/Concentration			
Permit SCR000000					
Outfall K-004 (cont.)		Background Grab	Composite	Grab	
Copper	mg/L	No Flow	0.0091	0.007	
pH	SU	No Flow		6.93	
WATER TEMP	°C	No Flow		21.0	
RAIN GAUGE	in.	No Flow		0.3	
TOTAL RAIN	in.	No Flow	1.05	9/29/99	
RAIN DATE			7/6/99	10/4/99	
LAST 0.1 RAIN			6/27/99	9/28/99	
BACKGROUND DATE		3/31/99			
Outfall S-005		Background Grab	Grab	Grab	Grab
O&G	mg/L	<1.0	<1.0	<1.0	
BOD	mg/L	3.7	2.3	4	
TSS	mg/L	10	7	50	
NO ₂ ,NO ₃	mg/L	<0.020	0.054	28.3	
PO ₄ -P	mg/L	0.333	<0.010	0.241	
COD	mg/L	19.2	<10	19.3	
TOC	mg/L	5.7	5.2	5.8	
TKN	mg/L	0.344	<0.100	1.66	
SO4	mg/L	2.46	1.36	2.86	

Table 55
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Page 10 of 17

Measurement	Units	Type Sample/Concentration			
Permit SCR000000					
Outfall S-005 (cont.)		Background Grab	Grab	Grab	Grab
Benzene	µg/L	<0.5		<0.5	<0.5
CR	mg/L	<0.0050	<0.0050	<0.0050	
CU	mg/L	0.015	0.0089	0.027	
HG	mg/L	<0.00010	<0.00010	<0.00010	
PB	mg/L	<0.0030	<0.0030	0.03	
ZN	mg/L	0.082	0.067	0.18	
pH	SU	6.85	6.57	6.9	
WATER TEMP	°C	24	25	28	
RAIN GAUGE	in.		0.28	0.75	0.28
TOTAL RAIN	in.		1.35	1.25	1
RAIN DATE			7/6/99	7/22/99	10/4/99
LAST 0.1 RAIN		6/17/99	6/27/99	7/19/99	9/30/99
BACKGROUND DATE		6/23/99			
Outfall X-001		Background Grab	Composite	Composite	Grab
O&G	mg/L	No Flow			<1.0
BOD	mg/L	No Flow	3.2	4.2	2.7
COD	mg/L	No Flow	32.5	18.6	23
NO ₂ ,NO ₃	mg/L	No Flow	0.151	0.646	0.122

Table 55
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Page 11 of 17

Measurement	Units	Type Sample/Concentration			
Permit SCR000000					
Outfall X-001 (cont.)		Background Grab	Composite	Composite	Grab
PO ₄ -P	mg/L	No Flow	0.23	0.759	0.237
TKN	mg/L	No Flow	1.19	0.413	0.194
TOC	mg/L	No Flow	5.2	7.8	7.6
TSS	mg/L	No Flow	35	12	10
TDS	mg/L	No Flow	26	44	28
Sulfate	mg/L	No Flow	<1.00	3.35	3.88
Phenol	mg/L	No Flow			0.018
Benzene	µg/L	No Flow			<0.5
CD	mg/L	No Flow	<0.0020	<0.0020	<0.0020
CR	mg/L	No Flow	<0.0050	<0.0050	<0.0050
CU	mg/L	No Flow	0.009	0.0059	<0.0050
FE	mg/L	No Flow	0.43	0.29	0.39
MG	mg/L	No Flow	0.38	0.53	0.52
NI	mg/L	No Flow	0.016	<0.010	<0.010
Ethylene glycol	mg/L	No Flow	<50	<50	<50
pH	SU	No Flow			6.8
WATER TEMP	°C	No Flow			22
RAIN GAUGE	in.	No Flow			1.00
TOTAL RAIN	in.	No Flow	1.73	0.38	1.73

Table 55
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Page 12 of 17

Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall X-001 (cont.)		Background Grab	Composite	Composite	Grab	
RAIN DATE			10/4/99	7/11/99	10/4/99	
LAST 0.1 RAIN			9/30/99	6/27/99	9/30/99	
BACKGROUND DATE		3/31/99				
Outfall N-14		Background Grab	Composite	Composite	Grab	Grab
BOD	mg/L	No Flow	<2.0		6	3.9
COD	mg/L	No Flow	12.9		45.4	44.6
Nitrate	mg/L	No Flow	0.154		0.571	0.275
O&G	mg/L	No Flow			<1.0	<1.0
Phenol	mg/L	No Flow			<0.006	<0.0060
PO ₄ -P	mg/L	No Flow	0.055		0.151	0.146
TKN	mg/L	No Flow	0.701		0.287	1.07
TOC	mg/L	No Flow	4.3		15	6.1
TSS	mg/L	No Flow	23		36	35
Arsenic	mg/L	No Flow	<0.0050		<0.0050	<0.0050
Copper	mg/L	No Flow	<0.050		0.0071	<0.0050
Ehtylene Glycol	mg/L	No Flow	<50		<50	<50
pH	SU	No Flow			6.53	6.50
WATER TEMP	°C	No Flow			23	28

Table 55
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Page 13 of 17

Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall N-14 (cont.)		Background Grab	Composite	Composite	Grab	Grab
RAIN GAUGE	in.	No Flow			0.3	0.25
TOTAL RAIN	in.	No Flow	0.93		0.56	4.1
RAIN DATE			10/4/99		9/15/99	7/22/99
LAST 0.1 RAIN			9/29/99		9/9/99	7/19/99
BACKGROUND DATE		3/31/99				
Outfall A-08		Background Grab	Composite	Composite	Grab	Grab
O&G	mg/L	No Flow			1.5	<1.0
BOD	mg/L	No Flow	2.8	<2.0	2.9	10
TSS	mg/L	No Flow	10	19	39	576
COD	mg/L	No Flow	43.2	14.2	42.9	342
Nitrate/Nitrite	mg/L	No Flow	1.5	0.052	0.11	3.28
PO ₄ -P	mg/L	No Flow	0.067	0.056	1.1	0.772
TKN	mg/L	No Flow	1.35	<0.100	0.14	2.94
TOC	mg/L	No Flow	8.4	5.2	4.9	13
Arsenic	mg/L	No Flow	0.015	<0.0050	0.038	0.018
Copper	mg/L	No Flow	0.029	0.008	0.052	0.068
Nickel	mg/L	No Flow	<0.010	<0.010	<0.010	<0.010
Zinc	mg/L	No Flow	1.2	0.61	1	1.4

Table 55
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall A-08 (cont.)		Background Grab	Composite	Composite	Grab	Grab
pH	SU	No Flow			6.23	4.45
WATER TEMP	°C	No Flow			17	27
RAIN GAUGE	in.	No Flow			0.15	0.16
TOTAL RAIN	in.	No Flow	0.38	0.28	0.28	0.34
RAIN DATE			12/13/99	12/6/99	12/6/99	8/19/99
LAST 0.1 RAIN			12/10/99	11/27/99	11/27/99	8/16/99
BACKGROUND DATE		3/31/99				
Outfall Y-01		Background Grab	Composite	Composite	Grab	Grab
O&G	mg/L	No Flow			6.6	8.5
BOD	mg/L	No Flow	5.2	2.6	6.4	15
TSS	mg/L	No Flow	1	6	26	5
COD	mg/L	No Flow	22.7	30.3	12.3	17
Nitrate/Nitrite	mg/L	No Flow	0.203	0.11	0.02	0.022
PO ₄ -P	mg/L	No Flow	0.063	0.071	0.023	0.061
TKN	mg/L	No Flow	<0.100	<0.100	1.73	<0.100
TOC	mg/L	No Flow	6.8	7.1	2.6	6.6
Copper	mg/L	No Flow	0.11	0.075	0.13	0.085
Ethylene Glycol	mg/L	No Flow	<50	<50	<50	<50

Table 55
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Page 15 of 17

Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall Y-01 (cont.)		Background Grab	Composite	Composite	Grab	Grab
pH	SU	No Flow			7.31	6.1
WATER TEMP	°C	No Flow			16	16
RAIN GAUGE	in.	No Flow			0.1	0.11
TOTAL RAIN	in.	No Flow	0.39	0.2	0.39	0.2
RAIN DATE			12/13/99	12/6/99	12/13/99	12/6/99
LAST 0.1 RAIN			12/6/99	11/26/99	12/6/99	11/26/99
BACKGROUND DATE		12/3/99				
Outfall H-06		Background Grab	Composite	Composite	Grab	Grab
O&G	mg/L	No Flow			<1.0	<1.0
BOD	mg/L	No Flow	<2.0	<2.0	2.8	<2.0
TSS	mg/L	No Flow	19	18	14	25
COD	mg/L	No Flow	26.5	<10	19.8	<10
Nitrate/Nitrite	mg/L	No Flow	0.11	0.658	0.618	0.373
PO ₄ -P	mg/L	No Flow	<0.010	0.212	0.13	0.035
TKN	mg/L	No Flow	<0.100	0.542	0.561	0.126
TOC	mg/L	No Flow	7	6.6	7.2	2.6
Copper	mg/L	No Flow	<0.0050	<0.0050	<0.0050	<0.0050
Iron	mg/L	No Flow	1.2	0.48	0.41	0.45

Table 55
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall H-06 (cont.)		Background Grab	Composite	Composite	Grab	Grab
Manganese	mg/L	No Flow	0.019	0.021	0.013	0.02
Mercury	mg/L	No Flow	0.00012	<0.00010	<0.00010	<0.00010
pH	SU	No Flow			7.21	7.02
WATER TEMP	°C	No Flow			23	21
RAIN GAUGE	in.	No Flow			0.7	0.3
TOTAL RAIN	in.	No Flow	0.42	0.96	0.96	0.42
RAIN DATE			12/6/99	10/12/99	10/12/99	10/4/99
LAST 0.1 RAIN			11/28/99	10/4/99	10/4/99	9/29/99
BACKGROUND DATE		10/3/99				
Outfall N-02		Background Grab	Composite	Grab		
O&G	mg/L	No Flow		<1.0		
BOD	mg/L	No Flow	<2.0	<2.0		
TSS	mg/L	No Flow	9	66		
Sulfate	mg/L	No Flow	11.9	5.36		
COD	mg/L	No Flow	<10	14.7		
Nitrate/Nitrite	mg/L	No Flow	0.06	0.49		
PO ₄ -P	mg/L	No Flow	0.055	0.208		
TKN	mg/L	No Flow	0.259	0.104		

Table 55
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Page 17 of 17

Measurement	Units	Type Sample/Concentration		
Permit SCR000000				
Outfall N-02 (cont.)		Background Grab	Composite	Grab
TOC	mg/L	No Flow	3.7	3.2
Copper	mg/L	No Flow	<0.0050	<0.0050
Iron	mg/L	No Flow	0.27	1.9
pH	SU	No Flow		7.10
WATER TEMP	°C	No Flow		22
RAIN GAUGE	in.	No Flow		0.25
TOTAL RAIN	in.	No Flow	1.68	1
RAIN DATE			10/13/99	10/4/99
LAST 0.1 RAIN			10/4/99	9/29/99
BACKGROUND DATE		3/31/99		

Table 56
National Pollutant Discharge Elimination System
Land Application Monitoring Data

Page 1 of 2

Permit ND0072125

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 ND-1

Analytical Laboratory	Results Shealy	Results Shealy	Units
Date of Sample	1/21/99	6/29/99	
Arsenic	22.7	7.7	Mg/Kg
Cadmium	4.81	6.1	Mg/Kg
Chromium	25.6	25.0	Mg/Kg
Copper	449	460	Mg/Kg
Lead	173	140	Mg/Kg
Mercury	0.143	2.65	Mg/Kg
Molybdenum	34.2	40.0	Mg/Kg
Nickel	17.3	19	Mg/Kg
Potassium	980	600	Mg/Kg
Selenium	25.3	13	Mg/Kg
Silver	84.6	52	Mg/Kg
Zinc	3130	1500	Mg/Kg
Percent Solids	15.6	15.1	%
Percent Solids	27.2	13.8	%
Percent Solids	13.3	14.9	%
Percent Solids	13.4	17.6	%
Percent Solids	12.2	18.6	%
Percent Solids	12.6	16.5	%
Percent Solids	11.9	17.2	%
Percent Solids	12.7	14.9	%
Percent Solids	12.8	15.3	%
Percent Solids		14.5	%
Percent Solids		17.3	%
Fecal Coliform	2790	418	# / G
Fecal Coliform	11700	<105	# / G
Fecal Coliform	45800	<130	# / G

Table 56
National Pollutant Discharge Elimination System
Land Application Monitoring Data

Page 2 of 2

Permit ND0072125

Outfall ND-1

Analytical Laboratory	Results Shealy	Results Shealy	Units
Date of Sample	1/21/99	6/29/99	
Fecal Coliform	10300	<116	# / G
Fecal Coliform	9430	360	# / G
Fecal Coliform	11600	<121	# / G
Fecal Coliform	5130	1060	# / G
Fecal Coliform		556	# / G
Ammonia as Nitrogen	640	16.7	Mg/Kg
Total Kjeldahl Nitrogen	640	732	Mg/Kg
Nitrate + Nitrite	77.1	158	Mg/Kg
pH		6.34	SU
Total Volatile Solids	1.5	9.4	%
Percent Total Solids	15.2		%

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 1 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
<i>Note: "ND" denotes "not detected."</i>													
Beaver Dam Creek (400-D)													
Date		1/12/99	2/9/99	3/9/99	4/7/99	5/4/99	6/8/99	7/13/99	8/10/99	9/14/99	10/26/99	11/2/99	12/7/99
Temperature	°C	13.4	17.3	14.6	23	21	28.7	25	29.3	26.7	19	21	18.2
DO	mg/L	10.3	8.6	8.1	7.9	7.9	4.6	5.5	6.8	6.6	9.4	8.3	9.1
pH	pH	7.3	6.8	6.6	6.7	7.8	6.9	6.8	7	6.7	6.9	6.8	7
Conductivity	μhos/cm	124	102	119	116	116	115	120	111	103	117	148	145
COD	mg/L	ND	ND	ND	ND	ND	ND	ND	22	ND	ND	ND	ND
Nitrite Nitrogen	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate Nitrogen	mg/L	0.43	0.40	0.38	0.39	0.51	0.50	0.49	0.50	0.37	0.37	0.49	0.32
TSS	mg/L	6	13	5	6	5	5	2	7	6	7	4	3
Total Phos	mg/L	0.236	0.303	ND	0.095	0.025	0.077	0.132	0.686	0.149	0.075	ND	0.122
TOC	mg/L	ND	ND	3.5	3.5	3	3.4	6	4.8	2.9	3.1	3.2	3.8
Aluminum	mg/L	0.355	0.299	0.391	0.109	0.32	0.27	0.32	0.47	ND	0.21	0.26	0.19
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	mg/L	ND	ND	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron	mg/L	0.391	0.423	0.42	0.54	0.48	0.26	0.6	0.5	0.22	0.3	0.29	0.26
Lead	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	mg/L	0.056	0.112	0.064	0.069	0.066	0.05	0.09	0.074	0.052	0.058	0.047	0.05
Mercury	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	mg/L	0.009	0.005	0.035	0.013	ND	ND	0.011	0.0075	0.012	0.013	0.005	0.052

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 2 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Beaver Dam Creek (400-D)													
<i>Pesticides</i>													
Aldrin	ug/L		ND			ND			ND			ND	
Alpha-BHC	ug/L		ND			ND			ND			ND	
Beta-BHC	ug/L		ND			ND			ND			ND	
Delta-BHC	ug/L		ND			ND			ND			ND	
Gamma-BHC (Lindane)	ug/L		ND			ND			ND			ND	
Chlordane	ug/L		ND			ND			ND			ND	
4,4-DDD	ug/L		ND			ND			ND			ND	
4,4-DDE	ug/L		ND			ND			ND			ND	
4,4-DDT	ug/L		ND			ND			ND			ND	
Dieldrin	ug/L		ND			ND			ND			ND	
Endosulfan I	ug/L		ND			ND			ND			ND	
Endosulfan II	ug/L		ND			ND			ND			ND	
Endosulfan sulfate	ug/L		ND			ND			ND			ND	
Endrin	ug/L		ND			ND			ND			ND	
Endrin aldehyde	ug/L		ND			ND			ND			ND	
Endrin ketone	ug/L		ND			ND			ND			ND	
Heptachlor	ug/L		ND			ND			ND			ND	
Heptachlor epoxide	ug/L		ND			ND			ND			ND	
Methoxychlor	ug/L		ND			ND			ND			ND	
Toxaphene	ug/L		ND			ND			ND			ND	
<i>Herbicides</i>													
2,4-D	ug/L		ND			ND			ND			ND	
2,4,5-TP (Silvex)	ug/L		ND			ND			ND			ND	

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 3 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Four Mile Creek-2 (FM-2; 4M-2)													
Date		1/12/99	2/9/99	3/9/99	4/7/99	5/4/99	6/8/99	7/13/99	8/10/99	9/14/99	10/26/99	11/2/99	12/7/99
Temperature	°C	6.7	13	10.8	20	19	22.8	22	25	20.5	14	19	15
DO	mg/L	7.9	6.7	8.5	5.2	5.9	4.7	4.1	5.1	5.3	7	6.3	8.3
pH	pH	6.4	5.8	6.5	5.8	7.1	6.4	5.9	5.9	6.7	5.1	5.8	5.4
Conductivity	μhos/cm	48	38	40	43	51	80	39	69	98	82	74	57
COD	mg/L	ND	ND	ND	ND	ND	ND	20	ND	ND	ND	ND	ND
Nitrite Nitrogen	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate Nitrogen	mg/L	0.31	0.32	0.41	0.25	0.39	0.36	0.21	0.49	0.30	0.33	0.29	0.18
TSS	mg/L	5	4	2	9	1	13	4	ND	66	3	1	5
Total Phos	mg/L	0.175	ND	ND	0.067	0.099	0.058	0.085	0.016	0.091	ND	ND	ND
TOC	mg/L	3.5	ND	3.1	4.6	3.7	1.8	7.3	4.3	2.8	1.4	1.9	2.5
Aluminum	mg/L	0.214	0.25	0.149	ND	0.31	0.36	0.21	0.44	0.082	0.18	0.22	0.26
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	mg/L	ND	ND	0.008	ND	0.0085	ND	ND	ND	ND	ND	ND	ND
Iron	mg/L	0.734	0.699	0.76	1.8	1.6	1.3	1.5	1.6	1.8	0.84	0.66	0.64
Lead	mg/L	ND	ND	ND	0.014	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	mg/L	0.04	0.048	0.039	0.096	0.083	0.15	0.13	0.12	0.19	0.055	0.069	0.061
Mercury	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	mg/L	0.011	0.009	0.06	0.022	0.078	0.016	0.026	0.018	0.03	0.021	0.049	0.082

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 4 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Four Mile Creek-2 (FM-2; 4M-2)													
<i>Pesticides</i>													
Aldrin	ug/L		ND			ND			ND			ND	
Alpha-BHC	ug/L		ND			ND			ND			ND	
Beta-BHC	ug/L		ND			ND			ND			ND	
Delta-BHC	ug/L		ND			ND			ND			ND	
Gamma-BHC (Lindane)	ug/L		ND			ND			ND			ND	
Chlordane	ug/L		ND			ND			ND			ND	
4,4-DDD	ug/L		ND			ND			ND			ND	
4,4-DDE	ug/L		ND			ND			ND			ND	
4,4-DDT	ug/L		ND			ND			ND			ND	
Dieldrin	ug/L		ND			ND			ND			ND	
Endosulfan I	ug/L		ND			ND			ND			ND	
Endosulfan II	ug/L		ND			ND			ND			ND	
Endosulfan sulfate	ug/L		ND			ND			ND			ND	
Endrin	ug/L		ND			ND			ND			ND	
Endrin aldehyde	ug/L		ND			ND			ND			ND	
Endrin ketone	ug/L		ND			ND			ND			ND	
Heptachlor	ug/L		ND			ND			ND			ND	
Heptachlor epoxide	ug/L		ND			ND			ND			ND	
Methoxychlor	ug/L		ND			ND			ND			ND	
Toxaphene	ug/L		ND			ND			ND			ND	
<i>Herbicides</i>													
2,4-D	ug/L		ND			ND			ND			ND	
2,4,5-TP (Silvex)	ug/L		ND			ND			ND			ND	

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 5 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Four Mile Creek-2B (FM-2B; 4M-2B)													
Date		1/12/99	2/9/99	3/9/99	4/7/99	5/4/99	6/8/99	7/13/99	8/10/99	9/14/99	10/26/99	11/2/99	12/7/99
Temperature	°C	5.5	12.7	9.2	20	18	23.1	23	26	19.8	11	17	10
DO	mg/L	8.3	5.8	7.6	3	5.2	2.4	2.7	1	3.4	7.3	5.7	7.9
pH	pH	6.1	5.9	6.4	5.5	7	6.3	6.1	6.4	6.3	5.5	6.1	6.5
Conductivity	μhos/cm	60	53	52	53	49	73	44	102	66	85	99	70
COD	mg/L	ND	ND	ND	ND	ND	ND	23	ND	ND	ND	ND	ND
Nitrite Nitrogen	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate Nitrogen	mg/L	0.49	0.35	0.46	0.27	0.27	0.17	0.19	0.15	0.17	0.27	0.24	0.17
TSS	mg/L	3	3	2	3	2	2	4	17	1	4	ND	2
Total Phos	mg/L	0.387	ND	ND	0.092	ND	ND	0.175	0.097	0.073	ND	ND	ND
TOC	mg/L	3.2	ND	2.7	4.4	3.3	3.6	6.7	7.9	2.2	2	4.2	2.7
Aluminum	mg/L	0.183	0.209	0.244	ND	0.19	0.12	0.18	0.19	ND	0.14	0.1	ND
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	mg/L	ND	ND	0.012	0.006	0.0051	ND	ND	ND	ND	ND	ND	ND
Iron	mg/L	0.425	0.794	0.839	1.9	1.2	1.5	1.2	11	1.2	0.43	0.38	0.49
Lead	mg/L	ND	ND	ND	0.012	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	mg/L	0.018	0.025	0.038	0.076	0.057	0.65	0.061	2	1.2	0.028	0.026	0.026
Mercury	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0001
Nickel	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	mg/L	0.01	0.013	0.055	0.038	0.013	0.016	0.037	ND	0.0086	0.0064	0.022	0.059

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 6 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Four Mile Creek-2B (FM-2B; 4M-2B)													
<i>Pesticides</i>													
Aldrin	ug/l		ND			ND			ND			ND	
Alpha-BHC	ug/l		ND			ND			ND			ND	
Beta-BHC	ug/l		ND			ND			ND			ND	
Delta-BHC	ug/l		ND			ND			ND			ND	
Gamma-BHC (Lindane)	ug/l		ND			ND			ND			ND	
Chlordane	ug/l		ND			ND			ND			ND	
4,4-DDD	ug/l		ND			ND			ND			ND	
4,4-DDE	ug/l		ND			ND			ND			ND	
4,4-DDT	ug/l		ND			ND			ND			ND	
Dieldrin	ug/l		ND			ND			ND			ND	
Endosulfan I	ug/l		ND			ND			ND			ND	
Endosulfan II	ug/l		ND			ND			ND			ND	
Endosulfan sulfate	ug/l		ND			ND			ND			ND	
Endrin	ug/l		ND			ND			ND			ND	
Endrin aldehyde	ug/l		ND			ND			ND			ND	
Endrin ketone	ug/l		ND			ND			ND			ND	
Heptachlor	ug/l		ND			ND			ND			ND	
Heptachlor epoxide	ug/l		ND			ND			ND			ND	
Methoxychlor	ug/l		ND			ND			ND			ND	
Toxaphene	ug/l		ND			ND			ND			ND	
<i>Herbicides</i>													
2,4-D	ug/l		ND			ND			ND			ND	
2,4,5-TP (Silvex)	ug/l		ND			ND			ND			ND	

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 7 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Four Mile Creek-6 (FM-6; 4M-6)													
Date		1/12/99	2/9/99	3/9/99	4/7/99	5/4/99	6/8/99	7/13/99	8/10/99	9/14/99	10/26/99	11/2/99	12/7/99
Temperature	°C	9.8	15.8	10.3	23	21	26	22	28	23	14	18	12.3
DO	mg/L	9.5	8.5	10.7	8.3	8.2	6.3	5.1	7.1	6.7	9.9	8.5	10.5
pH	pH	7	7	6.6	7	7.7	6.8	6.4	7.8	6.7	7	6.7	5.9
Conductivity	μhos/cm	54	62	64	54	54	63	44	68	53	70	73	55
COD	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite Nitrogen	mg/L	0.13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate Nitrogen	mg/L	1.61	2.11	1.99	1.35	1.49	1.08	0.85	1.05	0.32	1.28	1.13	0.68
TSS	mg/L	4	1	5	3	1	2	2	ND	ND	2	3	3
Total Phos	mg/L	0.402	0.043	ND	0.025	ND	ND	0.116	ND	0.098	ND	ND	0.318
TOC	mg/L	2.1	ND	2.9	3.7	2.8	2.5	9.9	2.7	4	1.5	3.2	3.6
Aluminum	mg/L	0.145	0.22	0.329	ND	0.24	0.16	0.25	0.17	ND	0.15	0.3	0.089
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	mg/L	ND	0.009	0.007	ND	ND	ND	ND	ND	ND	ND	ND	0.046
Iron	mg/L	0.304	0.329	0.901	0.98	0.91	0.51	0.88	0.22	0.27	0.28	0.5	0.74
Lead	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	mg/L	0.026	0.028	0.073	0.046	0.036	0.042	0.055	0.015	0.017	0.017	0.023	0.048
Mercury	mg/L	ND	ND	ND	0.0001	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	mg/L	0.011	0.021	0.053	0.033	0.032	0.01	0.017	ND	0.019	0.018	0.0089	0.098

Table 57

Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 8 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Four Mile Creek-6 (FM-6; 4M-6)													
<i>Pesticides</i>													
Aldrin	ug/L		ND			ND			ND			ND	
Alpha-BHC	ug/L		ND			ND			ND			ND	
Beta-BHC	ug/L		ND			ND			ND			ND	
Delta-BHC	ug/L		ND			ND			ND			ND	
Gamma-BHC (Lindane)	ug/L		ND			ND			ND			ND	
Chlordane	ug/L		ND			ND			ND			ND	
4,4-DDD	ug/L		ND			ND			ND			ND	
4,4-DDE	ug/L		ND			ND			ND			ND	
4,4-DDT	ug/L		ND			ND			ND			ND	
Dieldrin	ug/L		ND			ND			ND			ND	
Endosulfan I	ug/L		ND			ND			ND			ND	
Endosulfan II	ug/L		ND			ND			ND			ND	
Endosulfan sulfate	ug/L		ND			ND			ND			ND	
Endrin	ug/L		ND			ND			ND			ND	
Endrin aldehyde	ug/L		ND			ND			ND			ND	
Endrin ketone	ug/L		ND			ND			ND			ND	
Heptachlor	ug/L		ND			ND			ND			ND	
Heptachlor epoxide	ug/L		ND			ND			ND			ND	
Methoxychlor	ug/L		ND			ND			ND			ND	
Toxaphene	ug/L		ND			ND			ND			ND	
<i>Herbicides</i>													
2,4-D	ug/L		ND			ND			ND			ND	
2,4,5-TP (Silvex)	ug/L		ND			ND			ND			ND	

Table 57

Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 9 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Lower Three Runs Creek-2 (L3R-2)													
Date		1/12/99	2/9/99	3/9/99	4/7/99	5/4/99	6/8/99	7/13/99	8/10/99	9/14/99	10/26/99	11/2/99	12/7/99
Temperature	°C	10	15.4	10.8	19	19	20	21	24	20	15	19	17
DO	mg/L	10.3	7.8	9.5	6.7	8.3	5.5	4.8	6.8	7.2	9	6.8	9.3
pH	pH	7.2	6.8	6.9	6.5	7.5	6.5	6.5	7.5	6.5	6.7	6.9	7.2
Conductivity	μhos/cm	85	63	92	78	77	48	55	119	87	90	101	127
COD	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite Nitrogen	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate Nitrogen	mg/L	0.29	0.20	0.26	0.20	0.30	0.20	0.22	0.37	0.28	0.26	0.20	0.21
TSS	mg/L	3	3	8	3	3	3	ND	1	1	2	ND	2
Total Phos	mg/L	0.221	ND	ND	0.032	ND	ND	0.227	ND	0.098	ND	ND	0.079
TOC	mg/L	3.5	ND	4.7	3.8	2.9	4.9	15	1.9	4.7	5.5	6.1	3.4
Aluminum	mg/L	0.158	0.142	0.333	ND	0.19	0.14	0.22	0.25	ND	0.14	ND	0.067
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	0.0062	ND	ND	ND
Copper	mg/L	ND	ND	0.029	ND	ND	ND	0.015	ND	ND	ND	ND	0.012
Iron	mg/L	0.191	0.232	0.298	0.37	0.33	0.15	0.61	0.41	2.3	3	0.51	0.26
Lead	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	mg/L	0.031	0.034	0.049	0.06	0.041	0.019	0.068	0.094	0.035	0.13	0.063	0.13
Mercury	mg/L	ND	ND	ND	0.0001	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	mg/L	0.007	0.005	0.065	0.009	0.048	0.011	0.014	ND	ND	0.02	0.0085	0.068

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 10 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Lower Three Runs Creek-2 (L3R-2)													
<i>Pesticides</i>													
Aldrin	ug/L		ND			ND			ND			ND	
Alpha-BHC	ug/L		ND			ND			ND			ND	
Beta-BHC	ug/L		ND			ND			ND			ND	
Delta-BHC	ug/L		ND			ND			ND			ND	
Gamma-BHC (Lindane)	ug/L		ND			ND			ND			ND	
Chlordane	ug/L		ND			ND			ND			ND	
4,4-DDD	ug/L		ND			ND			ND			ND	
4,4-DDE	ug/L		ND			ND			ND			ND	
4,4-DDT	ug/L		ND			ND			ND			ND	
Dieldrin	ug/L		ND			ND			ND			ND	
Endosulfan I	ug/L		ND			ND			ND			ND	
Endosulfan II	ug/L		ND			ND			ND			ND	
Endosulfan sulfate	ug/L		ND			ND			ND			ND	
Endrin	ug/L		ND			ND			ND			ND	
Endrin aldehyde	ug/L		ND			ND			ND			ND	
Endrin ketone	ug/L		ND			ND			ND			ND	
Heptachlor	ug/L		ND			ND			ND			ND	
Heptachlor epoxide	ug/L		ND			ND			ND			ND	
Methoxychlor	ug/L		ND			ND			ND			ND	
Toxaphene	ug/L		ND			ND			ND			ND	
<i>Herbicides</i>													
2,4-D	ug/L		ND			ND			ND			ND	
2,4,5-TP (Silvex)	ug/L		ND			ND			ND			ND	

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Pen Branch-3 (PB-3)													
Date		1/12/99	2/9/99	3/9/99	4/7/99	5/4/99	6/8/99	7/13/99	8/10/99	9/14/99	10/26/99	11/2/99	12/7/99
Temperature	°C	9.9	15.3	10.3	22	21	26.6	22	28	23	14	18	11
DO	mg/L	9.7	8.8	9.1	7.1	6.8	5.5	5.5	6.5	7.2	10.2	8.4	11
pH	pH	6.8	6.6	6.5	6.4	7.5	6.8	6.3	7.7	6.7	6.7	6.7	6.5
Conductivity	μhos/cm	72	56	55	59	55	68	43	69	64	64	64	68
COD	mg/L	ND	ND	ND	ND	ND	ND	21	ND	ND	ND	ND	ND
Nitrite Nitrogen	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate Nitrogen	mg/L	0.35	0.23	0.26	0.22	0.30	0.18	0.35	0.31	0.23	0.32	0.26	0.18
TSS	mg/L	3	1	3	2	2	2	2	ND	ND	2	2	1
Total Phos	mg/L	0.325	ND	ND	0.135	ND	ND	0.329	0.058	0.094	ND	ND	0.025
TOC	mg/L	1.8	ND	3.3	3.8	4.3	3.1	9.6	3.7	3.5	2.8	5.3	4.2
Aluminum	mg/L	0.154	0.161	0.171	ND	0.23	0.17	0.2	0.22	ND	0.15	0.28	ND
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	mg/L	ND	0.008	ND	ND	0.0056	ND	0.0059	ND	ND	ND	ND	0.0077
Iron	mg/L	0.344	0.502	0.473	0.84	0.72	0.64	1.1	0.54	0.35	0.39	0.49	0.37
Lead	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	mg/L	0.031	0.047	0.047	0.059	0.056	0.077	0.059	0.038	0.024	0.033	0.07	0.038
Mercury	mg/L	ND	ND	ND	0.0001	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	mg/L	ND	0.031	0.019	0.007	0.046	ND	0.0075	ND	0.012	ND	ND	0.057

Table 57

Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 12 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Pen Branch-3 (PB-3)													
<i>Pesticides</i>													
Aldrin	ug/L		ND			ND			ND			ND	
Alpha-BHC	ug/L		ND			ND			ND			ND	
Beta-BHC	ug/L		ND			ND			ND			ND	
Delta-BHC	ug/L		ND			ND			ND			ND	
Gamma-BHC (Lindane)	ug/L		ND			ND			ND			ND	
Chlordane	ug/L		ND			ND			ND			ND	
4,4-DDD	ug/L		ND			ND			ND			ND	
4,4-DDE	ug/L		ND			ND			ND			ND	
4,4-DDT	ug/L		ND			ND			ND			ND	
Dieldrin	ug/L		ND			ND			ND			ND	
Endosulfan I	ug/L		ND			ND			ND			ND	
Endosulfan II	ug/L		ND			ND			ND			ND	
Endosulfan sulfate	ug/L		ND			ND			ND			ND	
Endrin	ug/L		ND			ND			ND			ND	
Endrin aldehyde	ug/L		ND			ND			ND			ND	
Endrin ketone	ug/L		ND			ND			ND			ND	
Heptachlor	ug/L		ND			ND			ND			ND	
Heptachlor epoxide	ug/L		ND			ND			ND			ND	
Methoxychlor	ug/L		ND			ND			ND			ND	
Toxaphene	ug/L		ND			ND			ND			ND	
<i>Herbicides</i>													
2,4-D	ug/L		ND			ND			ND			ND	
2,4,5-TP (Silvex)	ug/L		ND			ND			ND			ND	

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 13 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
River Mile 120 (RM-120; RM-10; Below SRS)													
Date		1/12/99	2/9/99	3/9/99	4/7/99	5/4/99	6/8/99	7/13/99	8/10/99	9/14/99	10/26/99	11/2/99	12/7/99
Temperature	°C	9.9	13.4	12.8	20	16.6	24	23	28	24	18.3	20	14
DO	mg/L	10.2	14.9 ^a	7.7	10.3 ^a	8.1	6.4	6.3	7	6.9	7.8	8.2	8.8
pH	pH	7.11	6.7	7.3	6.5	6.7	7.1	7	6.8	6.7	7.2	6.7	6.4
Conductivity	μhos/cm	107	96	125	105	102	119	96	111	99	104	129	128
COD	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite Nitrogen	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate Nitrogen	mg/L	0.39	0.42	0.41	0.44	0.58	0.49	0.46	0.48	0.42	0.43	0.44	0.38
TSS	mg/L	6	12	6	7	9	11	ND	7	8	5	3	4
Total Phos	mg/L	0.503	0.067	ND	ND	0.218	0.126	0.159	0.132	0.298	0.114	0.11	0.245
TOC	mg/L	3.6	2.8	3.7	3.1	4	3.2	7	3.5	2.6	2.9	3.1	3.6
Aluminum	mg/L	0.304	0.3	0.18	0.08	0.21	0.35	0.46	0.23	ND	0.2	0.27	0.19
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	mg/L	ND	ND	ND	0.019	ND	ND	ND	ND	ND	ND	ND	ND
Iron	mg/L	0.365	0.562	0.415	0.48	0.47	0.44	0.84	0.41	0.24	0.29	0.21	0.29
Lead	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	mg/L	0.06	0.091	0.058	0.053	0.076	0.057	0.076	0.065	0.058	0.053	0.039	0.051
Mercury	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	mg/L	0.016	ND	0.015	0.019	0.012	0.011	0.017	0.021	0.0073	ND	0.007	0.036

^a Supersaturated, probably due to instream primary production

Table 57

Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 14 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
River Mile 120 (RM-120; RM-10; Below SRS)													
<i>Pesticides</i>													
Aldrin	ug/L		ND			ND			ND			ND	
Alpha-BHC	ug/L		ND			ND			ND			ND	
Beta-BHC	ug/L		ND			ND			ND			ND	
Delta-BHC	ug/L		ND			ND			ND			ND	
Gamma-BHC (Lindane)	ug/L		ND			ND			ND			ND	
Chlordane	ug/L		ND			ND			ND			ND	
4,4-DDD	ug/L		ND			ND			ND			ND	
4,4-DDE	ug/L		ND			ND			ND			ND	
4,4-DDT	ug/L		ND			ND			ND			ND	
Dieldrin	ug/L		ND			ND			ND			ND	
Endosulfan I	ug/L		ND			ND			ND			ND	
Endosulfan II	ug/L		ND			ND			ND			ND	
Endosulfan sulfate	ug/L		ND			ND			ND			ND	
Endrin	ug/L		ND			ND			ND			ND	
Endrin aldehyde	ug/L		ND			ND			ND			ND	
Endrin ketone	ug/L		ND			ND			ND			ND	
Heptachlor	ug/L		ND			ND			ND			ND	
Heptachlor epoxide	ug/L		ND			ND			ND			ND	
Methoxychlor	ug/L		ND			ND			ND			ND	
Toxaphene	ug/L		ND			ND			ND			ND	
<i>Herbicides</i>													
2,4-D	ug/L		ND			ND			ND			ND	
2,4,5-TP (Silvex)	ug/L		ND			ND			ND			ND	

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 15 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
River Mile 129 (RM-129; Below SRS)													
Date		1/12/99	2/9/99	3/9/99	4/7/99	5/4/99	6/8/99	7/13/99	8/10/99	9/14/99	10/26/99	11/2/99	12/7/99
Temperature	°C	6.1	13.6	10.9	19	15.2	21	22	26	24	18.3	20	14
DO	mg/L	11.5	14.1 ^a	11.7 ^a	7.5	8.2	7.7	6.8	6.4	7.4	8.1	7.8	8.9
pH	pH	7	6.8	7.2	6.8	7.1	7	7	6.9	6.8	7.3	8	6.5
Conductivity	μhos/cm	84	68	82	90	72	109	94	114	99	110	124	112
COD	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite Nitrogen	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate Nitrogen	mg/L	0.37	0.26	0.29	0.41	0.38	0.48	0.51	0.43	0.40	0.43	0.39	0.33
TSS	mg/L	50	64	5	17	8	35	ND	7	7	7	4	6
Total Phos	mg/L	0.215	ND	ND	0.194	0.173	0.516	0.149	0.082	0.18	0.073	0.075	0.116
TOC	mg/L	3.5	2.7	3.4	3.5	4.3	2.9	7.1	4.1	3.5	2.6	3.9	3.4
Aluminum	mg/L	0.726	0.337	0.238	0.17	0.55	0.27	0.39	0.2	ND	0.24	0.14	0.22
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	mg/L	ND	ND	ND	ND	0.009	ND	ND	ND	ND	ND	ND	ND
Copper	mg/L	ND	ND	ND	0.006	0.0067	ND	ND	ND	ND	ND	ND	ND
Iron	mg/L	1.06	1.04	0.305	0.75	1.5	0.59	0.71	0.24	0.24	0.28	0.23	0.47
Lead	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	mg/L	0.124	0.353	0.024	0.081	0.28	0.09	0.068	0.06	0.052	0.055	0.043	0.063
Mercury	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	mg/L	0.015	ND	0.008	0.019	0.037	0.006	0.011	0.0054	ND	ND	0.016	0.0061

^a Supersaturated, probably due to instream primary production

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 16 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
River Mile 129 (RM-129; Below SRS)													
<i>Pesticides</i>													
Aldrin	ug/L		ND			ND			ND			ND	
Alpha-BHC	ug/L		ND			ND			ND			ND	
Beta-BHC	ug/L		ND			ND			ND			ND	
Delta-BHC	ug/L		ND			ND			ND			ND	
Gamma-BHC (Lindane)	ug/L		ND			ND			ND			ND	
Chlordane	ug/L		ND			ND			ND			ND	
4,4-DDD	ug/L		ND			ND			ND			ND	
4,4-DDE	ug/L		ND			ND			ND			ND	
4,4-DDT	ug/L		ND			ND			ND			ND	
Dieldrin	ug/L		ND			ND			ND			ND	
Endosulfan I	ug/L		ND			ND			ND			ND	
Endosulfan II	ug/L		ND			ND			ND			ND	
Endosulfan sulfate	ug/L		ND			ND			ND			ND	
Endrin	ug/L		ND			ND			ND			ND	
Endrin aldehyde	ug/L		ND			ND			ND			ND	
Endrin ketone	ug/L		ND			ND			ND			ND	
Heptachlor	ug/L		ND			ND			ND			ND	
Heptachlor epoxide	ug/L		ND			ND			ND			ND	
Methoxychlor	ug/L		ND			ND			ND			ND	
Toxaphene	ug/L		ND			ND			ND			ND	
<i>Herbicides</i>													
2,4-D	ug/L		ND			ND			ND			ND	
2,4,5-TP (Silvex)	ug/L		ND			ND			ND			ND	

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 17 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
River Mile 140 (RM-140)													
Date		1/12/99	2/9/99	3/9/99	4/7/99	5/4/99	6/8/99	7/13/99	8/10/99	9/14/99	10/26/99	11/2/99	12/7/99
Temperature	°C	10.2	13.3	12.2	19.2	16.7	24	22	27	24	18.3	20	14.2
DO	mg/L	10.04	10.68 ^a	11.1 ^a	8	8.2	7.4	6.4	6.2	7.1	8	7.77	8.76
pH	pH	6.9	6.7	7.2	6.6	7	6.7	6.9	6.8	6.5	7.2	6.8	6.9
Conductivity	μhos/cm	105	95	117	102	98	99	92	105	93	106	129	115
COD	mg/L	ND	ND	ND	ND	ND	20	ND	ND	ND	ND	ND	ND
Nitrite Nitrogen	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate Nitrogen	mg/L	0.42	0.40	0.52	0.45	0.53	0.47	0.45	0.49	0.38	0.40	0.42	0.34
TSS	mg/L	5	11	6	6	7	8	ND	6	7	8	3	4
Total Phos	mg/L	0.242	0.037	ND	0.02	0.262	0.268	0.223	0.051	0.172	0.075	0.047	0.023
TOC	mg/L	3.8	ND	4.1	3.2	3.2	3.2	5.1	3.1	2.7	2.9	3.1	4
Aluminum	mg/L	0.185	0.233	0.413	ND	0.18	0.25	0.44	0.26	ND	0.19	0.12	0.14
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	mg/L	ND	ND	ND	ND	0.041	ND	ND	ND	ND	ND	ND	ND
Copper	mg/L	ND	ND	ND	0.009	ND	ND	ND	ND	ND	ND	ND	ND
Iron	mg/L	0.198	0.562	0.477	0.49	0.46	0.28	0.88	0.35	0.19	0.24	0.22	0.36
Lead	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	mg/L	0.045	0.08	0.056	0.058	0.11	0.056	0.1	0.06	0.057	0.064	0.051	0.068
Mercury	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	mg/L	ND	ND	ND	ND	0.03	ND	ND	ND	ND	ND	ND	ND
Zinc	mg/L	0.023	ND	0.009	0.022	0.023	0.057	0.01	0.007	ND	0.006	0.0073	0.027

^a Supersaturated, probably due to instream primary production

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 18 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
River Mile 140 (RM-140)													
<i>Pesticides</i>													
Aldrin	ug/L		ND			ND			ND			ND	
Alpha-BHC	ug/L		ND			ND			ND			ND	
Beta-BHC	ug/L		ND			ND			ND			ND	
Delta-BHC	ug/L		ND			ND			ND			ND	
Gamma-BHC (Lindane)	ug/L		ND			ND			ND			ND	
Chlordane	ug/L		ND			ND			ND			ND	
4,4-DDD	ug/L		ND			ND			ND			ND	
4,4-DDE	ug/L		ND			ND			ND			ND	
4,4-DDT	ug/L		ND			ND			ND			ND	
Dieldrin	ug/L		ND			ND			ND			ND	
Endosulfan I	ug/L		ND			ND			ND			ND	
Endosulfan II	ug/L		ND			ND			ND			ND	
Endosulfan sulfate	ug/L		ND			ND			ND			ND	
Endrin	ug/L		ND			ND			ND			ND	
Endrin aldehyde	ug/L		ND			ND			ND			ND	
Endrin ketone	ug/L		ND			ND			ND			ND	
Heptachlor	ug/L		ND			ND			ND			ND	
Heptachlor epoxide	ug/L		ND			ND			ND			ND	
Methoxychlor	ug/L		ND			ND			ND			ND	
Toxaphene	ug/L		ND			ND			ND			ND	
<i>Herbicides</i>													
2,4-D	ug/L		ND			ND			ND			ND	
2,4,5-TP (Silvex)	ug/L		ND			ND			ND			ND	

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 19 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
RM-150.4 (R-3B)													
Date		1/12/99	2/9/99	3/9/99	4/7/99	5/4/99	6/8/99	7/13/99	8/10/99	9/14/99	10/26/99	11/2/99	12/7/99
Temperature	°C	10.3	13.5	12.1	18.7	17.4	25	22	26	24	18	20	14.4
DO	mg/L	11.7 ^a	11.7 ^a	10.4	8.6	7.3	7.2	6.1	6.3	6.5	7.7	7.7	8.9
pH	pH	7	6.5	7.2	6.7	7.1	7	7	6.8	6.8	7.2	6.8	7
Conductivity	μhos/cm	106	83	109	105	100	115	100	106	98	116	130	129
COD	mg/L	ND	ND	ND	ND	ND	21	ND	ND	ND	ND	ND	ND
Nitrite Nitrogen	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate Nitrogen	mg/L	0.46	0.37	0.39	0.43	0.52	0.47	0.47	0.49	0.40	0.37	0.41	0.36
TSS	mg/L	7	25	7	8	7	5	1	5	10	6	ND	5
Total Phos	mg/L	0.359	0.086	ND	0.202	0.151	0.157	0.391	0.202	0.232	0.199	1.64	0.162
TOC	mg/L	3.5	ND	3.7	3.6	3.7	3.6	6.1	3.7	2.8	3	3.5	3.4
Aluminum	mg/L	0.236	0.249	0.268	ND	0.2	0.25	0.4	0.29	ND	0.3	0.17	0.18
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	mg/L	ND	ND	ND	0.007	ND	ND	ND	ND	ND	ND	ND	ND
Iron	mg/L	0.319	0.352	0.33	0.42	0.4	0.31	0.77	0.37	0.2	0.38	0.22	0.31
Lead	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	mg/L	0.098	0.124	0.076	0.065	0.072	0.068	0.074	0.061	0.059	0.059	0.049	0.058
Mercury	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	mg/L	0.029	0.006	0.039	0.023	0.018	0.021	0.022	0.015	0.011	0.0057	0.0094	0.039

^a Supersaturated, probably due to instream primary production

Table 57

Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 20 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
RM-150.4 (R-3B)													
<i>Pesticides</i>													
Aldrin	ug/L		ND			ND			ND			ND	
Alpha-BHC	ug/L		ND			ND			ND			ND	
Beta-BHC	ug/L		ND			ND			ND			ND	
Delta-BHC	ug/L		ND			ND			ND			ND	
Gamma-BHC (Lindane)	ug/L		ND			ND			ND			ND	
Chlordane	ug/L		ND			ND			ND			ND	
4,4-DDD	ug/L		ND			ND			ND			ND	
4,4-DDE	ug/L		ND			ND			ND			ND	
4,4-DDT	ug/L		ND			ND			ND			ND	
Dieldrin	ug/L		ND			ND			ND			ND	
Endosulfan I	ug/L		ND			ND			ND			ND	
Endosulfan II	ug/L		ND			ND			ND			ND	
Endosulfan sulfate	ug/L		ND			ND			ND			ND	
Endrin	ug/L		ND			ND			ND			ND	
Endrin aldehyde	ug/L		ND			ND			ND			ND	
Endrin ketone	ug/L		ND			ND			ND			ND	
Heptachlor	ug/L		ND			ND			ND			ND	
Heptachlor epoxide	ug/L		ND			ND			ND			ND	
Methoxychlor	ug/L		ND			ND			ND			ND	
Toxaphene	ug/L		ND			ND			ND			ND	
<i>Herbicides</i>													
2,4-D	ug/L		ND			ND			ND			ND	
2,4,5-TP (Silvex)	ug/L		ND			ND			ND			ND	

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 21 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
River Mile 160 (RM-160)													
Date		1/12/99	2/9/99	3/9/99	4/7/99	5/4/99	6/8/99	7/13/99	8/10/99	9/14/99	10/26/99	11/2/99	12/7/99
Temperature	°C	10.3	13.1	12.2	18	17.9	24	22	25	23	17	20	14.8
DO	mg/L	11.7 ^a	11.3 ^a	11.2 ^a	8.8	8.1	8.1	6.7	6.6	6.4	8.5	7.6	9
pH	pH	7.1	7	7.3	6.6	7	7.1	7	6.7	6.6	7.1	6.6	7
Conductivity	μhos/cm	102	74	99	99	115	103	102	96	88	113	125	120
COD	mg/L	ND	ND	ND	ND	ND	20	ND	ND	ND	ND	ND	ND
Nitrite Nitrogen	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate Nitrogen	mg/L	0.40	0.40	0.37	0.46	0.48	0.42	0.52	0.46	0.32	0.33	0.39	0.34
TSS	mg/L	6	18	4	4	5	6	ND	5	5	4	2	3
Total Phos	mg/L	0.175	0.283	ND	0.115	0.243	0.107	0.154	0.056	0.124	0.081	0.102	0.134
TOC	mg/L	3.2	ND	3.4	3.2	3.9	3.4	5.3	3.8	2.5	3.2	3.7	3.5
Aluminum	mg/L	0.24	0.222	0.29	ND	0.31	0.15	0.33	0.5	ND	0.19	0.12	ND
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	mg/L	ND	ND	ND	0.006	ND	ND	ND	ND	ND	ND	ND	ND
Iron	mg/L	0.232	0.314	0.361	0.43	0.51	0.11	0.6	0.46	0.16	0.3	0.21	0.14
Lead	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	mg/L	0.054	0.119	0.083	0.067	0.084	0.053	0.073	0.069	0.068	0.068	0.052	0.057
Mercury	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	mg/L	0.025	ND	0.017	0.01	0.013	ND	0.012	0.025	ND	0.0068	ND	ND

^a Supersaturated, probably due to instream primary production

Table 57

Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 22 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
River Mile 160 (RM-160)													
<i>Pesticides</i>													
Aldrin	ug/L		ND			ND			ND			ND	
Alpha-BHC	ug/L		ND			ND			ND			ND	
Beta-BHC	ug/L		ND			ND			ND			ND	
Delta-BHC	ug/L		ND			ND			ND			ND	
Gamma-BHC	ug/L		ND			ND			ND			ND	
(Lindane)													
Chlordane	ug/L		ND			ND			ND			ND	
4,4-DDD	ug/L		ND			ND			ND			ND	
4,4-DDE	ug/L		ND			ND			ND			ND	
4,4-DDT	ug/L		ND			ND			ND			ND	
Dieldrin	ug/L		ND			ND			ND			ND	
Endosulfan I	ug/L		ND			ND			ND			ND	
Endosulfan II	ug/L		ND			ND			ND			ND	
Endosulfan sulfate	ug/L		ND			ND			ND			ND	
Endrin	ug/L		ND			ND			ND			ND	
Endrin aldehyde	ug/L		ND			ND			ND			ND	
Endrin ketone	ug/L		ND			ND			ND			ND	
Heptachlor	ug/L		ND			ND			ND			ND	
Heptachlor epoxide	ug/L		ND			ND			ND			ND	
Methoxychlor	ug/L		ND			ND			ND			ND	
Toxaphene	ug/L		ND			ND			ND			ND	
<i>Herbicides</i>													
2,4-D	ug/L		ND			ND			ND			ND	
2,4,5-TP (Silvex)	ug/L		ND			ND			ND			ND	

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 23 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Steel Creek-4 at Road A (SC-4)													
Date		1/12/99	2/9/99	3/9/99	4/7/99	5/4/99	6/8/99	7/13/99	8/10/99	9/14/99	10/26/99	11/2/99	12/7/99
Temperature	°C	10.5	16	10.9	21	19	24	23	26	23	15	17	12
DO	mg/L	9.4	8.6	9.9	7.8	7.9	5.2	5.1	5.9	6.5	9.3	8	9.3
pH	pH	7	7	6.3	6.6	7.4	6.9	6.3	7.3	6.7	6.9	6.5	6.2
Conductivity	μhos/cm	54	57	56	65	53	59	42	58	58	61	62	64
COD	mg/L	ND	ND	ND	ND	ND	ND	23	ND	ND	ND	ND	ND
Nitrite Nitrogen	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate Nitrogen	mg/L	0.27	0.24	0.26	0.16	0.27	0.24	0.21	0.28	0.22	0.28	0.29	0.21
TSS	mg/L	3	3	5	4	1	4	1	ND	2	7	3	2
Total Phos	mg/L	0.147	ND	ND	0.023	ND	ND	0.077	ND	0.065	ND	ND	0.045
TOC	mg/L	3.4	ND	4.4	4.2	3.2	3.2	10	2.6	2.6	2.7	4.8	4.6
Aluminum	mg/L	0.157	0.16	0.147	ND	0.17	0.2	0.18	0.17	ND	0.14	0.12	ND
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron	mg/L	0.29	0.324	0.4	0.42	0.33	0.53	0.46	0.45	0.2	0.95	1	1
Lead	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	mg/L	0.028	0.039	0.05	0.044	0.041	0.06	0.029	0.036	0.023	0.34	0.32	0.32
Mercury	mg/L	ND	ND	ND	0.0001	ND	ND	ND	0.00016	ND	ND	ND	ND
Nickel	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	mg/L	0.006	0.013	0.079	0.02	0.0093	0.026	ND	ND	0.0087	ND	ND	0.063

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 24 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Steel Creek-4 at Road A (SC-4)													
<i>Pesticides</i>													
Aldrin	ug/L		ND			ND			ND			ND	
Alpha-BHC	ug/L		ND			ND			ND			ND	
Beta-BHC	ug/L		ND			ND			ND			ND	
Delta-BHC	ug/L		ND			ND			ND			ND	
Gamma-BHC (Lindane)	ug/L		ND			ND			ND			ND	
Chlordane	ug/L		ND			ND			ND			ND	
4,4-DDD	ug/L		ND			ND			ND			ND	
4,4-DDE	ug/L		ND			ND			ND			ND	
4,4-DDT	ug/L		ND			ND			ND			ND	
Dieldrin	ug/L		ND			ND			ND			ND	
Endosulfan I	ug/L		ND			ND			ND			ND	
Endosulfan II	ug/L		ND			ND			ND			ND	
Endosulfan sulfate	ug/L		ND			ND			ND			ND	
Endrin	ug/L		ND			ND			ND			ND	
Endrin aldehyde	ug/L		ND			ND			ND			ND	
Endrin ketone	ug/L		ND			ND			ND			ND	
Heptachlor	ug/L		ND			ND			ND			ND	
Heptachlor epoxide	ug/L		ND			ND			ND			ND	
Methoxychlor	ug/L		ND			ND			ND			ND	
Toxaphene	ug/L		ND			ND			ND			ND	
<i>Herbicides</i>													
2,4-D	ug/L		ND			ND			ND			ND	
2,4,5-TP (Silvex)	ug/L		ND			ND			ND			ND	

Table 57

Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 25 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Tims Branch-5 (TB-5)													
Date		1/12/99	2/9/99	3/9/99	4/7/99	5/4/99	6/8/99	7/13/99	8/10/99	9/14/99	10/26/99	11/2/99	12/7/99
Temperature	°C	7	13.2	9.6	18.1	16.5	20.2	22	24	19	11	17	10
DO	mg/L	8.2	8.2	8.1	7.3	9.2	5.5	5.1	5.9	7.5	9.8	8.2	10.2
pH	pH	6.1	5.7	6.9	5.7	7.4	6.5	6	6.8	6.6	6.7	6	7.1
Conductivity	μhos/cm	34	33	42	34	31	27	30	29	26	26	35	30
COD	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite Nitrogen	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate Nitrogen	mg/L	0.53	0.36	0.38	0.31	0.37	0.26	0.30	0.21	0.19	0.30	0.25	0.26
TSS	mg/L	5	4	6	8	4	4	6	3	3	4	3	5
Total Phos	mg/L	0.12	0.029	ND	0.045	ND	0.044	0.458	0.066	0.106	ND	ND	0.063
TOC	mg/L	3.3	ND	3	4.1	4.1	3.9	7.9	5.8	3	1.9	5.5	2.9
Aluminum	mg/L	0.205	0.213	0.152	0.057	0.35	0.17	0.37	0.26	ND	0.17	0.18	0.12
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	mg/L	ND	0.005	0.005	0.009	0.0071	ND	ND	0.005	ND	ND	ND	ND
Iron	mg/L	0.656	0.749	0.678	1.5	1.7	1.3	2.5	1.8	1.1	0.91	1	1.1
Lead	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	mg/L	0.029	0.03	0.038	0.05	0.045	0.048	0.14	0.077	0.026	0.022	0.048	0.028
Mercury	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	mg/L	ND	0.012	ND	ND	ND	ND	0.013	ND	ND	ND	ND	ND
Zinc	mg/L	0.008	0.019	0.076	0.016	0.036	0.0064	0.0069	0.042	0.01	0.016	ND	0.051

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 26 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Tims Branch-5 (TB-5)													
<i>Pesticides</i>													
Aldrin	ug/L		ND			ND			ND			ND	
Alpha-BHC	ug/L		ND			ND			ND			ND	
Beta-BHC	ug/L		ND			ND			ND			ND	
Delta-BHC	ug/L		ND			ND			ND			ND	
Gamma-BHC (Lindane)	ug/L		ND			ND			ND			ND	
Chlordane	ug/L		ND			ND			ND			ND	
4,4-DDD	ug/L		ND			ND			ND			ND	
4,4-DDE	ug/L		ND			ND			ND			ND	
4,4-DDT	ug/L		ND			ND			ND			ND	
Dieldrin	ug/L		ND			ND			ND			ND	
Endosulfan I	ug/L		ND			ND			ND			ND	
Endosulfan II	ug/L		ND			ND			ND			ND	
Endosulfan sulfate	ug/L		ND			ND			ND			ND	
Endrin	ug/L		ND			ND			ND			ND	
Endrin aldehyde	ug/L		ND			ND			ND			ND	
Endrin ketone	ug/L		ND			ND			ND			ND	
Heptachlor	ug/L		ND			ND			ND			ND	
Heptachlor epoxide	ug/L		ND			ND			ND			ND	
Methoxychlor	ug/L		ND			ND			ND			ND	
Toxaphene	ug/L		ND			ND			ND			ND	
<i>Herbicides</i>													
2,4-D	ug/L		ND			ND			ND			ND	
2,4,5-TP (Silvex)	ug/L		ND			ND			ND			ND	

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Tinker Creek-I (TC-1; TCKP)													
Date		1/12/99	2/9/99	3/9/99	4/7/99	5/4/99	6/8/99	7/13/99	8/10/99	9/14/99	10/26/99	11/2/99	12/7/99
Temperature	°C	6.8	13.5	8.9	19	18	21.3	22	24	19.1	10	18	9
DO	mg/L	10	9.1	10.6	7.1	8.5	5.8	4.4	5.8	6.3	10.4	7.4	10.4
pH	pH	6.8	6.7	6.4	6	7.4	6.6	6.1	6.6	6.7	5.5	6.1	5.4
Conductivity	μhos/cm	30	28	31	31	24	34	28	34	31	29	34	30
COD	mg/L	ND	ND	ND	ND	ND	ND	20	ND	ND	ND	ND	ND
Nitrite Nitrogen	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate Nitrogen	mg/L	0.28	0.25	0.21	0.18	0.21	0.22	0.18	0.27	0.18	0.24	0.21	0.14
TSS	mg/L	3	4	8	5	3	4	1	5	3	2	3	2
Total Phos	mg/L	0.104	ND	ND	ND	ND	0.015	0.085	0.217	0.065	ND	ND	0.108
TOC	mg/L	2.7	5	4.2	3.2	3	3.5	8.1	5.3	3	2.3	6.1	3.3
Aluminum	mg/L	0.123	0.15	0.114	ND	0.2	0.17	ND	0.17	ND	0.13	0.18	ND
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	mg/L	ND	0.008	ND	0.005	0.0056	ND	0.01	ND	ND	ND	ND	ND
Iron	mg/L	0.101	0.142	0.243	0.36	0.26	0.82	0.8	0.89	0.44	0.17	0.33	0.06
Lead	mg/L	ND	ND	ND	0.016	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	mg/L	0.006	0.012	0.022	0.024	0.018	0.013	0.038	0.046	0.026	0.011	0.027	0.011
Mercury	mg/L	ND	ND	ND	0.0001	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	mg/L	0.01	0.012	0.05	0.008	0.041	0.01	0.03	ND	0.007	ND	0.0061	0.042

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 28 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Tinker Creek-I (TC-1; TCKP)													
<i>Pesticides</i>													
Aldrin	ug/L		ND			ND			ND			ND	
Alpha-BHC	ug/L		ND			ND			ND			ND	
Beta-BHC	ug/L		ND			ND			ND			ND	
Delta-BHC	ug/L		ND			ND			ND			ND	
Gamma-BHC (Lindane)	ug/L		ND			ND			ND			ND	
Chlordane	ug/L		ND			ND			ND			ND	
4,4-DDD	ug/L		ND			ND			ND			ND	
4,4-DDE	ug/L		ND			ND			ND			ND	
4,4-DDT	ug/L		ND			ND			ND			ND	
Dieldrin	ug/L		ND			ND			ND			ND	
Endosulfan I	ug/L		ND			ND			ND			ND	
Endosulfan II	ug/L		ND			ND			ND			ND	
Endosulfan sulfate	ug/L		ND			ND			ND			ND	
Endrin	ug/L		ND			ND			ND			ND	
Endrin aldehyde	ug/L		ND			ND			ND			ND	
Endrin ketone	ug/L		ND			ND			ND			ND	
Heptachlor	ug/L		ND			ND			ND			ND	
Heptachlor epoxide	ug/L		ND			ND			ND			ND	
Methoxychlor	ug/L		ND			ND			ND			ND	
Toxaphene	ug/L		ND			ND			ND			ND	
<i>Herbicides</i>													
2,4-D	ug/L		ND			ND			ND			ND	
2,4,5-TP (Silvex)	ug/L		ND			ND			ND			ND	

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 29 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Upper Three Runs-1A (U3R-1A)													
Date		1/12/99	2/9/99	3/9/99	4/7/99	5/4/99	6/8/99	7/13/99	8/10/99	9/14/99	10/26/99	11/2/99	12/7/99
Temperature	°C	10.5	14.2	12	18	17	20	20	22	18.6	13	18	14
DO	mg/L	8.9	8	7.6	8	8.3	6.1	5.5	7.2	7	9.6	8	9.5
pH	pH	5.7	5.8	6.2	5.2	7.2	6.9	5.1	5.5	6.2	6.2	5.5	4
Conductivity	μhos/cm	16	16	15	15	14	14	21	15	15	15	16	15
COD	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite Nitrogen	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate Nitrogen	mg/L	0.42	0.39	0.37	0.32	0.39	0.35	0.36	0.26	0.37	0.39	0.44	0.34
TSS	mg/L	3	3	2	3	4	4	8	2	4	3	3	2
Total Phos	mg/L	0.126	0.227	ND	ND	ND	ND	0.154	ND	0.155	ND	ND	0.057
TOC	mg/L	2.2	ND	2.6	1.7	1.3	1.3	7.2	1.2	1.3	1.9	3.1	2.4
Aluminum	mg/L	0.161	0.216	0.11	ND	0.24	0.19	0.76	0.21	ND	0.14	0.16	ND
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	mg/L	ND	0.009	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.016
Iron	mg/L	0.165	0.285	0.187	0.33	0.29	0.3	1.1	0.28	0.21	0.18	0.3	0.11
Lead	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	mg/L	0.008	0.012	0.009	0.011	0.014	0.0093	0.034	0.0094	ND	0.007	ND	0.01
Mercury	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	mg/L	ND	0.019	0.046	0.009	0.072	0.05	0.022	ND	0.0078	0.0053	0.0053	0.082

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 30 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Upper Three Runs-1A (U3R-1A)													
<i>Pesticides</i>													
Aldrin	ug/L		ND			ND			ND			ND	
Alpha-BHC	ug/L		ND			ND			ND			ND	
Beta-BHC	ug/L		ND			ND			ND			ND	
Delta-BHC	ug/L		ND			ND			ND			ND	
Gamma-BHC (Lindane)	ug/L		ND			ND			ND			ND	
Chlordane	ug/L		ND			ND			ND			ND	
4,4-DDD	ug/L		ND			ND			ND			ND	
4,4-DDE	ug/L		ND			ND			ND			ND	
4,4-DDT	ug/L		ND			ND			ND			ND	
Dieldrin	ug/L		ND			ND			ND			ND	
Endosulfan I	ug/L		ND			ND			ND			ND	
Endosulfan II	ug/L		ND			ND			ND			ND	
Endosulfan sulfate	ug/L		ND			ND			ND			ND	
Endrin	ug/L		ND			ND			ND			ND	
Endrin aldehyde	ug/L		ND			ND			ND			ND	
Endrin ketone	ug/L		ND			ND			ND			ND	
Heptachlor	ug/L		ND			ND			ND			ND	
Heptachlor epoxide	ug/L		ND			ND			ND			ND	
Methoxychlor	ug/L		ND			ND			ND			ND	
Toxaphene	ug/L		ND			ND			ND			ND	
<i>Herbicides</i>													
2,4-D	ug/L		ND			ND			ND			ND	
2,4,5-TP (Silvex)	ug/L		ND			ND			ND			ND	

Table 57
Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 31 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Upper Three Runs-4 (U3R-4)													
Date		1/12/99	2/9/99	3/9/99	4/7/99	5/4/99	6/8/99	7/13/99	8/10/99	9/14/99	10/26/99	11/2/99	12/7/99
Temperature	°C	10.6	15.3	11	20	18.1	23.2	21	25	21	14	18	12.6
DO	mg/L	9.5	8.3	9.3	6.9	8.5	5.7	4.6	7.2	6.7	9.8	8.2	9.6
pH	pH	6.5	6.1	6.4	5.5	6.7	6.4	6.3	6.3	6.8	6.7	6	6.3
Conductivity	μhos/cm	23	23	23	24	22	21	27	21	21	23	23	25
COD	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrite Nitrogen	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate Nitrogen	mg/L	0.35	0.27	0.37	0.25	0.35	0.29	0.20	0.38	0.26	0.27	0.29	0.19
TSS	mg/L	4	4	4	7	9	6	4	3	3	5	ND	3
Total Phos	mg/L	0.034	ND	ND	0.047	ND	ND	0.17	ND	0.093	0.029	ND	ND
TOC	mg/L	3.3	ND	2.6	2.9	2.6	1.5	15	1.6	2.5	1.1	2.9	4.6
Aluminum	mg/L	0.217	0.216	0.219	ND	0.23	0.24	0.53	0.24	ND	0.19	0.18	0.16
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	mg/L	ND	ND	0.006	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	mg/L	ND	0.031	ND	0.005	ND	ND	ND	ND	ND	ND	ND	0.016
Iron	mg/L	0.246	0.783	0.337	0.5	0.36	0.34	0.71	0.33	0.22	0.27	0.33	0.32
Lead	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	mg/L	0.016	0.02	0.051	0.025	0.016	0.011	0.068	0.013	0.011	0.013	0.0091	0.016
Mercury	mg/L	ND	ND	ND	0.0001	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	mg/L	0.005	0.039	0.073	0.015	0.0078	0.015	0.01	ND	0.027	0.013	ND	0.061

Table 57

Surface Water Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 32 of 32

Parameter	Units	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Upper Three Runs-4 (U3R-4)													
<i>Pesticides</i>													
Aldrin	ug/L		ND			ND			ND			ND	
Alpha-BHC	ug/L		ND			ND			ND			ND	
Beta-BHC	ug/L		ND			ND			ND			ND	
Delta-BHC	ug/L		ND			ND			ND			ND	
Gamma-BHC (Lindane)	ug/L		ND			ND			ND			ND	
Chlordane	ug/L		ND			ND			ND			ND	
4,4-DDD	ug/L		ND			ND			ND			ND	
4,4-DDE	ug/L		ND			ND			ND			ND	
4,4-DDT	ug/L		ND			ND			ND			ND	
Dieldrin	ug/L		ND			ND			ND			ND	
Endosulfan I	ug/L		ND			ND			ND			ND	
Endosulfan II	ug/L		ND			ND			ND			ND	
Endosulfan sulfate	ug/L		ND			ND			ND			ND	
Endrin	ug/L		ND			ND			ND			ND	
Endrin aldehyde	ug/L		ND			ND			ND			ND	
Endrin ketone	ug/L		ND			ND			ND			ND	
Heptachlor	ug/L		ND			ND			ND			ND	
Heptachlor epoxide	ug/L		ND			ND			ND			ND	
Methoxychlor	ug/L		ND			ND			ND			ND	
Toxaphene	ug/L		ND			ND			ND			ND	
<i>Herbicides</i>													
2,4-D	ug/L		ND			ND			ND			ND	
2,4,5-TP (Silvex)	ug/L		ND			ND			ND			ND	

Table 58
Sediment Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 1 of 2

Constituent	mg/L										
	Upper Three Runs-4 (U3R-4)	Beaver Dam Creek (400-D)	Four Mile Creek (FMC/RdA)	Pen Branch (PB/RdA)	Steel Creek-4 (SC-4)	Lower Three Runs-2 (L3R-2)	Upper Three Runs-1A (U3R-1A)	Tinker Creek-1 (TC-1)	River Mile 160 (RM-160)	River Mile 150.4	River Mile 120 (RM-120)
<i>Note: All analyses were performed by the Toxicity Characteristic Leaching Procedure (TCLP) method.</i>											
Aluminum	0.673	0.763	0.407	0.516	0.361	0.461	0.63	0.442	0.43	0.13	0.6
Arsenic	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.0050	<0.0050
Barium	0.869	1.98	0.548	0.675	1.09	0.845	1.03	0.477	0.55	0.37	0.59
Cadmium	0.004	0.008	0.004	<0.002	<0.002	0.003	<0.002	<0.002	<0.0020	<0.0020	<0.0020
Chromium	<0.005	<0.005	<0.005	0.012	<0.005	<0.005	<0.005	<0.005	0.03	<0.0050	0.027
Copper	0.017	0.024	0.011	0.01	0.007	0.019	0.019	0.006	0.0079	<0.0050	<0.0050
Iron	0.386	0.234	0.679	0.54	0.2	0.197	0.428	0.322	1	0.41	0.33
Lead	0.027	0.013	0.191	<0.003	0.005	<0.003	0.006	0.007	<0.0030	<0.0030	0.12
Magnesium	0.841	2.73	0.387	0.501	0.981	1.12	0.499	0.93	0.6	0.52	0.74
Manganese	2.91	5.19	1.76	1.84	7.39	2.67	0.132	3.22	4.9	5.5	9.7
Mercury	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00010	<0.00010	<0.00010	<0.00010
Nickel	0.02	0.069	0.014	0.016	<0.010	0.01	<0.010	<0.010	0.037	<0.010	0.014
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.0050	<0.0050	<0.0050
Silver	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.0050	<0.0050
Uranium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.500	<0.500	<0.500
Zinc	0.983	1.31	0.585	0.664	0.412	0.931	0.669	0.392	0.16	0.061	0.19
Chlorodane	<0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Heptachlor	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Table 58
Sediment Surveillance — Inorganic Contaminants, Pesticides, and Herbicides

Page 2 of 2

Constituent	mg/L										
	Upper Three Runs-4 (U3R-4)	Beaver Dam Creek (400-D)	Four Mile Creek (FMC/RdA)	Pen Branch (PB/RdA)	Steel Creek-4 (SC-4)	Lower Three Runs-2 (L3R-2)	Upper Three Runs-1A (U3R-1A)	Tinker Creek-1 (TC-1)	River Mile 160 (RM-160)	River Mile 150.4	River Mile 120 (RM-120)
Heptachlor Epoxide	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lindane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Methoxychlor	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Toxaphene	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.01	<0.01	<0.01
2,4-D	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1
Silvex	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1
Cyanide total	0.134	<0.170	<0.084	0.357	<0.183	0.258	<0.077	<0.368	<0.621	<0.596	<0.662

Table 59
Fish Surveillance — Mercury

Page 1 of 2

		Mercury (µg/g – Parts Per Million)					
Location	Type of Fish	Analytical Results					Maximum
Notes: “NC” denotes “not collected.” The Practical Quantitation Limit (PQL) is 0.008 µg/g.”							
New Savannah Bluff Lock & Dam	Bass	0.26	0.26	0.23	0.22	0.23	0.26
New Savannah Bluff Lock & Dam	Bream	0.21	0.24	0.24	0.24	0.21	0.24
New Savannah Bluff Lock & Dam	Catfish	0.14	0.07	0.08	0.08	0.11	0.14
New Savannah Bluff Lock & Dam	Shad	0.23	0.23	0.23	0.22	0.25	0.25
Upper Three Runs Creek Mouth	Bass	0.45	0.48	0.77	0.74	0.72	0.77
Upper Three Runs Creek Mouth	Bream	0.22	0.20	0.23	0.16	0.27	0.27
Upper Three Runs Creek Mouth	Catfish	0.24	0.12	0.10	0.52	0.27	0.52
Beaver Dam Creek Mouth	Bass	0.35	0.62	0.74	0.35	0.91	0.91
Beaver Dam Creek Mouth	Bream	0.33	0.32	0.23	0.40	0.17	0.40
Beaver Dam Creek Mouth	Catfish	0.23	0.23	0.38	0.33	0.24	0.38
Four Mile Creek Mouth	Bass	0.50	0.28	0.63	0.82	0.51	0.82
Four Mile Creek Mouth	Bream	0.38	0.38	0.50	0.24	0.24	0.50
Four Mile Creek Mouth	Catfish	0.37	0.23	0.23	0.55	0.23	0.55
Four Mile Creek Mouth	Shad	0.09	0.80	0.10	0.16	0.10	0.80
Steel Ceek Mouth	Bass	0.52	1.27	0.66	0.45	0.39	1.27
Steel Creek Mouth	Bream	0.27	0.19	0.19	0.80	0.38	0.80
Steel Creek Mouth	Catfish	0.29	0.67	0.35	0.12	0.42	0.67
Steel Creek Mouth	Shad	0.26	0.21	0.27	0.22	0.22	0.27
Lower Three Runs Creek Mouth	Bass	0.46	0.53	0.58	0.26	0.29	0.58
Lower Three Runs Creek Mouth	Bream	0.24	0.27	0.29	0.26	0.11	0.29
Lower Three Runs Creek Mouth	Bream	0.26	0.23	0.33	0.19	0.22	0.33
Lower Three Runs Creek Mouth	Catfish	0.08	0.42	0.86	0.79	0.34	0.86
Highway 301 Bridge	Bass	0.26	0.27	0.27	0.23	0.23	0.27
Highway 301 Bridge	Bream	0.26	0.28	0.27	0.29	0.24	0.29
Highway 301 Bridge	Catfish	0.43	0.59	0.23	0.83	0.92	0.92
Highway 301 Bridge	Shad	0.24	0.28	0.24	0.24	0.24	0.28

Table 59
Fish Surveillance — Mercury

Page 2 of 2

Mercury (µg/g – Parts Per Million)							
Location	Type of Fish	Analytical Results					Maximum
Stokes Bluff Landing	Bass	0.71	1.24	0.98	1.08	0.89	1.24
Stokes Bluff Landing	Bream	0.20	0.67	0.66	0.33	0.74	0.74
Stokes Bluff Landing	Catfish	0.94	0.43	0.63	0.52	0.68	0.94
Highway 17 Bridge Area (upstream of River Mile 21.6)	Bass	0.56	0.31	1.22	1.25	0.25	1.25
Highway 17 Bridge Area (upstream of River Mile 21.6)	Bream	0.27	0.11	0.32	0.12	0.52	0.52
Highway 17 Bridge Area (upstream of River Mile 21.6)	Catfish	0.48	0.64	0.24	0.54	0.12	0.64
Highway 17 Bridge Area (downstream, River Mile 0–21.6)	Mullet	0.01	0.02	0.26	0.01	0.01	0.26
Highway 17 Bridge (downstream, River Mile 0–21.6)	Redfish	0.32	0.25	0.24	0.23	0.21	0.32
Highway 17 Bridge (downstream, River Mile 0–21.6)	Sea Trout	0.19	0.33	0.14	NC	NC	0.33
Lower Three Runs Creek at Patterson Mill Road	Bass	1.68	2.02	1.67	1.38	1.63	2.02
Lower Three Runs Creek at Patterson Mill Road	Bream	0.29	0.82	0.46	0.21	0.58	0.82
L-Lake	Bass	1.22	0.77	0.93	0.53	0.37	1.22
L- Lake	Bream	0.18	0.17	0.23	0.16	0.28	0.28
PAR Pond	Bass	0.89	1.10	1.69	2.90	0.98	2.90
PAR Pond	Bream	0.50	0.39	0.33	0.53	0.56	0.56
Pond B	Bass	0.89	1.26	1.00	0.79	1.05	1.26
Pond B	Bream	0.13	0.27	0.11	0.36	0.18	0.36

Table 60
Blind Sample Results for pH Field Measurements

Page 1 of 1

Sample Identification	pH Units		
	Measured Value	Known Value	Difference
BpH-01-1	7.31	7.43	0.12 units
BpH-01-2	6.91	6.88	0.03 units
BpH-02-1	7.4	7.42	0.02 units
BpH-02-2	6.78	6.87	0.09 units
BpH-03-1	7.42	7.44	0.02 units
BpH-03-2	4.10	4.04	0.06 units
BpH-04-1	7.39	7.42	0.03 units
BpH-04-2	3.75	4.05	0.30 units
BpH-05-1	7.02	6.86	0.16 units
BpH-05-2	6.92	6.87	0.05 units
BpH-06-1	6.87	6.85	0.02 units
BpH-06-2	6.86	6.85	0.01 units
BpH-07-1	3.99	4.01	0.02 units
BpH-07-2	6.79	6.84	0.05 units
BpH-08-1	3.96	3.99	0.03 units
BpH-08-2	6.91	6.87	0.04 units
BpH-09-1	7.42	7.41	0.01 units
BpH-09-2	4.02	4.02	0.00 units
BpH-10-1	7.60	7.42	0.18 units
BpH-10-2	4.04	4.04	0.00 units
BpH-11-1	7.45	7.45	0.00 units
BpH-11-2	3.94	4.06	0.12 units
BpH-12-1	7.41	7.40	0.01 units
BpH-12-2	3.85	4.03	0.18 units

Table 61
Blind Sample Results for Tritium

Page 1 of 1

Sample Date	pCi/mL		Ratio	Range		Evaluation
	Measured Value	Known Value		Lower Control Limit ^a	Upper Control Limit ^a	
Note: A is "acceptable."						
01-12-99	9.800 ± .483	9.138	1.07	6.3	17.5	A
02-12-99	3.579 ± .483	3.421	1.05	2.4	6.5	A
03-24-99	7.227 ± .419	7.198	1.00	5.0	13.7	A
04-14-99	6.730 ± .419	6.095	1.10	4.2	11.6	A
05-12-99	9.676 ± .452	8.673	1.12	6.0	16.6	A
06-16-99	5.341 ± .382	5.828	0.92	4.0	11.1	A
07-19-99	5.838 ± .419	5.866	1.00	4.0	11.2	A
08-13-99	11.03 ± .42	11.42	0.97	7.9	21.8	A
09-16-99	4.557 ± .419	4.581	0.99	3.2	8.7	A
10-19-99	3.481 ± .452	4.084	0.85	2.8	7.8	A
11-10-99	5.438 ± .419	5.631	0.97	3.9	10.8	A
12-06-99	5.892 ± .382	5.675	1.04	3.9	10.8	A

^a Control limits are based on Department of Energy's Environmental Measurements Laboratory (EML) historical data for tritium.

Table 62
QAP Interlaboratory Comparison of Analytical Results

Nuclide	SRS Value ^a	QAP ^b Value	SRS/QAP Ratio	Number of Labs	Mean of Labs	Range		Evaluation
						Lower Control Limit ^c	Upper Control Limit ^c	
Note: A is "acceptable," W is "acceptable with warning," and N is "not acceptable."								
QAP Set #50, June, 1999								
Air								
Alpha	1.52 ± 0.13	1.61	0.94	72	1.691	0.805	2.496	A
Am-241	0.148 ± 0.016	0.134	1.11	65	0.154	0.098	0.345	A
Beta	1.45 ± 0.12	1.56	0.93	76	1.576	1.123	2.605	A
Co-60	5.11 ± 0.74	4.96	1.03	118	5.104	3.72	6.547	A
Cs-137	6.02 ± 0.87	6.05	1.00	120	6.268	4.417	8.289	A
Pu-238	0.299 ± 0.033	0.272	1.10	48	0.272	0.201	0.381	A
Pu-239	0.139 ± 0.017	0.124	1.12	49	0.13	0.094	0.179	A
Sb-125	4.31 ± 0.63	3.59	1.20	106	3.863	2.19	5.134	W
Sr-90	0.63 ± 0.12	0.644	0.98	39	0.645	0.393	1.243	A
U-234	0.06 ± 0.009	0.06	1.00	40	0.07	0.05	0.115	A
U-238	0.061 ± 0.009	0.061	1.00	40	0.07	0.051	0.16	A
Soil								
Ac-228	57.9 ± 4.5	47.15	1.23	80	51.252	37.249	82.513	A
Am-241	4.58 ± 0.76	4.894	0.94	63	5.11	3.083	11.306	A
Bi-214	74.8 ± 6	69.9	1.07	77	67.523	52.425	99.258	A
Cs-137	743 ± 76	659.5	1.13	115	693.794	547.385	870.54	A
K-40	472 ± 50	362.75	1.30		349.8	282.945	555.008	W

^a Values are Bq/L, Bq/Kg, and Bq/filter.

^b Quality Assessment Program conducted by Department of Energy's Environmental Measurements Laboratory (EML), New York

^c Control limits were established by EML/QAP from historical data.

Table 62
QAP Interlaboratory Comparison of Analytical Results

Page 2 of 5

Nuclide	SRS Value ^a	QAP ^b Value	SRS/QAP Ratio	Number of Labs	Mean of Labs	Range		Evaluation
						Lower Control Limit ^c	Upper Control Limit ^c	
Pb-212	53.7 ± 5.5	47.925	1.12	72	50.944	35.465	63.74	A
Pb-214	76.1 ± 5.9	71.	1.07	81	72.704	46.15	102.95	A
Pu-239	10.83 ± 1.85	8.112	1.34	65	8.128	5.597	14.114	W
Sr-90	41.2 ± 19.6	32.4	1.27	49	35.575	19.44	118.584	A
Th-234	90.6 ± 6.9	138.	0.66	50	155.112	81.42	255.3	W
Vegetation								
Am-241	3.34 ± 0.43	3.522	0.95	53	3.723	2.395	9.509	A
Cm-244	1.71 ± 0.31	1.671	1.02	30	2.015	0.785	2.907	A
Co-60	24.1 ± 4.2	21.45	1.12	85	23.166	14.801	31.317	A
Cs-137	529 ± 55	467.	1.13	88	517.436	373.6	653.8	A
K-40	718 ± 108	656.5	1.09		511.939	518.635	932.23	A
Pu-239	4.78 ± 0.8	5.204	0.92	48	5.033	3.539	8.275	A
Sr-90	822 ± 99	736.1	1.12	47	682.365	368.05	979.013	A
Water								
Alpha	940 ± 103	1090.	0.86	68	1069.29	664.9	1438.8	A
Am-241	1.33 ± 0.15	1.146	1.16	70	1.199	0.86	1.708	A
Beta	1130 ± 100	1100.	1.03	75	1098.9	605.	1694.	A
Co-60	55 ± 4	51.1	1.08	124	54.268	40.88	61.32	A
Cs-137	41.5 ± 2.7	39.375	1.05	125	41.816	31.5	49.613	A
H-3	128 ± 18	121.08	1.06	84	131.614	85.967	216.733	A

^a Values are Bq/L, Bq/Kg, and Bq/filter.

^b Quality Assessment Program conducted by Department of Energy's Environmental Measurements Laboratory (EML), New York

^c Control limits were established by EML/QAP from historical data.

Table 62
QAP Interlaboratory Comparison of Analytical Results

Nuclide	SRS Value ^a	QAP ^b Value	SRS/QAP Ratio	Number of Labs	Mean of Labs	Range		Evaluation
						Lower Control Limit ^c	Upper Control Limit ^c	
Pu-238	0.858 ± 0.12	0.772	1.11	59	0.789	0.602	0.965	W
Pu-239	1.106 ± 0.13	1.009	1.10	61	1.005	0.807	1.403	A
Sr-90	2.83 ± 0.55	4.104	0.69	62	3.85	3.078	6.156	N
U-234	0.282 ± 0.052	0.269	1.05	50	0.288	0.215	0.376	A
U-238	0.279 ± 0.053	0.262	1.07	50	0.282	0.21	0.33	A
QAP Set #51, December, 1999								
Air								
Alpha	2.26 ± 0.15	2.77	0.82	85	2.764	1.385	4.294	A
Am-241	0.121 ± 0.012	0.127	0.95	63	0.127	0.093	0.328	A
Beta	2.96 ± 0.18	2.66	1.11	86	2.873	1.915	4.442	A
Co-57	8.66 ± 0.61	7.73	1.12	115	7.885	5.025	10.745	A
Co-60	6.99 ± 0.47	6.35	1.10	119	6.661	4.763	8.382	W
Cs-137	7.08 ± 0.79	6.43	1.10	121	6.899	4.694	8.809	A
Mn-54	8.8 ± 0.91	7.91	1.11	116	8.661	6.012	11.232	A
Pu-238	0.097 ± 0.011	0.097	1.00	43	0.095	0.072	0.136	A
Pu-239	0.136 ± 0.016	0.136	1.00	43	0.132	0.103	0.196	A
Ru-106	7.35 ± 1.84	5.5	1.34	80	5.693	3.245	7.15	N
Sr-90	0.38 ± 0.09	0.336	1.13	36	0.398	0.205	0.648	A
U-234	0.059 ± 0.008	0.066	0.89	36	0.072	0.055	0.127	W
U-238	0.059 ± 0.008	0.065	0.91	35	0.071	0.055	0.17	A

^a Values are Bq/L, Bq/Kg, and Bq/filter.

^b Quality Assessment Program conducted by Department of Energy's Environmental Measurements Laboratory (EML), New York

^c Control limits were established by EML/QAP from historical data.

Table 62
QAP Interlaboratory Comparison of Analytical Results

Page 4 of 5

Nuclide	SRS Value ^a	QAP ^b Value	SRS/QAP Ratio	Number of Labs	Mean of Labs	Range		Evaluation
						Lower Control Limit ^c	Upper Control Limit ^c	
Soil								
Ac-228	137 ± 7	124	1.10	79	134.044	97.96	217.	A
Bi-212	90.3 ± 13.9	140	0.65	58	115.78	58.8	170.8	A
Bi-214	78.7 ± 6.2	69.5	1.13	74	78.257	52.125	98.69	A
Cs-137	232 ± 24	204	1.14	117	220.728	169.32	269.28	A
K-40	938 ± 91	780	1.20	104	854.88	608.4	1193.4	A
Pb-212	122 ± 8	127	0.96	76	132.842	93.98	168.91	A
Pb-214	75.9 ± 5.8	72	1.05	72	82.224	46.8	104.4	A
Pu-239	2.97 ± 0.68	3.2	0.93	49	3.014	2.208	5.568	A
Sr-90	21 ± 12	13	1.62	39	18.187	7.8	47.58	A
Th-234	185 ± 28	198	0.93	42	213.444	116.82	366.3	A
Vegetation								
Am-241	3.6 ± 0.51	2.88	1.25	62	3.476	1.958	7.776	A
Cm-244	1.65 ± 0.28	1.61	1.02	30	1.882	0.757	2.801	A
Co-60	20.4 ± 1.2	17.6	1.16	102	18.814	12.144	25.696	A
Cs-137	484 ± 20	440	1.10	107	472.12	352	616	A
K-40	550 ± 32	513	1.07	86	529.929	405.27	728.46	A
Pu-239	5.23 ± 0.73	4.3	1.22	48	4.459	2.924	6.837	A
Sr-90	693 ± 51	595	1.16	44	579.53	297.5	791.35	W

^a Values are Bq/L, Bq/Kg, and Bq/filter.

^b Quality Assessment Program conducted by Department of Energy's Environmental Measurements Laboratory (EML), New York

^c Control limits were established by EML/QAP from historical data.

Table 62
QAP Interlaboratory Comparison of Analytical Results

Nuclide	SRS Value ^a	QAP ^b Value	SRS/QAP Ratio	Number of Labs	Mean of Labs	Range		Evaluation
						Lower Control Limit ^c	Upper Control Limit ^c	
Water								
Alpha	1500 ± 152	1580	0.95	73	1488.36	963.8	2085.6	A
Am-241	0.95 ± 0.033	0.85	1.12	62	0.93	0.638	1.267	A
Beta	863. ± 100	740	1.17	78	885.78	407	1139.6	A
Co-60	56.5 ± 4.3	52.4	1.08	122	53.71	41.92	62.88	A
Cs-137	78.7 ± 8.2	76	1.04	125	78.432	60.8	95.76	A
H-3	86.1 ± 10.1	80.7	1.07	81	86.268	57.297	144.453	A
Pu-238	0.879 ± 0.335	0.79	1.11	55	0.82	0.616	0.988	W
Pu-239	0.962 ± 0.036	0.87	1.11	56	0.905	0.696	1.209	A
Sr-90	1.6 ± 0.6	1.72	0.93	62	1.71	1.29	2.58	A
U-234	0.362 ± 0.019	0.37	0.98	44	0.402	0.296	0.518	A
U-238	0.377 ± 0.019	0.36	1.05	46	0.392	0.288	0.454	A

^a Values are Bq/L, Bq/Kg, and Bq/filter.

^b Quality Assessment Program conducted by Department of Energy's Environmental Measurements Laboratory (EML), New York

^c Control limits were established by EML/QAP from historical data.

Table 63
Quality Assurance/Quality Control Standards

Page 1 of 1

	Shealy		General Engineering			
Parameter	Reported Value	Pass/Fail	Reported Value	Pass/Fail	Standard Value	Acceptance Limits
Note: "ND" denotes "not detected."						
Oil & Grease	27.7	Pass	32.5	Pass	43.0	25.8 – 53.8
Biological Oxygen Demand	41.0	Pass	58	Pass	52.6	35.2 – 63.6
Phenol	0.053	Fail	0.363	Pass	0.335	.255 – .415
Ammonia	0.738	Fail	3.21	Pass	3.37	2.83 – 3.91
Nitrate + Nitrite	ND	Fail	5.64	Pass	5.34	4.75 – 5.93
Chemical Oxygen Demand	83.3	Pass	75.4	Pass	87.6	74.5 – 101
Total Organic Carbon	33	Pass	33.7	Pass	34.9	29.7 – 40.1
Total Suspended Solids	70	Pass	63.6	Pass	69.3	58.9 – 79.7
Aluminum	0.63	Pass	0.619	Pass	0.558	.458 – .685
Arsenic	0.082	Pass	0.095	Pass	0.092	.069 – .118
Barium	0.55	Pass	0.575	Pass	0.583	.478 – .688
Cadmium	0.070	Pass	0.077	Pass	0.075	.062 – .089
Chromium	0.49	Pass	0.525	Pass	0.517	.424 – .610
Copper	0.17	Pass	0.192	Pass	0.192	.157 – .227
Iron	0.82	Pass	0.903	Pass	0.867	.711 – 1.020
Lead	0.28	Pass	0.300	Pass	0.292	.239 – .345
Manganese	0.16	Pass	0.174	Pass	0.171	.140 – .202
Nickel	0.18	Pass	0.196	Pass	0.187	.153 – .221
Selenium	0.064	Pass	0.075	Pass	0.074	.057 – .087
Silver	0.075	Pass	0.076	Pass	0.078	.064 – .092
Zinc	0.41	Pass	0.453	Pass	0.454	.372 – .536
Mercury	0.014	Fail	0.015	Fail	0.011	.0081 – .0135

Table 64
NPDES Duplicate Sample Results

Page 1 of 5

NPDES Site	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
<i>Note: The Environmental Monitoring Section laboratory performs most analyses for total suspended solids. Other analyses, including some total suspended solids, are performed by Shealy Environmental Services.</i>					
X-8C	1,1,1-Trichloroethane	ug/L	<2.0	<2.0	0
M-05	1,1,1-Trichloroethane	ug/L	<2.0	<2.0	0
A-1A	1,1,1-Trichloroethane	ug/L	<2.0	<2.0	0
X-8C	1,1,1-Trichloroethane	ug/L	<2.0	<2.0	0
A-1A	1,1,1-Trichloroethane	ug/L	<2.0	<2.0	0
M-04	Aluminum	mg/L	0.25	0.12	0.13
M-04	Ammonia	mg/L	0.97	1.04	0.07
X-8B	Benzene	ug/L	<0.5	<0.5	0
Z-8B	Benzene	ug/L	<0.5	<0.5	0
X-8B	Benzene	ug/L	<0.5	<0.5	0
A-01	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
X-8B	Biological Oxygen Demand	mg/L	3.7	3.5	0.2
X-8B	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
A-11	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
X-8B	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
A-01	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
A-11	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
H-16	Cadmium	mg/L	<0.002	<0.002	0
H-16	Cadmium	mg/L	<0.0020	<0.0020	0
H-16	Cadmium	mg/L	<0.0020	<0.0020	0
H-16	Chromium	mg/L	<0.005	<0.005	0
M-04	Chromium	mg/L	<0.0050	<0.0050	0
H-16	Chromium	mg/L	<0.0050	<0.0050	0
H-16	Chromium	mg/L	<0.0050	<0.0050	0
X-8C	cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	0
M-05	cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	0
A-1A	cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	0
X-8C	cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	0
A-1A	cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	0
H-16	Copper	mg/L	<0.005	<0.005	0
F-08	Copper	mg/L	<0.005	<0.005	0
A-01	Copper	mg/L	0.01	0.009	0.001
A-11	Copper	mg/L	<0.005	0.009	<0.009

Table 64
NPDES Duplicate Sample Results

Page 2 of 5

NPDES Site	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
H-12	Copper	mg/L	<0.005	<0.005	0
A-01	Copper	mg/L	0.013	0.012	0.001
H-12	Copper	mg/L	<0.0050	0.005	<0.005
H-16	Copper	mg/L	<0.0050	<0.0050	0
A-01	Copper	mg/L	0.012	0.011	0.001
A-11	Copper	mg/L	<0.0050	<0.0050	0
H-16	Copper	mg/L	<0.0050	<0.0050	0
F-08	Copper	mg/L	0.0087	0.012	0
M-04	Cyanide	mg/L	<0.010	<0.010	0
M-04	Cyanide	mg/L	<0.010	<0.010	0
PP-1	Iron	mg/L	0.19	0.22	0.03
H-16	Lead	mg/L	<0.003	<0.003	0
F-08	Lead	mg/L	<0.003	<0.003	0
A-01	Lead	mg/L	<0.003	<0.003	0
A-11	Lead	mg/L	<0.003	<0.003	0
H-12	Lead	mg/L	<0.003	<0.003	0
A-01	Lead	mg/L	<0.003	<0.003	0
F-08	Lead	mg/L	<0.0030	<0.0030	0
H-08	Lead	mg/L	<0.0030	<0.0030	0
M-04	Lead	mg/L	<0.0030	<0.0030	0
H-12	Lead	mg/L	<0.0030	<0.0030	0
H-16	Lead	mg/L	<0.0030	<0.0030	0
A-01	Lead	mg/L	<0.0030	<0.0030	0
A-11	Lead	mg/L	<0.0030	<0.0030	0
H-16	Lead	mg/L	<0.0030	<0.0030	0
F-08	Lead	mg/L	<0.0030	<0.0030	0
PP-1	Manganese	mg/L	6.3	6.7	0.4
H-16	Mercury	mg/L	<0.0001	<0.0001	0
F-08	Mercury	mg/L	<0.0001	<0.0001	0
X-8B	Mercury	mg/L	0.0003	0.0005	0.0002
A-01	Mercury	mg/L	<0.0001	<0.0001	0
A-11	Mercury	mg/L	<0.0001	<0.0001	0
A-11	Mercury	mg/L	<0.0001	<0.0001	0
A-01	Mercury	mg/L	0.0001	0.0001	0
Z-8B	Mercury	mg/L	0.0058	0.0059	0.0001

Table 64
NPDES Duplicate Sample Results

Page 3 of 5

NPDES Site	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
H-16	Mercury	mg/L	<0.00010	<0.00010	0
A-01	Mercury	mg/L	0.00011	0.00012	0.0001
X-8B	Mercury	mg/L	0.00016	0.00016	0
A-11	Mercury	mg/L	<0.00010	<0.00010	0
H-16	Mercury	mg/L	0.00013	0.00011	0
F-08	Mercury	mg/L	<0.00010	<0.00010	0
H-16	Nickel	mg/L	<0.010	<0.010	0
M-04	Nickel	mg/L	0.042	0.04	0.002
H-16	Nickel	mg/L	<0.010	<0.010	0
H-16	Nickel	mg/L	<0.010	<0.010	0
A-01	Oil & Grease	mg/L	<1.0	<1.0	0
H-02	Oil & Grease	mg/L	<1.0	4.7	<4.7
L-07	Oil & Grease	mg/L	<1.0	<1.0	0
L-08	Oil & Grease	mg/L	<1.0	<1.0	0
H-02	Oil & Grease	mg/L	<1.0	2.8	<2.8
A-01	Oil & Grease	mg/L	<1.0	<1.0	0
H-07	Oil & Grease	mg/L	<1.0	<1.0	0
K-06	Oil & Grease	mg/L	1.4	4	0
X-8B	Phenol	mg/L	<0.006	<0.006	0
Z-8B	Phenol	mg/L	0.02	0.022	0.002
X-8B	Phenol	mg/L	0.006	<0.0060	<0.006
H-16	Silver	mg/L	<0.005	<0.005	0
H-16	Silver	mg/L	<0.0050	<0.0050	0
H-16	Silver	mg/L	<0.0050	<0.0050	0
X-8C	Tetrachloroethene	ug/L	<2.0	<2.0	0
M-05	Tetrachloroethene	ug/L	<2.0	<2.0	0
A-1A	Tetrachloroethene	ug/L	<2.0	<2.0	0
X-8C	Tetrachloroethene	ug/L	<2.0	<2.0	0
A-1A	Tetrachloroethene	ug/L	<2.0	<2.0	0
X-8B	Total Organic Carbon	mg/L	6.07	<1.00	<6.07
X-8B	Total Organic Carbon	mg/L	3.7	3.8	0.1
X-8B	Total Organic Carbon	mg/L	2.7	2.9	0.2
S-04	Total Suspended Solids	mg/L	2	2	0
X-04	Total Suspended Solids	mg/L	<1	<1	0
A-01	Total Suspended Solids	mg/L	1	1	0

Table 64
NPDES Duplicate Sample Results

Page 4 of 5

NPDES Site	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
H-02	Total Suspended Solids	mg/L	3	3	0
X-08	Total Suspended Solids	mg/L	1	1	0
X-8B	Total Suspended Solids	mg/L	3	3	0
H-04	Total Suspended Solids	mg/L	<1	<1	0
X-8B	Total Suspended Solids	mg/L	6	6	0
A-11	Total Suspended Solids	mg/L	2	2	0
H-08	Total Suspended Solids	mg/L	2	2	0
X-04	Total Suspended Solids	mg/L	<1	<1	0
F-01	Total Suspended Solids	mg/L	<1	1	<1
H-12	Total Suspended Solids	mg/L	<1	1	<1
S-04	Total Suspended Solids	mg/L	1	2	1
M-04	Total Suspended Solids	mg/L	1	1	0
L-07	Total Suspended Solids	mg/L	2	1	1
L-08	Total Suspended Solids	mg/L	1	1	0
PP-1	Total Suspended Solids	mg/L	1	2	1
F-02	Total Suspended Solids	mg/L	<1	<1	0
X-04	Total Suspended Solids	mg/L	1	1	0
X-8B	Total Suspended Solids	mg/L	3	3	0
S-04	Total Suspended Solids	mg/L	5	3	2
H-02	Total Suspended Solids	mg/L	3	2	1
A-01	Total Suspended Solids	mg/L	<1	1	<1
X-8B	Total Suspended Solids	mg/L	2	1	0
H-04	Total Suspended Solids	mg/L	<1	<1	0
A-11	Total Suspended Solids	mg/L	2	2	0
H-07	Total Suspended Solids	mg/L	3	2	0
H-08	Total Suspended Solids	mg/L	3	3	0
X-04	Total Suspended Solids	mg/L	2	1	0
F-01	Total Suspended Solids	mg/L	1	1	0
K-06	Total Suspended Solids	mg/L	2	1	0
X-8C	Trichloroethene	ug/L	<2.0	<2.0	0
M-05	Trichloroethene	ug/L	<2.0	<2.0	0
A-1A	Trichloroethene	ug/L	<2.0	<2.0	0
X-8C	Trichloroethene	ug/L	<2.0	<2.0	0
A-1A	Trichloroethene	ug/L	<2.0	<2.0	0
X-8C	Vinyl Chloride	ug/L	<2.0	<2.0	0

Table 64
NPDES Duplicate Sample Results

Page 5 of 5

NPDES Site	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
M-05	Vinyl Chloride	ug/L	<2.0	<2.0	0
A-1A	Vinyl Chloride	ug/L	<2.0	<2.0	0
X-8C	Vinyl Chloride	ug/L	<2.0	<2.0	0
A-1A	Vinyl Chloride	ug/L	<2.0	<2.0	0
S-04	Zinc	mg/L	0.074	0.069	0.005
H-16	Zinc	mg/L	0.024	0.009	0.015
S-04	Zinc	mg/L	0.19	0.17	0.02
S-04	Zinc	mg/L	0.35	0.34	0.01
H-16	Zinc	mg/L	0.045	0.042	0.003
H-16	Zinc	mg/L	0.06	0.021	0.039

Table 65
NPDES Blind Sample Results

Page 1 of 4

NPDES Site	Parameter Sampled	Units	Result 1	Result 2	Difference
<i>Note: The Environmental Monitoring Section laboratory performs most analyses for total suspended solids. Other analyses, including some total suspended solids, are performed by Shealy Environmental Services.</i>					
M-05	1,1,1-Trichloroethane	ug/L	<2.0	<2.0	0
X-8C	1,1,1-Trichloroethane	ug/L	<2.0	<2.0	0
M-05	1,1,1-Trichloroethane	ug/L	<2.0	<2.0	0
A-1A	1,1,1-Trichloroethane	ug/L	<2.0	<2.0	0
K-18	Aluminum	mg/L	<0.050	0.072	<0.072
M-04	Ammonia	mg/L	0.99	0.504	0.486
X-8B	Benzene	ug/L	<0.5	<0.5	0
X-8B	Benzene	ug/L	1.1	<0.5	<1.1
X-8B	Benzene	ug/L	<0.5	<0.5	0
X-8B	Biological Oxygen Demand	mg/L	2	<2.0	<2.0
X-8B	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
A-11	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
X-8B	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
A-11	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
A-01	Biological Oxygen Demand	mg/L	<2.0	<2.0	0
H-16	Biological Oxygen Demand	mg/L	4.7	2.1	2.6
H-16	Cadmium	mg/L	<0.002	<0.002	0
H-16	Cadmium	mg/L	<0.002	<0.002	0
H-16	Cadmium	mg/L	<0.0020	<0.0020	0
H-16	Chromium	mg/L	<0.005	<0.005	0
H-16	Chromium	mg/L	<0.005	<0.005	0
H-16	Chromium	mg/L	<0.0050	<0.0050	0
M-05	cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	0
X-8C	cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	0
M-05	cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	0
A-1A	cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	0
H-16	Copper	mg/L	<0.005	<0.005	0
H-16	Copper	mg/L	<0.005	<0.005	0
F-08	Copper	mg/L	<0.0050	<0.0050	0
H-12	Copper	mg/L	<0.0050	<0.0050	0
F-08	Copper	mg/L	<0.0050	<0.0050	0
A-11	Copper	mg/L	<0.0050	<0.0050	0
H-16	Copper	mg/L	<0.0050	<0.0050	0

Table 65
NPDES Blind Sample Results

Page 2 of 4

NPDES Site	Parameter Sampled	Units	Result 1	Result 2	Difference
A-01	Copper	mg/L	0.015	0.017	0.002
M-04	Cyanide	mg/L	<0.010	<0.010	0
H-16	Lead	mg/L	<0.003	<0.003	0
H-08	Lead	mg/L	<0.003	<0.003	0
H-16	Lead	mg/L	<0.003	<0.003	0
F-08	Lead	mg/L	<0.0030	<0.0030	0
H-12	Lead	mg/L	<0.0030	<0.0030	0
F-08	Lead	mg/L	<0.0030	<0.0030	0
A-11	Lead	mg/L	<0.0030	<0.0030	0
H-16	Lead	mg/L	<0.0030	<0.0030	0
A-01	Lead	mg/L	<0.0030	<0.0030	0
H-16	Mercury	mg/L	<0.0001	<0.0001	0
X-8B	Mercury	mg/L	0.0003	0.0003	0
H-16	Mercury	mg/L	0.0003	0.0002	0.0001
X-8B	Mercury	mg/L	0.004	0.003	0.001
F-08	Mercury	mg/L	<0.00010	<0.00010	0
X-8B	Mercury	mg/L	0.0004	0.00031	0.00009
F-08	Mercury	mg/L	<0.00010	<0.00010	0
A-11	Mercury	mg/L	<0.00010	<0.00010	0
H-16	Mercury	mg/L	0.00013	0.00021	0.00008
A-01	Mercury	mg/L	0.00015	0.00013	0.00002
H-16	Nickel	mg/L	<0.010	<0.010	0
H-16	Nickel	mg/L	<0.010	<0.010	0
H-16	Nickel	mg/L	<0.010	<0.010	0
F-05	Oil & Grease	mg/L	<1.0	<1.0	0
A-01	Oil & Grease	mg/L	2.1	<1.0	<2.1
F-05	Oil & Grease	mg/L	<1.0	<1.0	0
K-18	Oil & Grease	mg/L	<1.0	1.4	<1.4
F-05	Oil & Grease	mg/L	<1.0	<1.0	0
A-01	Oil & Grease	mg/L	1	4.8	3.8
H-02	Oil & Grease	mg/L	<1.0	1.7	<1.7
K-06	Oil & Grease	mg/L	1.4	<1.0	<1.4
X-8B	Phenol	mg/L	<0.006	0.011	<0.011
X-8B	Phenol	mg/L	<0.006	<0.006	0
X-8B	Phenol	mg/L	<0.006	<0.006	0
H-16	Silver	mg/L	<0.005	<0.005	0

Table 65
NPDES Blind Sample Results

Page 3 of 4

NPDES Site	Parameter Sampled	Units	Result 1	Result 2	Difference
H-16	Silver	mg/L	<0.005	<0.005	0
H-16	Silver	mg/L	<0.0050	<0.0050	0
M-05	Tetrachloroethene	ug/L	<2.0	<2.0	0
X-8C	Tetrachloroethene	ug/L	<2.0	<2.0	0
M-05	Tetrachloroethene	ug/L	<2.0	<2.0	0
A-1A	Tetrachloroethene	ug/L	<2.0	<2.0	0
X-8B	Total Organic Carbon	mg/L	3.2	3.4	0.2
X-8B	Total Organic Carbon	mg/L	2.9	3.2	0.3
X-8B	Total Organic Carbon	mg/L	3.5	4.8	1.3
F-01	Total Suspended Solids	mg/L	1	<1	<1
A-01	Total Suspended Solids	mg/L	<1	<1	0
A-11	Total Suspended Solids	mg/L	10	7	3
F-05	Total Suspended Solids	mg/L	15	16	1
F-08	Total Suspended Solids	mg/L	2	2	0
F-02	Total Suspended Solids	mg/L	<1	<1	0
H-02	Total Suspended Solids	mg/L	1	1	0
H-04	Total Suspended Solids	mg/L	<1	<1	0
H-08	Total Suspended Solids	mg/L	1	1	0
H-16	Total Suspended Solids	mg/L	5	6	1
X-04	Total Suspended Solids	mg/L	1	1	0
X-08	Total Suspended Solids	mg/L	1	1	0
S-04	Total Suspended Solids	mg/L	<1	<1	0
X-8B	Total Suspended Solids	mg/L	12	12	0
A-01	Total Suspended Solids	mg/L	5	4	1
A-11	Total Suspended Solids	mg/L	3	4	1
K-18	Total Suspended Solids	mg/L	3	3	0
F-01	Total Suspended Solids	mg/L	<1	<1	0
F-02	Total Suspended Solids	mg/L	<1	<1	0
F-05	Total Suspended Solids	mg/L	<1	2	<2
F-08	Total Suspended Solids	mg/L	<1	1	<1
H-02	Total Suspended Solids	mg/L	<1	<1	0
H-04	Total Suspended Solids	mg/L	<1	1	<1
H-08	Total Suspended Solids	mg/L	<1	1	<1
H-12	Total Suspended Solids	mg/L	<1	<1	0
S-04	Total Suspended Solids	mg/L	1	2	1
X-8B	Total Suspended Solids	mg/L	1	2	1

Table 65
NPDES Blind Sample Results

Page 4 of 4

NPDES Site	Parameter Sampled	Units	Result 1	Result 2	Difference
X-08	Total Suspended Solids	mg/L	1	2	1
X-04	Total Suspended Solids	mg/L	<1	<1	0
K-06	Total Suspended Solids	mg/L	2	1	1
H-16	Total Suspended Solids	mg/L	<1	<1	0
M-05	Trichloroethene	ug/L	<2.0	<2.0	0
X-8C	Trichloroethene	ug/L	<2.0	<2.0	0
M-05	Trichloroethene	ug/L	<2.0	<2.0	0
A-1A	Trichloroethene	ug/L	<2.0	<2.0	0
M-05	Vinyl Chloride	ug/L	<2.0	<2.0	0
X-8C	Vinyl Chloride	ug/L	<2.0	<2.0	0
M-05	Vinyl Chloride	ug/L	<2.0	<2.0	0
A-1A	Vinyl Chloride	ug/L	<2.0	<2.0	0
H-16	Zinc	mg/L	0.024	0.006	0.018
H-16	Zinc	mg/L	0.02	0.024	0.004
S-04	Zinc	mg/L	0.19	0.17	0.02
H-16	Zinc	mg/L	0.06	0.066	0.006
S-04	Zinc	mg/L	1.1	1.1	0

Table 66
SRS Stream and Savannah River Water Quality Duplicate Sample Results

Page 1 of 15

Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
RM-120	Iron	mg/L	0.365	0.416	0.051
BDC	Iron	mg/L	0.391	0.388	-0.003
FM-2	Iron	mg/L	0.699	0.87	0.171
RM-129	Iron	mg/L	1.04	1.11	0.07
4M-6	Iron	mg/L	0.901	0.673	-0.228
RM-140	Iron	mg/L	0.477	1.1	0.623
RM-160	Iron	mg/L	0.43	0.36	-0.07
SC-4	Iron	mg/L	0.42	0.41	-0.01
U3R-4	Iron	mg/L	0.36	0.34	-0.02
Vogtle	Iron	mg/L	0.4	0.54	0.14
RM-120	Iron	mg/L	0.44	0.1	-0.34
4M-2B	Iron	mg/L	1.2	1.5	0.3
RM-129	Iron	mg/L	0.71	0.58	-0.13
BDC	Iron	mg/L	0.5	0.45	-0.05
RM-140	Iron	mg/L	0.35	0.25	-0.1
4M-2	Iron	mg/L	1.8	1.7	-0.1
RM-160	Iron	mg/L	0.16	0.12	-0.04
VOGTLE	Iron	mg/L	0.38	0.39	0.01
PB-3	Iron	mg/L	0.39	0.35	-0.04
TC-1	Iron	mg/L	0.33	0.29	-0.04
RM-120	Iron	mg/L	0.21	0.28	0.07
U3R-1A	Iron	mg/L	0.11	0.18	0.07
RM-129	Iron	mg/L	0.47	0.3	-0.17
FM-2	2,4-D	ug/L	<2.00	<2.00	0
RM-129	2,4-D	ug/L	<2.00	<2.00	0
U3R-4	2,4-D	ug/L	<2.00	<2.00	0
Vogtle	2,4-D	ug/L	<2.00	<2.00	0
BDC	2,4-D	ug/L	<2.4	<2.4	0
RM-140	2,4-D	ug/L	<2.4	<2.4	0
TC-1	2,4-D	ug/L	<2.4	<2.5	0
RM-120	2,4-D	ug/L	<2.4	<2.4	0
FM-2	4,4'-DDD	ug/L	<0.05	<0.05	0
RM-129	4,4'-DDD	ug/L	<0.05	<0.05	0
U3R-4	4,4'-DDD	ug/L	<0.05	<0.05	0
Vogtle	4,4'-DDD	ug/L	<0.05	<0.05	0

Table 66
SRS Stream and Savannah River Water Quality Duplicate Sample Results

Page 2 of 15

Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
BDC	4,4'-DDD	ug/L	<0.03	<0.03	0
RM-140	4,4'-DDD	ug/L	<0.03	<0.03	0
TC-1	4,4'-DDD	ug/L	<0.03	<0.03	0
RM-120	4,4'-DDD	ug/L	<0.03	<0.03	0
FM-2	4,4'-DDE	ug/L	<0.05	<0.05	0
RM-129	4,4'-DDE	ug/L	<0.05	<0.05	0
U3R-4	4,4'-DDE	ug/L	<0.05	<0.05	0
Vogtle	4,4'-DDE	ug/L	<0.05	<0.05	0
BDC	4,4'-DDE	ug/L	<0.03	<0.03	0
RM-140	4,4'-DDE	ug/L	<0.03	<0.03	0
TC-1	4,4'-DDE	ug/L	<0.03	<0.03	0
RM-120	4,4'-DDE	ug/L	<0.03	<0.03	0
FM-2	4,4'-DDT	ug/L	<0.05	<0.05	0
RM-129	4,4'-DDT	ug/L	<0.05	<0.05	0
U3R-4	4,4'-DDT	ug/L	<0.05	<0.05	0
Vogtle	4,4'-DDT	ug/L	<0.05	<0.05	0
BDC	4,4'-DDT	ug/L	<0.03	<0.03	0
RM-140	4,4'-DDT	ug/L	<0.03	<0.03	0
TC-1	4,4'-DDT	ug/L	<0.03	<0.03	0
RM-120	4,4'-DDT	ug/L	<0.03	<0.03	0
FM-2	Aldrin	mg/L	<0.05	<0.05	0
RM-129	Aldrin	ug/L	<0.05	<0.05	0
U3R-4	Aldrin	ug/L	<0.05	<0.05	0
Vogtle	Aldrin	ug/L	<0.05	<0.05	0
BDC	Aldrin	ug/L	<0.03	<0.03	0
RM-140	Aldrin	ug/L	<0.03	<0.03	0
TC-1	Aldrin	ug/L	<0.03	<0.03	0
RM-120	Aldrin	ug/L	<0.03	<0.03	0
FM-2	alpha-BHC	ug/L	<0.05	<0.05	0
RM-129	alpha-BHC	ug/L	<0.05	<0.05	0
U3R-4	alpha-BHC	ug/L	<0.05	<0.05	0
Vogtle	alpha-BHC	ug/L	<0.05	<0.05	0
BDC	alpha-BHC	ug/L	<0.03	<0.03	0
RM-140	alpha-BHC	ug/L	<0.03	<0.03	0
TC-1	alpha-BHC	ug/L	<0.03	<0.03	0

Table 66
SRS Stream and Savannah River Water Quality Duplicate Sample Results

Page 3 of 15

Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
RM-120	alpha-BHC	ug/L	<0.03	<0.03	0
RM-120	Aluminum	mg/L	0.304	0.305	0.001
BDC	Aluminum	mg/L	0.355	0.332	-0.023
FM-2	Aluminum	mg/L	0.25	0.278	0.028
RM-129	Aluminum	mg/L	0.337	0.356	0.019
4M-6	Aluminum	mg/L	0.329	0.243	-0.086
RM-140	Aluminum	mg/L	0.413	0.927	0.514
RM-160	Aluminum	mg/L	<0.050	<0.050	0
SC-4	Aluminum	mg/L	<0.050	<0.050	0
U3R-4	Aluminum	mg/L	0.23	0.2	-0.03
Vogtle	Aluminum	mg/L	0.2	0.38	0.18
RM-120	Aluminum	mg/L	0.35	0.16	-0.19
4M-2B	Aluminum	mg/L	0.18	0.34	0.16
RM-129	Aluminum	mg/L	0.39	0.33	-0.06
BDC	Aluminum	mg/L	0.47	0.38	-0.09
RM-140	Aluminum	mg/L	0.26	0.25	-0.01
4M-2	Aluminum	mg/L	0.082	<0.050	<0.082
RM-160	Aluminum	mg/L	<0.050	<0.050	0
VOGTLE	Aluminum	mg/L	0.3	0.28	-0.02
PB-3	Aluminum	mg/L	0.15	0.16	0.01
TC-1	Aluminum	mg/L	0.18	0.14	-0.04
RM-120	Aluminum	mg/L	0.27	0.17	-0.1
U3R-1A	Aluminum	mg/L	<0.050	0.069	<0.069
RM-129	Aluminum	mg/L	0.22	0.071	-0.149
FM-2	beta0BHC	ug/L	<0.05	<0.05	0
RM-129	beta0BHC	ug/L	<0.05	<0.05	0
U3R-4	beta0BHC	ug/L	<0.05	<0.05	0
Vogtle	beta0BHC	ug/L	<0.05	<0.05	0
BDC	beta0BHC	ug/L	<0.03	<0.03	0
RM-140	beta0BHC	ug/L	<0.03	<0.03	0
TC-1	beta0BHC	ug/L	<0.03	<0.03	0
RM-120	beta0BHC	ug/L	<0.03	<0.03	0
RM-120	Cadmium	mg/L	<0.002	<0.002	0
BDC	Cadmium	mg/L	<0.002	<0.002	0
FM-2	Cadmium	mg/L	<0.002	<0.002	0

Table 66
SRS Stream and Savannah River Water Quality Duplicate Sample Results

Page 4 of 15

Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
RM-129	Cadmium	mg/L	<0.002	<0.002	0
4M-6	Cadmium	mg/L	<0.002	<0.002	0
RM-140	Cadmium	mg/L	<0.002	<0.002	0
RM-160	Cadmium	mg/L	<0.002	<0.002	0
SC-4	Cadmium	mg/L	<0.002	<0.002	0
U3R-4	Cadmium	mg/L	<0.0020	<0.0020	0
Vogtle	Cadmium	mg/L	<0.0020	<0.0020	0
RM-120	Cadmium	mg/L	<0.0020	<0.0020	0
4M-2B	Cadmium	mg/L	<0.0020	<0.0020	0
RM-129	Cadmium	mg/L	<0.0020	<0.0020	0
BDC	Cadmium	mg/L	<0.0020	<0.0020	0
RM-140	Cadmium	mg/L	<0.0020	<0.0020	0
4M-2	Cadmium	mg/L	<0.0020	<0.0020	0
RM-160	Cadmium	mg/L	<0.0020	<0.0020	0
VOGTLE	Cadmium	mg/L	<0.0020	<0.0020	0
PB-3	Cadmium	mg/L	<0.0020	<0.0020	0
TC-1	Cadmium	mg/L	<0.0020	<0.0020	0
RM-120	Cadmium	mg/L	<0.0020	<0.0020	0
U3R-1A	Cadmium	mg/L	<0.0020	<0.0020	0
RM-129	Cadmium	mg/L	<0.0020	<0.0020	0
FM-2	Chlordane	ug/L	<0.50	<0.50	0
RM-129	Chlordane	ug/L	<0.50	<0.50	0
U3R-4	Chlordane	ug/L	<0.50	<0.50	0
Vogtle	Chlordane	ug/L	<0.50	<0.50	0
BDC	Chlordane	ug/L	<0.06	<0.06	0
RM-140	Chlordane	ug/L	<0.06	<0.06	0
TC-1	Chlordane	ug/L	<0.06	<0.05	0
RM-120	Chlordane	ug/L	<0.06	<0.06	0
RM-120	Chromium	mg/L	<0.005	<0.005	0
BDC	Chromium	mg/L	<0.005	<0.005	0
FM-2	Chromium	mg/L	<0.005	<0.005	0
RM-129	Chromium	mg/L	<0.005	<0.005	0
4M-6	Chromium	mg/L	<0.005	<0.005	0
RM-140	Chromium	mg/L	<0.005	<0.005	0
RM-160	Chromium	mg/L	<0.005	<0.005	0

Table 66
SRS Stream and Savannah River Water Quality Duplicate Sample Results

Page 5 of 15

Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
SC-4	Chromium	mg/L	<0.005	<0.005	0
U3R-4	Chromium	mg/L	<0.0050	<0.0050	0
Vogtle	Chromium	mg/L	<0.0050	<0.0050	0
RM-120	Chromium	mg/L	<0.0050	<0.0050	0
4M-2B	Chromium	mg/L	<0.0050	<0.0050	0
RM-129	Chromium	mg/L	<0.0050	<0.0050	0
BDC	Chromium	mg/L	<0.0050	<0.0050	0
RM-140	Chromium	mg/L	<0.0050	<0.0050	0
4M-2	Chromium	mg/L	<0.0050	<0.0050	0
RM-160	Chromium	mg/L	<0.0050	<0.0050	0
VOGTLE	Chromium	mg/L	<0.0050	<0.0050	0
PB-3	Chromium	mg/L	<0.0050	<0.0050	0
TC-1	Chromium	mg/L	<0.0050	<0.0050	0
RM-120	Chromium	mg/L	<0.0050	<0.0050	0
U3R-1A	Chromium	mg/L	<0.0050	<0.0050	0
RM-129	Chromium	mg/L	<0.0050	<0.0050	0
RM-120	Copper	mg/L	<0.005	<0.005	0
BDC	Copper	mg/L	<0.005	<0.005	0
FM-2	Copper	mg/L	<0.005	0.005	0
RM-129	Copper	mg/L	<0.005	<0.005	0
4M-6	Copper	mg/L	0.007	<0.005	<0.007
RM-140	Copper	mg/L	<0.005	<0.005	0
RM-160	Copper	mg/L	0.006	0.008	0.002
SC-4	Copper	mg/L	<0.005	0.005	0
U3R-4	Copper	mg/L	<0.0050	<0.0050	0
Vogtle	Copper	mg/L	<0.0050	<0.0050	0
RM-120	Copper	mg/L	<0.0050	<0.0050	0
4M-2B	Copper	mg/L	<0.0050	0.0057	<0.0057
RM-129	Copper	mg/L	<0.0050	<0.0050	0
BDC	Copper	mg/L	<0.0050	<0.0050	0
RM-140	Copper	mg/L	<0.0050	<0.0050	0
4M-2	Copper	mg/L	<0.0050	<0.0050	0
RM-160	Copper	mg/L	<0.0050	<0.0050	0
VOGTLE	Copper	mg/L	<0.0050	<0.0050	0
PB-3	Copper	mg/L	<0.0050	<0.0050	0

Table 66
SRS Stream and Savannah River Water Quality Duplicate Sample Results

Page 6 of 15

Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
TC-1	Copper	mg/L	<0.0050	<0.0050	0
RM-120	Copper	mg/L	<0.0050	<0.0050	0
U3R-1A	Copper	mg/L	0.016	0.028	0.012
RM-129	Copper	mg/L	<0.0050	0.0098	<0.0098
FM-2	delta-BHC	ug/L	<0.05	<0.05	0
RM-129	delta-BHC	ug/L	<0.05	<0.05	0
U3R-4	delta-BHC	ug/L	<0.05	<0.05	0
Vogtle	delta-BHC	ug/L	<0.05	<0.05	0
BDC	delta-BHC	ug/L	<0.03	<0.03	0
RM-140	delta-BHC	ug/L	<0.03	<0.03	0
TC-1	delta-BHC	ug/L	<0.03	<0.03	0
RM-120	delta-BHC	ug/L	<0.03	<0.03	0
FM-2	Dieldrin	ug/L	<0.05	<0.05	0
RM-129	Dieldrin	ug/L	<0.05	<0.05	0
U3R-4	Dieldrin	ug/L	<0.05	<0.05	0
Vogtle	Dieldrin	ug/L	<0.05	<0.05	0
BDC	Dieldrin	ug/L	<0.03	<0.03	0
RM-140	Dieldrin	ug/L	<0.03	<0.03	0
TC-1	Dieldrin	ug/L	<0.03	<0.03	0
RM-120	Dieldrin	ug/L	<0.03	<0.03	0
FM-2	Endosulfan I	ug/L	<0.05	<0.05	0
RM-129	Endosulfan I	ug/L	<0.05	<0.05	0
U3R-4	Endosulfan I	ug/L	<0.05	<0.05	0
Vogtle	Endosulfan I	ug/L	<0.05	<0.05	0
BDC	Endosulfan I	ug/L	<0.03	<0.03	0
RM-140	Endosulfan I	ug/L	<0.03	<0.03	0
TC-1	Endosulfan I	ug/L	<0.03	<0.03	0
RM-120	Endosulfan I	ug/L	<0.03	<0.03	0
FM-2	Endosulfan II	ug/L	<0.05	<0.05	0
RM-129	Endosulfan II	ug/L	<0.05	<0.05	0
U3R-4	Endosulfan II	ug/L	<0.05	<0.05	0
Vogtle	Endosulfan II	ug/L	<0.05	<0.05	0
BDC	Endosulfan II	ug/L	<0.03	<0.03	0
RM-140	Endosulfan II	ug/L	<0.03	<0.03	0
TC-1	Endosulfan II	ug/L	<0.03	<0.03	0

Table 66
SRS Stream and Savannah River Water Quality Duplicate Sample Results

Page 7 of 15

Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
RM-120	Endosulfan II	ug/L	<0.03	<0.03	0
FM-2	Endosulfan sulfate	ug/L	<0.05	<0.05	0
RM-129	Endosulfan sulfate	ug/L	<0.05	<0.05	0
U3R-4	Endosulfan sulfate	ug/L	<0.05	<0.05	0
Vogtle	Endosulfan sulfate	ug/L	<0.05	<0.05	0
BDC	Endosulfan sulfate	ug/L	<0.03	<0.03	0
RM-140	Endosulfan sulfate	ug/L	<0.03	<0.03	0
TC-1	Endosulfan sulfate	ug/L	<0.03	<0.03	0
RM-120	Endosulfan sulfate	ug/L	<0.03	<0.03	0
FM-2	Endrin	ug/L	<0.05	<0.05	0
RM-129	Endrin	ug/L	<0.05	<0.05	0
U3R-4	Endrin	ug/L	<0.05	<0.05	0
Vogtle	Endrin	ug/L	<0.05	<0.05	0
BDC	Endrin	ug/L	<0.03	<0.03	0
RM-140	Endrin	ug/L	<0.03	<0.03	0
TC-1	Endrin	ug/L	<0.03	<0.03	0
RM-120	Endrin	ug/L	<0.03	<0.03	0
FM-2	Endrin aldehyde	ug/L	<0.05	<0.05	0
RM-129	Endrin aldehyde	ug/L	<0.05	<0.05	0
U3R-4	Endrin aldehyde	ug/L	<0.05	<0.05	0
Vogtle	Endrin aldehyde	ug/L	<0.05	<0.05	0
BDC	Endrin aldehyde	ug/L	<0.03	<0.03	0
RM-140	Endrin aldehyde	ug/L	<0.03	<0.03	0
TC-1	Endrin aldehyde	ug/L	<0.03	<0.03	0
RM-120	Endrin aldehyde	ug/L	<0.03	<0.03	0
FM-2	Endrin ketone	ug/L	<0.05	<0.05	0
RM-129	Endrin ketone	ug/L	<0.05	<0.05	0
U3R-4	Endrin ketone	ug/L	<0.05	<0.05	0
Vogtle	Endrin ketone	ug/L	<0.05	<0.05	0
BDC	Endrin ketone	ug/L	<0.03	<0.03	0
RM-140	Endrin ketone	ug/L	<0.03	<0.03	0
TC-1	Endrin ketone	ug/L	<0.03	<0.03	0
RM-120	Endrin ketone	ug/L	<0.03	<0.03	0
FM-2	gamma-BHC (Lindane)	ug/L	<0.05	<0.05	0
RM-129	gamma-BHC (Lindane)	ug/L	<0.05	<0.05	0

Table 66
SRS Stream and Savannah River Water Quality Duplicate Sample Results

Page 8 of 15

Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
U3R-4	gamma-BHC (Lindane)	ug/L	<0.05	<0.05	0
Vogtle	gamma-BHC (Lindane)	ug/L	<0.05	<0.05	0
BDC	gamma-BHC (Lindane)	ug/L	<0.03	<0.03	0
RM-140	gamma-BHC (Lindane)	ug/L	<0.03	<0.03	0
TC-1	gamma-BHC (Lindane)	ug/L	<0.03	<0.03	0
RM-120	gamma-BHC (Lindane)	ug/L	<0.03	<0.03	0
FM-2	Heptachlor	ug/L	<0.05	<0.05	0
RM-129	Heptachlor	ug/L	<0.05	<0.05	0
U3R-4	Heptachlor	ug/L	<0.05	<0.05	0
Vogtle	Heptachlor	ug/L	<0.05	<0.05	0
BDC	Heptachlor	ug/L	<0.03	<0.03	0
RM-140	Heptachlor	ug/L	<0.03	<0.03	0
TC-1	Heptachlor	ug/L	<0.03	<0.03	0
RM-120	Heptachlor	ug/L	<0.03	<0.03	0
FM-2	Heptachlor epoxide	ug/L	<0.05	<0.05	0
RM-129	Heptachlor epoxide	ug/L	<0.05	<0.05	0
U3R-4	Heptachlor epoxide	ug/L	<0.05	<0.05	0
Vogtle	Heptachlor epoxide	ug/L	<0.05	<0.05	0
BDC	Heptachlor epoxide	ug/L	<0.03	<0.03	0
RM-140	Heptachlor epoxide	ug/L	<0.03	<0.03	0
TC-1	Heptachlor epoxide	ug/L	<0.03	<0.03	0
RM-120	Heptachlor epoxide	ug/L	<0.03	<0.03	0
RM-120	Lead	mg/L	<0.003	<0.003	0
BDC	Lead	mg/L	<0.003	<0.003	0
FM-2	Lead	mg/L	<0.003	<0.003	0
RM-129	Lead	mg/L	<0.003	<0.003	0
4M-6	Lead	mg/L	<0.003	<0.003	0
RM-140	Lead	mg/L	<0.003	<0.003	0
RM-160	Lead	mg/L	<0.003	<0.003	0
SC-4	Lead	mg/L	<0.003	<0.003	0
U3R-4	Lead	mg/L	<0.0030	<0.0030	0
Vogtle	Lead	mg/L	<0.0030	<0.0030	0
RM-120	Lead	mg/L	<0.0030	<0.0030	0
4M-2B	Lead	mg/L	<0.0030	<0.0030	0
RM-129	Lead	mg/L	<0.0030	<0.0030	0

Table 66
SRS Stream and Savannah River Water Quality Duplicate Sample Results

Page 9 of 15

Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
BDC	Lead	mg/L	<0.0030	<0.0030	0
RM-140	Lead	mg/L	<0.0030	<0.0030	0
4M-2	Lead	mg/L	<0.0030	<0.0030	0
RM-160	Lead	mg/L	<0.0030	<0.0030	0
VOGTLE	Lead	mg/L	<0.0030	<0.0030	0
PB-3	Lead	mg/L	<0.0030	<0.0030	0
TC-1	Lead	mg/L	<0.0030	<0.0030	0
RM-120	Lead	mg/L	<0.0030	<0.0030	0
U3R-1A	Lead	mg/L	<0.0030	<0.0030	0
RM-129	Lead	mg/L	<0.0030	<0.0030	0
RM-120	Manganese	mg/L	0.06	0.068	0.008
BDC	Manganese	mg/L	0.056	0.058	0.002
FM-2	Manganese	mg/L	0.048	0.056	0.008
RM-129	Manganese	mg/L	0.353	0.365	0.012
4M-6	Manganese	mg/L	0.073	0.045	-0.028
RM-140	Manganese	mg/L	0.056	0.067	0.011
RM-160	Manganese	mg/L	0.067	0.053	-0.014
SC-4	Manganese	mg/L	0.044	0.049	0.005
U3R-4	Manganese	mg/L	0.016	0.017	0.001
Vogtle	Manganese	mg/L	0.072	0.078	0.006
RM-120	Manganese	mg/L	0.057	0.037	-0.02
4M-2B	Manganese	mg/L	0.061	0.076	0.015
RM-129	Manganese	mg/L	0.068	0.066	-0.002
BDC	Manganese	mg/L	0.074	0.075	0.001
RM-140	Manganese	mg/L	0.06	0.0066	-0.0534
4M-2	Manganese	mg/L	0.19	0.19	0
RM-160	Manganese	mg/L	0.068	0.055	-0.013
VOGTLE	Manganese	mg/L	0.059	0.065	0.006
PB-3	Manganese	mg/L	0.033	0.03	-0.003
TC-1	Manganese	mg/L	0.027	0.024	-0.003
RM-120	Manganese	mg/L	0.039	0.042	0.003
U3R-1A	Manganese	mg/L	0.01	0.012	0.002
RM-129	Manganese	mg/L	0.063	0.065	0.002
RM-120	Mercury	mg/L	<0.0001	<0.0001	0
BDC	Mercury	mg/L	<0.0001	<0.0001	0

Table 66
SRS Stream and Savannah River Water Quality Duplicate Sample Results

Page 10 of 15

Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
FM-2	Mercury	mg/L	<0.0001	<0.00001	0
RM-129	Mercury	mg/L	<0.0001	<0.0001	0
4M-6	Mercury	mg/L	<0.0001	<0.0001	0
RM-140	Mercury	mg/L	<0.0001	<0.0001	0
RM-160	Mercury	mg/L	<0.0001	<0.0001	0
SC-4	Mercury	mg/L	0.0001	0.0001	0
U3R-4	Mercury	mg/L	<0.00010	<0.00010	0
Vogtle	Mercury	mg/L	<0.00010	<0.00010	0
RM-120	Mercury	mg/L	<0.00010	<0.00010	0
4M-2B	Mercury	mg/L	<0.00010	<0.00010	0
RM-129	Mercury	mg/L	<0.00010	<0.00010	0
BDC	Mercury	mg/L	<0.00010	<0.00010	0
RM-140	Mercury	mg/L	<0.00010	<0.00010	0
4M-2	Mercury	mg/L	<0.00010	<0.00010	0
RM-160	Mercury	mg/L	<0.00010	<0.00010	0
VOGTLE	Mercury	mg/L	<0.00010	<0.00010	0
PB-3	Mercury	mg/L	<0.00010	<0.00010	0
TC-1	Mercury	mg/L	<0.00010	<0.00010	0
RM-120	Mercury	mg/L	<0.00010	<0.00010	0
U3R-1A	Mercury	mg/L	<0.00010	<0.00010	0
RM-129	Mercury	mg/L	<0.00010	<0.00010	0
FM-2	Methoxychlor	ug/L	<0.20	<0.20	0
RM-129	Methoxychlor	ug/L	<0.20	<0.20	0
U3R-4	Methoxychlor	ug/L	<0.20	<0.20	0
Vogtle	Methoxychlor	ug/L	<0.20	<0.20	0
BDC	Methoxychlor	ug/L	<0.12	<0.12	0
RM-140	Methoxychlor	ug/L	<0.12	<0.12	0
TC-1	Methoxychlor	ug/L	<0.12	<0.10	0
RM-120	Methoxychlor	ug/L	<0.12	<0.12	0
RM-120	Nickel	mg/L	<0.010	<0.010	0
BDC	Nickel	mg/L	<0.010	<0.010	0
FM-2	Nickel	mg/L	<0.10	<0.010	0
RM-129	Nickel	mg/L	<0.010	<0.010	0
4M-6	Nickel	mg/L	<0.010	<0.010	0
RM-140	Nickel	mg/L	<0.010	<0.010	0

Table 66
SRS Stream and Savannah River Water Quality Duplicate Sample Results

Page 11 of 15

Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
RM-160	Nickel	mg/L	<0.010	<0.010	0
SC-4	Nickel	mg/L	<0.010	<0.010	0
U3R-4	Nickel	mg/L	<0.010	<0.010	0
Vogtle	Nickel	mg/L	<0.010	<0.010	0
RM-120	Nickel	mg/L	<0.010	<0.010	0
4M-2B	Nickel	mg/L	<0.010	0.011	<0.011
RM-129	Nickel	mg/L	<0.010	<0.010	0
BDC	Nickel	mg/L	<0.010	<0.010	0
RM-140	Nickel	mg/L	<0.010	<0.010	0
4M-2	Nickel	mg/L	<0.010	<0.010	0
RM-160	Nickel	mg/L	<0.010	<0.010	0
VOGTLE	Nickel	mg/L	<0.010	<0.010	0
PB-3	Nickel	mg/L	<0.010	<0.010	0
TC-1	Nickel	mg/L	<0.010	<0.010	0
RM-120	Nickel	mg/L	<0.010	<0.010	0
U3R-1A	Nickel	mg/L	<0.010	<0.010	0
RM-129	Nickel	mg/L	<0.010	<0.010	0
FM-2	PCB 1016	ug/L	<0.50	<0.50	0
RM-129	PCB 1016	ug/L	<0.50	<0.50	0
U3R-4	PCB 1016	ug/L	<0.50	<0.50	0
Vogtle	PCB 1016	ug/L	<0.50	<0.50	0
BDC	PCB 1016	ug/L	<0.31	<0.31	0
RM-140	PCB 1016	ug/L	<0.31	<0.31	0
TC-1	PCB 1016	ug/L	<0.29	<0.25	0
RM-120	PCB 1016	ug/L	<0.29	<0.29	0
FM-2	PCB 1221	ug/L	<0.50	<0.50	0
RM-129	PCB 1221	ug/L	<0.50	<0.50	0
U3R-4	PCB 1221	ug/L	<0.50	<0.50	0
Vogtle	PCB 1221	ug/L	<0.50	<0.50	0
BDC	PCB 1221	ug/L	<0.31	<0.31	0
RM-140	PCB 1221	ug/L	<0.31	<0.31	0
TC-1	PCB 1221	ug/L	<0.29	<0.25	0
RM-120	PCB 1221	ug/L	<0.29	<0.29	0
FM-2	PCB 1232	ug/L	<0.50	<0.50	0
RM-129	PCB 1232	ug/L	<0.50	<0.50	0

Table 66
SRS Stream and Savannah River Water Quality Duplicate Sample Results

Page 12 of 15

Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
U3R-4	PCB 1232	ug/L	<0.50	<0.50	0
Vogtle	PCB 1232	ug/L	<0.50	<0.50	0
BDC	PCB 1232	ug/L	<0.31	<0.31	0
RM-140	PCB 1232	ug/L	<0.31	<0.31	0
TC-1	PCB 1232	ug/L	<0.29	<0.25	0
RM-120	PCB 1232	ug/L	<0.29	<0.29	0
FM-2	PCB 1242	ug/L	<0.50	<0.50	0
RM-129	PCB 1242	ug/L	<0.50	<0.50	0
U3R-4	PCB 1242	ug/L	<0.50	<0.50	0
Vogtle	PCB 1242	ug/L	<0.50	<0.50	0
BDC	PCB 1242	ug/L	<0.31	<0.31	0
RM-140	PCB 1242	ug/L	<0.31	<0.31	0
TC-1	PCB 1242	ug/L	<0.29	<0.25	0
RM-120	PCB 1242	ug/L	<0.29	<0.29	0
FM-2	PCB 1248	ug/L	<0.50	<0.50	0
RM-129	PCB 1248	ug/L	<0.50	<0.50	0
U3R-4	PCB 1248	ug/L	<0.50	<0.50	0
Vogtle	PCB 1248	ug/L	<0.50	<0.50	0
BDC	PCB 1248	ug/L	<0.31	<0.31	0
RM-140	PCB 1248	ug/L	<0.31	<0.31	0
TC-1	PCB 1248	ug/L	<0.29	<0.25	0
RM-120	PCB 1248	ug/L	<0.29	<0.29	0
FM-2	PCB 1254	ug/L	<0.50	<0.50	0
RM-129	PCB 1254	ug/L	<0.50	<0.50	0
U3R-4	PCB 1254	ug/L	<0.50	<0.50	0
Vogtle	PCB 1254	ug/L	<0.50	<0.50	0
BDC	PCB 1254	ug/L	<0.31	<0.31	0
RM-140	PCB 1254	ug/L	<0.31	<0.31	0
TC-1	PCB 1254	ug/L	<0.29	<0.25	0
RM-120	PCB 1254	ug/L	<0.29	<0.29	0
FM-2	PCB 1260	ug/L	<0.50	<0.50	0
RM-129	PCB 1260	ug/L	<0.50	<0.50	0
U3R-4	PCB 1260	ug/L	<0.50	<0.50	0
Vogtle	PCB 1260	ug/L	<0.50	<0.50	0
BDC	PCB 1260	ug/L	<0.31	<0.31	0

Table 66
SRS Stream and Savannah River Water Quality Duplicate Sample Results

Page 13 of 15

Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
RM-140	PCB 1260	ug/L	<0.31	<0.31	0
TC-1	PCB 1260	ug/L	<0.29	<0.25	0
RM-120	PCB 1260	ug/L	<0.29	<0.29	0
RM-120	Phosphorus	mg/L	0.503	0.276	-0.227
BDC	Phosphorus	mg/L	0.236	0.298	0.062
FM-2	Phosphorus	mg/L	<0.010	<0.010	0
RM-129	Phosphorus	mg/L	<0.010	<0.010	0
4M-6	Phosphorus	mg/L	<0.010	<0.010	0
RM-140	Phosphorus	mg/L	<0.010	<0.010	0
RM-160	Phosphorus	mg/L	0.115	0.097	-0.018
SC-4	Phosphorus	mg/L	0.023	0.041	0.018
U3R-4	Phosphorus	mg/L	<0.010	<0.010	0
Vogtle	Phosphorus	mg/L	0.151	0.132	-0.019
RM-120	Phosphorus	mg/L	0.126	0.149	0.023
4M-2B	Phosphorus	mg/L	0.175	0.072	-0.103
RM-129	Phosphorus	mg/L	0.149	0.14	-0.00899999
4M-2B	Phosphorus	mg/L	0.686	0.589	-0.097
RM-140	Phosphorus	mg/L	0.051	0.07	0.019
4M-2	Phosphorus	mg/L	0.091	0.135	0.044
RM-160	Phosphorus	mg/L	0.124	0.158	0.034
VOGTLE	Phosphorus	mg/L	0.199	0.055	-0.144
PB-3	Phosphorus	mg/L	<0.010	0.067	<0.067
TC-1	Phosphorus	mg/L	<0.010	<0.010	0
RM-120	Phosphorus	mg/L	0.11	0.033	-0.077
U3R-1A	Phosphorus	mg/L	0.057	0.025	-0.032
RM-129	Phosphorus	mg/L	0.116	0.063	-0.053
FM-2	Silvex (2,4,5-TP)	ug/L	<0.50	<0.50	0
RM-129	Silvex (2,4,5-TP)	ug/L	<0.50	<0.50	0
U3R-4	Silvex (2,4,5-TP)	ug/L	<0.50	<0.50	0
Vogtle	Silvex (2,4,5-TP)	ug/L	<0.50	<0.50	0
BDC	Silvex (2,4,5-TP)	ug/L	<0.59	<0.59	0
RM-140	Silvex (2,4,5-TP)	ug/L	<0.59	<0.59	0
TC-1	Silvex (2,4,5-TP)	ug/L	<0.60	<0.63	0
RM-120	Silvex (2,4,5-TP)	ug/L	<0.61	<0.60	0
RM-120	Total Organic Carbon	mg/L	3.6	3.3	-0.3

Table 66
SRS Stream and Savannah River Water Quality Duplicate Sample Results

Page 14 of 15

Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
BDC	Total Organic Carbon	mg/L	<1.0	5.1	<5.1
FM-2	Total Organic Carbon	mg/L	<1.00	<1.00	0
RM-129	Total Organic Carbon	mg/L	2.7	3.1	0.4
4M-6	Total Organic Carbon	mg/L	2.9	3.2	0.3
RM-140	Total Organic Carbon	mg/L	4.1	3.8	-0.3
RM-160	Total Organic Carbon	mg/L	3.2	3.5	0.3
SC-4	Total Organic Carbon	mg/L	4.2	3.9	-0.3
U3R-4	Total Organic Carbon	mg/L	2.6	3.2	0.6
Vogtle	Total Organic Carbon	mg/L	3.7	3.6	-0.1
RM-120	Total Organic Carbon	mg/L	3.2	3.1	-0.1
4M-2B	Total Organic Carbon	mg/L	6.7	7.1	0.39999999
RM-129	Total Organic Carbon	mg/L	7.1	6	-1.1
BDC	Total Organic Carbon	mg/L	4.8	3.9	-0.9
RM-140	Total Organic Carbon	mg/L	3.1	3.1	0
4M-2	Total Organic Carbon	mg/L	2.8	1.8	-1
RM-160	Total Organic Carbon	mg/L	2.5	2.4	-0.1
VOGTLE	Total Organic Carbon	mg/L	3	2.6	-0.4
PB-3	Total Organic Carbon	mg/L	2.8	2.1	-0.7
TC-1	Total Organic Carbon	mg/L	6.1	5.5	-0.6
RM-120	Total Organic Carbon	mg/L	3.1	3.1	0
U3R-1A	Total Organic Carbon	mg/L	2.4	1.7	-0.7
RM-129	Total Organic Carbon	mg/L	3.4	4.2	0.8
FM-2	Toxaphene	ug/L	<2.00	<2.00	0
RM-129	Toxaphene	ug/L	<2.00	<2.00	0
U3R-4	Toxaphene	ug/L	<2.00	<2.00	0
Vogtle	Toxaphene	ug/L	<2.00	<2.00	0
BDC	Toxaphene	ug/L	<0.31	<0.31	0
RM-140	Toxaphene	ug/L	<0.31	<0.31	0
TC-1	Toxaphene	ug/L	<0.29	<0.25	0
RM-120	Toxaphene	ug/L	<0.29	<0.29	0
RM-120	Zinc	mg/L	0.016	0.013	-0.003
BDC	Zinc	mg/L	0.009	0.009	0
FM-2	Zinc	mg/L	0.009	0.02	0.011
RM-129	Zinc	mg/L	<0.005	<0.005	0
4M-6	Zinc	mg/L	0.053	0.044	-0.009

Table 66
SRS Stream and Savannah River Water Quality Duplicate Sample Results

Page 15 of 15

Location	Parameter Sampled	Units	SRS Reading	Duplicate Reading	Difference
RM-140	Zinc	mg/L	0.009	0.009	0
RM-160	Zinc	mg/L	0.01	0.019	0.009
SC-4	Zinc	mg/L	0.02	0.009	-0.011
U3R-4	Zinc	mg/L	0.0078	0.012	0.0042
Vogtle	Zinc	mg/L	0.018	0.013	-0.005
RM-120	Zinc	mg/L	0.011	0.36	0.349
4M-2B	Zinc	mg/L	0.037	0.049	0.012
RM-129	Zinc	mg/L	0.011	0.01	-0.00099999
BDC	Zinc	mg/L	0.0075	0.0074	-0.0001
RM-140	Zinc	mg/L	0.007	0.037	0.03
4M-2	Zinc	mg/L	0.03	0.031	0.001
RM-160	Zinc	mg/L	<0.0050	<0.0050	0
VOGTLE	Zinc	mg/L	0.0057	0.0052	-0.0005
PB-3	Zinc	mg/L	<0.0050	<0.0050	0
TC-1	Zinc	mg/L	0.0061	<0.0050	<0.0061
RM-120	Zinc	mg/L	0.007	<0.0050	<0.007
U3R-1A	Zinc	mg/L	0.082	0.12	0.038
RM-129	Zinc	mg/L	0.0061	0.013	0.0069