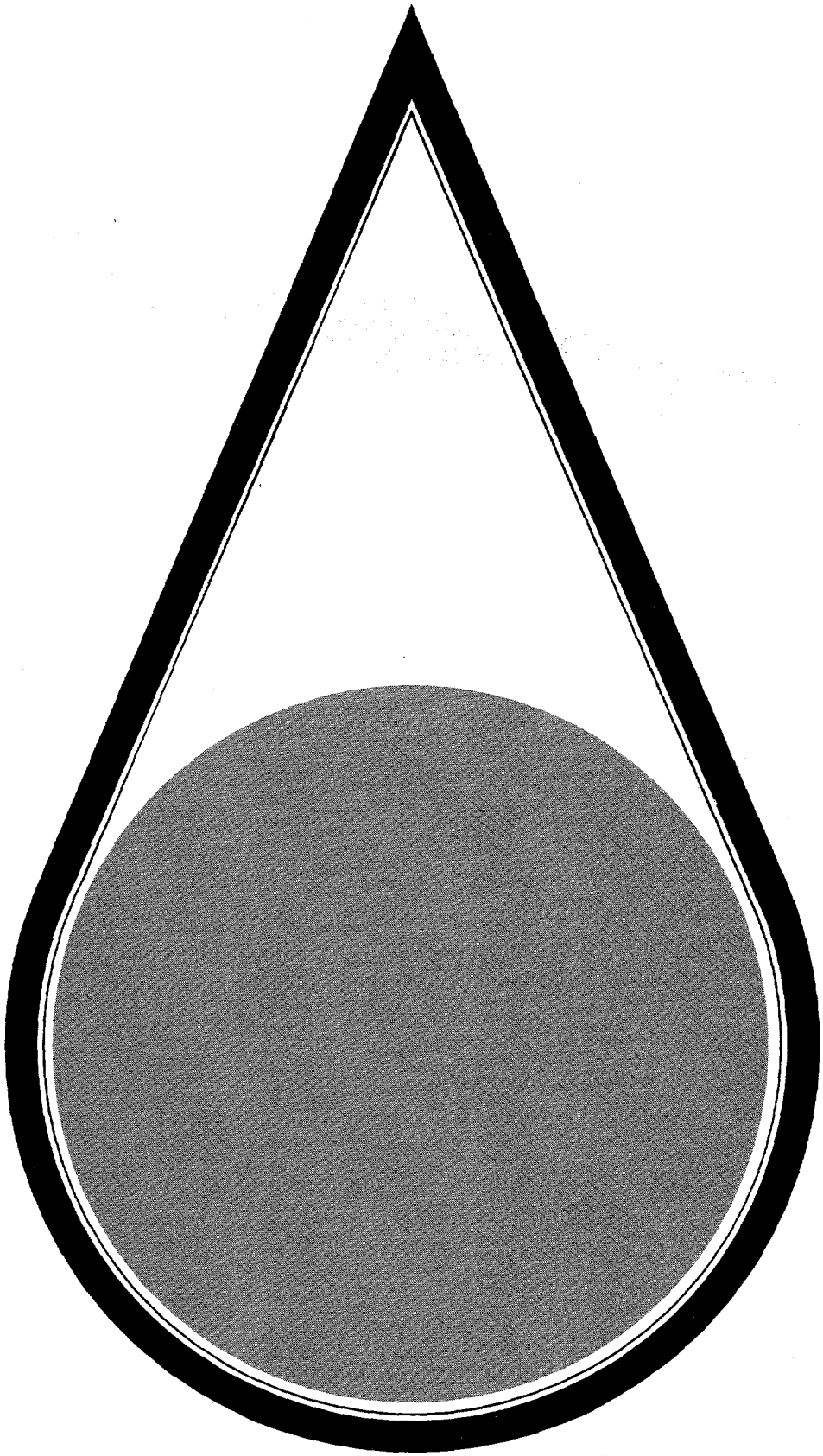
INSTREAM CONTAMINANT STUDY - TASK 5

SUMMARY REPORT

Office of Natural Resources
and Economic Development
Tennessee Valley Authority



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SUMMARY REPORT

TASK 5

INSTREAM CONTAMINANT STUDY

Prepared for

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Oak Ridge, Tennessee
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EXECUTIVE SUMMARY

The purposes of the Instream Contaminant Study are to quantify the presence of contaminants in sediment and aquatic biota downstream of the Department of Energy facilities at Oak Ridge, Tennessee; and to assess the extent and transport of mercury contaminated sediments. The results will be used by the Oak Ridge Task Force in assessing health risks and remedial actions.

A total of 1,526 water, sediment, and aquatic biota samples were collected between April 16, 1984, and April 7, 1985. Analyses for 217 parameters yielded 24,137 separate observations. Thirty-nine of the 217 parameters exceeded background concentrations, established standards or criteria, and/or analytical detection limits. Only mercury and PCB concentrations in fish and other aquatic biota were found to exceed an established Food and Drug Administration action level. Twenty of the 39 parameters were previously identified by the Oak Ridge National Laboratory for further study. Fifteen of the remaining 19 parameters were either not previously analyzed or were found at concentrations substantially higher than shown in previous data (i.e., hardness, conductivity, lithium, zirconium, nitrate+nitrite nitrogen, uranium, thorium-234, americium-241, curium-244, cobalt-60, tritium, strontium-90, protactinium-234m, plutonium-238, and plutonium-239).

Analysis of 394 sediment samples from 130 locations in the channel and floodplain of East Fork Poplar Creek indicate approximately 16 million cubic feet (760,000 tons) of mercury contaminated sediment with mercury concentrations exceeding 5.0 mg/kg. This sediment contains an estimated 170,000 pounds of mercury. Approximately 75 percent of the mercury is located in the upper third of the stream (i.e., above EFPCM 9.45). An estimated 40 to 50 percent is between EFPCM 10.15 and EFPCM 11.50. Approximately 80 percent of the total mercury is contained in 25 percent of the contaminated sediment (i.e., in sediment with a mercury concentration exceeding 100 mg/kg).

Analysis of data from three rainstorms and historic streamflow records indicate that approximately 17,000 tons (360,000 cubic feet) of sediment and 500 pounds of mercury are exported annually from East Fork Poplar Creek. A comparison of mercury loads between sampling stations suggests that most of the exported mercury is either discharged directly from New Hope Pond or contributed by the highly contaminated area above EFPCM 10.0. At the estimated net export rate of approximately 425 pounds per year, some 400 years would be required to deplete the estimated 170,000 pounds of mercury in the channel and floodplain.

Stability of the floodplain is apparent from field observations and computer simulations of floods with a recurrence interval from 1 to 500 years. Under existing conditions, substantial amounts of contaminated sediment and mercury will remain in the floodplain for many years, serving as a continual source of mercury to downstream waters. Improper disturbance of the floodplain could substantially increase erosion and the downstream transport of mercury.

Key recommendations from the Instream Contaminant Study are summarized below. A complete listing is given in Section 5 of this report. Many of the recommendations have been initiated as part of ongoing activities of the Oak Ridge Task Force and the Department of Energy.

1. Update interim action levels for total mercury concentrations in surface soils and erosion prone areas, as part of a comprehensive interim action plan.

2. Eliminate (or reduce to permitted levels) mercury discharges from New Hope Pond.

3. Initiate evaluation of remedial action alternatives for addressing mercury contamination in the floodplain and channel of East Fork Poplar Creek, including implications of co-occurring contaminants.

4. Conduct a comprehensive assessment of groundwater quantity and quality along East Fork Poplar Creek.

5. Collect samples and inventory discharges to identify sources and define the extent of PCB contamination of sediment and aquatic biota in the project area. Based on the results, eliminate discharges and evaluate remedial action alternatives.

6. Assess the public health and environmental significance of the 39 contaminants found at elevated levels, including synergistic effects. For those parameters of significance, identify sources and the extent of contamination, eliminate discharges (or reduce to permitted levels), and evaluate remedial action alternatives.

7. Prepare an overview report summarizing the radionuclides handled, methods of disposal, quantities released, ambient concentrations, potential public health and environmental concerns, needed improvements, and the status of corrective actions.

8. Initiate a comprehensive monitoring program to assess post-mitigation success and long-term trends.

9. Develop a comprehensive, readily available, data base for the project area.

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TASK 5

SUMMARY REPORT
INSTREAM CONTAMINANT STUDY

1.0 INTRODUCTION

On November 3, 1983, the Oak Ridge Task Force, under direction of the Tennessee Division of Water Management, approved conceptual workplans prepared by four subgroups of the Task Force. These workplans addressed potential offsite contamination associated with the Department of Energy (DOE) facilities near Oak Ridge, Tennessee. The conceptual workplans were transmitted to DOE on November 14, 1983. DOE subsequently authorized the Tennessee Valley Authority (TVA) to prepare a technical workplan covering the instream water, sediment, fish, and floodplain sampling approved by the Task Force (1). The Instream Contaminant Study workplan was submitted to DOE in February of 1984, and the work was authorized by Interagency Agreement No. DE-AI05-84OR21444, TVA Contract No. TV-64095A, between DOE and TVA, and was approved by the TVA Board of Directors on April 30, 1984.

The primary purpose of the Instream Contaminant Study is to provide water, sediment, and fish data for identifying offsite contaminants and assessing potential public health risks. Specific objectives are:

1. To identify the presence of contaminants in the water, sediment, and fish downstream of the DOE facilities at Oak Ridge (Figure 1).

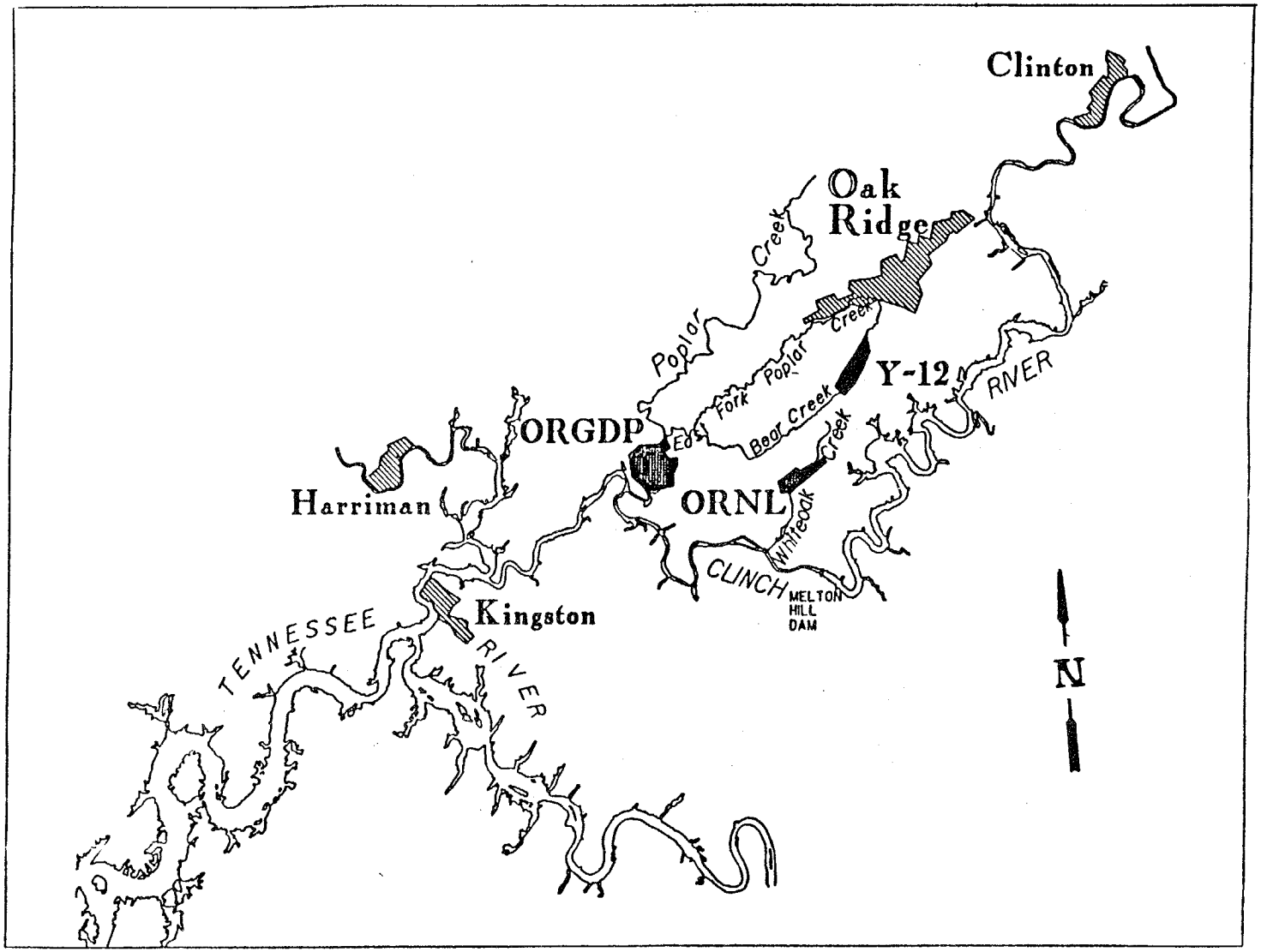

FIGURE 1

OAK RIDGE VICINITY MAP

2. To estimate the quantity of mercury contaminated sediment in East Fork Poplar Creek, Bear Creek, and lower White Oak Creek.

3. To assess the transport and fate of the mercury contaminated sediment.

The study consists of five tasks. Task 1 involves collecting water quantity and quality data for predicting sediment transport. Task 2 focuses on sediment volume and contaminant characterization. Task 3 addresses the transport and fate of sediment in East Fork Poplar Creek. Task 4 examines contaminant concentrations in fish. Reports for these tasks have been completed and describe sampling locations, parameters, procedures, and analytical results (2,3,4,5). This Task 5 report summarizes the previous reports and the management implications of the results. Detailed analyses of the data (i.e., risk assessment and evaluation of possible remedial actions) are the responsibility of other subgroups of the Task Force.

2.0 SUMMARY OF DATA COLLECTED

2.1 INSTREAM CONTAMINANT STUDY

A total of 1,526 water, sediment, and aquatic biota samples was collected during the Instream Contaminant Study. Laboratory and field analyses of these samples yielded 24,137 analytical observations. Table 1 summarizes the number of field samples collected and the number of observations by

Table 1

SUMMARY OF WATER, SEDIMENT, AND AQUATIC BIOTA SAMPLES
INSTREAM CONTAMINANT STUDY - TASK 5

Stream	Water		Sediment		Aquatic Biota		Totals	
	Field Samples Collected	Reported Observations	Field Samples Collected	Reported Observations	Field Samples Collected	Reported Observations	Field Samples Collected	Reported Observations
East Fork Poplar Creek[1]	237	935	394	5,034	107	2,510	738	8,479
Bear Creek	56	299	15	761	26	388	82	1,448
White Oak Creek	3	296	20	1,166	63	2,109	86	3,571
Poplar Creek	2	31	3	346	43	1,888	48	2,265
Clinch River	27	166	66	1,454[2]	231[3]	5,222	324	6,842
Tennessee River	0	0	185	829	63	703	248	1,532
TOTALS	325	1,727	683	9,590	533	12,820	1,526	24,137

[1]Includes water and sediment samples collected from Mill Branch.

[2]Includes sediment samples collected from the Powell River in Norris Reservoir.

[3]Includes fish samples collected from the Emory River.

medium and watershed. Sampling and laboratory analyses focused primarily on sediment and aquatic biota, since ongoing effluent monitoring programs and groundwater studies are addressing contaminant concentrations in water. The 24,137 analytical observations summarized in Table 1 included 217 separate elements, compounds, and parameters (i.e., conventional pollutants, priority pollutants, and radionuclides) and 526 separate data codes (e.g., water, sediment, fish, particle size fractions, etc.). Sampling locations and the river mile of key topographic features are given in Appendix I. Collection methods, analytical techniques, quality control procedures, and a tabulation of all data are presented in the previous task reports (2,3,4,5).

Sampling locations, the number of samples collected, and the type of laboratory analyses performed were determined by the three primary study objectives. To identify potential contaminants of concern, 35 baseflow water samples; 34 surface-layer, fine particle and 66 core sediment samples; and 533 fish and aquatic biota samples were taken from 59 locations and analyzed for conventional parameters, priority pollutants, and radionuclides. To evaluate the extent of mercury contamination in East Fork Poplar Creek, 394 sediment samples were taken from 130 locations in the floodplain and channel. These samples were analyzed primarily for mercury and particle size. To evaluate the transport and fate of mercury contaminated sediment from East Fork Poplar Creek, 290 water samples were collected from seven locations during three

rainstorms and analyzed primarily for mercury and suspended solids. A total of 185 samples was also collected from seven core locations in the Tennessee River to complement existing data on the fate of previous mercury releases.

Summaries of the data are presented in Appendix II by parameter and watershed. Each summary lists the parameters for each medium, the number of observations for each parameter, the beginning and ending sampling dates, and a statistical summary of the individual observations.

2.2 OTHER SOURCES OF DATA

Several sources of additional data, collected prior to the Instream Contaminant Study, are available and were used for comparative purposes. From 1960 through 1983, TVA and other organizations collected samples in the Oak Ridge area to obtain data for various special projects (e.g., the Regional Water Management Program, the Clinch River Breeder Reactor Project, and reservoir water quality studies). These data are available on the Environmental Protection Agency STORET system and are summarized in Appendix III. In 1983, Oak Ridge National Laboratory (ORNL) collected sediment samples at eighteen locations in the stream channels and floodplains of East Fork Poplar Creek, Bear Creek, White Oak Creek, Poplar Creek, and the Clinch River (6). This preliminary screening survey was conducted to identify contaminants with a sediment concentration sufficient to warrant further investigation. A partial listing of other sources of data is given in Table 2.

Table 2

PARTIAL LISTING OF ADDITIONAL SOURCES OF DATA
INSTREAM CONTAMINANT STUDY - TASK 5

Reference	Responsible Organization	Type of Data	Study Area	Approximate Data Collection Period
Environmental Monitoring Reports; U.S. Department of Energy, Oak Ridge Facilities; 1971-1984	U.S. DOE	Water, sediment, fish	DOE Oak Ridge Operations	1970-1984
Description of the Aquatic Ecology of the White Oak Creek Watershed and Below Melton Hill Dam; Oak Ridge National Laboratory; Report No. TM-7509/V2; 1981	ORNL	Aquatic biota	White Oak Creek and Clinch River	1979-1980
Data Report: Illinois, Indiana, Kentucky, Tennessee, and Ohio; Report No. DPST-81-146-25; E. I. duPont de Nemours and Co., Savannah River Laboratory; February 1982	U.S. DOE	Surface water, groundwater, and sediment	Five state region including Oak Ridge area	1975-1982
Mercury Contamination in East Fork Poplar Creek and Bear Creek; W. Van Winkle et al., Oak Ridge National Laboratory; Report No. ORNL/CF-82-257; 1982	ORNL	Water, sediment, fish	East Fork Poplar Creek and Bear Creek	1982
Mercury at the Y-12 Plant - A summary of the 1983 UCC-ND Task Force Study; Report No. Y/EX-23; November 1983	Y-12	Sediment, surface water, fish	East Fork Poplar Creek, Poplar Creek, Clinch River, Tennessee River	1983
A summary of Annual Site Environmental Monitoring Reports, U.S. Department of Energy, January-December 1983; Report No. DOE/EP-0049/1	U.S. DOE	Effluent releases	44 DOE sites including Oak Ridge Operations	1983
"Summary of Existing Water, Sediment, Fish, and Soil Data in the Vicinity of the Oak Ridge Reservation"; Tennessee Valley Authority; August 18, 1983	TVA	Water, sediment, fish	East Fork Poplar Creek, Poplar Creek, Bear Creek White Oak Creek, Clinch River, segment of Tennessee River	1970-1983
Geologic Data on Twenty Monitoring Wells Installed in Bear Creek Valley in September and October 1984; Report No. Y/SUB/84-47974C/12; November 1984	Y-12	Geologic, well logs, groundwater levels	Bear Creek Valley near Y-12 Plant	1984
Investigation of Subsurface Mercury at the Oak Ridge Y-12 Plant; Report No. ORNL/TM-9092; November 1984	ORNL	Sediment and groundwater	Mercury spill locations at Y-12 Plant	1983/84

Table 2 Continued

PARTIAL LISTING OF ADDITIONAL SOURCES OF DATA
INSTREAM CONTAMINANT STUDY - TASK 5

Reference	Responsible Organization	Type of Data	Study Area	Approximate Data Collection Period
Characterization and Remedial Alternatives for Sediments in Upper Bear Creek; Report No. Y/TS-56; December 1984	Y-12	Sediment	Upper Bear Creek	1984
Streamflow and Specific-Conductance Data for Selected Sites, February 15 through April 9, 1984, near the Y-12 Plant, the Oak Ridge Reservation, Tennessee; USGS Open-File Report 84-625; 1984	USGS	Streamflow and specific Conductance	18 watersheds in vicinity of Y-12 Plant	1984
Preliminary Surface Flow, Water Level, and Environmental Sampling Data Obtained from Bear Creek Valley Watershed Area; Report No. Y/TS-77 Part 2; March 22, 1985	Y-12	Streamflow, ground-water and sediment	Bear Creek Valley near Y-12 Plant	1984
Remedial Alternatives for the Bear Creek Valley Waste Disposal Area; Final Report No. Y/SUB/85-00206C/3; June 1985	Y-12	Surface water and groundwater	Bear Creek Valley near Y-12 Plant	1983 and 1984
Sources and Discharges of Mercury in Drainage Waters at the Oak Ridge Y-12 Plant, Report No. Y/TS-90; June 1985	Y-12	Mercury releases from Y-12 Plant	Y-12 Plant drainage system and New Hope Pond	1977 to 1984
Environmental Fate of Mercury and Cesium-137 Discharged from Oak Ridge Facilities; Draft Report; ORNL; 1985	ORNL	Sediment	Tennessee River	1983
Water-Quality Data for 34 Sites, April and June 1984, Near the Y-12 Plant, the Oak Ridge Reservation, Tennessee; USGS Open-File Report 85-165; 1985	USGS	Surface water and groundwater	Pine and Chestnut Ridges, Bethel and Bear Creek Valleys	1984
Water Quality for 35 Sites, September 1984, Near the Y-12 Plant, the Oak Ridge Reservation, Tennessee; USGS; Open-File Report 85-XXX; 1985	USGS	Surface water and and groundwater	Pine and Chestnut Ridges, Bethel and Bear Creek Valleys	1984

3.0 SUMMARY OF RESULTS

A two-phased approach was adopted by the Oak Ridge Task Force to identify contaminants of potential public health significance. As part of the first phase, water, sediment, and aquatic biota data were to be collected through the Instream Contaminant Study. In the second phase, risk assessments were to be conducted of these and other data by the Risk Assessment Subgroup of the Task Force. Thus, evaluation of the data in this study is limited to comparisons with available background data and established standards. Parameters exceeding background levels may or may not be of public health or environmental significance, but further assessment is warranted.

3.1 WATER

Task 1 involved the analysis of water samples from one baseflow survey and three storms (2). Baseflow samples were analyzed for conventional parameters, priority pollutants (organics and metals), and radiological parameters. Stormflow samples were analyzed for total suspended solids, particle size, total and dissolved mercury, and radiological parameters. Eight parameters were detected at concentrations above existing standards and/or background levels (Table 3).

In East Fork Poplar Creek, total mercury concentrations were above background levels during both baseflow and stormflow conditions. The greatest concentrations were observed during the storm events.

Table 3

PARAMETERS IN WATER EXCEEDING BACKGROUND CONCENTRATIONS, STANDARDS, CRITERIA, AND/OR ANALYTICAL DETECTION LIMITS[1]
INSTREAM CONTAMINANT STUDY - TASK 5

Parameter	Stream	Approximate Background Concentration	Drinking Water Standard	Maximum Observed Concentrations[2]
METALS				
Total Mercury (μg/L)	East Fork Poplar Creek	<0.4	2.0	2.5 44 (stormflow)
Total Cadmium (μg/L)	Bear Creek	<2	10.0	26
Total Lithium (μg/L)	East Fork Poplar Creek	<10	--[3]	30
INORGANIC COMPOUNDS				
Nitrate+Nitrite (mg/L)	Bear Creek	0.4	10.0	380
PRIORITY POLLUTANT ORGANICS				
Phenol (mg/L)	Bear Creek	--[4]	--[3]	6
	White Oak Creek			3
RADIONUCLIDES				
Tritium (pCi/L)	White Oak Creek	700	20,000	544,000
PHYSICAL				
Conductivity (μmho/cm)	Bear Creek	200	--[3]	>2,000
Hardness (mg/L as $CaCO_3$)	Bear Creek	130	--[3]	1,000

[1] Observed values were compared to background concentrations including mean concentrations in the Tennessee River and streams tritubary to the upper Tennessee River (TVA STORET data 1960 to 1983). Comparison data also included the National Interim Primary and Secondary Drinking Water Standards (40 CFR Part 141 and 143). Although not listed in this table, observed values were also compared with Tennessee Source Standards and EPA Criteria for Aquatic Life. A listing of standards, criteria, and background concentrations is provided in Appendix IV.

[2] All concentrations are for samples collected during baseflow measurements unless otherwise specified.

[3] No standards or criteria available.

[4] No background data available.

Figure 2 illustrates a typical relationship between streamflow and total mercury concentration during a storm event. Dissolved mercury concentrations remained relatively constant during the three rainstorms with levels at or slightly above the analytical detection limit. Thus, increases in total mercury with increasing streamflow were due primarily to the mercury associated with suspended sediments.

Other metals found in excess of background levels include lithium in East Fork Poplar Creek and cadmium in Bear Creek. Data collected by the U.S. Geological Survey (USGS) in Bear Creek downstream of the S-3 ponds (at approximately the same location as the baseflow sampling) also found high concentrations of cadmium, with a maximum reported concentration of 58 μg/L (7). Previous studies by Y-12 in the Bear Creek watershed near the S-3 ponds found groundwater samples high in cadmium with a maximum concentration of 3,100 μg/L (8). Although no previous data were readily available for comparison of lithium concentrations in East Fork Poplar Creek, its presence might be expected since the Colex process, used at the Y-12 plant, included lithium wastes (9). In addition, the current discharge permit for the Y-12 plant includes a limited discharge of lithium to East Fork Poplar Creek.

Conventional parameters found in excess of background levels included nitrate+nitrite nitrogen, total hardness, and conductivity. All were

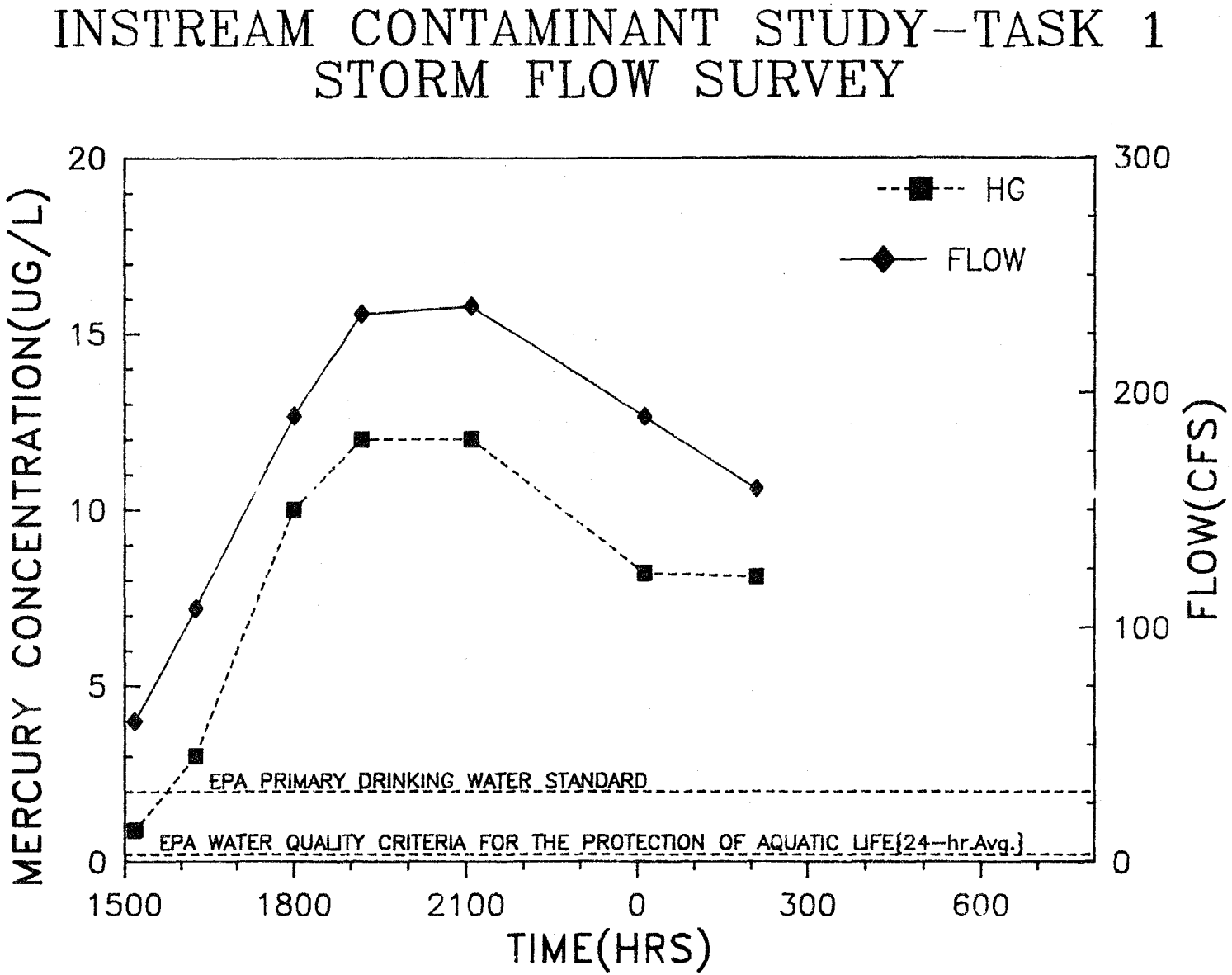

FIGURE 2. MERCURY CONCENTRATION AND STREAMFLOW VS. TIME FOR NOVEMBER 10, 1984.
EFPCM 3.3

measured at substantial levels in Bear Creek. Surface water samples collected by the USGS in Bear Creek near the S-3 ponds also showed high concentrations of nitrate+nitrite with a maximum value of 300 mg/L (7). Previous studies by Geraghty and Miller, Incorporated, for Martin Marietta concluded that nitrate derived from the S-3 waste disposal ponds is the principal contaminant in the surface waters of Bear Creek and its tributaries (10).

Although no previous hardness data for surface waters in Bear Creek were readily available for comparison, the USGS data indicate that calcium and magnesium are present at elevated levels in the surface waters of Bear Creek near the S-3 ponds (7). Previous studies by Y-12 showed that groundwater in the vicinity of the S-3 ponds with calcium and magnesium at concentrations substantially greater than at monitoring locations outside the S-3 pond area (8). These studies found groundwater in this area to be acidic (pH <3 in some cases), possibly contributing to the elevated hardness due to mineral dissolution of subsurface strata.

Surface water measurements by the USGS in Bear Creek near the S-3 ponds indicated high conductivity values with a maximum of 4,000 μmho/cm (7). The conductivity of groundwater near the S-3 ponds had values of 1,100 to 48,000 μmho/cm (8). Since conductivity is directly related to the concentrations of dissolved ions, the values measured in Bear Creek suggest potential contamination by dissolved metals and/or minerals.

Analyses for priority pollutant organics detected only total phenols (White Oak Creek and Bear Creek). No relevant data on background levels, standards, or criteria, were found for comparison, however.

Tritium was the most significant radioisotope identified in the surface water samples. The maximum concentration reported in lower White Oak Creek was substantially above background levels. No additional study results for tritium in the surface water of White Oak Creek were found for comparison.

3.2 SEDIMENT

3.2.1 ELEVATED CONCENTRATIONS

Task 2 involved the analysis of surface-layer and core sediment samples (3). Twenty-eight parameters were found at concentrations above background levels and/or the analytical detection limit. These included eight metals, ten priority pollutant organics, and ten radioisotopes (Table 4).

All of the priority pollutant metals analyzed (mercury, arsenic, cadmium, chromium, nickel, lead, and silver) were found at concentrations above background levels in one or more streams (Table 4). As expected, mercury was the most notable parameter, exceeding background concentrations in all of the streams sampled, The highest concentrations were measured in the

Table 4

PARAMETERS IN SEDIMENT EXCEEDING BACKGROUND CONCENTRATIONS AND/OR ANALYTICAL DETECTION LIMITS
INSTREAM CONTAMINANT STUDY - TASK 5

Parameter (Units)	Stream	Approximate Range of Background Concentrations[1]	Analytical Detection Limit	No. of Observations	Observed Concentrations Mean[2]	Minimum	Maximum
METALS							
Mercury[3] (mg/kg)	East Fork Poplar Creek	0.2-1.0	0.1	418	77	<0.1	1,800
	Bear Creek			17	0.63	<0.1	3.9
	Poplar Creek			3	3.4	<0.1	5.9
	White Oak Creek			22	8.1	<0.1	44
	Clinch River (Watts Bar)			35	1.2	<0.1	12
	Tennessee River			117	1.2	<0.1	7.8
Arsenic (mg/kg)	East Fork Poplar Creek	9-12	0.2	18	7.1	3.6	14
	Clinch River			8	14.4	5.1	26
Cadmium (mg/kg)	East Fork Poplar Creek	1.4-5.5	0.5	19	1.8	<0.5	8.5
	Bear Creek			4	4.6	<0.5	10
Chromium (mg/kg)	White Oak Creek	20-50	5	4	163	66	290
Lead (mg/kg)	East Fork Poplar Creek	30-60	5	16	80	36	170
	Clinch River (Norris)			3	67	58	77
Nickel (mg/kg)	East Fork Poplar Creek	20-30	5	19	39	19	81
	Bear Creek			4	89	18	200
	Poplar Creek			3	56	43	65
	Clinch River			8	25	14	38
Silver (mg/kg)	East Fork Poplar Creek	1.6-2.5	1	16	8	2	45
	White Oak Creek			4	6	2	10
Zirconium (mg/kg)	East Fork Poplar Creek	180-270	50	16	448	350	590
	Bear Creek			4	483	410	590
	White Oak Creek			4	365	260	480
	Poplar Creek			3	340	220	470
	Clinch River (Watts Bar)			4	650	400	890
PRIORITY POLLUTANT ORGANICS							
Total PCBs (μg/kg)	East Fork Poplar Creek	-[4]	100	19	1,587	<100	6,000
	Bear Creek			4	1,000	<100	1,400
	White Oak Creek			4	1,350	<100	2,800
Fluoranthene (μg/kg)	East Fork Poplar Creek	-[4]	650-850[5]	19	1,367	<660	4,600
	Bear Creek			4	773	<650	970
Bis(2-Ethyl hexyl) Phthalate (μg/kg)	East Fork Poplar Creek	-[4]	630-820[5]	19	1,155	<660	2,600
	White Oak Creek			4	950	<630	1,600
Pyrene (μg/kg)	East Fork Poplar Creek	-[4]	650-860[5]	19	1,094	<660	3,500
	Bear Creek			4	708	<650	750
Phenanthrene (μg/kg)	East Fork Poplar Creek	-[4]	650-860[5]	19	1,063	<660	4,500
	Bear Creek			4	703	<650	750
Benzo-a-Pyrene (μg/kg)	East Fork Poplar Creek	-[4]	660-880[5]	19	730	<660	900
Chrysene (μg/kg)	East Fork Poplar Creek	-[4]	660-880[5]	19	731	<660	920
Anthracene (μg/kg)	East Fork Poplar Creek	-[4]	660-880[5]	19	735	<660	1,000
Benzo-a-anthracene (μg/kg)	East Fork Poplar Creek	-[4]	660-880[5]	19	752	<660	1,200
Total Phenols (μg/kg)	East Fork Poplar Creek	-[4]	400	19	795	<400	1,300
	Bear Creek			4	1,175	800	1,700

Table 4 Continued

PARAMETERS IN SEDIMENT EXCEEDING BACKGROUND CONCENTRATIONS AND/OR ANALYTICAL DETECTION LIMITS
INSTREAM CONTAMINANT STUDY - TASK 5

Parameter (Units)	Stream	Approximate Range of Background Concentrations[1]	Analytical Detection Limit	No. of Observations	Observed Concentrations Mean[2]	Minimum	Maximum
RADIOISOTOPES							
Cesium-137 (pCi/g)	White Oak Creek	1-6	0.01-0.11	23	7,882	188	46,948
	Clinch River			16	16	0.1	167
Cobalt-60 (pCi/g)	White Oak Creek	1-3	0.01-0.11	23	116	12	437
Strontium-90 (pCi/g)	White Oak Creek	0-1	0.3	23	24	2.0	100
Uranium (μg/g)	Bear Creek	2-6	-[6]	12	42	4.4	200
Uranium Decay Series							
(a) Thorium-234 (pCi/g)	Bear Creek	-[4]	0.01-0.11	12	24	2.6	115
(b) Protactinium-234m (pCi/g)	Bear Creek	5	0.01-0.11	9	50	5.0	181
Transuranics							
(a) Plutonium-239 (pCi/g)	White Oak Creek	-[4]	-[5]	9	9.1	0.4	69
(b) Plutonium-238 (pCi/g)	White Oak Creek	-[4]	-[5]	9	0.62	0.007	4.1
(c) Americium-241 (pCi/g)	White Oak Creek	-[4]	-[5]	15	11	0.43	73
(d) Curium-244 (pCi/g)	White Oak Creek	-[4]	-[5]	9	3.3	0.014	12

[1]Background concentrations were obtained from TVA STORET data for sediment in the Tennessee River and tributary streams to the upper Tennessee River. A detailed listing of background concentrations is given in Appendix IV. Analytical results of surface sediment samples collected in Norris Reservoir were also used for background comparisons.

[2]For calculation of mean concentrations (or activities), less than detection limit values were assumed to equal the detection limit.

[3]Mercury concentrations are reported for the <500 μm size fraction.

[4]No background concentration data were available.

[5]Detection limit varies depending on the amount of sample available.

[6]Detection limit not established.

floodplain and channel of East Fork Poplar Creek. Concentrations ranging from 100 to 1,800 mg/kg were common in the floodplain of the upper stream reach (approximately EFPCM 10.0 to EFPCM 14.36), with concentrations generally decreasing downstream. Mercury concentrations were generally higher in core samples from the floodplain than in surface samples from the stream channel. Mercury was also found at elevated levels in lower White Oak Creek, but the concentrations were substantially less than those found in East Fork Poplar Creek. Mercury levels in Bear Creek, Poplar Creek, the Clinch River, and the Tennessee River were lower, but still above background concentrations.

Arsenic, cadmium, lead, nickel, and silver also exceeded background levels in East Fork Poplar Creek. Cadmium and nickel were found in Bear Creek near the S-3 ponds (BCM 7.4). Chromium and silver were above background levels in White Oak Creek and nickel concentrations were elevated in Poplar Creek. Samples collected by ORNL and Y-12 showed similar results for arsenic, cadmium, chromium, lead, nickel, and silver (6,8,11). Zirconium, which is not a priority pollutant metal, was found at elevated concentrations in all streams, except the Tennessee River.

Ten of the 54 priority pollutant organics analyzed (base/neutrals, PCBs, and phenols) exceeded the analytical detection limit (Table 4). Since these compounds are not naturally occurring and because standards, criteria, and background data are not available, their presence at any

level warrants further investigation. Measurable concentrations of PCBs were detected in the sediment of East Fork Poplar Creek, Bear Creek, and lower White Oak Creek. These results are of particular interest because PCB concentrations in some fish from these areas exceeded the FDA action level of 2.0 ppm (5).

Sediment screening samples previously collected by ORNL also found many of the organic compounds given in Table 4 to be above the detection limit in the same streams (6). Exceptions include PCBs which were not previously detected at any location; bis(2-ethyl hexyl) phthalate in White Oak Creek; and phenanthrene in Bear Creek. It should be noted that the PCB detection limit for the samples previously collected by ORNL (5,000 μg/kg) was 50 times greater than that used in the Task 2 analyses (100 μg/kg).

An interpretive analysis of sediment samples was conducted for the nonpriority pollutant organic compounds which produced significant peaks during the gas chromatograph/mass spectrometer analysis. A complete listing of the compounds, their estimated concentrations, and the percent probability of a positive match with a reference spectrum is provided in the Task 2 report (3). Little information is available, however, regarding the significance of these compounds.

Sediment analyses for radiological parameters identified ten isotopes at elevated levels, including cesium-137, cobalt-60, strontium-90, uranium, uranium decay series isotopes, and transuranics (Table 4). Concentrations

of fission and activation products were higher in lower White Oak Creek than in other streams. Activity levels generally decreased downstream from White Oak Creek.

The primary radioisotopes identified in lower White Oak Creek were cesium-137, cobalt-60, and strontium-90. Elevated levels of these parameters in the Clinch River were typically found in subsurface sediment. Samples collected by ORNL also show elevated levels of cesium-137 and strontium-90 in the Clinch River (6). Concentrations in other streams were similar to those found in the Tennessee River. Elevated concentrations of transuranics were reported in lower White Oak Creek with lesser amounts in the other streams. Increased levels of uranium and uranium decay series radioisotopes were identified in Bear Creek with less in East Fork Poplar Creek, and less still in lower White Oak Creek. Previous analyses by ORNL of samples collected in Bear Creek found elevated levels of uranium 234, 235, and 238.

3.2.2 CORRELATIONS BETWEEN PARAMETERS

All but four of the 34 surface-layer sediment samples contained more than one parameter at an elevated concentration; exceptions were samples from CRM 10.0, CRM 15.6, CRM 85.3, and CRM 94.1. Statistical correlations between the parameters present at elevated concentrations were tested to identify areas and parameters for further assessment of synergistic effects and varying responses to remedial actions.

Spearman's rank-order correlation was used, since many of the data are not normally (or log-normally) distributed. Correlations were tested for East Fork Poplar Creek (16 samples), White Oak Creek/Clinch River (11 samples), and for all areas combined (34 samples).* Detection limit data and duplicate samples were excluded from the analysis. Statistical results are summarized in Table 5 for the significant correlations (i.e., $p \leq 0.05$). Figure 3 illustrates the data and statistical results for two of the better correlations.

Forty-nine significant correlations were obtained for East Fork Poplar Creek. Twelve of the correlations had a Spearman's rho equal to or exceeding 0.90 (Table 5). Nickel was correlated with 12 parameters, with mercury, plutonium-238, and silver yielding the highest correlations (0.91, 0.90, and 0.87, respectively). Silver was correlated with 11 parameters and was best correlated with plutonium-238, protactinium-234m, and thorium-234 (0.97, 0.95, and 0.91, respectively).

Mercury was significantly correlated with eight parameters. The best correlations were with nickel, silver, and thorium-234 (0.95, 0.91, and 0.86, respectively). In general, the results for East Fork Poplar Creek indicate the co-occurrence of numerous contaminants, with the greatest number of correlations between metals and between metals and radionuclides.

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*Statistical correlations were not tested separately for Bear Creek or Poplar Creek, due to the limited number of surface samples.

Table 5

SPEARMAN RANK-ORDER CORRELATIONS BETWEEN PARAMETER CONCENTRATIONS IN SEDIMENT[1]
INSTREAM CONTAMINANT STUDY - TASK 5

Parameters	East Fork Poplar Creek			White Oak Creek/Clinch River			Composite Data[3]		
	Spearman's Rho	Probability[2]	Number of Observations	Spearman's Rho	Probability[2]	Number of Observations	Spearman's Rho	Probability[2]	Number of Observations
Mercury vs. Nickel	0.91	0.0001	16	--	--	--	0.43	0.017	31
Silver	0.87	0.0001	16	--	--	--	0.63	0.0016	22
Thorium-234	0.86	0.0001	16				0.57	0.0042	23
Chromium	0.76	0.0007	16	--	--	--	0.52	0.0026	31
Protactinium-234m	0.78	0.0047	11	--	--	--	--	--	--
Uranium	0.59	0.016	16	--	--	--	0.55	0.0017	30
Arsenic	0.57	0.027	16	--	--	--	--	--	--
Anthracene	0.54	0.031	16				-0.44	0.0148	30
Lead	--	--	--	--	--	--	0.53	0.0024	31
Plutonium-238							0.76	0.017	9
Cesium-137	--	--	--	0.75	0.031	8	--	--	--
Chromium vs. Nickel	0.85	0.0001	16	--	--	--	0.46	0.0066	34
Thorium-234	0.68	0.0035	16				0.65	0.0004	25
Silver	0.65	0.0067	16	--	--	--	0.45	0.037	22
Lead	0.56	0.024	16	--	--	--	0.42	0.013	34
Anthracene	0.55	0.028	16				--	--	--
Cobalt-60	--	--	--	0.86	0.0059	8	0.74	0.0002	20
Cesium-137	--	--	--	0.71	0.021	10	0.59	0.0003	33
Protactinium-234m	--	--	--	--	--	--	0.52	0.027	18
Plutonium-238	--	--	--				0.71	0.03	9
Strontium-90	--	--	--	0.81	0.0041	10	--	--	--
Americium-241	--	--	--	0.90	0.037	5	--	--	--
Silver vs. Protactinium-234m	0.95	0.0001	11	--	--	--	0.95	0.0001	13
Thorium-234	0.91	0.0001	16				0.90	0.0001	18
Nickel	0.87	0.0001	16	--	--	--	--	--	--
Uranium	0.69	0.0029	16	--	--	--	0.53	0.012	22
Plutonium-238	0.97	0.0048	5				0.90	0.015	6
Total PCBs	0.83	0.0055	9				--	--	--
Arsenic	0.67	0.0062	15	-1.0	0.000	4	--	--	--
Cadmium	0.73	0.016	10	--	--	--	--	--	--
Bis(2-Ethyl Hexyl)Phthalate	--	--	--				0.55	0.04	14
Lead vs. Nickel	0.63	0.0083	16	--	--	--	0.43	0.0105	34
Anthracene	0.54	0.032	16				--	--	--
Curium-244	0.83	0.042	6				--	--	--
Thorium-234	--	--	--				0.55	0.0042	25
Uranium	--	--	--	--	--	--	0.46	0.0070	33
Protactinium-234m	--	--	--	--	--	--	0.57	0.012	18
Plutonium-238	--	--	--				0.68	0.042	9
Nickel vs. Thorium-234	0.85	0.0001	16				0.55	0.0044	25
Protactinium-234m	0.77	0.0054	11	--	--	--	--	--	--
Uranium	0.62	0.0099	16	0.72	0.018	10	0.48	0.0049	33
Americium-241	0.81	0.027	7	--	--	--	--	--	--
Bis(2-Ethyl Hexyl)Phthalate	0.57	0.031	14				0.57	0.031	14
Plutonium-238	0.90	0.037	5	--	--	--	--	--	--
Anthracene	0.51	0.043	16				--	--	--
Arsenic	0.52	0.048	15	--	--	--	0.34	0.048	33
Zirconium	--	--	--	-0.67	0.025	11	-0.39	0.024	34
Cadmium	--	--	--	--	--	--	0.44	0.034	23
Cadmium vs. Thorium-234	0.65	0.043	10				--	--	--
Plutonium-238	--	--	--				0.83	0.021	7
Zirconium vs. Arsenic	--	--	--	-0.79	0.0036	11	-0.68	0.0001	33
Phenols	--	--	--	--	--	--	0.43	0.045	22
Arsenic vs. Anthracene	--	--	--				0.45	0.0092	32
Phenols	--	--	--	--	--	--	-0.53	0.013	21
Curium-244	--	--	--				-0.62	0.074	9

Table 5 Continued

SPEARMAN RANK-ORDER CORRELATIONS BETWEEN PARAMETER CONCENTRATIONS IN SEDIMENT[1]
INSTREAM CONTAMINANT STUDY - TASK 5

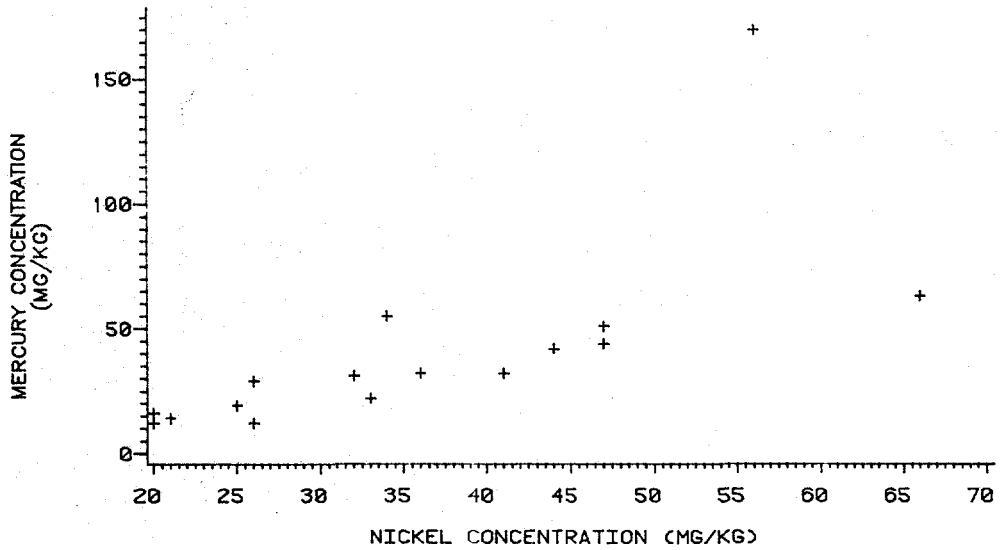
Parameters	East Fork Poplar Creek			White Oak Creek/Clinch River			Composite Data[3]		
	Spearman's Rho	Probability[2]	Number of Observations	Spearman's Rho	Probability[2]	Number of Observations	Spearman's Rho	Probability[2]	Number of Observations
Total PCBs vs. Protactinium-234m	0.88	0.0085	7				0.90	0.0024	8
Uranium	0.68	0.046	9				--	--	--
Thorium-234	--	--	--				0.70	0.025	10
Anthracene vs. Thorium-234	0.59	0.017	16				--	--	--
Cesium-137	0.50	0.047	16				--	--	--
Fluoranthene	0.67	0.050	9				--	--	--
Phenols	--	--	--				-0.59	0.0038	22
Bis(2-Ethyl Hexyl)Phthalate vs. Protactinium-234m	0.89	0.0014	9				0.89	0.0014	9
Plutonium-238	0.90	0.037	5				0.90	0.037	5
Thorium-234	--	--	--				0.55	0.041	14
Fluoranthene vs. Pyrene	0.98	0.0001	7				0.99	0.0001	8
Phenanthrene	0.97	0.0048	5				0.99	0.0003	6
Cesium-137	--	--	--				0.66	0.04	10
Phenanthrene vs. Cesium-137	--	--	--				0.84	0.036	6
Pyrene	1.00	0.000	5				1.0	0.000	6
Pyrene vs. Cesium-137	--	--	--				0.79	0.020	8
Phenols vs. Americium-241	-0.93	0.0080	6				--	--	--
Cesium-137 vs. Cobalt-60	0.89	0.0014	--	0.88	0.0039	8	0.89	0.0001	20
Americium-241	--	--	--	0.90	0.037	5	0.70	0.0056	14
Strontium-90	--	--	--	0.79	0.0061	10	0.36	0.042	32
Plutonium-239							0.71	0.047	8
Cobalt-60 vs. Strontium-90	--	--	--	0.87	0.0052	8	0.50	0.023	20
Americium-241	--	--	--	1.0	0.000	4	--	--	--
Strontium-90 vs. Uranium	--	--	--	--	--	--	-0.52	0.0025	32
Uranium vs. Thorium-234	0.95	0.0001	11				0.85	0.0001	25
Protactinium-234m	0.79	0.033	7	--	--	--	0.88	0.0001	18
Thorium-234 vs. Protactinium-234m	0.95	0.0001	11				0.98	0.0001	17
Americium-241	0.79	0.033	7				--	--	--
Protactinium-234m vs. Plutonium-238	0.90	0.037	5	--	--	--	--	--	--
Plutonium-239 vs. Americium-241							0.73	0.040	8
Cobalt-60							1.00	0.000	5
Americium-241 vs. Curium-244	--	--	--				0.69	0.026	10

[1]Based on sediment concentrations in 34 surface layer samples for all parameters present at elevated levels. Detection limit data and duplicate samples were excluded. Results are shown for correlations significant at a 95 percent level (i.e., probability ≤ 0.05). Dash indicates that the correlation was not significant. Blank indicates that the number of observations was less than four.

[2]Probability of a random correlation.

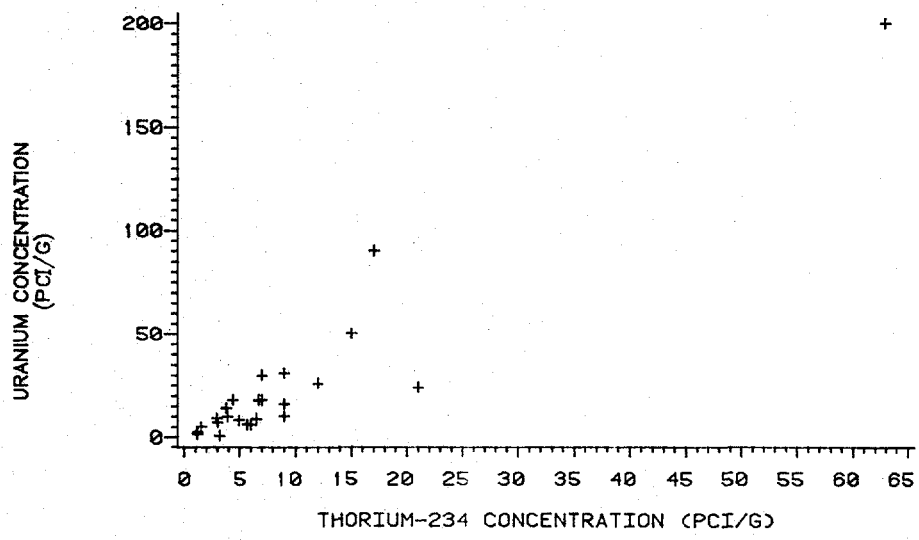
[3]Composite data includes results from East Fork Poplar Creek, Bear Creek, White Oak Creek, Poplar Creek, the Clinch River, and the Tennessee River.

MERCURY VERSUS NICKEL
SURFACE-LAYER SEDIMENTS - EAST FORK POPLAR CREEK
INSTREAM CONTAMINANT STUDY - TASK 5



SPEARMANS RHO = 0.91
PROBABILITY = 0.0001
NUMBER OF OBSERVATIONS = 16

URANIUM VERSUS THORIUM-234
SURFACE-LAYER SEDIMENTS - COMPOSITE DATA
INSTREAM CONTAMINANT STUDY - TASK 5



SPEARMANS RHO = 0.85
PROBABILITY = 0.0001
NUMBER OF OBSERVATIONS = 25

FIGURE 3. EXAMPLE PLOTS OF CORRELATIONS BETWEEN PARAMETER CONCENTRATIONS IN SEDIMENT

Only 12 significant correlations were obtained for White Oak Creek/Clinch River. This is due in part to the fewer number of samples (i.e., 11 samples compared with 16 samples from East Fork Poplar Creek). All but two of the 12 significant correlations for White Oak Creek/Clinch River involved radiological parameters. Cesium-137 was significantly correlated with five parameters and was best correlated with americium-241 and cobalt-60 (Spearman's rho values of 0.90 and 0.88, respectively). Chromium was significantly correlated with four parameters with americium-241 and cobalt-60 having the highest correlation coefficients (0.90 and 0.86, respectively).

The highest correlations for the composite data (all 34 samples) were dominated by the influence of either East Fork Poplar Creek or White Oak Creek/Clinch River.* Correlations between uranium, thorium-234, and protactinium-234m were an exception. These parameters showed a broader co-occurrence, as might be expected of uranium decay series isotopes.

In addition to the 34 surface-layer, samples, sediment core data from the Tennessee River also yielded a significant correlation between mercury and cesium-137. The results are illustrated in Figure 4.

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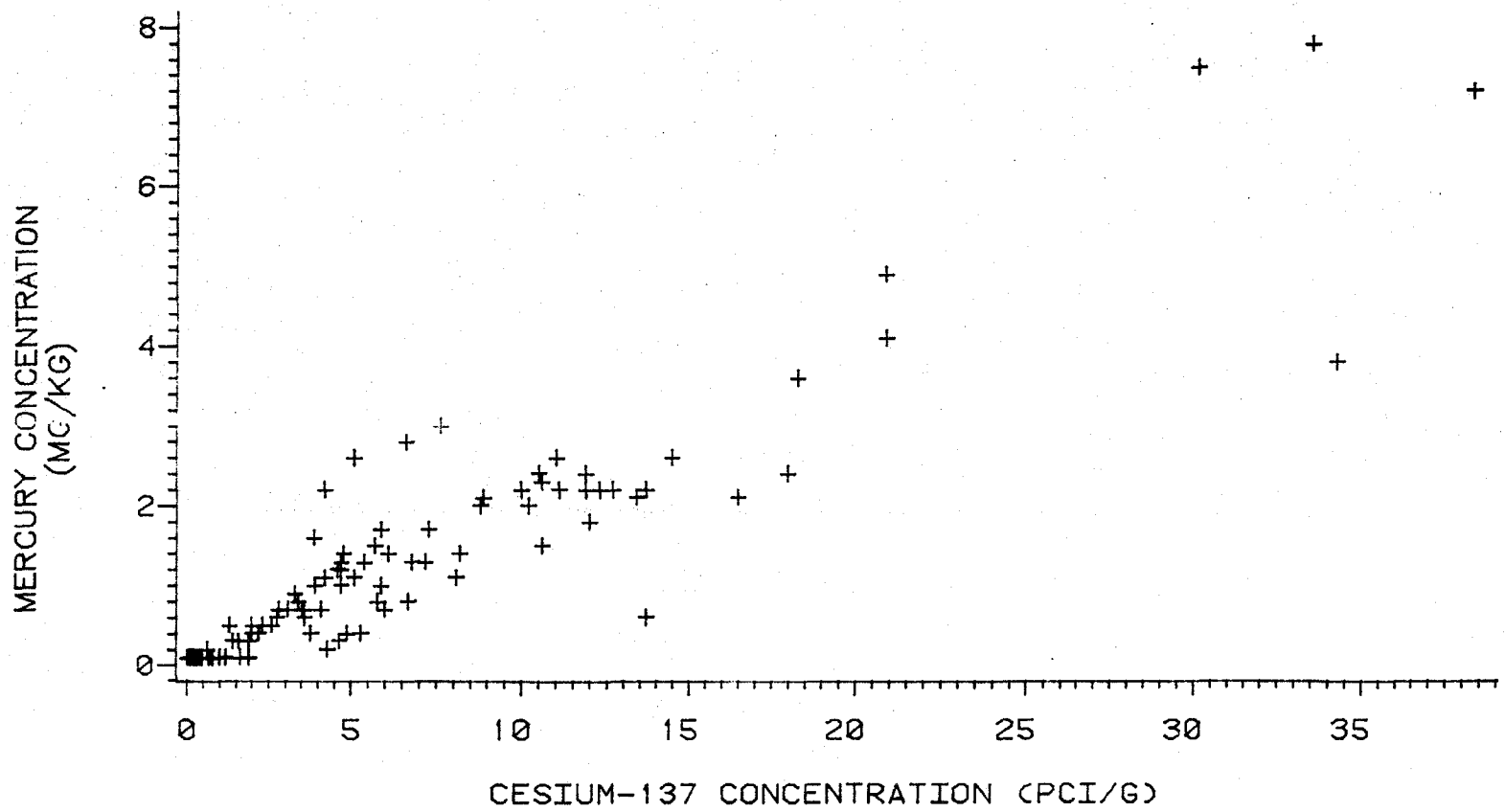
*The statistical significance of several correlations increased when all sample data was combined.

FIGURE 4

MERCURY VERSUS CESIUM-137
TENNESSEE RIVER SEDIMENT CORES
INSTREAM CONTAMINANT STUDY - TASK 5



SPEARMANS RHO = 0.90
PROBABILITY = 0.0001
NUMBER OF OBSERVATIONS = 96

3.3 FISH AND AQUATIC BIOTA

3.3.1 ELEVATED CONCENTRATIONS

Task 4 involved the analysis of flesh from fish and other aquatic organisms (5). Seventeen parameters were found at concentrations exceeding background levels, established guidelines, and/or analytical detection limits.* These included nine metals, seven priority pollutant organics, and one radioisotope (Table 6). Seven additional priority pollutant organic compounds were identified and reported at concentrations above the detection limit (Appendix IV). Exact identification of these compounds is uncertain, however, due primarily to the presence of PCBs.

A total of 13 aquatic biota species from East Fork Poplar Creek had total mercury concentrations exceeding the 0.3 mg/kg background level. The Food and Drug Administration (FDA) action level for fish is 1.0 mg/kg methyl mercury**. Mean total mercury concentrations were at or above 1.0 mg/kg in flesh from three fish species and in frogs from East Fork Poplar Creek. Individual samples of snapping turtles, crayfish,

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*Comparison of the results with background levels is complicated by the scarcity of comparative data and natural variations between species. Recognizing these limitations, Table 6 summarizes the data exceeding background levels. Significant elevated levels are best identified by comparing mean concentrations with background levels (asterisks in Table 6). Data are also included for those species with individual samples above background levels.

**All aquatic biota samples were analyzed for total mercury rather than methyl mercury. The FDA action level of 1.0 mg/kg was changed from total to methyl mercury on November 19, 1984, after these analyses were completed. In making this change, the FDA stated that "in most fish, almost all the mercury present is in the form of the methyl compound" (12).

Table 6

PARAMETERS IN FISH AND OTHER AQUATIC BIOTA EXCEEDING BACKGROUND CONCENTRATIONS, STANDARDS, CRITERIA, AND/OR ANALYTICAL DETECTION LIMITS
INSTREAM CONTAMINANT STUDY - TASK 5

Parameter (Units)	Stream	Species	Approximate Upper Limit of Background Concentrations[1]	Applicable Standards or Criteria[2]	No. of Observations	Observed Concentrations Mean[3]	Minimum[4]	Maximum
METALS								
Mercury (mg/kg)	East Fork Poplar Creek	Redbreast Sunfish	0.30	1.0[5]	23	1.2 *	0.24	3.3
		Largemouth Bass			9	1.4 *	0.80	1.9
		White Sucker			2	0.97 *	0.54	1.4
		Common Carp			9	0.78 *	0.21	1.3
		Bluegill			17	0.76 *	0.20	1.2
		Rock Bass			1	1.0 *	1.0	1.0
		Warmouth			1	0.96 *	0.96	0.96
		Yellow Perch			1	0.93 *	0.93	0.93
		Black Redhorse			1	0.57 *	0.57	0.57
		Green Sunfish			1	0.52 *	0.52	0.52
		Frogs	-[6]		11	1.4 *	<0.10	3.0
		Crayfish	-[6]		7	0.81 *	0.24	1.7
		Snapping Turtles	-[6]		17	0.76 *	0.16	1.4
	Bear Creek	Bluegill			2	0.56 *	0.52	0.66
		Rock Bass			11	0.31 *	0.17	0.50
		White Sucker			4	0.38 *	0.24	0.49
		Northern Hog Sucker			2	0.31 *	0.25	0.37
	Poplar Creek	Smallmouth Buffalo			2	0.93 *	0.13	1.7
		Sauger			2	0.83 *	0.37	1.3
		Largemouth Bass			10	0.50 *	0.24	1.3
		Bluegill			13	0.37 *	0.18	0.82
		Carp			3	0.29	0.12	0.52
		Channel Catfish			11	0.18	<0.10	0.42
	White Oak Creek	Largemouth Bass			7	0.24	<0.10	0.57
		Bluegill			20	0.23	<0.10	0.56
	Clinch River (Watts Bar)	Smallmouth Buffalo			10	0.49 *	<0.10	1.2
		Largemouth Bass			40	0.24	<0.10	0.58
		Carp			2	0.34 *	0.21	0.47
		Bluegill			42	0.15	<0.10	0.40
	Clinch River (Melton Hill)	Largemouth Bass			36	0.14	<0.10	0.44
Cadmium (mg/kg)	East Fork Poplar Creek	Bluegill	0.040	-	17	0.014	<0.0020	0.15
		Crayfish	-[6]		7	0.78 *	0.0040	1.7
		Frogs	-[6]		11	0.19 *	0.044	0.50
	Bear Creek	White Sucker			4	0.026	0.010	0.060
		Crayfish			1	1.5 *	1.5	1.5
		Green Frog			1	0.17 *	0.17	0.17
	Clinch River (Melton Hill)	Largemouth Bass			36	0.013	<0.0020	0.14
		Bluegill			30	0.013	<0.0020	0.060
	Tennessee River	Bluegill			20	0.0089	<0.0020	0.060
Arsenic (mg/kg)	East Fork Poplar Creek	Redbreast Sunfish	0.10	-	23	0.036	<0.020	0.13
		Crayfish	-[6]		6	0.16 *	<0.020	0.40
	Bear Creek	Rock Bass			10	0.24 *	<0.10	0.50
		Northern Hogsucker			3	0.17 *	<0.10	0.20
		Crayfish			1	0.20 *	0.20	0.20
	Poplar Creek	Striped Bass			2	0.40 *	0.20	0.60
		Largemouth Bass			10	0.23 *	<0.10	0.40
		White Bass			1	0.30 *	0.30	0.30
		Hybrid Bass			1	0.30 *	0.30	0.30
		Carp			3	0.17 *	<0.10	0.30
		Smallmouth Buffalo			7	0.13 *	<0.10	0.30
		Channel Catfish			11	0.14 *	<0.10	0.20
		Bluegill			13	0.12 *	<0.10	0.20
	White Oak Creek	Largemouth Bass			7	0.24 *	<0.10	0.40
		Hybrid Bass			1	0.30 *	0.30	0.30
		Channel Catfish			9	0.26 *	0.20	0.30
		Black Bullhead			2	0.20 *	0.20	0.20
		Striped Bass			4	0.15 *	<0.10	0.20
		Bluegill			20	0.11 *	<0.10	0.20
		Yellow Bass			7	0.11 *	<0.10	0.20
	Clinch River (Watts Bar)	Bluegill			42	0.13 *	<0.10	0.40
		Largemouth Bass			40	0.13 *	<0.10	0.40
		Smallmouth Buffalo			10	0.12 *	<0.10	0.30
	Clinch River (Melton Hill)	Channel Catfish			21	0.11 *	<0.10	0.30

Table 6 Continued

PARAMETERS IN FISH AND OTHER AQUATIC BIOTA EXCEEDING BACKGROUND CONCENTRATIONS, STANDARDS, CRITERIA, AND/OR ANALYTICAL DETECTION LIMITS
INSTREAM CONTAMINANT STUDY - TASK 5

Parameter (Units)	Stream	Species	Approximate Upper Limit of Background Concentrations[1]	Applicable Standards or Criteria[2]	No. of Observations	Observed Concentrations Mean[3]	Minimum[4]	Maximum
METALS CONTINUED								
	Tennessee River	Largemouth Bass			20	0.13 *	<0.10	0.30
Silver (mg/kg)	East Fork Poplar Creek	Bluegill	0.20	-	17	0.29 *	<0.20	0.50
		Green Sunfish			1	0.50 *	0.50	0.50
		Largemouth Bass			9	0.21 *	<0.20	0.30
		Redbreast Sunfish			23	0.21 *	<0.20	0.30
		Crayfish	-[6]		7	0.31 *	<0.20	0.60
		Snapping Turtle	-[6]		17	0.24 *	<0.20	0.30
	Poplar Creek	Channel Catfish			11	0.24 *	<0.20	0.60
	White Oak Creek	Channel Catfish			9	0.26 *	<0.20	0.50
		Black Bullhead			2	0.30 *	<0.20	0.40
	Clinch River (Melton Hill)	Bluegill			30	0.32 *	<0.20	2.0
Chromium (mg/kg)	East Fork Poplar Creek	Bluegill	0.10	-	15	0.083	<0.020	0.29
		Green Sunfish			1	0.19 *	0.19	0.19
		Largemouth Bass			9	0.043	<0.020	0.13
		Carp			6	0.043	<0.020	0.12
		Frogs	-[6]		11	1.0 *	0.21	2.3
		Crayfish	-[6]		7	0.060*	0.050	1.5
		Snapping Turtles	-[6]		16	0.053	0.020	0.15
	Bear Creek	Rock Bass			10	0.19 *	0.0080	0.54
		Northern Hog Sucker			5	0.17 *	<0.020	0.48
		Redbreast Sunfish			2	0.17 *	0.080	0.26
		Crayfish	-[6]		1	0.34 *	0.34	0.34
		Green Frog	-[6]		1	0.32 *	0.32	0.32
	Poplar Creek	Rock Bass			1	1.0 *	1.0	1.00
		Hybrid Bass			1	0.59 *	0.59	0.59
		Smallmouth Buffalo			7	0.31 *	0.020	0.56
		Channel Catfish			11	0.085	<0.020	0.29
		Striped Bass			2	0.16 *	0.13	0.18
		Largemouth Bass			10	0.041	<0.020	0.16
		Bluegill			13	0.057	<0.020	0.15
		Carp			3	0.077	<0.020	0.11
	White Oak Creek	Bluegill			20	0.044	<0.020	0.36
		Channel Catfish			9	0.087	<0.020	0.35
		Largemouth Bass			7	0.043	<0.020	0.14
		Yellow Bass			7	0.044	<0.020	0.12
	Clinch River (Watts Bar)	Largemouth Bass			40	0.092	<0.020	0.82
		Bluegill			42	0.047	<0.020	0.57
		Carp			2	0.16 *	0.12	0.22
		Smallmouth Buffalo			10	0.040	<0.020	0.14
	Clinch River (Melton Hill)	Channel Catfish			21	0.091	<0.020	0.36
		Bluegill			30	0.069	0.030	0.17
	Tennessee River	Largemouth Bass			20	0.15 *	<0.020	0.98
		Paddlefish			1	0.64 *	0.64	0.64
		Bluegill			20	0.064	<0.020	0.38
Copper (mg/kg)	East Fork Poplar Creek	Bluegill	0.90	-	5	0.86	0.32	2.0
		Carp			9	0.73	0.22	2.0
	Bear Creek	Northern Hog Sucker			2	1.2 *	1.1	1.3
	Poplar Creek	Channel Catfish			11	0.74	<0.10	4.1
		Carp			3	1.4 *	1.1	1.6
	White Oak Creek	Channel Catfish			9	1.9 *	0.14	10
	Clinch River (Melton Hill)	Channel Catfish			21	0.58	<0.10	1.8
Selenium (mg/kg)	East Fork Poplar Creek	Carp	0.80	-	9	0.56	0.17	0.86
	Clinch River (Watts Bar)	Carp			2	1.8 *	1.0	2.6
	Clinch River (Melton Hill)	Bluegill			1	1.0 *	1.0	1.0

Table 6 Continued

PARAMETERS IN FISH AND OTHER AQUATIC BIOTA EXCEEDING BACKGROUND CONCENTRATIONS, STANDARDS, CRITERIA, AND/OR ANALYTICAL DETECTION LIMITS
INSTREAM CONTAMINANT STUDY - TASK 5

Parameter (Units)	Stream	Species	Approximate Upper Limit of Background Concentrations[1]	Applicable Standards or Criteria[2]	No. of Observations	Observed Concentrations Mean[3]	Minimum[4]	Maximum
METALS CONTINUED								
Beryllium (mg/kg)	Poplar Creek	Channel Catfish	0.020		11	0.022	<0.020*	0.040
	White Oak Creek	Black Bullhead			2	0.030	0.020**	0.040
	Clinch River (Melton Hill)	Channel Catfish			21	0.026	<0.020	0.060
Thallium (mg/kg)	East Fork Poplar Creek	Carp	1.0		9	1.2 *	<1.0	2.8
	Clinch River (Melton Hill)	Yellow Bullhead			1	3.8 *	3.8	3.8
		Channel Catfish			21	1.1 *	<1.0	3.0
PRIORITY POLLUTANT ORGANICS[7]								
Total PCBs (mg/kg)	East Fork Poplar Creek	Carp	0.10	2.0[5]	3	2.9 *	2.0	3.7
		Largemouth Bass			3	0.52 *	<0.10	0.92
		Channel Catfish			1	0.60 *	0.60	0.60
	Poplar Creek	Channel Catfish			11	1.0 *	<0.10	3.4
	White Oak Creek	Channel Catfish			9	3.2 *	2.2	5.6
		Carp			12	0.32 *	<0.10	1.0
	Clinch River (Watts Bar)	Channel Catfish			33	0.68 *	<0.10	2.1
	Emory River	Channel Catfish			11	0.71 *	<0.10	1.6
	Clinch River (Melton Hill)	Channel Catfish			13	0.45 *	<0.10	4.7
	Tennessee River	Channel Catfish			21	0.49 *	<0.10	1.4
Di-n-butyl phthalate (mg/kg)	Clinch R. (Melton Hill)	Yellow Bullhead	-[8]	-	1	1.3 *	1.3	1.3
Bis(2-ethyl hexyl) phthalate (mg/kg)	East Fork Poplar Creek	Largemouth Bass	-[8]	-	4	0.89 *	0.67	1.2
Chloroform (mg/kg)	White Oak Creek	Channel Catfish	-[8]	-	9	<0.050*	<0.050	0.021
RADIOISOTOPES								
Cesium-137 (pCi/g)	East Fork Poplar Creek	Largemouth Bass	0.2	8.0[9]	1	2.6 *	2.6	2.6
		Spotted Sucker			1	2.2 *	2.2	2.2
		Channel Catfish			1	1.7 *	1.7	1.7
		Bluegill			1	1.0 *	1.0	1.0
	White Oak Creek	Bluegill			2	14 *	1.1	26
		Smallmouth Buffalo			1	9.7 *	9.7	9.7
		Carp			2	6.7 *	5.7	7.7
		Channel Catfish			1	7.3 *	7.3	7.3
		Largemouth Bass			1	7.1 *	7.1	7.1
		Striped Bass			1	2.6 *	2.6	2.6
	Clinch R. (Watts Bar)	Largemouth Bass			3	6.5 *	0.60	18

[1] Background concentrations were obtained from various sources as given in Appendix IV, and do not reflect differences among species. The upper limits were applied to all species. Relevant elevated levels are best identified by comparing mean concentrations with the upper limit. Mean concentrations exceeding the upper limit are denoted with an asterisk (*).

[2] Dashes indicate standards or criteria not available.

[3] For calculation of mean concentrations (or activities), less than detection limit values were assumed to equal the detection limit.

[4] Contaminant concentrations below the analytical detection limit are preceded by "<".

[5] Food and Drug Administration (FDA) action level.

[6] Comparative data were not available for nonfish aquatic biota. In the absence of these data, parameters were listed when concentrations exceeded background concentrations for fish.

[7] Seven additional priority pollutant organic compounds were identified and reported at concentrations above the detection limit (Appendix IV). Exact identification of these compounds is uncertain, however, due primarily to the presence of PCBs. The values are denoted with an "R" in Appendix II, indicating possible influence by other compounds.

[8] Background concentrations not avilable.

[9] Reporting levels suggested by the Nuclear Regulatory Commission for radioactivity in fish samples from the vicinity of nuclear power plants, as outlined in draft NUREG-0472, Rev. 3, Standard Radiological Effluent Technical Specifications for Pressurized Water Reactors.

and three additional fish species had maximum concentrations exceeding 1.0 mg/kg.

Total mercury concentrations were above 1.0 mg/kg in three fish species from Poplar Creek and one species from the Clinch River. Each of these species had individual sample concentrations exceeding 1.0 mg/kg, but mean concentrations were less. Figure 5 shows the mean of total mercury concentrations in all species of fish from upper East Fork Poplar Creek to the Tennessee River. The concentrations generally decreased downstream until background levels were attained in the lower reach of the Clinch River and in the Tennessee River.

The other priority pollutant metals found at elevated concentrations were arsenic, beryllium, cadmium, chromium, copper, selenium, silver, and thallium. Arsenic concentrations were above background levels in a total of 13 different fish species collected from Bear Creek, Poplar Creek, White Oak Creek, the Clinch River, and the Tennessee River (Table 6). Arsenic was above background levels in crayfish samples from East Fork Poplar Creek and Bear Creek. Beryllium was detected at elevated levels in two fish species (Poplar Creek, White Oak Creek, and the Clinch River). Cadmium was above background levels in three fish species from East Fork Poplar Creek, Bear Creek, the Clinch River, and the Tennessee River, and in crayfish and frog samples from East Fork Poplar Creek and Bear Creek. Chromium was found at elevated levels in 13 fish species (covering all of the streams sampled). Chromium was also detected at elevated

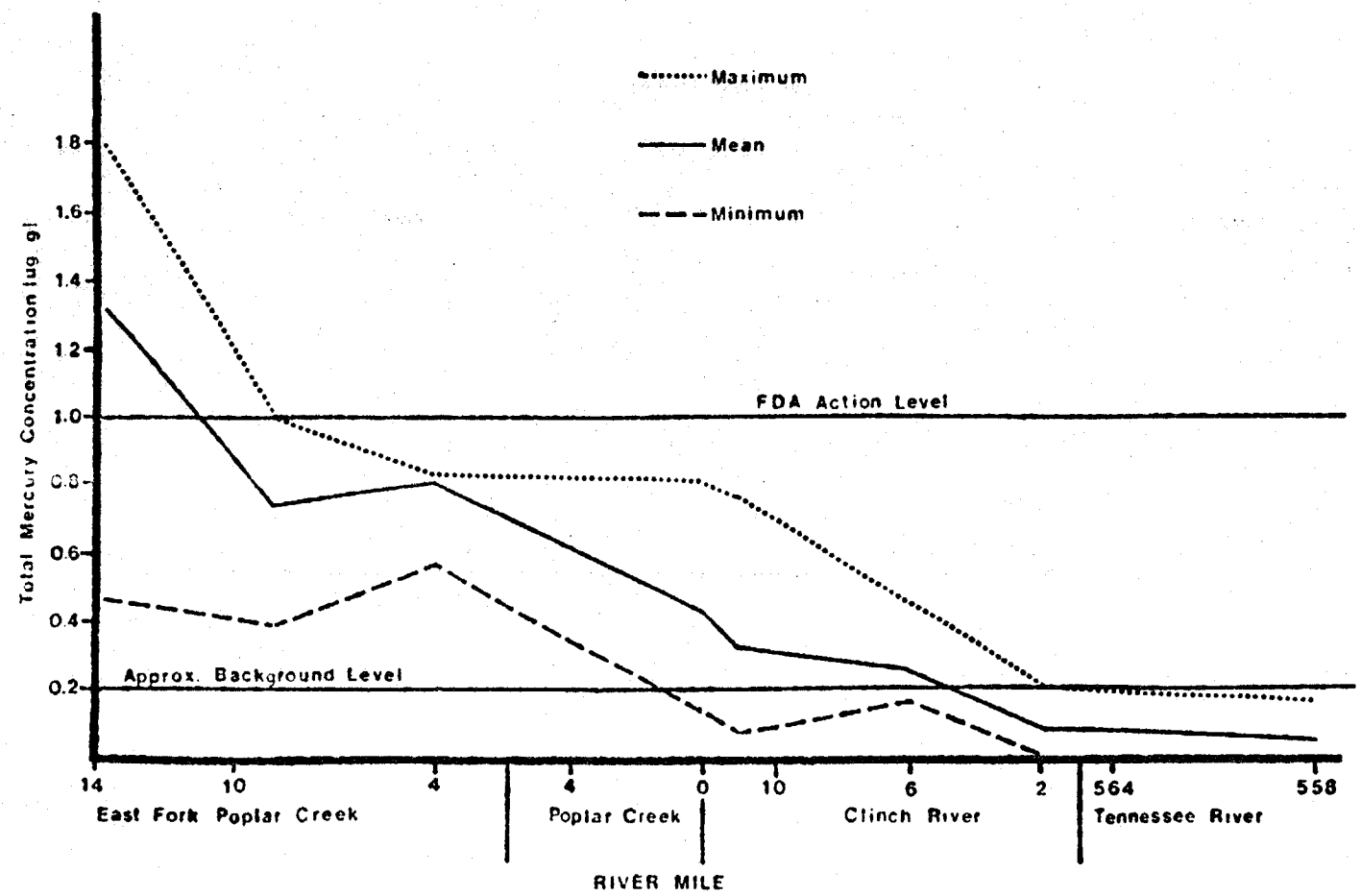
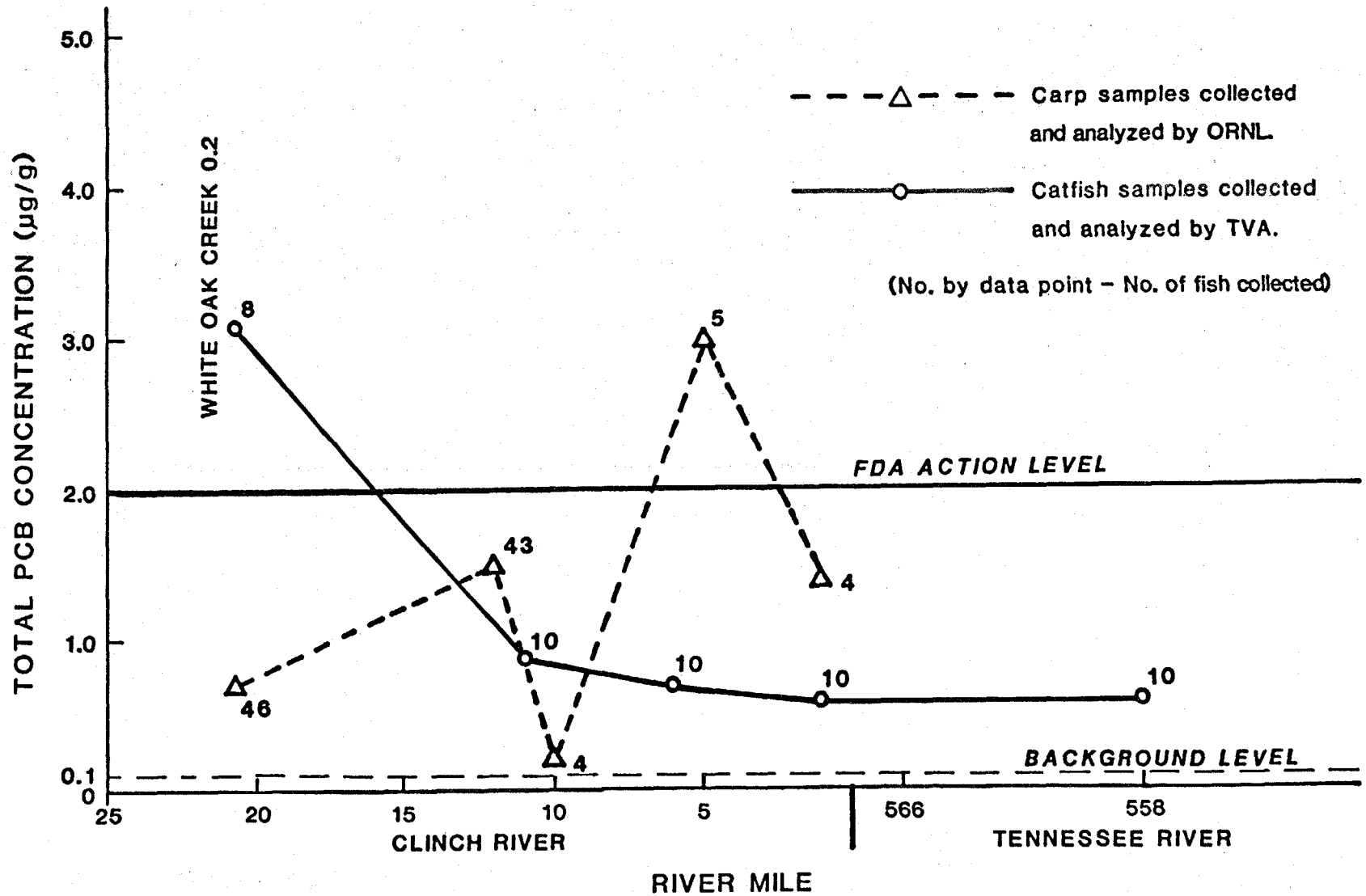


FIGURE 5. MEAN UPPER LIMIT, MEAN, AND MEAN LOWER LIMIT OF MERCURY CONCENTRATIONS IN ALL SPECIES OF FISH FROM STREAM REACHES BELOW NEW HOPE POND

concentrations in frogs and crayfish from Bear Creek and East Fork Poplar Creek, and in snapping turtles from East Fork Poplar Creek. Elevated concentrations of copper were found in four different fish species from East Fork Poplar Creek, Bear Creek, Poplar Creek, White Oak Creek, and the Clinch River. Selenium was above background concentrations in two fish species (East Fork Poplar Creek and the Clinch River). Silver was above background levels in six fish species (East Fork Poplar Creek, Poplar Creek, White Oak Creek, and the Clinch River), and in crayfish and snapping turtles from East Fork Poplar Creek. Thallium concentrations were above background levels in three fish species from East Fork Poplar Creek and the Clinch River.

Analyses of 110 priority pollutant organics including PCBs, pesticides, base/neutrals, acid extractables, and volatile organics found seven compounds at levels exceeding the analytical detection limit. Of these seven compounds, PCBs (polychlorinated biphenyls) were the most significant. Concentrations above the analytical detection limit were found in all streams sampled, except Bear Creek. The FDA action level for PCBs in fish flesh is 2.0 mg/kg. Mean total PCB concentrations in carp from East Fork Poplar Creek and catfish from White Oak Creek exceeded this limit. Individual fish from Poplar Creek and the Clinch River also exceeded 2.0 mg/kg, but species mean concentrations were less than 2.0 mg/kg. Figure 6 summarizes the Clinch River PCB data collected by TVA and ORNL (13) for catfish and carp. PCB concentrations in the catfish collected by TVA decrease downstream from White Oak Creek, while

Figure 6. MEAN TOTAL PCB CONCENTRATIONS
IN FISH FLESH
INSTREAM CONTAMINANT STUDY - TASK 5



concentrations in the carp collected by ORNL were highest at Clinch River Mile 5. These data are sufficient to identify PCBs as a contaminant of major interest, but additional data are needed to determine the source(s) and the extent of contamination.

Other organic priority pollutants detected in fish flesh included: di-n-butyl phthalate, bis(2-ethyl hexyl) phthalate, and chloroform (Table 6). Only four fish samples were found to contain these compounds at levels above the detection limit and no samples contained more than one compound. There were no obvious spatial trends for these compounds in fish, since only four samples in three disassociated streams were involved (Melton Hill Reservoir, White Oak Creek, and East Fork Poplar Creek).

Fish flesh were also analyzed for other nonpriority pollutant organics and organic metabolites. A complete listing of the compounds found, the locations and concentrations at which they were detected, and their probability of occurrence is presented in the Task 4 report (5). Little information is available, however, regarding the significance of these compounds.

Radiological analyses of fish flesh found cesium-137 to be the most elevated radioisotope with the greatest activity occurring in White Oak Creek. Two of the eight fish samples collected in White Oak Creek (one

bluegill and one smallmouth buffalo) contained cesium-137 in excess of the 8 pCi/g activity limit proposed by the Nuclear Regulatory Commission (NRC) for fish samples taken in the vicinity of nuclear power plants. One fish sample (a largemouth bass) collected in the Clinch River also contained cesium-137 in excess of the proposed NRC limit. In East Fork Poplar Creek, cesium-137 levels in fish were substantially above background levels, but no samples exceeded the NRC limit. Activity levels in fish samples collected from Bear Creek were consistent with background levels reported in the Tennessee River.

Relative abundance estimates of fish collected on East Fork Poplar Creek indicated that greater densities were present in the upper reaches of the stream. Normally, fish densities are much greater near the mouth of a stream and decrease in an upstream direction. It has been suggested by Van Winkle et al. (14) that the West End Sewage Treatment Plant at East Fork Poplar Creek Mile 8.3 could be affecting the distribution and abundance of fish in East Fork Poplar Creek. The sites with the highest densities of "edible" fish were those above the sewage treatment plant. This is the section of East Fork Poplar Creek most accessible to the public and also where the greatest concentrations of contaminants in fish were observed. Relative abundance estimates near the mouth of Bear Creek indicated considerably higher fish densities than at any of the locations sampled on East Fork Poplar Creek.

3.3.2 CORRELATIONS BETWEEN PARAMETERS

Statistical correlations between the parameters present at elevated concentrations in the flesh of aquatic biota were tested to identify areas and parameters for further assessment of synergistic effects. Spearman's rank-order correlation was used, since many of the data are not normally (or log-normally) distributed. Correlations were tested for East Fork Poplar Creek, White Oak Creek/Clinch River, and for all areas combined.* Detection limit data and duplicate samples were excluded from the analysis. Statistical results are summarized in Table 7 for the significant correlations (i.e., $p \leq 0.05$).

Only four significant correlations were obtained for data from East Fork Poplar Creek. Two were negative correlations between total mercury and total PCBs (Spearman's rho for all species of -0.90) and between chromium and selenium (Spearman's rho for all species of -0.58). Positive correlations were obtained between cadmium and chromium (0.63 for all species) and between total mercury and selenium (0.75 for carp).

Nine significant correlations were obtained for data from White Oak Creek and the Clinch River. Six of these correlations were either for or reflect the data for catfish from these streams (Table 7). The

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*Although a total of 533 aquatic biota samples were collected, the number of paired observations was substantially less, with no paired observations between many parameters.

Table 7

SPEARMAN RANK-ORDER CORRELATIONS BETWEEN PARAMETER CONCENTRATIONS IN AQUATIC BIOTA[1]
INSTREAM CONTAMINANT STUDY - TASK 5

Species/Parameters	East Fork Poplar Creek			White Oak Creek/Clinch River			Composite Data[3]		
	Spearman's Rho	Probability[2]	Number of Observations	Spearman's Rho	Probability	Number of Observations	Spearman's Rho	Probability[2]	Number of Observations
ALL SPECIES									
Mercury vs. PCBs	-0.90	0.037	5	--	--	--	--	--	--
Cadmium	--	--	--	--	--	--	0.17	0.022	193
Cadmium vs. Chromium	0.63	0.0001	56	--	--	--	0.23	0.0013	198
Arsenic	--	--	--	-0.35	0.012	52	--	--	--
Copper vs. Chromium	--	--	--	0.48	0.014	26	0.37	0.0088	50
Chromium vs. PCBs				0.90	0.037	5	--	--	--
Selenium	-0.58	-.046	12	--	--	--	--	--	--
Arsenic	--	--	--	--	--	--	0.25	0.010	101
Arsenic vs. Selenium	--	--	--	-0.55	0.021	17	-0.50	0.012	24
BLUEGILL[4]									
Mercury vs. Selenium							-0.91	0.011	6
CATFISH									
Mercury vs. Selenium				--	--	--	-0.87	0.0010	10
Copper vs. Chromium				0.61	0.0039	20	0.43	0.027	26
Chromium vs. PCBs				0.90	0.037	5	--	--	--
Arsenic vs. Selenium				-0.61	0.013	16	-0.55	0.0095	21
LARGEMOUTH BASS									
Mercury vs. Arsenic				0.56	0.0026	27	0.31	0.047	42
Cadmium vs. Chromium				-0.33	0.025	45	-0.35	0.010	53
CARP									
Mercury vs. Selenium	0.75	0.025	9	--	--	--	--	--	--

[1]Based on concentrations in aquatic biota samples for all parameters present at elevated levels. Detection limit data and duplicate samples were excluded. Results are shown for correlations significant at a 95 percent level (i.e., probability ≤ 0.05). Dash indicates that correlation was not significant. Blank indicates that the number of observations was less than four.

[2]Probability of a random correlation.

[3]Composite data includes results from East Fork Poplar Creek, Bear Creek, White Oak Creek, Poplar Creek, the Clinch River, and the Tennessee River.

[4]Includes redbreast sunfish.

highest correlation was obtained between chromium and total PCBs in catfish (0.90). Selenium showed a negative correlation with arsenic (-0.61).

Results for the composite data were influenced by the catfish data for White Oak Creek and the Clinch River, but showed several additional correlations. The most notable was the negative correlation between total mercury and selenium in bluegill and catfish (-0.91 and -0.87, respectively). These correlations contrast with the positive correlation found for carp from East Fork Poplar Creek (0.75).

3.4 SUMMARY

Thirty-nine of the 217 compounds, elements, or parameters analyzed during the Instream Contaminant Study were present at concentrations exceeding background levels, criteria, standards, and/or analytical detection limits. Tables 8 and 9 summarize these parameters and specify the sample medium and stream in which each was found. Previous sediment screening analyses by ORNL (6) identified 82 contaminants (76 if PCB isomers are totaled and included as one parameter) which could not be eliminated from further investigation, based on the sediment concentrations and conservative assumptions of contaminant uptake by aquatic organisms and subsequent ingestion by humans.

Table 8

SUMMARY OF PARAMETERS EXCEEDING BACKGROUND CONCENTRATIONS, STANDARDS, CRITERIA, AND/OR ANALYTICAL DETECTION LIMITS[1]
INSTREAM CONTAMINANT STUDY - TASK 5

Parameter	Sample Media			Sediment Parameters Identified by ORNL as Warranting Further Investigation (6)
	Water	Sediment	Fish	
PHYSICAL PARAMETERS				
Conductivity	X			
Hardness	X			
METALS				
Mercury	X	X	X	X
Cadmium	X	X	X	X
Copper	-		X	X
Chromium	-	X	X	X
Lead	-	X	-	X
Nickel	-	X	-	X
Arsenic	-	X	X	X
Selenium	-		X	X
Beryllium	-		X	X
Thallium	-		X	X
Silver	-	X	X	X
Zirconium		X		
Lithium	X			
INORGANIC NONMETALLIC COMPOUNDS				
Nitrate+Nitrite	X			
PRIORITY POLLUTANT ORGANICS				
Total PCB	-	X	X	X
Chloroform	-		X	-
Anthracene	-	X	-	X
Benzo-a-anthracene	-	X	-	X
Chrysene	-	X	-	X
Fluoranthene	-	X	-	X
Bis(2-ethyl hexyl) phthalate	-	X	X	-
Di-n-butyl phthalate	-	-	X	-
Phenanthrene	-	X	-	X
Pyrene	-	X	-	X
Benzo-a-pyrene	-	X	-	X
Total Phenols	X	X	-	-
RADIOISOTOPES				
Cesium-137	-	X	X	X
Cobalt-60	-	X	-	
Strontium-90	-	X	-	-
Uranium		X		
Thorium-234	-	X	-	
Protactinium-234m	-	X	-	
Plutonium-238		X		-
Plutonium-239		X		-
Americium-241		X		
Curium-244		X		
Tritium	X			
TOTALS[2]	8	28	14	

[1] Dash indicates that analyses were performed, but concentrations or activities were within background levels. Blank indicates that analyses were not performed.

[2] A total of 39 parameters in water, sediment, or aquatic biota were found to exceed background concentrations, criteria, standard, and/or analytical detection limits.

Table 9

SUMMARY OF PARAMETERS EXCEEDING BACKGROUND CONCENTRATIONS, STANDARDS, CRITERIA, AND/OR ANALYTICAL DETECTION LIMITS BY STREAM[1]
INSTREAM CONTAMINANT STUDY - TASK 5

Parameter	East Fork Poplar Creek			Bear Creek			Poplar Creek			White Oak Creek			Clinch River[2]			Tennessee River		
	Water	Sed.	Fish	Water	Sed.	Fish	Water	Sed.	Fish	Water	Sed.	Fish	Water	Sed.	Fish	Water	Sed.	Fish
PHYSICAL PARAMETERS																		
Conductivity	-			X			-			-			-					
Hardness	-			X						-								
METALS																		
Mercury	X	X	X	-	X	X	-	X	X	-	X	X	-	X	X		X	-
Cadmium	-	X	X	X	X	X	-	-	-	-	-	-	-	-	X			X
Copper	-		X	-		X	-		X	-		X	-		X			
Chromium	-	-	X	-	-	X	-	-	X	-	X	X	-	-	X		-	X
Lead	-	X	-	-	-	-	-	-	-	-	-	-	-	X	-			
Nickel	-	X	-	-	X	-	-	X	-	-	-	-	-	X	-			-
Arsenic	-	X	X	-	-	X	-	-	X	-	-	X	-	X	X			X
Selenium	-		X	-		-	-		-	-		-	-		X			
Beryllium	-		-	-		-	-		X	-		X	-		X			
Thallium	-		X	-		-	-		-	-		-	-		X			
Silver	-	X	X	-	-	-	-	-	X	-	X	X	-	-	X			-
Zirconium		X			X			X			X			X				
Lithium	X			-														
INORGANIC NONMETALLIC COMPOUNDS																		
Nitrate+Nitrite	-			X						-								
PRIORITY POLLUTANT ORGANICS																		
Total PCB	-	X	X	-	X	-		-	X	-	X	X		-	X		-	X
Chloroform	-		-	-					-	-		X			-			
Anthracene	-	X	-	-	-			-	-	-	-	-		-	-			
Benzo-a-anthracene	-	X	-	-	-			-	-	-	-	-		-	-			
Chrysene	-	X	-	-	-			-	-	-	-	-		-	-			
Fluoranthene	-	X	-	-	X			-	-	-	-	-		-	-			
Bis(2-ethyl hexyl) phthalate	-	X	X	-	-			-	-	-	X	-		-	-			
Di-n-butyl phthalate	-	-	-	-	-			-	-	-	-	-		-	X			
Phenanthrene	-	X	-	-	X			-	-	-	-	-		-	-			
Pyrene	-	X	-	-	X			-	-	-	-	-		-	-			
Benzo-a-pyrene	-	X	-	-	-			-	-	-	-	-		-	-			
Total Phenols	-	X	-	X	X			-	-	X	-	-		-	-			
RADIOISOTOPES																		
Cesium-137	-	-	X		-	-		-		-	X	X	-	X	X			
Cobalt-60	-	-	-		-	-		-		-	X	-	-	-	-			
Strontium-90	-	-	-		-	-		-		-	X	-	-	-	-			
Uranium		-			X			-			-			-				
Thorium-234	-	-	-		X	-		-		-	-	-	-	-	-			
Protactinium-234m	-	-	-		X	-		-		-	-	-	-	-	-			
Plutonium-238		-			-			-		X				-				
Plutonium-239		-			-			-			X			-				
Americium-241		-			-			-			X			-				
Curium-244		-			-			-			X			-				
Tritium	-			-						X			-					
TOTALS - ALL MEDIA	23			18			9			19			15			5		

[1]Dash indicates that analyses were performed, but concentrations or activities were within background levels. Blank indicates that analyses were not performed.

[2]Clinch River data includes fish sampling station at Emory River Mile 1.0 and sediment sampling station at Powell River Mile 6.0.

Twenty of the 39 parameters identified by the Instream Contaminant Study were included in the ORNL list of 82 contaminants. Of the 19 parameters not included in the ORNL list (Table 8), twelve were not analyzed during the sediment screening study and seven parameters were excluded because the concentrations were not sufficient to exceed the Allowable Daily Intake (ADI) for human consumption (6). During the Instream Contaminant Study, three of these seven parameters were found at concentrations substantially higher than previously observed.

These results suggest that at least 15 parameters should be added to the ORNL list of 82 parameters deserving further examination. The twelve parameters not previously analyzed by ORNL are hardness, conductivity, lithium, zirconium, nitrate+nitrite nitrogen, uranium, thorium-234, protactinium-234m, americium-241, curium-244, cobalt-60, and tritium. The three parameters present at concentrations substantially higher than previously observed are strontium-90, plutonium-238, and plutonium-239.

Mercury, cadmium, and PCBs were the most notable of the 39 parameters exceeding background concentrations or established standards (Table 8). Mercury was present at elevated concentrations in the water, sediment, and fish of East Fork Poplar Creek (Tables 3, 4, and 6). Mercury concentrations were greatest in the upper reaches of the creek and generally decreased with distance downstream. During stormflow conditions, total mercury concentrations in East Fork Poplar Creek reached

a maximum of 44 μg/L (i.e., 22 times the EPA Drinking Water Standard of 2.0 μg/L). Total mercury concentrations in the floodplain sediment of East Fork Poplar Creek were above background levels of 0.2 to 1.0 mg/kg and ranged up to 1,800 mg/kg. Mercury concentrations in lower White Oak Creek sediments were above background levels (maximum of 44 mg/kg), but were substantially below maximum concentrations in East Fork Poplar Creek. Although no standard or action level exists for mercury concentrations in soil, previous assessments have recommended values ranging from 12 to 500 mg/kg (15). Total mercury concentrations in fish flesh exceeded the previous FDA limit of 1.0 mg/kg for samples collected from both East Fork Poplar Creek, Poplar Creek, and the Clinch River with a maximum concentration of 3.3 mg/kg in a redbreast sunfish collected in East Fork Poplar Creek.

Cadmium also exceeded background concentrations in water, sediment, and fish. The highest levels in water and sediment were found in Bear Creek in the vicinity of the S-3 waste disposal ponds. The highest levels in aquatic biota were found in crayfish collected from East Fork Poplar Creek and Bear Creek.

PCB concentrations were highest in the sediment and fish of East Fork Poplar Creek and White Oak Creek (Tables 4 and 6). Sediment concentrations in both creeks were above the analytical detection limit with maximum total PCB concentrations of 4.0 mg/kg and 2.8 mg/kg in East

Fork Poplar Creek and White Oak Creek, respectively. PCB concentrations in fish flesh exceeded the FDA action level of 2.0 mg/kg in samples collected in both creeks and in the Clinch River with a maximum of 5.6 mg/kg found in a catfish collected in White Oak Creek. PCB levels in sediment and fish of other streams were above the analytical detection limit in several instances but were generally less than levels in East Fork Poplar Creek and White Oak Creek.

Other parameters substantially exceeding background levels include chromium, silver, and cesium-137. Chromium was present at elevated levels in sediment and aquatic biota samples from White Oak Creek and in aquatic biota samples from the other sampled streams including the Tennessee River (Tables 4 and 6). Silver was present at elevated levels in sediment and aquatic biota samples from East Fork Poplar Creek and White Oak Creek and in aquatic biota samples from Poplar Creek and the Clinch River. Cesium-137 activities were elevated in both sediment and fish samples in White Oak Creek and the Clinch River, with the most substantial levels occurring in lower White Oak Creek and in White Oak Lake. Cesium-137 activities in fish samples from East Fork Poplar Creek were also elevated.

Other parameters substantially above background levels in localized areas include nitrate+nitrite nitrogen in the surface water of upper Bear Creek near the S-3 ponds, tritium in the surface water of lower White Oak Creek, and uranium and uranium decay series isotopes in the sediments of Bear Creek.

4.0 MERCURY CONTAMINATED SEDIMENT

In addition to identifying the contaminants of potential concern, a second objective of this study is to quantify offsite mercury contamination of sediments and the expected transport of these sediments. Initial sediment sampling in East Fork Poplar Creek, Bear Creek, and lower White Oak Creek confirmed that East Fork Poplar Creek was the area of primary concern. Subsequent sampling and transport analyses focused on this area. Core samples were obtained from seven locations in the Tennessee River to supplement previous data on the downstream movement of mercury.

4.1 ESTIMATED QUANTITIES

Sediment cores and surface samples were collected at 130 separate locations along 30 transects of East Fork Poplar Creek (EFPCM 0.23 to EFPCM 14.36). The sampling included 122 floodplain cores that were divided into layers, usually 3 to 9 inches in depth, and 30 surface-layer samples from the stream channel. Approximately 80 percent of all cores penetrated to the underlying "uncontaminated" sediment, as defined by a mercury concentration of less than 5.0 mg/kg.* A total of 394 separate samples were obtained. All samples were analyzed for total mercury concentration in the <500 μm particle size fraction and most samples

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*Background concentrations of mercury in soil and sediment are generally between 0.2 and 1.0 mg/kg (Appendix IV). A concentration of 5.0 mg/kg is used here to define the areas and quantities most relevant to remedial action considerations.

were analyzed for the <63 μm fraction. Analysis of 53 samples for a complete range of size fractions indicated that over 90 percent of the mercury is contained in the <500 μm fraction (Table 10). A complete presentation of the data is given in the Task 2 report (3).

Mercury concentrations for the <500 μm size fraction were used in estimating the volume of contaminated sediment and amount of mercury present. Two levels of contamination were examined (i.e., mercury concentrations from 5 to 100 mg/kg and concentrations exceeding 100 mg/kg). Two methods of calculation were used for each level of contamination. The transect-reach method assumed that: (1) the data for each transect represents a predetermined stream reach; (2) the effective length of each reach is the floodplain area divided by the floodplain width; and (3) the mean mercury concentration at each transect is representative of the reach. The average end-area method assumed that: (1) the mean of two adjacent transects represents the stream reach between the transects; (2) the length of each reach is the distance traversed by the stream channel; and (3) the depth weighted mean mercury concentration at each sampling location is representative of that location. Each method is discussed in Appendix V.

The two methods give slightly different results for individual stream reaches, but the net results are essentially the same when the reach between EFPCM 10.15 and EFPCM 11.50 is excluded. This reach has the

Table 10

MERCURY CONCENTRATIONS FOR VARIOUS PARTICLE SIZE RANGES - EAST FORK POPLAR CREEK
INSTREAM CONTAMINANT STUDY - TASK 5

Particle Size Range (μm)	Mean % of Total Sample Dry Weight in Specified Size Range	Mean Mercury Concentration in Specified Size Range (mg/kg)	Mean % of Total Mercury in Specified Size Range
		All Samples n = 53	
<63	59.8	137.2	75.4
63-125	12.2	69.2	7.8
125-500	14.6	79.0	10.6
500-2000	8.1	56.4	4.2
2000-0.25 in.	5.3	41.3	2.0
		Samples with Hg Between 0 and 5 mg/kg n = 4	
<63	68.9	1.9	82.4
63-125	14.6	1.1	10.1
125-500	6.1	1.3	5.0
500-2000	8.4	0.4	2.1
2000-0.25 in.	2.0	0.3	0.4
		Samples with Hg Between 5 and 100 mg/kg n = 28	
<63	60.3	39.4	69.5
63-125	11.4	20.1	6.7
125-500	14.5	27.0	11.5
500-2000	7.3	32.3	6.9
2000-0.25 in.	6.5	28.7	5.4
		Samples with Hg Between 100 and 500 mg/kg n = 18	
<63	55.8	189.0	74.4
63-125	12.5	77.9	6.9
125-500	16.5	79.6	9.3
500-2000	10.3	98.4	7.1
2000-0.25 in.	4.9	67.4	2.3
		Samples with Hg Greater than 500 mg/kg n = 3	
<63	66.2	920.0	76.3
63-125	14.2	566.7	10.1
125-500	15.8	663.3	13.1
500-2000	2.6	125.0	0.4
2000-0.25 in.	1.2	56.5	0.1

highest mercury concentrations and the two methods of estimating reach length produce substantially different results (see Appendix V). Since the two methods give similar results (when the reach between EFPCM 10.15 and EFPCM 11.50 is excluded), mean values are given in Table 11 as the best estimate of contaminated sediment volumes and mercury quantities.*

An estimated 16 million cubic feet (760,000 tons) of contaminated sediment and approximately 170,000 pounds of mercury are contained in the floodplain and channel of East Fork Poplar Creek. The area of contamination covers approximately 450 acres of the 600 acre floodplain. Most of the mercury is in the upper reaches of the stream and is contained in areas where the mercury concentration exceeds 100 mg/kg. For example, approximately 75 percent (130,000 pounds) of the mercury is upstream of EFPCM 9.45. Approximately 80 percent (138,000 pounds) of the mercury is contained in the 25 percent of contaminated sediment with a mercury concentration exceeding 100 mg/kg. Figures 7-11 illustrate these spatial and concentration variations.

4.2 SEDIMENT TRANSPORT

Water and bedload samples were collected during three rainstorms to assess the transport and fate of the mercury contaminated sediment in East Fork

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*These mean values differ slightly from the preliminary estimates (based on the transect-reach method) presented in the Tasks 2 and 3 reports.

Table 11

MEAN OF ESTIMATED QUANTITIES OF CONTAMINATED SEDIMENT AND MERCURY[1]
EAST FORK POPLAR CREEK CHANNEL AND FLOODPLAIN
INSTREAM CONTAMINANT STUDY - TASK 5

Stream Reach (Miles)	Estimated Volume of Contaminated Sediment ($Ft^3 x10^6$)			Estimated Quantity of Mercury in Sediment (Pounds)		
	5-100 mg/kg	>100 mg/kg	Total	5-100 mg/kg	>100 mg/kg	Total
0.00-1.29	0.343	0.016	0.359	820	210	1,030
1.29-2.00	1.687	0.518	2.205	4,360	6,930	11,290
2.00-2.70	0.552	0.062	0.614	1,370	850	2,220
2.70-3.60	0.545	-	0.545	1,690	-	1,690
3.60-4.80	0.575	-	0.575	1,570	-	1,570
4.80-6.10	1.055	0.106	1.161	1,980	1,760	3,740
6.10-6.89	0.945	0.450	1.395	2,730	8,470	11,200
6.89-7.95	0.610	0.113	0.723	1,550	1,470	3,020
7.95-8.45	0.392	0.094	0.486	1,270	1,170	2,440
8.45-9.45	0.832	0.062	0.894	3,870	1,080	4,950
9.45-10.15	0.634	0.350	0.984	2,150	8,340	10,490
10.15-11.50	1.767	1.607	3.374	5,020	74,570	79,590
11.50-12.12	0.364	0.069	0.433	1,500	870	2,370
12.12-12.89	0.194	0.021	0.216	790	270	1,060
12.89-13.27	0.504	0.249	0.754	1,840	5,630	7,470
13.27-13.85	0.919	0.490	1.409	3,130	26,210	29,340
13.85-14.40	0.067	0.047	0.114	210	570	780
Totals	11.985	4.254	16.239	35,850	138,400	174,250

[1]Values given are the mean of results using the transect reach method and the average end area method of calculating sediment and mercury quantities (Appendix V).

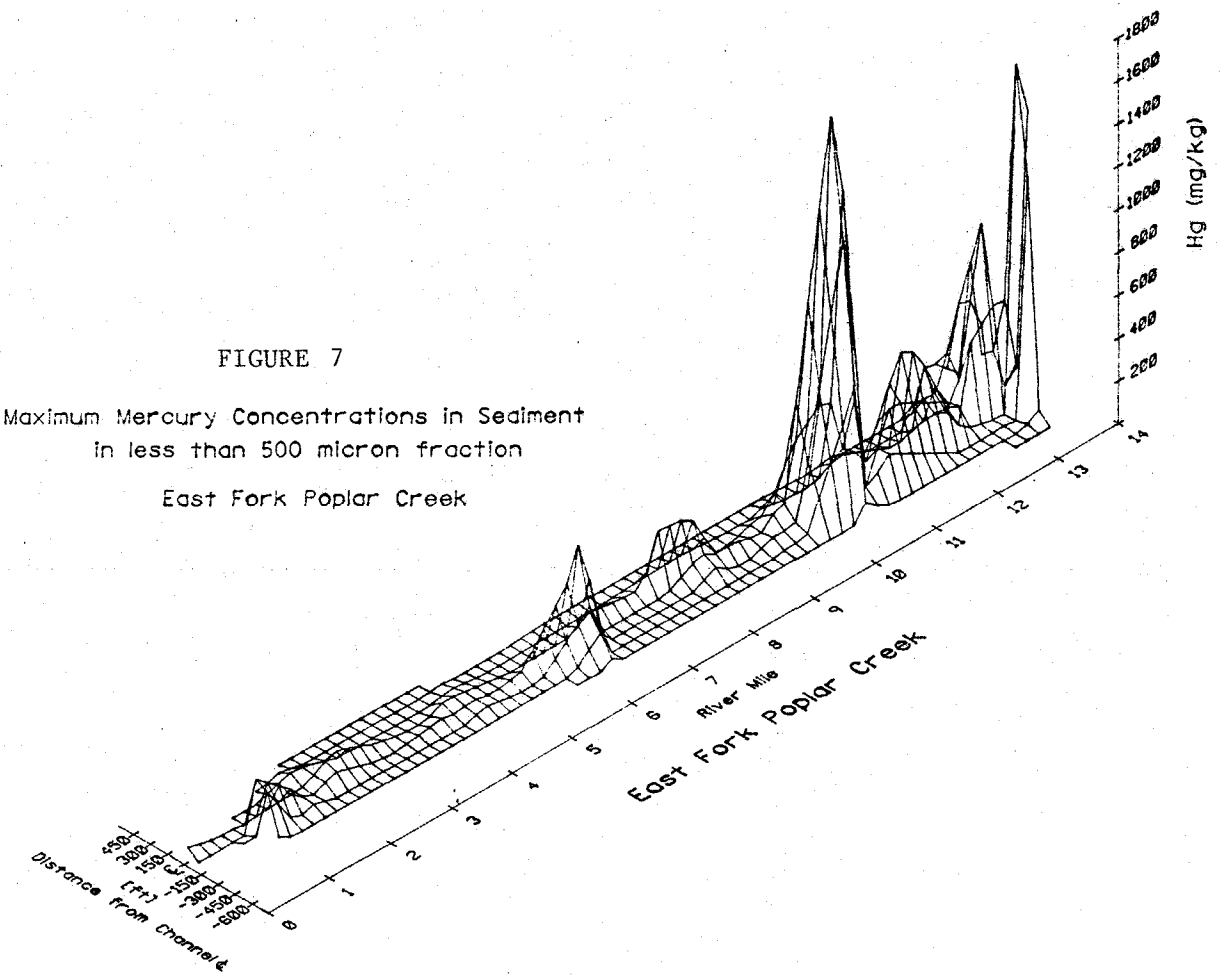


FIGURE 7

Maximum Mercury Concentrations in Sediment
in less than 500 micron fraction

East Fork Poplar Creek

FIGURE 8

Spatial Distribution of Mercury Contaminated Sediment

Exceeding 5 mg/kg Mercury Concentration

In less than 500 micron fraction

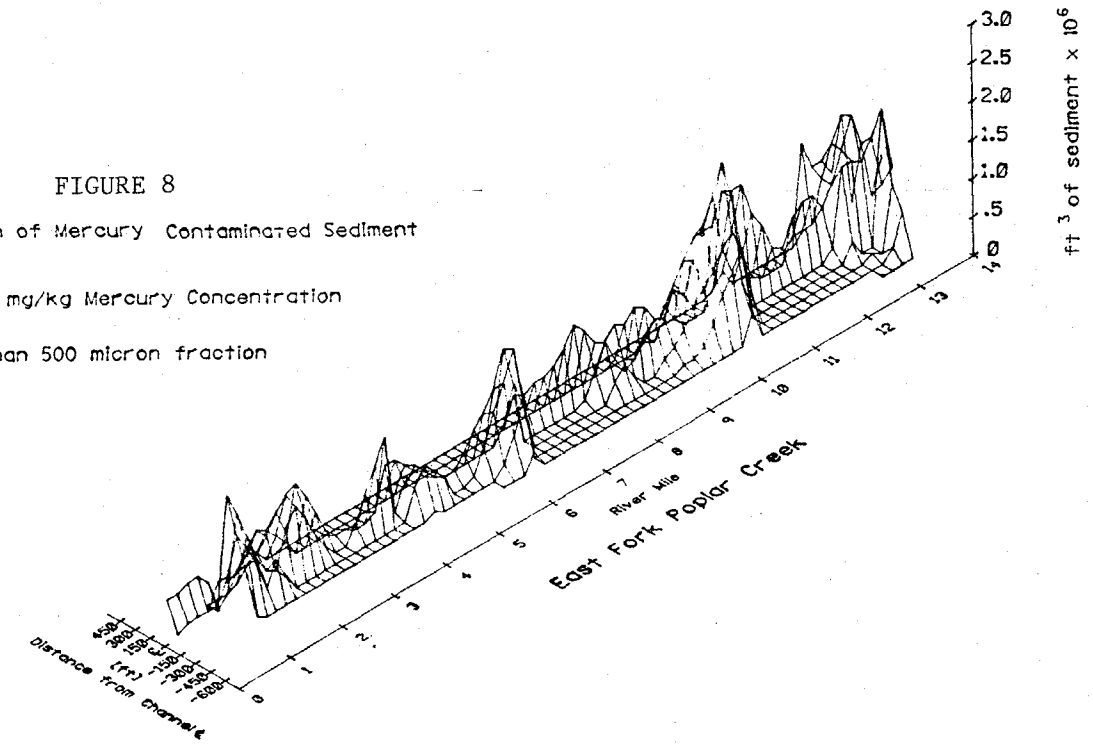


FIGURE 9

Spatial Distribution of Mercury Contaminated Sediment

Exceeding 100 mg/kg Mercury Concentration

in less than 500 micron fraction

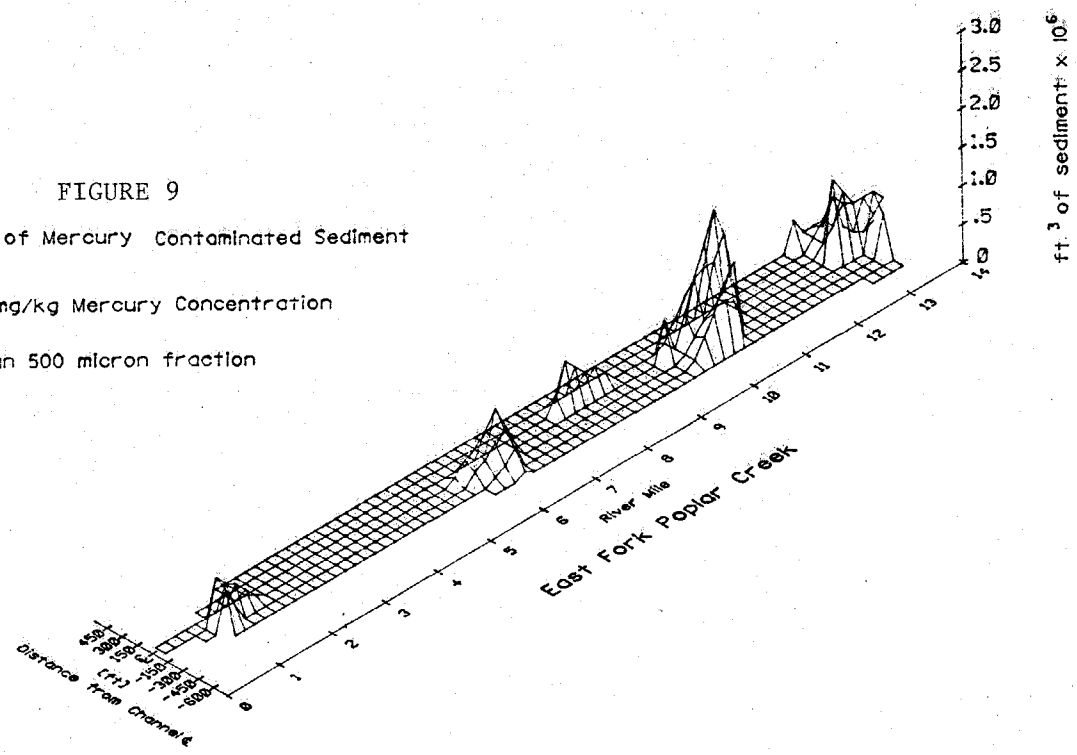


FIGURE 10

Spatial Distribution of Mercury per square foot of Surface Area

for Contaminated Sediment exceeding 5 mg/kg Mercury Concentration

in less than 500 micron fraction

East Fork Poplar Creek

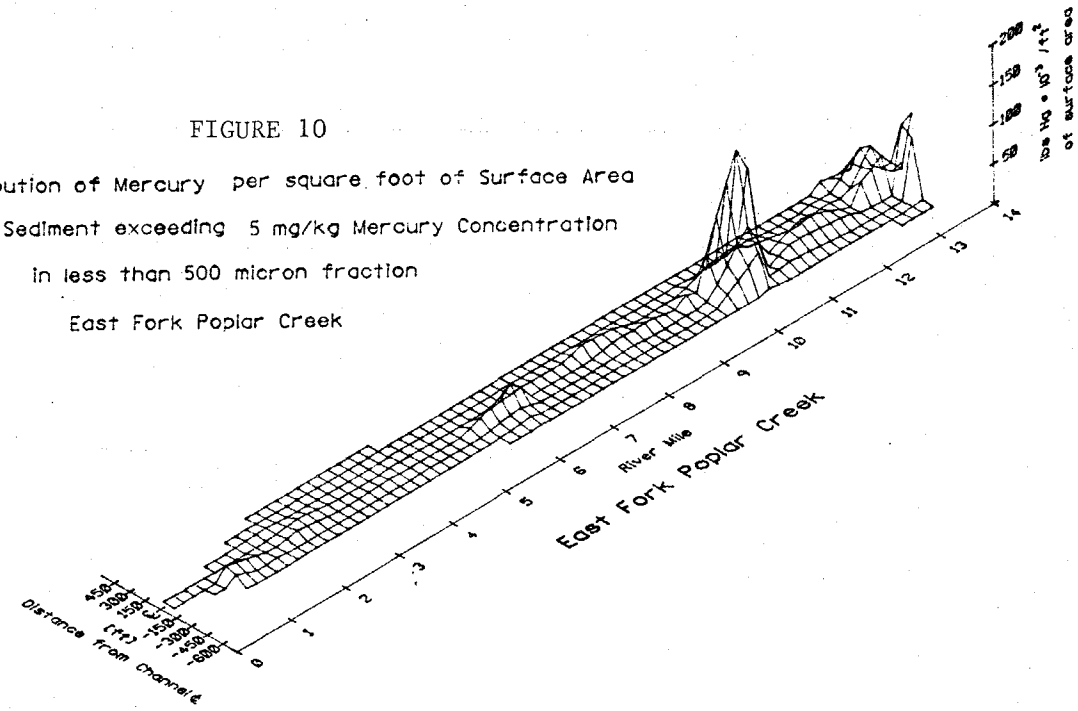


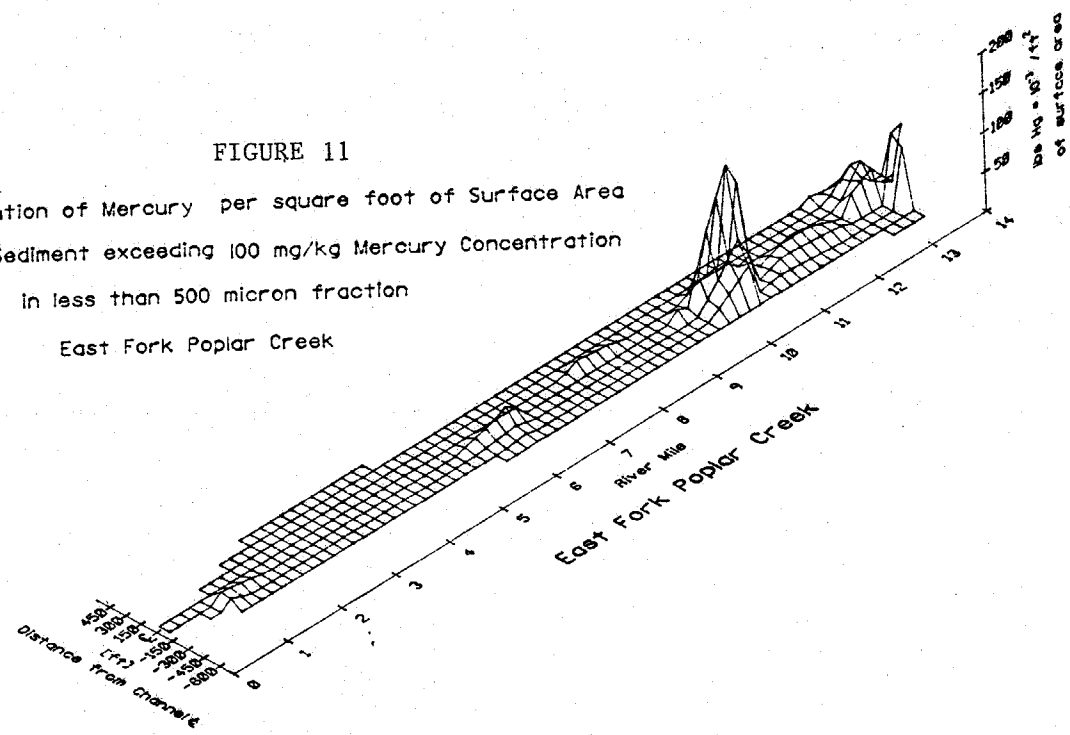
FIGURE 11

Spatial Distribution of Mercury per square foot of Surface Area

for Contaminated Sediment exceeding 100 mg/kg Mercury Concentration

in less than 500 micron fraction

East Fork Poplar Creek



Poplar Creek (2,4). Water samples from six locations* were collected across the storm hydrograph and analyzed for total suspended solids, total mercury, and dissolved mercury. Table 12 summarizes the peak discharges and water quality data obtained at each station. Peak discharges for all three storms were substantially below the 2-year recurrence interval. The water quality data show relatively high sediment concentrations for the storms sampled; most of the mercury appearing in the suspended form; and no obvious spatial trend in total mercury concentrations. Figures 12-15 illustrate transport rating functions for three of the stations sampled, based on the limited range of storm events experienced during the project.

Daily streamflow records were obtained for EFPCM 3.3 from USGS reports (1961 through 1983). Based on these data, the mean daily discharge at EFPCM 3.3 is 51.9 cubic feet per second, with an estimated 19.4 cfs coming from New Hope Pond (EFPCM 14.7) and the Oak Ridge West End Sewage Treatment Plant (EFPCM 8.3). Peak discharges at EFPCM 3.3 are 700, 1,500, 4,100, and 7,800 cfs, respectively, for recurrence intervals of 1, 2, 30, and 500 years. The largest known flood at this station occurred September 29, 1944, and had a peak discharge of 4,600 cfs (approximately 50-year recurrence interval).

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*Samples were also collected from one station on Bear Creek and transport estimates developed. The results are presented in the Tasks 1 and 3 reports, but are not included here because the relative contribution of Bear Creek is small.

Table 12

MAXIMUM AND MINIMUM VALUES OF TSS, THg, AND DHg FOR THE THREE STORM EVENTS SAMPLED[1]
INSTREAM CONTAMINANT STUDY - TASK 5

Parameter	East Fork Poplar Creek M14.36	M10.0	M6.89	M3.3	M0.03	Bear Creek M0.55	Mill Branch M0.2
Storm #1 October 22-23, 1984							
Peak Q (cfs)	220	360	446	310	-	82	19
TSS (mg/L)	120/16	300/40	370/30	440/81	590/62	550/38	30/3
THg (mg/L)	11.0/1.4	7.0/2.9	-	11.0/1.5	-	1.1/0.4	-
DHg (mg/L)	0.3/<.2	0.7/<.2	-	0.3/<.2	-	0.7/<.2	-
Storm #2 November 10-11, 1984							
Peak Q (cfs)	88	224	316	247	-	66	14
TSS (mg/L)	570/25	600/2	300/68	350/18	550/16	130/17	72/5
THg (mg/L)	26.0/2.1	24.0/5.2	-	12.0/0.9	-	0.5/0.2	-
DHg (mg/L)	0.4/<.2	0.2/<.2	-	0.9/<.2	-	<.2/<.2	-
Storm #3 April 5-6, 1985							
Peak Q (cfs)	78	237	335	246	-	62	25
TSS (mg/L)	210/33	490/40	890/40	770/140	580/66	1000/64	47/<1
THg (mg/L)	11.0/2.5	44.0/3.4	-	16.0/3.7	19/2.3	1.6/0.2	-
DHg (mg/L)	<.2/<.2	<.2/<.2	-	<.2/<.2	<.2/<.2	<.2/<.2	-

[1]Dash indicates data not collected.

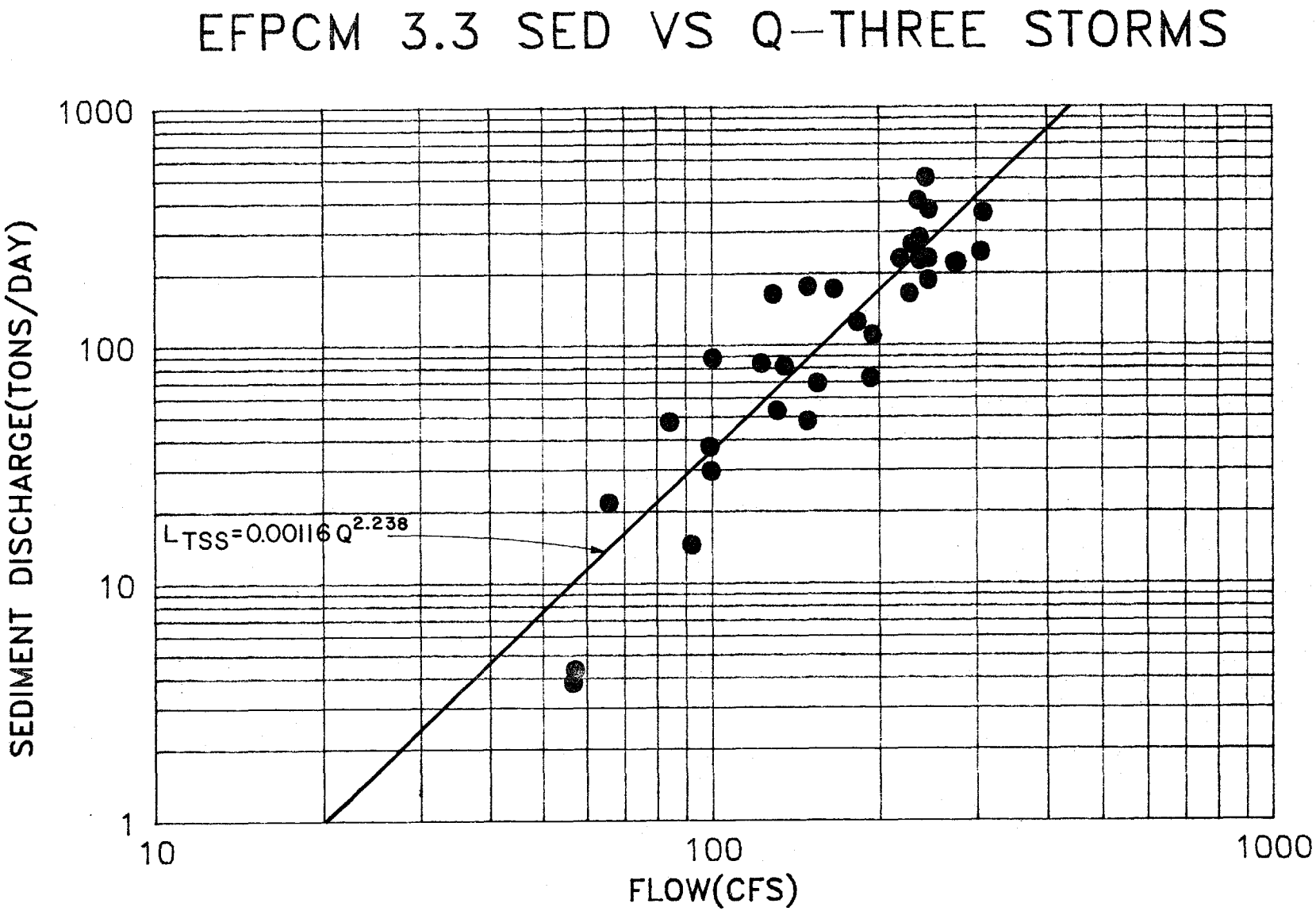


FIGURE 12. TOTAL SUSPENDED SOLIDS VS. DISCHARGE, EFPCM 3.3

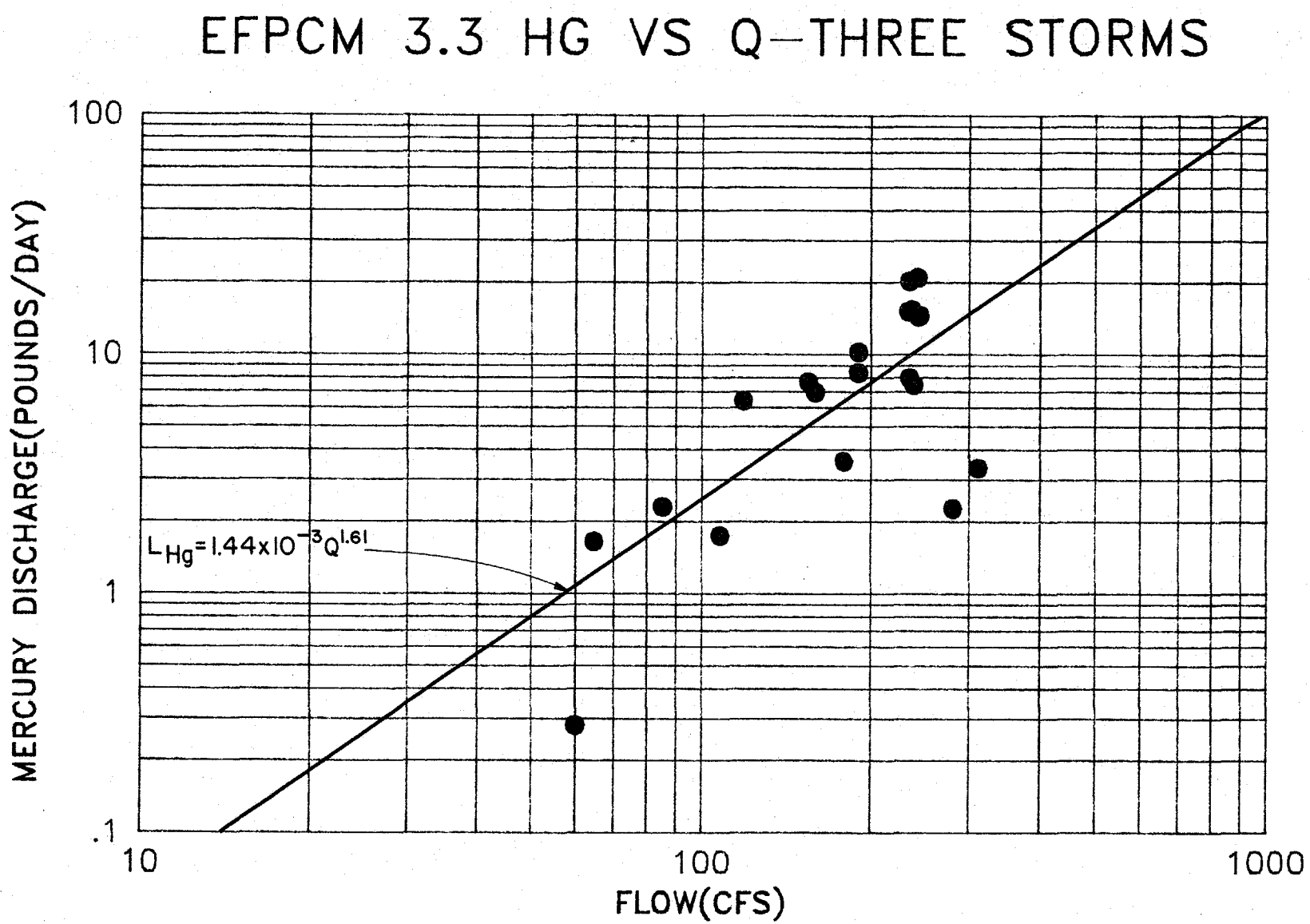


FIGURE 13. TOTAL MERCURY VS. DISCHARGE, EFPCM 3.3

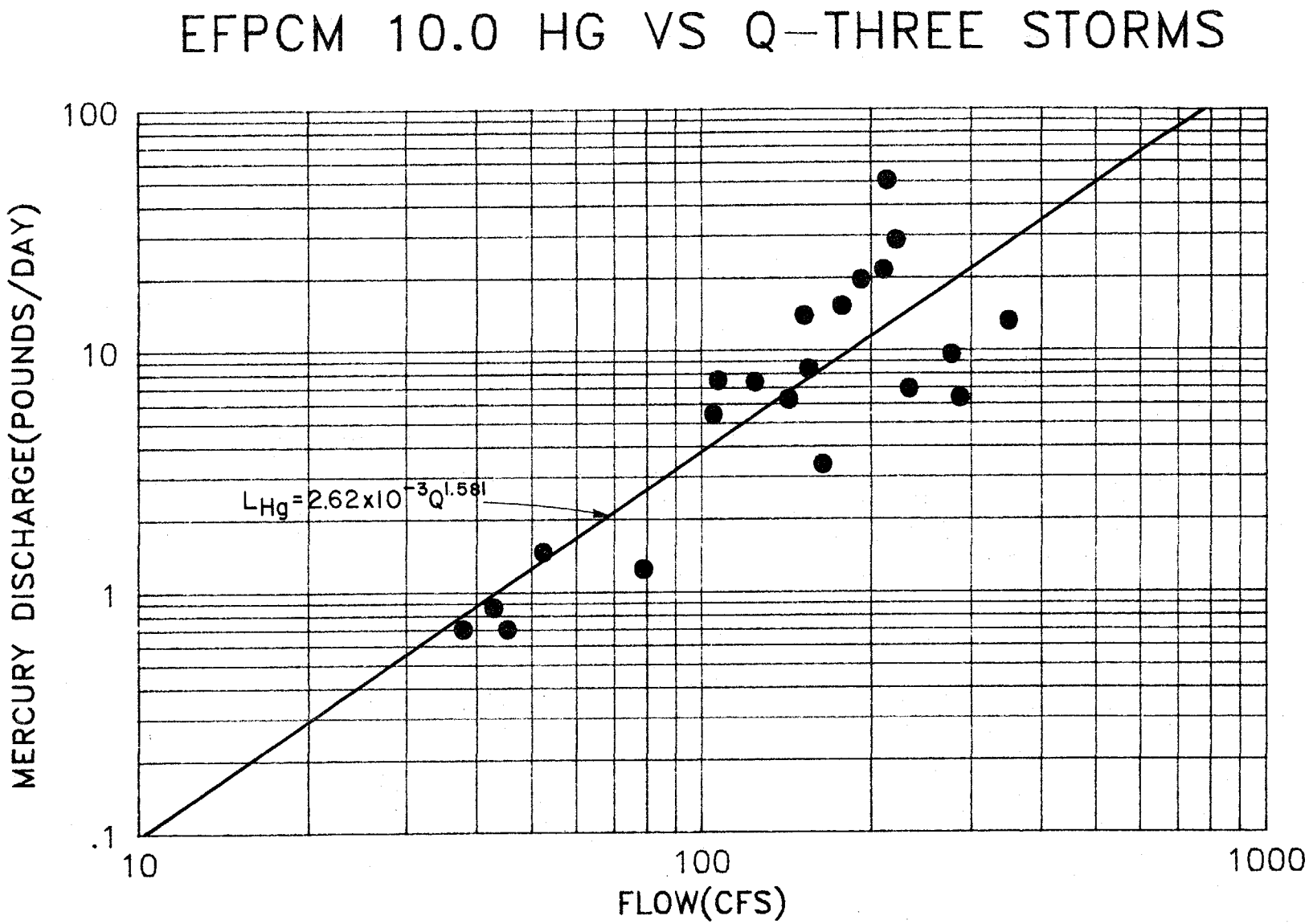


FIGURE 14. TOTAL MERCURY VS. DISCHARGE, EFPCM 10.0

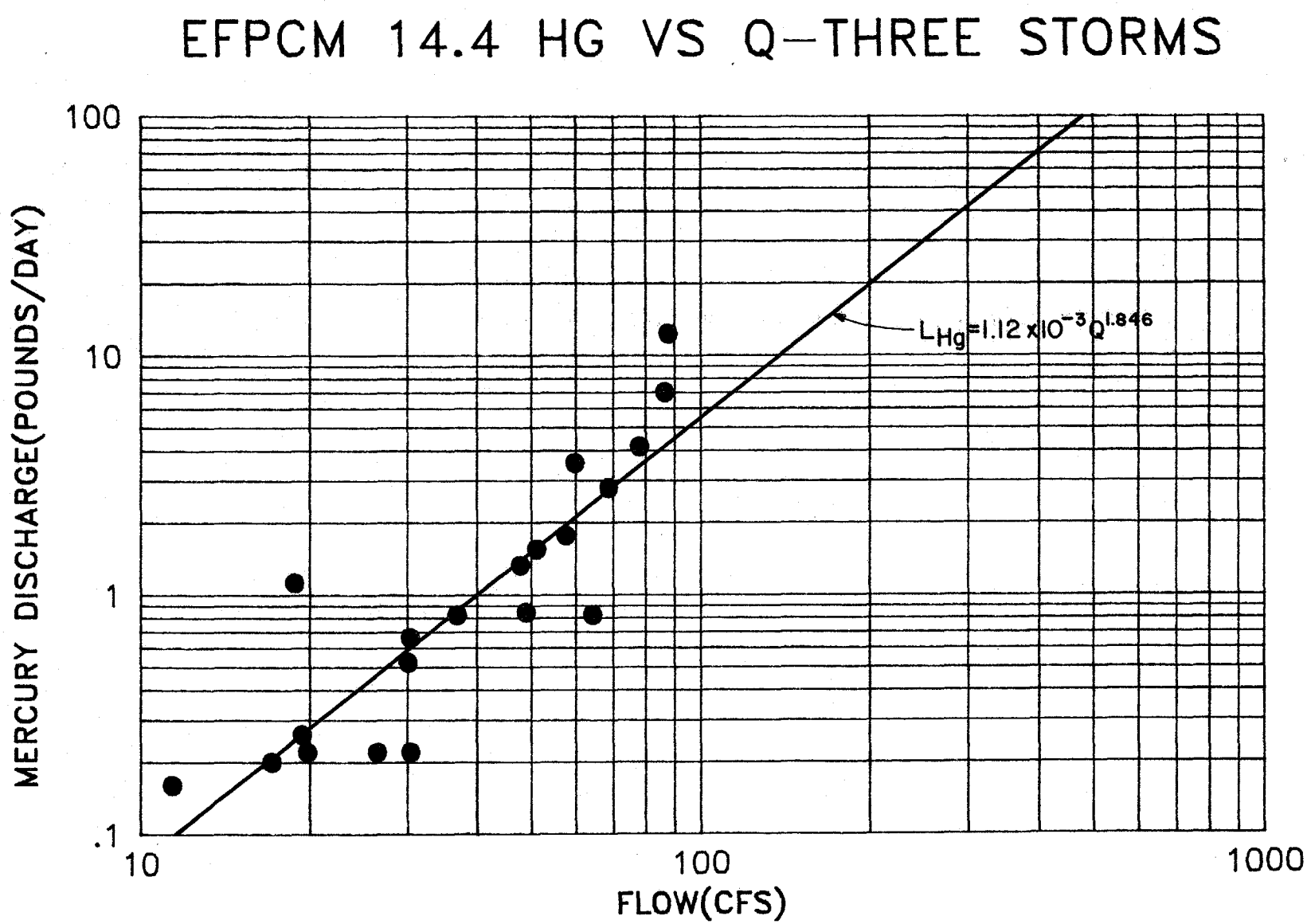


FIGURE 15. TOTAL MERCURY VS. DISCHARGE, EFPCM 14.4

Combining streamflow frequencies and transport rating functions indicates that approximately 17,400 tons (366,000 cubic feet) of sediment and 500 pounds of mercury are exported annually from East Fork Poplar Creek (see Task 3 report). An estimated 75 pounds of the exported mercury come from New Hope Pond, primarily during storm events. Analysis of mercury loads between stations shows that 20 to 40 percent of the total at EFPCM 3.3 enters the stream above EFPCM 14.36; and that the remaining load is contributed primarily by the reach between EFPCM 10.0 and 14.36. This is consistent with the above results showing that most of the contaminated sediment and mercury is upstream of EFPCM 9.45.

The mean mercury concentration of the transported sediment was approximately ten percent of the mean concentration of the contaminated sediment in the floodplain. This suggests that only a small portion of the transported sediment is from the contaminated area. This might be expected since the contaminated area covers only about four percent of the 19.5 square mile watershed upstream of EFPCM 3.3.

The scour and deposition potential along East Fork Poplar Creek was examined using the U.S. Army Corps of Engineers HEC-2N model (16). The model predicted elevations, flows, and velocities for floods with a 2, 10, 50, 100, and 500 year recurrence interval. Table 13 gives the results for the largest flood since 1950 (approximately 30 year recurrence interval). Figure 16 illustrates flood elevations and velocities obtained for the stream transect at EFPCM 10.05.

Table 13

FLOODPLAIN AND CHANNEL VELOCITIES
FOR THE MAXIMUM FLOOD SINCE 1950
EAST FORK POPLAR CREEK
INSTREAM CONTAMINANT STUDY - TASK 5

Mile	Left Bank Ft/Sec	Channel Ft/Sec	Right Bank Ft/Sec	Water Surface Elevation
14.36	0.00	6.28	0.00	894.08
14.02	1.58	5.24	1.72	880.27
13.74	0.64	3.93	1.40	868.65
13.71	0.58	2.76	1.02	868.65
13.66	0.58	2.76	1.02	866.13
13.55	0.41	3.45	0.88	863.70
13.00	0.89	4.07	1.91	855.84
12.89	0.00	5.15	0.00	852.90
12.06	0.00	5.15	1.38	844.96
11.30	1.06	4.79	1.54	840.60
10.90	2.01	4.42	2.36	837.76
10.05	0.79	1.98	0.87	830.73
10.00	0.79	1.98	1.62	830.61
9.74	1.54	3.88	1.42	823.79
9.21	1.87	3.21	0.78	819.50
8.70	1.19	2.27	0.96	814.51
8.12	0.71	4.97	1.44	810.38
7.95	1.11	5.52	1.47	809.07
7.05	1.28	2.59	1.20	797.44
6.72	1.28	2.49	0.72	793.31
5.74	1.78	5.61	1.84	786.47
4.92	1.23	2.69	1.27	780.38
4.52	1.74	5.74	1.00	776.63
4.50	1.74	5.74	1.00	776.51
3.50	1.11	5.91	1.09	769.68
2.85	1.82	7.69	1.60	763.44
2.36	0.34	3.03	1.06	758.47
1.35	1.01	2.90	0.86	756.47
1.20	0.66	2.98	0.88	755.57
0.23	0.76	3.31	1.17	754.35

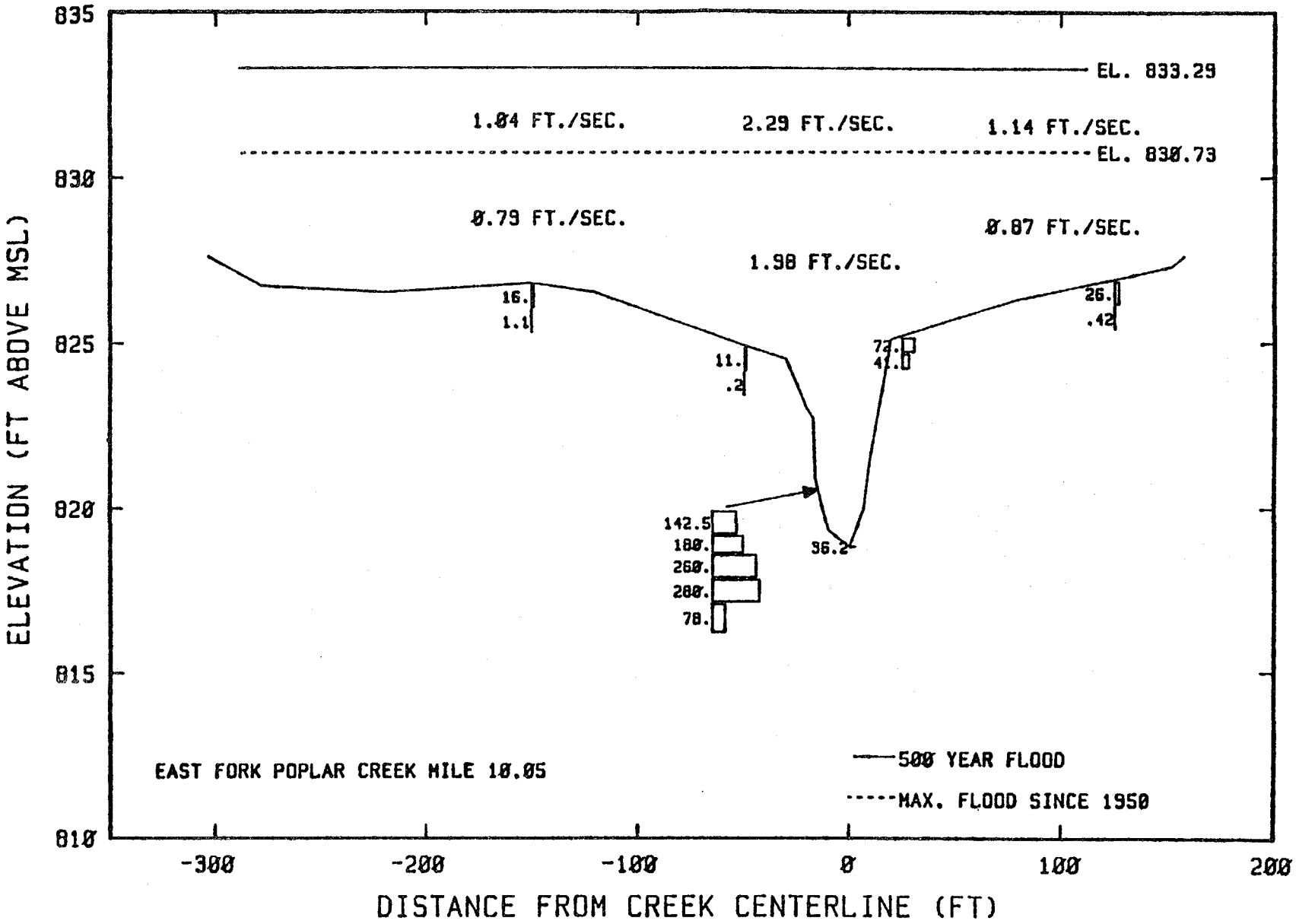


FIGURE 16. FLOOD ELEVATIONS, VELOCITIES, AND MERCURY CONCENTRATIONS, EFPCM 10.05

Low velocities in overbank areas, even during larger floods, and the dense mature vegetation on the floodplain indicates that the floodplain is relatively stable, and more subject to deposition than scour. In contrast, flood velocities in the channel are sufficient in many places to scour and transport bottom and bank sediments. Thus, any significant disturbance of the floodplain without proper erosion controls is likely to increase sediment yields and transport rates.

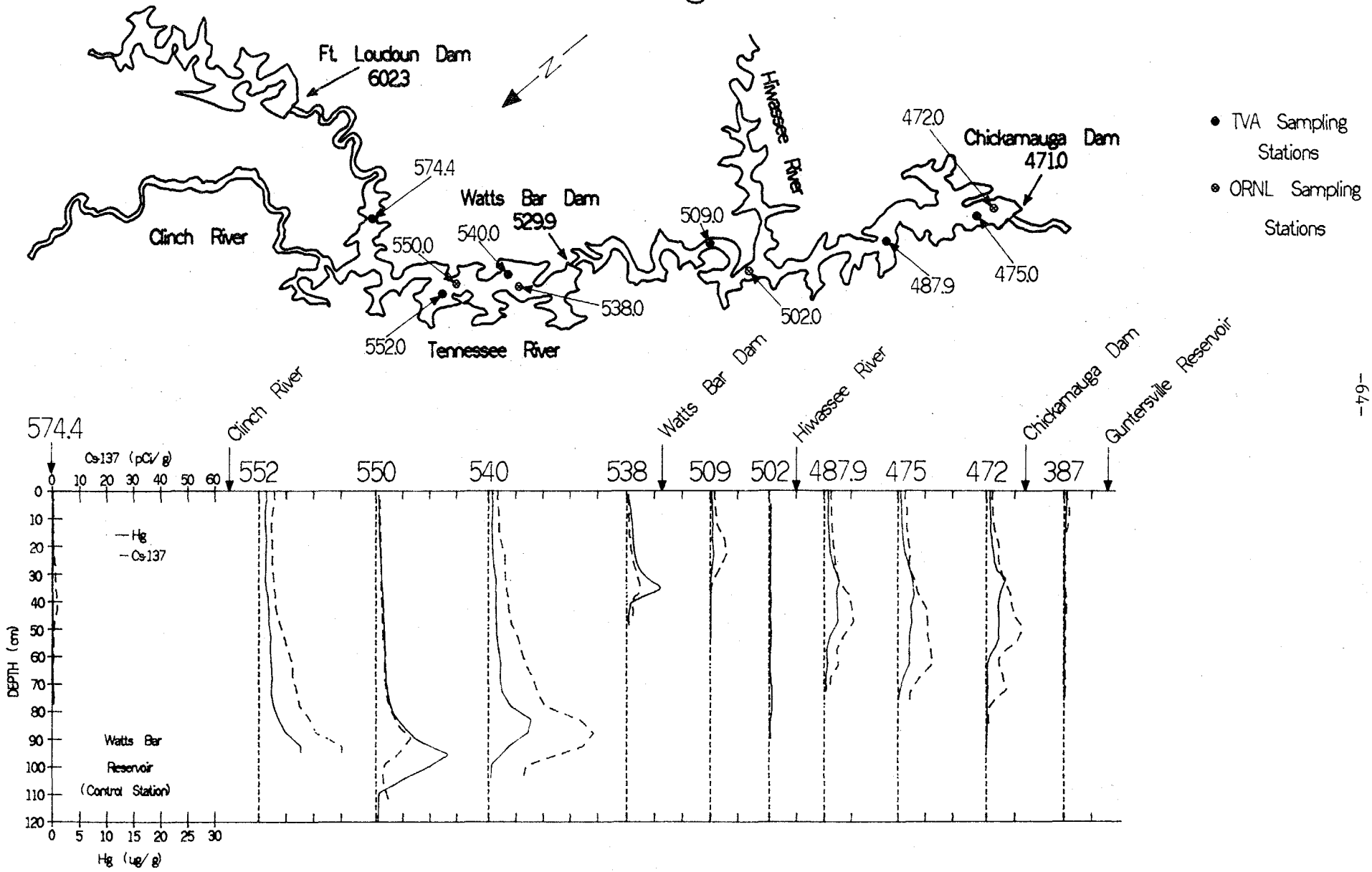
These sediments could eventually be transported to the Tennessee River. TVA and ORNL core sediment data from the Tennessee River (Figure 17) suggest that this has been the fate of at least some of the previously released mercury from the Y-12 plant (3,9).

4.3 SUMMARY

Estimates of the quantity and distribution of mercury in the channel and floodplain of East Fork Poplar Creek are based on 394 sediment samples taken from 130 locations. The data indicate that approximately 16 million cubic feet (760,000 tons) of contaminated sediment and 170,000 pounds of mercury are contained in the channel and floodplain. About 75 percent of the mercury (by weight) is located in the upper third of the stream above EFPCM 9.45. An estimated 40 to 50 percent is between EFPCM 10.15 and EFPCM 11.50. Approximately 80 percent of the mercury is contained in 25 percent of the contaminated sediment with a mercury concentration exceeding 100 mg/kg.

FIGURE 17

Tennessee River Sediment Hg and Cs^{137} Data



Analysis of data from three storms and historic streamflow records indicates that approximately 17,400 tons (366,000 cubic feet) of sediment and 500 pounds of mercury are exported annually from East Fork Poplar Creek. An estimated 75 pounds of the annual mercury export come from New Hope Pond. Thus, the net contribution of the watershed below New Hope Pond is approximately 425 pounds per year. A comparison of the mercury loads between sampling stations indicates that most of this net export is contributed by the highly contaminated area between EFPCM 10.0 and EFPCM 14.36 (i.e., no increase in mercury load was observed below EFPCM 10.0).

Assuming a continuous net export rate of 425 pounds per year, some 400 years would be required to deplete the estimated 170,000 pounds of mercury in the channel and floodplain of East Fork Poplar Creek. Not all of the contaminated sediment is readily susceptible to erosion, however. The relative stability of the floodplain is apparent from field observations and computer simulations of floods with a 1, 2, 30, and 500 year recurrence interval. Simulated velocities for extreme floods are sufficient to cause some bank erosion and to allow channel transport, but floodplain velocities are not sufficient to cause significant scour and transport.

These results provide an estimate of mercury quantities, distribution, and transport. The sampling program and data analyses were designed to

provide estimates for initial decisions regarding possible remedial actions. The data are not sufficient for evaluating site specific alternatives in detail. In this context, it is obvious that the floodplain of East Fork Poplar Creek contains substantial quantities of mercury. Under natural conditions, this mercury will remain in the floodplain for many years, serving as a continual source of mercury to downstream waters. Improper disturbances of the floodplain could substantially increase erosion and the downstream transport of mercury.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The following observations and recommendations are based primarily on data collected during the Instream Contaminant Study. Many of the recommended actions have been initiated, based on previously released data (e.g., reports for Tasks 1 through 4) and other Task Force activities. Several of the recommendations go beyond the data collected during this study and reflect interim actions prior to a complete understanding of long-term effects.

5.1 MERCURY CONTAMINATION

5.1.1 OBSERVATIONS

1. Mean total mercury concentrations in the flesh of largemouth bass, redbreast sunfish, rock bass, and frogs from East Fork Poplar Creek equaled or exceeded 1.0 ppm. Concentrations in

individual fish, frogs, and crayfish equaled or exceeded this level for a total of 11 species taken from East Fork Poplar Creek, Poplar Creek, and the Clinch River (maximum concentration of 3.3 ppm). The Food and Drug Administration action level for mercury in fish is 1.0 ppm methyl mercury.*

2. The floodplain and channel of East Fork Poplar Creek contains an estimated 16 million cubic feet of contaminated sediment exceeding a mercury concentration of 5.0 ppm. Normal background levels are less than 0.5 ppm. An estimated 170,000 pounds of mercury are contained in the contaminated sediment, covering an area of approximately 450 acres. Approximately 75 percent of the mercury is in the upper third of the stream (i.e., upstream of EFPCM 9.45). The maximum observed concentration was 1800 ppm and the maximum depth of contamination was 3.5 feet.

3. An estimated 500 pounds of mercury per year is leaving the East Fork Poplar Creek watershed with approximately

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*All aquatic biota samples were analyzed for total mercury rather than methyl mercury. The FDA action level of 1.0 mg/kg was changed from total to methyl mercury on November 19, 1984, after these analyses were completed. In making this change the FDA stated that "in most fish, almost all the mercury present is in the form of the methyl compound" (12).

75 pounds per year being discharged directly from New Hope Pond. Under natural conditions, the watershed will be a continuing source of substantial quantities of mercury for hundreds of years. Land disturbances within the floodplain could increase this annual export rate.

4. Total mercury concentrations in water samples from East Fork Poplar Creek exceeded both the Tennessee source standard (0.2 ppb) and the EPA drinking water standard (2.0 ppb), during both baseflow (2.5 ppb maximum value) and stormflow (44 ppb maximum value) conditions.

5. Elevated concentrations of total mercury were also observed in the sediments of Bear Creek, White Oak Creek, Poplar Creek, the Clinch River, and the Tennessee River (maximum values of 6 to 44 ppm).

5.1.2 RECOMMENDED ACTIONS

1. Mercury concentrations in fish justify closing of East Fork Poplar Creek to the taking of fish and the posting of warning signs to alert the public of potential health risks.

2. Determine sources, monitor releases, and eliminate (or reduce to permitted levels) mercury discharges from New Hope Pond.

3. Define chemical forms and transformation rates of mercury in the floodplain and channel of East Fork Poplar Creek. Determine the level and source of methyl mercury in fish and other aquatic animals and define the relationship between methyl mercury and total mercury.

4. Review and adopt interim action levels for total mercury concentrations in surface soils and erosion prone areas. Previous assessments have suggested interim action levels for soil ranging from 12 to 500 ppm. The Oak Ridge Task Force should develop a comprehensive interim action plan which identifies appropriate interim levels and corresponding actions.

5. As part of the interim action plan, post areas exceeding the interim action level(s), restrict access and use, and avoid land disturbing activities that will increase erosion and mercury transport.

6. Spatially map mercury concentrations (horizontally and vertically) in those areas suspected of exceeding the interim action level(s), at sufficient detail for remedial action evaluation and implementation. Include sampling and analyses to define the co-occurrence of other elements and compounds that may be affected by (or influence the selection of) remedial actions (see Tables 5 and 7).

7. Define the contaminated areas of the floodplain and channel of East Fork Poplar Creek with the greatest potential for erosion and disturbance, and implement interim measures for stabilizing these areas. Aerial photography, additional cross sectional profiles, sampling of extreme rainfall and runoff events, and field surveys of soil characteristics, vegetation, and other erosion factors should be considered in defining and controlling the critical areas.

8. Establish an allowable mercury export rate for the East Fork Poplar Creek watershed.

9. Initiate evaluation of remedial action alternatives for dealing with mercury contaminated sediments along East Fork Poplar Creek. Potential alternatives which should be evaluated include natural restoration, in situ containment, in situ treatment and/or fixation, stream channel stabilization and/or relocation, physical removal and disposal, use restrictions, and a combination of these measures. The evaluation should include an assessment of potential interactions among or effects to other elements and compounds contained in the mercury contaminated sediment.

10. Initiate a monitoring program to determine the success of remedial actions, including erosion of contaminated areas, sediment transport, mercury export rates, changes in aquatic populations, and methyl mercury concentrations in fish and other aquatic animals.

5.2 PCB CONTAMINATION

5.2.1 OBSERVATIONS

1. Mean total PCB concentrations in the flesh of carp from East Fork Poplar Creek and catfish from White Oak Creek exceeded the Food and Drug Administration action level of 2.0 ppm. Individual fish from Poplar Creek and the Clinch River also exceeded this level.

2. Mean total PCB concentrations in sediment from East Fork Poplar Creek, Bear Creek, and Poplar Creek exceeded the detection limit of 0.1 ppm. Maximum values were 6.0, 1.4, and 2.8 ppm, respectively.

5.2.2 RECOMMENDED ACTIONS

1. PCB concentrations in fish from East Fork Poplar Creek and White Oak Creek warrant closing the streams to the taking of fish and the posting of warning signs to alert the public of potential health risks.

2. Determine sources, monitor releases, and eliminate discharges of PCBs to East Fork Poplar Creek, Bear Creek, and White Oak Creek.

3. Collect sufficient fish and sediment samples to define the extent and potential sources of PCB contamination.

4. After defining the extent and sources of PCB contamination, initiate an evaluation of remedial action alternatives and a monitoring program to determine post-mitigation success.

5.3 OTHER POTENTIAL CONTAMINANTS

5.3.1 OBSERVATIONS

1. Thirty-nine of the 217 parameters sampled (i.e., elements, compounds, or water quality characteristics) exceeded background concentrations, established criteria or standards, and/or analytical detection limits.

2. Eight of the 39 parameters were found at elevated levels in more than one medium (i.e., water, sediment, and aquatic biota).

3. All streams sampled contained more than one of the 39 parameters at an elevated level (i.e., East Fork Poplar Creek - 23 parameters; Bear Creek - 18 parameters; Poplar Creek - 9 parameters; White Oak Creek - 19 parameters; Clinch River - 15 parameters; and Tennessee River - 5 parameters). The presence of many of these parameters were significantly correlated (Tables 5 and 7). Little is known, however, about the synergistic effect of these contaminants or their varying response to alternative remedial actions.

4. In addition to the 39 parameters at elevated concentrations, 99 other elements and compounds were identified with uncertainty or observed at concentrations which could not be analytically quantified.

5.3.2 RECOMMENDED ACTIONS

1. Identify past and present sources of the 39 potential contaminants, monitor current releases, and eliminate discharges (or reduce to permitted levels).

2. Assess the significance of each of the 39 potential contaminants to public health and the environment, including potential synergistic effects of co-occurring elements and compounds (Tables 5 and 7).

3. For those contaminants with a public health and/or environmental significance, define the spatial distribution of contaminated sediment and aquatic biota, determine whether there are significant nonpoint source of continuing releases, and if so, evaluate and implement remedial actions. Include potential interactions among or effects to other elements and compounds in evaluating remedial actions.

4. Assess the public health and environmental significance of the contaminants that were identified with uncertainty or identified but not quantified. For those of significance, identify the sources, define the environmental spatial distribution, and evaluate and implement remedial actions.

5. Conduct monitoring programs to determine the post-mitigation success of any remedial actions implemented.

5.4 ADDITIONAL NEEDS

5.4.1 OBSERVATIONS

1. Limited groundwater data is available for the East Fork Poplar Creek watershed. Proper evaluation of remedial actions requires an assessment of groundwater quality and the interactions between contaminated soils, groundwater, and surface water.

2. Limited information is available on the synergistic effect of multiple contaminants. Reducing individual contaminants to a specified level may not fully protect public health and the environment.

3. Numerous radiological contaminants occur in the project area at concentrations substantially above background levels. Although extensive studies have been conducted, the overall situation is not summarized in a comprehensive and readily understandable manner (i.e., quantities released, ambient concentrations, potential risks, synergistic and long-term effects, needed remedial actions, and the status of current efforts).

4. Extensive data are being obtained for the project area by many agencies for a variety of purposes. These data are needed by many to address various concerns. Although the data are generally available, they are not accessible from a single source in a convenient format.

5.4.2 RECOMMENDED ACTIONS

1. Initiate a comprehensive groundwater quantity and quality assessment of East Fork Poplar Creek--to define current conditions and potential problems.

2. Initiate a routine aquatic sampling program--to determine the short-term and long-term toxicity of area waters to aquatic biota, to detect chemical and biological changes in time and space, and to document post-mitigation success.

3. Prepare a summary report identifying past and present quantities of radionuclides released to the environment, the resulting ambient concentrations, potential health risks and environmental significance, the need for remedial actions and cleanup, and the status of ongoing efforts to address these needs.

4. Develop a comprehensive, readily accessible, data base for the project area.

REFERENCES

1. Technical Workplan - Instream Contaminant Study, prepared for Department of Energy, Oak Ridge Operations, by the Tennessee Valley Authority, Office of Natural Resources and Economic Development, February 10, 1984.

2. Instream Contaminant Study - Task 1, Water Sampling and Analysis, Tennessee Valley Authority, Office of Natural Resources and Economic Development, April 1985.

3. Instream Contaminant Study - Task 2, Sediment Characterization (Volumes I and II), Tennessee Valley Authority, Office of Natural Resources and Economic Development, April 1985.

4. Instream Contaminant Study - Task 3, Sediment Transport, Tennessee Valley Authority, Office of Natural Resources and Economic Development, August 1985.

5. Instream Contaminant Study - Task 4, Fish Sampling and Analysis, Tennessee Valley Authority, Office of Natural Resources and Economic Development, April 1985.

6. Preliminary Screening of Contaminants in Sediments, Oak Ridge National Laboratory, Environmental Sciences Division, Publication No. 2400, Report No. ORNL/TM-9370, October 1984.

7. Water-Quality Data for 34 Sites, April and June 1984, Near the Y-12 Plant, the Oak Ridge Reservation, Tennessee; U.S. Geological Survey; Open-File Report 85-165; 1985.

8. Preliminary Surface Flow, Water Level and Environmental Sampling Data Obtained from Bear Creek Valley Watershed Area; Oak Ridge Y-12 Plant; Report No. Y/TS-77 Part 2; March 22, 1985.

9. Mercury at the Y-12 Plant - A Summary of the 1983 UCC-ND Task Force Study; Oak Ridge Y-12 Plant; Report No. Y/EX-23; November 1983.

10. Remedial Alternatives for the Bear Creek Valley Waste Disposal Area; Martin Marietta Energy Systems Inc.; Report No. Y/SUB/85-00206C/3; June 1985.

11. Characterization and Remedial Alternatives for Sediments in Upper Bear Creek; Oak Ridge Y-12 Plant; Report No. Y/TS-56; December 1984.

12. Action Level for Methyl Mercury in Fish; Availability of Compliance Policy Guide, Federal Register Vol. 49, No. 224, p. 45663, November 19, 1984.

13. Environmental Monitoring Report, U.S. Department of Energy, Oak Ridge Facilities, Calendar Year 1984; ORNL-6209; August 1985.

14. Van Winkle, W., R. W. Counts, J. G. Dorsey, J. W. Elwood, V. W. Lowe, Jr., R. McElhaney, S. D. Schlotzhauer, F. G. Taylor, Jr., and R. R. Turner; Mercury Contamination in East Fork Poplar Creek and Bear Creek; Oak Ridge National Laboratory; Report No. ORNL/CF-82-257; 1982.

15. Interim Actions Study of Mercury Contamination, City of Oak Ridge, Environmental Quality Advisory Board, December 19, 1983.

16. HEC-2N, Water Surface Profiles, Generalized Computer Program, U.S. Army Corps of Engineers, Hydrologic Engineering Center, Davis, California, November 1976, updated August 1977.

APPENDIX I

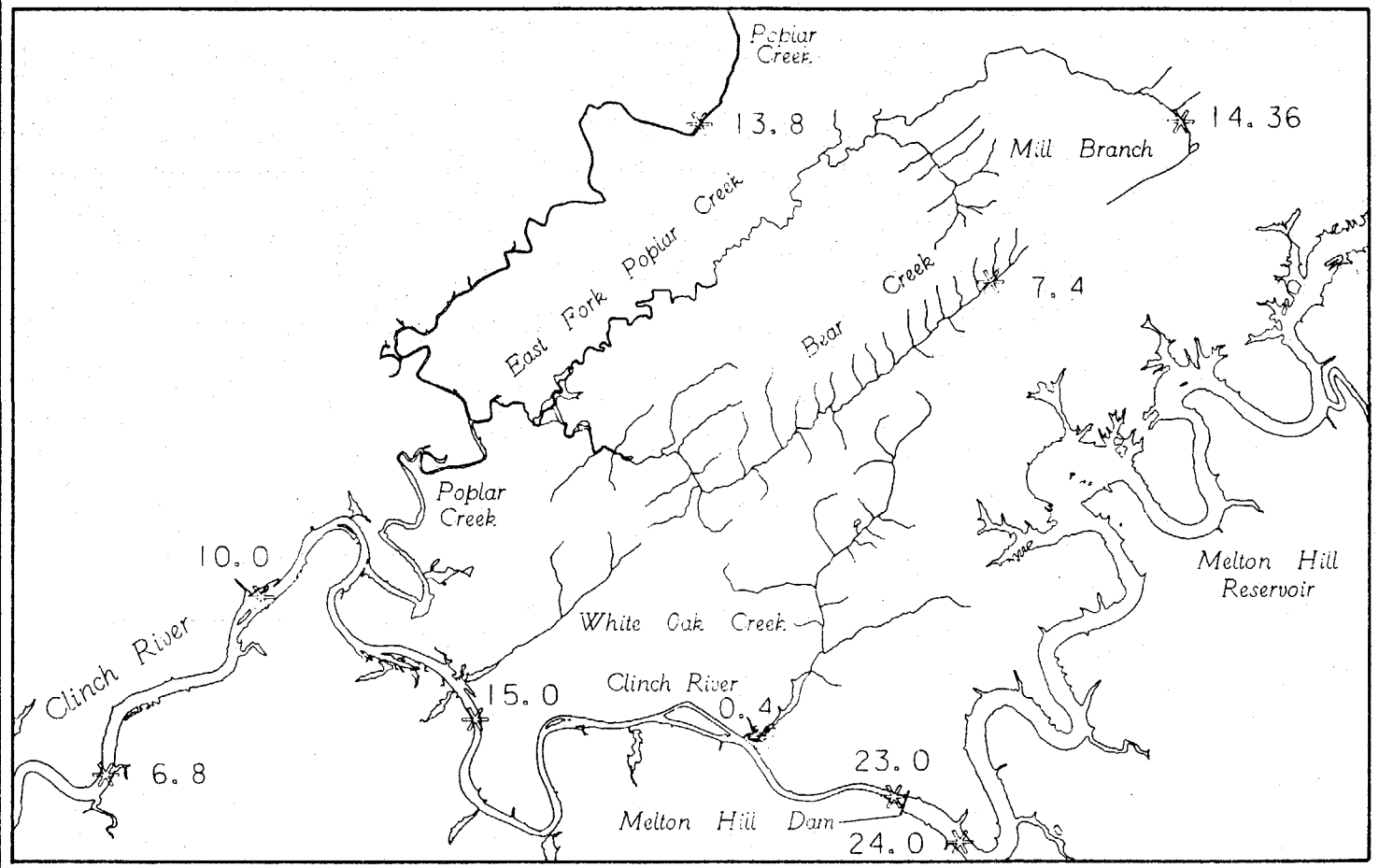
SAMPLING LOCATIONS

INSTREAM CONTAMINANT STUDY - TASK 5

Table I-1

RIVER MILE OF KEY FEATURES
INSTREAM CONTAMINANT STUDY - TASK 5

Stream	Mile	Description
East Fork Poplar Creek	14.7	New Hope Pond effluent
	14.1	Creek leaves DOE reservation
	9.7	Confluence of Mill Branch
	8.3	West End Sewage Treatment Plant effluent
	4.8	Creek enters DOE reservation
	3.3	USGS gaging station
	1.5	Confluence of Bear Creek
Bear Creek	2.8	Weir
	8.0	Adjacent to S-3 Pond
Poplar Creek	5.4	Confluence of East Fork Poplar Creek
White Oak Creek	0.6	White Oak Lake outflow weir
Clinch River	88.8	Confluence of Powell River
	79.8	Norris Dam
	23.1	Melton Hill Dam
	20.8	Confluence of White Oak Creek
	12.0	Confluence of Poplar Creek
	4.4	Confluence of Emory River
Tennessee River	602.3	Fort Loudoun Dam
	567.8	Confluence of Clinch River
	529.9	Watts Bar Dam
	499.3	Confluence of Hiwassee River
	471.0	Chickamauga Dam
	424.7	Nickajack Dam
	349.0	Guntersville Dam



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Prepared by:
TVA-Geographic Information Services
Norris, TN 37828

FIGURE I-1

INSTREAM CONTAMINANT STUDY - TASK 1

BASEFLOW SURVEY - SAMPLING LOCATIONS

10 000 0 10 000 20 000 FEET
2 0 2 4 6 KILOMETERS

N

LEGEND:
BASEFLOW SAMPLES

FEBRUARY, 1985

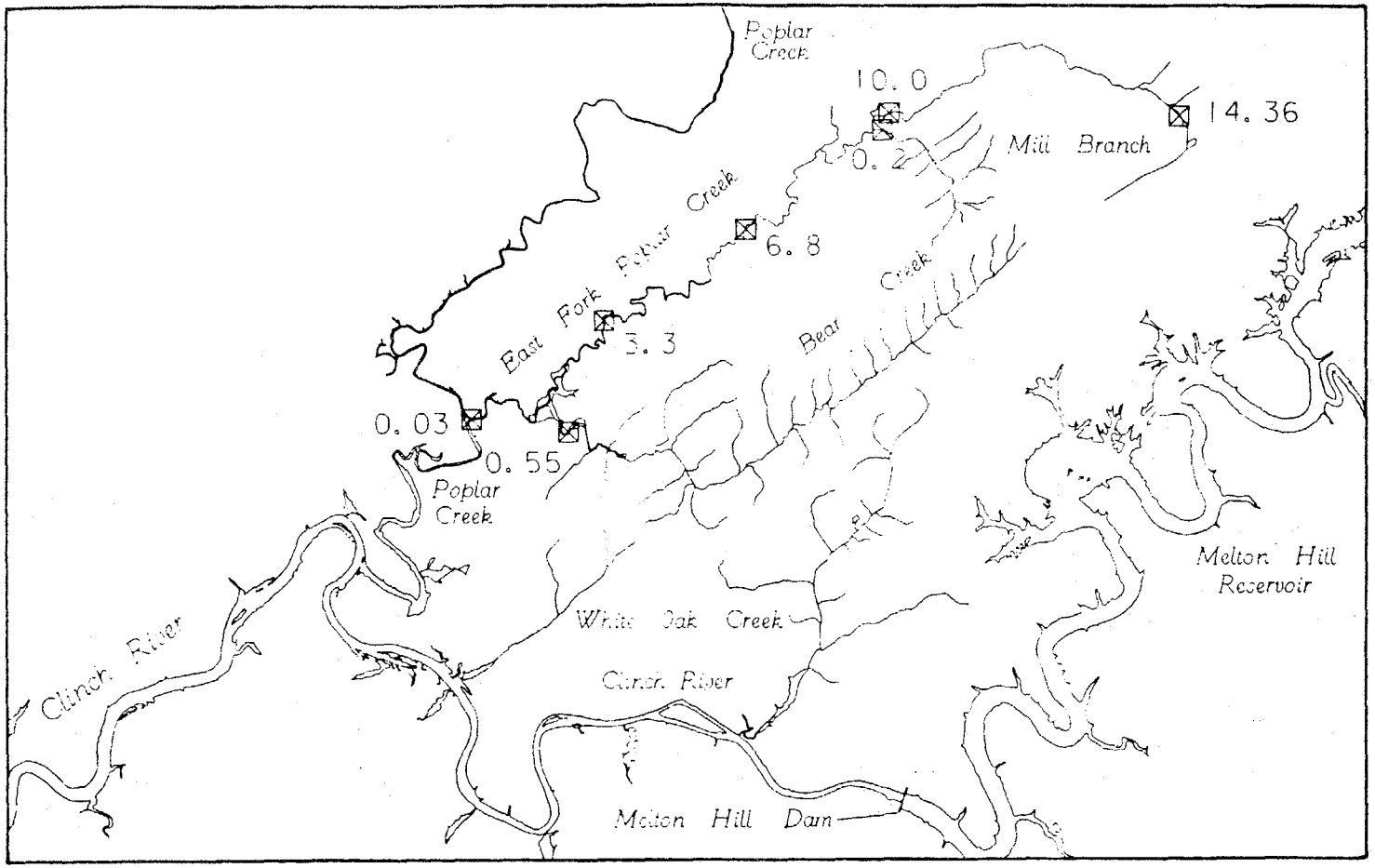

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FIGURE I-2

INSTREAM CONTAMINANT STUDY - TASK 1

STORMFLOW SURVEYS - SAMPLING LOCATIONS

10 000 0 10 000 20 000 FEET
2 0 2 4 6 KILOMETERS

N

LEGEND:
STORMFLOW SAMPLES

FEBRUARY, 1985

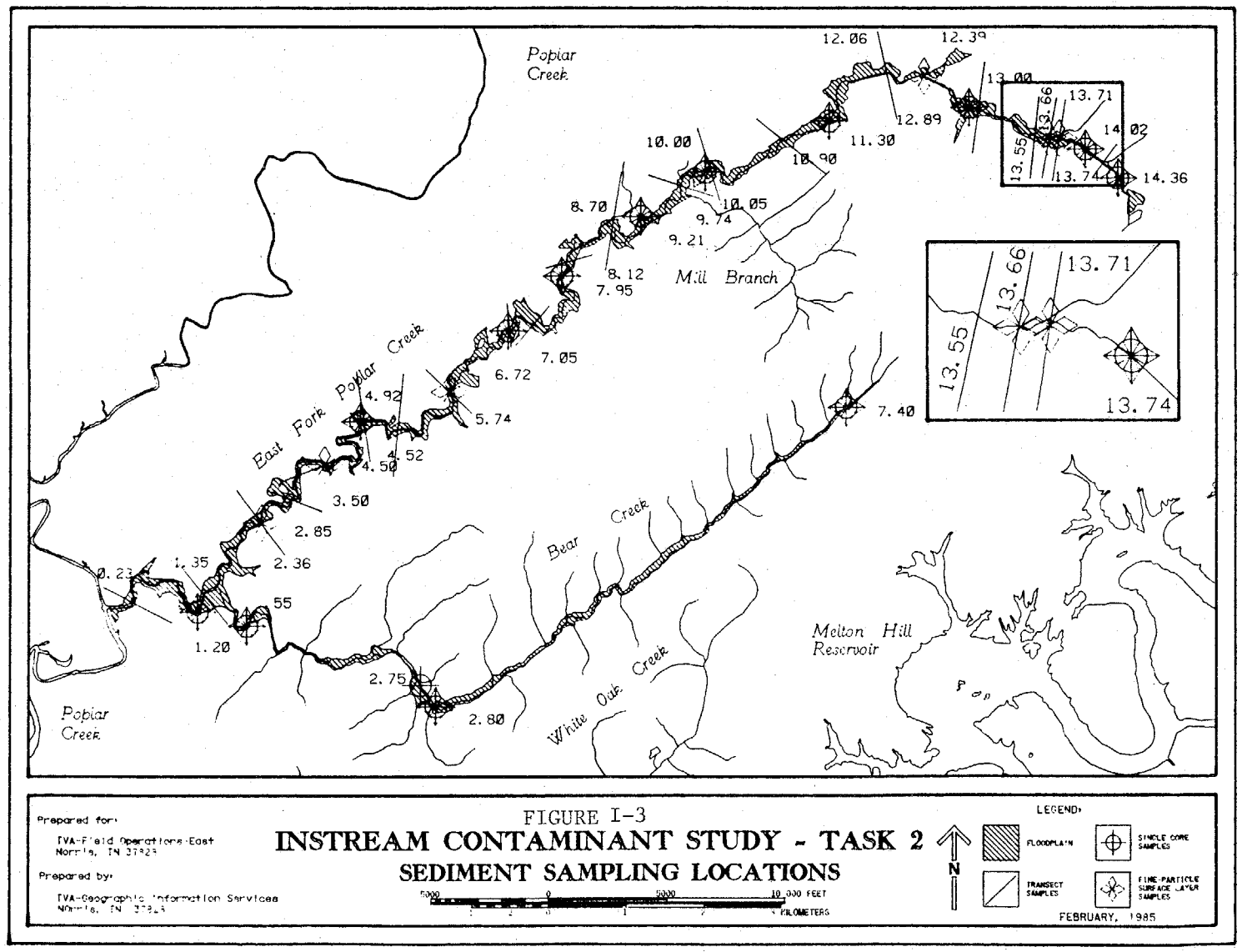

FIGURE I-3

INSTREAM CONTAMINANT STUDY - TASK 2

SEDIMENT SAMPLING LOCATIONS

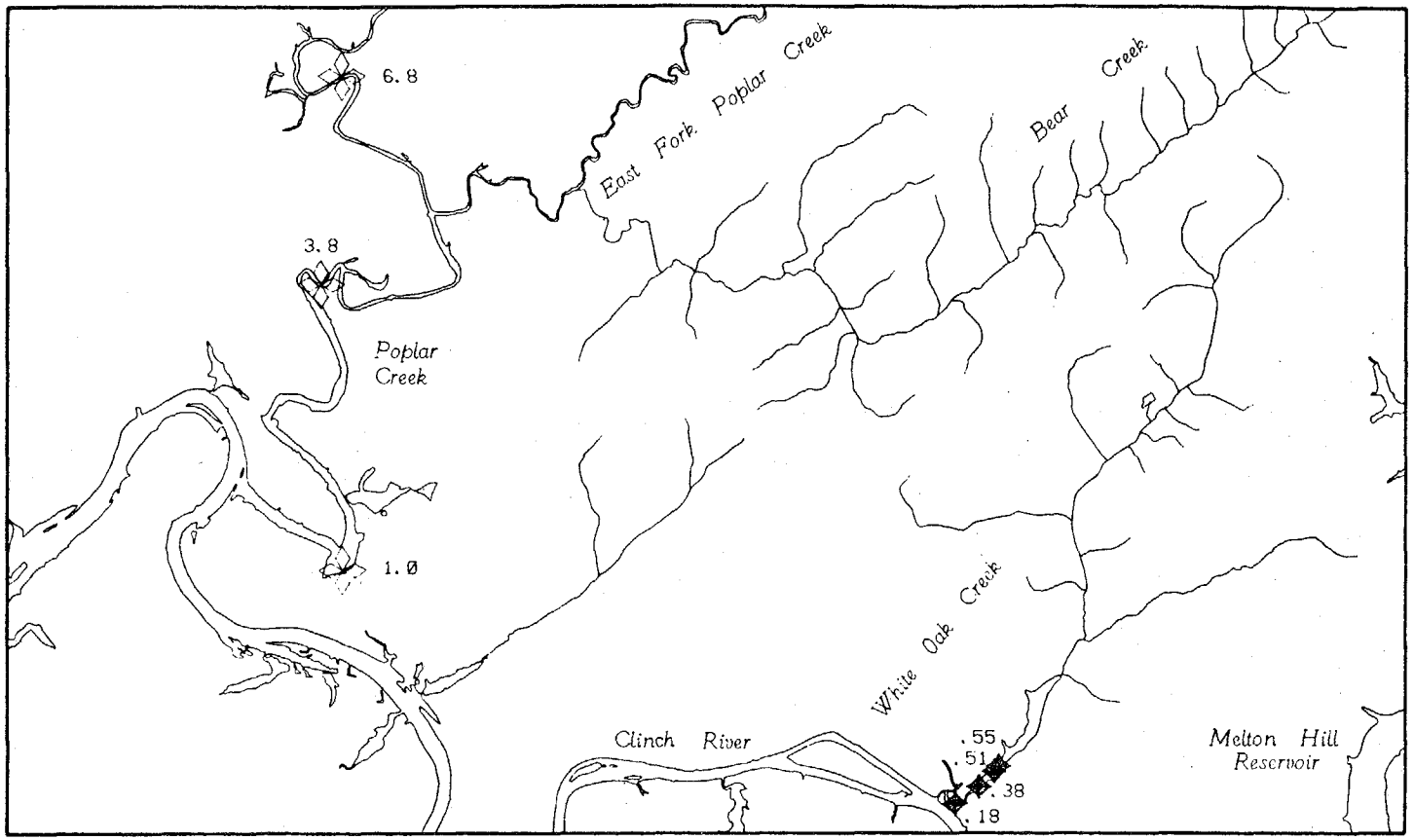

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FIGURE I-4
INSTREAM CONTAMINANT STUDY - TASK 2
POPLAR CREEK AND WHITE OAK CREEK
SEDIMENT SAMPLING LOCATIONS

5000 0 5000 10,000 FEET
1 0 1 2 3 KILOMETERS

N

LEGEND:
CORE SAMPLES
SURFACE LAYER SAMPLES

FEBRUARY, 1985

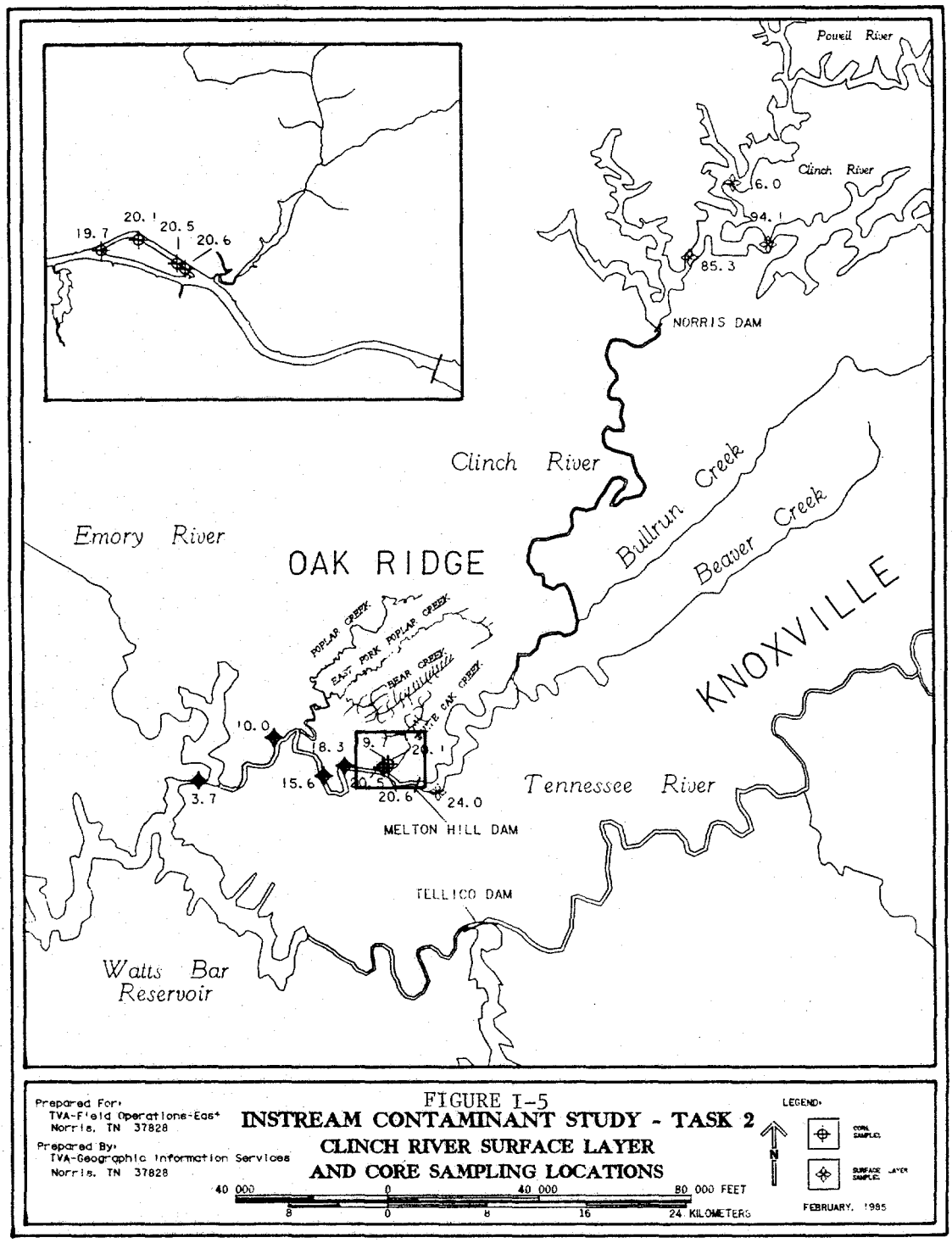

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FIGURE I-5
INSTREAM CONTAMINANT STUDY - TASK 2
CLINCH RIVER SURFACE LAYER
AND CORE SAMPLING LOCATIONS

40 000 0 40 000 80 000 FEET
8 0 8 16 24 KILOMETERS

LEGEND:
CORE SAMPLES
SURFACE LAYER SAMPLES
N

FEBRUARY, 1985

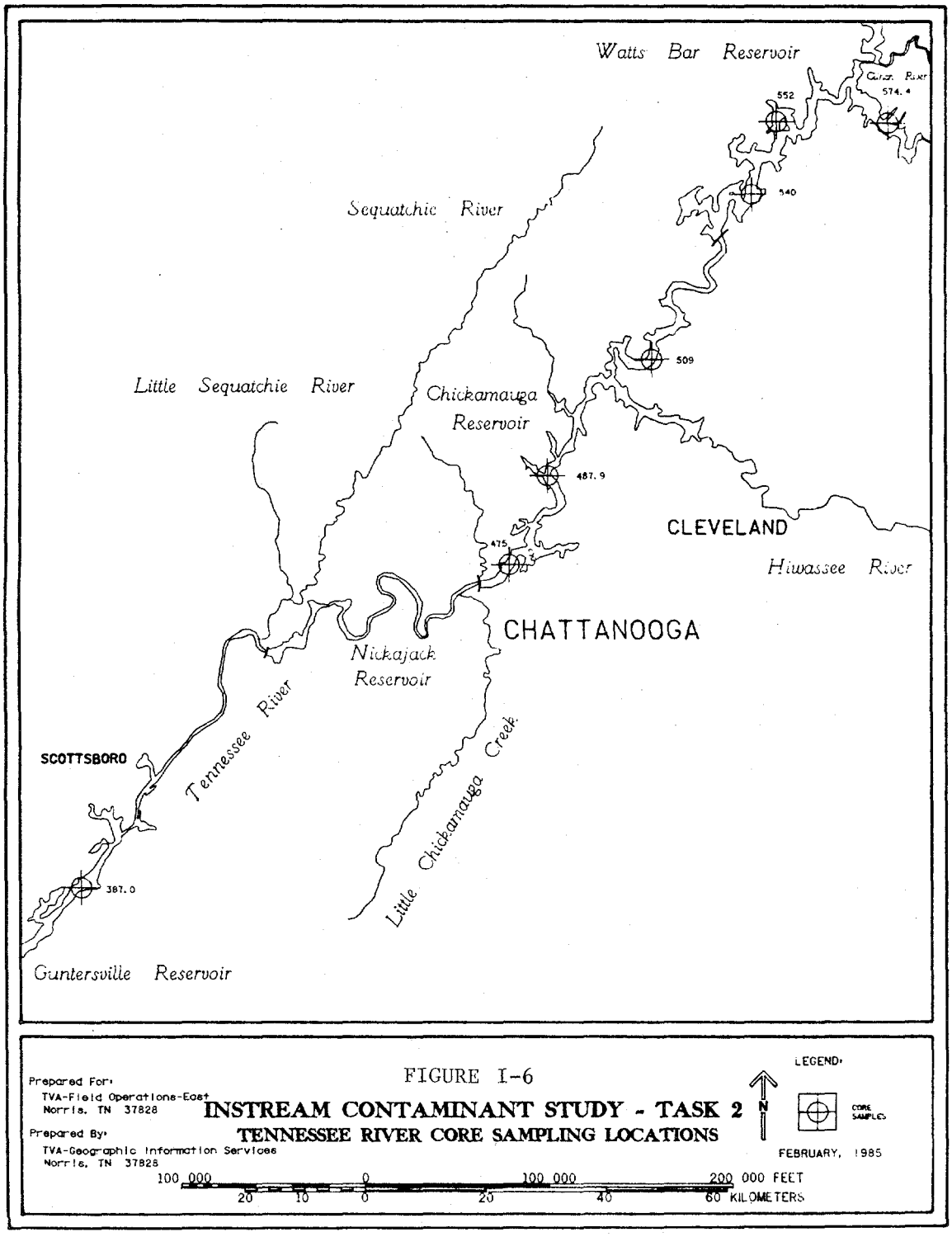
Watts Bar Reservoir
Clinch River
574.4
552
540
Sequatchie River
509
Little Sequatchie River
Chickamauga Reservoir
487.9
CLEVELAND
475
Hiwassee River
CHATTANOOGA
Nickajack Reservoir
Tennessee River
SCOTTSBORO
Little Chickamauga Creek
387.0
Guntersville Reservoir
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FIGURE I-6
INSTREAM CONTAMINANT STUDY - TASK 2
TENNESSEE RIVER CORE SAMPLING LOCATIONS
LEGEND:
N
CORE SAMPLES
FEBRUARY, 1985
100 000 0 100 000 200 000 FEET
20 10 0 20 40 60 KILOMETERS

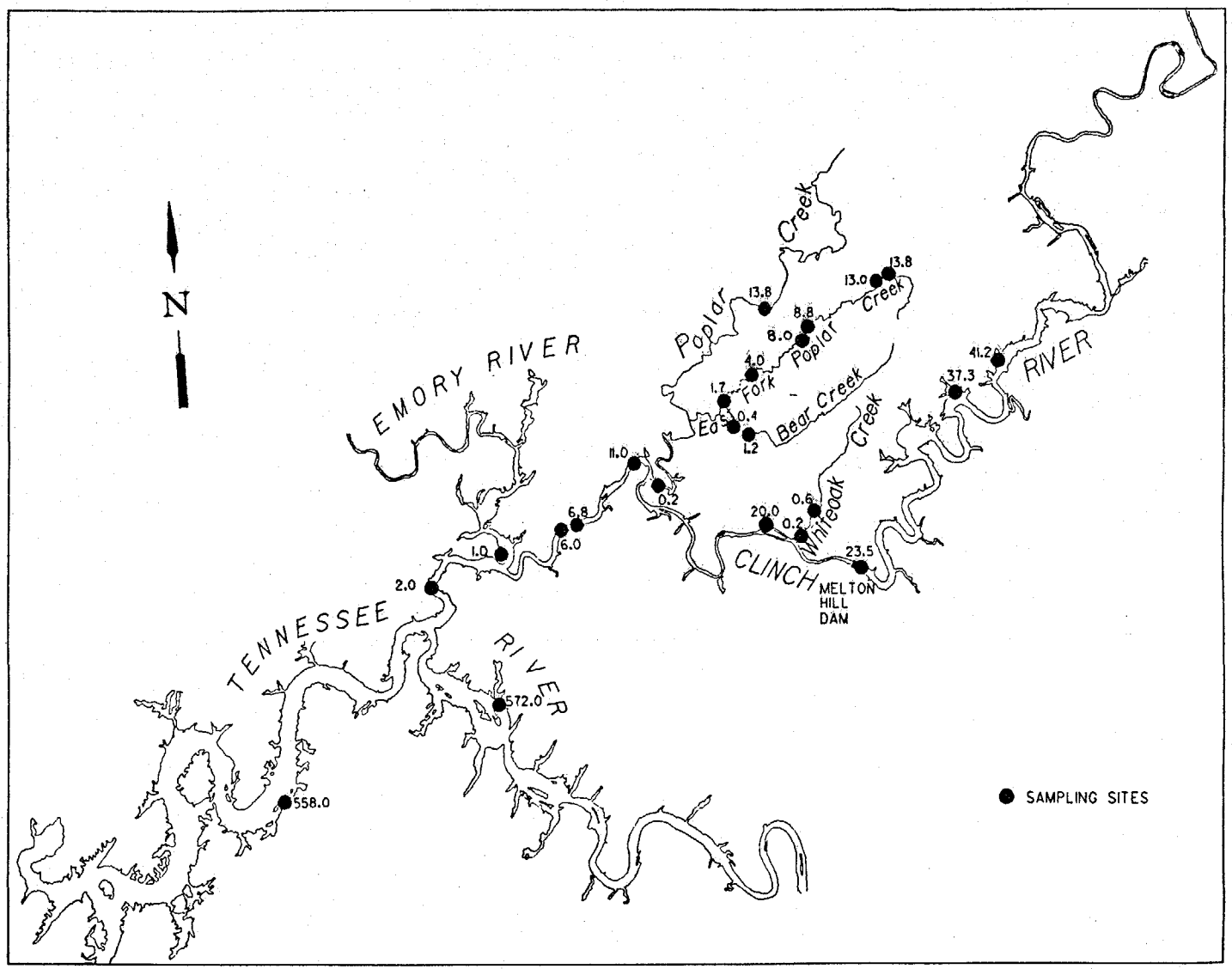

FIGURE I-7
INSTREAM CONTAMINANT STUDY - TASK 4
FISH SAMPLING LOCATIONS

APPENDIX II

STATISTICAL SUMMARY OF WATER, SEDIMENT, AND AQUATIC BIOTA DATA COLLECTED BY TVA DURING THE INSTREAM CONTAMINANT STUDY

INSTREAM CONTAMINANT STUDY - TASK 5

Table II-1

REMARK CODES FOR DATA SUMMARIES
INSTREAM CONTAMINANT STUDY - TASK 5

Remark Code	Definition
A	Value reported is the mean of two or more determinations.
C	Value calculated.
D	Field duplicate.
K	Actual value is known to be less than value given.
L	Actual value is known to be greater than value given.
M	Presence of material verified but not quantified. In the case of temperature or oxygen reduction potential, M indicates a negative value. In the case of species, M indicates male sex.
N	Presumptive evidence of presence of material.
R	Sample possibly contaminated or result influenced by other compounds in sample.
S	Split sample.
TOT	Totals for all analyses.
TXT/TE	Alpha numeric data, refer to individual data.
U	Indicates material was analyzed for but not detected. In the case of species, U indicates undetermined sex.

STORET RETRIEVAL DATE 85/12/03

197 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY COMPOSITE DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER	RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00002 HSAMPLOC % FROM RT BANK		246	47.37400	515.6300	22.70300	100.0	5.0	84/05/09	84/11/10
	A	1	75.00000			75.0	75.0	84/06/18	84/06/18
	D	26	48.61500	657.0500	25.63300	100.0	5.0	84/05/31	84/10/11
	S	4	50.00000	.0000000	.0000000	50.0	50.0	84/09/18	84/10/11
	TOT	277	47.62800	520.1800	22.80700	100.0	5.0	84/05/09	84/11/10
00008 LAB IDENT. NUMBER		1248	11672.00	2643E+07	162580.0	4073200	6	84/04/17	85/04/06
	A	3	46.33300	86.33600	9.291700	57	40	84/05/15	84/05/31
	D	2	8514.500	16.00000	4.000000	8516	8513	84/10/23	84/10/23
	R	125	4064400	2143E+05	14640.00	4089790	4051120	84/05/02	84/11/10
	TOT	1378	379270.0	1379E+09	1174600	4089790	6	84/04/17	85/04/06
00010 WATER TEMP CENT		31	15.47700	3.206500	1.790700	22.4	13.6	84/05/09	84/11/10
00023 WEIGHT POUNDS		520	1.343300	3.669600	1.915600	18.05	.04	84/04/17	84/10/23
	C	2	.3650000	.1860500	.4313400	.67	.06	84/05/18	84/06/07
	S	27	3.536300	6.524100	2.554200	11.45	.17	84/04/17	84/06/29
	TOT	549	1.447500	4.014800	2.003700	18.05	.04	84/04/17	84/10/23
00024 LENGTH INCHES		469	11.71500	27.76500	5.269300	32.30	4.20	84/04/17	84/06/28
	S	23	18.23900	16.54500	4.067500	24.30	6.90	84/04/17	84/06/28
	TOT	492	12.02000	29.10700	5.395100	32.30	4.20	84/04/17	84/06/28
00063 NO. OF SAMPLING POINTS		333	2.897900	3.128100	1.768700	5	1	84/06/18	85/04/06
00065 STREAM STAGE FEET		234	2.365700	1.308400	1.143800	4.35	.20	84/05/09	85/04/06
00094 CNDUCTVY FIELD MICROMHO		18	295.5000	7063.400	84.04400	520	160	84/05/09	84/05/31
	L	1	2000.000			2000	2000	84/05/31	84/05/31
	TOT	19	385.2100	159580.0	399.4800	2000	160	84/05/09	84/05/31
00098 VSAMPLOC DEPTH METERS		39	3.292300	13.62900	3.691700	13.00	.30	84/05/09	84/09/13
	D	1	.3000000			.30	.30	84/09/13	84/09/13
	TOT	40	3.217500	13.50300	3.674700	13.00	.30	84/05/09	84/09/13
00300 DO MG/L		30	10.98900	2.566500	1.602000	13.2	6.2	84/05/09	84/05/31
00400 PH SU		31	7.710000	.2408300	.4907400	8.30	6.20	84/05/09	84/06/26
00431 T ALK FIELD MG/L		8	116.0000	1746.900	41.79600	176	49	84/05/30	84/06/26
00530 RESIDUE TOT NFLT MG/L		218	184.7500	32786.00	181.0700	1000	2	84/05/09	85/04/06
	K	1	1.000000			1	1	85/04/06	85/04/06
	TOT	219	183.9100	32789.00	181.0200	1000	1	84/05/09	85/04/06
00535 RESIDUE VOL NFLT MG/L		92	25.81500	410.4400	20.25900	100	2	84/05/31	85/04/06
00556 OIL-GRSE FREON-GR MG/L	U	4	5.000000	.0000000	.0000000	5.00	5.00	84/05/31	84/05/31
00557 OIL-GRSE MUD FRGR MG/KG		5	2446.000	5100100	2258.300	6100.000	930.000	84/06/18	84/06/26
00610 NH3+NH4- N TOTAL MG/L		4	.1325000	.0006916	.0263000	.170	.110	84/05/31	84/05/31
00625 TOT KJEL N MG/L		4	.4875000	.0178250	.1335100	.680	.380	84/05/31	84/05/31
00630 NO2&NO3 N-TOTAL MG/L		6	167.5800	35585.00	188.6400	380.00	.83	84/05/31	84/06/26
00665 PHOS-TOT MG/L P		3	.3433300	.0754330	.2746500	.660	.170	84/05/31	84/05/31
	U	1	.0100000			.010	.010	84/05/31	84/05/31
	TOT	4	.2600000	.0780670	.2794100	.660	.010	84/05/31	84/05/31
00720 CYANIDE CN-TOT MG/L	U	4	.0200000	.0000000	.0000000	.020	.020	84/09/13	84/09/13
00721 CYANIDE SEDMG/KG DRY WGT	U	39	.8923000	.0244200	.1562700	1.60	.70	84/06/13	84/08/29
00900 TOT HARD CACO3 MG/L		4	372.5000	175030.0	418.3600	1000	160	84/05/31	84/05/31

STORET RETRIEVAL DATE 85/12/03

197 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY COMPOSITE DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01000	ARSENIC	AS,DISS	UG/L	U	3	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/31
01002	ARSENIC	AS,TOT	UG/L		1	1.000000			1	1	84/05/31	84/05/31
				U	6	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/31
				TOT	7	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/31
01003	ARSENIC	SEDMG/KG	DRY WGT		38	8.931600	25.55900	5.055600	26.00	3.60	84/06/18	84/08/29
01004	ARSENIC	TISMG/KG	WET WGT		158	.1705700	.0112770	.1061900	.50	.02	84/04/19	84/10/23
				U	297	.0784850	.0022731	.0476770	.40	.02	84/04/17	84/10/23
				TOT	455	.1104600	.0073080	.0854870	.60	.02	84/04/17	84/10/23
01010	BERYLIUM	BE,DISS	UG/L	U	3	1.000000	.0000000	.0000000	1.00	1.00	84/05/30	84/05/31
01012	BERYLIUM	BE,TOT	UG/L	U	7	1.000000	.0000000	.0000000	1.00	1.00	84/05/30	84/05/31
01025	CADMIUM	CD,DISS	UG/L	U	3	.1000000	.0000000	.0000000	.1	.1	84/05/30	84/05/31
01027	CADMIUM	CD,TOT	UG/L		2	13.65000	305.0500	17.46600	26	1	84/05/31	84/05/31
				U	5	.1000000	.0000000	.0000000	.1	.1	84/05/30	84/05/31
				TOT	7	3.971400	94.55600	9.724000	26	.1	84/05/30	84/05/31
01028	CD MUD	DRY WGT	MG/KG-CD		27	2.688900	6.850300	2.617300	10.00	.50	84/06/13	84/08/29
				U	12	.5000000	.0000000	.0000000	.50	.50	84/06/13	84/08/07
				TOT	39	2.015400	5.734500	2.394700	10.00	.50	84/06/18	84/08/29
01029	CHROMIUM	SEDMG/KG	DRY WGT		110	40.60000	1519.400	38.98000	290.00	9.00	84/06/18	84/10/11
01030	CHROMIUM	CR,DISS	UG/L	U	3	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/31
01034	CHROMIUM	CR,TOT	UG/L		3	6.666700	16.33300	4.041500	9	2	84/05/31	84/05/31
				U	4	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/31
				TOT	7	3.428600	14.61900	3.823500	9	1	84/05/30	84/05/31
01040	COPPER	CU,DISS	UG/L	U	3	5.000000	.0000000	.0000000	5	5	84/05/30	84/05/31
01042	COPPER	CU,TOT	UG/L		2	12.00000	18.00000	4.242600	15	9	84/05/31	84/05/31
				U	5	5.000000	.0000000	.0000000	5	5	84/05/30	84/05/31
				TOT	7	7.000000	14.66700	3.829700	15	5	84/05/30	84/05/31
01049	LEAD	PB,DISS	UG/L		1	1.000000			1	1	84/05/31	84/05/31
				U	2	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/30
				TOT	3	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/31
01051	LEAD	PB,TOT	UG/L		5	2.200000	.7000100	.8366600	3	1	84/05/31	84/05/31
				U	2	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/30
				TOT	7	1.857200	.8095300	.8997400	3	1	84/05/30	84/05/31
01052	LEAD	SEDMG/KG	DRY WGT		39	60.92300	1081.200	32.88100	170.00	14.00	84/06/19	84/08/29
01057	THALLIUM	TL,DISS	UG/L	U	3	50.00000	.0000000	.0000000	50	50	84/05/30	84/05/31
01059	THALLIUM	TL,TOTAL	UG/L	U	7	50.00000	.0000000	.0000000	50	50	84/05/30	84/05/31
01065	NICKEL	NI,DISS	UG/L		3	10.00000	57.00000	7.549800	17	2	84/05/30	84/05/31
01067	NICKEL	NI,TOTAL	UG/L		7	13.57200	546.2900	23.37300	69	2	84/05/30	84/05/31
01069	NICKEL	SEDMG/KG	DRY WGT		39	40.71800	1086.600	32.56400	200.00	14.00	84/06/19	84/08/29
01069	NICKEL	TISMG/KG	WET WGT		10	1.700000	.4555500	.6749500	3.00	1.00	84/05/10	84/10/23
				M	7	1.000000	.0000000	.0000000	1.00	1.00	84/04/23	84/06/14
				U	439	1.015000	.0157290	.1254200	2.00	1.00	84/04/17	84/08/29
				TOT	456	1.030700	.0342210	.1849900	3.00	1.00	84/04/17	84/10/23
01073	THALLIUM	TIS-WET	MG/KG		6	2.100000	1.564000	1.250600	3.00	1.00	84/05/03	84/06/05
				M	12	1.000000	.0000000	.0000000	1.00	1.00	84/05/03	84/05/24

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01073	THALLIUM	TIS-WET	MG/KG	U	63	1.000000	.0000000	.0000000	1.00	1.00	84/05/08	84/06/05
01073	THALLIUM	TIS-WET	MG/KG	TOT	81	1.081500	.1817900	.4263600	3.80	1.00	84/05/09	84/06/05
01075	SILVER	AG,DISS	UG/L	U	3	.2000000	.0000000	.0000000	.2	.2	84/05/30	84/05/31
01077	SILVER	AG,TOT	UG/L		1	1.100000			1.1	1.1	84/05/31	84/05/31
				U	6	.2000000	.0000000	.0000000	.2	.2	84/05/30	84/05/31
				TOT	7	.3285700	.1157100	.3401700	1.1	.2	84/05/30	84/05/31
01078	SILVER	SEDMG/KG	DRY WGT		26	8.692300	122.1400	11.05200	45.00	1.00	84/06/19	84/08/29
				U	13	1.000000	.0000000	.0000000	1.00	1.00	84/06/20	84/08/07
				TOT	39	6.128200	93.85200	9.687700	45.00	1.00	84/06/18	84/08/29
01090	ZINC	ZN,DISS	UG/L	U	3	5.000000	.0000000	.0000000	5	5	84/05/30	84/05/31
01092	ZINC	ZN,TOT	UG/L		7	25.00000	378.3300	19.45100	60	6	84/05/30	84/05/31
01095	ANTIMONY	SB,DISS	UG/L	U	3	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/31
01097	ANTIMONY	SB,TOT	UG/L	U	7	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/31
01099	ANTIMONY	TIS-WET	MG/KG		2	1.000000	.0000000	.0000000	1.00	1.00	84/05/24	84/05/31
				M	10	1.000000	.0000000	.0000000	1.00	1.00	84/05/08	84/05/24
				U	69	1.000000	.0000000	.0000000	1.00	1.00	84/05/08	84/06/05
				TOT	81	1.000000	.0000000	.0000000	1.00	1.00	84/05/08	84/06/05
01105	ALUMINUM	AL,TOT	UG/L		4	152.5000	4758.300	69.93100	210	60	84/05/31	84/05/31
01132	LITHIUM	LI,TOT	UG/L		2	20.00000	200.0000	14.14200	30	10	84/05/31	84/05/31
				U	2	10.00000	.0000000	.0000000	10	10	84/05/31	84/05/31
				TOT	4	15.00000	100.0000	10.00000	30	10	84/05/31	84/05/31
01145	SELENIUM	SE,DISS	UG/L	U	3	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/31
01147	SELENIUM	SE,TOT	UG/L	U	7	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/31
01149	SELENIUM	TISMG/KG	WET WGT		80	.5281200	.1445200	.3801600	2.60	.06	84/05/09	84/06/05
				U	1	.0200000			.02	.02	84/05/24	84/05/24
				TOT	81	.5218500	.1459000	.3819700	2.60	.02	84/05/09	84/06/05
01163	ZR MUD	DRY WGT	MG/KG-ZR		39	429.4900	19326.00	135.3800	890.00	180.00	84/06/18	84/08/29
01501	ALPHA	TOTAL	PC/L		16	8.918800	51.31000	7.163100	31	.5	84/05/31	84/11/10
01502	ALPHA-T	ERROR	PC/L		16	3.656300	11.53200	3.395900	16	1	84/05/31	84/11/10
01507	ALPHA	SEDIMENT	PC/G		98	10.34200	306.5900	17.51000	160	.2	84/06/18	84/09/12
				M	10	.2600000	.0026667	.0515410	.3	.2	84/08/29	84/08/29
				TOT	108	9.408300	286.5500	16.92800	160	.2	84/06/18	84/09/12
01508	ALPHA	SED-ERR	PC/G		108	2.687000	11.37900	3.373300	30	.2	84/06/18	84/09/12
01521	ALPHA	FISH	PCI/G		28	.0530710	.0280880	.1676000	.900	.000	84/05/02	84/06/28
				M	9	.0111110	.0000111	.0033334	.020	.010	84/05/15	84/06/19
				TOT	37	.0428650	.0214020	.1462900	.900	.000	84/05/02	84/06/28
01522	ALPHA	FISH-ERR	PCI/G		37	.0670000	.0119800	.1094600	.700	.009	84/05/02	84/06/28
03501	BETA	TOTAL	PC/L		16	124.2900	54940.00	234.1900	690	2	84/05/31	84/11/10
03502	BETA-T	ERROR	PC/L		16	14.06900	561.4500	23.69500	70	1	84/05/31	84/11/10
03507	BETA	SEDIMENT	PC/G		108	921.6000	8151500	2855.100	18071	12	84/06/18	84/09/12
03508	BETA	SED-ERR	PC/G		108	191.5000	313000.0	559.4600	3542	3	84/06/18	84/09/12
03524	BETA	FISH	PCI/G		37	33.73000	276.7000	16.63400	76.000	6.000	84/05/02	84/06/28
03525	BETA	FISH-ERR	PCI/G		37	6.521600	11.02000	3.319600	15.000	1.000	84/05/02	84/06/28
07000	H-3	TOTAL	PC/L		6	180940.0	7321E+07	279630.0	544000.0	260.0	84/05/31	84/05/31

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
07000	H-3	TOTAL	PC/L	M	1	19.00000			19.0	19.0	84/05/31	84/05/31
07000	H-3	TOTAL	PC/L	TOT	7	155100.0	6985E+07	264310.0	544000.0	19.0	84/05/31	84/05/31
07001	H-3,TOTL	ERROR	PC/L		7	15220.00	6660E+05	25809.00	53000.0	100.0	84/05/31	84/05/31
09507	RA-226	SEDIMENT	PC/G		21	1.023300	1.517100	1.231700	4.7	.2	84/06/18	84/09/12
09508	RA-226	SED-ERR	PC/G		21	.1252400	.0249860	.1583700	.7	.04	84/06/18	84/09/12
11506	RA-224	SEDIMENT	PCI/G		19	1.867900	2.203700	1.484500	6.200	.400	84/06/18	84/09/12
11507	RA-224	SED-ERR	PCI/G		19	.4889500	.2214300	.4705700	2.000	.090	84/06/18	84/09/12
11508	RA-223	SEDIMENT	PCI/G		11	1.706400	1.354100	1.163600	4.800	.170	84/06/18	84/07/24
11509	RA-223	SEDIMENT	ERROR		11	.5345500	.0663280	.2575400	1.000	.080	84/06/18	84/07/24
13501	SR-90	TOTAL	PC/L		1	.6500000			.6	.6	84/05/30	84/05/30
13502	SR-90	ERROR	PC/L		1	1.900000			1.9	1.9	84/05/30	84/05/30
15505	SR-89	SEDIMENT	PCI/G		63	.8047600	2.901400	1.703400	12.000	.000	84/06/18	84/09/12
				K	1	80.00000			80.000	80.000	84/08/29	84/08/29
				M	21	32.54300	2048.800	45.26300	171.000	.100	84/07/24	84/08/29
				TOT	85	9.577600	738.5600	27.17600	171.000	.000	84/06/18	84/09/12
15506	SR-89	SED-ERR	PCI/G		85	20.55500	3599.800	59.99800	400.000	.200	84/06/18	84/09/12
15507	SR-90	SEDIMENT	PCI/G		80	56.47000	26997.00	164.3100	900.000	.000	84/06/18	84/09/12
				M	5	.1000000	.0000000	.0000000	.100	.100	84/06/19	84/07/27
				TOT	85	53.15400	25568.00	159.9000	900.000	.000	84/06/18	84/09/12
15508	SR-90	SED-ERR	PCI/G		85	7.912900	438.7900	20.94700	100.000	.100	84/06/18	84/09/12
15509	SR-89	FISH	PCI/G		4	.1250000	.0091667	.0957430	.200	.000	84/05/25	84/06/19
				M	1	1.600000			1.600	1.600	84/05/02	84/05/02
				TOT	5	.4200000	.4420000	.6648300	1.600	.000	84/05/02	84/06/19
15510	SR-89	FISH-ERR	PCI/G		5	.4200000	.3070000	.5540800	1.400	.100	84/05/02	84/06/19
15511	SR-90	FISH	PCI/G		5	.3240000	.3078300	.5548200	1.300	.000	84/05/02	84/06/19
15512	SR-90	FISH-ERR	PCI/G		5	.0920000	.0141200	.1188300	.300	.020	84/05/02	84/06/19
17509	PB-212	SEDIMENT	PCI/G		82	1.633800	1.078500	1.033500	5.400	.300	84/06/18	84/09/12
17510	PB-212	SED-ERR	PCI/G		82	.4359800	.3550900	.5959000	3.000	.050	84/06/18	84/09/12
17511	PB-214	SEDIMENT	PCI/G		65	1.050500	.4000400	.6324900	5.300	.300	84/06/18	84/09/12
17512	PB-214	SED-ERR	PCI/G		55	.1856900	.0291940	.1703600	.800	.030	84/06/18	84/09/12
17515	PB 214	FISH	PCI/G		22	.6045500	.3271200	.5719500	3.000	.200	84/05/02	84/06/28
17516	PB-214	FISH-ERR	PCI/G		22	.2181800	.0329870	.1815200	1.000	.100	84/05/02	84/06/28
17517	PB-212	TOTAL	PCI/L		1	5.000000			5.0	5.0	84/05/31	84/05/31
17518	PB-212	TOTAL	ERROR		1	7.000000			7.0	7.0	84/05/31	84/05/31
17519	PB-214	TOTAL	PCI/L		1	6.000000			6.000	6.000	84/11/10	84/11/10
17520	PB-214	TOTAL	ERROR		1	4.000000			4.000	4.000	84/11/10	84/11/10
21503	PA-233	SEDIMENT	PCI/G		13	.2545400	.1653600	.4066500	1.500	.021	84/06/18	84/09/12
21504	PA-233	SED-ERR	PCI/G		13	.0496920	.0030272	.0550200	.200	.008	84/06/18	84/09/12
21505	MPA-234	SEDIMENT	PCI/G		32	25.69700	1262.800	35.53600	181.000	1.300	84/06/18	84/09/12
21506	MPA-234	SED-ERR	PCI/G		32	5.518800	22.83100	4.779100	26.000	.600	84/06/18	84/09/12
21508	PA-234	SEDIMENT	PCI/G		1	.3000000			.300	.300	84/07/26	84/07/26
21509	PA-234	SEDIMENT	ERROR		1	.1000000			.100	.100	84/07/26	84/07/26
21510	MPA-234	TOTAL	PCI/L		1	268.0000			268.000	268.000	84/10/22	84/10/22
21511	MPA-234	TOTAL	ERROR		1	138.0000			138.000	138.000	84/10/22	84/10/22

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
22012	PU-238	TOTAL	PCI/L	K	1	.0270000			.027	.027	84/05/30	84/05/30
22014	PU-239	TOTAL	PCI/L	K	1	.0270000			.027	.027	84/05/30	84/05/30
22016	PU-238	SEDIMENT	PCI/G		25	.2343000	.6648700	.8154000	4.100	.001	84/06/18	84/09/29
22017	PU-238	SEDIMENT	ERRO		25	.0286240	.0098002	.0989960	.500	.0008	84/06/18	84/09/29
22018	PU-239	SEDIMENT	PCI/G		26	3.184100	180.8700	13.44900	69.000	.001	84/06/18	84/09/12
22019	PU-239	SEDIMENT	ERRO		26	.1456500	.3410400	.5839800	3.000	.001	84/06/18	84/09/12
22100	TC-99	TOTAL	PCI/L		1	.7300000			.730	.730	84/05/30	84/05/30
22101	TC-99	ERROR	TOTAL		1	1.500000			1.500	1.500	84/05/30	84/05/30
22102	TC-99	FISH	PCI/G		28	.3246100	.0810370	.2846700	1	.07	84/05/15	84/05/31
22103	TC-99	FISHERR	PCI/G		28	.1124700	.0016501	.0406220	.2	.08	84/05/15	84/05/31
22150	NP-237	TOTAL	PCI/L	K	1	.2700000			.270	.270	84/05/30	84/05/30
22200	BE-7	SEDIMENT	PCI/G		25	1.836400	2.270800	1.506900	6.500	.140	84/06/18	84/07/26
22201	BE-7	SED-ERR	PCI/G		25	.3384000	.0499970	.2236000	.900	.080	84/06/18	84/07/26
22250	NA-22	SEDIMENT	PCI/G		1	.0120000			.012	.012	84/07/12	84/07/12
22251	NA-22	SED-ERR	PCI/G		1	.0040000			.004	.004	84/07/12	84/07/12
22300	K-40	SEDIMENT	PCI/G		85	16.26200	37.38400	6.114300	44.000	3.300	84/06/18	84/09/12
22301	K-40	SED-ERR	PCI/G		85	1.984700	1.252000	1.123400	9.000	.400	84/06/18	84/09/12
22302	K-40	FISH	PCI/G		37	14.35100	7.345500	2.713300	22.000	7.000	84/05/02	84/06/28
22303	K-40	FISH-ERR	PCI/G		37	2.270300	.9138200	.9021200	5.000	1.000	84/05/02	84/06/28
22350	TL-208	SEDIMENT	PCI/G		68	.5339700	.1031000	.3211000	1.900	.090	84/06/18	84/09/12
22351	TL-208	SED-ERR	PCI/G		68	.0830880	.0044993	.0670770	.400	.010	84/06/18	84/09/12
22375	BI-212	SEDIMENT	PCI/G		58	1.795700	1.092900	1.045400	6.300	.450	84/06/18	84/09/12
22376	BI-212	SED-ERR	PCI/G		58	.4274100	.0582910	.2414400	1.000	.090	84/06/18	84/09/12
22377	BI-214	SEDIMENT	PCI/G		76	.9913100	.2895500	.5381000	4.700	.300	84/06/18	84/09/12
22378	BI-214	SED-ERR	PCI/G		76	.1948700	.0351210	.1874100	.900	.040	84/06/18	84/09/12
22379	BI-212	FISH	PCI/G		1	.9000000			.900	.900	84/06/19	84/06/19
22380	BI-212	FISH-ERR	PCI/G		1	.6000000			.600	.600	84/06/19	84/06/19
22381	BI-214	FISH	PCI/G		21	.5300000	.2646000	.5143900	2.600	.030	84/05/02	84/06/19
22382	BI-214	FISH-ERR	PCI/G		21	.2009500	.0236190	.1536900	.800	.020	84/05/02	84/06/19
22383	BI-214	TOTAL	PCI/L		4	6.250000	1.583300	1.258300	8.000	5.000	84/10/22	84/11/10
22384	BI-214	TOTAL	ERROR		4	4.250000	.2500000	.5000000	5.000	4.000	84/10/22	84/11/10
22402	AC-228	FISH	PCI/G		2	.7500000	.0050011	.0707180	.800	.700	84/05/15	84/05/31
22403	AC-228	FISH-ERR	PCI/G		2	.4000000	.0000000	.0000000	.400	.400	84/05/15	84/05/31
22450	AM-241	SEDIMENT	PCI/G		42	3.924800	139.8000	11.82400	73.000	.004	84/06/18	84/09/12
22451	AM-241	SEDIMENT	ERRO		42	1.004600	6.983000	2.642500	11.000	.002	84/06/18	84/09/12
22475	CU-244	SEDMENT	PCI/G		30	.9880700	7.201500	2.683600	12.000	.001	84/06/18	84/09/12
22476	CU-244	SEDIMENT	ERRO		30	.0987170	.0583110	.2414800	1.000	.0005	84/06/18	84/09/12
22501	TH-232	TOTAL	PC/L		1	.0940000			.09	.09	84/05/30	84/05/30
22502	TH-232	ERROR	PC/L		1	.0380000			.03	.03	84/05/30	84/05/30
22505	TH-228	TOTAL	PCI/L	K	1	.0270000			.027	.027	84/05/30	84/05/30
22507	TH-234	SEDIMENT	PCI/G		57	10.98600	319.4400	17.87300	115.000	.500	84/06/18	84/09/12
22508	TH-234	SED-ERR	PCI/G		57	1.442100	3.336800	1.826700	12.000	.200	84/06/18	84/09/12
22601	U-238	TOTAL	PC/L		1	.0970000			.09	.09	84/05/30	84/05/30
22602	U-238	ERROR	PC/L		1	.0350000			.03	.03	84/05/30	84/05/30

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
22606	U-234	TOTAL	PCI/L		1	1.100000			1.100	1.100	84/05/30	84/05/30
22607	U-234	ERROR	TOTAL		1	.1400000			.140	.140	84/05/30	84/05/30
22608	URANIUM	SEDIMENT	UG/G		85	16.44700	947.5400	30.73200	200.000	.300	84/06/18	84/09/12
22609	URANIUM	SED-ERR	UG/G		85	3.136400	38.67300	6.213700	40.000	.090	84/06/18	84/09/12
22612	U-235	SEDIMENT	PCI/G		19	1.160500	.8054100	.8974500	3.900	.260	84/06/18	84/09/12
22613	U-235	SED-ERR	PCI/G		19	.3315800	.0508140	.2254200	.900	.060	84/06/18	84/09/12
22622	U 235, T	OTAL	PC /L	K	1	.0270000			.02	.02	84/05/30	84/05/30
25503	AC-228	SEDIMENT	PCI/G		82	1.633100	1.174000	1.083500	7.000	.310	84/06/18	84/09/12
25504	AC-228	SED-ERR	PCI/G		82	.3713400	.1427300	.3777900	2.000	.050	84/06/18	84/09/12
27999	RU-106	SEDIMENT	PCI/		5	.4220000	.0554200	.2354200	.700	.110	84/06/18	84/06/26
28000	RU-106	SEDIMENT	ERROR		5	.1480000	.0055200	.0742970	.200	.040	84/06/18	84/06/26
28301	I-131	TOTAL	PC/L		1	14.00000			14.0	14.0	84/10/22	84/10/22
28302	I-131	ERROR	PC/L		1	3.000000			3.0	3.0	84/10/22	84/10/22
28401	CS-137	TOTAL	PC/L		2	62.50000	60.50000	7.778200	68	57	84/05/31	84/05/31
28402	CS-137	ERROR	PC/L		2	6.000000	2.000000	1.414200	7	5	84/05/31	84/05/31
28416	CS-134	SEDIMENT	PCI/G		22	.5630500	.2105300	.4589400	1.700	.016	84/06/18	84/08/29
28417	CS-134	SED-ERR	PCI/G		22	.1680900	.0308920	.1757600	.500	.003	84/06/18	84/08/29
28418	CS-137	SEDIMENT	PCI/G		81	2361.000	48336000	6952.400	46949.00	.040	84/06/18	84/09/12
28419	CS-137	SED-ERR	PCI/G		81	225.7200	439230.0	662.7500	3877.000	.010	84/06/18	84/09/12
28420	CS-134	FISH	PCI/G		6	.1583300	.0074167	.0861200	.270	.040	84/05/15	84/06/05
28421	CS-134	FISH-ERR	PCI/G		6	.0550000	.0004300	.0207370	.080	.030	84/05/15	84/06/05
28422	CS-137	FISH	PCI/G		32	3.164700	32.24300	5.678300	26.000	.070	84/05/02	84/06/28
28423	CS-137	FISH-ERR	PCI/G		32	.2953100	.1642100	.4052300	2.000	.010	84/05/02	84/06/28
29601	CO-60	TOTAL	PC/L		2	18.50000	.5000000	.7071100	19	18	84/05/31	84/05/31
29602	CO-60	ERROR	PC/L		2	3.000000	2.000000	1.414200	4	2	84/05/31	84/05/31
29604	CO-60	SEDIMENT	PCI/G		49	58.52400	7819.700	88.42400	437.000	.012	84/06/18	84/08/29
29605	CO-60	SED-ERR	PCI/G		49	8.082400	381.1000	19.52200	97.000	.008	84/06/18	84/08/29
29606	CO-60	FISH	PCI/G		4	.0675000	.0014917	.0386220	.120	.030	84/05/02	84/05/31
29607	CO-60	FISH-ERR	PCI/G		4	.0375000	.0017583	.0419330	.100	.010	84/05/02	84/05/31
29650	EU-152	SEDIMENT	PCI/G		7	5.857200	8.246200	2.871600	8.900	1.300	84/08/29	84/08/29
29651	EU-152	SEDIMENT	ERRO		7	1.071400	.7690500	.8769600	3.000	.300	84/08/29	84/08/29
29652	EU-154	SEDIMENT	PCI/G		20	5.197000	18.63000	4.315300	14.000	.540	84/08/29	84/08/29
29653	EU-154	SEDIMENT	ERRO		20	1.224000	1.171700	1.082500	4.000	.080	84/08/29	84/08/29
32101	DICLBRMT		TOTUG/L	U	4	10.00000	.0000000	.0000000	10.0	10.0	84/05/31	84/05/31
32102	CARBNTET		TOTUG/L	U	4	10.00000	.0000000	.0000000	10.0	10.0	84/05/31	84/05/31
32104	BROMOFRM	WHL-WTR	UG/L	U	4	10.00000	.0000000	.0000000	10.0	10.0	84/05/31	84/05/31
32105	CLDIBRMT		TOTUG/L	U	4	10.00000	.0000000	.0000000	10.0	10.0	84/05/31	84/05/31
32106	CHLRFORM		TOTUG/L	U	4	10.00000	.0000000	.0000000	10.0	10.0	84/05/31	84/05/31
32730	PHENOLS	TOTAL	UG/L		3	4.000000	4.000000	2.000000	6	2	84/09/13	84/09/13
				U	1	2.000000			2	2	84/09/13	84/09/13
				TOT	4	3.500000	3.666700	1.914900	6	2	84/09/13	84/09/13
32731	PHENOLS	SEDMG/KG	DRY WGT		25	.8520000	.1017700	.3190100	1.70	.40	84/06/18	84/08/07
				U	14	.4000000	.0000000	.0000000	.40	.40	84/06/18	84/08/29
				TOT	39	.6397400	.1125300	.3354500	1.70	.40	84/06/18	84/08/29

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	PARAMETER		RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34010	TOLUENE	TOT UG/L	U	4	10.00000	.0000000	.0000000	10.00	10.00	84/05/31	84/05/31
34030	BENZENE	TOT UG/L	U	4	10.00000	.0000000	.0000000	10.00	10.00	84/05/31	84/05/31
34200	ACENAPHT HYLENE	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34203	ACNAPTHY SEDUG/KG	DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34204	ACNAPTHY TISMG/KG	WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34205	ACENAPHT HENE	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34208	ACNAPTHE SEDUG/KG	DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34209	ACNAPTHE TISMG/KG	WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34210	ACROLEIN	TOTWUG/L	U	4	100.0000	.0000000	.0000000	100.000	100.000	84/05/31	84/05/31
34214	ACROLEIN TISMG/KG	WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34215	ACRYLONI TRILE	TOTWUG/L	U	4	100.0000	.0000000	.0000000	100.000	100.000	84/05/31	84/05/31
34219	ACRYLNIT TISMG/KG	WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34220	ANTHRACE NE	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34223	ANTHRACE SEDUG/KG	DRY WGT		1	1000.000			1000.000	1000.000	84/06/18	84/06/18
			M	12	713.3300	4079.200	63.85900	880.000	670.000	84/06/18	84/06/26
			U	26	1044.600	167470.0	409.2400	2000.000	630.000	84/06/19	84/08/29
			TOT	39	941.5400	135170.0	367.5500	2000.000	630.000	84/06/18	84/08/29
34224	ANTHRACE TISMG/KG	WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34230	BENZBFLU ORANT TO	TAL UG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34233	BENZBFLU ORANTMUD	DRYUG/KG	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34234	BENZBFLU ORANTTIS	WETMG/KG	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34238	BENZENE TISMG/KG	WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34241	BENZIDIN TISMG/KG	WET WGT	U	53	4.569800	6.900200	2.626800	16.000	2.100	84/05/08	84/06/05
34242	BENZO(K) FLJORANT	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34245	BENZKFLU SEDUG/KG	DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34246	BENZKFLU TISMG/KG	WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34247	BENZO(A) PYRENE	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34250	BENZAPYR SEDUG/KG	DRY WGT		1	900.0000			900.000	900.000	84/06/18	84/06/18
			M	5	738.0000	8870.000	94.18100	880.000	670.000	84/06/18	84/06/26
			U	33	970.6100	151950.0	389.8100	2000.000	630.000	84/06/18	84/08/29
			TOT	39	938.9800	135120.0	367.5300	2000.000	630.000	84/06/18	84/08/29
34251	BENZAPYR TISMG/KG	WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34252	BERYLIUM TISMG/KG	WET WGT		17	.0294120	.0001558	.0124850	.060	.020	84/05/08	84/05/30
			U	54	.0550000	.0016000	.0400000	.100	.020	84/05/08	84/06/05
			TOT	31	.0496300	.0014011	.0374320	.100	.020	84/05/08	84/06/05
34258	BETA BHC TISMG/KG	WET WGT	U	49	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/06/05
34259	CELTABHC	TOTUG/L	U	4	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
34263	CELTABHC TISMG/KG	WET WGT	U	49	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/06/05
34268	BISCHLOR OMETHYLE	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34272	BCLMTETR TISMG/KG	WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34273	BIS2CHLO ROETHYLE	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34276	B2CETETR SEDUG/KG	DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34277	B2CETETR TISMG/KG	WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34278	BIS2CHLO ROETHOXY	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31

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34281	B2CETOXM	SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/09/29
34282	B2CETOXM	TISMG/KG WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34283	BIS2CHLO	ROISOPRO TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34286	B2CIPETR	SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34287	B2CIPETR	TISMG/KG WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34291	BRCMOFOR	TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34292	NBB PHTH	TOTAL UG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34295	NBB PHTH	MUD-DRY UG/KG	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34296	NBB PHTH	TIS-WET MG/KG	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34300	CARBNTET	TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34301	CHLOROBE	NZENE TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34305	CLBENZEN	TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34310	CLDIBRMT	TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34311	CHLOROET	HANE TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34315	CLETHANE	TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34319	CHLRFORM	TISMG/KG WET WGT		2	.0205000	.0000005	.0007071	.021	.020	84/05/24	84/05/24
			M	1	.0500000			.050	.050	84/05/24	84/05/24
			U	52	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
			TOT	55	.0489270	.0000310	.0055744	.050	.020	84/05/08	84/06/05
34320	CHRYSENE	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34323	CHRYSENE	SEDUG/KG DRY WGT		1	920.0000			920.000	920.000	84/06/18	84/06/18
			M	8	728.7500	5526.900	74.34300	880.000	670.000	84/06/18	84/06/26
			U	30	996.3300	160070.0	400.0800	2000.000	630.000	84/06/18	84/08/29
			TOT	39	939.4900	135080.0	367.5400	2000.000	630.000	84/06/18	84/08/29
34324	CHRYSENE	TISMG/KG WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34331	DICLBRMT	TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34335	DCLDFLMT	TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34336	DIETHYLP	HTHALATE TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34339	DETHPHTH	SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34340	DETHPHTH	TISMG/KG WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34341	DIMETHYL	PHTHALAT TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34344	DMETPHTH	SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/09/29
34345	DMETPHTH	TISMG/KG WET WGT	M	5	1.188000	.5102700	.7143300	2.400	.670	84/05/10	84/06/05
			U	48	.8802100	.2662700	.5160100	3.300	.410	84/05/08	84/06/05
			TOT	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34346	12DIPHEN	YLHYDRAZ TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34349	12DPHNHY	SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34350	12DPHNHY	TISMG/KG WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34351	ENDSULSF	TOTUG/L	U	4	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
34355	ENDSULSF	TISMG/KG WET WGT	U	49	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/06/05
34356	B-ENDO	SULFAN TOTWUG/L	U	4	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
34360	BENDOSUL	TISMG/KG WET WGT	U	49	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/06/05
34361	A-ENDO	SULFAN TOTWUG/L	U	4	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
34365	AENDOSUL	TISMG/KG WET WGT	U	49	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/06/05

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34366 ENDRINAL DEHYDE TOTWUG/L	U	4	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
34370 ENDRINAL TISMG/KG WET WGT	R	17	.0505880	.0005058	.0224920	.100	.020	84/05/10	84/05/24
	U	32	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/06/05
	TOT	49	.0240820	.0005496	.0234450	.100	.010	84/05/08	84/06/05
34371 ETHYLBEN ZENE TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34375 ETHYLBEN TISMG/KG WET WGT	M	2	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/03
	U	53	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
	TOT	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34376 FLUORANT HENE TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34379 FLANTENE SEDUG/KG DRY WGT		12	1763.300	1201100	1096.000	4600.000	870.000	84/06/18	84/06/26
	M	3	736.6700	10034.00	100.1700	850.000	660.000	84/06/19	84/06/20
	U	24	1068.800	173350.0	416.3500	2000.000	630.000	84/06/20	84/08/29
	TOT	39	1256.900	577950.0	760.1700	4600.000	630.000	84/06/18	84/08/29
34380 FLANTENE TISMG/KG WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34381 FLUORENE TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34384 FLUORENE SEDUG/KG DRY WGT	M	1	670.0000			670.000	670.000	84/06/18	84/06/18
	U	38	940.0000	133720.0	372.4600	2000.000	630.000	84/06/18	84/08/29
	TOT	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34385 FLUORENE TISMG/KG WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34386 HEXACHLO ROCYCLOP TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34389 HEXCLCPD SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34390 HEXCLCPD TISMG/KG WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34391 HEXACHLO ROBUTADI TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34395 HEXCLBD TISMG/KG WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34396 HEXACHLO ROETHANE TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34399 HEXACLET SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34400 HEXACLET TISMG/KG WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34403 INDENO(1 23CD)PYR TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34406 I123CDPR SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34407 I123CDPR TISMG/KG WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34408 ISPHRONE TOTUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34411 ISPHRONE SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34412 ISPHRONE TISMG/KG WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34413 METHYLBR OMIDE TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34417 METHYLBR TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34418 METHYLCH LORIDE TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34422 METHYLCL TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34423 METHYLEN ECHLORID TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34427 ETHLENCL TISMG/KG WET WGT	R	2	.4650000	.0004499	.0212120	.480	.450	84/05/10	84/05/24
	U	53	.2500000	.0000000	.0000000	.250	.250	84/05/08	84/06/05
	TOT	55	.2578200	.0016531	.0407200	.480	.250	84/05/08	84/06/05
34428 NITROSOD IPROPYLA TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34431 NITONPRA SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34432 NITONPRA TISMG/KG WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05

STORET RETRIEVAL DATE 85/12/03

197 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY COMPOSITE DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34433 NITROSOD	IPHENYLA	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34434 NITROSOD	IPHENYLA	DISSUG/L	U	1	.1000000			.100	.100	84/05/15	84/05/15
34436 NITRSDPA	SEDUG/KG	DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34437 NITRSDPA	TISMG/KG	WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34438 NITROSOD	IMETHYLA	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34441 NITRSDMA	SEDUG/KG	DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34442 NITRSDMA	TISMG/KG	WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34445 NAPTHALE	SEDUG/KG	DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34446 NAPTHALE	TISMG/KG	WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34447 NITROBEN	ZENE	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34450 NITROBEN	SEDUG/KG	DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34451 NITROBEN	TISMG/KG	WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34452 PARACHLO	ROMETACR	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34456 PCLMCRES	TISMG/KG	WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34461 PHENANTH	RENE	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34464 PHENANTH	SEDUG/KG	DRY WGT		7	1670.000	1735600	1317.400	4500.000	690.000	84/06/18	84/06/26
			M	13	711.5400	4397.800	66.31600	860.000	660.000	84/06/18	84/06/26
			U	19	1159.000	178910.0	422.9800	2000.000	630.000	84/06/20	84/08/29
			TOT	39	1101.500	473390.0	688.0400	4500.000	630.000	84/06/18	84/08/29
34465 PHENANTH	TISMG/KG	WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34467 PHENOL		SUSPUG/L	U	1	.1000000			.100	.100	84/05/15	84/05/15
34468 PHENOL	TISMG/KG	WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34469 PYRENE		TOTWUG/L	U	5	8.020000	19.60200	4.427400	10.000	.100	84/05/15	84/05/31
34472 PYRENE	SEDUG/KG	DRY WGT		10	1436.000	697870.0	835.3900	3500.000	710.000	84/06/18	84/06/26
			M	4	715.0000	8166.700	90.37000	850.000	660.000	84/06/18	84/06/22
			U	25	1054.000	171570.0	414.2100	2000.000	630.000	84/06/19	84/08/29
			TOT	39	1117.200	320690.0	566.2900	3500.000	630.000	84/06/18	84/08/29
34473 PYRENE	TISMG/KG	WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34474 SILVER	TISMG/KG	WET WGT		18	.4777800	.1698900	.4109600	2.000	.200	84/05/10	84/10/23
			M	11	.2000000	.0000000	.0000000	.200	.200	84/05/08	84/06/19
			U	427	.2096000	.0016683	.0408450	.500	.200	84/04/17	84/10/23
			TOT	456	.2199600	.0106120	.1030200	2.000	.200	84/04/17	84/10/23
34475 TETRACHL	ORGETHYL	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34479 TETCLETE	TISMG/KG	WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34484 TOLUENE	TISMG/KG	WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34488 TRICHLOR	OFLUOROM	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34492 TRCLFLMT	TISMG/KG	WET WGT	M	1	.0500000			.050	.050	84/05/10	84/05/10
			R	7	.0522860	.0000365	.0060477	.066	.050	84/05/10	84/05/24
			U	47	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
			TOT	55	.0502910	.0000046	.0021593	.066	.050	84/05/08	84/06/05
34496 11DICHLO	ROETHANE	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34500 11DICLET	TISMG/KG	WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34501 11DICHLO	ROETHYLE	TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34505 11DCETEN	TISMG/KG	WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05

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197 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY COMPOSITE DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER	RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34506 111TRICH LOROETHA TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34510 111TCLET TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34511 112TRICH LOROETHA TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34515 112TCLET TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34516 1122TETR ACHLOROE TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34520 1122TCLE TISMG/KG WET WGT	M	1	.0500000			.050	.050	84/05/10	84/05/10
	U	54	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
	TOT	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34521 BENZO(GH IPERYLE TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34524 BZGHIPER SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34525 BZGHIPER TISMG/KG WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34526 BENZO(A) ANTHRACE TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34529 BENZAANT SEDUG/KG DRY WGT		2	1060.000	39200.00	197.9900	1200.000	920.000	84/06/18	84/06/19
	M	4	685.0000	166.6700	12.91000	700.000	670.000	84/06/19	84/06/26
	U	33	975.4600	150260.0	387.5300	2000.000	630.000	84/06/18	84/08/29
	TOT	39	950.0000	136170.0	369.0100	2000.000	630.000	84/06/18	84/08/29
34530 BENZAANT TISMG/KG WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34531 12DICHLO ROETHANE TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34535 12DICLET TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34536 12DICHLO ROBENZEN TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34539 12DCLBEN SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34540 12DCLBEN TISMG/KG WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34541 12DICHLO ROPROPAN TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34545 12DCLPRP TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34546 12DICHLO ROETHYLE TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34550 12TDCETE TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34551 124TRICH LOROBENZ TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34554 124TCBEN SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34555 124TCBEN TISMG/KG WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34556 DIBENZ(A HDANTHRA TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34559 DBAHANTH SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34560 DBAHANTH TISMG/KG WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34565 13DCPRPE TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34566 13DICHLO ROBENZEN TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34569 13DCLBEN SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34570 13DCLBEN TISMG/KG WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34571 14DICHLO ROBENZEN TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34574 14DCLBEN SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34575 14DCLBEN TISMG/KG WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34576 2CHLOROE THYLVINY TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34580 2CLEVETR TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34581 2CHLORON APHTHALE TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34584 2CLNAPTH SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34585 2CLNAPTH TISMG/KG WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05

STORET RETRIEVAL DATE 85/12/03

197 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY COMPOSITE DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34586 2CHLOROP HENOL		TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34590 2CLPHENO TISMG/KG		WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34591 2NITROPH ENOL		TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34595 2NPHENOL TISMG/KG		WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34596 DINOCTPH		TOTUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34599 DINOCTPH SEDUG/KG		DRY WGT	M	1	690.0000			690.000	690.000	84/06/26	84/06/26
			U	38	939.4700	139010.0	372.8300	2000.000	630.000	84/06/18	84/08/29
			TOT	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34600 DINOCTPH TISMG/KG		WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34601 24DICHLO ROPHENOL		TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34605 24DCPHEN TISMG/KG		WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34606 24DIMETH YLPHENOL		TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34610 24DMPHEN TISMG/KG		WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34611 24DINITR OTOLUENE		TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34614 24DNTOLU SEDUG/KG		DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34615 24DNTOLU TISMG/KG		WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34616 24DINITR OPHENOL		TOTWUG/L	U	4	100.0000	.0000000	.0000000	100.000	100.000	84/05/31	84/05/31
34620 24DNPHEN TISMG/KG		WET WGT	U	53	9.092500	28.81700	5.363100	33.000	4.100	84/05/08	84/06/05
34621 246TRICH LOROPHEN		TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34625 246TCPHN TISMG/KG		WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34626 26DINITR OTOLUENE		TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34629 26DNTOLU SEDUG/KG		DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34630 26DNTOLU TISMG/KG		WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34631 33DICHLO ROBENZID		TOTWUG/L	U	4	25.00000	.0000000	.0000000	25.000	25.000	84/05/31	84/05/31
34634 33DCBNZD SEDUG/KG		DRY WGT	U	39	2307.700	755470.0	869.1800	5000.000	1600.000	84/06/18	84/08/29
34635 33DCBNZD TISMG/KG		WET WGT	U	53	2.296200	1.769600	1.330300	8.200	1.000	84/05/08	84/06/05
34636 4BROMOPH ENYLPHEN		TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34639 4BRPPETR SEDUG/KG		DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34640 4BRPPETR TISMG/KG		WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34641 4CHLOROP HENYLPHE		TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34644 4CLPPETR SEDUG/KG		DRY WGT	U	39	933.0800	136940.0	370.0600	2000.000	630.000	84/06/18	84/08/29
34645 4CLPPETR TISMG/KG		WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34646 4NITROPH ENOL		TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34650 4NPHENOL TISMG/KG		WET WGT	U	53	.9092500	.2881700	.5363100	3.300	.410	84/05/08	84/06/05
34657 46DINITR OORTHOCR		TOTWUG/L	U	4	50.00000	.0000000	.0000000	50.000	50.000	84/05/31	84/05/31
34661 46DNOCRE TISMG/KG		WET WGT	U	53	4.569800	6.900200	2.625800	16.000	2.100	84/05/08	84/06/05
34664 PCB-1221 TISMG/KG		WET WGT	U	157	.0971340	.0002513	.0158540	.100	.010	84/04/17	84/06/28
34667 PCB-1232 TISMG/KG		WET WGT	U	157	.0971340	.0002513	.0158540	.100	.010	84/04/17	84/06/28
34668 DICHLORO DIFLUORO		TOTWUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34669 PCB-1248 TISMG/KG		WET WGT	U	157	.0971340	.0002513	.0158540	.100	.010	84/04/17	84/06/28
34670 PCB-1260 TISMG/KG		WET WGT		46	1.216300	.3428400	.5130600	3.600	.200	84/04/17	84/06/28
			U	111	.0975630	.0002149	.0146620	.100	.010	84/04/17	84/06/19
			TOT	157	.4253500	.5042000	.7100700	3.600	.010	84/04/17	84/06/28
34671 PCB 1016		TOTWUG/L	U	4	.1000000	.0000000	.0000000	.100	.100	84/05/31	84/05/31

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PARAMETER	RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34674 PCB-1016 TISMG/KG WET WGT	U	157	.1000000	.0000000	.0000000	.100	.100	84/04/17	84/06/23
34680 ALDRIN TISMG/KG WET WGT	R	1	.0200000			.020	.020	84/06/05	84/06/05
	U	48	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/06/05
	TOT	49	.0102040	.0000020	.0014286	.020	.010	84/05/08	84/06/05
34682 CDANEWET TECH&MET TISMG/KG	U	49	.0191840	.0007576	.0275260	.100	.010	84/05/08	84/06/05
34683 DNB PHTH TIS-WET MG/KG		1	1.300000			1.300	1.300	84/05/08	84/05/08
	M	21	.8561900	.1545200	.3930900	2.400	.670	84/05/10	84/06/05
	U	31	.9422600	.3931100	.6269800	3.300	.410	84/05/09	84/06/05
	TOT	53	.9149100	.2909100	.5393600	3.300	.410	84/05/08	84/06/05
34685 ENDRIN TISMG/KG WET WGT	U	49	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/06/05
34686 HPCHLREP TISMG/KG WET WGT	R	3	.0400000	.0004000	.0200000	.060	.020	84/05/24	84/06/05
	U	46	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/06/05
	TOT	49	.0118370	.0000694	.0083350	.060	.010	84/05/08	84/06/05
34687 HEPTCHLR TISMG/KG WET WGT	U	49	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/06/05
34688 HCB TISMG/KG WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
34689 PCB-1242 TISMG/KG WET WGT	U	157	.0977070	.0002024	.0142270	.100	.010	84/04/17	84/06/28
34690 PCB-1254 TISMG/KG WET WGT		81	.5644400	.0974510	.3121900	2.000	.200	84/04/17	84/06/28
	U	76	.1000000	.0000000	.0000000	.100	.100	84/04/18	84/06/18
	TOT	157	.3396200	.1042000	.3228000	2.000	.100	84/04/17	84/06/28
34691 TOXAPHEN TISMG/KG WET WGT	R	1	.5000000			.500	.500	84/06/05	84/06/05
	U	48	.5000000	.0000000	.0000000	.500	.500	84/05/08	84/06/05
	TOT	49	.5000000	.0000000	.0000000	.500	.500	84/05/08	84/06/05
34692 TRICLETE TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34693 VINYLCHL TISMG/KG WET WGT	U	55	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/06/05
34694 PHENOL TOT UG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34696 NAPTHALE NE T OTHUG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
39032 PCP TOT UG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
39060 PCP TISMG/KG WET WGT	U	53	.9092500	.2881700	.5368100	3.300	.410	84/05/08	84/06/05
39074 ALPHABHC TISMG/KG WET WGT	U	49	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/06/05
39099 B2ETHXPH TISMG/KG WET WGT		1	1.200000			1.20	1.20	84/05/15	84/05/15
	M	15	.9086700	.2039300	.4515800	2.40	.67	84/05/08	84/06/05
	U	37	.9070300	.3367000	.5802600	3.30	.41	84/05/08	84/06/05
	TOT	53	.9130200	.2896200	.5381600	3.30	.41	84/05/08	84/06/05
39100 B2E PHTH TOTAL UG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
39102 B2E PHTH MUD-DRY UG/KG		17	1265.300	230160.0	479.7600	2600	700	84/06/19	84/08/29
	M	7	1131.400	358250.0	598.5400	2100	660	84/06/19	84/07/26
	U	15	1077.300	135080.0	367.5300	1800	630	84/06/20	84/08/29
	TOT	39	1169.000	210970.0	459.3100	2600	630	84/06/18	84/08/29
39110 DNB PHTH TOTAL UG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
39112 DNB PHTH MUD-DRY UG/KG	M	2	675.0000	450.0000	21.21300	690	660	84/06/22	84/06/26
	U	37	947.0300	140640.0	375.0200	2000	630	84/06/18	84/08/29
	TOT	39	933.0800	136940.0	370.0600	2000	630	84/06/18	84/08/29
39120 BENZIDIN TOTUG/L	U	4	50.00000	.0000000	.0000000	50.000	50.000	84/05/31	84/05/31
39121 BENZIDIN SEDUG/KG DRY WGT	M	8	7375.000	2267800	1505.900	10000.00	6000.00	84/07/10	84/07/26

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PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
39121 BENZIDIN	SEDUG/KG	DRY WGT	U	31	3974.200	1252500	1119.200	7500.00	3200.00	84/06/13	84/08/29
39121 BENZIDIN	SEDUG/KG	DRY WGT	TOT	39	4671.800	3342100	1828.100	10000.00	3200.00	84/06/13	84/06/29
39175 VINYLCHL	ORIDE	TOT UG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
39180 TRICHLOR	ETHYLENE	TOT UG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
39300 P,P'DDT		TOT UG/L	U	4	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39302 P,P'DDT	TISMG/KG	WET WGT	R	3	.0600000	.0028000	.0529150	.12	.02	84/05/24	84/06/05
			U	46	.0100000	.0000000	.0000000	.01	.01	84/05/08	84/06/05
			TOT	49	.0130610	.0002533	.0162280	.12	.01	84/05/09	84/06/05
39310 P,P'DDD		TOT UG/L	U	4	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39312 P,P'DDD	TISMG/KG	WET WGT	R	1	.1000000			.10	.10	84/05/10	84/05/10
			R	20	.0960000	.0030990	.0556680	.22	.02	84/05/10	84/05/30
			U	28	.0100000	.0000000	.0000000	.01	.01	84/05/08	84/06/05
			TOT	49	.0469390	.0030342	.0555360	.22	.01	84/05/08	84/06/05
39320 P,P'DDE		TOT UG/L	U	4	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39322 P,P'DDE	TISMG/KG	WET WGT	R	1	.0400000			.04	.04	84/06/05	84/06/05
			R	22	.0663640	.0015004	.0387350	.15	.02	84/05/10	84/06/05
			U	26	.0100000	.0000000	.0000000	.01	.01	84/05/03	84/05/30
			TOT	49	.0359130	.0014455	.0380200	.16	.01	84/05/08	84/06/05
39330 ALDRIN		TOT UG/L	U	4	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39337 ALPHABHC		TOTUG/L	U	4	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39338 BETA BHC		TOTUG/L	U	4	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39340 GAMMABHC	LINDANE	TOT.UG/L	U	4	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39350 CHLRDANE	TECH&MET	TOT UG/L	U	4	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39380 DIELDRIN		TOTUG/L	U	4	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39390 ENDRIN		TOT UG/L	U	4	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39400 TOXAPHEN		TOTUG/L	U	4	.5000000	.0000000	.0000000	.500	.500	84/05/31	84/05/31
39404 DIELDRIN	TISMG/KG	WET WGT	U	49	.0100000	.0000000	.0000000	.01	.01	84/05/08	84/06/05
39410 HEPTCHLR		TOTUG/L	U	4	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39420 HPCHLREP		TOTUG/L	U	4	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39421 HPCHLREP		DISUG/L	U	1	100.0000			100.000	100.000	84/06/18	84/06/19
39488 PCB-1221		TOTUG/L	U	4	.1000000	.0000000	.0000000	.100	.100	84/05/31	84/05/31
39491 PCB-1221	SEDUG/KG	DRY WGT	U	110	100.0000	.0000000	.0000000	100.00	100.00	84/06/18	84/10/11
39492 PCB-1232		TOTUG/L	U	4	.1000000	.0000000	.0000000	.100	.100	84/05/31	84/05/31
39495 PCB-1232	SEDUG/KG	DRY WGT	U	110	100.0000	.0000000	.0000000	100.00	100.00	84/06/18	84/10/11
39496 PCB-1242		TOTUG/L	U	4	.1000000	.0000000	.0000000	.100	.100	84/05/31	84/05/31
39499 PCB-1242	SEDUG/KG	DRY WGT	U	110	100.0000	.0000000	.0000000	100.00	100.00	84/06/18	84/10/11
39500 PCB-1248		TOTUG/L	U	4	.1000000	.0000000	.0000000	.100	.100	84/05/31	84/05/31
39503 PCB-1248	SEDUG/KG	DRY WGT	U	110	100.0000	.0000000	.0000000	100.00	100.00	84/06/18	84/10/11
39504 PCB-1254		TOTUG/L	U	4	.1000000	.0000000	.0000000	.100	.100	84/05/31	84/05/31
39507 PCB-1254	SEDUG/KG	DRY WGT		9	844.4500	507780.0	712.5900	2000.00	200.00	84/06/13	84/08/29
			U	101	100.0000	.0000000	.0000000	100.00	100.00	84/06/18	84/10/11
			TOT	110	160.9100	79284.00	281.5700	2000.00	100.00	84/06/18	84/10/11
39508 PCB-1260		TOTUG/L	U	4	.1000000	.0000000	.0000000	.100	.100	84/05/31	84/05/31
39511 PCB-1260	SEDUG/KG	DRY WGT		13	1173.100	1714400	1309.400	4000.00	200.00	84/06/18	84/08/29

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PARAMETER	RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
39511 PCB-1260 SEDUG/KG DRY WGT	U	97	100.0000	.0000000	.0000000	100.00	100.00	84/06/19	84/10/11
39511 PCB-1260 SEDUG/KG DRY WGT	TOT	110	226.8200	309850.0	556.6400	4000.00	100.00	84/06/19	84/10/11
39514 PCB-1016 SEDUG/KG DRY WGT	U	110	100.0000	.0000000	.0000000	100.00	100.00	84/06/19	84/10/11
39515 PCBS FISH MG/KG		65	.7923100	.4257200	.6524700	4.700	.200	84/04/17	84/06/28
	U	43	.1000000	.0000000	.0000000	.100	.100	84/04/13	84/06/19
	TOT	108	.5165700	.3705600	.6087400	4.700	.100	84/04/17	84/06/28
39519 PCBS MUD UG/KG	U	1	100.0000			100.00	100.00	84/08/29	84/08/29
39700 HCB TOT UG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
39701 HCB SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000.00	630.00	84/06/18	84/08/29
39705 HEXCLBD SEDUG/KG DRY WGT	U	39	933.0800	136940.0	370.0600	2000	630	84/06/18	84/08/29
39785 GBHC-TIS LINDANE WETMG/KG	U	49	.0100000	.0000000	.0000000	.01	.01	84/05/05	84/06/05
45579		108	2.754600	6.013900	2.452300	10	.05	84/04/17	84/06/28
70280 SED PART 500-2000 SIZE%TOT		64	11.02000	146.1800	12.09000	44.00	.12	84/09/18	84/09/25
	K	1	.0100000			.01	.01	84/09/19	84/09/19
	TOT	65	10.85000	145.7600	12.07300	44.00	.01	84/09/18	84/09/25
70281 SED PART 2000-635 0SIZ%TOT		56	9.291230	185.9900	13.63800	56.30	.09	84/09/13	84/09/25
	K	9	.0100000	.0000000	.0000000	.01	.01	84/09/18	84/09/25
	TOT	65	8.006100	170.2800	13.04900	56.30	.01	84/09/18	84/09/25
70282 SED PART 63-125U SIZE%TOT		65	11.28300	30.02000	5.479000	24.40	1.20	84/09/13	84/09/25
70283 SED PART 125-500U SIZE%TOT		65	15.70900	90.10400	9.492300	37.30	1.10	84/09/13	84/09/25
70320 MOISTURE CONTENT PERCENT		198	27.75100	181.3900	13.46800	67	1	84/06/15	84/09/25
	U	4	.1000000	.0000000	.0000000	.1	.1	84/09/19	84/09/20
	TOT	202	27.20400	192.6900	13.88100	67	.1	84/06/18	84/09/25
70322 RESIDUE TOT VOL PERCENT		39	6.433300	5.698600	2.387200	12.0	2.3	84/06/18	84/08/29
71821 SPECIFIC GRAVITY SEDGM/GM		231	2.329800	.1280200	.3578000	5.180	.790	84/06/18	85/04/06
71890 MERCURY HG,DISS UG/L		20	.4350000	.3266100	.5714900	2.7	.2	84/05/09	84/11/11
	U	71	.2084500	.0027847	.0527710	.6	.2	84/05/09	85/04/06
	TOT	91	.2582400	.0800150	.2828700	2.7	.2	84/05/09	85/04/06
71900 MERCURY HG,TOTAL UG/L		86	6.773300	51.71000	7.191000	44.0	.2	84/05/09	85/04/06
	U	5	.2400000	.0080001	.0894430	.4	.2	84/05/09	84/11/10
	TOT	91	6.414300	51.07800	7.146900	44.0	.2	84/05/09	85/04/06
71921 MERCURY SEDMG/KG DRY WGT		133	7.747400	527.7200	22.97200	170.0	.1	84/06/13	84/10/11
	A	10	148.3200	71341.00	267.1000	690.0	1.4	84/08/29	84/09/19
	U	19	.1000000	.0000000	.0000000	.1	.1	84/06/20	84/10/11
	TOT	161	15.62400	5627.500	75.01700	690.0	.1	84/06/18	84/10/11
71922 MERCURY LT 63 U SEDMG/KG		162	94.21400	73438.00	271.0000	2000.00	.10	84/06/18	84/09/25
	A	62	56.51300	17411.00	131.9500	960.00	.16	84/06/18	84/08/29
	U	5	.1000000	.0000000	.0000000	.10	.10	84/07/27	84/08/29
	TOT	229	81.95200	56946.00	238.6300	2000.00	.10	84/06/18	84/09/25
71923 MERCURY 125-500U MG/KG		65	67.82400	45119.00	212.4100	1700.00	.16	84/09/18	84/09/25
71924 MERCURY 500-2000 U MG/KG		61	49.75500	3368.000	58.03400	240.00	.10	84/09/18	84/09/25
	K	1	.1000000			.10	.10	84/09/18	84/09/18
	TOT	62	48.95400	3352.500	57.90100	240.00	.10	84/09/18	84/09/25
71925 MERCURY 2000-635 0U MG/KG		52	36.61000	2313.100	48.09500	250.00	.13	84/09/18	84/09/25

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PARAMETER	RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
71925 MERCURY 2000-635 OU MG/KG	K	2	.1000000	.0000000	.0000000	.10	.10	84/09/18	84/09/18
71925 MERCURY 2000-635 OU MG/KG	TOT	54	35.25800	2274.200	47.63900	250.00	.10	84/09/18	84/09/25
71926 MERCURY 63-125 U MG/KG		65	59.88100	27976.00	166.9600	1300.00	.15	84/09/18	84/09/25
71930 MERCURY TISMG/KG WET WGT		312	.5248400	.2837800	.5327100	3.30	.10	84/04/17	84/10/23
	U	145	.1000000	.0000000	.0000000	.10	.10	84/04/17	84/06/28
	TOT	457	.3900400	.2327300	.4824200	3.30	.10	84/04/17	84/10/23
71936 LEAD TISMG/KG WET WGT		75	.1648000	.0567440	.2382100	1.60	.02	84/05/08	84/06/05
	U	6	.0200000	.0000000	.0000000	.02	.02	84/05/15	84/05/24
	TOT	81	.1540700	.0539440	.2322600	1.60	.02	84/05/08	84/06/05
71937 COPPER TISMG/KG WET WGT		66	.8984800	1.795300	1.339900	10.00	.14	84/05/08	84/06/05
	U	15	.1400000	.0025715	.0507100	.20	.10	84/05/10	84/05/31
	TOT	81	.7580200	1.547000	1.243800	10.00	.10	84/05/08	84/06/05
71938 ZINC TISMG/KG WET WGT		81	7.776500	5.921200	2.433400	17.00	4.40	84/05/08	84/06/05
71939 CR-FISH UG/G OR MG/KG WT		308	.1512600	.0764920	.2765700	2.30	.008	84/04/17	84/10/23
	U	148	.0208730	.0000148	.0038563	.05	.02	84/04/17	84/06/27
	TOT	456	.1089400	.0553510	.2352700	2.30	.008	84/04/17	84/10/23
71940 CADNIUM TISMG/KG WET WGT		287	.0439080	.0332000	.1822100	1.60	.002	84/04/17	84/10/23
	U	169	.0020473	9299E-11	.0003049	.005	.002	84/04/17	84/08/29
	TOT	456	.0283310	.0212760	.1458600	1.60	.002	84/04/17	84/10/23
77161 1,2DCLPR TOTAL UG/L	U	4	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
80181 TOT SED PARTSIZE %		39	22.20800	338.0600	18.38600	78.9	3.6	84/06/18	84/08/29
80183 TOT SED PARTSIZE %		39	34.45900	517.6700	22.75200	93.9	7.4	84/06/18	84/08/29
80184 TOT SED PARTSIZE %		39	41.50500	601.6800	24.52900	97.9	8.7	84/06/18	84/08/29
80203 TOT SED SIEVE %		356	53.68300	621.5000	24.93000	99.9	.5	84/06/18	84/11/10
80204 TOT SED SIEVE %		160	74.04500	667.2900	25.83200	100.0	1.4	84/06/18	84/11/10
80206 TOT SED SIEVE %		514	90.38600	213.5000	14.61200	100.0	3.2	84/06/18	84/11/10
80208 TOT SED SIEVE %		324	95.43300	151.3500	12.31200	100.0	5.1	84/06/18	84/11/10
80322 SUS PART >125U MG/L		20	8.460000	131.5600	11.47000	38.1	.2	84/10/22	85/04/06
	K	1	.1000000			.1	.1	85/04/05	85/04/05
	TOT	21	8.061900	128.3100	11.32600	38.1	.1	84/10/22	85/04/06
80325 SUS PART > 63U MG/L		21	27.81900	1378.600	37.12900	139.0	1.5	84/10/22	85/04/06
80326 SUS PART >2000 UM MG/L		2	.9000000	.1800000	.4242600	1.100	.500	84/10/22	85/04/05
	K	6	.1000000	.0000000	.0000000	.100	.100	85/04/05	85/04/06
	U	13	.1000000	.0000000	.0000000	.100	.100	84/10/22	84/11/10
	TOT	21	.1666700	.0533330	.2309400	1.100	.100	84/10/22	85/04/06
80327 TOT SED SIEVE % LT6.35MM		31	63.11600	749.2700	27.37300	100.000	21.500	84/09/18	84/11/10
80328 SUS PART GT500UM MG/L		13	.9692300	.8023100	.8957200	3.700	.200	84/10/22	85/04/06
	K	2	.1000000	.0000000	.0000000	.100	.100	85/04/05	85/04/05
	U	6	.1000000	.0000000	.0000000	.100	.100	84/10/22	84/11/10
	TOT	21	.6381000	.6684800	.8176000	3.700	.100	84/10/22	85/04/06
80329 MERCURY LT6.35MM SEDMG/KG		65	90.33300	25416.00	159.4200	893.000	.220	84/09/18	84/09/25
80330 MERCURY LT2.00MM SEDMG/KG		65	92.22600	25984.00	161.2000	911.000	.220	84/09/18	84/09/25
80331 MERCURY LT 500U SEDMG/KG		394	71.20200	33700.00	183.5600	1600.000	.100	84/06/18	84/11/07
	A	56	53.38900	18209.00	134.9400	950.000	.150	84/06/18	84/08/29

STORET RETRIEVAL DATE 85/12/03

197 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY COMPOSITE DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
80331	MERCURY	LT 500U	SEDMG/KG	U	24	.1000000	.0000000	.0000000	.100	.100	84/07/12	84/09/18
80331	MERCURY	LT 500U	SEDMG/KG	TOT	464	65.37400	30306.00	174.0900	1800.000	.100	84/06/18	84/11/07
80332	MERCURY	LT 125U	SEDMG/KG		65	105.6400	32472.00	180.2000	892.000	.240	84/09/18	84/09/25
81356	CATION	EX. CAP.	MEA/100G		39	11.07200	33.57900	5.794700	33.0	3.4	84/06/18	84/08/29
81614	NC.INDV.	IN THE	SAMPLE		8	2.375000	2.839300	1.685000	5	1	84/05/15	84/10/23
81756	TOT SED	PARTSIZ%			39	11.58000	121.2900	11.01300	50.0	1.6	84/06/18	84/08/29
81900	SEDIMENT	UPPER	DEPTH IN		632	11.39300	96.46500	9.821700	42.000	.100	84/06/18	84/11/07
				D	61	13.47200	111.7900	10.57300	37.000	.100	84/06/19	84/11/07
				S	45	6.371100	89.93600	9.483500	28.000	.100	84/06/19	84/10/11
				TOT	738	11.25900	98.94000	9.946900	42.000	.100	84/06/18	84/11/07
81901	SEDIMENT	LOWER	DEPTH IN		632	17.13900	101.2500	10.06300	46.100	1.000	84/06/18	84/11/07
				D	51	19.77100	116.3600	10.78700	44.000	3.900	84/06/19	84/11/07
				S	45	11.58700	97.01000	9.849400	36.000	2.000	84/06/19	84/10/11
				TOT	738	17.01800	104.4000	10.21700	46.100	1.000	84/06/19	84/11/07
82079	TURBIDTY	LAB	NTU		92	149.6800	18563.00	136.2500	900.0	1.6	84/05/31	85/04/06
84005	• FISH	SPECIES	F &WL	TXT	594	TEXT	TEXT	TEXT	TEXT	TEXT	84/04/17	84/10/23
84014	SPECIES	SEX	TEXT	TXT	490	TEXT	TEXT	TEXT	TEXT	TEXT	84/04/17	84/06/23
84068	SERIES	CODE	ALPHA	TXT	1790	TEXT	TEXT	TEXT	TEXT	TEXT	84/04/17	85/04/06

STORET RETRIEVAL DATE 85/09/11 PGM=INVENT

141 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY EAST FORK POPLAR CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00002	HSAMPLOC	% FROM	RT BANK		85	47.47100	704.5400	26.54300	100.0	5.0	84/05/09	84/11/10
				A	1	75.00000			75.0	75.0	84/06/18	84/06/18
				D	6	50.83300	2184.200	46.73500	100.0	5.0	84/06/18	84/06/26
				S	2	50.00000	.0000000	.0000000	50.0	50.0	84/09/18	84/09/19
				TOT	94	48.03200	762.4900	27.61300	100.0	5.0	84/05/09	84/11/10
00008	LAB	IDENT.	NUMBER		481	13791.00	3421E+07	184960.0	4061170	6	84/05/15	85/04/06
				A	1	57.00000			57	57	84/05/15	84/05/15
				D	2	8514.500	16.00000	4.000000	8516	8513	84/10/23	84/10/23
				R	25	4062700	1932E+05	13902.00	4089770	4051120	84/05/18	84/11/10
				TOT	510	220150.0	8270E+08	909400.0	4089770	6	84/05/15	85/04/06
00010	WATER	TEMP	CENT		4	17.62500	14.13600	3.759800	22.4	13.6	84/05/09	84/11/10
00023	WEIGHT		POUNDS		96	1.352600	8.165500	2.857500	18.06	.04	84/05/15	84/10/23
				C	2	.3650000	.1860500	.4313400	.67	.06	84/05/18	84/06/07
				S	7	4.882900	20.53200	4.531200	11.45	.17	84/05/15	84/08/29
				TOT	105	1.569100	9.455400	3.075000	18.06	.04	84/05/15	84/10/23
00024	LENGTH		INCHES		66	8.265100	17.64700	4.200900	23.00	4.20	84/05/15	84/06/07
				S	3	13.83300	68.54400	8.279100	23.00	6.90	84/06/05	84/06/07
				TOT	69	8.507200	20.19300	4.493700	23.00	4.20	84/05/15	84/06/07
00063	NO. OF	SAMPLING	POINTS		287	2.993000	3.000000	1.732000	5	1	84/06/18	85/04/06
00065	STREAM	STAGE	FEET		218	2.435800	1.324000	1.150700	4.35	.20	84/05/09	85/04/06
00094	CNDUCTVY	FIELD	MICROMHO		3	391.3300	28546.00	168.9500	520	200	84/05/09	84/05/31
00098	VSAMPLOC	DEPTH	METERS		4	.3000000	.0000000	.0000000	.30	.30	84/05/09	84/09/13
00300	DO		MG/L		3	8.600000	.1301700	.3608000	9.0	8.3	84/05/09	84/05/31
00400	PH		SU		3	6.883300	1.030900	1.015300	8.05	6.20	84/05/09	84/05/31
00431	T ALK	FIELD	MG/L		1	115.0000			115	115	84/05/31	84/05/31
00530	RESIDUE	TOT NFLT	MG/L		180	181.4100	28083.00	167.5800	890	2	84/05/09	85/04/06
				K	1	1.000000			1	1	85/04/06	85/04/06
				TOT	181	180.4100	28106.00	167.6500	890	1	84/05/09	85/04/06
00535	RESIDUE	VOL NFLT	MG/L		70	26.17200	361.7100	19.01900	94	2	84/05/31	85/04/06
00556	OIL-GRSE	FREON-GR	MG/L	U	1	5.000000			5.00	5.00	84/05/31	84/05/31
00557	OIL-GRSE	MUD FRGR	MG/KG		5	2446.000	5100100	2258.300	5100.000	930.000	84/06/18	84/06/26
00610	NH3+NH4-	N TOTAL	MG/L		1	.1100000			.110	.110	84/05/31	84/05/31
00625	TOT KJEL	N	MG/L		1	.6800000			.680	.680	84/05/31	84/05/31
00630	NO2&NO3	N-TOTAL	MG/L		1	3.800000			3.80	3.80	84/05/31	84/05/31
00665	PHOS-TOT		MG/L P		1	.6600000			.660	.660	84/05/31	84/05/31
00720	CYANIDE	CN-TOT	MG/L	U	1	.0200000			.020	.020	84/09/13	84/09/13
00721	CYANIDE	SEDMG/KG	DRY WGT	U	19	.8525300	.0092995	.0964340	1.10	.80	84/06/18	84/06/26
00900	TOT HARD	CACO3	MG/L		1	170.0000			170	170	84/05/31	84/05/31
01002	ARSENIC	AS,TOT	UG/L		1	1.000000			1	1	84/05/31	84/05/31
01003	ARSENIC	SEDMG/KG	DRY WGT		18	7.133300	7.030500	2.651500	14.00	3.60	84/06/18	84/06/26
01004	ARSENIC	TISMG/KG	WET WGT		17	.0905880	.0099184	.0995910	.40	.02	84/05/15	84/10/23
				U	83	.0537350	.0028017	.0529320	.20	.02	84/05/15	84/10/23
				TOT	100	.0600000	.0041172	.0641650	.40	.02	84/05/15	84/10/23
01012	BERYLIUM	BE,TOT	UG/L	U	1	1.000000			1.00	1.00	84/05/31	84/05/31

STORET RETRIEVAL DATE 85/09/11 PGM=INVENT

141 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY EAST FORK POPLAR CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01027	CADMIUM	CD,TOT	UG/L		1	1.300000			1	1	84/05/31	84/05/31
01028	CD MUD	DRY WGT	MG/KG-CD		12	2.600000	7.114600	2.667300	8.50	.50	84/06/18	84/06/26
				U	7	.5000000	.0000000	.0000000	.50	.50	84/06/18	84/06/22
				TOT	19	1.826300	5.431000	2.330400	8.50	.50	84/06/18	84/06/26
01029	CHROMIUM	SEDMG/KG	DRY WGT		19	38.36900	148.3600	12.18000	62.00	23.00	84/06/18	84/06/26
01034	CHROMIUM	CR,TOT	UG/L		1	2.000000			2	2	84/05/31	84/05/31
01042	COPPER	CU,TOT	UG/L		1	9.000000			9	9	84/05/31	84/05/31
01051	LEAD	PB,TOT	UG/L		1	2.000000			2	2	84/05/31	84/05/31
01052	LEAD	SEDMG/KG	DRY WGT		19	78.42100	1229.400	35.06200	170.00	36.00	84/06/18	84/06/26
01059	THALLIUM	TL,TOTAL	UG/L	U	1	50.00000			50	50	84/05/31	84/05/31
01067	NICKEL	NI,TOTAL	UG/L		1	11.00000			11	11	84/05/31	84/05/31
01068	NICKEL	SEDMG/KG	DRY WGT		19	38.84200	314.5900	17.73700	81.00	19.00	84/06/18	84/06/26
01069	NICKEL	TISMG/KG	WET WGT		7	1.857200	.4761900	.6900700	3.00	1.00	84/05/15	84/10/23
				U	94	1.031900	.0312290	.1767200	2.00	1.00	84/05/15	84/08/29
				TOT	101	1.089100	.1019800	.3193500	3.00	1.00	84/05/15	84/10/23
01073	THALLIUM	TIS-WET	MG/KG		1	2.800000			2.80	2.80	84/06/05	84/06/05
				U	17	1.000000	.0000000	.0000000	1.00	1.00	84/05/15	84/06/05
				TOT	18	1.100000	.1800000	.4242700	2.80	1.00	84/05/15	84/06/05
01077	SILVER	AG,TOT	UG/L		1	1.100000			1.1	1.1	84/05/31	84/05/31
01078	SILVER	SEDMG/KG	DRY WGT		19	10.00000	158.8900	12.60500	45.00	1.00	84/06/18	84/06/26
01092	ZINC	ZN,TOT	UG/L		1	60.00000			60	60	84/05/31	84/05/31
01097	ANTIMONY	SB,TOT	UG/L	U	1	1.000000			1	1	84/05/31	84/05/31
01099	ANTIMONY	TIS-WET	MG/KG	U	18	1.000000	.0000000	.0000000	1.00	1.00	84/05/15	84/06/05
01105	ALUMINUM	AL,TOT	UG/L		1	60.00000			60	60	84/05/31	84/05/31
01132	LITHIUM	LI,TOT	UG/L		1	30.00000			30	30	84/05/31	84/05/31
01147	SELENIUM	SE,TOT	UG/L	U	1	1.000000			1	1	84/05/31	84/05/31
01149	SELENIUM	TISMG/KG	WET WGT		18	.4400000	.0440710	.2099300	.86	.13	84/05/15	84/06/05
01163	ZR MUD	DRY WGT	MG/KG-ZR		19	442.6300	3443.000	58.67700	590.00	350.00	84/06/18	84/06/26
01501	ALPHA	TOTAL	PC/L		7	8.229600	10.29900	3.209200	15	5	84/05/31	84/11/10
01502	ALPHA-T	ERROR	PC/L		7	3.142900	.1428700	.3779800	4	3	84/05/31	84/11/10
01507	ALPHA	SEDIMENT	PC/G		28	21.50400	863.4300	29.38400	160	1	84/06/18	84/06/28
01508	ALPHA	SED-ERR	PC/G		28	5.157200	31.16200	5.582300	30	.5	84/06/18	84/06/28
01521	ALPHA	FISH	PCI/G		7	.1414300	.1121500	.3348900	.900	.000	84/05/18	84/06/05
				M	3	.0133330	.0000333	.0057735	.020	.010	84/05/15	84/05/31
				TOT	10	.1030000	.0786010	.2803600	.900	.000	84/05/15	84/06/05
01522	ALPHA	FISH-ERR	PCI/G		10	.1170000	.0423120	.2057000	.700	.020	84/05/15	84/06/05
03501	BETA	TOTAL	PC/L		7	23.00000	55.66700	7.461000	37	16	84/05/31	84/11/10
03502	BETA-T	ERROR	PC/L		7	3.714300	.5714400	.7559400	5	3	84/05/31	84/11/10
03507	BETA	SEDIMENT	PC/G		28	65.28600	984.2900	31.37300	140	15	84/06/18	84/06/28
03508	BETA	SED-ERR	PC/G		28	16.85700	525.9100	22.93300	130	3	84/06/18	84/06/28
03524	BETA	FISH	PCI/G		10	32.20000	391.5100	19.78700	74.000	12.000	84/05/15	84/06/05
03525	BETA	FISH-ERR	PCI/G		10	6.300000	16.45600	4.056600	15.000	2.000	84/05/15	84/06/05
07000	H-3	TOTAL	PC/L		1	400.0000			400.0	400.0	84/05/31	84/05/31
07001	H-3,TOTL	ERROR	PC/L		1	110.0000			110.0	110.0	84/05/31	84/05/31

STORET RETRIEVAL DATE 85/09/11 PGM=INVENT

141 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY EAST FORK POPLAR CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
09507	RA-226	SEDIMENT	PC/G		5	2.228000	5.100800	2.258500	4.7	.4	84/06/18	84/06/19
09508	RA-226	SED-ERR	PC/G		5	.1740000	.0270800	.1645600	.4	.05	84/06/18	84/06/19
11506	RA-224	SEDIMENT	PCI/G		11	2.490000	2.838700	1.684900	6.200	.590	84/06/18	84/06/28
11507	RA-224	SED-ERR	PCI/G		11	.6990900	.2792100	.5284000	2.000	.090	84/06/18	84/06/28
11508	RA-223	SEDIMENT	PCI/G		10	1.860000	1.216000	1.102700	4.800	.700	84/06/18	84/06/28
11509	RA-223	SEDIMENT	ERROR		10	.5800000	.0484450	.2201000	1.000	.400	84/06/18	84/06/28
15505	SR-89	SEDIMENT	PCI/G		28	.3071400	.0414290	.2035400	.700	.000	84/06/18	84/06/28
15506	SR-89	SED-ERR	PCI/G		28	.3678600	.0052249	.0722840	.500	.300	84/06/18	84/06/28
15507	SR-90	SEDIMENT	PCI/G		27	.0592590	.0048148	.0693890	.200	.000	84/06/18	84/06/28
				M	1	.1000000			.100	.100	84/06/19	84/06/19
				TOT	28	.0607140	.0046958	.0685260	.200	.000	84/06/18	84/06/28
15508	SR-90	SED-ERR	PCI/G		28	.1178600	.0015212	.0390030	.200	.100	84/06/19	84/06/28
15509	SR-89	FISH	PCI/G		2	.1000000	.0200000	.1414200	.200	.000	84/05/31	84/06/05
15510	SR-89	FISH-ERR	PCI/G		2	.1500000	.0050000	.0707110	.200	.100	84/05/31	84/06/05
15511	SR-90	FISH	PCI/G		2	.0300000	.0018000	.0424270	.060	.000	84/05/31	84/06/05
15512	SR-90	FISH-ERR	PCI/G		2	.0300000	.0002000	.0141420	.040	.020	84/05/31	84/06/05
17509	PB-212	SEDIMENT	PCI/G		28	1.840700	1.183300	1.087800	5.400	.300	84/06/18	84/06/28
17510	PB-212	SED-ERR	PCI/G		28	.3075000	.1232800	.3511100	2.000	.050	84/06/18	84/06/28
17511	PB-214	SEDIMENT	PCI/G		27	1.094800	.7767800	.8813500	5.300	.340	84/06/18	84/06/28
17512	PB-214	SED-ERR	PCI/G		27	.1588900	.0143570	.1198200	.630	.040	84/06/18	84/06/28
17515	PB 214	FISH	PCI/G		6	.9333300	1.070700	1.034700	3.000	.300	84/05/15	84/06/05
17516	PB-214	FISH-ERR	PCI/G		6	.3333300	.1106700	.3326700	1.000	.100	84/05/15	84/06/05
17519	PB-214	TOTAL	PCI/L		1	6.000000			6.000	6.000	84/11/10	84/11/10
17520	PB-214	TOTAL	ERROR		1	4.000000			4.000	4.000	84/11/10	84/11/10
21503	PA-233	SEDIMENT	PCI/G		7	.1082900	.0083339	.0912900	.280	.028	84/06/18	84/06/26
21504	PA-233	SED-ERR	PCI/G		7	.0340000	.0008120	.0284960	.070	.008	84/06/18	84/06/26
21505	MPA-234	SEDIMENT	PCI/G		19	20.57900	126.9300	11.26600	41.000	7.000	84/06/18	84/06/26
21506	MPA-234	SED-ERR	PCI/G		19	4.842100	4.473700	2.115100	8.000	1.000	84/06/18	84/06/26
21510	MPA-234	TOTAL	PCI/L		1	268.0000			268.000	268.000	84/10/22	84/10/22
21511	MPA-234	TOTAL	ERROR		1	138.0000			138.000	138.000	84/10/22	84/10/22
22016	PU-238	SEDIMENT	PCI/G		11	.0182820	.0006906	.0262810	.090	.001	84/06/18	84/06/28
22017	PU-238	SEDIMENT	ERRO		11	.0038909	.0000112	.0033483	.010	.0008	84/06/18	84/06/28
22018	PU-239	SEDIMENT	PCI/G		8	.0405250	.0009825	.0313460	.100	.001	84/06/18	84/06/28
22019	PU-239	SEDIMENT	ERRO		8	.0085000	.0000325	.0057071	.020	.001	84/06/18	84/06/28
22102	TC-99	FISH	PCI/G		9	.4766700	.1362300	.3690900	1	.2	84/05/15	84/05/31
22103	TC-99	FISHERR	PCI/G		9	.1172200	.0012400	.0352130	.1	.08	84/05/15	84/05/31
22200	BE-7	SEDIMENT	PCI/G		18	2.250000	2.410900	1.552700	6.500	.500	84/06/18	84/06/26
22201	BE-7	SED-ERR	PCI/G		18	.4000000	.0435290	.2086400	.800	.100	84/06/18	84/06/26
22300	K-40	SEDIMENT	PCI/G		28	14.83600	31.04600	5.571900	25.000	3.600	84/06/18	84/06/28
22301	K-40	SED-ERR	PCI/G		28	1.600000	.3103800	.5571100	2.000	.400	84/06/18	84/06/28
22302	K-40	FISH	PCI/G		10	15.70000	8.455600	2.907900	22.000	12.000	84/05/15	84/06/05
22303	K-40	FISH-ERR	PCI/G		10	2.700000	1.122200	1.059400	5.000	1.000	84/05/15	84/06/05
22350	TL-208	SEDIMENT	PCI/G		28	.6732900	.1313700	.3632800	1.900	.210	84/06/18	84/06/28
22351	TL-208	SED-ERR	PCI/G		28	.0932140	.0015782	.0397270	.200	.020	84/06/18	84/06/28

STORET RETRIEVAL DATE 85/03/11 PGM=INVENT

141 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY EAST FORK POPLAR CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
22375	BI-212	SEDIMENT	PCI/G		28	2.217900	1.317800	1.148000	6.300	.700	84/06/18	84/06/28
22376	BI-212	SED-ERR	PCI/G		28	.4714300	.0376720	.1940900	.900	.100	84/06/18	84/06/28
22377	BI-214	SEDIMENT	PCI/G		28	.9814300	.5909700	.7687500	4.700	.320	84/06/18	84/06/28
22378	BI-214	SED-ERR	PCI/G		28	.1250000	.0045149	.0671930	.300	.040	84/06/18	84/06/28
22381	BI-214	FISH	PCI/G		6	.8166700	.8216700	.9064600	2.600	.200	84/05/15	84/06/05
22382	BI-214	FISH-ERR	PCI/G		6	.2833300	.0656670	.2562600	.800	.100	84/05/15	84/06/05
22383	BI-214	TOTAL	PCI/L		3	6.333300	2.333400	1.527600	8.000	5.000	84/10/22	84/11/10
22384	BI-214	TOTAL	ERROR		3	4.333300	.3333400	.5773600	5.000	4.000	84/10/22	84/11/10
22450	AM-241	SEDIMENT	PCI/G		13	.0264620	.0002214	.0148810	.050	.007	84/06/18	84/06/28
22451	AM-241	SEDIMENT	ERRO		13	.0063077	.0000067	.0025944	.010	.003	84/06/18	84/06/28
22475	CU-244	SEDMENT	PCI/G		12	.0069333	.0000080	.0028379	.012	.001	84/06/18	84/06/28
22476	CU-244	SEDIMENT	ERRO		12	.0033750	.0000014	.0011895	.005	.0005	84/06/18	84/06/28
22507	TH-234	SEDIMENT	PCI/G		28	10.67500	50.06900	7.075900	29.000	1.200	84/06/18	84/06/28
22508	TH-234	SED-ERR	PCI/G		28	1.410700	.8284100	.9101700	4.000	.300	84/06/18	84/06/28
22608	URANIUM	SEDIMENT	UG/G		28	25.65400	425.6400	20.63100	90.000	2.300	84/06/18	84/06/28
22609	URANIUM	SED-ERR	UG/G		28	5.057200	23.15800	4.812300	20.000	.500	84/06/18	84/06/28
22612	U-235	SEDIMENT	PCI/G		14	1.049300	.4057900	.6370200	2.600	.270	84/06/18	84/06/26
22613	U-235	SED-ERR	PCI/G		14	.3100000	.0326620	.1807300	.500	.060	84/06/18	84/06/26
25503	AC-228	SEDIMENT	PCI/G		28	1.545000	.6113700	.7819000	4.300	.560	84/06/18	84/06/28
25504	AC-228	SED-ERR	PCI/G		28	.2303600	.0124260	.1114700	.600	.070	84/06/18	84/06/28
27999	RU-106	SEDIMENT	PCI/		5	.4220000	.0554200	.2354200	.700	.110	84/06/18	84/06/26
28000	RU-106	SEDIMENT	ERROR		5	.1480000	.0055200	.0742970	.200	.040	84/06/18	84/06/26
28301	I-131	TOTAL	PC/L		1	14.00000			14.0	14.0	84/10/22	84/10/22
28302	I-131	ERROR	PC/L		1	3.000000			3.0	3.0	84/10/22	84/10/22
28416	CS-134	SEDIMENT	PCI/G		11	.3154600	.0722100	.2687200	.780	.016	84/06/18	84/06/28
28417	CS-134	SED-ERR	PCI/G		11	.0426360	.0009848	.0313820	.090	.003	84/06/18	84/06/28
28418	CS-137	SEDIMENT	PCI/G		27	2.428900	4.198100	2.048900	8.600	.070	84/06/18	84/06/28
28419	CS-137	SED-ERR	PCI/G		27	.2266700	.0384080	.1959800	.900	.020	84/06/18	84/06/28
28420	CS-134	FISH	PCI/G		5	.1820000	.0050700	.0712040	.270	.110	84/05/15	84/06/05
28421	CS-134	FISH-ERR	PCI/G		5	.0560000	.0005300	.0230220	.080	.030	84/05/15	84/06/05
28422	CS-137	FISH.	PCI/G		10	1.190000	.7034900	.8387400	2.600	.120	84/05/15	84/06/05
28423	CS-137	FISH-ERR	PCI/G		10	.1620000	.0149510	.1222800	.400	.050	84/05/15	84/06/05
29604	CO-60	SEDIMENT	PCI/G		13	1.335300	2.660900	1.631200	5.500	.012	84/06/18	84/06/28
29605	CO-60	SED-ERR	PCI/G		13	.1429200	.0223690	.1495600	.500	.008	84/06/18	84/06/28
29606	CO-60	FISH	PCI/G		1	.0300000			.030	.030	84/05/31	84/05/31
29607	CO-60	FISH-ERR	PCI/G		1	.0100000			.010	.010	84/05/31	84/05/31
32101	DICLBRMT		TOTUG/L	U	1	10.00000			10.0	10.0	84/05/31	84/05/31
32102	CARBNTET		TOTUG/L	U	1	10.00000			10.0	10.0	84/05/31	84/05/31
32104	BROMOFRM	WHL-WTR	UG/L	U	1	10.00000			10.0	10.0	84/05/31	84/05/31
32105	CLDIBRMT		TOTUG/L	U	1	10.00000			10.0	10.0	84/05/31	84/05/31
32106	CHLRFORM		TOTUG/L	U	1	10.00000			10.0	10.0	84/05/31	84/05/31
32730	PHENOLS	TOTAL	UG/L	U	1	2.000000			2	2	84/09/13	84/09/13
32731	PHENOLS	SEDMG/KG	DRY WGT		15	.9000000	.0600000	.2449500	1.30	.50	84/06/18	84/06/26
				U	4	.4000000	.0000000	.0000000	.40	.40	84/06/18	84/06/26

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STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY EAST FORK POPLAR CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
32731 PHENOLS	SEDMG/KG	DRY WGT	TOT	19	.7947400	.0905210	.3008800	1.30	.40	84/06/18	84/06/26
34010 TOLUENE		TOT UG/L	U	1	10.00000			10.00	10.00	84/05/31	84/05/31
34030 BENZENE		TOT UG/L	U	1	10.00000			10.00	10.00	84/05/31	84/05/31
34200 ACENAPHT	HYLENE	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34203 ACNAPTHY	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34204 ACNAPTHY	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34205 ACENAPHT	HENE	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34208 ACNAPTHE	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34209 ACNAPTHE	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34210 ACROLEIN		TOTWUG/L	U	1	100.0000			100.000	100.000	84/05/31	84/05/31
34214 ACROLEIN	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34215 ACRYLONI	TRILE	TOTWUG/L	U	1	100.0000			100.000	100.000	84/05/31	84/05/31
34219 ACRYLNIT	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34220 ANTHRACE	NE	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34223 ANTHRACE	SEDUG/KG	DRY WGT		1	1000.000			1000.000	1000.000	84/06/18	84/06/18
			M	11	716.3600	4365.900	66.07500	880.000	670.000	84/06/18	84/06/26
			U	7	725.7200	8129.300	90.16300	860.000	660.000	84/06/19	84/06/22
			TOT	19	734.7400	9282.100	96.34400	1000.000	660.000	84/06/18	84/06/26
34224 ANTHRACE	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34230 BENZBFLU	ORANT TO	TAL UG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34233 BENZBFLU	ORANTMUD	DRYUG/KG	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34234 BENZBFLU	ORANTTIS	WETMG/KG	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34238 BENZENE	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34241 BENZIDIN	TISMG/KG	WET WGT	U	11	4.127300	.5702100	.7551200	5.000	3.400	84/05/15	84/06/05
34242 BENZO(K)	FLUORANT	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34245 BENZKFLU	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34246 BENZKFLU	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34247 BENZO(A)	PYRENE	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34250 BENZAPYR	SEDUG/KG	DRY WGT		1	900.0000			900.000	900.000	84/06/18	84/06/18
			M	5	738.0000	8870.000	94.18100	880.000	670.000	84/06/18	84/06/26
			U	13	713.0800	4590.000	67.75000	860.000	660.000	84/06/18	84/06/26
			TOT	19	729.4700	6861.100	82.83200	900.000	660.000	84/06/18	84/06/26
34251 BENZAPYR	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34252 BERYLIUM	TISMG/KG	WET WGT	U	18	.0600000	.0016941	.0411600	.100	.020	84/05/15	84/06/05
34258 BETA BHC	TISMG/KG	WET WGT	U	8	.0100000	.0000000	.0000000	.010	.010	84/05/15	84/06/05
34259 DELTABHC		TOTUG/L	U	1	.0100000			.010	.010	84/05/31	84/05/31
34263 DELTABHC	TISMG/KG	WET WGT	U	8	.0100000	.0000000	.0000000	.010	.010	84/05/15	84/06/05
34268 BISCHLOR	OMETHYLE	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34272 BCLMTETR	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34273 BIS2CHLO	ROETHYLE	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34276 B2CETETR	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34277 B2CETETR	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.570	84/05/15	84/06/05
34278 BIS2CHLO	ROETHOXY	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34281 B2CETOXM	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26

STORET RETRIEVAL DATE 85/09/11 PGM=INVENT

141 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY EAST FORK POPLAR CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

	PARAMETER	RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34282	B2CETOXM TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34283	BIS2CHLO ROISCPRO TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34286	B2CIPETR SEDUG/KG DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34287	B2CIPETR TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34291	BROMOFOR TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34292	NBB PHTH TOTAL UG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34295	NBB PHTH MUD-DRY UG/KG	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34296	NBB PHTH TIS-WET MG/KG	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34300	CARBNTET TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34301	CHLOROBE NZENE TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34305	CLBENZEN TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34310	CLDIBRMT TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34311	CHLOROET HANE TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34315	CLETHANE TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34319	CHLRFORM TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34320	CHRYSENE TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34323	CHRYSENE SEDUG/KG DRY WGT		1	920.0000			920.000	920.000	84/06/18	84/06/18
		M	8	728.7500	5526.900	74.34300	880.000	670.000	84/06/18	84/06/26
		U	10	713.0000	5890.000	76.74600	860.000	660.000	84/06/18	84/06/22
		TOT	19	730.5300	7261.200	85.21300	920.000	660.000	84/06/18	84/06/26
34324	CHRYSENE TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34331	DICLBRMT TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34335	DCLDFLMT TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34336	DIETHYLP HTHALATE TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34339	DETHPHTH SEDUG/KG DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34340	DETHPHTH TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34341	DIMETHYL PHTHALAT TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34344	DMETPHTH SEDUG/KG DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34345	DMETPHTH TISMG/KG WET WGT	M	1	.6700000			.670	.670	84/06/05	84/06/05
		U	10	.8340000	.0242050	.1555800	1.000	.670	84/05/15	84/06/05
		TOT	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34346	12DIPHEN YLHYDRAZ TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34349	12DPHNHY SEDUG/KG DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34350	12DPHNHY TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34351	ENDSULSF TOTUG/L	U	1	.0100000			.010	.010	84/05/31	84/05/31
34355	ENDSULSF TISMG/KG WET WGT	U	8	.0100000	.0000000	.0000000	.010	.010	84/05/15	84/06/05
34356	B-ENDO SULFAN TOTWUG/L	U	1	.0100000			.010	.010	84/05/31	84/05/31
34360	BENDOSUL TISMG/KG WET WGT	U	8	.0100000	.0000000	.0000000	.010	.010	84/05/15	84/06/05
34361	A-ENDO SULFAN TOTWUG/L	U	1	.0100000			.010	.010	84/05/31	84/05/31
34365	AENDOSUL TISMG/KG WET WGT	U	8	.0100000	.0000000	.0000000	.010	.010	84/05/15	84/06/05
34366	ENDRINAL DEHYDE TOTWUG/L	U	1	.0100000			.010	.010	84/05/31	84/05/31
34370	ENDRINAL TISMG/KG WET WGT	U	8	.0100000	.0000000	.0000000	.010	.010	84/05/15	84/06/05
34371	ETHYLBEN ZENE TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34375	ETHYLBEN TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05

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STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY EAST FORK POPLAR CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34376 FLUORANT HENE		TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34379 FLANTENE	SEDUG/KG	DRY WGT		11	1835.500	1252600	1119.200	4600.000	870.000	84/06/18	84/06/26
			M	3	736.5700	10034.00	100.1700	850.000	660.000	84/06/19	84/06/20
			U	5	714.0000	7080.000	84.14300	860.000	660.000	84/06/21	84/06/22
			TOT	19	1366.900	1017300	1008.600	4600.000	660.000	84/06/18	84/06/26
34380 FLANTENE	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34381 FLUORENE		TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34384 FLUORENE	SEDUG/KG	DRY WGT	M	1	670.0000			670.000	670.000	84/06/18	84/06/18
			U	18	720.0000	5458.800	73.88400	880.000	660.000	84/06/18	84/06/26
			TOT	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34385 FLUORENE	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34386 HEXACHLO	ROCYCLOP	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34389 HEXCLCPD	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34390 HEXCLCPD	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34391 HEXACHLO	ROBUTADI	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34395 HEXCLBD	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34396 HEXACHLO	ROETHANE	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34399 HEXACLET	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34400 HEXACLET	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34403 INDENO(1	23CD)PYR	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34406 I123CDPR	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34407 I123CDPR	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34408 ISPHRONE		TOTUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34411 ISPHRONE	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34412 ISPHRONE	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34413 METHYLBR	OMIDE	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34417 METHYLBR	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34418 METHYLCH	LORIDE	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34422 METHYLCL	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34423 METHYLEN	ECHLORID	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34427 MTHLENCL	TISMG/KG	WET WGT	U	11	.2500000	.0000000	.0000000	.250	.250	84/05/15	84/06/05
34428 NITROSOD	IPROPYLA	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34431 NITDNPRA	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34432 NITDNPRA	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34433 NITROSOD	IPHENYLA	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34436 NITRSDPA	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34437 NITRSDPA	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34438 NITROSOD	IMETHYLA	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34441 NITRSDMA	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34442 NITRSDMA	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34445 NAPTHALE	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34446 NAPTHALE	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34447 NITROBEN	ZENE	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34450 NITROBEN	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26

STORET RETRIEVAL DATE 85/09/11 PGM=INVENT

141 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY EAST FORK POPLAR CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER	RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34451 NITROBEN TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34452 PARACHLO ROMETACR TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34456 PCLMCRES TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34461 PHENANTH RENE TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34464 PHENANTH SEDUG/KG DRY WGT		6	1833.300	1858700	1363.300	4500.000	800.000	84/06/18	84/06/26
	M	12	710.8300	4790.600	69.21400	860.000	660.000	84/06/18	84/06/26
	U	1	660.0000			660.000	660.000	84/06/22	84/06/22
	TOT	19	1062.600	808730.0	899.3000	4500.000	660.000	84/06/18	84/06/26
34465 PHENANTH TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34468 PHENOL TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34469 PYRENE TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34472 PYRENE SEDUG/KG DRY WGT		9	1516.700	711900.0	843.7400	3500.000	840.000	84/06/18	84/06/26
	M	4	715.0000	8166.700	90.37000	850.000	660.000	84/06/18	84/06/22
	U	6	711.6700	5697.400	75.48100	860.000	660.000	84/06/19	84/06/22
	TOT	19	1093.700	489310.0	699.5100	3500.000	660.000	84/06/18	84/06/26
34473 PYRENE TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34474 SILVER TISMG/KG WET WGT		9	.3222200	.0169450	.1301700	.600	.200	84/05/15	84/10/23
	U	92	.2326100	.0041998	.0648060	.500	.200	84/05/15	84/10/23
	TOT	101	.2405900	.0058353	.0763920	.600	.200	84/05/15	84/10/23
34475 TETRACHL OROETHYL TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34479 TETCLETE TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34484 TOLUENE TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34488 TRICHLOR OFLUOROM TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34492 TRCLFLMT TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34496 11DICHLO ROETHANE TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34500 11DICLET TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34501 11DICHLO ROETHYLE TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34505 11DCETEN TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34506 111TRICH LOROETHA TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34510 111TCLET TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34511 112TRICH LOROETHA TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34515 112TCLET TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34516 1122TETR ACHLOROE TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34520 1122TCLE TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34521 BENZO(GH I)PERYLE TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34524 BZGHIPER SEDUG/KG DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34525 BZGHIPER TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34526 BENZO(A) ANTHRACE TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34529 BENZAANT SEDUG/KG DRY WGT		2	1060.000	39200.00	197.9900	1200.000	920.000	84/06/18	84/06/19
	M	4	685.0000	166.6700	12.91000	700.000	670.000	84/06/19	84/06/26
	U	13	725.3900	6843.900	82.72800	880.000	660.000	84/06/18	84/06/22
	TOT	19	752.1100	18818.00	137.1800	1200.000	660.000	84/06/18	84/06/26
34530 BENZAANT TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34531 12DICHLO ROETHANE TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31

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STATISTICAL SUMMARY
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WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

	PARAMETER	RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34535	12DICLET TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34536	12DICHLO ROBENZEN TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34539	12DCLBEN SEDUG/KG DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34540	12DCLBEN TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34541	12DICHLO ROPRCPAN TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34545	12DCLPRP TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34546	12DICHLO ROETHYLE TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34550	12TDCETE TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34551	124TRICH LOROBENZ TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34554	124TCBEN SEDUG/KG DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34555	124TCBEN TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34556	DIBENZ(A H)ANTHRA TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34559	DBAHANTH SEDUG/KG DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34560	DBAHANTH TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34565	13DCPRPE TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34566	13DICHLO ROBENZEN TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34569	13DCLBEN SEDUG/KG DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34570	13DCLBEN TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34571	14DICHLO ROBENZEN TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34574	14DCLBEN SEDUG/KG DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34575	14DCLBEN TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34576	2CHLOROE THYLVINY TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34580	2CLEVETR TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34581	2CHLORON APHTHALE TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34584	2CLNAPTH SEDUG/KG DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34585	2CLNAPTH TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34586	2CHLOROP HENOL TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34590	2CLPHENO TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34591	2NITROPH ENOL TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34595	2NPHENOL TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34596	DINOCTPH TOTUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34599	DINOCTPH SEDUG/KG DRY WGT	M	1	690.0000			690.000	690.000	84/06/26	84/06/26
		U	18	718.8900	5552.000	74.51200	880.000	660.000	84/06/18	84/06/26
		TOT	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34600	DINOCTPH TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34601	24DICHLO ROPHENOL TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34605	24DCPHEN TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34606	24DIMETH YLPHENOL TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34610	24DMPHEN TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34611	24DINITR OTOLUENE TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34614	24DNTOLU SEDUG/KG DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34615	24DNTOLU TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34616	24DINITR OPHENOL TOTWUG/L	U	1	100.0000			100.000	100.000	84/05/31	84/05/31
34620	24DNPHEN TISMG/KG WET WGT	U	11	8.190900	2.422900	1.556600	10.000	6.700	84/05/15	84/06/05

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INSTREAM CONTAMINANT STUDY-TASK 5

	PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34621	245TRICH	LOROPHEN	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34625	245TCPHN	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34625	26DINITR	OTOLUENE	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34629	26DNTOLU	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34630	26DNTOLU	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34631	33DICHLO	ROBENZID	TOTWUG/L	U	1	25.00000			25.000	25.000	84/05/31	84/05/31
34634	33DCBNZD	SEDUG/KG	DRY WGT	U	19	1800.000	35667.00	191.4900	2200.000	1600.000	84/06/18	84/06/26
34635	33DCBNZD	TISMG/KG	WET WGT	U	11	2.063600	.1425500	.3775600	2.500	1.700	84/05/15	84/06/05
34636	4BROMOPH	ENYLPHEN	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34639	4BRPPETR	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34640	4BRPPETR	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34641	4CHLOROP	HENYLPHE	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34644	4CLPPETR	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.000	660.000	84/06/18	84/06/26
34645	4CLPPETR	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34646	4NITROPH	ENOL	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34650	4NPHENCL	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34657	46DINITR	OORTHOCR	TOTWUG/L	U	1	50.00000			50.000	50.000	84/05/31	84/05/31
34661	46DNOCRE	TISMG/KG	WET WGT	U	11	4.127300	.5702100	.7551200	5.000	3.400	84/05/15	84/06/05
34664	PCB-1221	TISMG/KG	WET WGT	U	21	.1000000	.0000000	.0000000	.100	.100	84/05/15	84/06/05
34667	PCB-1232	TISMG/KG	WET WGT	U	21	.1000000	.0000000	.0000000	.100	.100	84/05/15	84/06/05
34668	DICHLORO	DIFLUORO	TOTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34669	PCB-1248	TISMG/KG	WET WGT	U	21	.1000000	.0000000	.0000000	.100	.100	84/05/15	84/06/05
34670	PCB-1260	TISMG/KG	WET WGT		6	1.133300	.5601100	.7484100	2.000	.300	84/05/15	84/06/05
				U	15	.1000000	.0000000	.0000000	.100	.100	84/05/15	84/05/22
				TOT	21	.3952400	.3688400	.6073200	2.000	.100	84/05/15	84/06/05
34671	PCB	1016	TOTWUG/L	U	1	.1000000			.100	.100	84/05/31	84/05/31
34674	PCB-1016	TISMG/KG	WET WGT	U	21	.1000000	.0000000	.0000000	.100	.100	84/05/15	84/06/05
34680	ALDRIN	TISMG/KG	WET WGT	R	1	.0200000			.020	.020	84/06/05	84/06/05
				U	7	.0100000	.0000000	.0000000	.010	.010	84/05/15	84/06/05
				TOT	8	.0112500	.0000125	.0035356	.020	.010	84/05/15	84/06/05
34682	CDANEWET	TECH8MET	TISMG/KG	U	8	.0100000	.0000000	.0000000	.010	.010	84/05/15	84/06/05
34683	DNB PHTH	TIS-WET	MG/KG	M	8	.7937500	.0291700	.1707900	1.000	.670	84/05/15	84/06/05
				U	3	.8866700	.0096335	.3981510	1.000	.830	84/05/15	84/06/05
				TOT	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34685	ENDRIN	TISMG/KG	WET WGT	U	8	.0100000	.0000000	.0000000	.010	.010	84/05/15	84/06/05
34686	HPCHLREP	TISMG/KG	WET WGT	R	1	.0400000			.040	.040	84/06/05	84/06/05
				U	7	.0100000	.0000000	.0000000	.010	.010	84/05/15	84/06/05
				TOT	8	.0137500	.0001125	.0106070	.040	.010	84/05/15	84/06/05
34687	HEPTCHLR	TISMG/KG	WET WGT	U	8	.0100000	.0000000	.0000000	.010	.010	84/05/15	84/06/05
34688	HCB	TISMG/KG	WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
34689	PCB-1242	TISMG/KG	WET WGT	U	21	.0957140	.0003857	.0196400	.100	.010	84/05/15	84/06/05
34690	PCB-1254	TISMG/KG	WET WGT		5	.8040000	.3652800	.6043800	1.700	.260	84/05/15	84/06/05
				U	16	.1000000	.0000000	.0000000	.100	.100	84/05/15	84/05/22
				TOT	21	.2676200	.1674600	.4092200	1.700	.100	84/05/15	84/06/05

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STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY EAST FORK POPLAR CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER	RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34691 TOXAPHEN TISMG/KG WET WGT	R	1	.5000000			.500	.500	84/06/05	84/06/05
	U	7	.5000000	.0000000	.0000000	.500	.500	84/05/15	84/06/05
	TOT	8	.5000000	.0000000	.0000000	.500	.500	84/05/15	84/06/05
34692 TRICLETE TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34693 VINYLCHL TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/15	84/06/05
34694 PHENOL TOT UG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
34696 NAPTHALE NE T OTWUG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
39032 PCP TOT UG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
39060 PCP TISMG/KG WET WGT	U	11	.8190900	.0242300	.1556600	1.000	.670	84/05/15	84/06/05
39074 ALPHABHC TISMG/KG WET WGT	U	8	.0100000	.0000000	.0000000	.010	.010	84/05/15	84/06/05
39099 B2ETHXPH TISMG/KG WET WGT		1	1.200000			1.20	1.20	84/05/15	84/05/15
	M	6	.7800000	.0290410	.1704100	1.00	.67	84/05/15	84/06/05
	U	4	.8325000	.0181590	.1347500	1.00	.67	84/05/15	84/06/05
	TOT	11	.8372700	.0351020	.1873600	1.20	.67	84/05/15	84/06/05
39100 B2E PHTH TOTAL UG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
39102 B2E PHTH MUD-DRY UG/KG		16	1244.400	237570.0	487.4100	2600	700	84/06/18	84/06/26
	M	3	680.0000	400.0000	20.00000	700	660	84/06/19	84/06/22
	TOT	19	1155.300	242730.0	492.6700	2600	660	84/06/18	84/06/26
39110 CNB PHTH TOTAL UG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
39112 CNB PHTH MUD-DRY UG/KG	M	2	675.0000	450.0000	21.21300	690	660	84/06/22	84/06/26
	U	17	722.3500	5669.400	75.29600	880	660	84/06/18	84/06/26
	TOT	19	717.3700	5287.300	72.71400	880	660	84/06/18	84/06/26
39120 BENZIDIN TOTUG/L	U	1	50.00000			50.000	50.000	84/05/31	84/05/31
39121 BENZIDIN SEDUG/KG DRY WGT	U	19	3600.000	128890.0	359.0100	4400.00	3300.00	84/06/18	84/06/26
39175 VINYLCHL ORIDE TOT UG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
39180 TRICHLOR ETHYLENE TOT UG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
39300 P,P'DDT TOT UG/L	U	1	.0100000			.010	.010	84/05/31	84/05/31
39302 P,P'DDT TISMG/KG WET WGT	R	1	.1200000			.12	.12	84/06/05	84/06/05
	U	7	.0100000	.0000000	.0000000	.01	.01	84/05/15	84/06/05
	TOT	8	.0237500	.0015125	.0388910	.12	.01	84/05/15	84/06/05
39310 P,P'DDD TOT UG/L	U	1	.0100000			.010	.010	84/05/31	84/05/31
39312 P,P'DDD TISMG/KG WET WGT	U	8	.0100000	.0000000	.0000000	.01	.01	84/05/15	84/06/05
39320 P,P'DDE TOT UG/L	U	1	.0100000			.010	.010	84/05/31	84/05/31
39322 P,P'DDE TISMG/KG WET WGT	R	1	.0400000			.04	.04	84/06/05	84/06/05
	R	2	.0900000	.0018000	.0424270	.12	.06	84/06/05	84/06/05
	U	5	.0100000	.0000000	.0000000	.01	.01	84/05/15	84/05/15
	TOT	8	.0337500	.0015697	.0396190	.12	.01	84/05/15	84/06/05
39330 ALDRIN TOT UG/L	U	1	.0100000			.010	.010	84/05/31	84/05/31
39337 ALPHABHC TOTUG/L	U	1	.0100000			.010	.010	84/05/31	84/05/31
39338 BETA BHC TOTUG/L	U	1	.0100000			.010	.010	84/05/31	84/05/31
39340 GAMMABHC LINDANE TOT.UG/L	U	1	.0100000			.010	.010	84/05/31	84/05/31
39350 CHLRDANE TECH&MET TOT UG/L	U	1	.0100000			.010	.010	84/05/31	84/05/31
39380 DIELDRIN TOTUG/L	U	1	.0100000			.010	.010	84/05/31	84/05/31
39390 ENDRIN TOT UG/L	U	1	.0100000			.010	.010	84/05/31	84/05/31

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STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY EAST FORK POPLAR CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
39400	TOXAPHEN		TOTUG/L	U	1	.5000000			.500	.500	84/05/31	84/05/31
39404	DIELDRIN	TISMG/KG	WET WGT	U	8	.0100000	.0000000	.0000000	.01	.01	84/05/15	84/06/05
39410	HEPTCHLR		TOTUG/L	U	1	.0100000			.010	.010	84/05/31	84/05/31
39420	HPCHLREP		TOTUG/L	U	1	.0100000			.010	.010	84/05/31	84/05/31
39421	HPCHLREP		DISUG/L	U	1	100.0000			100.000	100.000	84/06/18	84/06/18
39488	PCB-1221		TOTUG/L	U	1	.1000000			.100	.100	84/05/31	84/05/31
39491	PCB-1221	SEDUG/KG	DRY WGT	U	19	100.0000	.0000000	.0000000	100.00	100.00	84/06/18	84/06/26
39492	PCB-1232		TOTUG/L	U	1	.1000000			.100	.100	84/05/31	84/05/31
39495	PCB-1232	SEDUG/KG	DRY WGT	U	19	100.0000	.0000000	.0000000	100.00	100.00	84/06/18	84/06/26
39496	PCB-1242		TOTUG/L	U	1	.1000000			.100	.100	84/05/31	84/05/31
39499	PCB-1242	SEDUG/KG	DRY WGT	U	19	100.0000	.0000000	.0000000	100.00	100.00	84/06/18	84/06/26
39500	PCB-1248		TOTUG/L	U	1	.1000000			.100	.100	84/05/31	84/05/31
39503	PCB-1248	SEDUG/KG	DRY WGT	U	19	100.0000	.0000000	.0000000	100.00	100.00	84/06/18	84/06/26
39504	PCB-1254		TOTUG/L	U	1	.1000000			.100	.100	84/05/31	84/05/31
39507	PCB-1254	SEDUG/KG	DRY WGT		7	842.3600	636130.0	797.6200	2000.00	200.00	84/06/18	84/06/26
				U	12	100.0000	.0000000	.0000000	100.00	100.00	84/06/18	84/06/22
				TOT	19	373.6900	347600.0	589.5800	2000.00	100.00	84/06/18	84/06/26
39508	PCB-1260		TOTUG/L	U	1	.1000000			.100	.100	84/05/31	84/05/31
39511	PCB-1260	SEDUG/KG	DRY WGT		11	1159.100	2031400	1425.300	4000.00	200.00	84/06/18	84/06/26
				U	8	100.0000	.0000000	.0000000	100.00	100.00	84/06/19	84/06/22
				TOT	19	713.1600	1417200	1190.500	4000.00	100.00	84/06/18	84/06/26
39514	PCB-1016	SEDUG/KG	DRY WGT	U	19	100.0000	.0000000	.0000000	100.00	100.00	84/06/18	84/06/26
39515	PCBS	FISH	MG/KG		1	.6000000			.600	.500	84/05/18	84/05/18
				U	12	.1000000	.0000000	.0000000	.100	.100	84/05/18	84/05/22
				TOT	13	.1384600	.0192310	.1386800	.600	.100	84/05/18	84/05/22
39700	HCB		TOT UG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
39701	HCB	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880.00	660.00	84/06/18	84/06/26
39705	HEXCLBD	SEDUG/KG	DRY WGT	U	19	717.3700	5287.300	72.71400	880	660	84/06/18	84/06/26
39785	GBHC-TIS	LINDANE	WETMG/KG	U	8	.0100000	.0000000	.0000000	.01	.01	84/05/15	84/06/05
45579	% LIPID	EXTRACT	MATERIAL		13	.4200000	.2379200	.4877700	1	.1	84/05/18	84/05/22
70280	SED PART	500-2000	SIZE%TOT		64	11.02000	146.1800	12.09000	44.00	.12	84/09/18	84/09/25
				K	1	.0100000			.01	.01	84/09/19	84/09/19
				TOT	65	10.85000	145.7600	12.07300	44.00	.01	84/09/18	84/09/25
70281	SED PART	2000-635	0SIZ%TOT		56	9.291200	185.9900	13.63800	56.30	.09	84/09/19	84/09/25
				K	9	.0100000	.0000000	.0000000	.01	.01	84/09/18	84/09/25
				TOT	65	8.006100	170.2800	13.04900	56.30	.01	84/09/18	84/09/25
70282	SED PART	63-125U	SIZE%TOT		65	11.29300	30.02000	5.479000	24.40	1.20	84/09/18	84/09/25
70283	SED PART	125-500U	SIZE%TOT		65	15.70900	90.10400	9.492300	37.30	1.10	84/09/18	84/09/25
70320	MOISTURE	CONTENT	PERCENT		155	25.51600	159.0300	12.61100	62	1	84/06/18	84/09/25
				U	4	.1000000	.0000000	.0000000	.1	.1	84/09/19	84/09/20
				TOT	159	24.87700	170.9500	13.07500	62	.1	84/06/18	84/09/25
70322	RESIDUE	TOT VOL	PERCENT		19	6.152600	5.360400	2.315300	12.0	3.9	84/06/18	84/06/26
71821	SPECIFIC	GRAVITY	SEDGM/GM		185	2.327200	.1401500	.3743600	5.180	.790	84/06/18	85/04/05
71890	MERCURY	HG,DISS	UG/L		18	.4333300	.3576500	.5980400	2.7	.2	84/05/09	84/11/11

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STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY EAST FORK POPLAR CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
71890	MERCURY	HG,DISS	UG/L	U	50	.2120000	.0039347	.0627270	.6	.2	84/05/31	85/04/06
71890	MERCURY	HG,DISS	UG/L	TOT	68	.2705900	.1033000	.3214100	2.7	.2	84/05/09	85/04/06
71900	MERCURY	HG,TOTAL	UG/L		68	8.429400	52.26700	7.229600	44.0	.9	84/05/09	85/04/06
71921	MERCURY	SEDMG/KG	DRY WGT		19	45.10500	2043.700	45.20700	170.0	10.0	84/06/18	84/06/26
				A	5	293.4800	107840.0	328.3900	690.0	1.4	84/09/18	84/09/18
				TOT	24	97.64200	30885.00	175.7400	690.0	1.4	84/06/18	84/09/18
71922	MERCURY	LT 63 U	SEDMG/KG		119	126.6300	96182.00	310.1300	2000.00	.10	84/06/18	84/09/25
				A	40	85.97000	24718.00	157.2200	960.00	1.00	84/06/18	84/06/28
				TOT	159	116.4000	78247.00	279.7300	2000.00	.10	84/06/18	84/09/25
71923	MERCURY	125-500U	MG/KG		65	67.82400	45119.00	212.4100	1700.00	.16	84/09/18	84/09/25
71924	MERCURY	500-2000 U	MG/KG		61	48.75500	3368.000	58.03400	240.00	.10	84/09/18	84/09/25
				K	1	.1000000			.10	.10	84/09/18	84/09/18
				TOT	62	48.95400	3352.500	57.90100	240.00	.10	84/09/18	84/09/25
71925	MERCURY	2000-635 OU	MG/KG		52	36.61000	2313.100	48.09500	250.00	.13	84/09/18	84/09/25
				K	2	.1000000	.0000000	.0000000	.10	.10	84/09/18	84/09/18
				TOT	54	35.25800	2274.200	47.68900	250.00	.10	84/09/18	84/09/25
71926	MERCURY	63-125 U	MG/KG		65	59.88100	27876.00	166.9600	1300.00	.15	84/09/18	84/09/25
71930	MERCURY	TISMG/KG	WET WGT		98	1.032400	.4011700	.6333800	3.30	.12	84/05/15	84/10/23
				U	3	.1000000	.0000000	.0000000	.10	.10	84/05/15	84/06/07
				TOT	101	1.004700	.4144300	.6437700	3.30	.10	84/05/15	84/10/23
71936	LEAD	TISMG/KG	WET WGT		16	.1050000	.0051733	.0719260	.29	.03	84/05/15	84/06/05
				U	2	.0200000	.0000000	.0000000	.02	.02	84/05/15	84/05/15
				TOT	18	.0955560	.0053203	.0729400	.29	.02	84/05/15	84/06/05
71937	COPPER	TISMG/KG	WET WGT		15	.7480000	.3073000	.5543500	2.00	.22	84/05/15	84/06/05
				U	3	.1000000	.0000000	.0000000	.10	.10	84/05/15	84/05/15
				TOT	18	.6400000	.3148200	.5610900	2.00	.10	84/05/15	84/06/05
71938	ZINC	TISMG/KG	WET WGT		18	8.050000	6.196800	2.489300	14.00	5.20	84/05/15	84/06/05
71939	CR-FISH	UG/G OR	MG/KG WT		83	.2309600	.2069803	.4549500	2.30	.02	84/05/15	84/10/23
				U	18	.0211110	.0000104	.0032339	.03	.02	84/05/15	84/06/05
				TOT	101	.1935700	.1762400	.4198100	2.30	.02	84/05/15	84/10/23
71940	CADMIUM	TISMG/KG	WET WGT		65	.1248300	.1043700	.3230600	1.60	.002	84/05/15	84/10/23
				U	36	.0021667	.0000003	.0005606	.005	.002	84/05/15	84/08/29
				TOT	101	.0811090	.0702800	.2651000	1.60	.002	84/05/15	84/10/23
77161	1,2DCLPR	TOTAL	UG/L	U	1	10.00000			10.000	10.000	84/05/31	84/05/31
80181	TOT SED	PARTSIZE	%<.002MM		19	15.97400	33.36900	5.776600	27.0	7.5	84/06/18	84/06/26
80183	TOT SED	PARTSIZE	%<.008MM		19	25.91600	79.39200	8.910200	44.2	12.2	84/06/18	84/06/26
80184	TOT SED	PARTSIZE	%<.016MM		19	31.68900	116.8100	10.80800	51.6	14.9	84/06/18	84/06/26
80203	TOT SED	SIEVE	%<.062MM		230	50.50800	501.0900	22.38500	97.5	.5	84/06/18	84/11/10
80204	TOT SED	SIEVE	%<.125MM		122	68.64700	677.8900	26.03600	99.3	1.4	84/06/18	84/11/10
80206	TOT SED	SIEVE	%<.500MM		406	89.20500	239.0800	15.46200	100.0	3.2	84/06/18	84/11/10
80208	TOT SED	SIEVE	%<2.00MM		216	93.78300	212.6300	14.58200	100.0	5.1	84/06/18	84/11/10
80322	SUS PART	>125U	MG/L		17	9.535300	148.0300	12.16700	38.1	.2	84/10/22	85/04/06
				K	1	.1000000			.1	.1	85/04/05	85/04/05
				TOT	18	9.011100	144.2700	12.01100	38.1	.1	84/10/22	85/04/06

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STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY EAST FORK POPLAR CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER	RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
80325 SUS PART > 63U MG/L		18	31.17800	1537.800	39.21500	139.0	1.5	84/10/22	85/04/06
80326 SUS PART >2000 UM MG/L		2	.8000000	.1800000	.4242600	1.100	.500	84/10/22	85/04/05
	K	5	.1000000	.0000000	.0000000	.100	.100	85/04/05	85/04/06
	U	11	.1000000	.0000000	.0000000	.100	.100	84/10/22	84/11/10
	TOT	18	.1777800	.0618300	.2486600	1.100	.100	84/10/22	85/04/06
80327 TOT SED SIEVE % LT6.35MM		31	63.11600	749.2700	27.37300	100.000	21.500	84/09/18	84/11/10
80328 SUS PART GT500UM MG/L		10	1.180000	.8528900	.9235200	3.700	.400	84/10/22	85/04/06
	K	2	.1000000	.0000000	.0000000	.100	.100	85/04/05	85/04/05
	U	6	.1000000	.0000000	.0000000	.100	.100	84/10/22	84/11/10
	TOT	18	.7000000	.7564700	.8697500	3.700	.100	84/10/22	85/04/06
80329 MERCURY LT6.35MM SEDMG/KG		65	90.38300	25416.00	159.4200	893.000	.220	84/09/18	84/09/25
80330 MERCURY LT2.00MM SEDMG/KG		65	92.22600	25984.00	161.2000	911.000	.220	84/09/18	84/09/25
80331 MERCURY LT 500U SEDMG/KG		354	76.74700	35162.00	190.1600	1800.000	.100	84/06/18	84/11/07
	A	39	75.31000	24726.00	157.2500	950.000	.800	84/06/18	84/06/28
	U	1	.1000000			.100	.100	84/09/18	84/09/18
	TOT	394	76.41000	34887.00	186.7800	1800.000	.100	84/06/18	84/11/07
80332 MERCURY LT 125U SEDMG/KG		65	105.6400	32472.00	180.2000	892.000	.240	84/09/18	84/09/25
81356 CATION EX. CAP. MEA/100G		19	9.973700	9.072100	3.012000	19.0	5.8	84/06/18	84/06/26
81614 NO.INDV. IN THE SAMPLE		8	2.375000	2.839300	1.685000	5	1	84/05/15	84/10/23
81756 TOT SED PARTSIZ% <.0005MM		19	7.805300	11.87700	3.446300	13.9	1.7	84/06/18	84/06/26
81900 SEDIMENT UPPER DEPTH IN		333	10.40300	98.16200	9.907700	42.000	.100	84/06/18	84/11/07
	D	28	14.10700	131.6600	11.47400	37.000	1.000	84/06/19	84/11/07
	S	20	7.900000	103.4600	10.17200	28.000	1.000	84/06/19	84/09/20
	TOT	381	10.54400	101.6100	10.08000	42.000	.100	84/06/18	84/11/07
81901 SEDIMENT LOWER DEPTH IN		333	17.54500	107.5100	10.36900	46.000	1.000	84/06/18	84/11/07
	D	28	22.00000	135.7800	11.65200	44.000	7.000	84/06/19	84/11/07
	S	20	14.05000	133.6300	11.56300	36.000	3.000	84/06/19	84/09/20
	TOT	381	17.68900	112.3400	10.59900	46.000	1.000	84/06/18	84/11/07
82079 TURBIDTY LAB NTU		70	136.0100	8140.600	90.22500	370.0	3.4	84/05/31	85/04/06
84005 FISH SPECIES F &WL	TXT	124	TEXT	TEXT	TEXT	TEXT	TEXT	84/05/15	84/10/23
84014 SPECIES SEX TEXT	TXT	69	TEXT	TEXT	TEXT	TEXT	TEXT	84/05/15	84/06/07
84068 SERIES CODE ALPHA	TXT	877	TEXT	TEXT	TEXT	TEXT	TEXT	84/05/09	85/04/06

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
2	HSAMPLOC	% FROM	RT BANK		9	55.000	625.00	25.000	95.0	10.0	84/05/09	84/11/10
				D	2	50.000	0.000	0.000	50.0	50.0	84/06/20	84/06/26
				TOT	11	54.091	504.09	22.452	95.0	10.0	84/05/09	84/11/10
8	LAB	IDENT.	NUMBER		63	5578.8	22101000.	4701.2	12171	7	84/05/15	85/04/06
				R	14	4074600.	78724000.	8872.6	4089790	4061260	84/05/15	84/11/10
				TOT	77	745410.	9256200.	1579700.	4089790	7	84/05/15	85/04/06
10	WATER	TEMP	CENT		2	15.300	5.7803	2.4042	17.0	13.6	84/05/09	84/05/31
23	WEIGHT		POUNDS		26	.28231	.03653	.19113	.79	.08	84/05/15	84/06/07
24	LENGTH		INCHES		23	7.3870	3.9103	1.9774	12.80	4.80	84/05/15	84/06/07
63	NO. OF	SAMPLING	POINTS		46	2.3043	3.5942	1.8958	5	1	84/10/22	85/04/06
65	STREAM	STAGE	FEET		15	1.4647	.08387	.28961	1.90	1.05	84/05/09	85/04/06
94	CNDUCTVY	FIELD	MICROMHO		1	160.00			160	160	84/05/09	84/05/09
				L	1	2000.0			2000	2000	84/05/31	84/05/31
				TOT	2	1080.0	1692800.	1301.1	2000	160	84/05/09	84/05/31
98	VSAMPLOC	DEPTH	METERS		5	.30000	.00000	.00036	.30	.30	84/05/09	84/09/13
300	DO		MG/L		2	9.3500	.00502	.07085	9.4	9.3	84/05/09	84/05/31
400	PH		SU		3	7.3867	.47065	.68605	7.86	6.60	84/05/09	84/06/26
431	T ALK	FIELD	MG/L		2	175.00	2.0000	1.4142	176	174	84/05/31	84/06/26
530	RESIDUE	TOT NFLT	MG/L		36	210.75	57297.	239.37	1000	2	84/05/09	85/04/06
535	RESIDUE	VOL NFLT	MG/L		20	26.850	595.82	24.409	100	2	84/05/31	85/04/06
556	OIL-GRSE	FREON-GR	MG/L	U	1	5.0000			5.00	5.00	84/05/31	84/05/31
610	NH3+NH4-	N TOTAL	MG/L		1	.17000			.170	.170	84/05/31	84/05/31
625	TOT KJEL	N	MG/L		1	.38000			.380	.380	84/05/31	84/05/31
630	NO2&NO3	N-TOTAL	MG/L		3	333.33	6533.4	80.830	380.00	240.00	84/05/31	84/06/26
665	PHOS-TOT		MG/L P	U	1	.01000			.010	.010	84/05/31	84/05/31
720	CYANIDE	CN-TOT	MG/L	U	1	.02000			.020	.020	84/09/13	84/09/13
721	CYANIDE	SEDMG/KG	DRY WGT	U	4	.82500	.00250	.05000	.90	.80	84/06/20	84/06/20
900	TOT HARD	CACO3	MG/L		1	1000.0			1000	1000	84/05/31	84/05/31
1002	ARSENIC	AS,TOT	UG/L	U	1	1.0000			1	1	84/05/31	84/05/31
1003	ARSENIC	SEDMG/KG	DRY WGT		4	7.3500	14.970	3.8691	12.00	3.60	84/06/20	84/06/20
1004	ARSENIC	TISMG/KG	WET WGT		16	.20625	.01529	.12366	.50	.10	84/05/15	84/06/07
				U	9	.10000	.00000	.00000	.10	.10	84/05/15	84/06/07
				TOT	25	.16800	.01226	.11076	.50	.10	84/05/15	84/06/07
1012	BERYLIUM	BE,TOT	UG/L	U	1	1.0000			1.00	1.00	84/05/31	84/05/31
1027	CADMIUM	CD,TOT	UG/L		1	26.000			26	26	84/05/31	84/05/31
1028	CD MUD	DRY WGT	MG/KG-CD		2	8.6000	3.9201	1.9799	10.00	7.20	84/06/20	84/06/20
				U	2	.50000	.00000	.00000	.50	.50	84/06/20	84/06/20
				TOT	4	4.5500	23.177	4.8142	10.00	.50	84/06/20	84/06/20
1029	CHROMIUM	SEDMG/KG	DRY WGT		4	25.500	131.00	11.446	39.00	16.00	84/06/20	84/06/20
1034	CHROMIUM	CR,TOT	UG/L	U	1	1.0000			1	1	84/05/31	84/05/31
1042	COPPER	CU,TOT	UG/L		1	15.000			15	15	84/05/31	84/05/31
1051	LEAD	PB,TOT	UG/L		1	1.0000			1	1	84/05/31	84/05/31
1052	LEAD	SEDMG/KG	DRY WGT		4	60.250	844.92	29.067	94.00	35.00	84/06/20	84/06/20
1059	THALLIUM	TL,TOTAL	UG/L	U	1	50.000			50	50	84/05/31	84/05/31

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1067	NICKEL	NI,TOTAL	UG/L		1	69.000			63	69	84/05/31	84/05/31
1068	NICKEL	SEDMG/KG	DRY WGT		4	89.000	7174.7	84.703	200.00	18.00	84/06/20	84/06/20
1069	NICKEL	TISMG/KG	WET WGT	M	2	1.0000	0.0000	0.0000	1.00	1.00	84/05/15	84/05/15
				U	23	1.0870	.08300	.28811	2.00	1.00	84/05/15	84/06/07
				TOT	25	1.0800	.07666	.27689	2.00	1.00	84/05/15	84/06/07
1073	THALLIUM	TIS-WET	MG/KG	U	3	1.0000	0.0000	0.0000	1.00	1.00	84/05/17	84/05/17
1077	SILVER	AG,TOT	UG/L	U	1	.20000			.2	.2	84/05/31	84/05/31
1078	SILVER	SEDMG/KG	DRY WGT	U	4	1.0000	0.0000	0.0000	1.00	1.00	84/06/20	84/06/20
1092	ZINC	ZN,TOT	UG/L		1	37.000			37	37	84/05/31	84/05/31
1097	ANTIMONY	SB,TOT	UG/L	U	1	1.0000			1	1	84/05/31	84/05/31
1099	ANTIMONY	TIS-WET	MG/KG	U	3	1.0000	0.0000	0.0000	1.00	1.00	84/05/17	84/05/17
1105	ALUMINUM	AL,TOT	UG/L		1	140.00			140	140	84/05/31	84/05/31
1132	LITHIUM	LI,TOT	UG/L		1	10.000			10	10	84/05/31	84/05/31
1147	SELENIUM	SE,TOT	UG/L	U	1	1.0000			1	1	84/05/31	84/05/31
1149	SELENIUM	TISMG/KG	WET WGT		3	.30000	.07000	.26458	.60	.10	84/05/17	84/05/17
1163	ZR MUD	DRY WGT	MG/KG-ZR		4	482.50	5958.3	77.190	590.00	410.00	84/06/20	84/06/20
1501	ALPHA	TOTAL	PC/L		4	14.750	134.92	11.615	31	5	84/05/31	84/11/10
1502	ALPHA-T	ERROR	PC/L		4	6.2500	42.917	6.5511	16	2	84/05/31	84/11/10
1507	ALPHA	SEDIMENT	PC/G		12	7.0000	76.107	8.7239	32	2	84/06/20	84/09/12
1508	ALPHA	SED-ERR	PC/G		12	2.0000	4.6527	2.1570	8	.7	84/06/20	84/09/12
1521	ALPHA	FISH	PCI/G		2	.01000	.00020	.01414	.020	0.000	84/05/15	84/05/15
1522	ALPHA	FISH-ERR	PCI/G		2	.05500	.00045	.02121	.070	.040	84/05/15	84/05/15
3501	BETA	TOTAL	PC/L		4	109.25	21912.	148.03	330	16	84/05/31	84/11/10
3502	BETA-T	ERROR	PC/L		4	13.750	308.92	17.576	40	3	84/05/31	84/11/10
3507	BETA	SEDIMENT	PC/G		12	67.250	2619.3	51.179	179	26	84/06/20	84/09/12
3508	BETA	SED-ERR	PC/G		12	13.750	104.93	10.244	35	5	84/06/20	84/09/12
3524	BETA	FISH	PCI/G		2	28.500	.50000	.70711	29.000	28.000	84/05/15	84/05/15
3525	BETA	FISH-ERR	PCI/G		2	5.5000	.50000	.70711	6.000	5.000	84/05/15	84/05/15
7000	H-3	TOTAL	PC/L		1	500.00			500.0	500.0	84/05/31	84/05/31
7001	H-3,TOTL	ERROR	PC/L		1	110.00			110.0	110.0	84/05/31	84/05/31
9507	RA-226	SEDIMENT	PC/G		2	.78000	.00080	.02828	.8	.8	84/06/20	84/09/12
9508	RA-226	SED-ERR	PC/G		2	.08500	.00045	.02121	.1	.07	84/06/20	84/09/12
11506	RA-224	SEDIMENT	PCI/G		2	1.2000	0.0000	0.0000	1.200	1.200	84/06/20	84/09/12
11507	RA-224	SED-ERR	PCI/G		2	.25000	.00500	.07071	.300	.200	84/06/20	84/09/12
15505	SR-89	SEDIMENT	PCI/G		12	.27500	.03113	.17646	.500	0.000	84/06/20	84/09/12
15506	SR-89	SED-ERR	PCI/G		12	.31667	.00151	.03892	.400	.300	84/06/20	84/09/12
15507	SR-90	SEDIMENT	PCI/G		12	.08333	.00287	.05365	.200	0.000	84/06/20	84/09/12
15508	SR-90	SED-ERR	PCI/G		12	.10000	1084E-11	.00010	.100	.100	84/06/20	84/09/12
17509	PB-212	SEDIMENT	PCI/G		12	1.2058	.16523	.40771	2.100	.700	84/06/20	84/09/12
17510	PB-212	SED-ERR	PCI/G		12	.23083	.03777	.19435	.800	.070	84/06/20	84/09/12
17511	PB-214	SEDIMENT	PCI/G		12	.97500	.03659	.19129	1.200	.700	84/06/20	84/09/12
17512	PB-214	SED-ERR	PCI/G		12	.20667	.03762	.19397	.800	.080	84/06/20	84/09/12
17515	PB 214	FISH	PCI/G		2	.65000	.12500	.35355	.900	.400	84/05/15	84/05/15
17516	PB-214	FISH-ERR	PCI/G		2	.20000	.00000	.00000	.200	.200	84/05/15	84/05/15

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	PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
21503	PA-233	SEDIMENT	PCI/G		4	.62500	.37590	.61392	1.500	.160	84/06/20	84/09/12
21504	PA-233	SED-ERR	PCI/G		4	.09750	.00575	.07588	.200	.020	84/06/20	84/09/12
21505	MPA-234	SEDIMENT	PCI/G		9	49.667	3667.5	60.560	181.000	5.000	84/06/20	84/09/12
21506	MPA-234	SED-ERR	PCI/G		9	8.7778	56.694	7.5296	26.000	3.000	84/06/20	84/09/12
22016	PU-238	SEDIMENT	PCI/G		1	.00130			.001	.001	84/06/20	84/06/20
22017	PU-238	SEDIMENT	ERRO		1	.00080			.0008	.0008	84/06/20	84/06/20
22018	PU-239	SEDIMENT	PCI/G		2	.00150	.00000	.00070	.002	.001	84/06/20	84/09/12
22019	PU-239	SEDIMENT	ERRO		2	.00100	.00000	.00000	.001	.001	84/06/20	84/09/12
22102	TC-99	FISH	PCI/G		3	.47000	.21490	.46357	1	.1	84/05/17	84/05/17
22103	TC-99	FISHERR	PCI/G		3	.17133	.00874	.09351	.3	.08	84/05/17	84/05/17
22200	BE-7	SEDIMENT	PCI/G		1	.40000			.400	.400	84/06/20	84/06/20
22201	BE-7	SED-ERR	PCI/G		1	.10000			.100	.100	84/06/20	84/06/20
22300	K-40	SEDIMENT	PCI/G		12	15.167	11.788	3.4334	22.000	9.000	84/06/20	84/09/12
22301	K-40	SED-ERR	PCI/G		12	1.8333	.69697	.83485	4.000	1.000	84/06/20	84/09/12
22302	K-40	FISH	PCI/G		2	16.500	4.5000	2.1213	18.000	15.000	84/05/15	84/05/15
22303	K-40	FISH-ERR	PCI/G		2	2.5000	.50000	.70711	3.000	2.000	84/05/15	84/05/15
22350	TL-208	SEDIMENT	PCI/G		12	.42250	.01833	.13539	.700	.240	84/06/20	84/09/12
22351	TL-208	SED-ERR	PCI/G		12	.06000	.00058	.02412	.100	.030	84/06/20	84/09/12
22375	BI-212	SEDIMENT	PCI/G		10	1.1900	.13433	.36651	1.800	.700	84/06/20	84/09/12
22376	BI-212	SED-ERR	PCI/G		10	.35000	.02055	.14337	.600	.200	84/06/20	84/09/12
22377	BI-214	SEDIMENT	PCI/G		12	.92083	.02873	.16952	1.100	.700	84/06/20	84/09/12
22378	BI-214	SED-ERR	PCI/G		12	.12917	.00282	.05316	.200	.070	84/06/20	84/09/12
22381	BI-214	FISH	PCI/G		2	.40000	.00000	.00000	.400	.400	84/05/15	84/05/15
22382	BI-214	FISH-ERR	PCI/G		2	.20000	.02000	.14142	.300	.100	84/05/15	84/05/15
22383	BI-214	TOTAL	PCI/L		1	6.0000			6.000	6.000	84/10/22	84/10/22
22384	BI-214	TOTAL	ERROR		1	4.0000			4.000	4.000	84/10/22	84/10/22
22402	AC-228	FISH	PCI/G		1	.70000			.700	.700	84/05/15	84/05/15
22403	AC-228	FISH-ERR	PCI/G		1	.40000			.400	.400	84/05/15	84/05/15
22450	AM-241	SEDIMENT	PCI/G		4	.01650	.00025	.01619	.040	.004	84/06/20	84/09/12
22451	AM-241	SEDIMENT	ERRO		4	.00550	.00001	.00341	.010	.002	84/06/20	84/09/12
22475	CU-244	SEDMENT	PCI/G		2	.00700	.00000	.00282	.009	.005	84/06/20	84/09/12
22476	CU-244	SEDIMENT	ERRO		2	.00350	.00000	.00212	.005	.002	84/06/20	84/09/12
22507	TH-234	SEDIMENT	PCI/G		12	24.375	1181.9	34.378	115.000	2.600	84/06/20	84/09/12
22508	TH-234	SED-ERR	PCI/G		12	2.8250	11.411	3.3780	12.000	.400	84/06/20	84/09/12
22608	URANIUM	SEDIMENT	UG/G		12	41.950	4572.6	67.621	200.000	4.400	84/06/20	84/09/12
22609	URANIUM	SED-ERR	UG/G		12	7.9750	176.93	13.302	40.000	.700	84/06/20	84/09/12
22612	U-235	SEDIMENT	PCI/G		3	2.1000	2.7300	1.6523	3.800	.500	84/06/20	84/09/12
22613	U-235	SED-ERR	PCI/G		3	.50000	.16000	.40000	.900	.100	84/06/20	84/09/12
25503	AC-228	SEDIMENT	PCI/G		12	1.2417	.16265	.40330	1.800	.700	84/06/20	84/09/12
25504	AC-228	SED-ERR	PCI/G		12	.20833	.00810	.09003	.300	.100	84/06/20	84/09/12
28418	CS-137	SEDIMENT	PCI/G		10	.22400	.02380	.15429	.500	.040	84/06/20	84/09/12
28419	CS-137	SED-ERR	PCI/G		10	.04800	.00090	.03011	.100	.010	84/06/20	84/09/12
28422	CS-137	FISH	PCI/G		2	.25000	.04500	.21213	.400	.100	84/05/15	84/05/15
28423	CS-137	FISH-ERR	PCI/G		2	.07000	.00180	.04242	.100	.040	84/05/15	84/05/15

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32101 DICLBRMT		TOTUG/L	U	1	10.000			10.0	10.0	84/05/31	84/05/31
32102 CARBNTET		TOTUG/L	U	1	10.000			10.0	10.0	84/05/31	84/05/31
32104 BROMOFRM	WHL-WTR	UG/L	U	1	10.000			10.0	10.0	84/05/31	84/05/31
32105 CLDIBRMT		TOTUG/L	U	1	10.000			10.0	10.0	84/05/31	84/05/31
32106 CHLRFORM		TOTUG/L	U	1	10.000			10.0	10.0	84/05/31	84/05/31
32730 PHENOLS	TOTAL	UG/L		1	6.0000			6	6	84/09/13	84/09/13
32731 PHENOLS	SEDMG/KG	DRY WGT		4	1.1750	.14917	.38622	1.70	.80	84/06/20	84/06/20
34010 TOLUENE		TOT UG/L	U	1	10.000			10.00	10.00	84/05/31	84/05/31
34030 BENZENE		TOT UG/L	U	1	10.000			10.00	10.00	84/05/31	84/05/31
34200 ACENAPHT	HYLENE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34203 ACNAPTHY	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34205 ACENAPHT	HENE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34208 ACNAPTHE	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34210 ACROLEIN		TOTWUG/L	U	1	100.00			100.000	100.000	84/05/31	84/05/31
34215 ACRYLONI	TRILE	TOTWUG/L	U	1	100.00			100.000	100.000	84/05/31	84/05/31
34220 ANTHRACE	NE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34223 ANTHRACE	SEDUG/KG	DRY WGT	M	1	680.00			680.000	680.000	84/06/20	84/06/20
			U	3	706.67	2634.0	51.323	750.000	650.000	84/06/20	84/06/20
			TOT	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34230 BENZBFLU	ORANT TO	TAL UG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34233 BENZBFLU	ORANTMUD	DRYUG/KG	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34242 BENZO(K)	FLUORANT	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34245 BENZKFLU	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34247 BENZO(A)	PYRENE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34250 BENZAPYR	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34252 BERYLIUM	TISMG/KG	WET WGT	U	3	.10000	.00000	.00000	.100	.100	84/05/17	84/05/17
34259 DELTABHC		TOTUG/L	U	1	.01000			.010	.010	84/05/31	84/05/31
34268 BISCHLOR	OMETHYLE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34273 BIS2CHLO	ROETHYLE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34276 B2CETETR	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34278 BIS2CHLO	ROETHOXY	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34281 B2CETOXM	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34283 BIS2CHLO	ROISOPRO	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34286 B2CIPETR	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34292 NBB PHTH	TOTAL	UG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34295 NBB PHTH	MUD-DRY	UG/KG	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34301 CHLOROBE	NZENE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34311 CHLOROET	HANE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34320 CHRYSENE		TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34323 CHRYSENE	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34336 DIETHYLP	HTHALATE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34339 DETHPHTH	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34341 DIMETHYL	PHTHALAT	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34344 DMETPHTH	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34346	12DIPHEN	YLHYDRAZ	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34349	12DPHNHY	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34351	ENDSULSF		TOTUG/L	U	1	.01000			.010	.010	84/05/31	84/05/31
34356	B-ENDO	SULFAN	TOTWUG/L	U	1	.01000			.010	.010	84/05/31	84/05/31
34361	A-ENDO	SULFAN	TOTWUG/L	U	1	.01000			.010	.010	84/05/31	84/05/31
34366	ENDRINAL	DEHYDE	TOTWUG/L	U	1	.01000			.010	.010	84/05/31	84/05/31
34371	ETHYLBEN	ZENE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34376	FLUORANT	HENE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34379	FLANTENE	SEDUG/KG	DRY WGT		1	970.00			970.000	970.000	84/06/20	84/06/20
				U	3	706.67	2634.0	51.323	750.000	650.000	84/06/20	84/06/20
				TOT	4	772.50	19092.	138.17	970.000	650.000	84/06/20	84/06/20
34381	FLUORENE		TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34384	FLUORENE	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34386	HEXACHLO	ROCYCLOP	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34389	HEXCLCPD	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34391	HEXACHLO	ROBUTADI	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34396	HEXACHLO	ROETHANE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34399	HEXACLET	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34403	INDENO(1	23CD)PYR	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34406	I123CDPR	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34408	ISPHRONE		TOTUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34411	ISPHRONE	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34413	METHYLBR	OMIDE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34418	METHYLCH	LORIDE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34423	METHYLEN	ECHLORID	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34428	NITROSOD	IPROPYLA	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34431	NITONPRA	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34433	NITROSOD	IPHENYLA	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34434	NITROSOD	IPHENYLA	DISSUG/L	U	1	.10000			.100	.100	84/05/15	84/05/15
34436	NITRSDPA	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34438	NITROSOD	IMETHYLA	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34441	NITRSDMA	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34445	NAPTHALE	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34447	NITROBEN	ZENE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34450	NITROBEN	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34452	PARACHLO	ROMETACR	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34461	PHENANTH	RENE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34464	PHENANTH	SEDUG/KG	DRY WGT		1	690.00			690.000	690.000	84/06/20	84/06/20
				M	1	720.00			720.000	720.000	84/06/20	84/06/20
				U	2	700.00	5000.0	70.711	750.000	650.000	84/06/20	84/06/20
				TOT	4	702.50	1825.0	42.720	750.000	650.000	84/06/20	84/06/20
34467	PHENOL		SUSPUG/L	U	1	.10000			.100	.100	84/05/15	84/05/15
34469	PYRENE		TOTWUG/L	U	2	5.0500	49.005	7.0004	10.000	.100	84/05/15	84/05/31
34472	PYRENE	SEDUG/KG	DRY WGT		1	710.00			710.000	710.000	84/06/20	84/06/20

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34472	PYRENE	SEDUG/KG	DRY WGT	U	3	706.67	2634.0	51.323	750.000	650.000	84/06/20	84/06/20
34472	PYRENE	SEDUG/KG	DRY WGT	TOT	4	707.50	1758.3	41.932	750.000	650.000	84/06/20	84/06/20
34474	SILVER	TISMG/KG	WET WGT	U	25	.21600	.00305	.05537	.400	.200	84/05/15	84/06/07
34475	TETRACHL	OROETHYL	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34488	TRICHLOR	OFLUOROM	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34496	11DICHLO	ROETHANE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34501	11DICHLO	ROETHYLE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34506	111TRICH	LOROETHA	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34511	112TRICH	LOROETHA	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34516	1122TETR	ACHLOROE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34521	BENZO(GH	I)PERYLE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34524	BZGHIPER	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34526	BENZO(A)	ANTHRACE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34529	BENZAANT	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34531	12DICHLO	ROETHANE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34536	12DICHLO	ROBENZEN	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34539	12DCLBEN	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34541	12DICHLO	ROPROPAN	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34546	12DICHLO	ROETHYLE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34551	124TRICH	LOROBENZ	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34554	124TCBEN	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34556	DIBENZ(A	H)ANTHRA	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34559	DBAHANTH	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34566	13DICHLO	ROBENZEN	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34569	13DCLBEN	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34571	14DICHLO	ROBENZEN	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34574	14DCLBEN	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34576	2CHLOROE	THYLVINY	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34581	2CHLORON	APHTHALE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34584	2CLNAPTH	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34586	2CHLOROP	HENOL	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34591	2NITROPH	ENOL	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34596	DINOCTPH		TOTUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34599	DINOCTPH	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34601	24DICHLO	ROPHENOL	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34606	24DIMETH	YLPHENOL	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34611	24DINITR	OTOLUENE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34614	24DNTOLU	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34616	24DINITR	OPHENOL	TOTWUG/L	U	1	100.00			100.000	100.000	84/05/31	84/05/31
34621	246TRICH	LOROPHEN	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34626	26DINITR	OTOLUENE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34629	26DNTOLU	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34631	33DICHLO	ROBENZID	TOTWUG/L	U	1	25.000			25.000	25.000	84/05/31	84/05/31
34634	33DCBNZD	SEDUG/KG	DRY WGT	U	4	1750.0	15657.	129.10	1900.000	1600.000	84/06/20	84/06/20

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34636	4BROMOPH	ENYLPHEN	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34639	4BRPPETR	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34641	4CHLOROP	HENYLPHE	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34644	4CLPPETR	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.000	650.000	84/06/20	84/06/20
34646	4NITROPH	ENOL	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34657	46DINITR	OORTHOCR	TOTWUG/L	U	1	50.000			50.000	50.000	84/05/31	84/05/31
34664	PCB-1221	TISMG/KG	WET WGT	U	10	.10000	.00000	.00000	.100	.100	84/05/15	84/05/15
34667	PCB-1232	TISMG/KG	WET WGT	U	10	.10000	.00000	.00000	.100	.100	84/05/15	84/05/15
34668	DICHLORO	DIFLUORO	TOTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34669	PCB-1248	TISMG/KG	WET WGT	U	10	.10000	.00000	.00000	.100	.100	84/05/15	84/05/15
34670	PCB-1260	TISMG/KG	WET WGT	U	10	.10000	.00000	.00000	.100	.100	84/05/15	84/05/15
34671	PCB	1016	TOTWUG/L	U	1	.10000			.100	.100	84/05/31	84/05/31
34674	PCB-1016	TISMG/KG	WET WGT	U	10	.10000	.00000	.00000	.100	.100	84/05/15	84/05/15
34689	PCB-1242	TISMG/KG	WET WGT	U	10	.10000	.00000	.00000	.100	.100	84/05/15	84/05/15
34690	PCB-1254	TISMG/KG	WET WGT		1	.20000			.200	.200	84/05/15	84/05/15
				U	9	.10000	.00000	.00000	.100	.100	84/05/15	84/05/15
				TOT	10	.11000	.00100	.03162	.200	.100	84/05/15	84/05/15
34694	PHENOL		TOT UG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
34696	NAPTHALE	NE T	OTWUG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
39032	PCP		TOT UG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
39100	B2E PHTH	TOTAL	UG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
39102	B2E PHTH	MUD-DRY	UG/KG	M	1	680.00			680	680	84/06/20	84/06/20
				U	3	706.67	2634.0	51.323	750	650	84/06/20	84/06/20
				TOT	4	700.00	1933.3	43.970	750	650	84/06/20	84/06/20
39110	DNB PHTH	TOTAL	UG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
39112	DNB PHTH	MUD-DRY	UG/KG	U	4	700.00	1933.3	43.970	750	650	84/06/20	84/06/20
39120	BENZIDIN		TOTUG/L	U	1	50.000			50.000	50.000	84/05/31	84/05/31
39121	BENZIDIN	SEDUG/KG	DRY WGT	U	4	3475.0	49168.	221.74	3700.00	3200.00	84/06/20	84/06/20
39175	VINYLCHL	ORIDE	TOT UG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
39180	TRICHLOR	ETHYLENE	TOT UG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
39300	P,P'DDT		TOT UG/L	U	1	.01000			.010	.010	84/05/31	84/05/31
39310	P,P'DDD		TOT UG/L	U	1	.01000			.010	.010	84/05/31	84/05/31
39320	P,P'DDE		TOT UG/L	U	1	.01000			.010	.010	84/05/31	84/05/31
39330	ALDRIN		TOT UG/L	U	1	.01000			.010	.010	84/05/31	84/05/31
39337	ALPHABHC		TOTUG/L	U	1	.01000			.010	.010	84/05/31	84/05/31
39338	BETA BHC		TOTUG/L	U	1	.01000			.010	.010	84/05/31	84/05/31
39340	GAMMABHC	LINDANE	TOT.UG/L	U	1	.01000			.010	.010	84/05/31	84/05/31
39350	CHLRDANE	TECH&MET	TOT UG/L	U	1	.01000			.010	.010	84/05/31	84/05/31
39380	DIELDRIN		TOTUG/L	U	1	.01000			.010	.010	84/05/31	84/05/31
39390	ENDRIN		TOT UG/L	U	1	.01000			.010	.010	84/05/31	84/05/31
39400	TOXAPHEN		TOTUG/L	U	1	.50000			.500	.500	84/05/31	84/05/31
39410	HEPTCHLR		TOTUG/L	U	1	.01000			.010	.010	84/05/31	84/05/31
39420	HPCHLREP		TOTUG/L	U	1	.01000			.010	.010	84/05/31	84/05/31
39488	PCB-1221		TOTUG/L	U	1	.10000			.100	.100	84/05/31	84/05/31

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STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY BEAR CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
39491	PCB-1221	SEDUG/KG	DRY WGT	U	4	100.00	0.00	0.00	100.00	100.00	84/06/20	84/06/20
39492	PCB-1232		TOTUG/L	U	1	.10000			.100	.100	84/05/31	84/05/31
39495	PCB-1232	SEDUG/KG	DRY WGT	U	4	100.00	0.00	0.00	100.00	100.00	84/06/20	84/06/20
39496	PCB-1242		TOTUG/L	U	1	.10000			.100	.100	84/05/31	84/05/31
39499	PCB-1242	SEDUG/KG	DRY WGT	U	4	100.00	0.00	0.00	100.00	100.00	84/06/20	84/06/20
39500	PCB-1248		TOTUG/L	U	1	.10000			.100	.100	84/05/31	84/05/31
39503	PCB-1248	SEDUG/KG	DRY WGT	U	4	100.00	0.00	0.00	100.00	100.00	84/06/20	84/06/20
39504	PCB-1254		TOTUG/L	U	1	.10000			.100	.100	84/05/31	84/05/31
39507	PCB-1254	SEDUG/KG	DRY WGT		1	500.00			500.00	500.00	84/06/20	84/06/20
				U	3	100.00	0.00	0.00	100.00	100.00	84/06/20	84/06/20
				TOT	4	200.00	40000.	200.00	500.00	100.00	84/06/20	84/06/20
39508	PCB-1260		TOTUG/L	U	1	.10000			.100	.100	84/05/31	84/05/31
39511	PCB-1260	SEDUG/KG	DRY WGT		1	900.00			900.00	900.00	84/06/20	84/06/20
				U	3	100.00	0.00	0.00	100.00	100.00	84/06/20	84/06/20
				TOT	4	300.00	160000.	400.00	900.00	100.00	84/06/20	84/06/20
39514	PCB-1016	SEDUG/KG	DRY WGT	U	4	100.00	0.00	0.00	100.00	100.00	84/06/20	84/06/20
39515	PCBS	FISH	MG/KG		1	.20000			.200	.200	84/05/15	84/05/15
				U	9	.10000	.00000	.00000	.100	.100	84/05/15	84/05/15
				TOT	10	.11000	.00100	.03162	.200	.100	84/05/15	84/05/15
39700	HCB		TOT UG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
39701	HCB	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750.00	650.00	84/06/20	84/06/20
39705	HEXCLBO	SEDUG/KG	DRY WGT	U	4	700.00	1933.3	43.970	750	650	84/06/20	84/06/20
45579	% LIPID	EKTRACT	MATERIAL		10	.13700	.00595	.07718	.3	.05	84/05/15	84/05/15
70320	MOISTURE	CONTENT	PERCENT		9	31.133	56.771	7.5347	42	18	84/06/20	84/06/20
70322	RESIDUE	TOT VOL	PERCENT		4	5.3000	2.1667	1.4720	6.6	3.2	84/06/20	84/06/20
71821	SPECIFIC	GRAVITY	SEDGM/GM		12	2.1667	.22934	.47889	2.590	1.040	84/06/20	85/04/06
71890	MERCURY	HG,DISS	UG/L		2	.45000	.12500	.35355	.7	.2	84/10/22	84/10/23
				U	16	.20000	1987E-11	.00014	.2	.2	84/05/09	85/04/06
				TOT	18	.22778	.01388	.11785	.7	.2	84/05/09	85/04/06
71900	MERCURY	HG,TOTAL	UG/L		15	.54375	.14929	.38638	1.6	.2	84/05/31	85/04/06
				U	2	.30000	.02000	.14142	.4	.2	84/05/09	84/11/10
				TOT	18	.51667	.13912	.37298	1.6	.2	84/05/09	85/04/06
71921	MERCURY	SEDMG/KG	DRY WGT		3	.60667	.06263	.25027	.8	.3	84/06/20	84/06/20
				U	1	.10000			.1	.1	84/06/20	84/06/20
				TOT	4	.48000	.10593	.32547	.8	.1	84/06/20	84/06/20
71922	MERCURY	LT 63 U	SEDMG/KG		8	.65000	.45714	.67612	2.30	.30	84/06/20	84/06/20
				A	5	1.4700	3.7094	1.9260	4.90	.45	84/06/20	84/06/20
				TOT	13	.96538	1.6756	1.2944	4.90	.30	84/06/20	84/06/20
71930	MERCURY	TISMG/KG	WET WGT		22	.34000	.01570	.12532	.66	.17	84/05/15	84/06/07
				U	4	.10000	.00000	.00000	.10	.10	84/05/15	84/05/15
				TOT	26	.30308	.02099	.14488	.66	.10	84/05/15	84/06/07
71936	LEAD	TISMG/KG	WET WGT		3	.05666	.00143	.03785	.10	.03	84/05/17	84/05/17
71937	COPPER	TISMG/KG	WET WGT		2	1.2000	.02000	.14143	1.30	1.10	84/05/17	84/05/17
				U	1	.20000			.20	.20	84/05/17	84/05/17

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INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
71937	COPPER	TISMG/KG	WET WGT	TOT	3	.86667	.34333	.58595	1.30	.20	84/05/17	84/05/17
71938	ZINC	TISMG/KG	WET WGT		3	6.5667	5.3433	2.3116	9.00	4.40	84/05/17	84/05/17
71939	CR-FISH	UG/G OR	MG/KG WT		18	.21044	.02527	.15899	.54	.008	84/05/15	84/06/07
				U	7	.02000	5045E-13	.00002	.02	.02	84/05/15	84/06/07
				TOT	25	.15712	.02552	.15975	.54	.008	84/05/15	84/06/07
71940	CADMIUM	TISMG/KG	WET WGT		23	.09460	.09497	.30818	1.50	.008	84/05/15	84/06/07
				U	2	.00200	1000E-14	.00000	.002	.002	84/05/17	84/05/17
				TOT	25	.08720	.08771	.29617	1.50	.002	84/05/15	84/06/07
77161	1,2DCLPR	TOTAL	UG/L	U	1	10.000			10.000	10.000	84/05/31	84/05/31
80181	TOT SED	PARTSIZE	%<.002MM		4	13.275	15.123	3.8888	17.2	9.1	84/06/20	84/06/20
80183	TOT SED	PARTSIZE	%<.008MM		4	21.050	29.577	5.4385	26.5	15.3	84/06/20	84/06/20
80184	TOT SED	PARTSIZE	%<.016MM		4	26.725	44.042	6.6364	32.7	19.8	84/06/20	84/06/20
80203	TOT SED	SIEVE	%<.062MM		17	36.488	145.91	12.079	62.8	16.7	84/06/20	84/06/20
80204	TOT SED	SIEVE	%<.125MM		2	37.150	1.4451	1.2021	38.0	36.3	84/06/20	84/06/20
80206	TOT SED	SIEVE	%<.500MM		15	86.967	258.24	16.070	98.9	49.2	84/06/20	84/06/20
80208	TOT SED	SIEVE	%<2.00MM		15	96.640	22.058	4.6966	100.0	85.4	84/06/20	84/06/20
80322	SUS PART	>125U	MG/L		3	2.3667	.08333	.28868	2.7	2.2	84/10/22	85/04/06
80325	SUS PART	> 63U	MG/L		3	7.6667	3.6635	1.9140	9.7	5.9	84/10/22	85/04/06
80326	SUS PART	>2000 UM	MG/L	K	1	.10000			.100	.100	85/04/06	85/04/06
				U	2	.10000	.00000	.00000	.100	.100	84/10/22	84/11/10
				TOT	3	.10000	.00000	.00000	.100	.100	84/10/22	85/04/06
80328	SUS PART	GT500UM	MG/L		3	.26667	.01333	.11547	.400	.200	84/10/22	85/04/06
80331	MERCURY	LT 500U	SEDMG/KG		8	.50000	.48000	.69282	2.200	.100	84/06/20	84/06/20
				A	5	.96000	2.7030	1.6441	3.900	.200	84/06/20	84/06/20
				TOT	13	.67692	1.2353	1.1114	3.900	.100	84/06/20	84/06/20
81356	CATION	EX. CAP.	MEA/100G		4	8.6000	3.2801	1.8111	11.0	6.6	84/06/20	84/06/20
81756	TOT SED	PARTSIZ%	<.0005MM		4	8.0250	11.802	3.4355	11.9	4.4	84/06/20	84/06/20
81900	SEDIMENT	UPPER	DEPTH IN		21	10.238	71.990	8.4847	27.000	1.000	84/06/20	84/09/12
				S	1	1.0000			1.000	1.000	84/06/20	84/06/20
				TOT	22	9.8182	72.442	8.5113	27.000	1.000	84/06/20	84/09/12
81901	SEDIMENT	LOWER	DEPTH IN		21	17.286	62.215	7.8876	32.000	6.000	84/06/20	84/09/12
				S	1	9.0000			9.000	9.000	84/06/20	84/06/20
				TOT	22	16.909	62.373	7.8976	32.000	6.000	84/06/20	84/09/12
82079	TURBIDTY	LAB	NTU		20	210.33	53056.	230.34	900.0	1.6	84/05/31	85/04/06
84005	FISH	SPECIES	F &WL	TE	29	TEXT	TEXT	TEXT	TEXT	TEXT	84/05/15	84/06/07
84014	SPECIES	SEX	TEXT	TE	21	TEXT	TEXT	TEXT	TEXT	TEXT	84/05/15	84/06/07
84068	SERIES	CODE	ALPHA	TE	111	TEXT	TEXT	TEXT	TEXT	TEXT	84/05/09	85/04/06

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INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
2	HSAMPLOC	% FROM	RT BANK		4	30.000	533.33	23.094	50.0	10.0	84/05/31	84/07/24
8	LAB	IDENT.	NUMBER		55	4630.4	9815500.	3133.0	7477	16	84/05/23	84/07/24
				A	1	42.000			42	42	84/05/23	84/05/23
				TOT	56	4548.5	10013000.	3164.3	7477	16	84/05/23	84/07/24
10	WATER	TEMP	CENT		1	14.000			14.0	14.0	84/05/31	84/05/31
23	WEIGHT		POUNDS		43	1.9837	4.3171	2.0778	7.98	.22	84/05/23	84/05/31
				S	1	4.0200			4.02	4.02	84/05/24	84/05/24
				TOT	44	2.0300	4.3110	2.0763	7.98	.22	84/05/23	84/05/31
24	LENGTH		INCHES	.	43	14.398	30.778	5.5478	25.70	6.70	84/05/23	84/05/31
				S	1	21.900			21.90	21.90	84/05/24	84/05/24
				TOT	44	14.568	31.342	5.5984	25.70	6.70	84/05/23	84/05/31
94	CNDUCTVY	FIELD	MICROMHO		1	230.00			230	230	84/05/31	84/05/31
98	VSAMPLOC	DEPTH	METERS		1	.30000			.30	.30	84/05/31	84/05/31
300	DO		MG/L		1	9.1600			9.2	9.2	84/05/31	84/05/31
400	PH		SU		1	7.7000			7.70	7.70	84/05/31	84/05/31
431	T ALK	FIELD	MG/L		1	49.000			49	49	84/05/31	84/05/31
721	CYANIDE	SEDMG/KG	DRY WGT	U	3	.96667	.02333	.15275	1.10	.80	84/07/24	84/07/24
1000	ARSENIC	AS,DISS	UG/L	U	1	1.0000			1	1	84/05/31	84/05/31
1002	ARSENIC	AS,TOT	UG/L	U	1	1.0000			1	1	84/05/31	84/05/31
1003	ARSENIC	SEDMG/KG	DRY WGT		3	8.8667	3.5735	1.8904	11.00	7.40	84/07/24	84/07/24
1004	ARSENIC	TISMG/KG	WET WGT		29	.22414	.01332	.11543	.60	.10	84/05/23	84/05/31
				U	23	.10000	4877E-11	.00022	.10	.10	84/05/23	84/05/31
				TOT	52	.16923	.01119	.10579	.60	.10	84/05/23	84/05/31
1010	BERYLIUM	BE,DISS	UG/L	U	1	1.0000			1.00	1.00	84/05/31	84/05/31
1012	BERYLIUM	BE,TOT	UG/L	U	1	1.0000			1.00	1.00	84/05/31	84/05/31
1025	CADMIUM	CD,DISS	UG/L	U	1	.10000			.1	.1	84/05/31	84/05/31
1027	CADMIUM	CD,TOT	UG/L	U	1	.10000			.1	.1	84/05/31	84/05/31
1028	CD MUD	DRY WGT	MG/KG-CD		3	2.8667	.50334	.70947	3.50	2.10	84/07/24	84/07/24
1029	CHROMIUM	SEDMG/KG	DRY WGT		3	27.333	94.334	9.7126	38.00	19.00	84/07/24	84/07/24
1030	CHROMIUM	CR,DISS	UG/L	U	1	1.0000			1	1	84/05/31	84/05/31
1034	CHROMIUM	CR,TOT	UG/L	U	1	1.0000			1	1	84/05/31	84/05/31
1040	COPPER	CU,DISS	UG/L	U	1	5.0000			5	5	84/05/31	84/05/31
1042	COPPER	CU,TOT	UG/L	U	1	5.0000			5	5	84/05/31	84/05/31
1049	LEAD	PB,DISS	UG/L		1	1.0000			1	1	84/05/31	84/05/31
1051	LEAD	PB,TOT	UG/L		1	2.0000			2	2	84/05/31	84/05/31
1052	LEAD	SEDMG/KG	DRY WGT		3	32.333	66.334	8.1446	38.00	23.00	84/07/24	84/07/24
1057	THALLIUM	TL,DISS	UG/L	U	1	50.000			50	50	84/05/31	84/05/31
1059	THALLIUM	TL,TOTAL	UG/L	U	1	50.000			50	50	84/05/31	84/05/31
1065	NICKEL	NI,DISS	UG/L		1	17.000			17	17	84/05/31	84/05/31
1067	NICKEL	NI,TOTAL	UG/L		1	18.000			18	18	84/05/31	84/05/31
1068	NICKEL	SEDMG/KG	DRY WGT		3	55.667	129.34	11.373	65.00	43.00	84/07/24	84/07/24
1069	NICKEL	TISMG/KG	WET WGT		1	2.0000			2.00	2.00	84/05/24	84/05/24
				U	51	1.0000	0.0000	0.0000	1.00	1.00	84/05/23	84/05/31
				TOT	52	1.0192	.01923	.13868	2.00	1.00	84/05/23	84/05/31

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INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
1073	THALLIUM	TIS-WET	MG/KG		3	1.0000	0.0000	0.0000	1.00	1.00	84/05/24	84/05/24
				M	4	1.0000	0.0000	0.0000	1.00	1.00	84/05/24	84/05/24
				U	12	1.0000	0.0000	0.0000	1.00	1.00	84/05/23	84/05/31
				TOT	19	1.0000	0.0000	0.0000	1.00	1.00	84/05/23	84/05/31
1075	SILVER	AG,DISS	UG/L	U	1	.20000			.2	.2	84/05/31	84/05/31
1077	SILVER	AG,TOT	UG/L	U	1	.20000			.2	.2	84/05/31	84/05/31
1078	SILVER	SEDMG/KG	DRY WGT		2	2.0000	0.0000	0.0000	2.00	2.00	84/07/24	84/07/24
				U	1	1.0000			1.00	1.00	84/07/24	84/07/24
				TOT	3	1.6667	.33334	.57735	2.00	1.00	84/07/24	84/07/24
1090	ZINC	ZN,DISS	UG/L	U	1	5.0000			5	5	84/05/31	84/05/31
1092	ZINC	ZN,TOT	UG/L		1	10.000			10	10	84/05/31	84/05/31
1095	ANTIMONY	SB,DISS	UG/L	U	1	1.0000			1	1	84/05/31	84/05/31
1097	ANTIMONY	SB,TOT	UG/L	U	1	1.0000			1	1	84/05/31	84/05/31
1099	ANTIMONY	TIS-WET	MG/KG		2	1.0000	0.0000	0.0000	1.00	1.00	84/05/24	84/05/31
				M	6	1.0000	0.0000	0.0000	1.00	1.00	84/05/24	84/05/24
				U	11	1.0000	0.0000	0.0000	1.00	1.00	84/05/23	84/05/31
				TOT	19	1.0000	0.0000	0.0000	1.00	1.00	84/05/23	84/05/31
1145	SELENIUM	SE,DISS	UG/L	U	1	1.0000			1	1	84/05/31	84/05/31
1147	SELENIUM	SE,TOT	UG/L	U	1	1.0000			1	1	84/05/31	84/05/31
1149	SELENIUM	TISMG/KG	WET WGT		19	.34105	.03155	.17764	.70	.12	84/05/23	84/05/31
1163	ZR MUD	DRY WGT	MG/KG-ZR		3	343.33	15633.	125.03	470.00	220.00	84/07/24	84/07/24
1507	ALPHA	SEDIMENT	PC/G		3	8.0000	13.000	3.6056	11	4	84/07/24	84/07/24
1508	ALPHA	SED-ERR	PC/G		3	2.6667	2.3333	1.5275	4	1	84/07/24	84/07/24
3507	BETA	SEDIMENT	PC/G		3	48.667	145.34	12.056	60	36	84/07/24	84/07/24
3508	BETA	SED-ERR	PC/G		3	9.0000	3.0000	1.7321	10	7	84/07/24	84/07/24
9507	RA-226	SEDIMENT	PC/G		3	.64000	.00190	.04359	.7	.6	84/07/24	84/07/24
9508	RA-226	SED-ERR	PC/G		3	.06666	.00003	.00577	.07	.06	84/07/24	84/07/24
11506	RA-224	SEDIMENT	PCI/G		3	1.0000	.04000	.20000	1.200	.800	84/07/24	84/07/24
11507	RA-224	SED-ERR	PCI/G		3	.20000	.00000	.00000	.200	.200	84/07/24	84/07/24
11508	RA-223	SEDIMENT	PCI/G		1	.17000			.170	.170	84/07/24	84/07/24
11509	RA-223	SEDIMENT	ERROR		1	.08000			.080	.080	84/07/24	84/07/24
15505	SR-89	SEDIMENT	PCI/G		3	000000	000000	000000	0.000	0.000	84/07/24	84/07/24
15506	SR-89	SED-ERR	PCI/G		3	.26667	.00333	.05773	.300	.200	84/07/24	84/07/24
15507	SR-90	SEDIMENT	PCI/G		3	.16667	.00333	.05773	.200	.100	84/07/24	84/07/24
15508	SR-90	SED-ERR	PCI/G		3	.13333	.00333	.05773	.200	.100	84/07/24	84/07/24
17509	PB-212	SEDIMENT	PCI/G		3	.94667	.02973	.17244	1.100	.760	84/07/24	84/07/24
17510	PB-212	SED-ERR	PCI/G		3	.08666	.00023	.01527	.100	.070	84/07/24	84/07/24
17511	PB-214	SEDIMENT	PCI/G		3	.71000	.00270	.05196	.770	.680	84/07/24	84/07/24
17512	PB-214	SED-ERR	PCI/G		3	.06333	.00013	.01154	.070	.050	84/07/24	84/07/24
21503	PA-233	SEDIMENT	PCI/G		2	.02550	.00004	.00636	.030	.021	84/07/24	84/07/24
21504	PA-233	SED-ERR	PCI/G		2	.00900	.00000	.00141	.010	.008	84/07/24	84/07/24
21505	MPA-234	SEDIMENT	PCI/G		2	5.5000	4.5000	2.1213	7.000	4.000	84/07/24	84/07/24
21506	MPA-234	SED-ERR	PCI/G		2	1.5000	.50000	.70711	2.000	1.000	84/07/24	84/07/24
22018	PU-239	SEDIMENT	PCI/G		1	.02300			.023	.023	84/07/24	84/07/24

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
22019	PU-239	SEDIMENT	ERRO		1	.00300			.003	.003	84/07/24	84/07/24
22102	TC-99	FISH	PCI/G		8	.21250	.01533	.12384	.5	.1	84/05/23	84/05/31
22103	TC-99	FISHERR	PCI/G		8	.10112	.00036	.01903	.1	.08	84/05/23	84/05/31
22200	BE-7	SEDIMENT	PCI/G		3	.90000	.03000	.17321	1.100	.800	84/07/24	84/07/24
22201	BE-7	SED-ERR	PCI/G		3	.13333	.00333	.05773	.200	.100	84/07/24	84/07/24
22300	K-40	SEDIMENT	PCI/G		3	12.900	4.6302	2.1518	15.000	10.700	84/07/24	84/07/24
22301	K-40	SED-ERR	PCI/G		3	.96667	.00333	.05774	1.000	.900	84/07/24	84/07/24
22350	TL-208	SEDIMENT	PCI/G		3	.33000	.00210	.04582	.370	.280	84/07/24	84/07/24
22351	TL-208	SED-ERR	PCI/G		3	.03333	.00003	.00577	.040	.030	84/07/24	84/07/24
22375	BI-212	SEDIMENT	PCI/G		3	1.1000	.03000	.17321	1.200	.900	84/07/24	84/07/24
22376	BI-212	SED-ERR	PCI/G		3	.16667	.00333	.05773	.200	.100	84/07/24	84/07/24
22377	BI-214	SEDIMENT	PCI/G		3	.64000	.00190	.04359	.690	.610	84/07/24	84/07/24
22378	BI-214	SED-ERR	PCI/G		3	.06666	.00003	.00577	.070	.060	84/07/24	84/07/24
22450	AM-241	SEDIMENT	PCI/G		1	.02300			.023	.023	84/07/24	84/07/24
22451	AM-241	SEDIMENT	ERRO		1	.00600			.006	.006	84/07/24	84/07/24
22507	TH-234	SEDIMENT	PCI/G		3	2.8333	1.4233	1.1930	3.800	1.500	84/07/24	84/07/24
22508	TH-234	SED-ERR	PCI/G		3	.46667	.02333	.15275	.600	.300	84/07/24	84/07/24
22608	URANIUM	SEDIMENT	UG/G		3	6.5333	46.223	6.7988	14.000	.700	84/07/24	84/07/24
22609	URANIUM	SED-ERR	UG/G		3	.63333	.12333	.35119	1.000	.300	84/07/24	84/07/24
22612	U-235	SEDIMENT	PCI/G		2	.53000	.14580	.38184	.800	.260	84/07/24	84/07/24
22613	U-235	SED-ERR	PCI/G		2	.23000	.05780	.24042	.400	.060	84/07/24	84/07/24
25503	AC-228	SEDIMENT	PCI/G		3	.96667	.02333	.15275	1.100	.800	84/07/24	84/07/24
25504	AC-228	SED-ERR	PCI/G		3	.10000	.00000	.00000	.100	.100	84/07/24	84/07/24
28416	CS-134	SEDIMENT	PCI/G		2	.10850	.00530	.07283	.160	.057	84/07/24	84/07/24
28417	CS-134	SED-ERR	PCI/G		2	.01450	.00005	.00777	.020	.009	84/07/24	84/07/24
28418	CS-137	SEDIMENT	PCI/G		3	1.1833	.84084	.91697	1.900	.150	84/07/24	84/07/24
28419	CS-137	SED-ERR	PCI/G		3	.07333	.00213	.04618	.100	.020	84/07/24	84/07/24
29604	CO-60	SEDIMENT	PCI/G		3	.53267	.35076	.59225	1.180	.018	84/07/24	84/07/24
29605	CO-60	SED-ERR	PCI/G		3	.04600	.00170	.04132	.090	.008	84/07/24	84/07/24
32731	PHENOLS	SEDMG/KG	DRY WGT		1	.40000			.40	.40	84/07/24	84/07/24
				U	2	.40000	.00000	.00000	.40	.40	84/07/24	84/07/24
				TOT	3	.40000	.00000	.00048	.40	.40	84/07/24	84/07/24
34203	ACNAPTHY	SEDUG/KG	DRY WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34204	ACNAPTHY	TISMG/KG	WET WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34208	ACNAPTHE	SEDUG/KG	DRY WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34209	ACNAPTHE	TISMG/KG	WET WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34214	ACROLEIN	TISMG/KG	WET WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34219	ACRYLNIT	TISMG/KG	WET WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34223	ANTHRACE	SEDUG/KG	DRY WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34224	ANTHRACE	TISMG/KG	WET WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34233	BENZBFLU	ORANTMUD	DRYUG/KG	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34234	BENZBFLU	ORANTTIS	WETMG/KG	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34238	BENZENE	TISMG/KG	WET WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34241	BENZIDIN	TISMG/KG	WET WGT	U	11	3.4000	.00002	.00494	3.400	3.400	84/05/24	84/05/24

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34245 BENZKFLU	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34246 BENZKFLU	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34250 BENZAPYR	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34251 BENZAPYR	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34252 BERYLIUM	TISMG/KG	WET	WGT		3	.02666	.00013	.01154	.040	.020	84/05/24	84/05/24
				U	16	.06000	.00170	.04131	.100	.020	84/05/23	84/05/31
				TOT	19	.05473	.00159	.03991	.100	.020	84/05/23	84/05/31
34258 BETA BHC	TISMG/KG	WET	WGT	U	11	.01000	4657E-10	.00000	.010	.010	84/05/24	84/05/24
34263 DELTABHC	TISMG/KG	WET	WGT	U	11	.01000	4657E-10	.00000	.010	.010	84/05/24	84/05/24
34272 BCLMETR	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34276 B2CETETR	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34277 B2CETETR	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34281 H2CETOXM	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34282 B2CETOXM	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34286 B2CIPETR	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34287 B2CIPETR	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34291 BROMOFOR	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34295 NBB PHTH	MUD-DRY		UG/KG	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34296 NBB PHTH	TIS-WET		MG/KG	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34300 CARBNTET	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34305 CLBENZEN	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34310 CLDIBRMT	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34315 CLETHANE	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34319 CHLRFORM	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34323 CHRYSENE	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34324 CHRYSENE	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34331 DICLBRMT	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34335 DCLOFLMT	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34339 DETHPHTH	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34340 DETHPHTH	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34344 DMETPHTH	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34345 DMETPHTH	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34349 12DPHNHY	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34350 12DPHNHY	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34355 ENDSULSF	TISMG/KG	WET	WGT	U	11	.01000	4657E-10	.00000	.010	.010	84/05/24	84/05/24
34360 BENDOSUL	TISMG/KG	WET	WGT	U	11	.01000	4657E-10	.00000	.010	.010	84/05/24	84/05/24
34365 AENDOSUL	TISMG/KG	WET	WGT	U	11	.01000	4657E-10	.00000	.010	.010	84/05/24	84/05/24
34370 ENDRINAL	TISMG/KG	WET	WGT	R	7	.04285	.00032	.01799	.080	.020	84/05/24	84/05/24
				U	4	.01000	.00000	.00000	.010	.010	84/05/24	84/05/24
				TOT	11	.03090	.00046	.02165	.080	.010	84/05/24	84/05/24
34375 ETHYLBEN	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34379 FLANTENE	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34380 FLANTENE	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34384 FLUORENE	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34385 FLUORENE	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34389 HEXCLCPD	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34390 HEXCLCPD	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34395 HEXCLBD	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34399 HEXACLET	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34400 HEXACLET	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34406 I123CDPR	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34407 I123CDPR	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34411 ISPHRONE	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34412 ISPHRONE	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34417 METHYLBR	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34422 METHYLCL	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34427 MTHLENCL	TISMG/KG	WET	WGT	R	1	.45000			.450	.450	84/05/24	84/05/24
				U	10	.25000	.00000	.00000	.250	.250	84/05/24	84/05/24
				TOT	11	.26818	.00363	.06030	.450	.250	84/05/24	84/05/24
34431 NITDNPRA	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34432 NITDNPRA	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34436 NITRSDPA	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34437 NITRSDPA	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34441 NITRSDMA	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34442 NITRSDMA	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34445 NAPTHALE	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34446 NAPTHALE	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34450 NITROBEN	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34451 NITROBEN	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34456 PCLMCRES	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34464 PHENANTH	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34465 PHENANTH	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34468 PHENOL	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34472 PYRENE	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34473 PYRENE	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34474 SILVER	TISMG/KG	WET	WGT		2	.40000	.08000	.28284	.600	.200	84/05/24	84/05/24
				M	4	.20000	.00000	.00000	.200	.200	84/05/24	84/05/24
				U	46	.20000	4239E-11	.00020	.200	.200	84/05/23	84/05/31
				TOT	52	.20769	.00307	.05547	.600	.200	84/05/23	84/05/31
34479 TETCLETE	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34484 TOLUENE	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34492 TRCLFLMT	TISMG/KG	WET	WGT	R	1	.05000			.050	.050	84/05/24	84/05/24
				U	10	.05000	2897E-12	.00005	.050	.050	84/05/24	84/05/24
				TOT	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34500 11DICLET	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34505 11DCETEN	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34510 111TCLET	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34515 112TCLET	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24

STORET RETRIEVAL DATE 85/06/11

6 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY POPLAR CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34520 1122TCLE	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34524 BZGHIPER	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34525 BZGHIPER	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34529 BENZAANT	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34530 BENZAANT	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34535 12DICLET	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34539 12DCLBEN	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34540 12DCLBEN	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34545 12DCLPRP	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34550 12TDCETE	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34554 124TCBEN	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34555 124TCBEN	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34559 CBAHANTH	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34560 CBAHANTH	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34565 13DCPRPE	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34569 13DCLBEN	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34570 13DCLBEN	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34574 14DCLBEN	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34575 14DCLBEN	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34580 2CLEVETR	TISMG/KG	WET	WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34584 2CLNAPTH	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34585 2CLNAPTH	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34590 2CLPHENO	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34595 2NPHENOL	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34599 DINOCTPH	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34600 DINOCTPH	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34605 24DCPHEN	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34610 24DMPHEN	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34614 24DNTOLU	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34615 24DNTOLU	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34620 24DNPHEN	TISMG/KG	WET	WGT	U	11	6.7000	0.0000	0.0000	6.700	6.700	84/05/24	84/05/24
34625 246TCPHN	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34629 26DNTOLU	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34630 26DNTOLU	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34634 33DCBNZD	SEDUG/KG	DRY	WGT	U	3	3233.3	463340.	680.69	4000.000	2700.000	84/07/24	84/07/24
34635 33DCBNZD	TISMG/KG	WET	WGT	U	11	1.7000	0.0000	0.0000	1.700	1.700	84/05/24	84/05/24
34639 4BRPPETR	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34640 4BRPPETR	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34644 4CLPPETR	SEDUG/KG	DRY	WGT	U	3	1400.0	90000.	300.00	1700.000	1100.000	84/07/24	84/07/24
34645 4CLPPETR	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34650 4NPHENOL	TISMG/KG	WET	WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34661 46DNOCRE	TISMG/KG	WET	WGT	U	11	3.4000	.00002	.00494	3.400	3.400	84/05/24	84/05/24
34664 PCB-1221	TISMG/KG	WET	WGT	U	11	.05909	.00220	.04700	.100	.010	84/05/24	84/05/24
34667 PCB-1232	TISMG/KG	WET	WGT	U	11	.05909	.00220	.04700	.100	.010	84/05/24	84/05/24

STORET RETRIEVAL DATE 85/06/11

6 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY POPLAR CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34669 PCB-1248	TISMG/KG	WET WGT	U	11	.05909	.00220	.04700	.100	.010	84/05/24	84/05/24
34670 PCB-1260	TISMG/KG	WET WGT		5	1.6900	.61050	.78134	2.800	.650	84/05/24	84/05/24
			U	6	.05500	.00243	.04929	.100	.010	84/05/24	84/05/24
			TOT	11	.79818	.97447	.98715	2.800	.010	84/05/24	84/05/24
34674 PCB-1016	TISMG/KG	WET WGT	U	11	.10000	1788E-11	.00013	.100	.100	84/05/24	84/05/24
34680 ALDRIN	TISMG/KG	WET WGT	U	11	.01000	4657E-14	.00000	.010	.010	84/05/24	84/05/24
34682 CDANEWET	TECH&MET	TISMG/KG	U	11	.02636	.00132	.03640	.100	.010	84/05/24	84/05/24
34683 DNB PHTH	TIS-WET	MG/KG	M	4	.67000	.00000	.00097	.670	.670	84/05/24	84/05/24
			U	7	.67000	.00000	.00089	.670	.670	84/05/24	84/05/24
			TOT	11	.67000	.00000	.00087	.670	.670	84/05/24	84/05/24
34685 ENDRIN	TISMG/KG	WET WGT	U	11	.01000	4657E-14	.00000	.010	.010	84/05/24	84/05/24
34686 HPCHLREP	TISMG/KG	WET WGT	R	2	.04000	.00080	.02828	.060	.020	84/05/24	84/05/24
			U	9	.01000	5821E-14	.00000	.010	.010	84/05/24	84/05/24
			TOT	11	.01545	.00022	.01507	.060	.010	84/05/24	84/05/24
34687 HEPTCHLR	TISMG/KG	WET WGT	U	11	.01000	4657E-14	.00000	.010	.010	84/05/24	84/05/24
34688 HCB	TISMG/KG	WET WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
34689 PCB-1242	TISMG/KG	WET WGT	U	11	.10000	1788E-11	.00013	.100	.100	84/05/24	84/05/24
34690 PCB-1254	TISMG/KG	WET WGT		4	.50000	.01333	.11547	.600	.400	84/05/24	84/05/24
			U	7	.10000	.00000	.00000	.100	.100	84/05/24	84/05/24
			TOT	11	.24545	.04472	.21149	.600	.100	84/05/24	84/05/24
34691 TOXAPHEN	TISMG/KG	WET WGT	U	11	.50000	.00000	.00000	.500	.500	84/05/24	84/05/24
34692 TRICLETE	TISMG/KG	WET WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
34693 VINYLCHL	TISMG/KG	WET WGT	U	11	.05000	2980E-12	.00005	.050	.050	84/05/24	84/05/24
39060 PCP	TISMG/KG	WET WGT	U	11	.67000	.00000	.00081	.670	.670	84/05/24	84/05/24
39074 ALPHABHC	TISMG/KG	WET WGT	U	11	.01000	4657E-14	.00000	.010	.010	84/05/24	84/05/24
39099 B2ETHXPH	TISMG/KG	WET WGT	M	3	.67000	.00000	.00119	.67	.67	84/05/24	84/05/24
			U	8	.67000	.00000	.00082	.67	.67	84/05/24	84/05/24
			TOT	11	.67000	.00000	.00087	.67	.67	84/05/24	84/05/24
39102 B2E PHTH	MUD-DRY	UG/KG	M	2	1550.0	45000.	212.13	1700	1400	84/07/24	84/07/24
			U	1	1100.0			1100	1100	84/07/24	84/07/24
			TOT	3	1400.0	90000.	300.00	1700	1100	84/07/24	84/07/24
39112 DNB PHTH	MUD-DRY	UG/KG	U	3	1400.0	90000.	300.00	1700	1100	84/07/24	84/07/24
39121 BENZIDIN	SEDUG/KG	DRY WGT	M	3	7000.0	1000000.	1000.0	8000.00	6000.00	84/07/24	84/07/24
39302 P,P'DDT	TISMG/KG	WET WGT	R	1	.04000			.04	.04	84/05/24	84/05/24
			U	10	.01000	5174E-14	.00000	.01	.01	84/05/24	84/05/24
			TOT	11	.01272	.00008	.00904	.04	.01	84/05/24	84/05/24
39312 P,P'DDD	TISMG/KG	WET WGT	R	8	.08500	.00385	.06210	.22	.04	84/05/24	84/05/24
			U	3	.01000	.00000	.00000	.01	.01	84/05/24	84/05/24
			TOT	11	.06454	.00392	.06266	.22	.01	84/05/24	84/05/24
39322 P,P'DDE	TISMG/KG	WET WGT	R	9	.05777	.00244	.04944	.16	.02	84/05/24	84/05/24
			U	2	.01000	.00000	.00000	.01	.01	84/05/24	84/05/24
			TOT	11	.04909	.00232	.04826	.16	.01	84/05/24	84/05/24
39404 DIELDRIN	TISMG/KG	WET WGT	U	11	.01000	4657E-14	.00000	.01	.01	84/05/24	84/05/24
39491 PCB-1221	SEDUG/KG	DRY WGT	U	3	100.00	0.00	0.00	100.00	100.00	84/07/24	84/07/24

STORET RETRIEVAL DATE 85/06/11

6 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY POPLAR CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
39495	PCB-1232	SEDUG/KG	DRY WGT	U	3	100.00	0.00	0.00	100.00	100.00	84/07/24	84/07/24
39499	PCB-1242	SEDUG/KG	DRY WGT	U	3	100.00	0.00	0.00	100.00	100.00	84/07/24	84/07/24
39503	PCB-1248	SEDUG/KG	DRY WGT	U	3	100.00	0.00	0.00	100.00	100.00	84/07/24	84/07/24
39507	PCB-1254	SEDUG/KG	DRY WGT	U	3	100.00	0.00	0.00	100.00	100.00	84/07/24	84/07/24
39511	PCB-1260	SEDUG/KG	DRY WGT	U	3	100.00	0.00	0.00	100.00	100.00	84/07/24	84/07/24
39514	PCB-1016	SEDUG/KG	DRY WGT	U	3	100.00	0.00	0.00	100.00	100.00	84/07/24	84/07/24
39701	HCB	SEDUG/KG	DRY WGT	U	3	1400.0	90000.	300.00	1700.00	1100.00	84/07/24	84/07/24
39705	HEXCLBD	SEDUG/KG	DRY WGT	U	3	1400.0	90000.	300.00	1700	1100	84/07/24	84/07/24
39785	GBHC-TIS	LINDANE	WETMG/KG	U	11	.01000	4657E-10	.00000	.01	.01	84/05/24	84/05/24
70320	MOISTURE	CONTENT	PERCENT		3	48.800	61.809	7.8618	55	41	84/07/24	84/07/24
70322	RESIDUE	TOT VOL	PERCENT		3	7.1333	7.7234	2.7791	9.3	4.0	84/07/24	84/07/24
71821	SPECIFIC	GRAVITY	SEDGM/GM		3	2.1467	.02643	.16259	2.290	1.970	84/07/24	84/07/24
71890	MERCURY	HG,DISS	UG/L	U	1	.20000			.2	.2	84/05/31	84/05/31
71900	MERCURY	HG,TOTAL	UG/L	U	1	.20000			.2	.2	84/05/31	84/05/31
71921	MERCURY	SEDMG/KG	DRY WGT		3	3.4500	8.8075	2.9677	5.9	.1	84/07/24	84/07/24
71930	MERCURY	TISMG/KG	WET WGT		42	.48666	.14090	.37536	1.70	.11	84/05/23	84/05/31
				U	10	.10000	.00000	.00000	.10	.10	84/05/24	84/05/31
				TOT	52	.41231	.13695	.37007	1.70	.10	84/05/23	84/05/31
71936	LEAD	TISMG/KG	WET WGT		17	.09117	.00798	.08936	.36	.02	84/05/23	84/05/31
				U	2	.02000	.00000	.00000	.02	.02	84/05/24	84/05/24
				TOT	19	.08368	.00760	.08719	.36	.02	84/05/23	84/05/31
71937	COPPER	TISMG/KG	WET WGT		16	.86125	.92312	.96079	4.10	.28	84/05/23	84/05/31
				U	3	.16667	.00333	.05773	.20	.10	84/05/24	84/05/31
				TOT	19	.75158	.83734	.91507	4.10	.10	84/05/23	84/05/31
71938	ZINC	TISMG/KG	WET WGT		19	8.0421	9.6071	3.0995	16.00	5.30	84/05/23	84/05/31
71939	CR-FISH	UG/G OR	MG/KG WT		33	.18697	.04830	.21978	1.00	.02	84/05/23	84/05/31
				U	19	.02000	4139E-13	.00002	.02	.02	84/05/23	84/05/24
				TOT	52	.12596	.03689	.19209	1.00	.02	84/05/23	84/05/31
71940	CADMIUM	TISMG/KG	WET WGT		27	.01088	.00001	.00325	.02	.004	84/05/23	84/05/31
				U	25	.00200	3638E-15	.00000	.002	.002	84/05/23	84/05/31
				TOT	52	.00661	.00002	.00504	.02	.002	84/05/23	84/05/31
80181	TOT SED	PARTSIZE	%<.002MM		3	30.967	118.08	10.867	40.8	19.3	84/07/24	84/07/24
80183	TOT SED	PARTSIZE	%<.008MM		3	51.267	294.14	17.151	68.5	34.2	84/07/24	84/07/24
80184	TOT SED	PARTSIZE	%<.016MM		3	62.333	447.32	21.150	83.5	41.2	84/07/24	84/07/24
80203	TOT SED	SIEVE	%<.062MM		3	75.533	578.36	24.049	97.1	49.6	84/07/24	84/07/24
81356	CATION	EX. CAP.	MEA/100G		3	14.467	69.854	8.3578	24.0	8.4	84/07/24	84/07/24
81756	TOT SED	PARTSIZ%	<.0005MM		3	15.700	39.970	6.3222	21.4	8.9	84/07/24	84/07/24
84005	FISH	SPECIES	F &WL	TE	52	TEXT	TEXT	TEXT	TEXT	TEXT	84/05/23	84/05/31
84014	SPECIES	SEX	TEXT	TE	44	TEXT	TEXT	TEXT	TEXT	TEXT	84/05/23	84/05/31
84068	SERIES	CODE	ALPHA	TE	56	TEXT	TEXT	TEXT	TEXT	TEXT	84/05/23	84/07/24

STORET RETRIEVAL DATE 85/11/29

7 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY WHITE OAK CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00002	HSAMPLOC	% FROM	RT BANK		44	64.52300	326.0700	18.05800	99.0	50.0	84/05/31	84/08/29
				D	3	66.33300	800.3400	28.29000	99.0	50.0	84/05/31	84/08/29
				TOT	47	64.63800	339.8000	18.43400	99.0	50.0	84/05/31	84/08/29
00008	LAB	IDENT.	NUMBER		95	48363.00	1741E+08	417340.0	4073200	8	84/04/19	84/09/13
				R	27	4069600	41298000	6426.300	4073280	4061180	84/05/02	84/08/29
				TOT	122	938320.0	2945E+09	1716100	4073280	8	84/04/19	84/09/13
00010	WATER	TEMP	CENT		1	17.60000			17.6	17.6	84/05/31	84/05/31
00023	WEIGHT		POUNDS		62	1.405500	2.132200	1.460200	5.95	.15	84/04/19	84/05/25
				S	5	4.364000	1.378700	1.174200	5.95	3.04	84/05/24	84/05/24
				TOT	67	1.626300	2.667900	1.633400	5.95	.15	84/04/19	84/05/25
00024	LENGTH		INCHES		58	12.35000	30.75100	5.545400	24.30	6.10	84/04/19	84/05/25
				S	5	21.16000	5.093300	2.254600	24.30	18.60	84/05/24	84/05/24
				TOT	63	13.04900	34.36200	5.861900	24.30	6.10	84/04/19	84/05/25
00065	STREAM	STAGE	FEET		1	.6000000			.60	.60	84/05/31	84/05/31
00094	CNDUCTVY	FIELD	MICROMHO		1	395.0000			395	395	84/05/31	84/05/31
00098	VSAMPLOC	DEPTH	METERS		3	.3000000	.0000000	.0000000	.30	.30	84/05/31	84/09/13
				D	1	.3000000			.30	.30	84/09/13	84/09/13
				TOT	4	.3000000	.0000000	.0000000	.30	.30	84/05/31	84/09/13
00300	DO		MG/L		1	6.200000			6.2	6.2	84/05/31	84/05/31
00400	PH		SU		1	7.400000			7.40	7.40	84/05/31	84/05/31
00431	T ALK	FIELD	MG/L		2	109.5000	.5000000	.7071100	110	109	84/05/31	84/05/31
00530	RESIDUE	TOT NFLT	MG/L		2	17.50000	.5000000	.7071100	18	17	84/05/31	84/05/31
00535	RESIDUE	VOL NFLT	MG/L		2	3.000000	.0000000	.0000000	3	3	84/05/31	84/05/31
00556	OIL-GRSE	FREON-GR	MG/L	U	2	5.000000	.0000000	.0000000	5.00	5.00	84/05/31	84/05/31
00610	NH3+NH4-	N TOTAL	MG/L		2	.1250000	.0000500	.0071719	.130	.120	84/05/31	84/05/31
00625	TOT KJEL	N	MG/L		2	.4450000	.0012500	.0353560	.470	.420	84/05/31	84/05/31
00630	NO2&NO3	N-TOTAL	MG/L		2	.8300000	.0000000	.0000000	.83	.83	84/05/31	84/05/31
00665	PHOS-TOT		MG/L P		2	.1850000	.0004500	.0212140	.200	.170	84/05/31	84/05/31
00720	CYANIDE	CN-TOT	MG/L	U	2	.0200000	.0000000	.0000000	.020	.020	84/09/13	84/09/13
00721	CYANIDE	SEDMG/KG	DRY WGT	U	5	1.000000	.0000000	.0000000	1.00	1.00	84/08/29	84/08/29
00900	TOT HARD	CACO3	MG/L		2	160.0000	.0000000	.0000000	160	160	84/05/31	84/05/31
01002	ARSENIC	AS,TOT	UG/L	U	2	1.000000	.0000000	.0000000	1	1	84/05/31	84/05/31
01003	ARSENIC	SEDMG/KG	DRY WGT		5	7.920000	11.23200	3.351400	12.00	5.00	84/09/29	84/08/29
01004	ARSENIC	TISMG/KG	WET WGT		32	.2031300	.0067641	.0822440	.40	.10	84/04/19	84/05/25
				U	18	.1000000	.0000000	.0000000	.10	.10	84/04/19	84/05/25
				TOT	50	.1560000	.0067796	.0823380	.40	.10	84/04/19	84/05/25
01012	BERYLIUM	BE,TOT	UG/L	U	2	1.000000	.0000000	.0000000	1.00	1.00	84/05/31	84/05/31
01027	CADMIUM	CD,TOT	UG/L	U	2	.1000000	.0000000	.0000000	.1	.1	84/05/31	84/05/31
01028	CD MUD	DRY WGT	MG/KG-CD		5	1.620000	.6520000	.8074700	2.60	.60	84/09/29	84/09/29
01029	CHROMIUM	SEDMG/KG	DRY WGT		5	186.4000	10587.00	102.8900	290.00	66.00	84/08/29	84/08/29
01034	CHROMIUM	CR,TOT	UG/L		2	9.000000	.0000000	.0000000	9	9	84/05/31	84/05/31
01042	COPPER	CU,TOT	UG/L	U	2	5.000000	.0000000	.0000000	5	5	84/05/31	84/05/31
01051	LEAD	PB,TOT	UG/L		2	3.000000	.0000000	.0000000	3	3	84/05/31	84/05/31
01052	LEAD	SEDMG/KG	DRY WGT		5	39.40000	47.30100	6.877600	51.00	33.00	84/08/29	84/08/29

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INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01059	THALLIUM	TL,TOTAL	UG/L	U	2	50.00000	.0000000	.0000000	50	50	84/05/31	84/05/31
01067	NICKEL	NI,TOTAL	UG/L		2	4.500000	.5000000	.7071100	5	4	84/05/31	84/05/31
01068	NICKEL	SEDMG/KG	DRY WGT		5	25.80000	5.700800	2.387600	30.00	24.00	84/08/29	84/08/29
01069	NICKEL	TISMG/KG	WET WGT	U	50	1.000000	.0000000	.0000000	1.00	1.00	84/04/19	84/05/25
01073	THALLIUM	TIS-WET	MG/KG	M	2	1.000000	.0000000	.0000000	1.00	1.00	84/05/24	84/05/24
				U	9	1.000000	.0000000	.0000000	1.00	1.00	84/05/24	84/05/24
				TOT	11	1.000000	.0000000	.0000000	1.00	1.00	84/05/24	84/05/24
01077	SILVER	AG,TOT	UG/L	U	2	.2000000	.0000000	.0000000	.2	.2	84/05/31	84/05/31
01078	SILVER	SEDMG/KG	DRY WGT		5	6.400000	11.30000	3.361600	10.00	2.00	84/08/29	84/08/29
01092	ZINC	ZN,TOT	UG/L		2	27.00000	18.00000	4.242600	30	24	84/05/31	84/05/31
01097	ANTIMONY	SB,TOT	UG/L	U	2	1.000000	.0000000	.0000000	1	1	84/05/31	84/05/31
01099	ANTIMONY	TIS-WET	MG/KG	M	2	1.000000	.0000000	.0000000	1.00	1.00	84/05/24	84/05/24
				U	9	1.000000	.0000000	.0000000	1.00	1.00	84/05/24	84/05/24
				TOT	11	1.000000	.0000000	.0000000	1.00	1.00	84/05/24	84/05/24
01105	ALUMINUM	AL,TOT	UG/L		2	205.0000	50.00000	7.071100	210	200	84/05/31	84/05/31
01132	LITHIUM	LI,TOT	UG/L	U	2	10.00000	.0000000	.0000000	10	10	84/05/31	84/05/31
01147	SELENIUM	SE,TOT	UG/L	U	2	1.000000	.0000000	.0000000	1	1	84/05/31	84/05/31
01149	SELENIUM	TISMG/KG	WET WGT		10	.2690000	.0110330	.1050400	.41	.06	84/05/24	84/05/24
				U	1	.0200000			.02	.02	84/05/24	84/05/24
				TOT	11	.2463600	.0155660	.1247600	.41	.02	84/05/24	84/05/24
01163	ZR MUD	DRY WGT	MG/KG-ZR		5	378.0000	10220.00	101.0900	480.00	260.00	84/08/29	84/08/29
01501	ALPHA	TOTAL	PC/L		2	10.50000	.1802800	.4246000	10	10	84/05/31	84/05/31
01502	ALPHA-T	ERROR	PC/L		2	3.550000	.0050049	.0707450	3	3	84/05/31	84/05/31
01507	ALPHA	SEDIMENT	PC/G		14	2.192900	1.196100	1.093700	4	.2	84/08/29	84/08/29
				M	10	.2600000	.0026667	.0515410	.3	.2	84/08/29	84/08/29
				TOT	24	1.387500	1.624600	1.274600	4	.2	84/08/29	84/08/29
01508	ALPHA	SED-ERR	PC/G		24	.5583300	.1060200	.3256000	1	.2	84/08/29	84/08/29
01521	ALPHA	FISH	PCI/G		5	.0340000	.0010300	.0320940	.070	.000	84/05/02	84/05/25
				M	3	.0100000	.0000000	.0000000	.010	.010	84/05/23	84/05/25
				TOT	8	.0250000	.0007428	.0272550	.070	.000	84/05/02	84/05/25
01522	ALPHA	FISH-ERR	PCI/G		8	.0500000	.0006857	.0261860	.090	.020	84/05/02	84/05/25
03501	BETA	TOTAL	PC/L		2	690.0000	.0000000	.0000000	690	690	84/05/31	84/05/31
03502	BETA-T	ERROR	PC/L		2	70.00000	.0000000	.0000000	70	70	84/05/31	84/05/31
03507	BETA	SEDIMENT	PC/G		24	3942.800	25668300	5066.300	19071	128	84/08/29	84/08/29
03508	BETA	SED-ERR	PC/G		24	772.9600	986010.0	992.9800	3542	25	84/08/29	84/08/29
03524	BETA	FISH	PCI/G		8	38.62500	270.8400	16.45700	76.000	18.000	84/05/02	84/05/25
03525	BETA	FISH-ERR	PCI/G		8	7.625000	10.26800	3.204400	15.000	4.000	84/05/02	84/05/25
07000	H-3	TOTAL	PC/L		2	542000.0	7995400	2827.600	544000.0	540000.0	84/05/31	84/05/31
07001	H-3,TOTL	ERROR	PC/L		2	53000.00	.0000000	.0000000	53000.0	53000.0	84/05/31	84/05/31
15505	SR-89	SEDIMENT	PCI/G		4	4.750000	26.25000	5.123500	12.000	.000	84/08/29	84/08/29
				K	1	80.00000			80.000	80.000	84/08/29	84/08/29
				M	19	35.91100	2150.700	46.37600	171.000	.300	84/08/29	84/08/29
				TOT	24	32.55400	1928.200	43.91100	171.000	.000	84/08/29	84/08/29
15506	SR-89	SED-ERR	PCI/G		24	71.45800	9379.000	96.84500	400.000	3.000	84/09/29	84/08/29

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
15507	SR-90	SEDIMENT	PCI/G		24	137.9600	66957.00	258.7600	900.000	2.000	84/08/29	84/08/29
15508	SR-90	SED-ERR	PCI/G		24	27.62500	1037.500	32.21000	100.000	2.000	84/08/29	84/08/29
15509	SR-89	FISH	PCI/G		1	.2000000			.200	.200	84/05/25	84/05/25
				M	1	1.600000			1.600	1.600	84/05/02	84/05/02
				TOT	2	.9000000	.9800000	.9899500	1.600	.200	84/05/02	84/05/25
15510	SR-89	FISH-ERR	PCI/G		2	.8500000	.6050000	.7778200	1.400	.300	84/05/02	84/05/25
15511	SR-90	FISH	PCI/G		2	.7750000	.5512500	.7424600	1.300	.250	84/05/02	84/05/25
15512	SR-90	FISH-ERR	PCI/G		2	.1900000	.0242000	.1555600	.300	.080	84/05/02	84/05/25
17509	PB-212	SEDIMENT	PCI/G		21	2.228600	1.436200	1.198400	5.000	1.000	84/08/29	84/08/29
17510	PB-212	SED-ERR	PCI/G		21	1.009500	.7579100	.8705800	3.000	.200	84/08/29	84/08/29
17511	PB-214	SEDIMENT	PCI/G		5	1.200000	.0350020	.1873900	1.400	1.000	84/08/29	84/08/29
17512	PB-214	SED-ERR	PCI/G		5	.4600000	.0280000	.1673300	.600	.200	84/08/29	84/08/29
17515	PB 214	FISH	PCI/G		5	.4800000	.0420010	.2049400	.700	.300	84/05/02	84/05/25
17516	PB-214	FISH-ERR	PCI/G		5	.1800000	.0020000	.0447220	.200	.100	84/05/02	84/05/25
22016	PU-238	SEDIMENT	PCI/G		9	.6235600	1.727300	1.314300	4.100	.007	84/08/29	84/08/29
22017	PU-238	SEDIMENT	ERRO		9	.0735560	.0258350	.1607300	.500	.002	84/08/29	84/08/29
22018	PU-239	SEDIMENT	PCI/G		9	9.056700	505.8400	22.49100	69.000	.360	84/08/29	84/08/29
22019	PU-239	SEDIMENT	ERRO		9	.4044500	.9503800	.9748700	3.000	.030	84/08/29	84/08/29
22300	K-40	SEDIMENT	PCI/G		24	19.58300	11.47200	3.387000	25.000	14.000	84/08/29	84/08/29
22301	K-40	SED-ERR	PCI/G		24	2.333300	2.144900	1.464600	9.000	2.000	84/08/29	84/08/29
22302	K-40	FISH	PCI/G		8	12.62500	8.839300	2.973100	17.000	7.000	84/05/02	84/05/25
22303	K-40	FISH-ERR	PCI/G		8	2.000000	.5714300	.7559300	3.000	1.000	84/05/02	84/05/25
22350	TL-208	SEDIMENT	PCI/G		7	.7100000	.1103700	.3322200	1.400	.400	84/08/29	84/08/29
22351	TL-208	SED-ERR	PCI/G		7	.2271400	.0094906	.0974200	.400	.090	84/08/29	84/08/29
22375	BI-212	SEDIMENT	PCI/G		3	2.600000	.4800000	.6923200	3.000	1.800	84/08/29	84/08/29
22376	BI-212	SED-ERR	PCI/G		3	.9666700	.0033341	.0577410	1.000	.900	84/08/29	84/08/29
22377	BI-214	SEDIMENT	PCI/G		15	1.226700	.0792390	.2814900	1.700	.600	84/08/29	84/08/29
22378	BI-214	SED-ERR	PCI/G		15	.5000000	.0471430	.2171300	.800	.100	84/08/29	84/08/29
22381	BI-214	FISH	PCI/G		6	.4050000	.0673500	.2595200	.700	.030	84/05/02	84/05/25
22382	BI-214	FISH-ERR	PCI/G		6	.1366700	.0056667	.0752770	.200	.020	84/05/02	84/05/25
22450	AM-241	SEDIMENT	PCI/G		15	10.86500	329.1100	18.14100	73.000	.430	84/08/29	84/08/29
22451	AM-241	SEDIMENT	ERRO		15	2.790000	15.13700	3.891600	11.000	.050	84/08/29	84/08/29
22475	CU-244	SEDMENT	PCI/G		9	3.270900	17.73000	4.210700	12.000	.014	84/08/29	84/08/29
22476	CU-244	SEDIMENT	ERRO		9	.3194500	.1330600	.3647800	1.000	.007	84/08/29	84/08/29
22507	TH-234	SEDIMENT	PCI/G		1	2.000000			2.000	2.000	84/08/29	84/08/29
22508	TH-234	SED-ERR	PCI/G		1	1.000000			1.000	1.000	84/08/29	84/08/29
22608	URANIUM	SEDIMENT	UG/G		24	4.693300	14.32100	3.784300	18.000	.300	84/08/29	84/08/29
22609	URANIUM	SED-ERR	UG/G		24	.8000000	.4513100	.6717900	3.000	.200	84/08/29	84/08/29
25503	AC-228	SEDIMENT	PCI/G		21	2.585700	2.132300	1.460200	7.000	1.000	84/08/29	84/08/29
25504	AC-228	SED-ERR	PCI/G		21	.8666700	.1963400	.4431000	2.000	.300	84/08/29	84/08/29
28401	CS-137	TOTAL	PC/L		2	62.50000	60.50000	7.778200	68	57	84/05/31	84/05/31
28402	CS-137	ERROR	PC/L		2	6.000000	2.000000	1.414200	7	5	84/05/31	84/05/31
28416	CS-134	SEDIMENT	PCI/G		9	.9666700	.1425000	.3774900	1.700	.500	84/08/29	84/08/29
28417	CS-134	SED-ERR	PCI/G		9	.3555600	.0127780	.1130400	.500	.200	84/08/29	84/08/29

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
28418	CS-137	SEDIMENT	PCI/G		24	7954.900	1217E+05	11033.00	46949.00	188.000	84/08/29	84/08/29
28419	CS-137	SED-ERR	PCI/G		24	760.7900	1103200	1050.400	3877.000	12.000	84/08/29	84/08/29
28420	CS-134	FISH	PCI/G		1	.0400000			.040	.040	84/05/25	84/05/25
28421	CS-134	FISH-ERR	PCI/G		1	.0500000			.050	.050	84/05/25	84/05/25
28422	CS-137	FISH	PCI/G		8	8.400000	58.43700	7.644400	26.000	1.100	84/05/02	84/05/25
28423	CS-137	FISH-ERR	PCI/G		8	.6875000	.3269700	.5713100	2.000	.200	84/05/02	84/05/25
29601	CO-60	TOTAL	PC/L		2	18.50000	.5000000	.7071100	19	18	84/05/31	84/05/31
29602	CO-60	ERROR	PC/L		2	3.000000	2.000000	1.414200	4	2	84/05/31	84/05/31
29604	CO-60	SEDIMENT	PCI/G		24	118.4200	8979.100	94.75800	437.000	12.000	84/08/29	84/08/29
29605	CO-60	SED-ERR	PCI/G		24	16.37500	654.6800	25.58700	97.000	1.000	84/08/29	84/08/29
29606	CO-60	FISH	PCI/G		3	.0800000	.0013000	.0360560	.120	.050	84/05/02	84/05/25
29607	CO-60	FISH-ERR	PCI/G		3	.0466670	.0021333	.0461880	.100	.020	84/05/02	84/05/25
29650	EU-152	SEDIMENT	PCI/G		7	5.857200	8.246200	2.871600	8.900	1.300	84/08/29	84/08/29
29651	EU-152	SEDIMENT	ERRO		7	1.071400	.7690500	.8769600	3.000	.300	84/08/29	84/08/29
29652	EU-154	SEDIMENT	PCI/G		20	5.197000	19.63000	4.316300	14.000	.540	84/08/29	84/08/29
29653	EU-154	SEDIMENT	ERRO		20	1.224000	1.171700	1.082500	4.000	.080	84/08/29	84/08/29
32101	DICLBRMT		TOTUG/L	U	2	10.00000	.0000000	.0000000	10.0	10.0	84/05/31	84/05/31
32102	CARBNTET		TOTUG/L	U	2	10.00000	.0000000	.0000000	10.0	10.0	84/05/31	84/05/31
32104	BROMOFRM	WHL-WTR	UG/L	U	2	10.00000	.0000000	.0000000	10.0	10.0	84/05/31	84/05/31
32105	CLDIBRMT		TOTUG/L	U	2	10.00000	.0000000	.0000000	10.0	10.0	84/05/31	84/05/31
32106	CHLRFORM		TOTUG/L	U	2	10.00000	.0000000	.0000000	10.0	10.0	84/05/31	84/05/31
32730	PHENOLS	TOTAL	UG/L		2	3.000000	2.000000	1.414200	4	2	84/09/13	84/09/13
32731	PHENOLS	SEDMG/KG	DRY WGT	U	5	.4000000	.0000000	.0000000	.40	.40	84/08/29	84/08/29
34010	TOLUENE		TOT UG/L	U	2	10.00000	.0000000	.0000000	10.00	10.00	84/05/31	84/05/31
34030	BENZENE		TOT UG/L	U	2	10.00000	.0000000	.0000000	10.00	10.00	84/05/31	84/05/31
34200	ACENAPHT	HYLENE	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34203	ACNAPTHY	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34204	ACNAPTHY	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34205	ACENAPHT	HENE	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34208	ACNAPTHE	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34209	ACNAPTHE	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34210	ACROLEIN		TOTWUG/L	U	2	100.0000	.0000000	.0000000	100.000	100.000	84/05/31	84/05/31
34214	ACROLEIN	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34215	ACRYLONI	TRILE	TOTWUG/L	U	2	100.0000	.0000000	.0000000	100.000	100.000	84/05/31	84/05/31
34219	ACRYLNIT	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34220	ANTHRACE	NE	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34223	ANTHRACE	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34224	ANTHRACE	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34230	BENZBFLU	ORANT TO	TAL UG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34233	BENZBFLU	GRANTMUD	DRYUG/KG	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34234	BENZBFLU	ORANTTIS	WETMG/KG	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34238	BENZENE	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34241	BENZIDIN	TISMG/KG	WET WGT	U	11	3.400000	.0000000	.0000000	3.400	3.400	84/05/24	84/05/24
34242	BENZO(K)	FLUORANT	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31

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WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34245 BENZKFLU	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34246 BENZKFLU	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34247 BENZO(A) PYRENE		TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34250 BENZAPYR	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34251 BENZAPYR	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34252 BERYLIUM	TISMG/KG	WET WGT		3	.0266670	.0001333	.0115470	.040	.020	84/05/24	84/05/24
			U	8	.0200000	.0000000	.0000000	.020	.020	84/05/24	84/05/24
			TOT	11	.0218180	.0000363	.0060303	.040	.020	84/05/24	84/05/24
34258 BETA BHC	TISMG/KG	WET WGT	U	11	.0100000	.0000000	.0000000	.010	.010	84/05/24	84/05/24
34259 DELTABHC		TOTUG/L	U	2	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
34263 DELTABHC	TISMG/KG	WET WGT	U	11	.0100000	.0000000	.0000000	.010	.010	84/05/24	84/05/24
34268 BISCHLOR	OMETHYLE	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34272 BCLMTETR	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34273 BIS2CHLO	ROETHYLE	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34276 B2CETETR	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34277 B2CETETR	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34278 BIS2CHLO	ROETHOXY	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34281 B2CETOXM	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34282 B2CETOXM	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34283 BIS2CHLO	ROISOPRO	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34286 B2CIPETR	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34287 B2CIPETR	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34291 BROMOFOR	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34292 NBB PHTH	TOTAL	UG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34295 NBB PHTH	MUD-DRY	UG/KG	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34296 NBB PHTH	TIS-WET	MG/KG	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34300 CARBNTET	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34301 CHLOROBE	NZENE	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34305 CLBENZEN	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34310 CLDIBRMT	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34311 CHLOROET	HANE	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34315 CLETHANE	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34319 CHLRFORM	TISMG/KG	WET WGT		2	.0205000	.0000005	.0007071	.021	.020	84/05/24	84/05/24
			M	1	.0500000			.050	.050	84/05/24	84/05/24
			U	8	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
			TOT	11	.0446350	.0001424	.0119360	.050	.020	84/05/24	84/05/24
34320 CHRYSENE		TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34323 CHRYSENE	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34324 CHRYSENE	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34331 DICLBRMT	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34335 DCLDFLMT	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34336 DIETHYLP	HTHALATE	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34339 DETHPHTH	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34340 DETHPHTH	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24

STORET RETRIEVAL DATE 85/11/29

7 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY WHITE OAK CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

	PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34341	DIMETHYL	PHTHALAT	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34344	DMETPHTH	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34345	DMETPHTH	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34346	12DIPHEN	YLHYDRAZ	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34349	12DPHNHY	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34350	12DPHNHY	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34351	ENDSULSF		TOTUG/L	U	2	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
34355	ENDSULSF	TISMG/KG	WET WGT	U	11	.0100000	.0000000	.0000000	.010	.010	84/05/24	84/05/24
34356	B-ENDO	SULFAN	TOTWUG/L	U	2	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
34360	BENDOSUL	TISMG/KG	WET WGT	U	11	.0100000	.0000000	.0000000	.010	.010	84/05/24	84/05/24
34361	A-ENDO	SULFAN	TOTWUG/L	U	2	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
34365	AENDOSUL	TISMG/KG	WET WGT	U	11	.0100000	.0000000	.0000000	.010	.010	84/05/24	84/05/24
34366	ENDRINAL	DEHYDE	TOTWUG/L	U	2	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
34370	ENDRINAL	TISMG/KG	WET WGT	R	8	.0550000	.0003142	.0177280	.100	.040	84/05/24	84/05/24
				U	3	.0100000	.0000000	.0000000	.010	.010	84/05/24	84/05/24
				TOT	11	.0500000	.0009800	.0296650	.100	.010	84/05/24	84/05/24
34371	ETHYLBEN	ZENE	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34375	ETHYLBEN	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34376	FLUORANT	HENE	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34379	FLANTENE	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34380	FLANTENE	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34381	FLUORENE		TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34384	FLUORENE	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34385	FLUORENE	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34386	HEXACHLO	ROCYCLOP	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34389	HEXCLCPD	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34390	HEXCLCPD	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34391	HEXACHLO	ROBUTADI	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34395	HEXCLBD	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34396	HEXACHLO	ROETHANE	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34399	HEXACLET	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34400	HEXACLET	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34403	INDENO11	23CDPYR	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34406	I123CDPR	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34407	I123CDPR	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34408	ISPHRONE		TOTUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34411	ISPHRONE	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34412	ISPHRONE	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34413	METHYLBR	OMIDE	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34417	METHYLBR	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34418	METHYLCH	LORIDE	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34422	METHYLCL	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34423	METHYLEN	ECHLORID	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34427	MTHLENCL	TISMG/KG	WET WGT	U	11	.2500000	.0000000	.0000000	.250	.250	84/05/24	84/05/24

STORET RETRIEVAL DATE 85/11/29

7 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY WHITE OAK CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34428 NITROSOD IPROPYLA		TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34431 NITONPRA SEDUG/KG		DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34432 NITONPRA TISMG/KG		WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34433 NITROSOD IPHENYLA		TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34436 NITRSDPA SEDUG/KG		DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34437 NITRSDPA TISMG/KG		WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34438 NITRCSCD IMETHYLA		TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34441 NITRSDMA SEDUG/KG		DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34442 NITRSDMA TISMG/KG		WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34445 NAPTHALE SEDUG/KG		DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34446 NAPTHALE TISMG/KG		WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34447 NITROBEN ZENE		TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34450 NITROBEN SEDUG/KG		DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34451 NITROBEN TISMG/KG		WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34452 PARACHLO ROMETACR		TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34456 PCLMCRES TISMG/KG		WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34461 PHENANTH RENE		TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34464 PHENANTH SEDUG/KG		DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34465 PHENANTH TISMG/KG		WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34468 PHENOL TISMG/KG		WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34469 PYRENE		TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34472 PYRENE SEDUG/KG		DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34473 PYRENE TISMG/KG		WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34474 SILVER TISMG/KG		WET WGT		3	.4333300	.0033339	.0577400	.500	.400	84/05/24	84/05/24
			M	1	.2000000			.200	.200	84/05/24	84/05/24
			U	46	.2000000	.0000000	.0000000	.200	.200	84/04/19	84/05/25
			TOT	50	.2140000	.0032695	.0571790	.500	.200	84/04/19	84/05/25
34475 TETRACHL ORDETHYL		TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34479 TETCLETE TISMG/KG		WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34484 TOLUENE TISMG/KG		WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34488 TRICHLOR OFLUOROM		TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34492 TRCLFLMT TISMG/KG		WET WGT	R	4	.0540000	.0000640	.0080002	.066	.050	84/05/24	84/05/24
			U	7	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
			TOT	11	.0514550	.0000232	.0048245	.066	.050	84/05/24	84/05/24
34496 11DICHLO ROETHANE		TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34500 11DICLET TISMG/KG		WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34501 11DICHLO ROETHYLE		TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34505 11DCETEN TISMG/KG		WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34506 111TRICH LOROETHA		TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34510 111TCLET TISMG/KG		WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34511 112TRICH LOROETHA		TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34515 112TCLET TISMG/KG		WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34516 1122TETR ACHLOROE		TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34520 1122TCLE TISMG/KG		WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24

STORET RETRIEVAL DATE 85/11/29

7 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY WHITE OAK CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

	PARAMETER	RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34521	BENZO(GH I)PERYLE TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34524	BZGHIPER SEDUG/KG DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34525	BZGHIPER TISMG/KG WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34526	BENZO(A) ANTHRACE TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34529	BENZAANT SEDUG/KG DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34530	BENZAANT TISMG/KG WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34531	12DICHLO ROETHANE TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34535	12DICLET TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34536	12DICHLO ROBENZEN TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34539	12DCLBEN SEDUG/KG DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34540	12DCLBEN TISMG/KG WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34541	12DICHLO ROPROPAN TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34545	12DCLPRP TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34546	12DICHLO ROETHYLE TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34550	12TDCETE TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34551	124TRICH LOROBENZ TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34554	124TCBEN SEDUG/KG DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34555	124TCBEN TISMG/KG WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34556	DIBENZ(A H)ANTHRA TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34559	CBAHANTH SEDUG/KG DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34560	CBAHANTH TISMG/KG WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34565	13DCPRPE TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34566	13DICHLO ROBENZEN TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34569	13DCLBEN SEDUG/KG DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34570	13DCLBEN TISMG/KG WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34571	14DICHLO ROBENZEN TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34574	14DCLBEN SEDUG/KG DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34575	14DCLBEN TISMG/KG WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34576	2CHLOROE THYLVINY TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34580	2CLEVETR TISMG/KG WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34581	2CHLORON APHTHALE TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34584	2CLNAPTH SEDUG/KG DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34585	2CLNAPTH TISMG/KG WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34586	2CHLOROP HENOL TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34590	2CLPHENO TISMG/KG WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34591	2NITROPH ENOL TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34595	2NPHENOL TISMG/KG WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34596	DINOCTPH TOTUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34599	DINOCTPH SEDUG/KG DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34600	DINOCTPH TISMG/KG WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34601	24DICHLO ROPHENOL TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34605	24DCPHEN TISMG/KG WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34606	24DIMETH YLPHENOL TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34610	24DNPHEN TISMG/KG WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24

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7 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY WHITE OAK CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

	PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34611	24DINITR	OTOLUENE	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34614	24DNTOLU	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34615	24DNTOLU	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34616	24DINITR	OPHENOL	TOTWUG/L	U	2	100.0000	.0000000	.0000000	100.000	100.000	84/05/31	84/05/31
34620	24DNPHEN	TISMG/KG	WET WGT	U	11	6.700000	.0000000	.0000000	6.700	6.700	84/05/24	84/05/24
34621	246TRICH	LOROPHEN	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34625	246TCPHN	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34626	26DINITR	OTOLUENE	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34629	26DNTOLU	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34630	26DNTOLU	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34631	33DICHLO	ROBENZID	TOTWUG/L	U	2	25.00000	.0000000	.0000000	25.000	25.000	84/05/31	84/05/31
34634	33DCBNZD	SEDUG/KG	DRY WGT	U	5	1960.000	48000.00	219.0900	2100.000	1600.000	84/08/29	84/08/29
34635	33DCBNZD	TISMG/KG	WET WGT	U	11	1.700000	.0000000	.0000000	1.700	1.700	84/05/24	84/05/24
34636	4BROMOPH	ENYLPHEN	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34639	4BRPPETR	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34640	4BRPPETR	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34641	4CHLOROP	HENYLPHE	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34644	4CLPPETR	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.000	630.000	84/08/29	84/08/29
34645	4CLPPETR	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34646	4NITROPH	ENOL	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34650	4NPHENOL	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34657	46DINITR	OORTHOCR	TOTWUG/L	U	2	50.00000	.0000000	.0000000	50.000	50.000	84/05/31	84/05/31
34661	46DNOCRE	TISMG/KG	WET WGT	U	11	3.400000	.0000000	.0000000	3.400	3.400	84/05/24	84/05/24
34664	PCB-1221	TISMG/KG	WET WGT	U	23	.1000000	.0000000	.0000000	.100	.100	84/05/24	84/05/24
34667	PCB-1232	TISMG/KG	WET WGT	U	23	.1000000	.0000000	.0000000	.100	.100	84/05/24	84/05/24
34668	DICHLORO	DIFLUORO	TOTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34669	PCB-1248	TISMG/KG	WET WGT	U	23	.1000000	.0000000	.0000000	.100	.100	84/05/24	84/05/24
34670	PCB-1260	TISMG/KG	WET WGT		11	2.036400	1.020500	1.010200	3.600	.300	84/05/24	84/05/24
				U	12	.1000000	.0000000	.0000000	.100	.100	84/05/24	84/05/24
				TOT	23	1.026100	1.442000	1.200800	3.600	.100	84/05/24	84/05/24
34671	PCB	1016	TOTWUG/L	U	2	.1000000	.0000000	.0000000	.100	.100	84/05/31	84/05/31
34674	PCB-1016	TISMG/KG	WET WGT	U	23	.1000000	.0000000	.0000000	.100	.100	84/05/24	84/05/24
34680	ALDRIN	TISMG/KG	WET WGT	U	11	.0100000	.0000000	.0000000	.010	.010	84/05/24	84/05/24
34682	CDANEWET	TECH&MET	TISMG/KG	U	11	.0100000	.0000000	.0000000	.010	.010	84/05/24	84/05/24
34683	DNB PHTH	TIS-WET	MG/KG	M	4	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
				U	7	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
				TOT	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34685	ENDRIN	TISMG/KG	WET WGT	U	11	.0100000	.0000000	.0000000	.010	.010	84/05/24	84/05/24
34686	HPCHLREP	TISMG/KG	WET WGT	U	11	.0100000	.0000000	.0000000	.010	.010	84/05/24	84/05/24
34687	HEPTCHLR	TISMG/KG	WET WGT	U	11	.0100000	.0000000	.0000000	.010	.010	84/05/24	84/05/24
34688	HCB	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
34689	PCB-1242	TISMG/KG	WET WGT	U	23	.1000000	.0000000	.0000000	.100	.100	84/05/24	84/05/24
34690	PCB-1254	TISMG/KG	WET WGT		15	.6266700	.1936700	.4366600	2.000	.200	84/05/24	84/05/24
				U	8	.1000000	.0000000	.0000000	.100	.100	84/05/24	84/05/24

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STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY WHITE OAK CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34690 PCB-1254	TISMG/KG	WET WGT	TOT	23	.4434800	.1871200	.4325700	2.000	.100	84/05/24	84/05/24
34691 TOXAPHEN	TISMG/KG	WET WGT	U	11	.5000000	.0000000	.0000000	.500	.500	84/05/24	84/05/24
34692 TRICLETE	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34693 VINYLCHL	TISMG/KG	WET WGT	U	11	.0500000	.0000000	.0000000	.050	.050	84/05/24	84/05/24
34694 PHENOL		TOT UG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
34696 NAPTHALE NE		T OTWUG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
39032 PCP		TOT UG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
39060 PCP	TISMG/KG	WET WGT	U	11	.6700000	.0000000	.0000000	.670	.670	84/05/24	84/05/24
39074 ALPHABHC	TISMG/KG	WET WGT	U	11	.0100000	.0000000	.0000000	.010	.010	84/05/24	84/05/24
39099 B2ETHXPH	TISMG/KG	WET WGT	M	1	.6700000			.67	.67	84/05/24	84/05/24
			U	10	.6700000	.0000000	.0000000	.67	.67	84/05/24	84/05/24
			TOT	11	.6700000	.0000000	.0000000	.67	.67	84/05/24	84/05/24
39100 B2E PHTH	TOTAL	UG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
39102 B2E PHTH	MUD-DRY	UG/KG		1	1600.000			1600	1600	84/08/29	84/08/29
			U	4	760.0000	9000.000	94.86800	840	630	84/08/29	84/08/29
			TOT	5	928.0000	147870.0	384.5400	1600	630	84/08/29	84/08/29
39110 DNB PHTH	TOTAL	UG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
39112 DNB PHTH	MUD-DRY	UG/KG	U	5	772.0000	7470.000	86.42900	840	630	84/08/29	84/08/29
39120 BENZIDIN		TOTUG/L	U	2	50.00000	.0000000	.0000000	50.000	50.000	84/05/31	84/05/31
39121 BENZIDIN	SEDUG/KG	DRY WGT	U	5	3880.000	167000.0	408.6600	4200.00	3200.00	84/08/29	84/08/29
39175 VINYLCHL	ORIDE	TOT UG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
39180 TRICHLOR	ETHYLENE	TOT UG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
39300 P,P'DDT		TOT UG/L	U	2	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39302 P,P'DDT	TISMG/KG	WET WGT	R	1	.0200000			.02	.02	84/05/24	84/05/24
			U	10	.0100000	.0000000	.0000000	.01	.01	84/05/24	84/05/24
			TOT	11	.0109090	.0000090	.0030151	.02	.01	84/05/24	84/05/24
39310 P,P'DDD		TOT UG/L	U	2	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39312 P,P'DDD	TISMG/KG	WET WGT	R	8	.1350000	.0007714	.0277750	.19	.10	84/05/24	84/05/24
			U	3	.0100000	.0000000	.0000000	.01	.01	84/05/24	84/05/24
			TOT	11	.1009100	.0039491	.0623420	.19	.01	84/05/24	84/05/24
39320 P,P'DDE		TOT UG/L	U	2	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39322 P,P'DDE	TISMG/KG	WET WGT	R	9	.0755560	.0007777	.0278890	.12	.04	84/05/24	84/05/24
			U	2	.0100000	.0000000	.0000000	.01	.01	84/05/24	84/05/24
			TOT	11	.0636360	.0013255	.0364070	.12	.01	84/05/24	84/05/24
39330 ALDRIN		TOT UG/L	U	2	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39337 ALPHABHC		TOTUG/L	U	2	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39338 BETA BHC		TOTUG/L	U	2	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39340 GAMMABHC	LINDANE	TOT.UG/L	U	2	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39350 CHLRDANE	TECH&MET	TOT UG/L	U	2	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39380 DIELDRIN		TOTUG/L	U	2	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39390 ENDRIN		TOT UG/L	U	2	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39400 TOXAPHEN		TOTUG/L	U	2	.5000000	.0000000	.0000000	.500	.500	84/05/31	84/05/31
39404 DIELDRIN	TISMG/KG	WET WGT	U	11	.0100000	.0000000	.0000000	.01	.01	84/05/24	84/05/24
39410 HEPTCHLR		TOTUG/L	U	2	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31

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STATISTICAL SUMMARY
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WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
39420	HPCHLREP		TOTUG/L	U	2	.0100000	.0000000	.0000000	.010	.010	84/05/31	84/05/31
39488	PCB-1221		TOTUG/L	U	2	.1000000	.0000000	.0000000	.100	.100	84/05/31	84/05/31
39491	PCB-1221	SEDUG/KG	DRY WGT	U	5	100.0000	.0000000	.0000000	100.00	100.00	84/08/29	84/08/29
39492	PCB-1232		TOTUG/L	U	2	.1000000	.0000000	.0000000	.100	.100	84/05/31	84/05/31
39495	PCB-1232	SEDUG/KG	DRY WGT	U	5	100.0000	.0000000	.0000000	100.00	100.00	84/08/29	84/08/29
39496	PCB-1242		TOTUG/L	U	2	.1000000	.0000000	.0000000	.100	.100	84/05/31	84/05/31
39499	PCB-1242	SEDUG/KG	DRY WGT	U	5	100.0000	.0000000	.0000000	100.00	100.00	84/08/29	84/08/29
39500	PCB-1248		TOTUG/L	U	2	.1000000	.0000000	.0000000	.100	.100	84/05/31	84/05/31
39503	PCB-1248	SEDUG/KG	DRY WGT	U	5	100.0000	.0000000	.0000000	100.00	100.00	84/08/29	84/08/29
39504	PCB-1254		TOTUG/L	U	2	.1000000	.0000000	.0000000	.100	.100	84/05/31	84/05/31
39507	PCB-1254	SEDUG/KG	DRY WGT		1	1200.000			1200.00	1200.00	84/08/29	84/08/29
				U	4	100.0000	.0000000	.0000000	100.00	100.00	84/08/29	84/08/29
				TOT	5	320.0000	242000.0	491.9400	1200.00	100.00	84/08/29	84/08/29
39508	PCB-1260		TOTUG/L	U	2	.1000000	.0000000	.0000000	.100	.100	84/05/31	84/05/31
39511	PCB-1260	SEDUG/KG	DRY WGT		1	1600.000			1600.00	1600.00	84/08/29	84/08/29
				U	4	100.0000	.0000000	.0000000	100.00	100.00	84/08/29	84/08/29
				TOT	5	400.0000	450000.0	670.8200	1600.00	100.00	84/08/29	84/08/29
39514	PCB-1016	SEDUG/KG	DRY WGT	U	5	100.0000	.0000000	.0000000	100.00	100.00	84/08/29	84/08/29
39515	PCBS	FISH	MG/KG		6	.5333300	.0746670	.2732500	1.000	.200	84/05/24	84/05/24
				U	6	.1000000	.0000000	.0000000	.100	.100	84/05/24	84/05/24
				TOT	12	.3166700	.0951520	.2918100	1.000	.100	84/05/24	84/05/24
39519	PCBS	MUD	UG/KG	U	1	100.0000			100.00	100.00	84/08/29	84/08/29
39700	HCB		TOT UG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
39701	HCB	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840.00	630.00	84/08/29	84/08/29
39705	HEXCLBD	SEDUG/KG	DRY WGT	U	5	772.0000	7470.000	86.42900	840	630	84/08/29	84/08/29
39785	GBHC-TIS	LINDANE	WETMG/KG	U	11	.0100000	.0000000	.0000000	.01	.01	84/05/24	84/05/24
45579					12	1.212500	.2685500	.5182200	2	.5	84/05/24	84/05/24
70320	MOISTURE	CONTENT	PERCENT		12	36.18300	30.84000	5.553400	47	27	84/08/29	84/08/29
70322	RESIDUE	TOT VOL	PERCENT		5	5.100000	.3200500	.5657300	5.6	4.2	84/08/29	84/08/29
71821	SPECIFIC	GRAVITY	SEDGM/GM		12	2.462500	.0080608	.0897820	2.600	2.320	84/08/29	84/08/29
71890	MERCURY	HG,DISS	UG/L	U	2	.2000000	.0000000	.0000000	.2	.2	84/05/31	84/05/31
71900	MERCURY	HG,TOTAL	UG/L		1	.3000000			.3	.3	84/05/31	84/05/31
				U	1	.2000000			.2	.2	84/05/31	84/05/31
				TOT	2	.2500000	.0049999	.0707100	.3	.2	84/05/31	84/05/31
71921	MERCURY	SEDMG/KG	DRY WGT	A	5	3.160000	2.583000	1.607200	6.0	2.2	84/08/29	84/08/29
71922	MERCURY	LT 63 U	SEDMG/KG		14	10.42900	142.5000	11.93800	46.00	1.20	84/08/29	84/08/29
				A	7	6.328600	19.21600	4.383600	12.00	.30	84/08/29	84/08/29
				U	1	.1000000			.10	.10	84/08/29	84/08/29
				TOT	22	8.654600	101.0900	10.05500	46.00	.10	84/08/29	84/08/29
71930	MERCURY	TISMG/KG	WET WGT		30	.2383300	.0202280	.1422300	.57	.10	84/04/19	84/05/25
				U	20	.1000000	.0000000	.0000000	.10	.10	84/04/19	84/05/25
				TOT	50	.1830000	.0166580	.1290700	.57	.10	84/04/19	84/05/25
71936	LEAD	TISMG/KG	WET WGT		9	.1866700	.0188750	.1373900	.53	.06	84/05/24	84/05/24
				U	2	.0200000	.0000000	.0000000	.02	.02	84/05/24	84/05/24

STORET RETRIEVAL DATE 85/11/29

7 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY WHITE OAK CREEK DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER	RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
71936 LEAD TISMG/KG WET WGT	TOT	11	.1563600	.0196460	.1401600	.50	.02	84/05/24	84/05/24
71937 COPPER TISMG/KG WET WGT		11	1.632700	8.761300	2.960000	10.00	.14	84/05/24	84/05/24
71938 ZINC TISMG/KG WET WGT		11	7.309100	2.956900	1.719600	11.00	4.90	84/05/24	84/05/24
71939 CR-FISH UG/G OR MG/KG WT		23	.0843480	.0088530	.0940900	.36	.02	84/05/23	84/05/25
	U	27	.0200000	.0000000	.0000000	.02	.02	84/04/19	84/05/25
	TOT	50	.0496000	.0050243	.0708830	.36	.02	84/04/19	84/05/25
71940 CADMIUM TISMG/KG WET WGT		32	.0101560	.0000981	.0093881	.04	.002	84/04/19	84/05/25
	U	18	.0020000	.0000000	.0000000	.002	.002	84/05/23	84/05/25
	TOT	50	.0072200	.0000714	.0084498	.04	.002	84/04/19	84/05/25
77161 1,2DCLPR TOTAL UG/L	U	2	10.00000	.0000000	.0000000	10.000	10.000	84/05/31	84/05/31
80181 TOT SED PARTSIZE %		5	9.640000	14.32300	3.784600	12.9	3.6	84/08/29	84/08/29
80183 TOT SED PARTSIZE %		5	23.90000	110.0400	10.49000	36.1	7.4	84/08/29	84/08/29
80184 TOT SED PARTSIZE %		5	34.56000	250.5600	15.82900	51.8	8.7	84/08/29	84/08/29
80203 TOT SED SIEVE %		27	46.20000	178.9000	13.37500	70.5	10.6	84/08/29	84/08/29
80206 TOT SED SIEVE %		22	92.09600	113.4200	10.65000	99.9	60.0	84/08/29	84/08/29
80208 TOT SED SIEVE %		22	97.90500	15.75900	3.969800	100.0	87.0	84/08/29	84/08/29
80331 MERCURY LT 500U SEDMG/KG		14	9.878600	132.4500	11.50900	44.000	1.100	84/08/29	84/08/29
	A	7	5.602900	14.75400	3.841100	11.000	.220	84/08/29	84/08/29
	U	1	.1000000			.100	.100	84/08/29	84/08/29
	TOT	22	8.073600	93.44200	9.666500	44.000	.100	84/08/29	84/08/29
81356 CATION EX. CAP. MEA/100G		5	9.000000	.6850600	.8276800	9.7	7.6	84/08/29	84/08/29
81756 TOT SED PARTSIZ%		5	3.900000	2.395000	1.547600	5.6	1.6	84/08/29	84/08/29
81900 SEDIMENT UPPER DEPTH IN		32	6.056300	21.85900	4.675400	14.900	.100	84/08/29	84/08/29
	D	8	7.475000	34.72200	5.892600	14.900	.100	84/08/29	84/08/29
	S	2	.1000000	.0000000	.0000000	.100	.100	84/08/29	84/08/29
	TOT	42	6.042900	24.57900	4.957700	14.900	.100	84/08/29	84/08/29
81901 SEDIMENT LOWER DEPTH IN		32	9.937500	23.71400	4.869700	19.700	3.100	84/08/29	84/08/29
	D	8	12.30000	34.86300	5.904500	19.700	4.900	84/08/29	84/08/29
	S	2	4.300000	.7200000	.8485300	4.900	3.700	84/08/29	84/08/29
	TOT	42	10.11900	26.50600	5.143400	19.700	3.100	84/08/29	84/08/29
82079 TURBIDTY LAB NTU		2	21.50000	.5000000	.7071100	22.0	21.0	84/05/31	84/05/31
84005 FISH SPECIES F &WL	TXT	71	TEXT	TEXT	TEXT	TEXT	TEXT	84/04/19	84/05/25
84014 SPECIES SEX TEXT	TXT	63	TEXT	TEXT	TEXT	TEXT	TEXT	84/04/19	84/05/25
84068 SERIES CODE ALPHA	TXT	122	TEXT	TEXT	TEXT	TEXT	TEXT	84/04/19	84/09/13

STORET RETRIEVAL DATE 85/09/11 PGM=INVENT

25 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY CLINCH RIVER DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00002	HSAMPLCC	% FROM	RT BANK		53	37.73600	417.8500	20.44200	60.0	5.0	84/05/30	84/08/07
				D	2	32.50000	1512.500	38.89100	60.0	5.0	84/07/10	84/07/12
				TOT	55	37.54600	431.3700	20.76900	60.0	5.0	84/05/30	84/08/07
00008	LAB	IDENT.	NUMBER		281	5155.800	6700100	2588.500	8507	14	84/04/17	84/08/07
				A	1	40.00000			40	40	84/05/31	84/05/31
				R	58	4060400	37675000	6138.000	4073380	4052960	84/05/08	84/07/27
				TOT	340	696910.0	2333E+09	1527600	4073380	14	84/04/17	84/08/07
00010	WATER	TEMP	CENT		23	15.09100	.8805100	.9383500	17.1	13.8	84/05/30	84/05/30
00023	WEIGHT		POUNDS		230	1.299900	2.844800	1.686700	16.00	.04	84/04/17	84/06/28
				S	13	2.473900	.8198200	.9054400	3.70	1.07	84/04/17	84/06/28
				TOT	243	1.361800	2.802800	1.674200	16.00	.04	84/04/17	84/06/28
00024	LENGTH		INCHES		216	12.14500	24.94900	4.994900	32.30	4.40	84/04/17	84/06/28
				S	13	17.66900	6.872400	2.621500	21.90	14.10	84/04/17	84/06/28
				TOT	229	12.45900	25.52900	5.052600	32.30	4.40	84/04/17	84/06/28
00094	CNDUCTVY	FIELD	MICROMHO		12	280.0000	.0000000	.0000000	280	280	84/05/30	84/05/30
00098	VSAMPLOC	DEPTH	METERS		26	4.788500	13.73200	3.705600	13.00	.30	84/05/30	84/05/31
00300	DO		MG/L		23	11.73100	.5788000	.7607900	13.2	10.8	84/05/30	84/05/30
00400	PH		SU		23	7.873900	.0520130	.2280600	8.30	7.70	84/05/30	84/05/30
00431	T ALK	FIELD	MG/L		2	97.50000	4.500000	2.121300	99	96	84/05/30	84/05/30
00721	CYANIDE	SEDMG/KG	DRY WGT	U	8	.9250000	.0821430	.2866100	1.60	.70	84/07/10	84/08/07
01000	ARSENIC	AS,DISS	UG/L	U	2	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/30
01002	ARSENIC	AS,TOT	UG/L	U	2	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/30
01003	ARSENIC	SEDMG/KG	DRY WGT		8	14.42500	59.20200	7.694300	26.00	5.10	84/07/10	84/08/07
01004	ARSENIC	TISMG/KG	WET WGT		57	.1352600	.0081468	.0902600	.42	.02	84/04/19	84/06/19
				U	128	.0792970	.0026617	.0515920	.40	.02	84/04/17	84/06/28
				TOT	185	.0965400	.0049880	.0706260	.42	.02	84/04/17	84/06/28
01010	BERYLIUM	BE,DISS	UG/L	U	2	1.000000	.0000000	.0000000	1.00	1.00	84/05/30	84/05/30
01012	BERYLIUM	BE,TOT	UG/L	U	2	1.000000	.0000000	.0000000	1.00	1.00	84/05/30	84/05/30
01025	CADMIUM	CD,DISS	UG/L	U	2	.1000000	.0000000	.0000000	.1	.1	84/05/30	84/05/30
01027	CADMIUM	CD,TOT	UG/L	U	2	.1000000	.0000000	.0000000	.1	.1	84/05/30	84/05/30
01028	CD MUD	DRY WGT	MG/KG-CD		5	1.500000	2.365000	1.537900	4.20	.50	84/07/10	84/07/26
				U	3	.5000000	.0000000	.0000000	.50	.50	84/08/07	84/08/07
				TOT	8	1.125000	1.619300	1.272500	4.20	.50	84/07/10	84/08/07
01029	CHROMIUM	SEDMG/KG	DRY WGT		8	19.50000	31.42900	5.606100	25.00	9.00	84/07/10	84/08/07
01030	CHROMIUM	CR,DISS	UG/L	U	2	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/30
01034	CHROMIUM	CR,TOT	UG/L	U	2	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/30
01040	COPPER	CU,DISS	UG/L	U	2	5.000000	.0000000	.0000000	5	5	84/05/30	84/05/30
01042	COPPER	CU,TOT	UG/L	U	2	5.000000	.0000000	.0000000	5	5	84/05/30	84/05/30
01049	LEAD	PB,DISS	UG/L	U	2	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/30
01051	LEAD	PB,TOT	UG/L	U	2	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/30
01052	LEAD	SEDMG/KG	DRY WGT		8	43.87500	455.2700	21.33700	77.00	14.00	84/07/10	84/08/07
01057	THALLIUM	TL,DISS	UG/L	U	2	50.00000	.0000000	.0000000	50	50	84/05/30	84/05/30
01059	THALLIUM	TL,TOTAL	UG/L	U	2	50.00000	.0000000	.0000000	50	50	84/05/30	84/05/30
01065	NICKEL	NI,DISS	UG/L		2	6.500000	40.50000	6.364000	11	2	84/05/30	84/05/30

25 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY CLINCH RIVER DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01067	NICKEL	NI,TOTAL	UG/L		2	11.50000	180.5000	13.43500	21	2	84/05/30	84/05/30
01068	NICKEL	SEDMG/KG	DRY WGT		8	24.75000	87.07200	9.331200	38.00	14.00	84/07/10	84/08/07
01069	NICKEL	TISMG/KG	WET WGT		2	1.000000	.0000000	.0000000	1.00	1.00	84/05/10	84/06/19
				M	3	1.000000	.0000000	.0000000	1.00	1.00	84/05/31	84/06/01
				U	180	1.011100	.0110510	.1051200	2.00	1.00	84/04/17	84/06/28
				TOT	185	1.010800	.0107540	.1037000	2.00	1.00	84/04/17	84/06/28
01073	THALLIUM	TIS-WET	MG/KG		2	3.400000	.3200100	.5656900	3.80	3.00	84/05/08	84/05/10
				M	6	1.000000	.0000000	.0000000	1.00	1.00	84/05/08	84/05/10
				U	22	1.000000	.0000000	.0000000	1.00	1.00	84/05/08	84/05/31
				TOT	30	1.160000	.3818000	.6179000	3.80	1.00	84/05/08	84/05/31
01075	SILVER	AG,DISS	UG/L	U	2	.2000000	.0000000	.0000000	.2	.2	84/05/30	84/05/30
01077	SILVER	AG,TOT	UG/L	U	2	.2000000	.0000000	.0000000	.2	.2	84/05/30	84/05/30
01078	SILVER	SEDMG/KG	DRY WGT	U	8	1.000000	.0000000	.0000000	1.00	1.00	84/07/10	84/08/07
01090	ZINC	ZN,DISS	UG/L	U	2	5.000000	.0000000	.0000000	5	5	84/05/30	84/05/30
01092	ZINC	ZN,TOT	UG/L		2	7.000000	2.000000	1.414200	8	6	84/05/30	84/05/30
01095	ANTIMONY	SB,DISS	UG/L	U	2	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/30
01097	ANTIMONY	SB,TOT	UG/L	U	2	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/30
01099	ANTIMONY	TIS-WET	MG/KG	M	2	1.000000	.0000000	.0000000	1.00	1.00	84/05/08	84/05/08
				U	28	1.000000	.0000000	.0000000	1.00	1.00	84/05/08	84/05/31
				TOT	30	1.000000	.0000000	.0000000	1.00	1.00	84/05/08	84/05/31
01145	SELENIUM	SE,DISS	UG/L	U	2	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/30
01147	SELENIUM	SE,TOT	UG/L	U	2	1.000000	.0000000	.0000000	1	1	84/05/30	84/05/30
01149	SELENIUM	TISMG/KG	WET WGT		30	.8086700	.2023100	.4497900	2.60	.18	84/05/08	84/05/31
01163	ZR MUD	DRY WGT	MG/KG-ZR		8	436.2500	70570.00	265.6500	890.00	180.00	84/07/10	84/08/07
01501	ALPHA	TOTAL	PC/L		3	1.700000	1.120000	1.058300	2	.5	84/05/31	84/05/31
01502	ALPHA-T	ERROR	PC/L		3	1.466700	.1033300	.3214500	1	1	84/05/31	84/05/31
01507	ALPHA	SEDIMENT	PC/G		41	6.651200	10.51800	3.243100	14	.7	84/07/10	84/08/07
01508	ALPHA	SED-ERR	PC/G		41	2.448800	.7575600	.8703800	4	.4	84/07/10	84/08/07
01521	ALPHA	FISH	PCI/G		14	.0218570	.0005652	.0237740	.070	.000	84/05/08	84/06/28
				M	3	.0100000	.0000000	.0000000	.010	.010	84/06/15	84/06/19
				TOT	17	.0197650	.0004809	.0219300	.070	.000	84/05/08	84/06/28
01522	ALPHA	FISH-ERR	PCI/G		17	.0470000	.0006767	.0260150	.100	.009	84/05/08	84/06/28
03501	BETA	TOTAL	PC/L		3	3.533300	.6533400	.8083000	4	2	84/05/31	84/05/31
03502	BETA-T	ERROR	PC/L		3	1.366700	.0233360	.1527600	1	1	84/05/31	84/05/31
03507	BETA	SEDIMENT	PC/G		41	51.82900	3629.100	60.24200	398	12	84/07/10	84/08/07
03508	BETA	SED-ERR	PC/G		41	9.439000	44.30300	6.656000	40	3	84/07/10	84/08/07
03524	BETA	FISH	PCI/G		17	32.94100	266.3100	16.31900	64.000	6.000	84/05/08	84/06/28
03525	BETA	FISH-ERR	PCI/G		17	6.470600	10.26500	3.203900	12.000	1.000	84/05/08	84/06/28
07000	H-3	TOTAL	PC/L		2	380.0000	28800.00	169.7100	500.0	260.0	84/05/31	84/05/31
				M	1	19.00000			19.0	19.0	84/05/31	84/05/31
				TOT	3	259.6700	57841.00	240.5000	500.0	19.0	84/05/31	84/05/31
07001	H-3,TOTL	ERROR	PC/L		3	106.6700	133.3500	11.54800	120.0	100.0	84/05/31	84/05/31
09507	RA-226	SEDIMENT	PC/G		11	.6245500	.0369480	.1922200	.9	.2	84/07/12	84/07/27
09508	RA-226	SED-ERR	PC/G		11	.1263600	.0365460	.1911700	.7	.04	84/07/12	84/07/27

STORET RETRIEVAL DATE 85/09/11 PGM=INVENT

25 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY CLINCH RIVER DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
11506	RA-224	SEDIMENT	PCI/G		3	.9000000	.4900000	.7000000	1.700	.400	84/07/12	84/07/26
11507	RA-224	SED-ERR	PCI/G		3	.1666700	.0133330	.1154700	.300	.100	84/07/12	84/07/26
13501	SR-90	TOTAL	PC/L		1	.6500000			.6	.6	84/05/30	84/05/30
13502	SR-90	ERROR	PC/L		1	1.900000			1.9	1.9	84/05/30	84/05/30
15505	SR-89	SEDIMENT	PCI/G		16	1.237500	1.478500	1.215900	4.000	.100	84/07/10	84/08/07
				M	2	.5500000	.4050000	.6364000	1.000	.100	84/07/24	84/07/24
				TOT	18	1.161100	1.377800	1.173800	4.000	.100	84/07/10	84/08/07
15506	SR-89	SED-ERR	PCI/G		18	.9611100	.5272300	.7261000	3.000	.200	84/07/10	84/08/07
15507	SR-90	SEDIMENT	PCI/G		14	.2500000	.2211500	.4702700	1.800	.000	84/07/10	84/08/07
				M	4	.1000000	.0000000	.0000000	.100	.100	84/07/12	84/07/27
				TOT	18	.2166700	.1732400	.4162200	1.800	.000	84/07/10	84/08/07
15508	SR-90	SED-ERR	PCI/G		18	.2611100	.0931050	.3051300	1.000	.100	84/07/10	84/08/07
15509	SR-89	FISH	PCI/G		1	.1000000			.100	.100	84/06/19	84/06/19
15510	SR-89	FISH-ERR	PCI/G		1	.1000000			.100	.100	84/06/19	84/06/19
15511	SR-90	FISH	PCI/G		1	.0100000			.010	.010	84/06/19	84/06/19
15512	SR-90	FISH-ERR	PCI/G		1	.0200000			.020	.020	84/06/19	84/06/19
17509	PB-212	SEDIMENT	PCI/G		18	1.017800	.3370100	.5805300	2.200	.300	84/07/10	84/08/07
17510	PB-212	SED-ERR	PCI/G		18	.1616700	.0155330	.1246300	.500	.050	84/07/10	84/08/07
17511	PB-214	SEDIMENT	PCI/G		18	1.049500	.2516100	.5016100	1.900	.300	84/07/10	84/08/07
17512	PB-214	SED-ERR	PCI/G		18	.1561100	.0298490	.1727700	.800	.030	84/07/10	84/08/07
17515	PB 214	FISH	PCI/G		9	.4444500	.0327780	.1810500	.800	.200	84/05/10	84/06/28
17516	PB-214	FISH-ERR	PCI/G		9	.1666700	.0025001	.0500010	.200	.100	84/05/10	84/06/28
17517	PB-212	TOTAL	PCI/L		1	5.000000			5.0	5.0	84/05/31	84/05/31
17518	PB-212	TOTAL	ERROR		1	7.000000			7.0	7.0	84/05/31	84/05/31
21505	MPA-234	SEDIMENT	PCI/G		2	2.650000	3.645000	1.909200	4.000	1.300	84/07/12	84/07/26
21506	MPA-234	SED-ERR	PCI/G		2	1.300000	.9800100	.9899500	2.000	.600	84/07/12	84/07/26
21508	PA-234	SEDIMENT	PCI/G		1	.3000000			.300	.300	84/07/26	84/07/26
21509	PA-234	SEDIMENT	ERROR		1	.1000000			.100	.100	84/07/26	84/07/26
22012	PU-238	TOTAL	PCI/L	K	1	.0270000			.027	.027	84/05/30	84/05/30
22014	PU-239	TOTAL	PCI/L	K	1	.0270000			.027	.027	84/05/30	84/05/30
22016	PU-238	SEDIMENT	PCI/G		4	.0107500	.0000982	.0099121	.025	.004	84/07/10	84/07/24
22017	PU-238	SEDIMENT	ERRO		4	.0025000	.0000036	.0019149	.005	.001	84/07/10	84/07/24
22018	PU-239	SEDIMENT	PCI/G		6	.1543300	.0725460	.2693400	.700	.012	84/07/10	84/07/27
22019	PU-239	SEDIMENT	ERRO		6	.0123330	.0001106	.0105200	.030	.004	84/07/10	84/07/27
22100	TC-99	TOTAL	PCI/L		1	.7300000			.730	.730	84/05/30	84/05/30
22101	TC-99	ERROR	TOTAL		1	1.500000			1.500	1.500	84/05/30	84/05/30
22102	TC-99	FISH	PCI/G		8	.2111300	.0122790	.1108100	.3	.07	84/05/30	84/05/31
22103	TC-99	FISHERR	PCI/G		8	.0963750	.0001297	.0113890	.1	.08	84/05/30	84/05/31
22150	NP-237	TOTAL	PCI/L	K	1	.2700000			.270	.270	84/05/30	84/05/30
22200	BE-7	SEDIMENT	PCI/G		3	.7700000	1.134900	1.065300	2.000	.140	84/07/10	84/07/26
22201	BE-7	SED-ERR	PCI/G		3	.2533300	.0901330	.3002200	.600	.080	84/07/10	84/07/26
22250	NA-22	SEDIMENT	PCI/G		1	.0120000			.012	.012	84/07/12	84/07/12
22251	NA-22	SED-ERR	PCI/G		1	.0040000			.004	.004	84/07/12	84/07/12
22300	K-40	SEDIMENT	PCI/G		18	15.34500	89.06400	9.437400	44.000	3.300	84/07/10	84/08/07

STORET RETRIEVAL DATE 85/09/11 PGM=INVENT

25 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY CLINCH RIVER DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
22301	K-40	SED-ERR	PCI/G		18	1.722200	.8571300	.9258100	3.000	.400	84/07/10	84/08/07
22302	K-40	FISH	PCI/G		17	14.11800	4.360300	2.088100	18.000	11.000	84/05/08	84/06/28
22303	K-40	FISH-ERR	PCI/G		17	2.117700	.7353000	.8575000	4.000	1.000	84/05/08	84/06/28
22350	TL-208	SEDIMENT	PCI/G		18	.3477800	.0453240	.2129000	.800	.090	84/07/10	84/08/07
22351	TL-208	SED-ERR	PCI/G		18	.0505560	.0010173	.0318960	.100	.010	84/07/10	84/08/07
22375	BI-212	SEDIMENT	PCI/G		14	1.360700	.7523800	.8674000	3.000	.450	84/07/10	84/08/07
22376	BI-212	SED-ERR	PCI/G		14	.3350000	.0613040	.2476000	.800	.090	84/07/10	84/08/07
22377	BI-214	SEDIMENT	PCI/G		18	.9161100	.1744100	.4176300	1.700	.300	84/07/10	84/08/07
22378	BI-214	SED-ERR	PCI/G		18	.1144500	.0041321	.0642810	.200	.040	84/07/10	84/08/07
22379	BI-212	FISH	PCI/G		1	.9000000			.900	.900	84/06/19	84/06/19
22380	BI-212	FISH-ERR	PCI/G		1	.6000000			.600	.600	84/06/19	84/06/19
22381	BI-214	FISH	PCI/G		7	.4285700	.0257150	.1603600	.700	.200	84/05/10	84/06/19
22382	BI-214	FISH-ERR	PCI/G		7	.1857200	.0047520	.0690070	.300	.100	84/05/10	84/06/19
22402	AC-228	FISH	PCI/G		1	.8000000			.800	.800	84/05/31	84/05/31
22403	AC-228	FISH-ERR	PCI/G		1	.4000000			.400	.400	84/05/31	84/05/31
22450	AM-241	SEDIMENT	PCI/G		9	.1587800	.0425920	.2063800	.500	.010	84/07/10	84/08/07
22451	AM-241	SEDIMENT	ERRO		9	.0260000	.0009975	.0315830	.100	.003	84/07/10	84/08/07
22475	CU-244	SEDMENT	PCI/G		7	.0152860	.0001595	.0130220	.040	.004	84/07/10	84/08/07
22476	CU-244	SEDIMENT	ERRO		7	.0055714	.0000089	.0029920	.010	.003	84/07/10	84/08/07
22501	TH-232	TOTAL	PC/L		1	.0940000			.09	.09	84/05/30	84/05/30
22502	TH-232	ERROR	PC/L		1	.0380000			.03	.03	84/05/30	84/05/30
22505	TH-228	TOTAL	PCI/L	K	1	.0270000			.027	.027	84/05/30	84/05/30
22507	TH-234	SEDIMENT	PCI/G		13	1.869200	1.589000	1.260600	4.000	.500	84/07/10	84/07/27
22508	TH-234	SED-ERR	PCI/G		13	.4923100	.0974350	.3121500	1.000	.200	84/07/10	84/07/27
22601	U-238	TOTAL	PC/L		1	.0970000			.09	.09	84/05/30	84/05/30
22602	U-238	ERROR	PC/L		1	.0350000			.03	.03	84/05/30	84/05/30
22606	U-234	TOTAL	PCI/L		1	1.100000			1.100	1.100	84/05/30	84/05/30
22607	U-234	ERROR	TOTAL		1	.1400000			.140	.140	84/05/30	84/05/30
22608	URANIUM	SEDIMENT	UG/G		18	2.460000	3.816100	1.953500	7.000	.680	84/07/10	84/08/07
22609	URANIUM	SED-ERR	UG/G		18	.4550000	.1677500	.4095700	2.000	.090	84/07/10	84/08/07
22622	U 235, T	OTAL PC	/L	K	1	.0270000			.02	.02	84/05/30	84/05/30
25503	AC-228	SEDIMENT	PCI/G		18	1.030600	.3011900	.5488000	2.200	.310	84/07/10	84/08/07
25504	AC-228	SED-ERR	PCI/G		18	.1666700	.0121770	.1103500	.400	.050	84/07/10	84/08/07
28418	CS-137	SEDIMENT	PCI/G		17	14.92600	1646.200	40.57300	167.000	.090	84/07/10	84/08/07
28419	CS-137	SED-ERR	PCI/G		17	1.019400	7.133300	2.670900	11.000	.020	84/07/10	84/08/07
28422	CS-137	FISH	PCI/G		12	1.805800	26.06300	5.105200	18.000	.070	84/05/08	84/06/28
28423	CS-137	FISH-ERR	PCI/G		12	.1825000	.0911840	.3019700	1.000	.010	84/05/08	84/06/28
29604	CO-60	SEDIMENT	PCI/G		9	.7444400	.4322800	.6574800	1.900	.090	84/07/10	84/07/26
29605	CO-60	SED-ERR	PCI/G		9	.1155600	.0145780	.1207400	.400	.010	84/07/10	84/07/26
32731	PHENOLS	SEDMG/KG	DRY WGT		5	.5400000	.0030000	.0547730	.60	.50	84/07/12	84/08/07
				U	3	.4000000	.0000000	.0000000	.40	.40	84/07/10	84/08/07
				TOT	8	.4875000	.0069643	.0834520	.60	.40	84/07/10	84/08/07
34203	ACNAPTHY	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34204	ACNAPTHY	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30

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STATISTICAL SUMMARY
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INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34208 ACNAPTHE	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34209 ACNAPTHE	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34214 ACROLEIN	TISMG/KG	WET WGT	U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34219 ACRYLNIT	TISMG/KG	WET WGT	U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34223 ANTHRACE	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34224 ANTHRACE	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34233 BENZBFLU	ORANTMUD	DRYUG/KG	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34234 BENZBFLU	ORANTTIS	WETMG/KG	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34238 BENZENE	TISMG/KG	WET WGT	U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34241 BENZIDIN	TISMG/KG	WET WGT	U	20	6.100000	14.42200	3.797700	16.000	2.100	84/05/08	84/05/30
34245 BENZKFLU	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34246 BENZKFLU	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34250 BENZAPYR	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34251 BENZAPYR	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34252 BERYLIUM	TISMG/KG	WET WGT		11	.0309090	.0001890	.0137510	.060	.020	84/05/08	84/05/30
			U	19	.0535840	.0015468	.0405810	.100	.020	84/05/08	84/05/31
			TOT	30	.0453330	.0012120	.0348130	.100	.020	84/05/08	84/05/31
34258 BETA BHC	TISMG/KG	WET WGT	U	19	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/05/30
34263 DELTABHC	TISMG/KG	WET WGT	U	19	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/05/30
34272 BCLMTETR	TISMG/KG	WET WGT	U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34276 B2CETETR	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34277 B2CETETR	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34281 B2CETOXM	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34282 B2CETOXM	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34286 B2CIPETR	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34287 B2CIPETR	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34291 BROMOFOR	TISMG/KG	WET WGT	U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34295 NBB PHTH	MUD-DRY	UG/KG	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34296 NBB PHTH	TIS-WET	MG/KG	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34300 CARBNTET	TISMG/KG	WET WGT	U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34305 CLBENZEN	TISMG/KG	WET WGT	U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34310 CLDIBRMT	TISMG/KG	WET WGT	U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34315 CLETHANE	TISMG/KG	WET WGT	U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34319 CHLRFORM	TISMG/KG	WET WGT	U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34323 CHRYSENE	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34324 CHRYSENE	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34331 DICLBRMT	TISMG/KG	WET WGT	U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34335 DCLDFLMT	TISMG/KG	WET WGT	U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34339 DETHPHTH	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34340 DETHPHTH	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34344 DMETPHTH	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34345 DMETPHTH	TISMG/KG	WET WGT	M	4	1.317500	.5685500	.7540300	2.400	.670	84/05/10	84/05/10
			U	16	1.198100	.6457400	.8035800	3.300	.410	84/05/08	84/05/30
			TOT	20	1.222000	.6019700	.7758700	3.300	.410	84/05/08	84/05/30

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34349	12DPHNHY	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34350	12DPHNHY	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34355	ENDSULSF	TISMG/KG	WET WGT	U	19	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/05/30
34360	BENDOSUL	TISMG/KG	WET WGT	U	19	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/05/30
34365	AENDOSUL	TISMG/KG	WET WGT	U	19	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/05/30
34370	ENDRINAL	TISMG/KG	WET WGT	R	2	.0200000	.0000000	.0000000	.020	.020	84/05/10	84/05/10
				U	17	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/05/30
				TOT	19	.0110530	.0000099	.0031530	.020	.010	84/05/08	84/05/30
34375	ETHYLBEN	TISMG/KG	WET WGT	M	2	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/08
				U	20	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
				TOT	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34379	FLANTENE	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34380	FLANTENE	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34384	FLUORENE	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34385	FLUORENE	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34389	HEXCLCPD	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34390	HEXCLCPD	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34395	HEXCLBD	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34399	HEXACLET	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34400	HEXACLET	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34406	I123CDPR	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34407	I123CDPR	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34411	ISPHRONE	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34412	ISPHRONE	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34417	METHYLBR	TISMG/KG	WET WGT	U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34422	METHYLCL	TISMG/KG	WET WGT	U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34427	MTHLENCL	TISMG/KG	WET WGT	R	1	.4800000			.480	.480	84/05/10	84/05/10
				U	21	.2500000	.0000000	.0000000	.250	.250	84/05/08	84/05/30
				TOT	22	.2604600	.0024046	.0490370	.480	.250	84/05/08	84/05/30
34431	NITONPRA	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34432	NITONPRA	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34436	NITRSDPA	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34437	NITRSDPA	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34441	NITRSOMA	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34442	NITRSOMA	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34445	NAPTHALE	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34446	NAPTHALE	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34450	NITROBEN	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34451	NITROBEN	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34455	PCLMCRES	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34464	PHENANTH	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34465	PHENANTH	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34468	PHENOL	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34472	PYRENE	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34473 PYRENE	TISMG/KG	WET WGT		U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34474 SILVER	TISMG/KG	WET WGT			4	.9000000	.5666700	.7527700	2.000	.300	84/05/10	84/05/30
				M	5	.2000000	.0000000	.0000000	.200	.200	84/05/08	84/06/18
				U	176	.2039800	.0010699	.0327100	.500	.200	84/04/17	84/06/28
				TOT	185	.2189200	.0205640	.1434000	2.000	.200	84/04/17	84/06/28
34479 TETCLETE	TISMG/KG	WET WGT		U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34484 TOLUENE	TISMG/KG	WET WGT		U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34492 TRCLFLMT	TISMG/KG	WET WGT		M	1	.0500000			.050	.050	84/05/10	84/05/10
				R	2	.0500000	.0000000	.0000000	.050	.050	84/05/10	84/05/10
				U	19	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
				TOT	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34500 11DICLET	TISMG/KG	WET WGT		U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34505 11DCETEN	TISMG/KG	WET WGT		U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34510 111TCLET	TISMG/KG	WET WGT		U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34515 112TCLET	TISMG/KG	WET WGT		U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34520 1122TCLE	TISMG/KG	WET WGT		M	1	.0500000			.050	.050	84/05/10	84/05/10
				U	21	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
				TOT	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34524 BZGHIPER	SEDUG/KG	DRY WGT		U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34525 BZGHIPER	TISMG/KG	WET WGT		U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34529 BENZAANT	SEDUG/KG	DRY WGT		U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34530 BENZAANT	TISMG/KG	WET WGT		U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34535 12DICLET	TISMG/KG	WET WGT		U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34539 12DCLBEN	SEDUG/KG	DRY WGT		U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34540 12DCLBEN	TISMG/KG	WET WGT		U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34545 12DCLPRP	TISMG/KG	WET WGT		U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34550 12TDCETE	TISMG/KG	WET WGT		U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34554 124TCBEN	SEDUG/KG	DRY WGT		U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34555 124TCBEN	TISMG/KG	WET WGT		U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34559 CBAHANTH	SEDUG/KG	DRY WGT		U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34560 CBAHANTH	TISMG/KG	WET WGT		U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34565 13DCPRPE	TISMG/KG	WET WGT		U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34569 13DCLBEN	SEDUG/KG	DRY WGT		U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34570 13DCLBEN	TISMG/KG	WET WGT		U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34574 14DCLBEN	SEDUG/KG	DRY WGT		U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34575 14DCLBEN	TISMG/KG	WET WGT		U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34580 2CLEVETR	TISMG/KG	WET WGT		U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34584 2CLNAPTH	SEDUG/KG	DRY WGT		U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34585 2CLNAPTH	TISMG/KG	WET WGT		U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34590 2CLPHENO	TISMG/KG	WET WGT		U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34595 2NPHENCL	TISMG/KG	WET WGT		U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34599 DINOCTPH	SEDUG/KG	DRY WGT		U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34600 DINOCTPH	TISMG/KG	WET WGT		U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34605 24DCPHEN	TISMG/KG	WET WGT		U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30

STORET RETRIEVAL DATE 85/09/11

PGM=INVENT
GROSS

25 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY CLINCH RIVER DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
34610	24DMPHEN	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34614	24DNTOLU	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34615	24DNTOLU	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34620	24DNPHEN	TISMG/KG	WET WGT	U	20	12.22000	60.19600	7.758600	33.000	4.100	84/05/08	84/05/30
34625	245TCPHN	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34629	26DNTOLU	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34630	26DNTOLU	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34634	33DCBNZD	SEDUG/KG	DRY WGT	U	8	3662.500	411250.0	641.2900	5000.000	3000.000	84/07/10	84/08/07
34635	33DCBNZD	TISMG/KG	WET WGT	U	20	3.080000	3.678500	1.918000	8.200	1.000	84/05/08	84/05/30
34639	4BRPPETR	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34640	4BRPPETR	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34644	4CLPPETR	SEDUG/KG	DRY WGT	U	8	1487.500	78393.00	279.9900	2000.000	1200.000	84/07/10	84/08/07
34645	4CLPPETR	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34650	4NPHENCL	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34661	46DNOCRE	TISMG/KG	WET WGT	U	20	6.100000	14.42200	3.797700	16.000	2.100	84/05/08	84/05/30
34664	PCB-1221	TISMG/KG	WET WGT	U	71	.1000000	.0000000	.0000000	.100	.100	84/04/17	84/06/28
34667	PCB-1232	TISMG/KG	WET WGT	U	71	.1000000	.0000000	.0000000	.100	.100	84/04/17	84/06/28
34669	PCB-1248	TISMG/KG	WET WGT	U	71	.1000000	.0000000	.0000000	.100	.100	84/04/17	84/06/28
34670	PCB-1260	TISMG/KG	WET WGT		19	.8210500	.4773100	.6908800	3.400	.200	84/04/17	84/06/28
				U	52	.1000000	.0000000	.0000000	.100	.100	84/04/17	84/06/19
				TOT	71	.2929600	.2260900	.4754900	3.400	.100	84/04/17	84/06/28
34674	PCB-1016	TISMG/KG	WET WGT	U	71	.1000000	.0000000	.0000000	.100	.100	84/04/17	84/06/28
34680	ALDRIN	TISMG/KG	WET WGT	U	19	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/05/30
34682	CCANEWET	TECH&MET	TISMG/KG	U	19	.0242110	.0011369	.0337170	.100	.010	84/05/08	84/05/30
34683	CNB PHTH	TIS-WET	MG/KG		1	1.300000			1.300	1.300	84/05/08	84/05/08
				M	5	1.254000	.4465800	.6682700	2.400	.670	84/05/10	84/05/10
				U	14	1.226400	.7381800	.8591800	3.300	.410	84/05/08	84/05/30
				TOT	20	1.237000	.5994600	.7742500	3.300	.410	84/05/08	84/05/30
34685	ENDRIN	TISMG/KG	WET WGT	U	19	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/05/30
34686	HPCHLREP	TISMG/KG	WET WGT	U	19	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/05/30
34687	HEPTCHLR	TISMG/KG	WET WGT	U	19	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/05/30
34688	HCB	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
34689	PCB-1242	TISMG/KG	WET WGT	U	71	.0961970	.0003324	.0182340	.100	.010	84/04/17	84/06/28
34690	PCB-1254	TISMG/KG	WET WGT		40	.5775000	.0602510	.2454600	1.300	.200	84/04/17	84/06/28
				U	31	.1000000	.0000000	.0000000	.100	.100	84/04/18	84/06/19
				TOT	71	.3690100	.0904550	.3007600	1.300	.100	84/04/17	84/06/28
34691	TOXAPHEN	TISMG/KG	WET WGT	U	19	.5000000	.0000000	.0000000	.500	.500	84/05/08	84/05/30
34692	TRICLETE	TISMG/KG	WET WGT	U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
34693	VINYLCHL	TISMG/KG	WET WGT	U	22	.0500000	.0000000	.0000000	.050	.050	84/05/08	84/05/30
39060	PCP	TISMG/KG	WET WGT	U	20	1.222000	.6019700	.7758600	3.300	.410	84/05/08	84/05/30
39074	ALPHABHC	TISMG/KG	WET WGT	U	19	.0100000	.0000000	.0000000	.010	.010	84/05/08	84/05/30
39099	B2ETHXPH	TISMG/KG	WET WGT	M	5	1.254000	.4465800	.6682700	2.40	.67	84/05/08	84/05/10
				U	15	1.211300	.6888700	.8299800	3.30	.41	84/05/08	84/05/30
				TOT	20	1.222000	.6019700	.7759700	3.30	.41	84/05/08	84/05/30

STORET RETRIEVAL DATE 85/09/11 PGM=INVENT

25 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY CLINCH RIVER DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER	RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
39102 B2E PHTH MUD-DRY UG/KG	M	1	2100.000			2100	2100	84/07/26	84/07/26
	U	7	1414.300	41430.00	203.5400	1800	1200	84/07/10	84/08/07
	TOT	8	1500.000	94286.00	307.0600	2100	1200	84/07/10	84/08/07
39112 DNB PHTH MUD-DRY UG/KG	U	8	1487.500	78393.00	279.9900	2000	1200	84/07/10	84/08/07
39121 BENZIDIN SEDUG/KG DRY WGT	M	5	7600.000	3300000	1816.600	10000.00	6000.00	84/07/10	84/07/26
	U	3	7166.700	83392.00	288.7800	7500.00	7000.00	84/08/07	84/08/07
	TOT	8	7437.500	1959800	1399.900	10000.00	6000.00	84/07/10	84/08/07
39302 P,P'DDT TISMG/KG WET WGT	U	19	.0100000	.0000000	.0000000	.01	.01	84/05/08	84/05/30
39312 P,P'DDD TISMG/KG WET WGT	R	1	.1000000			.10	.10	84/05/10	84/05/10
	R	4	.0400000	.0002665	.0163300	.06	.02	84/05/10	84/05/30
	U	14	.0100000	.0000000	.0000000	.01	.01	84/05/08	84/05/30
	TOT	19	.0210530	.0005655	.0237800	.10	.01	84/05/08	84/05/30
39322 P,P'DDE TISMG/KG WET WGT	R	2	.0400000	.0000000	.0000000	.04	.04	84/05/10	84/05/10
	U	17	.0100000	.0000000	.0000000	.01	.01	84/05/08	84/05/30
	TOT	19	.0131580	.0000894	.0094591	.04	.01	84/05/08	84/05/30
39404 DIELDRIN TISMG/KG WET WGT	U	19	.0100000	.0000000	.0000000	.01	.01	84/05/08	84/05/30
39491 PCB-1221 SEDUG/KG DRY WGT	U	8	100.0000	.0000000	.0000000	100.00	100.00	84/07/10	84/08/07
39495 PCB-1232 SEDUG/KG DRY WGT	U	8	100.0000	.0000000	.0000000	100.00	100.00	84/07/10	84/08/07
39499 PCB-1242 SEDUG/KG DRY WGT	U	8	100.0000	.0000000	.0000000	100.00	100.00	84/07/10	84/08/07
39503 PCB-1248 SEDUG/KG DRY WGT	U	8	100.0000	.0000000	.0000000	100.00	100.00	84/07/10	84/08/07
39507 PCB-1254 SEDUG/KG DRY WGT	U	8	100.0000	.0000000	.0000000	100.00	100.00	84/07/10	84/08/07
39511 PCB-1260 SEDUG/KG DRY WGT	U	8	100.0000	.0000000	.0000000	100.00	100.00	84/07/10	84/08/07
39514 PCB-1016 SEDUG/KG DRY WGT	U	8	100.0000	.0000000	.0000000	100.00	100.00	84/07/10	84/08/07
39515 PCBS FISH MG/KG		41	.9219500	.5552600	.7451600	4.700	.200	84/04/17	84/06/28
	U	11	.1000000	.0000000	.0000000	.100	.100	84/04/18	84/06/19
	TOT	52	.7480800	.5503900	.7418800	4.700	.100	84/04/17	84/06/28
39701 HCB SEDUG/KG DRY WGT	U	8	1487.500	78393.00	279.9900	2000.00	1200.00	84/07/10	84/08/07
39705 HEXCLBD SEDUG/KG DRY WGT	U	8	1487.500	78393.00	279.9900	2000	1200	84/07/10	84/08/07
39785 GBHC-TIS LINDANE WETMG/KG	U	19	.0100000	.0000000	.0000000	.01	.01	84/05/08	84/05/30
45579 % LIPID EXTRACT MATERIAL		52	4.049200	5.506100	2.346500	10	.1	84/04/17	84/06/28
70320 MOISTURE CONTENT PERCENT		19	35.73700	336.2500	18.33700	67	12	84/07/10	84/08/07
70322 RESIDUE TOT VOL PERCENT		8	8.237500	7.685600	2.772300	12.0	2.3	84/07/10	84/08/07
71821 SPECIFIC GRAVITY SEDGM/GM		19	2.403700	.0138410	.1176500	2.570	2.160	84/07/10	84/08/07
71890 MERCURY HG,DISS UG/L	U	2	.2000000	.0000000	.0000000	.2	.2	84/05/30	84/05/30
71900 MERCURY HG,TOTAL UG/L		1	.3000000			.3	.3	84/05/30	84/05/30
	U	1	.2000000			.2	.2	84/05/30	84/05/30
	TOT	2	.2500000	.0049999	.0707100	.3	.2	84/05/30	84/05/30
71921 MERCURY SEDMG/KG DRY WGT		6	.6033300	1.165200	1.079500	2.8	.1	84/07/10	84/08/07
	U	2	.1000000	.0000000	.0000000	.1	.1	84/07/12	84/07/26
	TOT	8	.4775000	.8865900	.9415900	2.8	.1	84/07/10	84/08/07
71922 MERCURY LT 63 U SEDMG/KG		21	2.025700	20.05500	4.478300	17.00	.10	84/07/10	84/07/27
	A	10	1.334000	3.030700	1.740900	4.70	.16	84/07/10	84/07/27
	U	4	.1000000	.0000000	.0000000	.10	.10	84/07/27	84/07/27
	TOT	35	1.608000	12.99700	3.605100	17.00	.10	84/07/10	84/07/27

STORET RETRIEVAL DATE 85/09/11 PGM=INVENT

25 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY CLINCH RIVER DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER	RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
71930 MERCURY TISMG/KG WET WGT		102	.2374500	.0343380	.1853100	1.20	.10	84/04/17	84/06/28
	U	83	.1000000	.0000000	.0000000	.10	.10	84/04/17	84/06/28
	TOT	185	.1757800	.0235470	.1534500	1.20	.10	84/04/17	84/06/28
71936 LEAD TISMG/KG WET WGT		30	.2426700	.1196300	.3458700	1.60	.02	84/05/08	84/05/31
71937 COPPER TISMG/KG WET WGT		22	.6336400	.1378100	.3712200	1.80	.20	84/05/08	84/05/31
	U	8	.1375000	.0026786	.0517550	.20	.10	84/05/10	84/05/31
	TOT	30	.5013300	.1502300	.3876000	1.80	.10	84/05/08	84/05/31
71938 ZINC TISMG/KG WET WGT		30	7.736700	5.021800	2.240900	17.00	5.20	84/05/08	84/05/31
71939 CR-FISH UG/G OR MG/KG WT		130	.0836920	.0099335	.0996670	.82	.02	84/04/17	84/06/28
	U	55	.0216360	.0000287	.0053624	.05	.02	84/04/17	84/06/27
	TOT	185	.0652430	.0077816	.0882130	.82	.02	84/04/17	84/06/28
71940 CADMIUM TISMG/KG WET WGT		116	.0122670	.0002243	.0149800	.14	.002	84/04/17	84/06/28
	U	69	.0020290	5798E-11	.0002408	.004	.002	84/04/17	84/06/28
	TOT	185	.0084486	.0001649	.0128420	.14	.002	84/04/17	84/06/28
80181 TOT SED PARTSIZE %<.002MM		8	46.05000	754.5100	27.46800	78.9	8.5	84/07/10	84/08/07
80183 TOT SED PARTSIZE %<.008MM		8	61.75000	1093.700	33.07100	93.9	12.6	84/07/10	84/08/07
80184 TOT SED PARTSIZE %<.016MM		8	68.73800	1221.800	34.95500	97.9	14.3	84/07/10	84/08/07
80203 TOT SED SIEVE %<.062MM		43	51.56700	839.7200	28.97800	99.9	5.7	84/07/10	84/08/07
80206 TOT SED SIEVE %<.500MM		35	94.66600	58.02600	7.617500	99.6	63.6	84/07/10	84/07/27
80208 TOT SED SIEVE %<2.00MM		35	98.85100	18.62100	4.315300	100.0	77.3	84/07/10	84/07/27
80331 MERCURY LT 500U SEDMG/KG		8	3.858800	25.38000	5.037800	12.000	.160	84/07/10	84/07/12
	A	5	1.730000	3.637000	1.907100	4.000	.150	84/07/10	84/07/27
	U	22	.1000000	.0000000	.0000000	.100	.100	84/07/12	84/07/27
	TOT	35	1.192000	8.140600	2.853200	12.000	.100	84/07/10	84/07/27
81356 CATION EX. CAP. MEA/100G		8	14.93800	105.3500	10.26400	33.0	3.4	84/07/10	84/08/07
81756 TOT SED PARTSIZ% <.0005MM		8	25.57500	290.8400	17.05400	50.0	4.4	84/07/10	84/08/07
81900 SEDIMENT UPPER DEPTH IN		61	10.81000	80.67500	8.981900	27.000	.100	84/07/10	84/07/27
	D	4	13.00000	106.6700	10.32800	25.000	1.000	84/07/27	84/07/27
	S	4	.5500000	.2700000	.5196200	1.000	.100	84/07/10	84/07/27
	TOT	69	10.34200	82.15400	9.063900	27.000	.100	84/07/10	84/07/27
81901 SEDIMENT LOWER DEPTH IN		61	16.23000	84.62000	9.198900	32.000	2.800	84/07/10	84/07/27
	D	4	19.75000	98.91700	9.945700	31.000	8.000	84/07/27	84/07/27
	S	4	6.675000	6.675800	2.583800	8.000	2.800	84/07/10	84/07/27
	TOT	69	15.84000	85.29800	9.235700	32.000	2.800	84/07/10	84/07/27
84005 FISH SPECIES F %WL	TXT	254	TEXT	TEXT	TEXT	TEXT	TEXT	84/04/17	84/06/28
84014 SPECIES SEX TEXT	TXT	229	TEXT	TEXT	TEXT	TEXT	TEXT	84/04/17	84/06/28
84068 SERIES CODE ALPHA	TXT	336	TEXT	TEXT	TEXT	TEXT	TEXT	84/04/17	84/08/07

STORET RETRIEVAL DATE 85/06/10

9 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY TENNESSEE RIVER DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
2	HSAMPLOC	% FROM	RT BANK		51	42.451	79.374	8.9092	50.0	30.0	84/07/09	84/10/11
				D	13	45.769	66.027	8.1257	50.0	30.0	84/07/09	84/10/11
				S	2	50.000	0.000	0.000	50.0	50.0	84/10/11	84/10/11
				TOT	66	43.333	76.412	8.7414	50.0	30.0	84/07/09	84/10/11
8	LAB	IDENT.	NUMBER		273	4701.5	7280100.	2698.2	9855	1460	84/04/23	84/10/11
23	WEIGHT		POUNDS		63	1.4303	1.8863	1.3734	5.99	.13	84/04/23	84/06/14
				S	1	3.3000			3.30	3.30	84/06/14	84/06/14
				TOT	64	1.4595	1.9109	1.3824	5.99	.13	84/04/23	84/06/14
24	LENGTH		INCHES		63	13.014	26.707	5.1679	21.90	5.70	84/04/23	84/06/14
				S	1	20.600			20.60	20.60	84/06/14	84/06/14
				TOT	64	13.133	27.182	5.2137	21.90	5.70	84/04/23	84/06/14
1004	ARSENIC	TISMG/KG	WET WGT		7	.20000	.00333	.05773	.30	.10	84/04/23	84/04/25
				U	36	.10278	.00027	.01666	.20	.10	84/04/23	84/06/14
				TOT	43	.11860	.00202	.04501	.30	.10	84/04/23	84/06/14
1029	CHROMIUM	SEDMG/KG	DRY WGT		71	34.718	85.121	9.2261	54.00	18.00	84/07/09	84/10/11
1069	NICKEL	TISMG/KG	WET WGT	M	2	1.0000	0.0000	0.0000	1.00	1.00	84/04/23	84/06/14
				U	41	1.0000	0.0000	0.0000	1.00	1.00	84/04/23	84/06/14
				TOT	43	1.0000	0.0000	0.0000	1.00	1.00	84/04/23	84/06/14
34474	SILVER	TISMG/KG	WET WGT	M	1	.20000			.200	.200	84/06/13	84/06/13
				U	42	.20000	4652E-11	.00021	.200	.200	84/04/23	84/06/14
				TOT	43	.20000	4541E-11	.00021	.200	.200	84/04/23	84/06/14
34664	PCB-1221	TISMG/KG	WET WGT	U	21	.10000	1490E-11	.00012	.100	.100	84/06/14	84/06/14
34667	PCB-1232	TISMG/KG	WET WGT	U	21	.10000	1490E-11	.00012	.100	.100	84/06/14	84/06/14
34669	PCB-1248	TISMG/KG	WET WGT	U	21	.10000	1490E-11	.00012	.100	.100	84/06/14	84/06/14
34670	PCB-1260	TISMG/KG	WET WGT		5	.54000	.01900	.13417	.700	.400	84/06/14	84/06/14
				U	16	.10000	.00000	.00000	.100	.100	84/06/14	84/06/14
				TOT	21	.20476	.04047	.20119	.700	.100	84/06/14	84/06/14
34674	PCB-1016	TISMG/KG	WET WGT	U	21	.10000	1490E-11	.00012	.100	.100	84/06/14	84/06/14
34689	PCB-1242	TISMG/KG	WET WGT	U	21	.10000	1490E-11	.00012	.100	.100	84/06/14	84/06/14
34690	PCB-1254	TISMG/KG	WET WGT		16	.43750	.03450	.18574	.800	.200	84/06/14	84/06/14
				U	5	.10000	.00000	.00000	.100	.100	84/06/14	84/06/14
				TOT	21	.35714	.04757	.21811	.800	.100	84/06/14	84/06/14
39491	PCB-1221	SEDUG/KG	DRY WGT	U	71	100.00	0.00	0.00	100.00	100.00	84/07/09	84/10/11
39495	PCB-1232	SEDUG/KG	DRY WGT	U	71	100.00	0.00	0.00	100.00	100.00	84/07/09	84/10/11
39499	PCB-1242	SEDUG/KG	DRY WGT	U	71	100.00	0.00	0.00	100.00	100.00	84/07/09	84/10/11
39503	PCB-1248	SEDUG/KG	DRY WGT	U	71	100.00	0.00	0.00	100.00	100.00	84/07/09	84/10/11
39507	PCB-1254	SEDUG/KG	DRY WGT	U	71	100.00	0.00	0.00	100.00	100.00	84/07/09	84/10/11
39511	PCB-1260	SEDUG/KG	DRY WGT	U	71	100.00	0.00	0.00	100.00	100.00	84/07/09	84/10/11
39514	PCB-1016	SEDUG/KG	DRY WGT	U	71	100.00	0.00	0.00	100.00	100.00	84/07/09	84/10/11
39515	PCBS	FISH	MG/KG		16	.60625	.17529	.41868	1.400	.200	84/06/14	84/06/14
				U	5	.10000	.00000	.00000	.100	.100	84/06/14	84/06/14
				TOT	21	.48571	.18029	.42460	1.400	.100	84/06/14	84/06/14
45579	% LIPID	EXTRACT	MATERIAL		21	3.1219	4.9455	2.2238	11	.5	84/06/14	84/06/14
71921	MERCURY	SEDMG/KG	DRY WGT		102	1.3590	2.1465	1.4651	7.8	.1	84/07/09	84/10/11

STORET RETRIEVAL DATE 85/06/10

9 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
INSTREAM CONTAMINANT STUDY TENNESSEE RIVER DATA
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
71921	MERCURY	SEDMG/KG	DRY WGT	U	15	.10000	1703E-11	.00013	.1	.1	84/08/01	84/10/11
71921	MERCURY	SEDMG/KG	DRY WGT	TOT	117	1.1976	2.0477	1.4310	7.8	.1	84/07/09	84/10/11
71930	MERCURY	TISMG/KG	WET WGT		18	.18278	.00790	.08890	.45	.10	84/04/23	84/06/14
				U	25	.10000	2732E-11	.00016	.10	.10	84/04/23	84/06/14
				TOT	43	.13465	.00490	.07004	.45	.10	84/04/23	84/06/14
71939	CR-FISH	UG/G OR	MG/KG WT		21	.22095	.08141	.28534	.98	.02	84/04/23	84/06/14
				U	22	.02090	.00001	.00426	.04	.02	84/04/23	84/06/14
				TOT	43	.11860	.04901	.22140	.98	.02	84/04/23	84/06/14
71940	CADMIUM	TISMG/KG	WET WGT		24	.01004	.00013	.01155	.05	.002	84/04/23	84/06/14
				U	19	.00200	4851E-15	.00000	.002	.002	84/04/23	84/06/14
				TOT	43	.00648	.00008	.00945	.05	.002	84/04/23	84/06/14
80203	TOT SED	SIEVE	%<.062MM		36	88.408	245.12	15.656	99.9	45.0	84/07/09	84/10/11
80204	TOT SED	SIEVE	%<.125MM		36	94.389	82.473	9.0815	100.0	67.7	84/07/09	84/10/11
80206	TOT SED	SIEVE	%<.500MM		36	99.939	.02142	.14639	100.0	99.5	84/07/09	84/10/11
80208	TOT SED	SIEVE	%<2.00MM		36	100.00	0.00	0.00	100.0	100.0	84/07/09	84/10/11
81900	SEDIMENT	UPPER	DEPTH IN		185	14.422	99.660	9.9830	37.500	.100	84/07/09	84/10/11
				D	21	15.000	112.02	10.584	35.500	.100	84/07/31	84/10/11
				S	18	6.9611	99.676	9.9838	27.700	.100	84/07/09	84/10/11
				TOT	224	13.877	104.10	10.203	37.500	.100	84/07/09	84/10/11
81901	SEDIMENT	LOWER	DEPTH IN		185	17.936	104.66	10.230	46.100	2.000	84/07/09	84/10/11
				D	21	19.648	109.45	10.462	39.400	3.900	84/07/31	84/10/11
				S	18	10.894	80.552	8.9751	29.900	2.000	84/07/09	84/10/11
				TOT	224	17.530	106.43	10.316	46.100	2.000	84/07/09	84/10/11
84005	FISH	SPECIES	F &WL	TE	64	TEXT	TEXT	TEXT	TEXT	TEXT	84/04/23	84/06/14
84014	SPECIES	SEX	TEXT	TE	64	TEXT	TEXT	TEXT	TEXT	TEXT	84/04/23	84/06/14
84068	SERIES	CODE	ALPHA	TE	288	TEXT	TEXT	TEXT	TEXT	TEXT	84/04/23	84/10/11

APPENDIX III

SUMMARY OF ADDITIONAL WATER, SEDIMENT, AND AQUATIC BIOTA DATA AVAILABLE ON THE EPA-STORET SYSTEM

INSTREAM CONTAMINANT STUDY - TASK 5

STORET RETRIEVAL DATE 85/09/17

255 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
ADDITIONAL STORET DATA - STUDY AREA COMPOSITE
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00002	HSAMPLOC	% FROM	RT BANK		13957	47.62600	670.1000	25.88600	99.0	.0	60/07/12	83/08/30
				D	20	51.00000	62.10500	7.880700	70.0	30.0	82/11/29	83/08/30
				S	20	52.00000	62.10500	7.880700	71.0	31.0	82/11/29	83/08/30
				TOT	13997	47.63700	668.4000	25.85300	99.0	.0	60/07/12	83/08/30
00003	VSAMPLOC	DEPTH	FEET		9	6.111100	34.86100	5.904300	16	1	75/11/06	77/02/23
00008	LAB	IDENT.	NUMBER		2289	106560.0	4950E+07	222490.0	682363	0	60/11/13	83/08/30
00010	WATER	TEMP	CENT		21998	17.93900	51.49500	7.176000	305.0	.0	58/03/12	83/08/31
				D	34	14.34100	48.49600	6.963900	30.0	3.5	65/12/06	83/07/19
				R	7	10.60000	.0000000	.0000000	10.6	10.6	73/11/07	73/11/07
				TOT	22039	17.93100	51.50900	7.177000	305.0	.0	58/03/12	83/08/31
00011	WATER	TEMP	FAHN		232	77.29800	8.991400	2.998600	80.0	70.0	74/08/01	74/09/26
00020	AIR	TEMP	CENT		2	23.00000	12.50000	3.535500	25.5	20.5	72/10/03	72/11/01
00023	WEIGHT		POUNDS		66	2.961400	11.34500	3.368200	17.50	.12	78/02/15	80/10/07
00024	LENGTH		INCHES		66	17.90200	212.6000	14.58100	125.00	2.50	78/02/15	80/10/07
00031	INCOT LT	REMNING	PERCENT		251	17.32500	547.0300	23.38900	87.0	.01	80/11/17	83/08/11
				K	11	.0100000	.0000000	.0000000	.01	.01	81/05/04	83/08/11
				TOT	262	16.59800	536.0800	23.15300	87.0	.01	80/11/17	83/08/11
00058	FLOW	RATE	GPM		38	5642.800	85779000	9261.700	27780.00	8.00	72/06/19	73/03/08
00059	FLOW	RATE	INST-GPM		18	69.33300	9013.900	94.94200	368.00	1.00	72/06/20	73/03/08
00060	STREAM	FLOW	CFS		969	35941.00	4359E+05	20880.00	215000	545	58/03/12	79/06/25
00061	STREAM	FLOW,	INST-CFS		3965	26061.00	4043E+05	20109.00	284400	0	67/06/23	83/08/30
				M	5	636.0000	130880.0	361.7700	1060	200	83/03/14	83/05/09
				TOT	3970	26029.00	4046E+05	20116.00	284400	0	67/06/23	83/08/30
00064	DEPTH OF	STREAM	MEAN(FT)		421	27.75100	98.07000	9.903000	50.0	11.0	64/05/13	64/08/20
00065	STREAM	STAGE	FEET		6	3765.100	2760500	1661.500	5470.00	794.30	60/11/13	68/08/27
00070	TURB	JKSN	JTU		4860	13.96000	476.5100	21.82900	510.0	.4	58/03/12	83/08/30
				K	172	20.25600	91.88800	9.585800	25.0	1.0	61/07/11	80/11/12
				TOT	5032	14.17600	464.6500	21.55600	510.0	.4	58/03/12	83/08/30
00076	TURB	TRBIDMTR	HACH FTU		538	8.387500	46.64400	6.829700	60.0	.8	81/03/18	83/08/30
00078	TRANSP	SECCHI	METERS		35	1.588600	.2111900	.4595600	2.75	.75	80/11/17	83/08/11
00080	COLOR	PT-CO	UNITS		4113	13.53600	192.6300	13.87900	231	0	58/03/12	83/08/18
				K	104	3.836500	1.783700	1.335600	7	.5	61/09/21	83/08/01
				TOT	4217	13.29700	190.1800	13.79100	231	0	58/03/12	83/08/18
00081	AP COLOR	PT-CO	UNITS		2968	51.72100	4262.900	65.29100	1470	1	60/11/13	83/08/11
				K	6	2.666700	.6666700	.8165000	3	1	75/08/01	83/07/01
				TOT	2974	51.62200	4259.200	65.26200	1470	1	60/11/13	83/08/11
00085	ODOR	THRSH NO	RM. TEMP		157	1.477700	1.674200	1.293900	8.0	.0	60/07/12	74/10/10
				K	647	1.000000	.0000000	.0000000	1.0	1.0	60/07/12	73/12/05
				TOT	804	1.093300	.3611500	.6009600	8.0	.0	60/07/12	74/10/10
00090	REDOX	ORP	MV		106	525.3400	1434.100	37.86900	600	450	81/04/21	81/07/07
00094	CNDUCTVY	FIELD	MICROMHO		859	201.1000	2543.100	50.42900	288	70	82/11/29	83/08/30
00095	CNDUCTVY	AT 25C	MICROMHO		9362	181.3300	23340.00	152.7700	8333	2	60/07/12	83/08/30
				R	1	240.0000			240	240	75/03/12	75/03/12
				TOT	9363	181.3400	23338.00	152.7700	8333	2	60/07/12	83/08/30

STORET RETRIEVAL DATE 85/09/17

255 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
ADDITIONAL STORET DATA - STUDY AREA COMPOSITE
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00098	VSAMPLOC	DEPTH	METERS		4007	4.481300	37.20700	6.099700	57.00	.20	77/03/04	83/08/30
00100	TIME OF	TRAVEL	HOURS		1	10.00000			10.0	10.0	74/01/09	74/01/09
00300	DO		MG/L		16571	7.807100	5.813900	2.411200	111.0	.1	58/03/12	83/08/31
				D	4961	7.734300	6.040000	2.457700	17.3	.1	61/10/02	83/08/30
				K	3	.1000000	.0000000	.0000000	.1	.1	70/09/30	73/07/05
				TOT	21535	7.789300	5.874100	2.423700	111.0	.1	58/03/12	83/08/31
00304	BOD	2 DAY	MG/L		2	1.850000	.0049992	.0707050	1.9	1.8	68/04/24	68/04/24
				K	15	1.000000	.0000000	.0000000	1.0	1.0	67/06/23	68/02/15
				TOT	17	1.100000	.0800020	.2828500	1.9	1.0	67/06/23	68/04/24
00310	BOD	5 DAY	MG/L		3127	4.252000	5128.100	71.61100	3500.0	.0	58/03/12	83/08/30
				K	1076	1.123300	2.052300	1.432600	28.0	.06	60/08/06	83/06/21
				L	2	86.50000	12961.00	113.8500	167.0	6.0	73/03/07	80/11/12
				TOT	4205	3.490500	3821.900	61.82100	3500.0	.0	58/03/12	83/08/30
00326	BOD	28 DAY	MG/L		2	1.100000	.0000000	.0000000	1.1	1.1	70/09/30	70/09/30
00335	COD	LOWLEVEL	MG/L		2714	7.351900	31.19600	5.585400	76.0	.1	58/03/12	83/08/11
				K	82	4.048800	3.084000	1.756100	7.0	1.0	73/07/18	83/08/30
				R	1	18.00000			18.0	18.0	73/04/25	73/04/25
				TOT	2797	7.258900	30.71200	5.541800	76.0	.1	58/03/12	83/08/30
00339	COD MUD	DRY WGT	MG/KG		15	45280.00	1270E+06	35640.00	160779	10367	73/05/08	76/11/16
00340	COD	HI LEVEL	MG/L		160	38.54100	11473.00	107.1100	800	1	73/02/27	78/12/18
				K	37	20.32200	492.2600	22.18700	50	.3	73/03/06	78/11/28
				TOT	197	35.11900	9448.500	97.20400	800	.3	73/02/27	78/12/18
00369	CL2DMND	30 MIN	MG/L		1	138.0000			138.0	138.0	73/03/12	73/03/12
00370	CL2DMND	1 HR	MG/L		415	1.715600	.4643300	.6814200	5.0	.0	58/03/12	69/07/09
00380	CL2DMND	24 HR	MG/L		406	3.767200	1.612500	1.269900	7.9	.0	58/03/12	69/07/09
00400	PH		SU		11862	7.454600	.2819500	.5309900	11.30	3.00	58/03/12	83/08/30
00403	LAB	PH	SU		1481	7.417700	3.389100	1.840900	76.0	4.5	60/11/13	83/08/30
00410	T ALK	CACO3	MG/L		5768	61.37500	1304.500	36.11800	960	3	58/03/12	83/08/30
				K	1	1.000000			1	1	81/09/01	81/09/01
				TOT	5769	61.36500	1304.900	36.12400	960	1	58/03/12	83/08/30
00415	PHEN-PH-	LFIN ALK	MG/L		5134	.0524930	.5398600	.7347500	20	0	60/07/12	83/08/15
				K	1	1.000000			1	1	83/04/11	83/04/11
				TOT	5135	.0526780	.5399300	.7348000	20	0	60/07/12	83/08/15
00431	T ALK	FIELD	MG/L		378	66.19300	747.2400	27.33600	115	34	82/11/29	83/08/30
00435	T ACDITY	CACO3	MG/L		10	66.30000	3734.900	61.11400	150	0	72/06/19	83/04/11
00437	ACIDITY	FROM CO2	MG/L		700	3.296900	14.97400	3.869700	89	0	60/11/13	83/08/30
				K	4	1.500000	.3333300	.5773500	2	1	76/01/01	83/03/28
				TOT	704	3.286700	14.90900	3.861200	89	0	60/11/13	83/08/30
00500	RESIDUE	TOTAL	MG/L		1061	214.3800	343600.0	586.1800	13210	1	60/07/12	83/08/30
00505	RESIDUE	TOT VOL	MG/L		32	134.8100	10921.00	104.5000	521	21	60/12/18	73/03/08
00515	RESIDUE	DISS-105 C	MG/L		1979	156.8500	345990.0	588.2100	12771	2	58/03/26	83/08/01
00530	RESIDUE	TOT NFLT	MG/L		3616	25.87000	54671.00	233.8200	12240	0	59/01/07	83/08/30
				J	3	.0000000	.0000000	.0000000	0	0	59/12/16	60/03/02
				K	105	1.104800	.3254600	.5704900	5	1	73/01/23	83/08/09

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STATISTICAL SUMMARY
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WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER	RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00530 RESIDUE TOT NFLT MG/L	TOT	3724	25.15100	53102.00	230.4400	12240	0	59/01/07	83/08/30
00535 RESIDUE VOL NFLT MG/L		26	78.19200	10718.00	103.5300	520	2	73/03/01	73/03/08
	K	1	1.000000			1	1	73/03/07	73/03/07
	TOT	27	75.33300	10526.00	102.6000	520	1	73/03/01	73/03/08
00550 OIL-GRSE TOT-SXLT MG/L		9	31.55600	1546.000	39.32000	120.0	5.0	72/06/20	73/02/28
	K	15	5.000000	.0000000	.0000000	5.0	5.0	72/06/20	72/06/24
	TOT	24	14.95800	710.2200	26.65000	120.0	5.0	72/06/20	73/02/28
00572 BIOMASS PERPHYTN G/SQ M		14	4.359000	6.512700	2.552000	8.802	.736	76/09/30	78/05/25
00573 BIOMASS PERPHYTN DW G/M2		14	11.45000	56.27200	7.501500	32.10	3.82	76/09/30	78/05/25
00600 TOTAL N N MG/L		1	52000.00			52000.00	52000.00	74/01/09	74/01/09
00605 ORG N N MG/L		3481	.1826800	.0340530	.1845300	2.400	.005	60/11/13	83/08/11
	K	85	.0209410	.0000991	.0099554	.030	.010	61/07/11	83/05/17
	R	11	.1945500	.0447670	.2115800	.660	.060	74/02/04	74/02/06
	TOT	3577	.1789700	.0338740	.1840500	2.400	.005	60/11/13	83/08/11
00610 NH3+NH4- N TOTAL MG/L		3904	.1064000	.5668800	.7529100	19.000	.000	58/03/12	83/08/30
	K	517	.5876100	.2323730	.4820500	1.000	.010	60/11/20	83/08/11
	L	1	.0000000			.000	.000	74/07/09	74/07/09
	TOT	4422	.1626300	.5515000	.7426300	19.000	.000	58/03/12	83/08/30
00615 NO2-N TOTAL MG/L		90	.0168890	.0011026	.0332050	.300	.000	60/11/13	71/08/10
	K	145	.0078069	.0000141	.0037682	.010	.001	60/11/13	71/08/10
	TOT	235	.0112850	.0004476	.0211580	.300	.000	60/11/13	71/08/10
00620 NO3-N TOTAL MG/L		419	.2695900	.0533910	.2310700	2.800	.010	60/11/13	76/06/15
	K	58	.0132760	.0000224	.0047343	.020	.010	61/01/08	67/07/15
	TOT	477	.2384300	.0539200	.2322100	2.800	.010	60/11/13	76/06/15
00621 NO3 MUD DRY WGT MG/KG-N		6	3.166700	3.366730	1.834900	6.00	2.00	75/09/09	75/09/12
	K	1	1.000000			1.00	1.00	76/11/16	76/11/16
	TOT	7	2.857200	3.476200	1.864500	6.00	1.00	75/09/09	76/11/16
00625 TOT KJEL N MG/L		84	3.847100	50.39400	7.098900	36.000	.090	72/06/19	75/09/03
00626 ORGAN. N MUD.D WT MG/KG-N		7	1533.400	368120.0	606.7300	2636.00	712.00	75/09/09	76/11/16
00630 NO2&NO3 N-TOTAL MG/L		4041	.4138900	.1652300	.4064800	9.90	.01	64/12/09	83/08/30
	K	33	.0100000	.0000000	.0000000	.01	.01	72/06/21	83/08/11
	R	4	3.220000	3.109600	1.763400	4.70	.68	75/05/06	83/08/11
	TOT	4078	.4133700	.1750600	.4184000	9.90	.01	64/12/09	83/08/30
00635 NH3&ORG N-TOTAL MG/L		650	.6764400	6.131300	2.476100	62.0	.1	64/12/09	83/08/30
	K	47	.1193600	.0019670	.0443510	.2	.01	65/09/08	81/02/26
	TOT	697	.6388800	5.736900	2.395200	62.0	.01	64/12/09	83/08/30
00636 NH3&ORG N-DISS. MG/L		11	.3454600	.0627270	.2504600	.8	.1	65/01/06	66/09/07
	K	2	.1000000	.0000000	.0000000	.1	.1	65/09/08	66/01/05
	TOT	13	.3076900	.0607690	.2465200	.8	.1	65/01/06	66/09/07
00650 T PO4 PO4 MG/L		46	.1680400	.0446520	.2113100	1.50	.03	72/03/01	74/04/10
00653 SCLPO4-T PO4 MG/L		97	.1405200	.0102670	.1013300	.50	.00	61/11/15	73/12/05
	L	1	.1000000			.10	.10	69/04/16	69/04/16
	TOT	98	.1401000	.0101780	.1008900	.50	.00	61/11/15	73/12/05
00665 PHOS-TOT MG/L P		4186	.1879700	8.513500	2.917800	86.000	.000	60/11/20	83/08/30

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INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00665 PHOS-TOT		MG/L P	K	290	.0265980	.0008405	.0289930	.100	.002	60/11/13	82/05/10
			R	1	1.000000			1.000	1.000	76/05/17	76/05/17
			TOT	4477	.1776100	7.961800	2.821700	86.000	.000	60/11/13	83/08/30
00666 PHOS-DIS		MG/L P		1366	.0209330	.0008211	.0286560	.940	.003	63/05/19	83/08/11
			J	1	.0097800			.009	.009	73/02/26	73/02/26
			K	423	.0102590	.0000386	.0062165	.123	.003	63/05/19	83/08/11
			R	70	.2997200	.1098200	.3313900	1.000	.020	73/01/23	83/04/12
			TOT	1860	.0289910	.0075754	.0870370	1.000	.003	63/05/19	83/08/11
00668 PHOS MUD	DRY WGT	MG/KG-P		15	482.0700	42522.00	206.2100	850.0	159.0	73/05/08	76/11/16
00670 PHOS-TOT	ORGANIC	MG/L P		11	.0100000	.0000000	.0000000	.010	.010	81/09/11	81/09/15
			K	1	.0100000			.010	.010	81/09/11	81/09/11
			TOT	12	.0100000	.0000000	.0000000	.010	.010	81/09/11	81/09/15
00671 PHOS-DIS	ORTHO	MG/L P		8	.0162500	.0000553	.0074403	.030	.010	79/03/20	80/03/04
			K	18	.0100000	.0000000	.0000000	.010	.010	79/03/28	81/09/15
			TOT	26	.0119230	.0000241	.0049147	.030	.010	79/03/20	81/09/15
00673 PHOS-DIS	ORGANIC	MG/L P		2	.0100000	.0000000	.0000000	.010	.010	81/09/11	81/09/15
			K	10	.0100000	.0000000	.0000000	.010	.010	81/09/11	81/09/15
			TOT	12	.0100000	.0000000	.0000000	.010	.010	81/09/11	81/09/15
00677 PHOS-DIS	HYD+ORTH	MG/L P		47	.0119150	.0000201	.0044907	.03	.01	79/04/27	79/09/21
			K	106	.0100000	.0000000	.0000000	.01	.01	79/04/24	79/09/21
			R	3	.5066700	.2050300	.4528100	1.00	.11	79/09/21	79/09/21
			TOT	156	.0201280	.0073239	.0855800	1.00	.01	79/04/24	79/09/21
00680 T ORG C	C	MG/L		2753	5.093600	1678.800	40.97400	1750.0	.0	65/03/03	83/08/11
			K	61	1.396700	1.695700	1.302200	5.0	.2	65/11/03	83/04/01
			R	60	2.313300	1.014000	1.007000	7.2	1.1	76/07/21	76/08/05
			TOT	2874	4.957100	1608.600	40.10800	1750.0	.0	65/03/03	83/08/11
00681 D ORG C	C	MG/L		225	1.284100	1.803400	1.345100	12.0	.2	65/04/06	83/08/10
			K	16	.2187500	.0056250	.0750000	.5	.2	65/05/05	75/09/03
			TOT	242	1.213600	1.759900	1.326600	12.0	.2	65/04/06	83/08/10
00690 T-CARBON	C	MG/L		219	1.956600	4.974100	2.230300	26.0	.0	72/10/24	82/11/29
00700 ACIDS	TOT VOL	MG/L		1	14.00000			14.0	14.0	74/01/09	74/01/09
00720 CYANIDE	CN-TOT	MG/L	K	1	.0100000			.010	.010	73/12/05	73/12/05
00722 CYANIDE	FREE CN	MG/L		5	.0120000	.0000200	.0044721	.02	.01	73/02/27	73/11/06
			K	312	.0100000	.0000000	.0000000	.01	.01	67/09/06	73/12/05
			TOT	317	.0100320	.0000003	.0005620	.02	.01	67/09/06	73/12/05
00740 SULFITE	SO3	MG/L		2	.1000000	.0000000	.0000000	.1	.1	81/04/22	81/04/22
			K	26	.1000000	.0000000	.0000000	.1	.1	81/04/21	81/05/05
			TOT	28	.1000000	.0000000	.0000000	.1	.1	81/04/21	81/05/05
00745 SULFIDE	TOTAL	MG/L		13	1.056200	12.88000	3.588800	13.00	.02	73/09/18	81/05/05
			K	16	.0200000	.0000000	.0000000	.02	.02	81/04/21	81/04/22
			TOT	29	.4844800	5.794800	2.407200	13.00	.02	73/09/18	81/05/05
00746 SULFIDE	DISOLVED	MG/L		1	7.500000			7.50	7.50	73/03/12	73/03/12
00800 NITSCHIA	KUTZNGNA	NO/LITER		1	39.00000			39.0	39.0	74/01/09	74/01/09
00810 CL CHRYP	TOPHYCEA	NO/LITER		1	102.0000			102.0	102.0	74/01/09	74/01/09

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00900	TOT HARD	CACO3	MG/L		1791	74.98000	359.7700	18.96800	163	6	58/03/12	83/08/30
00902	NC HARD	CACO3	MG/L		11	18.18200	35.36400	5.946800	29	11	63/05/19	64/03/17
00910	CALCIUM	CACO3	MG/L		1053	45.84600	427.5500	20.67700	125.0	7.5	60/11/13	83/08/01
00915	CALCIUM	CA,DISS	MG/L		2	3.200000	.1799900	.4242600	3.5	2.9	72/10/03	72/11/01
00916	CALCIUM	CA-TOT	MG/L		2396	22.46500	41.97300	6.478600	99.0	2.0	60/07/12	83/08/30
00920	MGNSIUM	CACO3	MG/L		818	16.83700	191.5800	13.84100	88.0	1.3	60/11/13	77/08/29
				K	3	33.40700	826.0200	28.74100	50.0	.2	60/11/20	74/09/21
				TOT	821	16.83800	193.9000	13.92500	88.0	.2	60/11/13	77/08/29
00927	MGNSIUM	MG,TOT	MG/L		2627	5.556900	5.126800	2.264200	50.0	.8	60/07/12	83/08/30
00929	SODIUM	NA,TOT	MG/L		2597	5.376600	26.82700	5.179500	234.00	.40	60/07/12	83/08/11
00930	SODIUM	NA,DISS	MG/L		23	8.413100	4.986700	2.233100	13.00	4.00	62/10/01	72/11/01
00934	NA MUD	DRY WGT	MG/KG-NA		7	97.28600	971.5800	31.17000	141.00	70.00	75/09/09	76/11/16
00935	PTSSIUM	K,DISS	MG/L		21	1.547600	.1326200	.3641700	2.20	1.00	62/10/01	69/01/01
00937	PTSSIUM	K,TOT	MG/L		2259	1.496700	.2627700	.5126100	9.40	.10	60/07/12	83/08/11
00938	K MUD	DRY WGT	MG/KG-K		7	608.5700	59537.00	244.0000	882.00	282.00	75/09/09	76/11/16
00940	CHLORIDE	TOTAL	MG/L		4096	8.342500	27.59500	5.253100	52	1	58/03/12	83/08/11
				K	2	4.000000	18.00000	4.242600	7	1	61/11/20	79/10/03
				TOT	4098	8.340400	27.59500	5.253100	52	1	58/03/12	83/08/11
00945	SULFATE	SO4-TOT	MG/L		3355	15.31500	193.6000	13.91400	705	1	58/03/26	83/08/11
				K	2	9.000000	98.00000	9.899500	16	2	79/07/01	79/10/03
				TOT	3357	15.31100	193.5300	13.91200	705	1	58/03/26	83/08/11
00950	FLUORIDE	F,DISS	MG/L		542	.1209100	.0059956	.0774310	.90	.00	60/11/13	83/08/01
				K	488	.0968640	.0001621	.0127330	.10	.01	60/11/20	83/06/01
				TOT	1030	.1095200	.0033733	.3580800	.90	.00	60/11/13	83/08/01
00951	FLUORIDE	F,TOTAL	MG/L		635	.0787240	.0046841	.0684400	.93	.03	66/11/07	77/09/07
				K	343	.0997370	.0000237	.0048694	.10	.01	66/11/07	78/10/17
				TOT	978	.0860940	.0031486	.0561120	.93	.01	66/11/07	78/10/17
00955	SILICA	DISOLVED	MG/L		1426	4.816900	2.236800	1.495600	28.0	.3	60/11/20	83/08/11
				K	14	1.000000	.0000000	.0000000	1.0	1.0	78/01/01	80/06/01
				TOT	1440	4.779800	2.355400	1.534700	28.0	.3	60/11/20	83/08/11
00956	SILICA	TOTAL	MG/L		803	5.149800	1.143200	1.069200	10.0	.5	60/07/12	75/03/11
00980	IRON	TOT REC	UG/L		28	396.7900	31904.00	178.6200	860	210	82/11/29	83/01/10
01000	ARSENIC	AS,DISS	UG/L	K	23	34.95700	257.8600	16.05800	54	10	62/10/01	69/01/01
01002	ARSENIC	AS,TOT	UG/L		235	6.157500	1673.500	40.90800	620	1	73/03/12	83/08/11
				K	1139	3.746300	9.456700	3.075200	28	1	72/06/19	83/08/30
				TOT	1374	4.158700	293.8700	17.14300	620	1	72/06/19	83/08/30
01003	ARSENIC	SEDMG/KG	DRY WGT		67	10.04000	27.30500	5.225400	23.60	2.00	72/08/31	82/06/29
				K	3	4.800000	6.880000	2.623000	7.20	2.00	73/08/01	81/06/30
				TOT	70	9.815100	27.46000	5.240200	23.60	2.00	72/08/31	82/06/29
01004	ARSENIC	TISMG/KG	WET WGT		6	.0966670	.0064267	.0801660	.23	.03	78/02/15	80/10/07
				K	50	1.861900	3.974000	1.993500	4.00	.02	78/02/15	80/10/07
				TOT	56	1.672800	3.844600	1.960800	4.00	.02	78/02/15	80/10/07
01005	BARIUM	BA,DISS	UG/L		23	23.56500	94.16600	9.703900	48	6	62/10/01	69/01/01
				K	28	100.0000	.0000000	.0000000	100	100	82/11/29	83/01/10

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01005 BARIUM BA,DISS UG/L	TOT	51	65.52900	1516.900	38.94700	100	6	62/10/01	83/01/10
01007 BARIUM BA,TOT UG/L		343	72.36700	14301.30	119.5900	1000	10	72/08/01	83/08/11
	K	826	94.35800	595.1100	24.39500	200	5	73/01/23	83/08/01
	TOT	1169	87.90600	4708.200	68.61600	1000	5	72/08/01	83/08/11
01008 BA MUD DRY WGT MG/KG-BA		22	104.9100	2149.000	46.35700	180.00	13.00	72/11/08	76/11/16
	K	2	4.000000	.0000000	.0000000	4.00	4.00	72/08/31	72/08/31
	TOT	24	96.50000	2773.700	52.66600	180.00	4.00	72/08/31	76/11/16
01009 BARIUM TOT.REC. UG/L	K	28	100.0000	.0000000	.0000000	100.00	100.00	82/11/29	83/01/10
01010 BERYLIUM BE,DISS UG/L		1	.1600000			.16	.16	65/07/14	65/07/14
	K	22	.0300000	.0000571	.0075593	.04	.01	62/10/01	69/01/01
	TOT	23	.0356520	.0007893	.0280950	.16	.01	62/10/01	69/01/01
01012 BERYLIUM BE,TOT UG/L		12	5.750000	19.97700	4.469600	10.00	1.00	73/10/24	83/06/02
	K	883	9.297900	6.016200	2.452800	10.00	.50	73/01/23	83/08/11
	TOT	895	9.250300	6.347900	2.519500	10.00	.50	73/01/23	83/08/11
01013 BERYLIUM SEDMG/KG DRY WGT		16	2.068800	1.053000	1.026200	4.00	.80	72/08/31	82/06/29
	K	5	.6200000	.0020003	.0447250	.70	.60	73/05/08	73/08/02
	TOT	21	1.723800	1.189900	1.090800	4.00	.60	72/08/31	82/06/29
01017 BISMUTH BI,TOT UG/L	K	20	1.000000	.0000000	.0000000	1	1	76/09/29	76/10/19
01020 BORON B,DISS UG/L		23	23.87000	168.3900	12.97700	50	3	62/10/01	69/01/01
01022 BORON B,TOT UG/L		258	89.21700	7314.300	85.52400	680	4	74/12/19	83/08/10
	K	183	190.5800	90962.00	301.6000	1000	2	73/01/23	83/08/11
	TOT	441	130.6900	44447.00	210.8300	1000	2	73/01/23	83/08/11
01025 CADMIUM CD,DISS UG/L	K	23	6.478300	18.44300	4.294500	15	1	62/10/01	69/01/01
01027 CADMIUM CD,TOT UG/L		330	2.298500	16.33800	4.042000	33	.1	73/01/23	83/08/11
	K	1725	.9060400	3.031700	1.741200	60	.005	71/07/28	83/08/30
	TOT	2055	1.129700	5.423000	2.328700	60	.005	71/07/28	83/08/30
01028 CD MUD DRY WGT MG/KG-CD		56	3.256600	3.238100	1.799500	7.50	.30	72/08/31	81/06/30
	K	19	1.000000	.0000000	.0000000	1.00	1.00	75/08/26	82/06/29
	TOT	75	2.684900	3.382900	1.839300	7.50	.30	72/08/31	82/06/29
01029 CHROMIUM SEDMG/KG DRY WGT		75	31.52300	276.2000	16.61900	86.00	7.00	72/08/31	82/06/29
01030 CHROMIUM CR,DISS UG/L		11	7.727300	38.01800	6.165900	20	2	54/01/01	67/04/01
	K	12	2.500000	1.181800	1.087100	4	1	62/10/01	69/01/01
	TOT	23	5.000000	25.00000	5.000000	20	1	62/10/01	69/01/01
01033 CHROMIUM TRI-VAL UG/L		1	84.00000			84	84	73/03/12	73/03/12
01034 CHROMIUM CR,TOT UG/L		425	14.94000	1769.800	42.06900	335	0	61/04/16	83/08/10
	K	1681	5.380200	93.79900	9.685000	50	.01	61/06/11	83/08/11
	TOT	2106	7.309300	446.0800	21.12100	335	0	61/04/16	83/08/11
01035 COBALT CO,DISS UG/L	K	23	4.565200	4.166000	2.041100	8	2	62/10/01	69/01/01
01037 COBALT CO,TOTAL UG/L		69	12.84100	60.19500	7.758500	30	2	76/10/19	83/08/01
	K	235	7.361700	6.257500	2.501500	10	5	73/05/08	83/08/01
	TOT	304	8.605300	23.62600	4.860700	30	2	73/05/08	83/08/01
01038 CO MUD DRY WGT MG/KG-CO		17	20.97700	64.18500	8.011600	33.00	6.00	72/08/31	73/08/02
01040 COPPER CU,DISS UG/L		19	10.10500	56.98800	7.549100	28	2	62/10/01	67/04/01
	K	141	9.773100	1.776700	1.332900	10	2	63/04/01	83/08/30

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PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01040 COPPER	CU,DISS	UG/L	R	1	40.00000			40	40	83/01/10	83/01/10
01040 COPPER	CU,DISS	UG/L	TOT	161	10.00000	13.63800	3.692900	40	2	62/10/01	83/08/30
01042 COPPER	CU,TOT	UG/L		1598	120.1700	555850.0	745.5600	18300	.01	53/09/24	83/08/30
			J	1	.0100000			.01	.01	74/08/29	74/08/29
			K	968	9.025600	76.24800	8.732000	50	.01	63/10/24	83/08/15
			TOT	2567	78.21200	348880.0	590.6600	18300	.01	63/09/24	83/08/30
01043 COPPER	SEDMG/KG	DRY WGT		70	29.00300	251.8400	15.86900	98.40	7.00	72/08/31	82/06/29
01045 IRON	FE,TOT	UG/L		3216	739.5700	6972800	2640.600	90900	.08	60/07/12	83/08/30
			K	41	43.68300	210.2200	14.49900	50	2	60/08/23	83/08/10
			TOT	3257	730.8100	6891000	2625.100	90900	.08	60/07/12	83/08/30
01046 IRON	FE,DISS	UG/L		536	98.17400	9121.000	95.50400	1900	10	60/07/12	83/06/02
			K	708	49.49900	22.06200	4.697100	50	5	60/07/13	83/08/11
			R	5	424.0000	197280.0	444.1600	1200	120	76/07/15	83/01/10
			TOT	1249	71.88600	5632.700	75.05100	1900	5	60/07/12	83/08/11
01047 FERROUS	IRON	UG/L		846	87.82200	2716.900	52.12400	360	10	67/11/02	83/08/10
			K	85	35.41200	246.5600	15.70200	50	10	67/06/20	82/10/19
			R	2	270.0000	200.0000	14.14200	280	260	77/10/20	81/09/15
			TOT	933	83.43700	2788.200	52.80400	360	10	67/06/20	83/08/10
01049 LEAD	PB,DISS	UG/L		5	16.80000	61.70100	7.855000	29	10	64/07/01	66/04/13
			K	18	8.333300	23.41200	4.838600	16	2	62/10/01	69/01/01
			TOT	23	10.17400	42.05900	6.485300	29	2	62/10/01	69/01/01
01051 LEAD	PB,TOT	UG/L		523	114.3000	1556300	1247.500	27100	.04	72/06/19	83/08/30
			K	1584	10.05500	236.5000	15.37900	100	.04	72/06/19	83/08/01
			TOT	2107	35.93100	387960.0	622.8700	27100	.04	72/06/19	83/08/30
01052 LEAD	SEDMG/KG	DRY WGT		73	49.10800	1432.600	37.84900	310.00	10.00	72/08/31	82/06/29
			K	2	6.500000	4.500000	2.121300	8.00	5.00	76/11/16	81/06/30
			TOT	75	47.97200	1441.700	37.97000	310.00	5.00	72/08/31	82/06/29
01053 MN MUD	DRY WGT	MG/KG-MN		70	2026.000	1363900	1167.900	5300.00	490.00	72/08/31	82/06/29
01055 MANGNESE	MN	UG/L		2748	129.0000	731390.0	855.2100	27800.0	.0	60/11/30	83/08/30
			K	164	40.04100	365.6000	19.12100	100.0	.05	60/11/13	83/03/08
			R	1	1100.000			1100.0	1100.0	73/08/23	73/08/23
			TOT	2913	124.3300	690720.0	831.0900	27800.0	.0	60/11/13	83/08/30
01056 MANGNESE	MN,DISS	UG/L		659	34.29600	2267.400	47.61700	760.0	7.0	61/06/06	83/08/10
			K	363	9.958700	.2054900	.4533100	10.0	5.0	61/06/06	83/08/10
			R	3	80.00000	2028.600	45.04000	180.0	40.0	73/02/26	77/02/15
			TOT	1030	26.07400	1621.300	40.26500	760.0	5.0	61/06/06	83/08/10
01059 THALLIUM	TL,TOTAL	UG/L	K	28	50.00000	.0000000	.0000000	50	50	81/04/21	81/05/05
01060 MOLY	MO,DISS	UG/L		3	22.66700	121.3400	11.01500	34	12	64/01/01	67/04/01
			K	20	9.300000	21.59000	4.646500	16	1	62/10/01	69/01/01
			TOT	23	11.04400	50.86200	7.131700	34	1	62/10/01	69/01/01
01063 MO MUD	DRY WGT	MG/KG-MO	K	17	6.647100	.2426600	.4926100	7.00	6.00	72/08/31	73/08/02
01064 TELLURUM	TE.TOT.	UG/L	K	34	1.411800	.2495600	.4995600	2	1	76/09/29	77/10/27
01065 NICKEL	NI,DISS	UG/L		5	1.166700	.1666700	.4082500	2	1	82/11/29	82/11/29
			K	43	2.790700	5.455200	2.335600	8	1	62/10/01	83/01/10

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01065	NICKEL	NI,DISS	UG/L	R	2	4.500000	4.500000	2.121300	6	3	83/01/10	83/01/10
01065	NICKEL	NI,DISS	UG/L	TOT	51	2.666700	5.106700	2.259800	8	1	62/10/01	83/01/10
01067	NICKEL	NI,TOTAL	UG/L		247	123.7000	186020.0	431.3000	4140	1	64/02/01	83/08/30
				K	1390	40.08600	346.6900	18.62000	80	1	64/01/01	83/08/09
				TOT	1637	52.70100	29162.00	170.7700	4140	1	64/01/01	83/08/30
01068	NICKEL	SEDMG/KG	DRY WGT		72	30.69000	232.8200	15.25900	73.70	6.60	72/08/31	82/06/29
				K	3	15.73300	10.02300	3.166000	18.70	12.40	81/06/30	81/06/30
				TOT	75	30.09200	232.3600	15.24400	73.70	6.60	72/08/31	82/06/29
01070	PHOS-TOT	SPEC	UG/L P		9	36.55600	626.5300	25.03100	88	6	64/01/01	67/04/01
				K	14	17.92900	118.5300	10.88700	32	3	62/10/01	69/01/01
				TOT	23	25.21700	384.2700	19.60300	88	3	62/10/01	69/01/01
01074	NICKEL	TOT.REC.	UG/L		7	1.428600	.2857200	.5345300	2	1	82/11/29	83/01/10
				K	21	1.000000	.0000000	.0000000	1	1	82/11/29	83/01/10
				TOT	28	1.107200	.0992080	.3149700	2	1	82/11/29	83/01/10
01075	SILVER	AG,DISS	UG/L	K	23	.5173900	.0360480	.1898600	.8	.2	62/10/01	69/01/01
01077	SILVER	AG,TOT	UG/L		30	4.866700	215.7800	14.68900	80.0	1.0	74/05/08	83/08/01
				K	1102	8.137900	13.30400	3.647400	10.0	1.0	73/01/23	83/08/11
				TOT	1132	8.051200	18.76000	4.331200	80.0	1.0	73/01/23	83/08/11
01078	SILVER	SEDMG/KG	DRY WGT		17	2.476500	1.944400	1.394400	5.00	.60	72/08/31	73/08/02
				K	4	1.000000	.0000000	.0000000	1.00	1.00	82/06/08	82/06/29
				TOT	21	2.195200	1.908500	1.381500	5.00	.60	72/08/31	82/06/29
01080	STRONTUM	SR,DISS	UG/L		23	44.34800	540.8700	23.25700	118	9	62/10/01	69/01/01
01082	STRONTUM	SR,TOT	UG/L		17	126.4700	2161.800	46.49500	200	70	73/05/08	75/01/21
01083	SR MUD	DRY WGT	MG/KG-SR		1	3.900000			3.90	3.90	72/11/09	72/11/09
				K	16	3.100000	.0546790	.2338400	3.30	2.50	72/08/31	73/08/02
				TOT	17	3.147100	.0889170	.2981900	3.90	2.50	72/08/31	73/08/02
01085	VANADIUM	V,DISS	UG/L	K	23	8.652200	21.60100	4.647700	16	1	62/10/01	69/01/01
01087	VANADIUM	V,TOT	UG/L	K	20	100.0000	.0000000	.0000000	100	100	76/09/29	76/10/19
01088	V MUD	DRY WGT	MG/KG-V	K	8	32.12500	2.982200	1.726900	34.00	30.00	73/05/08	73/08/02
01090	ZINC	ZN,DISS	UG/L		21	14.09500	32.39100	5.691300	25	6	63/04/01	82/12/19
				K	24	8.541700	9.563400	3.092500	12	2	62/10/01	82/12/19
				R	7	607.1400	1212700	1101.200	2900	20	83/01/10	83/01/10
				TOT	52	91.36500	184890.0	429.9900	2900	2	62/10/01	83/01/10
01092	ZINC	ZN,TOT	UG/L		1841	114.4700	1302830	1141.400	41000	.01	63/09/24	83/08/30
				K	464	7.563600	29.12200	5.396500	50	.01	66/02/14	83/08/11
				TOT	2305	92.94700	1042200	1020.900	41000	.01	63/09/24	83/08/30
01093	ZINC	SEDMG/KG	DRY WGT		70	219.2500	26957.00	164.1900	740.00	26.00	72/08/31	82/06/29
01094	ZINC(ZN)	TOT.REC.	UG/L		15	24.00000	197.1400	14.04100	60	10	82/11/29	82/12/19
				K	13	10.00000	.0000000	.0000000	10	10	82/11/29	83/01/10
				TOT	28	17.50000	152.7800	12.36000	60	10	82/11/29	83/01/10
01097	ANTIMONY	SB,TOT	UG/L		11	11.09100	392.6900	19.81700	63	1	73/09/18	79/12/01
				K	241	15.13700	976.8700	31.25500	150	1	73/03/12	81/05/05
				L	1	100.0000			100	100	76/04/10	76/04/10
				TOT	253	15.29700	975.2000	31.22800	150	1	73/03/12	81/05/05

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01098 ANTIMONY	SEDMG/KG	DRY WGT	K	24	6.041700	1.954700	1.398100	7.00	1.00	72/08/31	76/11/16
01102 TIN	SN,TOT	UG/L		1	2100.000			2100	2100	76/10/19	76/10/19
			K	19	621.0500	208420.0	456.5300	1000	100	76/09/29	76/10/19
			TOT	20	695.0000	306820.0	553.9100	2100	100	76/09/29	76/10/19
01103 TIN MUD	DRY WGT	MG/KG-SN	K	17	62.82400	21.78100	4.667000	67.00	51.00	72/08/31	73/08/02
01105 ALUMINUM	AL,TOT	UG/L		1193	911.4500	2068100	1438.100	25000	1	64/01/01	83/08/30
			K	131	157.5500	4137.200	64.32100	300	1	63/04/01	83/08/10
			TOT	1324	836.8500	1914400	1383.600	25000	1	63/04/01	83/08/30
01108 AL MUD	DRY WGT	MG/KG-AL		26	17669.00	1695E+05	13021.00	46000.00	1500.00	72/08/31	76/08/17
01119 COPPER	TOT.REC.	UG/L		14	27.14300	160.4400	12.66700	40	10	82/12/06	83/02/08
			K	124	10.00000	.0000000	.0000000	10	10	82/11/29	83/08/30
			TOT	138	11.73900	42.20900	6.496800	40	10	82/11/29	83/08/30
01132 LITHIUM	LI,TOT	UG/L		7	12.85700	23.81000	4.879500	20	10	73/05/09	77/07/19
			K	410	10.00000	.0000000	.0000000	10	10	73/05/08	83/08/10
			TOT	417	10.04800	.4785600	.6917800	20	10	73/05/08	83/08/10
01133 LI MUD	DRY WGT	MG/KG-LI		8	5.275000	7.882200	2.807500	9.10	1.30	73/05/08	73/08/02
01145 SELENIUM	SE,DISS	UG/L	K	3	.0100000	.0000000	.0000000	.01	.01	62/10/01	63/04/01
01147 SELENIUM	SE,TOT	UG/L		163	2.398800	18.35200	4.284000	42	1	73/01/23	83/08/11
			K	881	1.203200	.1825400	.4272400	4	1	73/01/23	83/08/11
			TOT	1044	1.389900	3.193000	1.786900	42	1	73/01/23	83/08/11
01148 SELENIUM	SEDMG/KG	DRY WGT		24	1.690800	2.002000	1.414900	8.00	.80	72/11/09	82/06/10
			K	37	1.632700	2.296700	1.515500	5.00	.20	72/08/31	82/06/29
			TOT	61	1.655600	2.146300	1.465000	8.00	.20	72/08/31	82/06/29
01152 TITANIUM	TI,TOT	UG/L		27	49.40700	36256.00	190.4100	1000	4	78/02/07	83/08/11
			K	407	943.9000	50490.00	224.7000	1000	5	73/07/05	83/08/11
			TOT	434	888.2500	96306.00	310.3300	1000	4	73/07/05	83/08/11
01153 TI MUD	DRY WGT	MG/KG-TI		7	3574.300	6626000	2574.100	8100.00	120.00	72/11/08	72/11/09
01170 FE MUD	DRY WGT	MG/KG-FE		70	24415.00	1090E+05	10442.00	56400.00	5430.00	72/08/31	82/06/29
01501 ALPHA	TOTAL	PC/L		290	.6275900	2.975000	1.724800	24	0	58/03/12	68/05/08
01502 ALPHA-T	ERROR	PC/L		241	.6597500	.6087500	.7802200	9	0	58/03/12	68/05/08
01503 ALPHA	DISOLVED	PC/L		279	.2509000	.3037300	.5511200	4	0	58/03/12	68/05/08
			K	11	.0000000	.0000000	.0000000	0	0	67/09/07	68/02/16
			TOT	290	.2413800	.2944800	.5426600	4	0	58/03/12	68/05/08
01504 ALPHA-D	ERROR	PC/L		241	.5352700	.2497900	.4997900	1	0	58/03/12	68/05/08
01505 ALPHA	SUSP	PC/L		275	.4072700	2.585400	1.607900	23	0	58/03/12	68/05/08
			K	15	.0000000	.0000000	.0000000	0	0	67/06/23	67/11/08
			TOT	290	.3862100	2.459300	1.568200	23	0	58/03/12	68/05/08
01506 ALPHA-S	ERROR	PC/L		241	.4439800	.6312300	.7945000	9	0	58/03/12	68/05/08
02620 INVALID	PAR	NUMBER		1	4334E+58			4334E+58	4334E+58	79/09/20	79/09/20
03501 BETA	TOTAL	PC/L		437	40.85600	2433.110	49.32600	503	0	58/03/12	68/05/08
03502 BETA-T	ERROR	PC/L		333	6.360400	25.92400	5.091600	50	0	58/03/12	68/05/08
03503 BETA	DISOLVED	PC/L		437	32.07800	1318.100	36.30500	260	0	58/03/12	68/05/08
			K	1	.0000000			0	0	67/07/28	67/07/28
			TOT	438	32.00500	1317.400	36.29600	260	0	58/03/12	68/05/08

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03504	BETA-D	ERROR	PC/L		334	5.179600	25.27700	5.027600	70	0	58/03/12	68/05/08
03505	BETA	SUSP	PC/L		424	9.087300	761.9400	27.60300	435	0	58/03/12	68/05/08
				K	13	.0000000	.0000000	.0000000	0	0	67/06/23	68/02/16
				TOT	437	8.816900	741.6100	27.23300	435	0	58/03/12	68/05/08
03506	BETA-S	ERROR	PC/L		334	4.631700	23.46500	4.844000	60	0	58/03/12	68/05/08
13501	SR-90	TOTAL	PC/L		36	1.647200	1.168900	1.081100	4.8	.4	59/01/01	65/01/01
13502	SR-90	ERROR	PC/L		3	.2333300	.0033333	.0577350	.3	.2	64/10/01	65/01/01
31501	TOT COLI	MFIMENDO	/100ML		1050	5569.200	2464E+06	49641.00	1370000	1	68/01/12	83/05/17
				K	248	87.27000	65229.00	255.4000	2000	3	73/01/23	80/03/19
				L	18	19756.00	2371E+05	48699.00	200000	800	72/10/04	81/01/21
				TOT	1316	4730.200	2004E+05	44768.00	1370000	1	68/01/12	83/05/17
31503	TOT COLI	MFOLENDO	/100ML		455	5385.400	2183E+05	14778.00	240000	2	58/03/12	70/08/04
				K	54	337.4300	4725700	2173.900	16000	1	58/05/05	70/04/29
				L	3	25667.00	9403E+05	30665.00	60000	1000	67/02/08	69/10/29
				TOT	513	4972.600	2031E+05	14254.00	240000	1	58/03/12	70/08/04
31505	TOT COLI	MPN CONF	/100ML		770	55538.00	3571E+08	597610.0	13000000	2	60/07/12	73/03/07
				K	18	144.2300	219650.0	468.6700	2000	2	60/07/24	73/02/27
				L	3	1680000	1555E+09	1247100	2400000	240000	67/06/23	72/06/20
				TOT	791	60439.00	3616E+08	601370.0	13000000	2	60/07/12	73/03/07
31615	FEC COLI	MPNECMED	/100ML		242	20280.00	1400E+07	118360.0	1400000	2	62/05/07	74/09/26
				K	259	30.90300	45632.00	213.6200	2000	2	62/05/07	74/09/26
				L	3	1600000	1920E+09	1385700	2400000	2	67/06/20	72/06/20
				TOT	504	19278.00	2944E+07	171580.0	2400000	2	62/05/07	74/09/26
31616	FEC COLI	MFM-FCBR	/100ML		745	719.4700	19547000	4421.200	73000	0	68/01/12	83/08/10
				K	686	15.05400	6021.900	77.60100	2000	.3	68/03/06	83/05/10
				L	6	1416.700	1920700	1385.900	4000	400	73/09/18	78/04/19
				M	3	.0000000	.0000000	.0000000	0	0	73/05/01	73/09/12
				TOT	1440	385.3000	10244000	3200.600	73000	0	68/01/12	83/08/10
31679	FECSTREP	MF M-ENT	/100ML		298	224.6000	860690.0	927.7400	14000	0	73/05/01	83/08/09
				K	22	8.500000	68.73800	8.290900	40	1	73/11/08	83/02/22
				L	1	2000.000			2000	2000	74/02/12	74/02/12
				TOT	321	215.3200	811810.0	901.0000	14000	0	73/05/01	83/08/09
32000	SAMPLE	SIZE	LITERS		31	12180.00	27647000	5258.000	19095	1195	66/10/24	69/04/18
32001	SAMPLE	SIZE	GAL		155	4295.700	5524300	2350.400	15260	233	58/03/12	69/04/18
				J	48	3836.100	2208100	1486.000	6416	1000	62/11/26	68/09/20
				TOT	203	4187.000	4763700	2182.600	15260	233	58/03/12	69/04/18
32003	CCE AND	CAE	UG/L		203	183.3500	17101.00	130.7700	860	8	58/03/12	69/04/18
32004	CAE		UG/L		203	127.8600	11332.00	106.4500	640	6	58/03/12	69/04/18
32005	CCE		UG/L		203	55.48300	966.9600	31.09600	271	2	58/03/12	69/04/18
32021	ETHER	INSOLUBL	UG/L		78	1.769200	1.140900	1.068100	7	0	58/03/12	63/10/09
32022	WATER	SOLUBLES	UG/L		78	12.05100	17.99800	4.242300	29	5	58/03/12	63/10/09
32023	STRONG	ACIDS	UG/L		78	3.897400	3.625700	1.904100	9	1	58/03/12	63/10/09
32024	WEAK	ACIDS	UG/L		78	5.294900	3.275500	1.809900	11	2	58/03/12	63/10/09
32025	BASES		UG/L		78	.8718000	.1132200	.3364800	1	0	58/03/12	63/10/09

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STATISTICAL SUMMARY
ADDITIONAL STORET DATA - STUDY AREA COMPOSITE
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

	PARAMETER		RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
32026	NEUTRALS	UG/L		78	15.23100	38.75100	6.225100	54	7	58/03/12	63/10/09
32027	ALIPHA- TICS	UG/L		78	1.910300	3.641200	1.908200	15	1	58/03/12	63/10/09
32028	AROMATIC	UG/L		78	1.487200	1.032300	1.016000	8	1	58/03/12	63/10/09
32029	OXYGEN- ATES	UG/L		78	11.06400	13.02200	3.608600	29	5	58/03/12	63/10/09
32211	CHLRPHYL A UG/L	CORRECTD		535	3.166500	7.545000	2.746800	20.02	.14	82/02/09	83/08/11
			M	3	.3566700	.0394330	.1985800	.53	.14	82/09/08	82/09/08
			TOT	538	3.150800	7.546800	2.747200	20.02	.14	82/02/09	83/08/11
32212	CHLRPHYL B	UG/L		515	1.314100	1.048900	1.024200	4.62	.01	82/02/09	83/08/11
			M	23	.2052200	.0308440	.1756300	.80	.01	82/09/08	83/08/11
			TOT	538	1.266700	1.055600	1.027400	4.62	.01	82/02/09	83/08/11
32214	CHLRPHYL C	UG/L		520	1.932200	2.365530	1.538000	5.54	.00	82/02/09	83/08/11
			M	18	.1972200	.0451630	.2125200	.85	.01	82/09/08	83/08/11
			TOT	538	1.874200	2.385230	1.544400	5.54	.00	82/02/09	83/08/11
32218	PHEOPHTN A	UG/L		493	2.020600	1.679300	1.295900	6.12	.00	82/02/09	83/08/11
			M	45	.3755600	.1006400	.3172400	1.20	.01	82/03/10	83/08/10
			TOT	538	1.883000	1.754700	1.324600	6.12	.00	82/02/09	83/08/11
32223	CHLRPHYL A MG/M2	CORRECTD		8	128.1800	12331.30	111.0500	326.88	3.60	77/09/29	78/05/25
32224	PHEOPHTN A	MG/M2		13	40.23400	4909.200	70.06600	265.50	.00	76/09/30	78/05/25
32226	CHL B PERIPHTN	MG/M2		8	40.63400	981.1300	31.32300	88.55	1.90	77/09/29	78/05/25
32227	CHL C PERIPHTN	MG/M2		8	27.59600	341.9800	18.49300	49.46	1.90	77/09/29	78/05/25
32228	CHL A PERIPHTN	MG/M2		13	106.8200	7348.500	85.72400	284.34	4.14	76/09/30	78/05/25
32240	TANNIN LIGNIN	MG/L		1	.0900000			.09	.09	83/05/10	83/05/10
32730	PHENOLS TOTAL	UG/L		142	42.58500	36153.00	190.1400	1550	1	72/06/20	77/02/23
			K	118	1.381400	.7507600	.8664700	5	1	72/06/22	77/02/23
			TOT	260	23.88500	20104.00	141.7900	1550	1	72/06/20	77/02/23
34682	CDANEWET TECH&MET	TISMG/KG		2	25.02700	1247.300	35.31700	50.000	.054	78/02/15	78/02/15
38260	MBAS	MG/L		107	.1134600	.3356830	.5793800	6.03	.00	64/03/01	80/02/01
			K	127	.0359050	.0002132	.0146040	.10	.02	64/01/01	80/03/01
			TOT	234	.0713670	.1543300	.3928500	6.03	.00	64/01/01	80/03/01
39032	PCP	TOT UG/L	U	1	.0000000			.000	.000	78/05/24	78/05/24
39062	CHLORDAN C ISOMER	WWS-UG/L	U	1	.0000000			.000	.000	78/05/24	78/05/24
39065	CHLORDAN T ISOMER	WWS-UG/L	U	1	.0000000			.000	.000	78/05/24	78/05/24
39066	CHLORDAN T ISOMER	TIS-UG/G		1	.9100000			.910	.910	78/02/15	78/02/15
39068	NONACHLR C ISOMER	WWS-UG/L	U	1	.0000000			.000	.000	78/05/24	78/05/24
39071	NONACHLR T ISOMER	WWS-UG/L	U	1	.0000000			.000	.000	78/05/24	78/05/24
39300	P,P'DDT	TOT UG/L	U	1	.0000000			.000	.000	78/05/24	78/05/24
39302	P,P'DDT TISMG/KG	WET WGT		1	.0500000			.05	.05	78/02/15	78/02/15
39305	O,P' DDT WHL SMPL	UG/L	U	1	.0000000			.000	.000	78/05/24	78/05/24
39310	P,P'DDD	TOT UG/L	U	1	.0000000			.000	.000	78/05/24	78/05/24
39315	O,P' DDD WHL SMPL	UG/L	U	1	.0000000			.000	.000	78/05/24	78/05/24
39320	P,P'DDE	TOT UG/L	U	1	.0000000			.000	.000	78/05/24	78/05/24
39327	O P DDE WHL SMP	L UG/L	U	1	.0000000			.000	.000	78/05/24	78/05/24
39330	ALDRIN	TOT UG/L		5	.0000000	.0000000	.0000000	.000	.000	64/09/23	67/10/04
39334	ALDRIN SHELFISH	UG/KG WT	U	1	.0000000			.00	.00	78/05/24	78/05/24

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STATISTICAL SUMMARY
ADDITIONAL STORET DATA - STUDY AREA COMPOSITE
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
39340	GAMMABHC	LINDANE	TOT.UG/L		5	.0000000	.0000000	.0000000	.000	.000	64/09/23	67/10/04
39350	CHLRDANE	TECH&MET	TOT UG/L		1	.0000000			.000	.000	66/09/13	66/09/13
				N	1	.0000000			.000	.000	66/09/21	66/09/21
				U	1	.0000000			.000	.000	78/05/24	78/05/24
				TOT	3	.0000000	.0000000	.0000000	.000	.000	66/09/13	78/05/24
39360	DDD	WHL SMPL	UG/L		5	.0026000	.0000128	.0035777	.007	.000	64/09/23	67/10/04
39365	DDE	WHL SMPL	UG/L		3	.0000000	.0000000	.0000000	.000	.000	65/09/22	67/10/04
				N	2	.0000000	.0000000	.0000000	.000	.000	64/09/23	66/09/21
				TOT	5	.0000000	.0000000	.0000000	.000	.000	64/09/23	67/10/04
39370	DDT	WHL SMPL	UG/L		3	.0050000	.0000750	.0086603	.015	.000	65/09/22	67/10/04
				N	2	.0000000	.0000000	.0000000	.000	.000	64/09/23	66/09/21
				U	1	.0000000			.000	.000	78/05/24	78/05/24
				TOT	6	.0025000	.0000375	.0061237	.015	.000	64/09/23	78/05/24
39376	DDT SUM	TISSUE	UG/G		1	.0500000			.05	.05	78/02/15	78/02/15
39380	DIELDRIN		TOTUG/L		5	.0020000	.0000080	.0028284	.006	.000	64/09/23	67/10/04
				U	1	.0000000			.000	.000	78/05/24	78/05/24
				TOT	6	.0016667	.0000070	.0026583	.006	.000	64/09/23	78/05/24
39390	ENDRIN		TOT UG/L		5	.0018000	.0000062	.0024900	.005	.000	64/09/23	67/10/04
				U	1	.0000000			.000	.000	78/05/24	78/05/24
				TOT	6	.0015000	.0000055	.0023452	.005	.000	64/09/23	78/05/24
39410	HEPTCHLR		TOTUG/L		5	.0000000	.0000000	.0000000	.000	.000	64/09/23	67/10/04
39420	HPCHLREP		TOTUG/L		5	.0002000	.0000002	.0004472	.001	.000	64/09/23	67/10/04
39480	MTHXYCLR	WHL SMPL	UG/L	U	1	.0000000			.000	.000	78/05/24	78/05/24
39515	PCBS	FISH	MG/KG		34	.2913600	.1443000	.3798700	1.895	.020	76/10/15	80/10/07
39516	PCBS	WHL SMPL	UG/L	U	1	.0000000			.000	.000	78/05/24	78/05/24
39519	PCBS	MUD	UG/KG	K	4	1000.000	.0000000	.0000000	1000.00	1000.00	82/06/08	82/06/29
39700	HCB		TOT UG/L	U	1	.0000000			.000	.000	78/05/24	78/05/24
39782	LINDANE	WHL SMPL	UG/L	U	1	.0000000			.000	.000	78/05/24	78/05/24
46570	CAL HARD	CA MG	MG/L		2632	79.19400	540.2600	23.24400	280	8	60/07/12	83/08/30
50060	CHLORINE	TOT RESD	MG/L		29	54466.00	6387E+05	25274.00	111000.0	28300.00	75/01/07	75/06/03
50064	CHLORINE	FREE AVL	MG/L		1	46.00000			46.00	46.00	73/03/12	73/03/12
60050	ALGAE	TOTAL	/ML		177	732.2000	3244400	1801.200	16400	0	61/10/02	68/11/13
60100	ALGAE	COC BG	/ML		177	89.88700	1275800	1129.500	15030	0	61/10/02	68/11/13
60150	ALGAE	FIL BG	/ML		177	7.796600	2391.100	48.89900	620	0	61/10/02	68/11/13
60200	ALGAE	COC GRN	/ML		177	73.61600	19541.00	139.7900	1160	0	61/10/02	68/11/13
60250	ALGAE	FIL GRN	/ML		177	.7909600	24.37100	4.936700	40	0	61/10/02	68/11/13
60300	ALGAE	FLAG-GRN	/ML		177	39.54800	8414.600	91.73100	1060	0	61/10/02	68/11/13
60350	ALGAE	FLAG-OTH	/ML		177	18.75700	1381.400	37.16700	230	0	61/10/02	68/11/13
60390	DIATOMS	DOM SPEC	% OF TOT		149	30.03400	213.0900	14.59800	80	7	61/10/02	67/05/01
60391	% OF TOT	DIATOMS	2ND SPEC		3	17.00000	28.00000	5.291500	23.00	13.00	66/10/19	67/05/01
60392	% OF TOT	DIATOMS	3RD SPEC		3	10.00000	21.00000	4.582600	14.00	5.00	66/10/19	67/05/01
60393	% OF TOT	DIATOMS	4TH SPEC		3	8.666700	25.33300	5.033200	14.00	4.00	66/10/19	67/05/01
60394	% OF TOT	DIATOMS	OTH SPEC		3	30.00000	379.0000	19.46800	52.00	15.00	66/10/19	67/05/01
60400	DIATOMS	CENTRIC	/ML		177	379.3200	1720700	1311.700	15730	0	61/10/02	68/11/13

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STATISTICAL SUMMARY
ADDITIONAL STORET DATA - STUDY AREA COMPOSITE
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
60600	DIATOMS	PENNATE	/ML		177	122.0900	31642.00	177.8800	1670	0	61/10/02	68/11/13
60610	INERT	SHELLS	CNTRC/ML		11	108.1800	22716.00	150.7200	450	0	66/10/19	68/11/13
60620	INERT	SHELLS	PNATE/ML		11	8.181800	96.36400	9.816500	20	0	66/10/19	68/11/13
60820	PROTOZOA	TOTAL	/ML		59	1.017000	9.292800	3.048400	10	0	61/10/02	63/04/01
60850	ROTIFERS	TOTAL	/LITER		141	29.50400	6467.900	80.42300	590	0	61/10/02	65/06/07
60900	CRSTACEA	TOTAL	/LITER		140	1.757200	30.09900	5.486300	51	0	61/10/02	65/06/07
60950	NEMTODES	TOTAL	/LITER		139	.5827300	11.60700	3.406900	33	0	61/10/02	65/06/07
60990	ZOOPLANK	OTHER	/LITER		139	.0359710	.0494210	.2223100	2	0	61/10/02	65/06/07
61390	1ST DOM	SPECIES	DIATOMS		3	83.33300	560.3400	23.67200	97	56	66/10/19	67/05/01
61391	2ND DOM	SPECIES	DIATOMS		3	89.65700	65.34600	8.083700	98	84	66/10/19	67/05/01
61392	3RD DOM	SPECIES	DIATOMS		3	75.00000	412.0000	20.29800	97	57	66/10/19	67/05/01
61393	4TH DOM	SPECIES	DIATOMS		3	38.00000	972.0000	31.17700	56	2	66/10/19	67/05/01
70001	X SEC.	COMPOSIT	LOCATION		162	1939.000	1938700	1392.400	5020	1022	60/07/13	77/10/27
70300	RESIDUE	DISS-180	C MG/L		2232	105.7300	692.9400	26.32400	430	10	73/10/26	83/08/30
				L	1	90.00000			90	90	77/07/25	77/07/25
				TOT	2233	105.7200	692.7300	26.32000	430	10	73/10/26	83/08/30
70322	RESIDUE	TOT VOL	PERCENT		477	5.467500	5.013000	2.239000	35.7	.6	78/04/25	83/08/29
70331	SUSP SED	PARTSIZE	%<.062MM		21	74.99600	251.5900	15.86200	91	28	78/04/25	79/03/26
70332	SUSP SED	PARTSIZE	%<.125MM		21	87.65900	188.9500	13.74600	98	44	78/04/25	79/03/26
70334	SUSP SED	PARTSIZE	%<.500MM		21	99.40100	.7750000	.8803400	100	96	78/04/25	79/03/26
70336	SUSP SED	PARTSIZE	%<2.00MM		21	99.93100	.0406250	.2015600	100	99	78/04/25	79/03/26
70507	PHOS-T	ORTHO	MG/L P		121	.0169420	.0000897	.0094731	.070	.010	75/05/06	83/08/10
				K	32	.0100000	.0000000	.0000000	.010	.010	75/05/06	82/07/06
				TOT	153	.0154900	.0000788	.0088809	.070	.010	75/05/06	83/08/10
71000	ABUNDANT	ALGCOUNT	1ST DOM	A	1	900.0000			900	900	67/05/01	67/05/01
71010	ABUNDANT	ALGGENUS	1ST DOM		1	69.00000			69	69	67/05/01	67/05/01
71870	BROMIDE	BR	MG/L		60	.5100000	.7107400	.8430600	5.00	.10	76/09/29	77/10/27
				K	29	.5655200	.2094800	.4576900	1.00	.10	77/04/20	77/10/27
				TOT	89	.5280900	.5438600	.7374700	5.00	.10	76/09/29	77/10/27
71900	MERCURY	HG,TOTAL	UG/L		388	.7418800	2.808500	1.675900	22.0	.02	70/08/04	83/08/09
				K	1445	.2151500	.0084064	.0916860	2.0	.1	70/07/27	83/08/30
				TOT	1833	.3266500	.6462300	.8038900	22.0	.02	70/07/27	83/08/30
71921	MERCURY	SEDMG/KG	DRY WGT		75	.8772000	2.135500	1.461300	11.0	.06	70/07/27	82/06/10
				K	20	.1655000	.0070893	.0841980	.4	.05	70/08/04	82/06/29
				TOT	95	.7273700	1.767700	1.329500	11.0	.05	70/07/27	82/06/29
71930	MERCURY	TISMG/KG	WET WGT		55	.1379200	.0111840	.1057600	.60	.03	78/02/15	80/10/07
71936	LEAD	TISMG/KG	WET WGT		38	.5567100	.2265800	.4760100	2.54	.10	78/02/15	80/10/07
				K	26	.3461500	.5553800	.7452400	4.00	.20	78/02/15	79/10/16
				TOT	64	.4711700	.3643300	.6035900	4.00	.10	78/02/15	80/10/07
71937	COPPER	TISMG/KG	WET WGT		63	.9052400	2.677900	1.636400	11.00	.05	78/02/15	80/10/07
71939	CR-FISH	UG/G OR	MG/KG WT		51	.1464700	.0140950	.1187200	.62	.02	78/02/15	80/10/07
				K	16	.0200000	.0000000	.0000000	.02	.02	78/07/12	79/10/16
				TOT	67	.1162700	.0136300	.1167500	.62	.02	78/02/15	80/10/07
71940	CADMIUM	TISMG/KG	WET WGT		30	.1100000	.0861790	.2935600	1.64	.01	78/02/15	80/10/07

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255 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
ADDITIONAL STORET DATA - STUDY AREA COMPOSITE
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
71940	CADMIUM	TISMG/KG	WET WGT	K	33	.0193940	.0000246	.0049620	.04	.01	78/07/12	80/10/07
71940	CADMIUM	TISMG/KG	WET WGT	TOT	63	.0625400	.0424030	.2059200	1.64	.01	78/02/15	80/10/07
72033	AVG DAY	SPILLWAY	CFS		306	28350.00	1224E+05	11067.00	42000	0	74/07/02	74/09/26
74010	IRON	FE	MG/L		2	.1500000	.0050000	.0707110	.20	.10	72/10/03	72/11/01
74990	FISH	SPECIES	NUMERIC		88	36.75000	393.5910	19.83900	67	8	76/10/15	80/10/07
74995	ANATOMY		CODE		88	86.00000	.0000000	.0000000	86	86	76/10/15	80/10/07
80111	NITROGEN	DRY WGT	MG/KG		13	1008.900	320150.0	565.8200	2000.0	46.0	73/05/08	75/09/17
80203	TOT SED	SIEVE	%<.062MM		460	64.19600	578.7000	24.05600	100.0	.4	78/04/25	83/08/29
80204	TOT SED	SIEVE	%<.125MM		460	75.86700	496.7400	22.28800	100.0	.4	78/04/25	83/08/29
80206	TOT SED	SIEVE	%<.500MM		460	94.78600	222.6400	14.92100	100.0	.7	78/04/25	83/08/29
80208	TOT SED	SIEVE	%<2.00MM		460	97.03700	141.8400	11.91000	100.0	.8	78/04/25	83/08/29
81614	NO.INDV.	IN THE	SAMPLE		22	4.454600	6.164500	2.482900	14	2	76/10/15	80/10/07
81615	NO.DIFF.	SPECIES	IN SMPL		22	2.136400	1.552000	1.245800	6	1	76/10/15	80/10/07
84005	FISH	SPECIES	F &WL	TXT	88	TEXT	TEXT	TEXT	TEXT	TEXT	76/10/15	80/10/07
84007	ANATOMY	ALPHA	CODE	TXT	88	TEXT	TEXT	TEXT	TEXT	TEXT	76/10/15	80/10/07
84014	SPECIES	SEX	TEXT	TXT	70	TEXT	TEXT	TEXT	TEXT	TEXT	76/10/15	80/10/07

STORET RETRIEVAL DATE 85/06/12

1 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
ADDITIONAL STORET DATA - EAST FORK POPLAR CREEK MILE 0.0 - 14.8
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
2	HSAMPLOC	% FROM	RT BANK		8	50.000	0.000	0.000	50.0	50.0	67/06/23	68/04/24
10	WATER	TEMP	CENT		8	14.712	28.050	5.2962	19.0	2.0	67/06/23	68/04/24
61	STREAM	FLOW,	INST-CFS		8	33.125	126.98	11.269	59	21	67/06/23	68/04/24
70	TURB	JKSN	JTU		6	21.167	1153.8	33.967	90.0	4.0	67/06/23	68/04/24
				K	2	1.0000	0.0000	0.0000	1.0	1.0	67/09/26	67/10/19
				TOT	8	16.125	911.27	30.187	90.0	1.0	67/06/23	68/04/24
80	COLOR	PT-CO	UNITS		7	11.429	164.29	12.817	40	5	67/06/23	68/04/24
				K	1	5.0000			5	5	68/02/15	68/02/15
				TOT	8	10.625	145.98	12.082	40	5	67/06/23	68/04/24
95	CNDUCTVY	AT 25C	MICROMHO		8	246.25	1483.9	38.522	320	200	67/06/23	68/04/24
300	CO		MG/L		8	10.375	5.5079	2.3469	13.5	6.8	67/06/23	68/04/24
304	BOD	2 DAY	MG/L		1	1.9000			1.9	1.9	68/04/24	68/04/24
				K	7	1.0000	0.0000	0.0000	1.0	1.0	67/06/23	68/02/15
				TOT	8	1.1125	.10125	.31820	1.9	1.0	67/06/23	68/04/24
310	BOD	5 DAY	MG/L		2	2.7000	3.9200	1.9799	4.1	1.3	67/07/27	68/04/24
				K	6	1.0000	0.0000	0.0000	1.0	1.0	67/06/23	68/02/15
				TOT	8	1.4250	1.1793	1.0859	4.1	1.0	67/06/23	68/04/24
335	COD	LOWLEVEL	MG/L		8	7.8750	22.125	4.7037	18.0	4.0	67/06/23	68/04/24
400	PH		SU		8	7.8125	.12127	.34824	8.30	7.40	67/06/23	68/04/24
410	T ALK	CACO3	MG/L		8	104.25	107.36	10.361	115	84	67/06/23	68/04/24
415	PHEN-PH-	LFIN ALK	MG/L		8	0.0000	0.0000	0.0000	0	0	67/06/23	68/04/24
500	RESIDUE	TOTAL	MG/L		8	123.75	598.21	24.458	150	70	67/06/23	68/04/24
515	RESIDUE	DISS-105	C MG/L		8	101.25	583.93	24.165	130	70	67/06/23	68/04/24
605	ORG N	N	MG/L		7	.18000	.04490	.21190	.640	.030	67/06/23	68/04/24
				K	1	.01000			.010	.010	67/08/17	67/08/17
				TOT	8	.15875	.04209	.20518	.640	.010	67/06/23	68/04/24
610	NH3+NH4-	N TOTAL	MG/L		4	.06750	.00349	.05909	.150	.020	67/10/19	68/04/24
				K	4	.01000	.00000	.00000	.010	.010	67/06/23	67/09/26
				TOT	8	.03875	.00244	.04940	.150	.010	67/06/23	68/04/24
615	NO2-N	TOTAL	MG/L		4	.03500	.00190	.04358	.100	.010	67/06/23	68/04/24
				K	4	.01000	.00000	.00000	.010	.010	67/07/27	67/11/08
				TOT	8	.02250	.00099	.03151	.100	.010	67/06/23	68/04/24
620	NO3-N	TOTAL	MG/L		8	.27250	.06459	.25415	.880	.120	67/06/23	68/04/24
665	PHOS-TOT		MG/L P		8	.05053	.00546	.07395	.231	.007	67/06/23	68/04/24
666	PHOS-DIS		MG/L P		5	.05020	.00388	.06230	.160	.003	67/07/27	68/04/24
				K	2	.00326	1455E-14	.00000	.003	.003	67/06/23	67/08/17
				TOT	7	.03679	.00311	.05579	.160	.003	67/06/23	68/04/24
916	CALCIUM	CA-TOT	MG/L		7	22.429	11.285	3.3595	26.0	16.0	67/06/23	68/04/24
927	MGNSIUM	MG,TOT	MG/L		7	12.786	10.821	3.2896	17.0	6.5	67/06/23	68/04/24
929	SODIUM	NA,TOT	MG/L		9	1.3750	.77929	.88277	3.50	.80	67/06/23	68/04/24
937	PTSSIUM	K,TOT	MG/L		8	1.1375	1.4655	1.2106	4.10	.40	67/06/23	68/04/24
940	CHLORIDE	TOTAL	MG/L		8	3.7500	14.786	3.8452	13	1	67/06/23	68/04/24
945	SULFATE	SO4-TOT	MG/L		8	4.6250	15.696	3.9619	14	2	67/06/23	68/04/24
956	SILICA	TOTAL	MG/L		8	5.2375	1.8542	1.3617	7.4	2.9	67/06/23	68/04/24

STORET RETRIEVAL DATE 85/06/12

1 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
ADDITIONAL STORET DATA - EAST FORK POPLAR CREEK MILE 0.0 - 14.8
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
1042	COPPER	CU,TOT	UG/L		3	36.667	2133.3	46.188	90	10	67/08/17	68/04/24
				K	4	10.000	0.000	0.000	10	10	67/06/23	67/10/19
				TOT	7	21.429	914.29	30.237	90	10	67/06/23	68/04/24
1045	IRON	FE,TOT	UG/L		6	250.00	81880.	286.15	830	90	67/07/27	68/04/24
				K	1	50.000			50	50	67/06/23	67/06/23
				TOT	7	221.43	73948.	271.93	830	50	67/06/23	68/04/24
1046	IRON	FE,DISS	UG/L		2	50.000	0.000	0.000	50	50	67/07/27	67/10/19
				K	3	50.000	0.000	0.000	50	50	67/08/17	67/11/08
				TOT	5	50.000	0.000	0.000	50	50	67/07/27	67/11/08
1047	FERROUS	IRON	UG/L	K	7	50.000	0.000	0.000	50	50	67/07/27	68/04/24
1055	MANGNESE	MN	UG/L		6	36.667	2146.7	46.332	130.0	10.0	67/06/23	68/04/24
				K	1	10.000			10.0	10.0	67/11/08	67/11/08
				TOT	7	32.857	1890.5	43.480	130.0	10.0	67/06/23	68/04/24
1056	MANGNESE	MN,DISS	UG/L		1	40.000			40.0	40.0	67/07/27	67/07/27
				K	4	10.000	0.000	0.000	10.0	10.0	67/08/17	67/11/08
				TOT	5	16.000	180.00	13.416	40.0	10.0	67/07/27	67/11/08
1092	ZINC	ZN,TOT	UG/L		6	65.000	1150.0	33.912	100	10	67/07/27	68/04/24
				K	1	10.000			10	10	67/06/23	67/06/23
				TOT	7	57.143	1390.5	37.289	100	10	67/06/23	68/04/24
31505	TOT COLI	MPN CONF	/100ML		8	9025.3	7032801.	24638.	70000	62	67/06/23	68/04/24
31615	FEC COLI	MPNECMED	/100ML		7	342.66	322930.	568.27	1600	3	67/06/23	68/04/24
				K	1	2.3000			2	2	67/09/26	67/09/26
				TOT	8	300.11	291280.	539.70	1600	2	67/06/23	68/04/24
46570	CAL HARD	CA MG	MG/L		7	107.71	156.58	12.513	120	84	67/06/23	68/04/24

STATISTICAL SUMMARY
ADDITIONAL STORET DATA - BEAR CREEK
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

NO STORET DATA AVAILABLE

STORET RETRIEVAL DATE 85/06/12

3 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
ADDITIONAL STORET DATA - POPLAR CREEK MILE 0.0 - 14.0
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

	PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
2	HSAMPLOC	% FROM	RT BANK		12	50.000	0.000	0.000	50.0	50.0	67/06/23	73/05/09
8	LAB	IDENT.	NUMBER		7	869.00	55670.	235.95	1073	375	73/05/09	83/07/28
10	WATER	TEMP	CENT		17	15.106	32.684	5.7170	25.9	2.0	67/06/23	83/07/28
61	STREAM	FLOW,	INST-CFS		8	116.38	5389.4	73.413	235	20	67/06/23	68/04/24
70	TURB	JKSN	JTU		10	103.20	20785.	144.17	425.0	4.6	67/06/23	83/07/28
				K	1	1.0000			1.0	1.0	67/08/17	67/08/17
				TOT	11	93.909	19656.	140.20	425.0	1.0	67/06/23	83/07/28
80	COLOR	PT-CO	UNITS		9	13.889	136.11	11.667	40	5	67/06/23	73/05/09
81	AP COLOR	PT-CO	UNITS		1	180.00			180	180	73/05/09	73/05/09
95	CNDUCTVY	AT 25C	MICROMHO		14	231.57	5154.7	71.796	370	120	67/06/23	83/07/28
300	DO		MG/L		16	8.7125	2.0759	1.4408	12.8	7.0	67/06/23	83/07/28
304	BOD	2 DAY	MG/L		1	1.8000			1.8	1.8	68/04/24	68/04/24
				K	7	1.0000	0.0000	0.0000	1.0	1.0	67/06/23	68/02/15
				TOT	8	1.1000	.08000	.28284	1.8	1.0	67/06/23	68/04/24
310	BOD	5 DAY	MG/L		8	1.4375	.18268	.42741	2.1	1.0	67/07/27	83/07/28
				K	5	1.0000	0.0000	0.0000	1.0	1.0	67/06/23	82/11/30
				TOT	13	1.2692	.15565	.39452	2.1	1.0	67/06/23	83/07/28
335	COD	LOWLEVEL	MG/L		11	15.273	60.018	7.7471	28.0	5.0	67/06/23	83/07/28
				K	3	5.0000	0.0000	0.0000	5.0	5.0	82/10/27	83/06/20
				TOT	14	13.071	65.302	8.0810	28.0	5.0	67/06/23	83/07/28
339	COD MUD	DRY WGT	MG/KG		1	60500.			60500	60500	73/05/09	73/05/09
400	PH		SU		9	7.3222	.20947	.45768	8.00	6.50	67/06/23	73/05/09
403	LAB	PH	SU		5	7.5400	.10809	.32878	7.8	7.0	82/10/27	83/07/28
410	T ALK	CACO3	MG/L		11	66.982	787.21	28.057	110	33	67/06/23	83/07/28
415	PHEN-PH-	LFIN ALK	MG/L		9	0.0000	0.0000	0.0000	0	0	67/06/23	73/05/09
437	ACIDITY	FROM CO2	MG/L		2	8.5500	.60515	.77791	9	8	83/06/20	83/07/28
500	RESIDUE	TOTAL	MG/L		13	198.23	8759.7	93.593	450	80	67/06/23	83/07/28
515	RESIDUE	DISS-105	C MG/L		12	122.33	1999.2	44.712	204	30	67/06/23	83/07/28
530	RESIDUE	TOT NFLT	MG/L		6	41.667	3977.5	63.067	170	9	73/05/09	83/07/28
605	ORG N	N	MG/L		8	.35875	.07835	.27992	.860	.110	67/06/23	73/05/09
				K	1	.01000			.010	.010	67/08/17	67/08/17
				TOT	9	.32000	.08207	.28649	.860	.010	67/06/23	73/05/09
610	NH3+NH4-	N TOTAL	MG/L		8	.13625	.00454	.06738	.240	.070	67/10/19	83/06/20
				K	6	.01166	.00001	.00408	.020	.010	67/06/23	83/07/28
				TOT	14	.08285	.00554	.08090	.240	.010	67/06/23	83/07/28
615	NO2-N	TOTAL	MG/L		7	.01285	.00002	.00488	.020	.010	67/06/23	68/04/24
				K	1	.01000			.010	.010	67/11/07	67/11/07
				TOT	8	.01250	.00002	.00462	.020	.010	67/06/23	68/04/24
620	NO3-N	TOTAL	MG/L		8	.22250	.01002	.10011	.420	.110	67/06/23	68/04/24
630	NO2&NO3	N-TOTAL	MG/L		6	.75167	.09197	.30328	1.20	.37	73/05/09	83/07/28
635	NH3&ORG	N-TOTAL	MG/L		5	.81400	.26198	.51184	1.7	.5	82/10/27	83/07/28
665	PHOS-TOT		MG/L P		13	.13586	.01250	.11180	.424	.023	67/06/23	83/07/28
666	PHOS-DIS		MG/L P		8	.01711	.00010	.01027	.033	.003	67/06/23	68/04/24
668	PHOS MUD	DRY WGT	MG/KG-P		1	680.00			680.0	680.0	73/05/09	73/05/09

STORET RETRIEVAL DATE 85/06/12

3 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
ADDITIONAL STORET DATA - POPLAR CREEK MILE 0.0 - 14.0
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
680	T ORG C	C	MG/L	K	1	1.0000			1.0	1.0	83/03/28	83/03/28
722	CYANIDE	FREE CN	MG/L	K	1	.01000			.01	.01	73/05/09	73/05/09
900	TOT HARD	CACO3	MG/L		5	119.20	989.22	31.452	144	68	82/10/27	83/07/28
916	CALCIUM	CA-TOT	MG/L		8	20.375	110.55	10.514	35.0	6.0	67/06/23	73/05/09
927	MGNSIUM	MG,TOT	MG/L		8	9.1875	8.6384	2.9391	12.0	4.5	67/06/23	73/05/09
929	SODIUM	NA,TOT	MG/L		9	2.8444	.32779	.57253	3.70	1.90	67/06/23	73/05/09
937	PTSSIUM	K,TOT	MG/L		9	2.6444	2.7178	1.6486	5.60	.90	67/06/23	73/05/09
940	CHLORIDE	TOTAL	MG/L		9	4.3333	30.500	5.5227	19	2	67/06/23	73/05/09
945	SULFATE	SO4-TOT	MG/L		9	32.444	49.029	7.0021	40	17	67/06/23	73/05/09
951	FLUORIDE	F,TOTAL	MG/L		1	.14000			.14	.14	73/05/09	73/05/09
956	SILICA	TOTAL	MG/L		9	5.4111	1.6687	1.2918	7.8	3.6	67/06/23	73/05/09
1002	ARSENIC	AS,TOT	UG/L		2	1.0000	0.0000	0.0000	1	1	83/03/28	83/07/28
				K	4	2.0000	4.0000	2.0000	5	1	73/05/09	83/06/20
				TOT	6	1.6667	2.6667	1.6330	5	1	73/05/09	83/07/28
1003	ARSENIC	SEDMG/KG	DRY WGT		1	11.000			11.00	11.00	73/05/09	73/05/09
1007	BARIUM	BA,TOT	UG/L	K	1	100.00			100	100	73/05/09	73/05/09
1008	BA MUD	DRY WGT	MG/KG-BA		1	120.00			120.00	120.00	73/05/09	73/05/09
1012	BERYLIUM	BE,TOT	UG/L	K	1	10.000			10.00	10.00	73/05/09	73/05/09
1013	BERYLIUM	SEDMG/KG	DRY WGT	K	1	.60000			.60	.60	73/05/09	73/05/09
1022	BORON	B,TOT	UG/L	K	1	1000.0			1000	1000	73/05/09	73/05/09
1027	CADMIUM	CD,TOT	UG/L	K	6	1.0000	0.0000	0.0000	1	1	73/05/09	83/07/28
1028	CD MUD	DRY WGT	MG/KG-CD		1	2.5000			2.50	2.50	73/05/09	73/05/09
1029	CHROMIUM	SEDMG/KG	DRY WGT		1	74.000			74.00	74.00	73/05/09	73/05/09
1034	CHROMIUM	CR,TOT	UG/L		3	86.000	17803.	133.43	240	5	73/05/09	82/11/30
1037	COBALT	CO,TOTAL	UG/L	K	1	5.0000			5	5	73/05/09	73/05/09
1038	CO MUD	DRY WGT	MG/KG-CO		1	19.000			19.00	19.00	73/05/09	73/05/09
1042	COPPER	CU,TOT	UG/L		10	14.600	156.27	12.501	40	4	67/06/23	83/07/28
				K	3	10.000	0.000	0.000	10	10	67/07/27	67/10/19
				TOT	13	13.538	121.27	11.012	40	4	67/06/23	83/07/28
1043	COPPER	SEDMG/KG	DRY WGT		1	32.000			32.00	32.00	73/05/09	73/05/09
1045	IRON	FE,TOT	UG/L		10	1500.0	3617500.	1902.0	5900	140	67/06/23	83/07/28
1046	IRON	FE,DISS	UG/L		3	143.33	8133.4	90.185	230	50	67/10/19	73/05/09
				K	3	50.000	0.000	0.000	50	50	67/07/27	67/09/26
				TOT	6	96.667	5866.7	76.594	230	50	67/07/27	73/05/09
1047	FERROUS	IRON	UG/L		3	70.000	1200.0	34.641	110	50	67/11/07	73/05/09
				K	5	50.000	0.000	0.000	50	50	67/07/27	68/02/15
				TOT	8	57.500	450.00	21.213	110	50	67/07/27	73/05/09
1051	LEAD	PB,TOT	UG/L		1	10.000			10	10	83/07/28	83/07/28
				K	5	10.000	0.000	0.000	10	10	73/05/09	83/06/20
				TOT	6	10.000	0.000	0.000	10	10	73/05/09	83/07/28
1052	LEAD	SEDMG/KG	DRY WGT		1	30.000			30.00	30.00	73/05/09	73/05/09
1053	MN MUD	DRY WGT	MG/KG-MN		1	710.00			710.00	710.00	73/05/09	73/05/09
1055	MANGNESE	MN	UG/L		10	299.00	30682.	175.16	580.0	55.0	67/06/23	83/07/28
1056	MANGNESE	MN,DISS	UG/L		6	241.67	19977.	141.34	410.0	90.0	67/07/27	73/05/09

STORET RETRIEVAL DATE 85/06/12

3 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
ADDITIONAL STORET DATA - POPLAR CREEK MILE 0.0 - 14.0
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
1063	MO MUD	DRY WGT	MG/KG-MO	K	1	7.0000			7.00	7.00	73/05/09	73/05/09
1067	NICKEL	NI,TOTAL	UG/L	K	3	23.333	533.33	23.094	50	10	73/05/09	83/07/28
1068	NICKEL	SEDMG/KG	DRY WGT		1	39.000			39.00	39.00	73/05/09	73/05/09
1077	SILVER	AG,TOT	UG/L	K	1	10.000			10.0	10.0	73/05/09	73/05/09
1078	SILVER	SEDMG/KG	DRY WGT		1	3.1000			3.10	3.10	73/05/09	73/05/09
1082	STRONTUM	SR,TOT	UG/L		1	70.000			70	70	73/05/09	73/05/09
1083	SR MUD	DRY WGT	MG/KG-SR	K	1	3.1000			3.10	3.10	73/05/09	73/05/09
1088	V MUD	DRY WGT	MG/KG-V	K	1	31.000			31.00	31.00	73/05/09	73/05/09
1092	ZINC	ZN,TOT	UG/L		12	73.167	8404.5	91.676	280	2	67/06/23	83/07/28
				K	1	1.0000			1	1	82/10/27	82/10/27
				TOT	13	67.615	8104.8	90.026	280	1	67/06/23	83/07/28
1093	ZINC	SEDMG/KG	DRY WGT		1	92.000			92.00	92.00	73/05/09	73/05/09
1098	ANTIMONY	SEDMG/KG	DRY WGT	K	1	7.0000			7.00	7.00	73/05/09	73/05/09
1103	TIN MUD	DRY WGT	MG/KG-SN	K	1	62.000	-		62.00	62.00	73/05/09	73/05/09
1105	ALUMINUM	AL,TOT	UG/L		3	3866.7	38165000.	6177.8	11000	260	73/05/09	83/07/28
1108	AL MUD	DRY WGT	MG/KG-AL		1	5400.0			5400.00	5400.00	73/05/09	73/05/09
1132	LITHIUM	LI,TOT	UG/L		1	10.000			10	10	73/05/09	73/05/09
1133	LI MUD	DRY WGT	MG/KG-LI		1	5.4000			5.40	5.40	73/05/09	73/05/09
1147	SELENIUM	SE,TOT	UG/L	K	1	1.0000			1	1	73/05/09	73/05/09
1148	SELENIUM	SEDMG/KG	DRY WGT		1	8.0000			8.00	8.00	73/05/09	73/05/09
1170	FE MUD	DRY WGT	MG/KG-FE		1	12000.			12000.00	12000.00	73/05/09	73/05/09
31501	TOT COLI	MFIMENDO	/100ML		1	14100.			14100	14100	73/05/09	73/05/09
31505	TOT COLI	MPN CONF	/100ML		7	9071.4	8566200.	10420.	22000	360	67/07/27	68/04/24
				L	1	240000.			240000	240000	67/06/23	67/06/23
				TOT	8	37938.	6759E+06	82214.	240000	360	67/06/23	68/04/24
31615	FEC COLI	MPNECMED	/100ML		8	12268.	5744E+05	23967.	70000	35	67/06/23	68/04/24
31616	FEC COLI	MFM-FCBR	/100ML		1	5200.0			5200	5200	73/05/09	73/05/09
32730	PHENOLS	TOTAL	UG/L	K	1	1.0000			1	1	73/05/09	73/05/09
46570	CAL HARD	CA MG	MG/L		8	89.125	1209.8	34.783	140	48	67/06/23	73/05/09
71900	MERCURY	HG,TOTAL	UG/L		2	.55000	.04500	.21213	.7	.4	73/05/09	83/03/28
				K	4	.20000	.00000	.00000	.2	.2	82/10/27	83/07/28
				TOT	6	.31667	.04166	.20412	.7	.2	73/05/09	83/07/28
71921	MERCURY	SEDMG/KG	DRY WGT		1	11.000			11.0	11.0	73/05/09	73/05/09
80111	NITROGEN	DRY WGT	MG/KG		1	1100.0			1100.0	1100.0	73/05/09	73/05/09

STORET RETRIEVAL DATE 85/06/12

1 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
ADDITIONAL STORET DATA - WHITE OAK CREEK MILE 0.0 - 2.0
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

	PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
2	HSAMPLOC	% FROM	RT BANK		4	50.000	0.000	0.000	50.0	50.0	73/05/08	73/05/08
8	LAB	IDENT.	NUMBER		2	933.50	1.0000	1.0000	934	933	73/05/08	73/05/08
10	WATER	TEMP	CENT		4	17.900	.71330	.84457	18.9	17.2	73/05/08	73/05/08
70	TURB	JKSN	JTU		1	20.000			20.0	20.0	73/05/08	73/05/08
80	COLOR	PT-CO	UNITS		1	10.000			10	10	73/05/08	73/05/08
81	AP COLOR	PT-CO	UNITS		1	60.000			60	60	73/05/08	73/05/08
95	CNDUCTVY	AT 25C	MICROMHO		1	270.00			270	270	73/05/08	73/05/08
300	DO		MG/L		3	11.400	.07019	.26493	11.6	11.1	73/05/08	73/05/08
310	BOD	5 DAY	MG/L		1	2.1000			2.1	2.1	73/05/08	73/05/08
335	COD	LOWLEVEL	MG/L		1	13.000			13.0	13.0	73/05/08	73/05/08
339	COD MUD	DRY WGT	MG/KG		1	47900.			47900	47900	73/05/08	73/05/08
400	PH		SU		1	8.2000			8.20	8.20	73/05/08	73/05/08
410	T ALK	CACO3	MG/L		1	93.000			93	93	73/05/08	73/05/08
415	PHEN-PH-	LFIN ALK	MG/L		1	0.0000			0	0	73/05/08	73/05/08
515	RESIDUE	DISS-105	C MG/L		1	120.00			120	120	73/05/08	73/05/08
530	RESIDUE	TOT NFLT	MG/L		1	14.000			14	14	73/05/08	73/05/08
605	ORG N	N	MG/L		1	.26000			.260	.260	73/05/08	73/05/08
610	NH3+NH4-	N TOTAL	MG/L		1	.01000			.010	.010	73/05/08	73/05/08
630	NO2&NO3	N-TOTAL	MG/L		1	.12000			.12	.12	73/05/08	73/05/08
665	PHOS-TOT		MG/L P		1	.05868			.059	.059	73/05/08	73/05/08
668	PHOS MUD	DRY WGT	MG/KG-P		1	311.00			311.0	311.0	73/05/08	73/05/08
722	CYANIDE	FREE CN	MG/L	K	1	.01000			.01	.01	73/05/08	73/05/08
916	CALCIUM	CA-TOT	MG/L		1	37.000			37.0	37.0	73/05/08	73/05/08
927	MGNSIUM	MG,TOT	MG/L		1	7.5000			7.5	7.5	73/05/08	73/05/08
929	SODIUM	NA,TOT	MG/L		1	12.000			12.00	12.00	73/05/08	73/05/08
937	PTSSIUM	K,TOT	MG/L		1	1.8000			1.80	1.80	73/05/08	73/05/08
940	CHLORIDE	TOTAL	MG/L		1	5.0000			5	5	73/05/08	73/05/08
945	SULFATE	SO4-TOT	MG/L		1	32.000			32	32	73/05/08	73/05/08
951	FLUORIDE	F,TOTAL	MG/L		1	.50000			.50	.50	73/05/08	73/05/08
956	SILICA	TOTAL	MG/L		1	5.5000			5.5	5.5	73/05/08	73/05/08
1002	ARSENIC	AS,TOT	UG/L	K	1	5.0000			5	5	73/05/08	73/05/08
1003	ARSENIC	SEDMG/KG	DRY WGT		1	23.000			23.00	23.00	73/05/08	73/05/08
1007	BARIUM	BA,TOT	UG/L	K	1	100.00			100	100	73/05/08	73/05/08
1008	BA MUD	DRY WGT	MG/KG-BA		1	82.000			82.00	82.00	73/05/08	73/05/08
1012	BERYLIUM	BE,TOT	UG/L	K	1	10.000			10.00	10.00	73/05/08	73/05/08
1013	BERYLIUM	SEDMG/KG	DRY WGT	K	1	.60000			.60	.60	73/05/08	73/05/08
1022	BORON	B,TOT	UG/L	K	1	1000.0			1000	1000	73/05/08	73/05/08
1027	CADMIUM	CD,TOT	UG/L	K	1	1.0000			1	1	73/05/08	73/05/08
1028	CD MUD	DRY WGT	MG/KG-CD		1	.30000			.30	.30	73/05/08	73/05/08
1029	CHROMIUM	SEDMG/KG	DRY WGT		1	8.0000			8.00	8.00	73/05/08	73/05/08
1034	CHROMIUM	CR,TOT	UG/L		1	150.00			150	150	73/05/08	73/05/08
1037	COBALT	CO,TOTAL	UG/L	K	1	5.0000			5	5	73/05/08	73/05/08
1038	CO MUD	DRY WGT	MG/KG-CO		1	7.0000			7.00	7.00	73/05/08	73/05/08
1042	COPPER	CU,TOT	UG/L		1	30.000			30	30	73/05/08	73/05/08

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STATISTICAL SUMMARY
ADDITIONAL STORET DATA - WHITE OAK CREEK MILE 0.0 - 2.0
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
1043	COPPER	SEDMG/KG	DRY WGT		1	8.9000			8.90	8.90	73/05/08	73/05/08
1045	IRON	FE,TOT	UG/L		1	1200.0			1200	1200	73/05/08	73/05/08
1046	IRON	FE,DISS	UG/L	K	1	50.000			50	50	73/05/08	73/05/08
1047	FERROUS	IRON	UG/L	K	1	10.000			10	10	73/05/08	73/05/08
1051	LEAD	PB,TOT	UG/L	K	1	10.000			10	10	73/05/08	73/05/08
1052	LEAD	SEDMG/KG	DRY WGT		1	21.000			21.00	21.00	73/05/08	73/05/08
1053	MN MUD	DRY WGT	MG/KG-MN		1	1600.0			1600.00	1600.00	73/05/08	73/05/08
1055	MANGNESE	MN	UG/L		1	100.00			100.0	100.0	73/05/08	73/05/08
1056	MANGNESE	MN,DISS	UG/L		1	10.000			10.0	10.0	73/05/08	73/05/08
1063	MO MUD	DRY WGT	MG/KG-MO	K	1	7.0000			7.00	7.00	73/05/08	73/05/08
1067	NICKEL	NI,TOTAL	UG/L	K	1	50.000			50	50	73/05/08	73/05/08
1068	NICKEL	SEDMG/KG	DRY WGT		1	7.0000			7.00	7.00	73/05/08	73/05/08
1077	SILVER	AG,TOT	UG/L	K	1	10.000			10.0	10.0	73/05/08	73/05/08
1078	SILVER	SEDMG/KG	DRY WGT		1	1.3000			1.30	1.30	73/05/08	73/05/08
1082	STRONTUM	SR,TOT	UG/L		1	100.00			100	100	73/05/08	73/05/08
1083	SR MUD	DRY WGT	MG/KG-SR	K	1	3.2000			3.20	3.20	73/05/08	73/05/08
1088	V MUD	DRY WGT	MG/KG-V	K	1	32.000			32.00	32.00	73/05/08	73/05/08
1092	ZINC	ZN,TOT	UG/L		1	110.00			110	110	73/05/08	73/05/08
1093	ZINC	SEDMG/KG	DRY WGT		1	29.000			29.00	29.00	73/05/08	73/05/08
1098	ANTIMONY	SEDMG/KG	DRY WGT	K	1	7.0000			7.00	7.00	73/05/08	73/05/08
1103	TIN MUD	DRY WGT	MG/KG-SN	K	1	64.000			64.00	64.00	73/05/08	73/05/08
1105	ALUMINUM	AL,TOT	UG/L		1	1900.0			1900	1900	73/05/08	73/05/08
1108	AL MUD	DRY WGT	MG/KG-AL		1	1500.0			1500.00	1500.00	73/05/08	73/05/08
1132	LITHIUM	LI,TOT	UG/L	K	1	10.000			10	10	73/05/08	73/05/08
1133	LI MUD	DRY WGT	MG/KG-LI		1	1.3000			1.30	1.30	73/05/08	73/05/08
1147	SELENIUM	SE,TOT	UG/L	K	1	1.0000			1	1	73/05/08	73/05/08
1148	SELENIUM	SEDMG/KG	DRY WGT	K	1	1.0000			1.00	1.00	73/05/08	73/05/08
1170	FE MUD	DRY WGT	MG/KG-FE		1	6000.0			6000.00	6000.00	73/05/08	73/05/08
31501	TOT COLI	MFIMENDO	/100ML		1	90.000			90	90	73/05/08	73/05/08
31616	FEC COLI	MFM-FCBR	/100ML		1	10.000			10	10	73/05/08	73/05/08
32730	PHENOLS	TOTAL	UG/L	K	1	1.0000			1	1	73/05/08	73/05/08
46570	CAL HARD	CA MG	MG/L		1	120.00			120	120	73/05/08	73/05/08
71900	MERCURY	HG,TOTAL	UG/L		1	.60000			.6	.6	73/05/08	73/05/08
71921	MERCURY	SEDMG/KG	DRY WGT		1	1.1000			1.1	1.1	73/05/08	73/05/08
80111	NITROGEN	DRY WGT	MG/KG		1	670.00			670.0	670.0	73/05/08	73/05/08

STORET RETRIEVAL DATE 85/06/12

60 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
ADDITIONAL STORET DATA - CLINCH RIVER MILE 0.0 - 95.0
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
2	HSAMPLOC	% FROM	RT BANK		2364	47.522	375.17	19.369	99.0	1.0	61/06/06	83/08/30
				D	20	51.000	62.105	7.8807	70.0	30.0	82/11/29	83/08/30
				S	20	52.000	62.105	7.8807	71.0	31.0	82/11/29	83/08/30
				TOT	2404	47.588	370.17	19.240	99.0	1.0	61/06/06	83/08/30
8	LAB	IDENT.	NUMBER		321	73307.	34285+07	185150.	621609	0	60/11/13	83/08/30
10	WATER	TEMP	CENT		4398	14.848	25.895	5.0887	29.0	.8	61/06/06	83/08/30
				D	19	12.584	19.805	4.4503	21.1	6.1	65/12/06	83/05/02
				TOT	4417	14.838	25.886	5.0879	29.0	.8	61/06/06	83/08/30
20	AIR	TEMP	CENT		2	23.000	12.500	3.5355	25.5	20.5	72/10/03	72/11/01
23	WEIGHT		POUNDS		18	3.1700	8.7007	2.9497	13.75	1.19	78/10/25	80/10/07
24	LENGTH		INCHES		18	17.972	11.735	3.4256	27.00	13.75	78/10/25	80/10/07
60	STREAM	FLOW	CFS		52	5510.7	12454000.	3529.0	15990	545	60/12/18	79/06/25
61	STREAM	FLOW,	INST-CFS		1512	9051.2	36637000.	6052.8	95000	0	67/06/23	83/08/30
				M	5	635.00	130880.	361.77	1060	200	83/03/14	83/05/09
				TOT	1517	9033.5	36750000.	6062.2	95000	0	67/06/23	83/08/30
65	STREAM	STAGE	FEET		6	3765.0	2760500.	1661.5	5470.00	794.30	60/11/13	68/08/27
70	TURB	JKSN	JTU		889	13.375	700.55	26.468	500.0	.5	60/11/13	83/08/30
				K	24	1.0000	0.0000	0.0000	1.0	1.0	67/06/20	80/06/10
				TOT	913	13.050	686.03	26.192	500.0	.5	60/11/13	83/08/30
76	TURB	TRBIDMTR	HACH FTU		138	7.4768	19.644	4.4321	38.0	2.2	82/11/29	83/08/30
80	COLOR	PT-CO	UNITS		809	9.8047	253.34	16.228	231	0	60/11/13	83/06/01
				K	47	4.0000	1.4348	1.1978	5	1	61/09/21	83/08/01
				TOT	856	9.4860	250.69	15.833	231	0	60/11/13	83/08/01
81	AP COLOR	PT-CO	UNITS		674	39.012	4008.7	63.314	496	1	60/11/13	83/08/01
				K	1	3.0000			3	3	83/03/01	83/03/01
				TOT	675	38.959	4004.7	63.282	496	1	60/11/13	83/08/01
85	ODOR	THRSH NO	RM. TEMP		14	1.2857	.68132	.82542	4.0	1.0	61/06/06	62/01/24
				K	106	1.0000	0.0000	0.0000	1.0	1.0	61/06/06	67/11/02
				TOT	120	1.0333	.08291	.28795	4.0	1.0	61/06/06	67/11/02
94	CNDUCTVY	FIELD	MICROMHO		375	250.48	353.63	18.805	288	150	82/11/29	83/08/30
95	CNDUCTVY	AT 25C	MICROMHO		1763	222.02	1868.7	43.229	600	2	60/12/04	83/08/30
98	VSAMPLOC	DEPTH	METERS		873	6.3660	107.77	10.381	57.00	.30	78/07/25	83/08/30
300	DO		MG/L		2270	8.4833	4.1045	2.0260	24.5	.1	61/06/06	83/08/30
				D	1758	7.6003	7.5387	2.7457	15.1	.1	61/10/02	83/08/29
				K	2	.10000	.00000	.00000	.1	.1	70/09/30	70/09/30
				TOT	4030	8.0939	5.8225	2.4130	24.5	.1	61/06/06	83/08/30
310	BOD	5 DAY	MG/L		237	1.4139	.32834	.57301	4.0	.4	61/06/06	83/08/30
				K	228	1.0219	.07440	.27278	5.0	1.0	61/07/11	83/06/20
				TOT	465	1.2217	.24188	.49182	5.0	.4	61/06/06	83/08/30
326	BOD	28 DAY	MG/L		2	1.1000	0.0000	0.0000	1.1	1.1	70/09/30	70/09/30
335	COD	LOWLEVEL	MG/L		530	5.6311	40.894	6.3949	76.0	1.0	66/11/30	83/07/28
				K	30	3.4000	3.9724	1.9931	5.0	1.0	74/05/06	83/08/30
				TOT	560	5.5116	39.159	6.2577	76.0	1.0	66/11/30	83/08/30
339	COD MUD	DRY WGT	MG/KG		5	28034.	18235+05	13526.	44900	10367	73/05/08	76/11/16

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60 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
ADDITIONAL STORET DATA - CLINCH RIVER MILE 0.0 - 95.0
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
340	COD	HI LEVEL	MG/L		48	5.7806	15.589	3.9483	23	1	73/04/05	78/12/18
				K	12	5.0000	0.0000	0.0000	5	5	75/04/17	78/11/28
				TOT	60	6.4245	12.934	3.5964	23	1	73/04/05	78/12/18
400	PH		SU		2125	7.8295	.42035	.64835	11.30	6.40	61/06/06	83/08/30
403	LAB	PH	SU		228	7.7688	.10566	.32658	8.5	6.6	60/11/13	83/08/30
410	T ALK	CACO3	MG/L		1156	92.463	2445.6	49.453	790	3	60/11/13	83/08/30
415	PHEN-PH-	LFIN ALK	MG/L		1195	.16695	1.9430	1.3939	20	0	60/11/13	83/08/15
				K	1	1.0000			1	1	83/04/11	83/04/11
				TOT	1196	.16764	1.9420	1.3935	20	0	60/11/13	83/08/15
431	T ALK	FIELD	MG/L		119	104.64	42.754	6.5387	115	62	82/11/29	83/08/30
435	T ACDITY	CACO3	MG/L		1	115.00			115	115	83/04/11	83/04/11
437	ACIDITY	FROM CO2	MG/L		199	2.8774	7.8611	2.8038	20	0	60/11/13	83/08/30
				K	3	1.6667	.33334	.57735	2	1	78/02/01	83/03/28
				TOT	202	2.8594	7.7686	2.7872	20	0	60/11/13	83/08/30
500	RESIDUE	TOTAL	MG/L		315	176.13	5725.1	75.665	677	18	60/11/13	83/08/30
505	RESIDUE	TOT VOL	MG/L		5	141.80	1069.2	32.699	199	118	60/12/18	61/01/15
515	RESIDUE	DISS-105	C MG/L		330	136.37	1736.4	41.670	549	3	60/11/13	83/08/01
530	RESIDUE	TOT NFLT	MG/L		941	18.029	1925.2	43.877	557	0	60/11/13	83/08/30
				K	66	1.1364	.48881	.69915	5	1	73/01/23	83/06/26
				TOT	1007	16.921	1816.4	42.619	557	0	60/11/13	83/08/30
572	BIOMASS	PERPHYTN	G/SQ M		2	1.2834	.59750	.77298	1.830	.737	76/10/10	78/05/24
573	BIOMASS	PERPHYTN	DW G/M2		2	5.5655	2.6195	1.6185	6.71	4.42	76/10/10	78/05/24
605	ORG N	N	MG/L		730	.19560	.05990	.24475	2.400	.010	60/11/13	80/06/10
				K	15	.01000	9313E-14	.00001	.010	.010	61/07/11	78/10/17
				R	4	.37250	.08142	.28535	.660	.080	74/02/04	74/02/06
				TOT	750	.19259	.05952	.24397	2.400	.010	60/11/13	80/06/10
610	NH3+NH4-	N TOTAL	MG/L		730	.04169	.00352	.05935	1.200	.010	60/11/13	83/08/30
				K	54	.03166	.00150	.03883	.100	.010	60/11/20	80/06/10
				TOT	784	.04100	.00338	.05820	1.200	.010	60/11/13	83/08/30
615	NO2-N	TOTAL	MG/L		40	.01925	.00210	.04587	.300	0.000	60/11/13	71/07/28
				K	34	.00417	.00001	.00436	.010	.001	60/11/13	71/07/28
				TOT	74	.01232	.00119	.03449	.300	0.000	60/11/13	71/07/28
620	NO3-N	TOTAL	MG/L		157	.32605	.09811	.31324	2.800	.040	60/11/13	76/06/15
				K	7	.01857	.00001	.00378	.020	.010	61/01/08	62/11/04
				TOT	164	.31293	.09779	.31272	2.800	.010	60/11/13	76/06/15
621	NO3 MUD	DRY WGT	MG/KG-N		1	2.0000			2.00	2.00	75/09/10	75/09/10
				K	1	1.0000			1.00	1.00	76/11/16	76/11/16
				TOT	2	1.5000	.50000	.70711	2.00	1.00	75/09/10	76/11/16
625	TOT KJEL	N	MG/L		21	.15429	.00745	.08640	.440	.090	75/05/06	75/09/03
626	ORGAN. N	MUD D WT	MG/KG-N		2	1299.5	690310.	830.85	1887.00	712.00	75/09/10	76/11/16
630	NO2&NO3	N-TOTAL	MG/L		807	.49401	.07504	.27395	3.00	.01	72/10/03	83/08/30
				K	10	.01000	5174E-14	.00000	.01	.01	77/03/07	80/11/25
				R	2	4.3500	.24501	.49499	4.70	4.00	75/05/06	76/08/16
				TOT	819	.49752	.11345	.33683	4.70	.01	72/10/03	83/08/30

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PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
635 NH3&ORG	N-TOTAL	MG/L		162	.52469	.16485	.40602	2.8	.1	73/09/12	83/08/30
			K	19	.10053	.00100	.03170	.2	.01	75/07/15	81/02/26
			TOT	181	.48016	.16455	.40565	2.8	.01	73/09/12	83/08/30
665 PHOS-TOT		MG/L P		882	.03892	.00394	.06281	.990	0.000	60/11/20	83/08/30
			K	134	.01538	.00008	.00910	.100	.002	60/11/13	80/06/10
			R	1	1.0000			1.000	1.000	76/05/17	76/05/17
			TOT	1017	.03676	.00441	.06640	1.000	0.000	60/11/13	83/08/30
666 PHOS-DIS		MG/L P		152	.02146	.00592	.07694	.940	.033	66/11/30	77/10/12
			K	123	.00988	.00000	.00085	.010	.003	67/06/20	77/07/13
			R	14	.64946	.20817	.45626	1.000	.020	73/01/23	77/04/12
			TOT	289	.04696	.03107	.17629	1.000	.003	66/11/30	77/10/12
668 PHOS MUD	DRY WGT	MG/KG-P		5	329.60	22858.	151.19	530.0	159.0	73/05/08	76/11/16
671 PHOS-DIS	ORTHO	MG/L P		3	.01666	.00013	.01154	.030	.010	79/03/20	79/11/07
			K	4	.01000	.00000	.00000	.010	.010	79/09/12	80/06/10
			TOT	7	.01285	.00005	.00755	.030	.010	79/03/20	80/06/10
677 PHOS-DIS	HYD+ORTH	MG/L P		2	.01000	.00000	.00000	.01	.01	79/06/12	79/06/12
			K	27	.01000	4478E-14	.00000	.01	.01	79/04/24	79/08/14
			TOT	29	.01000	4989E-14	.00000	.01	.01	79/04/24	79/08/14
680 T ORG C	C	MG/L		495	2.5309	9.0985	3.0164	35.0	.3	72/10/03	82/12/19
			K	19	1.0684	1.0401	1.0198	5.0	.2	73/04/05	83/04/01
			R	10	1.4100	.13656	.36953	2.3	1.1	76/08/05	76/08/05
			TOT	524	2.4565	8.7284	2.9544	35.0	.2	72/10/03	83/04/01
681 D ORG C	C	MG/L		183	1.0978	.95516	.97732	9.5	.2	75/03/11	79/03/20
			K	9	.20000	5215E-11	.00022	.2	.2	75/05/06	75/09/03
			TOT	192	1.0557	.94635	.97281	9.5	.2	75/03/11	79/03/20
690 T-CARBON	C	MG/L		3	16.667	186.33	13.650	26.0	1.0	72/10/24	82/11/29
722 CYANIDE	FREE CN	MG/L	K	5	.01000	.00000	.00000	.01	.01	73/01/23	73/06/07
900 TOT HARD	CACO3	MG/L		261	108.40	381.79	19.539	163	14	60/11/13	83/08/30
910 CALCIUM	CACO3	MG/L		220	71.029	242.86	15.584	125.0	7.5	60/11/13	83/08/01
915 CALCIUM	CA,DISS	MG/L		2	3.2000	.17999	.42426	3.5	2.9	72/10/03	72/11/01
916 CALCIUM	CA-TOT	MG/L		682	30.132	29.285	5.4115	46.0	2.0	66/11/30	83/08/30
920 MGNSIUM	CACO3	MG/L		147	36.141	136.73	11.693	88.0	6.7	60/11/13	77/08/25
			K	2	50.000	0.000	0.000	50.0	50.0	60/11/20	60/12/04
			TOT	149	36.327	137.44	11.724	88.0	6.7	60/11/13	77/08/25
927 MGNSIUM	MG,TOT	MG/L		751	8.1949	2.6833	1.6381	16.0	1.1	66/11/30	83/08/30
929 SODIUM	NA,TOT	MG/L		613	3.7269	91.773	9.5798	234.00	.50	60/11/13	83/08/01
930 SODIUM	NA,DISS	MG/L		2	8.9500	2.2051	1.4850	10.00	7.90	72/10/03	72/11/01
934 NA MUD	DRY WGT	MG/KG-NA		2	105.50	2520.5	50.205	141.00	70.00	75/09/10	76/11/16
937 PTSSIUM	K,TOT	MG/L		616	1.5107	.40390	.63553	9.40	.40	60/11/13	83/08/01
938 K MUD	DRY WGT	MG/KG-K		2	336.00	5832.0	76.368	390.00	282.00	75/09/10	76/11/16
940 CHLORIDE	TOTAL	MG/L		742	3.5469	4.8156	2.1944	30	1	60/11/13	83/08/01
			K	1	1.0000			1	1	61/11/20	61/11/20
			TOT	743	3.5435	4.8178	2.1950	30	1	60/11/13	83/08/01
945 SULFATE	SO4-TOT	MG/L		638	16.595	61.527	7.8439	130	1	60/11/13	83/08/01

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PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
950 FLUORIDE	F,DISS	MG/L		83	.14673	.01077	.10378	.50	0.00	60/11/13	83/08/01
			K	137	.09963	.00001	.00428	.10	.05	60/11/20	83/06/01
			TOT	220	.11740	.00456	.06758	.50	0.00	60/11/13	83/08/01
951 FLUORIDE	F,TOTAL	MG/L		101	.11188	.02438	.15615	.93	.03	66/11/30	77/07/19
			K	102	.10000	6610E-11	.00025	.10	.10	75/02/18	77/09/25
			TOT	203	.10591	.01210	.11002	.93	.03	66/11/30	77/09/25
955 SILICA	DISOLVED	MG/L		407	4.5939	3.6687	1.9154	28.0	.3	60/11/20	83/08/01
			K	14	1.0000	0.0000	0.0000	1.0	1.0	78/01/01	80/06/01
			TOT	421	4.4744	3.9625	1.9906	28.0	.3	60/11/20	83/08/01
956 SILICA	TOTAL	MG/L		125	4.2840	1.6092	1.2685	7.5	.9	66/11/30	75/03/11
980 IRON	TOT REC	UG/L		28	396.79	31904.	178.62	860	210	82/11/29	83/01/10
1002 ARSENIC	AS,TOT	UG/L		56	3.3214	30.368	5.5107	33	1	74/12/12	83/06/10
			K	192	2.8021	9.3533	3.0583	20	1	73/01/23	83/08/30
			TOT	248	2.9194	14.042	3.7473	33	1	73/01/23	83/08/30
1003 ARSENIC	SEDMG/KG	DRY WGT		6	8.6333	28.807	5.3672	16.00	2.00	73/05/08	82/06/29
1004 ARSENIC	TISMG/KG	WET WGT		2	.19500	.00245	.04949	.23	.15	80/10/07	80/10/07
			K	7	.07057	.00050	.02239	.08	.02	78/10/25	80/10/07
			TOT	9	.09822	.00369	.06077	.23	.02	78/10/25	80/10/07
1005 BARIUM	BA,DISS	UG/L	K	28	100.00	0.00	0.00	100	100	82/11/29	83/01/10
1007 BARIUM	BA,TOT	UG/L		67	49.418	1824.9	42.718	200	10	73/04/05	83/08/01
			K	91	83.132	1252.6	35.392	100	5	73/01/23	83/07/01
			TOT	158	68.835	1764.5	42.007	200	5	73/01/23	83/08/01
1008 BA MUD	DRY WGT	MG/KG-BA		5	107.20	2789.2	52.813	180.00	50.00	73/05/08	76/11/16
1009 BARIUM	TOT.REC.	UG/L	K	28	100.00	0.00	0.00	100.00	100.00	82/11/29	83/01/10
1012 BERYLIUM	BE,TOT	UG/L		2	10.000	0.000	0.000	10.00	10.00	76/12/07	77/09/06
			K	66	10.000	0.000	0.000	10.00	10.00	73/01/23	77/09/25
			TOT	68	10.000	0.000	0.000	10.00	10.00	73/01/23	77/09/25
1013 BERYLIUM	SEDMG/KG	DRY WGT		2	1.4500	.04500	.21214	1.60	1.30	73/06/07	82/06/29
			K	2	.65000	.00500	.07071	.70	.60	73/05/08	73/08/02
			TOT	4	1.0500	.23000	.47958	1.60	.60	73/05/08	82/06/29
1022 BORON	B,TOT	UG/L		34	126.76	15435.	124.24	680	20	74/12/19	79/01/09
			K	32	350.31	170750.	413.21	1000	10	73/01/23	75/11/25
			TOT	66	235.15	101940.	319.28	1000	10	73/01/23	79/01/09
1027 CADMIUM	CD,TOT	UG/L		83	1.6446	11.044	3.3233	24	.1	73/01/24	83/08/03
			K	405	1.2153	2.8929	1.7009	20	.1	71/07/28	83/08/30
			TOT	489	1.2881	4.2827	2.0695	24	.1	71/07/28	83/08/30
1028 CD MUD	DRY WGT	MG/KG-CD		3	.60000	.04000	.20000	.80	.40	73/05/08	73/08/02
			K	3	1.0000	0.0000	0.0000	1.00	1.00	75/09/10	82/06/29
			TOT	6	.80000	.06400	.25298	1.00	.40	73/05/08	82/06/29
1029 CHROMIUM	SEDMG/KG	DRY WGT		5	11.500	18.700	4.3243	18.00	7.00	73/05/08	82/06/29
1034 CHROMIUM	CR,TOT	UG/L		142	11.777	508.50	22.550	180	0	61/04/16	83/08/01
			K	368	4.2068	10.287	3.2074	40	.1	61/06/11	83/08/03
			TOT	510	5.3145	159.81	12.642	180	0	61/04/16	83/08/03
1037 COBALT	CO,TOTAL	UG/L		15	12.500	20.000	4.4721	20	10	78/02/01	82/12/01

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
1037	COBALT	CO,TOTAL	UG/L	K	56	8.2143	5.8442	2.4175	10	5	73/05/08	83/08/01
1037	COBALT	CO,TOTAL	UG/L	TOT	72	9.1667	11.972	3.4600	20	5	73/05/08	83/08/01
1038	CO MUD	DRY WGT	MG/KG-CO		3	17.533	49.454	7.0323	23.00	9.60	73/05/08	73/08/02
1040	COPPER	CU,DISS	UG/L	K	137	10.000	0.000	0.000	10	10	82/11/29	83/08/30
				R	1	40.000			40	40	83/01/10	83/01/10
				TOT	138	10.217	6.5218	2.5538	40	10	82/11/29	83/08/30
1042	COPPER	CU,TOT	UG/L		410	61.946	81396.	285.30	5400	1	66/11/30	83/08/30
				K	232	9.8621	1.1411	1.0682	10	1	66/11/30	83/08/15
				TOT	642	43.125	52563.	229.27	5400	1	66/11/30	83/08/30
1043	COPPER	SEDMG/KG	DRY WGT		6	16.733	132.51	11.511	34.00	7.00	73/05/08	82/06/29
1045	IRON	FE,TOT	UG/L		777	681.50	1179600.	1086.1	9200	29	60/11/13	83/08/30
				K	17	40.294	251.47	15.858	50	10	75/01/20	83/03/08
				TOT	794	667.77	1163000.	1078.4	9200	10	60/11/13	83/08/30
1046	IRON	FE,DISS	UG/L		36	136.94	8633.3	92.915	320	50	67/07/28	82/11/29
				K	174	50.000	0.000	0.000	50	50	67/07/27	83/01/10
				R	3	186.67	6933.4	83.267	280	120	76/07/15	83/01/10
				TOT	213	66.620	2761.2	52.547	320	50	67/07/27	83/01/10
1047	FERROUS	IRON	UG/L		108	57.685	1847.9	42.987	360	10	67/11/02	75/10/15
				K	29	42.759	170.69	13.065	50	20	67/06/20	75/09/16
				TOT	137	54.526	1526.4	39.070	360	10	67/06/20	75/10/15
1051	LEAD	PB,TOT	UG/L		146	14.171	117.63	10.846	86	1	73/04/18	83/08/30
				K	337	9.4926	13.965	3.7370	50	1	73/01/23	83/08/01
				TOT	483	10.907	49.749	7.0533	86	1	73/01/23	83/08/30
1052	LEAD	SEDMG/KG	DRY WGT		5	40.900	631.20	26.100	72.00	10.00	73/05/08	82/06/29
				K	1	5.0000			5.00	5.00	76/11/16	76/11/16
				TOT	6	34.833	758.57	27.542	72.00	5.00	73/05/08	82/06/29
1053	MN MUD	DRY WGT	MG/KG-MN		6	1869.0	1381600.	1175.4	3500.00	684.00	73/05/08	82/06/29
1055	MANGNESE	MN	UG/L		634	106.87	38505.	196.23	2600.0	0.0	60/12/18	83/08/30
				K	48	31.252	533.38	23.095	100.0	.05	60/11/13	83/03/08
				TOT	682	101.55	36202.	190.27	2600.0	0.0	60/11/13	83/08/30
1056	MANGNESE	MN,DISS	UG/L		51	48.039	7196.1	84.830	410.0	10.0	67/07/27	80/06/10
				K	119	10.000	0.000	0.000	10.0	10.0	67/10/19	79/03/20
				R	2	50.000	200.00	14.142	60.0	40.0	76/07/15	76/07/15
				TOT	172	21.744	2416.8	49.161	410.0	10.0	67/07/27	80/06/10
1063	MO MUD	DRY WGT	MG/KG-MO	K	3	6.6667	.33340	.57741	7.00	6.00	73/05/08	73/08/02
1065	NICKEL	NI,DISS	UG/L		6	1.1667	.16667	.40825	2	1	82/11/29	82/11/29
				K	20	1.0000	0.0000	0.0000	1	1	82/11/29	83/01/10
				R	2	4.5000	4.5000	2.1213	6	3	83/01/10	83/01/10
				TOT	28	1.2857	1.0265	1.0131	6	1	82/11/29	83/01/10
1067	NICKEL	NI,TOTAL	UG/L		51	36.471	2815.6	53.062	270	1	73/08/30	83/08/30
				K	368	39.823	327.99	18.111	50	1	73/01/23	83/07/28
				TOT	419	39.415	625.97	25.019	270	1	73/01/23	83/08/30
1068	NICKEL	SEDMG/KG	DRY WGT		6	14.567	34.887	5.9065	23.00	8.40	73/05/08	82/06/29
1074	NICKEL	TOT.REC.	UG/L		7	1.4286	.28572	.53452	2	1	82/11/29	83/01/10

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1074 NICKEL	TOT.REC.	UG/L	K	21	1.0000	0.0000	0.0000	1	1	82/11/29	83/01/10
1074 NICKEL	TOT.REC.	UG/L	TOT	29	1.1071	.09920	.31497	2	1	82/11/29	83/01/10
1077 SILVER	AG,TOT	UG/L		8	11.375	770.84	27.764	80.0	1.0	76/10/05	82/04/01
			K	127	5.7480	20.349	4.5110	10.0	1.0	73/01/23	83/08/01
			TOT	135	6.0815	61.180	7.8218	80.0	1.0	73/01/23	83/08/01
1078 SILVER	SEDMG/KG	DRY WGT		3	1.3000	.49000	.70000	2.00	.60	73/05/08	73/08/02
			K	1	1.0000			1.00	1.00	82/06/29	82/06/29
			TOT	4	1.2250	.34917	.59090	2.00	.60	73/05/08	82/06/29
1082 STRONTUM	SR,TOT	UG/L		5	148.00	2770.0	52.631	200	90	73/05/08	73/11/08
1083 SR MUD	DRY WGT	MG/KG-SR	K	3	3.1667	.02333	.15274	3.30	3.00	73/05/08	73/08/02
1088 V MUD	DRY WGT	MG/KG-V	K	3	32.000	4.0000	2.0000	34.00	30.00	73/05/08	73/08/02
1090 ZINC	ZN,DISS	UG/L		7	12.857	23.810	4.8795	20	10	68/04/25	82/12/19
			K	15	10.000	0.000	0.000	10	10	82/11/29	82/12/19
			R	7	607.14	1212700.	1101.2	2900	20	83/01/10	83/01/10
			TOT	29	154.83	327290.	572.09	2900	10	68/04/25	83/01/10
1092 ZINC	ZN,TOT	UG/L		351	54.826	15229.	123.41	1900	1	66/11/30	83/08/30
			K	115	9.9217	.70439	.83928	10	1	67/08/15	83/07/13
			TOT	466	43.745	11839.	108.81	1900	1	66/11/30	83/08/30
1093 ZINC	SEDMG/KG	DRY WGT		6	56.667	1247.5	35.320	120.00	26.00	73/05/08	82/06/29
1094 ZINC(ZN)	TOT.REC.	UG/L		15	24.000	197.14	14.041	60	10	82/11/29	82/12/19
			K	13	10.000	0.000	0.000	10	10	82/11/29	83/01/10
			TOT	28	17.500	152.78	12.360	60	10	82/11/29	83/01/10
1097 ANTIMONY	SB,TOT	UG/L		1	1.0000			1	1	79/11/01	79/11/01
			K	36	8.0833	665.11	25.790	150	1	73/09/12	80/06/01
			L	1	100.00			100	100	76/04/10	76/04/10
			TOT	38	10.316	853.74	29.219	150	1	73/09/12	80/06/01
1098 ANTIMONY	SEDMG/KG	DRY WGT	K	5	5.4000	6.8000	2.6077	7.00	1.00	73/05/08	76/11/16
1103 TIN MUD	DRY WGT	MG/KG-SN	K	3	63.667	12.336	3.5123	67.00	60.00	73/05/08	73/08/02
1105 ALUMINUM	AL,TOT	UG/L		154	803.08	3795400.	1948.2	22000	20	73/01/23	83/08/30
			K	22	189.09	1284.9	35.845	200	60	73/04/18	79/02/19
			TOT	176	726.34	3359900.	1833.0	22000	20	73/01/23	83/08/30
1108 AL MUD	DRY WGT	MG/KG-AL		3	5933.3	7843400.	2800.6	7600.00	2700.00	73/05/08	73/08/02
1119 COPPER	TOT.REC.	UG/L		14	27.143	160.44	12.666	40	10	82/12/06	83/02/08
			K	124	10.000	0.000	0.000	10	10	82/11/29	83/08/30
			TOT	138	11.739	42.209	6.4968	40	10	82/11/29	83/08/30
1132 LITHIUM	LI,TOT	UG/L		5	12.000	20.000	4.4721	20	10	76/03/02	77/07/19
			K	58	10.000	0.000	0.000	10	10	73/05/08	77/09/25
			TOT	63	10.159	1.5874	1.2599	20	10	73/05/08	77/09/25
1133 LI MUD	DRY WGT	MG/KG-LI		3	6.3333	12.763	3.5726	9.10	2.30	73/05/08	73/08/02
1147 SELENIUM	SE,TOT	UG/L		26	5.0385	101.80	10.090	42	1	74/01/15	83/04/13
			K	147	1.2857	.20548	.45330	2	1	73/01/23	83/08/03
			TOT	173	1.8497	16.780	4.0963	42	1	73/01/23	83/08/03
1148 SELENIUM	SEDMG/KG	DRY WGT		2	2.0000	0.0000	0.0000	2.00	2.00	73/05/08	73/06/07
			K	4	1.8000	4.6933	2.1664	5.00	.20	73/08/02	82/06/29

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60 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
ADDITIONAL STORET DATA - CLINCH RIVER MILE 0.0 - 95.0
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INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
1148	SELENIUM	SEDMG/KG	DRY WGT	TOT	5	1.8667	2.8267	1.6813	5.00	.20	73/05/08	82/06/29
1152	TITANIUM	TI,TOT	UG/L	K	60	1000.0	0.0	0.0	1000	1000	73/08/30	77/09/25
1170	FE MUD	DRY WGT	MG/KG-FE		6	14555.	77488000.	8802.7	30000.00	5430.00	73/05/08	82/06/29
1501	ALPHA	TOTAL	PC/L		7	.42857	.61905	.78680	2	0	67/06/23	68/02/16
1502	ALPHA-T	ERROR	PC/L		7	.42857	.28571	.53452	1	0	67/06/23	68/02/16
1503	ALPHA	DISOLVED	PC/L		5	.60000	.80000	.89443	2	0	67/06/23	67/11/08
				K	2	.00000	.00000	.00000	0	0	67/09/26	68/02/16
				TOT	7	.42857	.61905	.78680	2	0	67/06/23	68/02/16
1504	ALPHA-D	ERROR	PC/L		7	.42857	.28571	.53452	1	0	67/06/23	68/02/16
1505	ALPHA	SUSP	PC/L		2	.00000	.00000	.00000	0	0	67/07/28	68/02/16
				K	5	.00000	.00000	.00000	0	0	67/06/23	67/11/08
				TOT	7	.00000	.00000	.00000	0	0	67/06/23	68/02/16
1506	ALPHA-S	ERROR	PC/L		7	.00000	.00000	.00000	0	0	67/06/23	68/02/16
3501	BETA	TOTAL	PC/L		7	1.7143	1.9048	1.3801	4	0	67/06/23	68/02/16
3502	BETA-T	ERROR	PC/L		7	1.0000	0.0000	0.0000	1	1	67/06/23	68/02/16
3503	BETA	DISOLVED	PC/L		6	1.8333	.96667	.98319	3	0	67/06/23	68/02/16
				K	1	.00000			0	0	67/07/28	67/07/28
				TOT	7	1.5714	1.2857	1.1339	3	0	67/06/23	68/02/16
3504	BETA-D	ERROR	PC/L		7	1.0000	0.0000	0.0000	1	1	67/06/23	68/02/16
3505	BETA	SUSP	PC/L		1	1.0000			1	1	67/11/08	67/11/08
				K	6	.00000	.00000	.00000	0	0	67/06/23	68/02/16
				TOT	7	.14286	.14286	.37796	1	0	67/06/23	68/02/16
3506	BETA-S	ERROR	PC/L		7	.00000	.00000	.00000	0	0	67/06/23	68/02/16
31501	TOT COLI	MFIMENDO	/100ML		133	6925.2	3386E+05	18401.	125000	1	71/07/28	77/11/30
				K	53	9.8679	.92465	.96159	10	3	73/05/08	77/03/07
				L	1	6000.0			6000	6000	75/09/16	75/09/16
				TOT	187	4960.3	2500E+05	15813.	125000	1	71/07/28	77/11/30
31505	TOT COLI	MPN CONF	/100ML		208	3557.4	82310000.	9072.5	70000	6	61/06/06	72/11/01
				K	6	57.500	7141.5	84.507	230	23	61/06/11	62/05/31
				TOT	214	3459.3	80327000.	8962.5	70000	6	61/06/06	72/11/01
31615	FEC COLI	MPNECMED	/100ML		40	2401.3	52259000.	7229.1	43000	2	62/05/07	72/11/01
				K	1	2.3000			2	2	68/04/25	68/04/25
				L	1	2.3000			2	2	67/06/20	67/06/20
				TOT	42	2287.1	49977000.	7069.5	43000	2	62/05/07	72/11/01
31616	FEC COLI	MFM-FCBR	/100ML		154	493.19	1418800.	1191.1	8200	0	71/07/28	82/07/27
				K	110	20.636	851.89	29.187	100	10	73/05/08	82/06/09
				M	1	0.0000			0	0	73/09/12	73/09/12
				TOT	265	295.19	877240.	936.61	8200	0	71/07/28	82/07/27
31679	FECSTREP	MF M-ENT	/100ML		64	171.45	461990.	679.70	5300	0	75/09/10	82/07/27
				K	3	7.0000	27.000	5.1962	10	1	76/11/08	82/03/29
				TOT	67	164.09	442170.	664.96	5300	0	75/09/10	82/07/27
32223	CHLRPHYL	A MG/M2	CORRECTD		1	3.6000			3.60	3.60	78/05/24	78/05/24
32224	PHEOPHTN	A	MG/M2		2	3.9920	2.9185	1.7084	5.20	2.78	76/10/10	78/05/24
32226	CHL B	PERIPHTN	MG/M2		1	2.5000			2.50	2.50	78/05/24	78/05/24

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	PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
32227	CHL C	PERIPHTN	MG/M2		1	2.5000			2.50	2.50	78/05/24	78/05/24
32228	CHL A	PERIPHTN	MG/M2		2	5.8715	5.9754	2.4445	7.60	4.14	76/10/10	78/05/24
32730	PHENOLS	TOTAL	UG/L	K	3	1.0000	0.0000	0.0000	1	1	73/05/08	74/02/18
38260	MBAS		MG/L		10	.66300	3.5574	1.8861	6.03	.03	78/01/01	80/02/01
				K	17	.03000	.00000	.00000	.03	.03	78/03/01	80/03/01
				TOT	27	.26444	1.3285	1.1526	6.03	.03	78/01/01	80/03/01
39032	PCP		TOT UG/L	U	1	000000			0.000	0.000	78/05/24	78/05/24
39062	CHLORDAN	C ISOMER	WWS-UG/L	U	1	000000			0.000	0.000	78/05/24	78/05/24
39065	CHLORDAN	T ISOMER	WWS-UG/L	U	1	000000			0.000	0.000	78/05/24	78/05/24
39068	NONACHLR	C ISOMER	WWS-UG/L	U	1	000000			0.000	0.000	78/05/24	78/05/24
39071	NONACHLR	T ISOMER	WWS-UG/L	U	1	000000			0.000	0.000	78/05/24	78/05/24
39300	P,P'DDT		TOT UG/L	U	1	000000			0.000	0.000	78/05/24	78/05/24
39305	O,P' DDT	WHL SMPL	UG/L	U	1	000000			0.000	0.000	78/05/24	78/05/24
39310	P,P'DDD		TOT UG/L	U	1	000000			0.000	0.000	78/05/24	78/05/24
39315	O,P' DDD	WHL SMPL	UG/L	U	1	000000			0.000	0.000	78/05/24	78/05/24
39320	P,P'DDE		TOT UG/L	U	1	000000			0.000	0.000	78/05/24	78/05/24
39327	O P DDE	WHL SMP	L UG/L	U	1	000000			0.000	0.000	78/05/24	78/05/24
39334	ALDRIN	SHELFISH	UG/KG WT	U	1	000000			0.00	0.00	78/05/24	78/05/24
39350	CHLRDANE	TECH&MET	TOT UG/L	U	1	000000			0.000	0.000	78/05/24	78/05/24
39370	DDT	WHL SMPL	UG/L	U	1	000000			0.000	0.000	78/05/24	78/05/24
39380	DIELDRIN		TOTUG/L	U	1	000000			0.000	0.000	78/05/24	78/05/24
39390	ENDRIN		TOT UG/L	U	1	000000			0.000	0.000	78/05/24	78/05/24
39480	MTHXYCLR	WHL SMPL	UG/L	U	1	000000			0.000	0.000	78/05/24	78/05/24
39515	PCBS	FISH	MG/KG		11	.34527	.08955	.29926	.893	.102	78/10/25	80/10/07
39516	PCBS	WHL SMPL	UG/L	U	1	.00000			0.000	0.000	78/05/24	78/05/24
39519	PCBS	MUD	UG/KG	K	1	1000.0			1000.00	1000.00	82/06/29	82/06/29
39700	HCB		TOT UG/L	U	1	0.00			0.000	0.000	78/05/24	78/05/24
39782	LINDANE	WHL SMPL	UG/L	U	1	0.00			0.000	0.000	78/05/24	78/05/24
46570	CAL HARD	CA MG	MG/L		788	106.42	408.41	20.209	170	22	61/06/06	83/08/30
70300	RESIDUE	DISS-180	C MG/L		726	127.92	455.85	21.351	410	10	73/10/30	83/08/30
70322	RESIDUE	TOT VOL	PERCENT		21	5.2019	5.1738	2.2746	9.2	1.8	78/07/25	82/06/29
70507	PHOS-T	ORTHO	MG/L P		72	.01527	.00009	.00978	.070	.010	75/05/06	75/09/03
				K	24	.01000	7085E-14	.00000	.010	.010	75/05/06	75/09/03
				TOT	96	.01395	.00007	.00876	.070	.010	75/05/06	75/09/03
71900	MERCURY	HG,TOTAL	UG/L		76	.79276	2.3115	1.5204	9.1	.2	73/01/23	83/02/22
				K	397	.21108	.00790	.08892	1.0	.2	70/08/05	83/08/30
				TOT	473	.30454	.41966	.64781	9.1	.2	70/08/05	83/08/30
71921	MERCURY	SEDMG/KG	DRY WGT		6	.23667	.01830	.13530	.4	.06	70/08/05	76/11/16
				K	1	.10000			.1	.1	82/06/29	82/06/29
				TOT	7	.21714	.01792	.13388	.4	.06	70/08/05	82/06/29
71930	MERCURY	TISMG/KG	WET WGT		8	.19000	.00605	.07782	.28	.10	80/10/07	80/10/07
71936	LEAD	TISMG/KG	WET WGT		16	.24594	.03329	.18246	.82	.10	78/10/25	80/10/07
				K	2	.20000	.00000	.00000	.20	.20	78/10/25	78/10/25
				TOT	18	.24083	.02959	.17203	.82	.10	78/10/25	80/10/07

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ADDITIONAL STORET DATA - CLINCH RIVER MILE 0.0 - 95.0
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
71937	COPPER	TISMG/KG	WET WGT		18	.45778	.11963	.34588	1.51	.05	78/10/25	80/10/07
71939	CR-FISH	UG/G OR	MG/KG WT		20	.20300	.00925	.09619	.37	.05	78/10/25	80/10/07
71940	CADMIUM	TISMG/KG	WET WGT		12	.03000	.00043	.02088	.08	.01	78/10/25	80/10/07
				K	5	.01200	.00002	.00447	.02	.01	78/10/25	80/10/07
				TOT	17	.02470	.00037	.01940	.08	.01	78/10/25	80/10/07
74010	IRON	FE	MG/L		2	.15000	.00500	.07071	.20	.10	72/10/03	72/11/01
74990	FISH	SPECIES	NUMERIC		19	24.789	256.73	16.023	64	12	78/10/25	80/10/07
74995	ANATOMY		CODE		19	86.000	0.000	0.000	86	86	78/10/25	80/10/07
80111	NITROGEN	DRY WGT	MG/KG		3	1350.0	482500.	694.62	1800.0	550.0	73/05/08	73/08/02
80203	TOT SED	SIEVE	%<.062MM		21	66.068	327.57	18.099	90.2	37.2	78/07/25	82/06/29
80204	TOT SED	SIEVE	%<.125MM		21	77.656	252.08	15.877	97.9	49.1	78/07/25	82/06/29
80206	TOT SED	SIEVE	%<.500MM		21	99.359	.66875	.81777	100.0	96.5	78/07/25	82/06/29
80208	TOT SED	SIEVE	%<2.00MM		21	99.986	.00625	.07905	100.0	99.7	78/07/25	82/06/29
81614	NO.INDV.	IN THE	SAMPLE		1	14.000			14	14	80/10/07	80/10/07
81615	NO.DIFF.	SPECIES	IN SMPL		1	6.0000			6	6	80/10/07	80/10/07
84005	FISH	SPECIES	F &WL	TE	19	TEXT	TEXT	TEXT	TEXT	TEXT	78/10/25	80/10/07
84007	ANATOMY	ALPHA	CODE	TE	19	TEXT	TEXT	TEXT	TEXT	TEXT	78/10/25	80/10/07
84014	SPECIES	SEX	TEXT	TE	18	TEXT	TEXT	TEXT	TEXT	TEXT	78/10/25	80/10/07

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192 TOTAL STATIONS PROCESSED

STATISTICAL SUMMARY
ADDITIONAL STORET DATA - TENNESSEE RIVER MILE 385.0 - 575.0
WATER, SEDIMENT, FISH, AND AQUATIC BIOTA
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PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
2 HSAMPLOC	% FROM	RT BANK		11569	47.750	730.30	27.024	99.0	0.0	60/07/12	83/08/29
3 VSAMPLOC	DEPTH	FEET		9	6.1111	34.861	5.9043	16	1	75/11/06	77/02/23
8 LAB	IDENT.	NUMBER		1959	112500.	.5197E+07	227980.	682363	0	60/11/23	83/08/09
10 WATER	TEMP	CENT		17571	18.717	54.937	7.4119	305.0	0.0	58/03/12	83/08/31
			D	15	16.567	79.353	8.9080	30.0	3.5	66/11/07	83/07/19
			R	7	10.600	.00008	.00902	10.6	10.6	73/11/07	73/11/07
			TOT	17593	18.712	54.961	7.4136	305.0	0.0	58/03/12	83/08/31
11 WATER	TEMP	FAHN		232	77.297	8.9913	2.9986	80.0	70.0	74/08/01	74/09/26
23 WEIGHT		POUNDS		49	2.8831	12.519	3.5383	17.50	.12	78/02/15	79/10/16
24 LENGTH		INCHES		48	17.875	289.79	17.023	125.00	2.50	78/02/15	79/10/16
31 INCDT LT	REMNING	PERCENT		251	17.325	547.03	23.389	87.0	.01	80/11/17	83/08/11
			K	11	.01000	9313E-14	.00001	.01	.01	81/05/04	83/08/11
			TOT	262	16.598	536.08	23.153	87.0	.01	80/11/17	83/08/11
58 FLOW	RATE	GPM		38	5642.8	85779000.	9261.7	27780.00	8.00	72/06/19	73/03/08
59 FLOW	RATE	INST-GPM		18	69.333	9013.9	94.941	368.00	1.00	72/06/20	73/03/08
60 STREAM	FLOW	CFS		917	37667.	4475400.	20112.	215000	4200	58/03/12	79/06/22
61 STREAM	FLOW,	INST-CFS		2437	36779.	3365E+05	18345.	284400	0	68/10/15	83/08/30
64 DEPTH OF	STREAM	MEAN(FT)		421	27.751	98.070	9.9030	50.0	11.0	64/05/13	64/08/20
70 TURB	JKSN	JTU		3954	13.854	359.25	18.954	510.0	.4	58/03/12	83/08/01
			K	145	23.841	26.549	5.1623	25.0	1.0	61/07/11	80/11/12
			TOT	4099	14.207	350.88	18.732	510.0	.4	58/03/12	83/08/01
76 TURB	TRBIDMTR	HACH FTU		400	8.7017	55.646	7.4596	60.0	.8	81/03/18	83/08/11
78 TRANSP	SECCHI	METERS		35	1.5886	.21119	.45956	2.75	.75	80/11/17	83/08/11
80 COLOR	PT-CO	UNITS		3287	14.459	171.37	13.091	140	0	58/03/12	83/08/18
			K	56	3.6786	2.0675	1.4379	7	.5	61/11/20	83/08/01
			TOT	3343	14.278	170.45	13.056	140	0	58/03/12	83/08/18
81 AP COLOR	PT-CO	UNITS		2292	55.398	4275.0	65.383	1470	3	60/11/23	83/08/11
			K	5	2.6000	.80001	.89443	3	1	75/08/01	83/07/01
			TOT	2297	55.283	4271.7	65.358	1470	1	60/11/23	83/08/11
85 ODOR	THRSH NO	RM. TEMP		143	1.4965	1.7729	1.3315	8.0	0.0	60/07/12	74/10/10
			K	541	1.0000	0.0000	0.0000	1.0	1.0	60/07/12	73/12/05
			TOT	684	1.1038	.40942	.63986	8.0	0.0	60/07/12	74/10/10
90 REDOX	ORP.	MV		106	525.94	1439.1	37.869	600	450	81/04/21	81/07/07
94 CNDUCTVY	FIELD	MICROMHO		484	162.84	883.79	29.729	210	70	83/02/15	83/08/11
95 CNDUCTVY	AT 25C	MICROMHO		7576	172.43	27924.	167.11	8333	3	60/07/12	83/08/09
			R	1	240.00			240	240	75/03/12	75/03/12
			TOT	7577	172.44	27921.	167.10	8333	3	60/07/12	83/08/09
98 VSAMPLOC	DEPTH	METERS		3134	3.9563	16.312	4.0388	22.00	.20	77/03/04	83/08/11
100 TIME OF	TRAVEL	HOURS		1	10.000			10.0	10.0	74/01/09	74/01/09
300 CO		MG/L		14274	7.6965	5.9989	2.4493	111.0	.2	58/03/12	83/08/31
			D	3203	7.8078	5.2043	2.2813	17.3	.9	61/10/02	83/08/30
			K	1	.10000			.1	.1	73/07/05	73/07/05
			TOT	17478	7.7165	5.8578	2.4203	111.0	.1	58/03/12	83/08/31
304 BOD	2 DAY	MG/L	K	1	1.0000			1.0	1.0	67/09/07	67/09/07

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310	BOD	5 DAY	MG/L		2879	4.4953	5569.2	74.627	3500.0	0.0	58/03/12	83/08/18
				K	837	1.1525	2.6149	1.6171	28.0	.05	60/08/06	83/06/21
				L	2	86.500	12961.	113.84	167.0	6.0	73/03/07	80/11/12
				TOT	3718	3.7869	4321.8	65.740	3500.0	0.0	58/03/12	83/08/18
335	COD	LOWLEVEL	MG/L		2164	7.7285	27.575	5.2513	68.0	.1	58/03/12	83/08/11
				K	49	4.3878	2.3674	1.5386	7.0	1.0	73/07/18	83/07/12
				R	1	18.000			18.0	18.0	73/04/25	73/04/25
				TOT	2214	7.6592	27.294	5.2244	68.0	.1	58/03/12	83/08/11
339	COD MUD	DRY WGT	MG/KG		8	53829.	5788700.	45889.	160779	11000	73/06/18	75/09/12
340	COD	HI LEVEL	MG/L		112	52.153	15805.	125.72	800	1	73/02/27	78/09/19
				K	25	27.676	564.68	23.763	50	.3	73/03/06	77/12/15
				TOT	137	47.686	13089.	114.41	800	.3	73/02/27	78/09/19
369	CL2DMND	30 MIN	MG/L		1	138.00			138.0	138.0	73/03/12	73/03/12
370	CL2DMND	1 HR	MG/L		415	1.7156	.46433	.68141	5.0	0.0	58/03/12	69/07/09
380	CL2DMND	24 HR	MG/L		406	3.7672	1.6125	1.2698	7.9	0.0	58/03/12	69/07/09
400	PH		SU		9718	7.3724	.21185	.46028	10.60	3.00	58/03/12	83/08/18
403	LAB	PH	SU		1248	7.3530	3.9758	1.9939	76.0	4.5	60/11/23	83/04/12
410	T ALK	CACO3	MG/L		4592	53.454	711.99	26.683	960	4	58/03/12	83/08/01
				K	1	1.0000			1	1	81/09/01	81/09/01
				TOT	4593	53.443	712.43	26.691	960	1	58/03/12	83/08/01
415	PHEN-PH-	LFIN ALK	MG/L		3921	.01785	.10989	.33149	12	0	60/07/12	83/08/11
431	T ALK	FIELD	MG/L		259	48.529	77.375	8.7963	70	34	83/02/15	83/08/11
435	T ACDITY	CACO3	MG/L		9	60.889	3872.4	62.228	150	0	72/06/19	72/06/24
437	ACIDITY	FROM CO2	MG/L		499	3.4431	17.689	4.2058	89	0	60/11/23	83/08/01
				K	1	1.0000			1	1	76/01/01	76/01/01
				TOT	500	3.4382	17.665	4.2030	89	0	60/11/23	83/08/01
500	RESIDUE	TOTAL	MG/L		725	232.28	499380.	706.67	13210	1	60/07/12	83/08/01
505	RESIDUE	TOT VOL	MG/L		27	133.52	12846.	113.34	521	21	73/03/01	73/03/08
515	RESIDUE	DISS-105	C MG/L		1628	161.55	420130.	648.17	12771	2	58/03/26	83/08/01
530	RESIDUE	TOT NFLT	MG/L		2668	28.604	73388.	270.90	12240	0	59/01/07	83/08/11
				J	3	0.0	0.0	0.0	0	0	59/12/16	60/03/02
				K	39	1.0513	.04993	.22346	2	1	73/03/07	83/08/09
				TOT	2710	28.176	72261.	268.81	12240	0	59/01/07	83/08/11
535	RESIDUE	VOL NFLT	MG/L		26	78.192	10717.	103.53	520	2	73/03/01	73/03/08
				K	1	1.0000			1	1	73/03/07	73/03/07
				TOT	27	75.333	10526.	102.60	520	1	73/03/01	73/03/08
550	OIL-GRSE	TOT-SXLT	MG/L		9	31.556	1546.0	39.320	120.0	5.0	72/06/20	73/02/28
				K	15	5.0000	0.0000	0.0000	5.0	5.0	72/06/20	72/06/24
				TOT	24	14.958	710.22	26.650	120.0	5.0	72/06/20	73/02/28
572	BIOMASS	PERPHYTN	G/SQ M		12	4.8716	5.6360	2.3740	8.802	1.474	76/09/30	78/05/25
573	BIOMASS	PERPHYTN	DW G/M2		12	12.431	58.919	7.6759	32.11	3.83	76/09/30	78/05/25
600	TOTAL N	N	MG/L		1	52000.			52000.00	52000.00	74/01/09	74/01/09
605	ORG N	N	MG/L		2735	.17869	.02691	.16407	2.200	.005	60/11/23	83/08/11
				K	67	.02388	.00008	.00920	.030	.010	61/07/11	83/05/17

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
605 ORG N	N	MG/L		R	7	.09285	.00072	.02690	.120	.060	74/02/05	74/02/05
605 ORG N	N	MG/L		TOT	2809	.17479	.02678	.16367	2.200	.005	60/11/23	83/08/11
610 NH3+NH4-	N TOTAL	MG/L			3161	.12134	.69814	.83555	19.000	0.000	58/03/12	83/08/11
				K	453	.66661	.21456	.46320	1.000	.010	60/12/07	83/08/11
				L	1	000000			0.000	0.000	74/07/09	74/07/09
				TOT	3615	.18964	.66988	.81846	19.000	0.000	58/03/12	83/08/11
615 NO2-N	TOTAL	MG/L			39	.01333	.00021	.01457	.100	.010	61/01/25	71/08/10
				K	106	.00886	.00000	.00280	.010	.002	60/11/23	71/08/10
				TOT	145	.01006	.00006	.00810	.100	.002	60/11/23	71/08/10
620 NO3-N	TOTAL	MG/L			246	.23500	.02316	.15221	.900	.010	60/11/23	76/06/15
				K	51	.01254	.00001	.00440	.020	.010	61/06/06	67/07/15
				TOT	297	.19680	.02624	.16199	.900	.010	60/11/23	76/06/15
621 NO3 MUD	DRY WGT	MG/KG-N			5	3.4000	3.8000	1.9494	6.00	2.00	75/09/09	75/09/12
625 TOT KJEL	N	MG/L			63	5.0781	61.302	7.8296	36.000	.100	72/06/19	75/05/15
626 ORGAN. N	MUD D WT	MG/KG-N			5	1627.0	341300.	584.21	2636.00	1193.00	75/09/09	75/09/12
630 NO2&NO3	N-TOTAL	MG/L			3227	.39331	.18576	.43100	9.90	.01	64/12/09	83/08/11
				K	23	.01000	9525E-14	.00001	.01	.01	72/06/21	83/08/11
				R	2	2.0900	3.9762	1.9940	3.50	.68	75/05/28	83/08/11
				TOT	3252	.39165	.18836	.43400	9.90	.01	64/12/09	83/08/11
635 NH3&ORG	N-TOTAL	MG/L			483	.72592	8.1879	2.8615	62.0	.1	64/12/09	83/08/01
				K	28	.13214	.00226	.04756	.2	.1	65/09/08	80/08/01
				TOT	511	.69338	7.7568	2.7851	62.0	.1	64/12/09	83/08/01
636 NH3&ORG	N-DISS.	MG/L			11	.34545	.06272	.25045	.8	.1	65/01/06	66/09/07
				K	2	.10000	.00000	.00000	.1	.1	65/09/08	66/01/05
				TOT	13	.30769	.06076	.24651	.8	.1	65/01/06	66/09/07
650 T PO4	PO4	MG/L			46	.16804	.04463	.21131	1.50	.03	72/03/01	74/04/10
653 SOLPO4-T	PO4	MG/L			97	.14052	.01026	.10133	.50	0.00	61/11/15	73/12/05
				L	1	.10000			.10	.10	69/04/16	69/04/16
				TOT	98	.14010	.01017	.10089	.50	0.00	61/11/15	73/12/05
665 PHOS-TOT		MG/L P			3282	.22848	10.850	3.2940	86.000	0.000	60/12/21	83/08/10
				K	156	.03622	.00129	.03597	.100	.003	60/11/23	82/05/10
				TOT	3438	.21976	10.350	3.2186	86.000	0.000	60/11/23	83/08/10
666 PHOS-DIS		MG/L P			1200	.02073	.00017	.01306	.220	.003	63/05/19	83/08/11
				J	1	.00978			.010	.010	73/02/26	73/02/26
				K	298	.01046	.00005	.00736	.124	.003	63/05/19	83/08/11
				R	57	.20961	.04916	.22174	.780	.020	73/02/28	83/04/12
				TOT	1556	.02568	.00321	.05671	.780	.003	63/05/19	83/08/11
668 PHOS MUD	DRY WGT	MG/KG-P			8	574.00	35942.	189.58	850.0	230.0	73/06/18	75/09/12
670 PHOS-TOT	ORGANIC	MG/L P			11	.01000	4657E-14	.00000	.010	.010	81/09/11	81/09/15
				K	1	.01000			.010	.010	81/09/11	81/09/11
				TOT	12	.01000	4233E-14	.00000	.010	.010	81/09/11	81/09/15
671 PHOS-DIS	ORTHO	MG/L P			5	.01600	.00003	.00547	.020	.010	79/07/24	80/03/04
				K	14	.01000	5573E-14	.00000	.010	.010	79/03/28	81/09/15
				TOT	19	.01157	.00001	.00374	.020	.010	79/03/28	81/09/15

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PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
673 PHOS-DIS	ORGANIC	MG/L P		2	.01000	.00000	.00000	.010	.010	81/09/11	81/09/15
			K	10	.01000	5174E-14	.00000	.010	.010	81/09/11	81/09/15
			TOT	12	.01000	6350E-14	.00000	.010	.010	81/09/11	81/09/15
677 PHOS-DIS	HYD+ORTH	MG/L P		45	.01200	.00002	.00457	.03	.01	79/04/27	79/09/21
			K	79	.01000	.00000	.00000	.01	.01	79/04/27	79/09/21
			R	3	.50667	.20503	.45281	1.00	.11	79/09/21	79/09/21
			TOT	127	.02244	.00898	.09476	1.00	.01	79/04/27	79/09/21
680 T ORG C	C	MG/L		2258	5.6554	2043.3	45.203	1750.0	0.0	65/03/03	83/08/11
			K	41	1.5585	1.9935	1.4119	5.0	.2	65/11/03	83/04/01
			R	50	2.4940	.99607	.99803	7.2	1.7	76/07/21	76/08/04
			TOT	2349	5.5166	1964.6	44.324	1750.0	0.0	65/03/03	83/08/11
681 D ORG C	C	MG/L		43	2.0767	4.7594	2.1816	12.0	.2	65/04/06	83/08/10
			K	7	.24285	.01285	.11339	.5	.2	65/05/05	75/05/15
			TOT	50	1.8200	4.4943	2.1200	12.0	.2	65/04/06	83/08/10
690 T-CARBON	C	MG/L		216	1.7523	.24884	.49884	3.9	0.0	73/03/12	74/09/26
700 ACIDS	TOT VOL	MG/L		1	14.000			14.0	14.0	74/01/09	74/01/09
720 CYANIDE	CN-TOT	MG/L	K	1	.01000			.010	.010	73/12/05	73/12/05
722 CYANIDE	FREE CN	MG/L		5	.01200	.00002	.00447	.02	.01	73/02/27	73/11/06
			K	304	.01000	2705E-13	.00001	.01	.01	67/09/06	73/12/05
			TOT	309	.01003	.00000	.00056	.02	.01	67/09/06	73/12/05
740 SULFITE	SO3	MG/L		2	.10000	.00000	.00000	.1	.1	81/04/22	81/04/22
			K	26	.10000	1192E-11	.00010	.1	.1	81/04/21	81/05/05
			TOT	28	.10000	1104E-11	.00010	.1	.1	81/04/21	81/05/05
745 SULFIDE	TOTAL	MG/L		13	1.0562	12.879	3.5888	13.00	.02	73/09/18	81/05/05
			K	16	.02000	2484E-13	.00001	.02	.02	81/04/21	81/04/22
			TOT	29	.48448	5.7948	2.4072	13.00	.02	73/09/18	81/05/05
746 SULFIDE	DISOLVED	MG/L		1	7.5000			7.50	7.50	73/03/12	73/03/12
800 NITSCHIA	KUTZNGNA	NO/LITER		1	39.000			39.0	39.0	74/01/09	74/01/09
810 CL CHRYP	TOPHYCEA	NO/LITER		1	102.00			102.0	102.0	74/01/09	74/01/09
900 TOT HARD	CACO3	MG/L		1525	59.114	122.65	11.075	134	6	58/03/12	83/08/09
902 NC HARD	CACO3	MG/L		11	18.182	35.364	5.9468	29	11	63/05/19	64/03/17
910 CALCIUM	CACO3	MG/L		833	39.195	264.70	16.270	85.0	9.0	60/11/23	83/08/01
916 CALCIUM	CA-TOT	MG/L		1698	19.386	13.736	3.7062	99.0	4.0	60/07/12	83/08/11
920 MGNSIUM	CACO3	MG/L		671	12.608	104.15	10.206	67.0	1.3	60/11/23	77/08/29
			K	1	.22000			.2	.2	74/09/21	74/09/21
			TOT	672	12.589	104.23	10.209	67.0	.2	60/11/23	77/08/29
927 MGNSIUM	MG,TOT	MG/L		1860	4.4480	1.7948	1.3397	50.0	.8	60/07/12	83/08/11
929 SODIUM	NA,TOT	MG/L		1965	5.9154	5.5987	2.3662	50.00	.40	60/07/12	83/08/11
930 SODIUM	NA,DISS	MG/L		21	8.3619	5.3435	2.3116	13.00	4.00	62/10/01	69/01/01
934 NA MUD	DRY WGT	MG/KG-NA		5	94.000	780.00	27.928	140.00	70.00	75/09/09	75/09/12
935 PTSSIUM	K,DISS	MG/L		21	1.5476	.13262	.36417	2.20	1.00	62/10/01	69/01/01
937 PTSSIUM	K,TOT	MG/L		1625	1.4865	.18454	.42958	6.60	.10	60/07/12	83/08/11
938 K MUD	DRY WGT	MG/KG-K		5	717.60	35841.	189.32	882.00	448.00	75/09/09	75/09/12
940 CHLORIDE	TOTAL	MG/L		3336	9.4320	26.308	5.1291	52	1	58/03/12	83/08/11

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940	CHLORIDE	TOTAL	MG/L	K	1	7.0000			7	7	79/10/03	79/10/03
940	CHLORIDE	TOTAL	MG/L	TOT	3337	9.4313	26.301	5.1285	52	1	58/03/12	83/08/11
945	SULFATE	SO4-TOT	MG/L		2699	14.981	224.03	14.968	705	1	58/03/26	83/08/11
				K	2	9.0000	98.000	9.8995	16	2	79/07/01	79/10/03
				TOT	2701	14.976	223.93	14.964	705	1	58/03/26	83/08/11
950	FLUORIDE	F,DISS	MG/L		459	.11624	.00501	.07078	.90	.01	61/01/04	83/08/01
				K	351	.09578	.00021	.01463	.10	.01	60/11/23	83/06/01
				TOT	810	.10738	.00303	.05506	.90	.01	60/11/23	83/08/01
951	FLUORIDE	F,TOTAL	MG/L		532	.07152	.00039	.01996	.30	.03	66/11/07	77/09/07
				K	241	.09962	.00003	.00580	.10	.01	66/11/07	78/10/17
				TOT	773	.08028	.00045	.02131	.30	.01	66/11/07	78/10/17
955	SILICA	DISOLVED	MG/L		1019	4.9060	1.6399	1.2806	9.7	1.3	60/11/30	83/08/11
956	SILICA	TOTAL	MG/L		660	5.3086	.87982	.93799	10.0	.5	60/07/12	75/02/19
1000	ARSENIC	AS,DISS	UG/L	K	23	34.957	257.86	16.058	54	10	62/10/01	69/01/01
1002	ARSENIC	AS,TOT	UG/L		177	7.1130	2211.7	47.028	620	1	73/03/12	83/08/11
				K	942	3.9448	9.2892	3.0478	28	1	72/06/19	83/08/10
				TOT	1119	4.4459	357.32	18.903	620	1	72/06/19	83/08/11
1003	ARSENIC	SEDMG/KG	DRY WGT		59	9.9468	25.462	5.0460	23.60	2.00	72/08/31	82/06/10
				K	3	4.8000	6.8800	2.6230	7.20	2.00	73/08/01	81/06/30
				TOT	62	9.6977	25.675	5.0671	23.60	2.00	72/08/31	82/06/10
1004	ARSENIC	TISMG/KG	WET WGT		4	.04750	.00022	.01500	.06	.03	78/02/15	79/10/16
				K	43	2.1535	4.0144	2.0036	4.00	.03	78/02/15	79/10/16
				TOT	47	1.9743	4.0182	2.0045	4.00	.03	78/02/15	79/10/16
1005	BARIUM	BA,DISS	UG/L		23	23.565	94.166	9.7039	48	5	62/10/01	69/01/01
1007	BARIUM	BA,TOT	UG/L		276	77.938	17188.	131.10	1000	10	72/08/01	83/08/11
				K	733	95.737	499.06	22.340	200	5	73/01/23	83/08/01
				TOT	1009	90.868	5114.6	71.516	1000	5	72/08/01	83/08/11
1008	BA MUD	DRY WGT	MG/KG-BA		15	104.67	2370.8	48.691	170.00	13.00	72/11/08	75/09/12
				K	2	4.0000	0.0000	0.0000	4.00	4.00	72/08/31	72/08/31
				TOT	17	92.824	3192.2	56.499	170.00	4.00	72/08/31	75/09/12
1010	BERYLIUM	BE,DISS	UG/L		1	.16000			.16	.16	65/07/14	65/07/14
				K	22	.03000	.00005	.00755	.04	.01	62/10/01	69/01/01
				TOT	23	.03565	.00078	.02809	.16	.01	62/10/01	69/01/01
1012	BERYLIUM	BE,TOT	UG/L		10	4.9000	19.600	4.4272	10.00	1.00	73/10/24	83/06/02
				K	815	9.2393	6.4741	2.5444	10.00	.50	73/01/23	83/08/11
				TOT	825	9.1867	6.8353	2.6144	10.00	.50	73/01/23	83/08/11
1013	BERYLIUM	SEDMG/KG	DRY WGT		14	2.1571	1.1442	1.0697	4.00	.80	72/08/31	82/06/10
				K	1	.60000			.60	.60	73/08/01	73/08/01
				TOT	15	2.0533	1.2241	1.1064	4.00	.60	72/08/31	82/06/10
1017	BISMUTH	BI,TOT	UG/L	K	20	1.0000	0.0000	0.0000	1	1	76/09/29	76/10/19
1020	BORON	B,DISS	UG/L		23	23.870	168.39	12.977	50	3	62/10/01	69/01/01
1022	BORON	B,TOT	UG/L		224	82.366	5884.5	76.710	460	4	75/05/19	83/08/10
				K	143	145.41	59670.	244.27	1000	2	73/01/30	83/08/11
				TOT	373	107.55	28223.	168.00	1000	2	73/01/30	83/08/11

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PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
1025 CADMIUM	CD,DISS	UG/L	K	23	6.4783	18.443	4.2945	15	1	62/10/01	69/01/01
1027 CADMIUM	CD,TOT	UG/L		247	2.5182	17.976	4.2398	33	.1	73/01/23	83/08/11
			K	1312	.80984	3.0542	1.7476	60	.005	72/08/01	83/08/11
			TOT	1559	1.0805	5.7976	2.4078	60	.005	72/08/01	83/08/11
1028 CD MUD	DRY WGT	MG/KG-CD		51	3.4857	2.8970	1.7021	7.50	.40	72/08/31	81/06/30
			K	16	1.0000	0.0000	0.0000	1.00	1.00	75/08/26	82/06/10
			TOT	67	2.8921	3.3349	1.8262	7.50	.40	72/08/31	82/06/10
1029 CHROMIUM	SEDMG/KG	DRY WGT		67	33.033	233.78	15.290	86.00	9.00	72/08/31	82/06/10
1030 CHROMIUM	CR,DISS	UG/L		11	7.7273	38.018	6.1659	20	2	64/01/01	67/04/01
			K	12	2.5000	1.1818	1.0871	4	1	62/10/01	69/01/01
			TOT	23	5.0000	25.000	5.0000	20	1	62/10/01	69/01/01
1033 CHROMIUM	TRI-VAL	UG/L		1	84.000			84	84	73/03/12	73/03/12
1034 CHROMIUM	CR,TOT	UG/L		279	15.301	2188.0	46.776	335	1	72/02/01	83/08/10
			K	1313	5.7091	116.74	10.804	50	.01	66/11/07	83/08/11
			TOT	1592	7.3901	491.88	22.178	335	.01	66/11/07	83/08/11
1035 COBALT	CO,DISS	UG/L	K	23	4.5652	4.1560	2.0411	8	2	62/10/01	69/01/01
1037 COBALT	CO,TOTAL	UG/L		53	12.943	72.901	8.5382	30	2	76/10/19	83/08/01
			K	177	7.1186	6.1393	2.4778	10	5	73/07/05	83/08/01
			TOT	230	8.4609	27.315	5.2264	30	2	73/07/05	83/08/01
1038 CO MUD	DRY WGT	MG/KG-CO		12	23.167	57.789	7.6019	33.00	6.00	72/08/31	73/08/01
1040 COPPER	CU,DISS	UG/L		19	10.105	56.988	7.5491	28	2	62/10/01	67/04/01
			K	4	2.0000	0.0000	0.0000	2	2	63/04/01	69/01/01
			TOT	23	8.6957	56.494	7.5163	28	2	62/10/01	69/01/01
1042 COPPER	CU,TOT	UG/L		1174	141.69	726620.	852.42	18300	.01	63/09/24	83/08/10
			J	1	.01000			.01	.01	74/08/29	74/08/29
			K	729	8.7501	100.61	10.030	50	.01	63/10/24	83/08/11
			TOT	1904	90.718	452110.	672.39	18300	.01	63/09/24	83/08/11
1043 COPPER	SEDMG/KG	DRY WGT		62	30.467	250.25	15.819	98.40	7.36	72/08/31	82/06/10
1045 IRON	FE,TOT	UG/L		2422	756.09	8863500.	2977.2	90900	.08	60/07/12	83/08/11
			K	23	45.913	183.45	13.544	50	2	60/08/23	83/08/10
			TOT	2445	749.41	8784800.	2963.9	90900	.08	60/07/12	83/08/11
1046 IRON	FE,DISS	UG/L		495	95.275	9093.7	95.361	1900	10	60/07/12	83/06/02
			K	527	49.326	29.538	5.4349	50	5	60/07/13	83/08/11
			R	2	780.00	352800.	593.97	1200	360	77/02/15	82/08/03
			TOT	1024	72.965	6257.3	79.103	1900	5	60/07/12	83/08/11
1047 FERROUS	IRON	UG/L		735	92.322	2699.9	51.961	360	10	73/01/23	83/08/10
			K	43	26.977	193.02	13.893	50	10	67/09/06	82/10/19
			R	2	270.00	200.00	14.142	280	260	77/10/20	81/09/15
			TOT	780	89.176	2861.5	53.493	360	10	67/09/06	83/08/10
1049 LEAD	PB,DISS	UG/L		5	16.800	61.701	7.8550	29	10	64/07/01	66/04/13
			K	18	8.3333	23.412	4.8386	16	2	62/10/01	69/01/01
			TOT	23	10.174	42.059	6.4853	29	2	62/10/01	69/01/01
1051 LEAD	PB,TOT	UG/L		376	153.46	2160900.	1470.0	27100	.04	72/06/19	83/08/11
			K	1241	10.208	298.02	17.263	100	.04	72/06/19	83/08/01

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	PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
1051	LEAD	PB,TOT	UG/L	TOT	1617	43.518	505340.	710.87	27100	.04	72/05/19	83/08/11
1052	LEAD	SEDMG/KG	DRY WGT		66	50.453	1520.0	38.987	310.00	10.00	72/08/31	82/06/10
				K	1	8.0000			8.00	8.00	81/06/30	81/06/30
				TOT	67	49.819	1523.9	39.037	310.00	8.00	72/08/31	82/06/10
1053	MN MUD	DRY WGT	MG/KG-MN		62	2069.3	1393900.	1180.6	5300.00	490.00	72/08/31	82/06/10
1055	MANGNESE	MN	UG/L		2097	135.16	945440.	972.85	27800.0	0.0	60/11/30	83/08/11
				K	115	43.970	246.82	15.710	50.0	.5	60/11/23	82/05/03
				R	1	1100.0			1100.0	1100.0	73/08/23	73/08/23
				TOT	2213	130.85	897650.	947.45	27800.0	0.0	60/11/23	83/08/11
1056	MANGNESE	MN,DISS	UG/L		600	31.085	1265.1	35.568	760.0	7.0	61/06/06	83/08/10
				K	240	9.9375	.30988	.55667	10.0	5.0	61/06/06	83/08/10
				R	6	90.000	2320.0	48.166	180.0	60.0	73/02/26	77/02/15
				TOT	846	25.504	1031.1	32.111	760.0	5.0	61/06/06	83/08/10
1059	THALLIUM	TL,TOTAL	UG/L	K	28	50.000	0.000	0.000	50	50	81/04/21	81/05/05
1060	MOLY	MO,DISS	UG/L		3	22.667	121.33	11.015	34	12	64/01/01	67/04/01
				K	20	9.3000	21.589	4.6464	16	1	62/10/01	69/01/01
				TOT	23	11.043	50.862	7.1317	34	1	62/10/01	69/01/01
1063	MO MUD	DRY WGT	MG/KG-MO	K	12	6.5833	.26518	.51496	7.00	6.00	72/08/31	73/08/01
1064	TELLURUM	TE.TOT.	UG/L	K	34	1.4118	.24956	.49956	2	1	76/09/29	77/10/27
1065	NICKEL	NI,DISS	UG/L	K	23	4.3478	4.9544	2.2281	8	1	62/10/01	69/01/01
1067	NICKEL	NI,TOTAL	UG/L		196	146.39	231450.	481.09	4140	1	64/02/01	83/08/11
				K	1018	40.220	353.12	18.792	80	1	64/01/01	83/08/09
				TOT	1214	57.362	39030.	197.56	4140	1	64/01/01	83/08/11
1068	NICKEL	SEDMG/KG	DRY WGT		64	32.442	221.74	14.891	73.70	6.60	72/08/31	82/06/10
				K	3	15.733	10.023	3.1660	18.70	12.40	81/06/30	81/06/30
				TOT	67	31.694	224.08	14.969	73.70	6.60	72/08/31	82/06/10
1070	PHOS-TOT	SPEC	UG/L P		9	36.556	626.53	25.031	88	6	64/01/01	67/04/01
				K	14	17.929	118.53	10.887	32	3	62/10/01	69/01/01
				TOT	23	25.217	384.27	19.603	88	3	62/10/01	69/01/01
1075	SILVER	AG,DISS	UG/L	K	23	.51739	.03504	.18986	.8	.2	62/10/01	69/01/01
1077	SILVER	AG,TOT	UG/L		22	2.5000	19.024	4.3616	20.0	1.0	74/05/08	83/08/01
				K	973	8.4460	11.583	3.4034	10.0	1.0	73/01/23	83/08/11
				TOT	995	8.3146	12.494	3.5346	20.0	1.0	73/01/23	83/08/11
1078	SILVER	SEDMG/KG	DRY WGT		12	2.8167	2.0742	1.4402	5.00	1.00	72/08/31	73/08/01
				K	3	1.0000	0.0000	0.0000	1.00	1.00	82/06/08	82/06/10
				TOT	15	2.4533	2.1955	1.4817	5.00	1.00	72/08/31	82/06/10
1080	STRONTUM	SR,DISS	UG/L		23	44.348	540.87	23.257	118	9	62/10/01	69/01/01
1082	STRONTUM	SR,TOT	UG/L		10	124.00	1915.6	43.767	200	70	73/07/05	75/01/21
1083	SR MUD	DRY WGT	MG/KG-SR		1	3.9000			3.90	3.90	72/11/09	72/11/09
				K	11	3.0727	.07419	.27239	3.30	2.50	72/08/31	73/08/01
				TOT	12	3.1417	.12449	.35282	3.90	2.50	72/08/31	73/08/01
1085	VANADIUM	V,DISS	UG/L	K	23	8.6522	21.601	4.6477	16	1	62/10/01	69/01/01
1087	VANADIUM	V,TOT	UG/L	K	20	100.00	0.00	0.00	100	100	76/09/29	76/10/19
1088	V MUD	DRY WGT	MG/KG-V	K	3	32.667	5.3344	2.3096	34.00	30.00	73/06/18	73/08/01

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1090	ZINC	ZN,DISS	UG/L		14	14.714	37.504	6.1322	25	6	63/04/01	69/01/01
				K	9	6.1111	16.861	4.1062	12	2	62/10/01	66/07/01
				TOT	23	11.348	46.783	6.8398	25	2	62/10/01	69/01/01
1092	ZINC	ZN,TOT	UG/L		1471	129.24	1525900.	1275.1	41000	.01	63/09/24	83/08/11
				K	347	6.7940	36.153	6.0128	50	.01	66/02/14	83/08/11
				TOT	1818	105.87	1317700.	1147.9	41000	.01	63/09/24	83/08/11
1093	ZINC	SEDMG/KG	DRY WGT		62	240.10	26489.	162.76	740.00	63.80	72/08/31	82/06/10
1097	ANTIMONY	SB,TOT	UG/L		10	12.100	423.88	20.588	63	1	73/09/18	79/12/01
				K	205	16.376	1024.8	32.013	150	1	73/03/12	81/05/05
				TOT	215	16.177	995.58	31.553	150	1	73/03/12	81/05/05
1098	ANTIMONY	SEDMG/KG	DRY WGT	K	17	6.1176	.86031	.92753	7.00	5.00	72/08/31	75/09/12
1102	TIN	SN,TOT	UG/L		1	2100.0			2100	2100	76/10/19	76/10/19
				K	19	621.05	208420.	456.53	1000	100	76/09/29	76/10/19
				TOT	20	695.00	306820.	553.91	2100	100	76/09/29	76/10/19
1103	TIN MUD	DRY WGT	MG/KG-SN	K	12	62.583	28.994	5.3846	67.00	51.00	72/08/31	73/08/01
1105	ALUMINUM	AL,TOT	UG/L		1035	918.05	1720500.	1311.7	25000	2	64/01/01	83/08/11
				K	109	151.18	4486.6	66.982	300	1	63/04/01	83/08/10
				TOT	1144	844.98	1507700.	1267.9	25000	1	63/04/01	83/08/11
1108	AL MUD	DRY WGT	MG/KG-AL		21	20700.	1603E+05	12659.	46000.00	3000.00	72/08/31	76/08/17
1132	LITHIUM	LI,TOT	UG/L		1	20.000			20	20	76/08/04	76/08/04
				K	351	10.000	0.000	0.000	10	10	73/07/05	83/08/10
				TOT	352	10.028	.28410	.53301	20	10	73/07/05	83/08/10
1133	LI MUD	DRY WGT	MG/KG-LI		3	5.5000	5.1601	2.2716	7.10	2.90	73/06/18	73/08/01
1145	SELENIUM	SE,DISS	UG/L	K	3	.01000	.00000	.00000	.01	.01	62/10/01	63/04/01
1147	SELENIUM	SE,TOT	UG/L		137	1.8978	1.5630	1.2502	10	1	73/01/23	83/08/11
				K	732	1.1872	.17696	.42067	4	1	73/01/23	83/08/11
				TOT	869	1.2992	.46107	.67902	10	1	73/01/23	83/08/11
1148	SELENIUM	SEDMG/KG	DRY WGT		21	1.3609	.18818	.43379	2.30	.80	72/11/09	82/06/10
				K	32	1.6316	2.1964	1.4820	5.00	.54	72/08/31	81/06/30
				TOT	53	1.5243	1.3996	1.1831	5.00	.54	72/08/31	82/06/10
1152	TITANIUM	TI,TOT	UG/L		27	49.407	36256.	190.41	1000	4	78/02/07	83/08/11
				K	347	934.19	58606.	242.09	1000	5	73/07/05	83/08/11
				TOT	374	870.32	109470.	330.86	1000	4	73/07/05	83/08/11
1153	TI MUD	DRY WGT	MG/KG-TI		7	3574.3	6626000.	2574.1	8100.00	120.00	72/11/08	72/11/09
1170	FE MUD	DRY WGT	MG/KG-FE		62	25868.	97181000.	9858.0	56400.00	7766.00	72/08/31	82/06/10
1501	ALPHA	TOTAL	PC/L		283	.63251	3.0347	1.7420	24	0	58/03/12	68/05/08
1502	ALPHA-T	ERROR	PC/L		234	.66667	.61803	.78615	9	0	58/03/12	68/05/08
1503	ALPHA	DISOLVED	PC/L		274	.24453	.29530	.54341	4	0	58/03/12	68/05/08
				K	9	.00000	.00000	.00000	0	0	67/09/07	67/09/07
				TOT	283	.23675	.28772	.53640	4	0	58/03/12	68/05/08
1504	ALPHA-D	ERROR	PC/L		234	.53846	.24959	.49959	1	0	58/03/12	68/05/08
1505	ALPHA	SUSP	PC/L		273	.41026	2.6031	1.6134	23	0	58/03/12	68/05/08
				K	10	0.0000	0.0000	0.0000	0	0	67/09/07	67/09/07
				TOT	283	.39576	2.5166	1.5864	23	0	58/03/12	68/05/08

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1506	ALPHA-S	ERROR	PC/L		234	.45726	.64409	.80255	9	0	58/03/12	68/05/08
3501	BETA	TOTAL	PC/L		430	41.493	2447.3	49.471	503	0	58/03/12	68/05/08
3502	BETA-T	ERROR	PC/L		326	6.4755	25.850	5.0843	50	0	58/03/12	68/05/08
3503	BETA	DISOLVED	PC/L		431	32.499	1323.5	36.380	260	0	58/03/12	68/05/08
3504	BETA-D	ERROR	PC/L		327	5.2691	25.437	5.0435	70	0	58/03/12	68/05/08
3505	BETA	SUSP	PC/L		423	9.1064	763.59	27.633	435	0	58/03/12	68/05/08
				K	7	0.000	0.000	0.000	0	0	67/09/07	67/09/07
				TOT	430	8.9581	752.46	27.431	435	0	58/03/12	68/05/08
3506	BETA-S	ERROR	PC/L		327	4.7309	23.498	4.8475	60	0	58/03/12	68/05/08
13501	SR-90	TOTAL	PC/L		36	1.6472	1.1589	1.0811	4.8	.4	59/01/01	65/01/01
13502	SR-90	ERROR	PC/L		3	.23333	.00333	.05773	.3	.2	64/10/01	65/01/01
31501	TOT COLI	MFIMENDO	/100ML		915	5368.8	2779E+05	52715.	1370000	10	68/01/12	83/05/17
				K	195	108.31	80967.	284.55	2000	10	73/01/23	80/03/19
				L	17	20565.	7240400.	50072.	200000	800	72/10/04	81/01/21
				TOT	1127	4687.8	2299E+05	47950.	1370000	10	68/01/12	83/05/17
31503	TOT COLI	MFOLENDO	/100ML		456	5385.4	2184E+05	14778.	240000	2	58/03/12	70/08/04
				K	54	337.43	4725700.	2173.9	16000	1	58/05/05	70/04/29
				L	3	25667.	9403E+05	30665.	60000	1000	67/02/08	69/10/29
				TOT	513	4972.6	3163900.	14254.	240000	1	58/03/12	70/08/04
31505	TOT COLI	MPN CONF	/100ML		547	76579.	5014E+08	708110.	13000000	3	60/07/12	73/03/07
				K	12	187.60	330060.	574.51	2000	2	60/07/24	73/02/27
				L	2	2400000.	0.	0.	2400000	2400000	72/06/20	72/06/20
				TOT	561	83228.	5082E+08	712920.	13000000	2	60/07/12	73/03/07
31615	FEC COLI	MPNECMED	/100ML		187	25194.	1801E+07	134200.	1400000	2	62/05/07	74/09/26
				K	257	31.126	45982.	214.44	2000	2	62/05/07	74/09/26
				L	2	2400000.	0.	0.	2400000	2400000	72/06/20	72/06/20
				TOT	446	21344.	3323E+07	182280.	2400000	2	62/05/07	74/09/26
31616	FEC COLI	MFM-FCBR	/100ML		589	772.22	24313000.	4930.8	73000	2	68/01/12	83/08/10
				K	576	13.988	7005.3	83.698	2000	.3	68/03/06	83/05/10
				L	6	1416.7	1920700.	1385.9	4000	400	73/09/18	78/04/19
				M	2	0.000	0.000	0.000	0	0	73/05/01	73/05/01
				TOT	1173	401.87	12358000.	3515.4	73000	0	68/01/12	83/08/10
31679	FECSTREP	MF M-ENT	/100ML		234	239.13	971200.	985.50	14000	1	73/05/01	83/08/09
				K	19	8.7368	76.760	8.7613	40	1	73/11/08	83/02/22
				L	1	2000.0			2000	2000	74/02/12	74/02/12
				TOT	254	228.83	910570.	954.24	14000	1	73/05/01	83/08/09
32000	SAMPLE	SIZE	LITERS		31	12180.	27646000.	5258.0	19095	1195	66/10/24	69/04/18
32001	SAMPLE	SIZE	GAL		155	4295.7	5524300.	2350.4	15260	233	58/03/12	69/04/18
				J	48	3836.1	2208100.	1486.0	6416	1000	62/11/26	68/09/20
				TOT	203	4187.0	4763600.	2182.6	15260	233	58/03/12	69/04/18
32003	CCE AND	CAE	UG/L		203	183.34	17100.	130.77	860	8	58/03/12	69/04/18
32004	CAE		UG/L		203	127.86	11332.	106.45	640	6	58/03/12	69/04/18
32005	CCE		UG/L		203	55.483	966.96	31.096	271	2	58/03/12	69/04/18
32021	ETHER	INSOLUBL	UG/L		79	1.7632	1.1409	1.0681	7	0	58/03/12	63/10/09

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INSTREAM CONTAMINANT STUDY-TASK 5

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
32022	WATER	SOLUBLES	UG/L		78	12.051	17.997	4.2423	29	5	58/03/12	63/10/09
32023	STRONG	ACIDS	UG/L		78	3.8974	3.6257	1.9041	9	1	58/03/12	63/10/09
32024	WEAK	ACIDS	UG/L		78	5.2949	3.2755	1.8099	11	2	58/03/12	63/10/09
32025	BASES		UG/L		78	.87179	.11322	.33648	1	0	58/03/12	63/10/09
32026	NEUTRALS		UG/L		78	15.231	38.751	6.2251	54	7	58/03/12	63/10/09
32027	ALIPHA-	TICS	UG/L		78	1.9103	3.6412	1.9082	15	1	58/03/12	63/10/09
32028	AROMATIC		UG/L		78	1.4872	1.0323	1.0160	8	1	58/03/12	63/10/09
32029	OXYGEN-	ATES	UG/L		78	11.064	13.022	3.6086	29	5	58/03/12	63/10/09
32211	CHLRPHYL	A UG/L	CORRECTD		535	3.1665	7.5450	2.7468	20.02	.14	82/02/09	83/08/11
				M	3	.35667	.03943	.19858	.53	.14	82/09/08	82/09/08
				TOT	538	3.1508	7.5468	2.7471	20.02	.14	82/02/09	83/08/11
32212	CHLRPHYL	B	UG/L		515	1.3141	1.0489	1.0241	4.62	.01	82/02/09	83/08/11
				M	23	.20522	.03084	.17563	.80	.01	82/09/08	83/08/11
				TOT	538	1.2667	1.0556	1.0274	4.62	.01	82/02/09	83/08/11
32214	CHLRPHYL	C	UG/L		520	1.9322	2.3655	1.5380	5.54	0.00	82/02/09	83/08/11
				M	18	.19722	.04516	.21251	.85	.01	82/09/08	83/08/11
				TOT	538	1.8742	2.3852	1.5444	5.54	0.00	82/02/09	83/08/11
32218	PHEOPHTN	A	UG/L		493	2.0206	1.6793	1.2959	6.12	0.00	82/02/09	83/08/11
				M	45	.37556	.10064	.31724	1.20	.01	82/03/10	83/08/10
				TOT	538	1.8830	1.7546	1.3246	6.12	0.00	82/02/09	83/08/11
32223	CHLRPHYL	A MG/M2	CORRECTD		7	145.97	11430.	106.91	326.88	8.60	77/09/29	78/05/25
32224	PHEOPHTN.	A	MG/M2		11	46.894	5579.3	74.695	265.50	0.00	76/09/30	78/05/25
32226	CHL B	PERIPHTN	MG/M2		7	46.081	867.67	29.456	88.55	1.90	77/09/29	78/05/25
32227	CHL C	PERIPHTN	MG/M2		7	31.181	279.01	16.704	49.46	1.90	77/09/29	78/05/25
32228	CHL A	PERIPHTN	MG/M2		11	125.17	6409.1	80.057	284.34	10.00	76/09/30	78/05/25
32240	TANNIN	LIGNIN	MG/L		1	.09000			.09	.09	83/05/10	83/05/10
32730	PHENOLS	TOTAL	UG/L		142	42.585	36153.	190.14	1550	1	72/06/20	77/02/23
				K	113	1.3982	.77750	.88176	5	1	72/06/22	77/02/23
				TOT	255	24.333	20490.	143.14	1550	1	72/06/20	77/02/23
34682	CDANEWET	TECH&MET	TISMG/KG		2	25.027	1247.3	35.317	50.000	.054	78/02/15	78/02/15
38260	MBAS		MG/L		97	.05680	.00244	.04940	.30	0.00	64/03/01	80/01/01
				K	110	.03681	.00024	.01550	.10	.02	64/01/01	80/03/01
				TOT	207	.04618	.00136	.03693	.30	0.00	64/01/01	80/03/01
39066	CHLORDAN	T ISOMER	TIS-UG/G		1	.91000			.910	.910	78/02/15	78/02/15
39302	P,P'DDT	TISMG/KG	WET WGT		1	.05000			.05	.05	78/02/15	78/02/15
39330	ALDRIN		TOT UG/L		5	000000	000000	000000	0.000	0.000	64/09/23	67/10/04
39340	GAMMABHC	LINDANE	TOT.UG/L		5	000000	000000	000000	0.000	0.000	64/09/23	67/10/04
39350	CHLRDANE	TECH&MET	TOT UG/L		1	000000			0.000	0.000	66/09/13	66/09/13
				N	1	000000			0.000	0.000	66/09/21	66/09/21
				TOT	2	000000	000000	000000	0.000	0.000	66/09/13	66/09/21
39360	DDD	WHL SMPL	UG/L		5	.00260	.00001	.00357	.007	0.000	64/09/23	67/10/04
39365	DDE	WHL SMPL	UG/L		3	000000	000000	000000	0.000	0.000	65/09/22	67/10/04
				N	2	000000	000000	000000	0.000	0.000	64/09/23	66/09/21
				TOT	5	000000	000000	000000	0.000	0.000	64/09/23	67/10/04

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39370	DDT	WHL SMPL	UG/L		3	.00500	.00007	.00866	.015	0.000	65/09/22	67/10/04
				N	2	000000	000000	000000	0.000	0.000	64/09/23	66/09/21
				TOT	5	.00300	.00004	.00670	.015	0.000	64/09/23	67/10/04
39376	DDT SUM	TISSUE	UG/G		1	.05000			.05	.05	78/02/15	78/02/15
39380	DIELDRIN		TOTUG/L		5	.00200	.00000	.00282	.006	0.000	64/09/23	67/10/04
39390	ENDRIN		TOT UG/L		5	.00180	.00000	.00249	.005	0.000	64/09/23	67/10/04
39410	HEPTCHLR		TOTUG/L		5	000000	000000	000000	0.000	0.000	64/09/23	67/10/04
39420	HPCHLREP		TOTUG/L		5	.00020	.00000	.00044	.001	0.000	64/09/23	67/10/04
39515	PCBS	FISH	MG/KG		23	.26558	.17360	.41665	1.896	.020	76/10/15	79/10/16
39519	PCBS	MUD	UG/KG	K	3	1000.0	0.0	0.0	1000.00	1000.00	82/06/08	82/06/10
46570	CAL HARD	CA MG	MG/L		1828	67.283	130.84	11.439	280	9	60/07/12	83/08/11
50060	CHLORINE	TOT RESD	MG/L		29	54466.	6383E+05	25274.	111000.0	28300.00	75/01/07	75/06/03
50064	CHLORINE	FREE AVL	MG/L		1	46.000			46.00	46.00	73/03/12	73/03/12
60050	ALGAE	TOTAL	/ML		177	732.20	3244400.	1801.2	16400	0	61/10/02	68/11/13
60100	ALGAE	COC BG	/ML		177	89.887	1275800.	1129.5	15030	0	61/10/02	68/11/13
60150	ALGAE	FIL BG	/ML		177	7.7966	2391.1	48.899	620	0	61/10/02	68/11/13
60200	ALGAE	COC GRN	/ML		177	73.616	19541.	139.79	1160	0	61/10/02	68/11/13
60250	ALGAE	FIL GRN	/ML		177	.79096	24.371	4.9367	40	0	61/10/02	68/11/13
60300	ALGAE	FLAG-GRN	/ML		177	39.548	8414.6	91.731	1060	0	61/10/02	68/11/13
60350	ALGAE	FLAG-OTH	/ML		177	18.757	1381.4	37.167	230	0	61/10/02	68/11/13
60390	DIATOMS	DOM SPEC	% OF TOT		149	30.034	213.09	14.598	80	7	61/10/02	67/05/01
60391	% OF TOT	DIATOMS	2ND SPEC		3	17.000	28.000	5.2915	23.00	13.00	66/10/19	67/05/01
60392	% OF TOT	DIATOMS	3RD SPEC		3	10.000	21.000	4.5826	14.00	5.00	66/10/19	67/05/01
60393	% OF TOT	DIATOMS	4TH SPEC		3	8.6667	25.333	5.0332	14.00	4.00	66/10/19	67/05/01
60394	% OF TOT	DIATOMS	0TH SPEC		3	30.000	379.00	19.468	52.00	15.00	66/10/19	67/05/01
60400	DIATOMS	CENTRIC	/ML		177	379.32	1720600.	1311.7	15730	0	61/10/02	68/11/13
60600	DIATOMS	PENNATE	/ML		177	122.09	31642.	177.88	1670	0	61/10/02	68/11/13
60610	INERT	SHELLS	CNTRC/ML		11	108.18	22716.	150.72	450	0	66/10/19	68/11/13
60620	INERT	SHELLS	PNATE/ML		11	8.1818	96.364	9.8165	20	0	66/10/19	68/11/13
60820	PROTOZOA	TOTAL	/ML		59	1.0169	9.2928	3.0484	10	0	61/10/02	63/04/01
60850	ROTIFERS	TOTAL	/LITER		141	29.504	6467.9	80.423	590	0	61/10/02	65/06/07
60900	CRSTACEA	TOTAL	/LITER		140	1.7571	30.099	5.4862	51	0	61/10/02	65/06/07
60950	NEMTODES	TOTAL	/LITER		139	.58273	11.607	3.4069	33	0	61/10/02	65/06/07
60990	ZOOPLANK	OTHER	/LITER		139	.03597	.04942	.22231	2	0	61/10/02	65/06/07
61390	1ST DOM	SPECIES	DIATOMS		3	83.333	560.34	23.671	97	56	66/10/19	67/05/01
61391	2ND DOM	SPECIES	DIATOMS		3	88.667	65.346	8.0837	98	84	66/10/19	67/05/01
61392	3RD DOM	SPECIES	DIATOMS		3	75.000	412.00	20.298	97	57	66/10/19	67/05/01
61393	4TH DOM	SPECIES	DIATOMS		3	38.000	972.00	31.177	56	2	66/10/19	67/05/01
70001	X SEC.	COMPOSIT	LOCATION		162	1939.0	193860).	1392.4	5020	1022	60/07/13	77/10/27
70300	RESIDUE	DISS-180	C MG/L		1506	95.025	455.42	21.340	430	10	73/10/26	83/08/11
				L	1	90.000			90	90	77/07/25	77/07/25
				TOT	1507	95.021	455.13	21.334	430	10	73/10/26	83/08/11
70322	RESIDUE	TOT VOL	PERCENT		456	5.4797	5.0135	2.2391	35.7	.7	78/04/25	83/08/29
70331	SUSP SED	PARTSIZE	%<.062MM		21	74.996	251.59	15.862	92	29	78/04/25	79/03/26

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70332	SUSP SED	PARTSIZE	%<.125MM		21	87.658	188.95	13.746	98	44	78/04/25	79/03/26
70334	SUSP SED	PARTSIZE	%<.500MM		21	99.401	.77500	.88034	100	97	78/04/25	79/03/26
70336	SUSP SED	PARTSIZE	%<2.00MM		21	99.930	.04062	.20156	100	99	78/04/25	79/03/26
70507	PHOS-T	ORTHO	MG/L P		49	.01938	.00007	.00851	.060	.010	75/05/15	83/08/10
				K	8	.01000	.00000	.00000	.010	.010	81/09/11	82/07/06
				TOT	57	.01807	.00007	.00854	.060	.010	75/05/15	83/08/10
71000	ABUNDANT	ALGCOUNT	1ST DOM	A	1	900.00			900	900	67/05/01	67/05/01
71010	ABUNDANT	ALGGENUS	1ST DOM		1	69.000			69	69	67/05/01	67/05/01
71870	BROMIDE	BR	MG/L		60	.51000	.71074	.84306	5.00	.10	76/09/29	77/10/27
				K	29	.56552	.20948	.45769	1.00	.10	77/04/20	77/10/27
				TOT	89	.52809	.54386	.73747	5.00	.10	76/09/29	77/10/27
71900	MERCURY	HG,TOTAL	UG/L		309	.73107	2.9648	1.7219	22.0	.02	70/08/04	83/08/09
				K	1044	.21676	.00862	.09287	2.0	.1	70/07/27	83/08/11
				TOT	1353	.33422	.72872	.85365	22.0	.02	70/07/27	83/08/11
71921	MERCURY	SEDMG/KG	DRY WGT		67	.78015	.79274	.89036	4.3	.05	70/07/27	82/06/10
				K	19	.16895	.00723	.08504	.4	.05	70/08/04	81/06/30
				TOT	86	.64511	.68213	.82591	4.3	.05	70/07/27	82/06/10
71930	MERCURY	TISMG/KG	WET WGT		47	.12894	.01165	.10795	.60	.03	78/02/15	79/10/16
71936	LEAD	TISMG/KG	WET WGT		22	.78273	.24834	.49833	2.54	.19	78/02/15	78/07/12
				K	24	.35833	.60166	.77567	4.00	.20	78/02/15	79/10/16
				TOT	46	.56130	.46935	.68509	4.00	.19	78/02/15	79/10/16
71937	COPPER	TISMG/KG	WET WGT		45	1.0842	3.6125	1.9007	11.00	.06	78/02/15	79/10/16
71939	CR-FISH	UG/G OR	MG/KG WT		31	.11000	.01412	.11886	.62	.02	78/02/15	79/10/16
				K	16	.02000	2484E-13	.00001	.02	.02	78/07/12	79/10/16
				TOT	47	.07936	.01107	.10522	.62	.02	78/02/15	79/10/16
71940	CADMIUM	TISMG/KG	WET WGT		18	.16333	.13920	.37309	1.64	.02	78/02/15	78/07/12
				K	28	.02071	.00001	.00378	.04	.02	78/07/12	79/10/16
				TOT	46	.07652	.05754	.23989	1.64	.02	78/02/15	79/10/16
72033	AVG DAY	SPILLWAY	CFS		306	28350.	1225E+05	11067.	42000	0	74/07/02	74/09/26
74990	FISH	SPECIES	NUMERIC		63	40.043	384.63	19.612	67	8	76/10/15	79/10/16
74995	ANATOMY		CODE		69	86.000	0.000	0.000	86	86	76/10/15	79/10/16
80111	NITROGEN	DRY WGT	MG/KG		8	912.00	332780.	576.87	2000.0	46.0	73/06/18	75/09/17
80203	TOT SED	SIEVE	%<.062MM		439	54.106	591.32	24.317	100.0	.4	78/04/25	83/08/29
80204	TOT SED	SIEVE	%<.125MM		439	75.782	508.89	22.559	100.0	.5	78/04/25	83/08/29
80206	TOT SED	SIEVE	%<.500MM		439	94.567	232.24	15.239	100.0	.8	78/04/25	83/08/29
80208	TOT SED	SIEVE	%<2.00MM		439	96.896	148.20	12.174	100.0	.8	78/04/25	83/08/29
81614	NO.INOV.	IN THE	SAMPLE		21	4.0000	1.7000	1.3038	6	2	76/10/15	79/10/16
81615	NO.DIFF.	SPECIES	IN SMPL		21	1.9524	.84762	.92067	4	1	76/10/15	79/10/16
84005	FISH	SPECIES	F &WL	TE	69	TEXT	TEXT	TEXT	TEXT	TEXT	76/10/15	79/10/16
84007	ANATOMY	ALPHA	CODE	TE	69	TEXT	TEXT	TEXT	TEXT	TEXT	76/10/15	79/10/16
84014	SPECIES	SEX	TEXT	TE	52	TEXT	TEXT	TEXT	TEXT	TEXT	76/10/15	79/10/16

APPENDIX IV

SUMMARY OF BACKGROUND DATA, CRITERIA, STANDARDS AND ANALYTICAL DETECTION LIMITS FOR KEY PARAMETERS

INSTREAM CONTAMINANT STUDY - TASK 5

Table IV-1

CRITERIA AND SELECTED DATA FOR CHEMICAL AND PHYSICAL PARAMETERS IN WATER
INSTREAM CONTAMINANT STUDY - TASK 5

Parameter (Units)	TN Source Standards[1]	EPA Drinking Water Standards[2,3]	Aquatic Life[4] 24 Hr Avg	Aquatic Life[4] Maximum	Mean Concentrations of Tributary Streams to Upper Tennessee River[5]
GENERAL WATER QUALITY					
Temperature (°C)	30.0	-	-	-	15.0
Dissolved Oxygen (mg/L)	-	-	5.0[6]	-	8.8
pH (Standard Units)	6.9	6.5-8.5	6.5-9.0	-	-
Conductivity (μmho/cm)	-	-	-	-	192.0
Turbidity (NTU)	-	1.0	-	-	9.5
Total Suspended Solids (mg/L)	-	-	-	-	13.0
Volatile Suspended Solids (mg/L)[10]	-	-	-	-	-
Total Alkalinity (mg/L)[10]	-	-	-	-	-
Total Hardness (mg/L as $CaCO_3$)	-	-	-	-	126.0
Nitrate+Nitrate Nitrogen (mg/L)	10 (as NO_3-N)	10 (as NO_3-N)	-	-	0.39
Ammonia Nitrogen (mg/L)	-	-	-	0.02[7]	0.09
Total Kjeldahl Nitrogen (mg/L)	-	-	-	-	0.19
Total Phosphorus (mg/L)	-	-	-	-	0.04
Aluminum (μg/L)	-	-	-	-	761.0
Oil and Grease (mg/L)	-	-	-	-	6.0
Cyanides (mg/L)	200.0	-	3.5	52.0	0.01
METALS					
Antimony (μg/L)[10]	-	-	-	-	-
Arsenic (μg/L)	50.0	50.0	40.0	440.0	<3.9
Beryllium (μg/L)	-	-	5.3	130.0	<10.0
Cadmium (μg/L)	10.0	10.0	0.025[8]	3.0[8]	<1.8
Chromium (μg/L)	50.0	50.0[9]	-	100.0[9]	<4.2
Copper (μg/L)	1,000.0	1,000.0	5.6	22.0[8]	<47.0
Lead (μg/L)	50.0	50.0	3.8[8]	170.0[8]	<16.8
Lithium (μg/L)	-	-	-	-	<10.0
Mercury (μg/L)	0.2	2.0	0.2	4.1	<0.4
Nickel (μg/L)	100.0	-	96.0[8]	1,800.0[8]	<48.0
Selenium (μg/L)	10.0	10.0	35.0	260.0	<8.0
Silver (μg/L)	50.0	50.0	-	4.1[8]	<10.0
Thallium (μg/L)[10]	-	-	-	-	-
Zinc (μg/L)	5,000.0	5,000.0	47.0	320.0	126.0

[1] Tennessee Drinking Water Source Standards, 1983.

[2] National Interim Primary Drinking Water Standards, 40 CFR Part 111.

[3] National Secondary Drinking Water Standards, 40 CFR Part 143.

[4] EPA Water Quality Criteria for the Protection of Aquatic Life. Criteria listed are from EPA's Quality Criteria for Water (1976) ("Red Book") and from EPA's 1980 Water Quality Criteria for Priority Pollutants (see 45 FR 79318-79341, November 28, 1980).

[5] Average concentrations in water for streams tributary to the Tennessee River between miles 424 and 652; 43 sampling locations - 1960 to 1983, TVA STORET data.

[6] The 5.0 mg/L criteria for dissolved oxygen is a minimum value rather than a 24-hour average.

[7] 0.02 as unionized ammonia. See EPA's 1976 Quality Criteria for Water, p. 16 for further explanation.

[8] Values calculated for a hardness of 100 mg/L using the equations given in 45 FR 79318-341. Increasing hardness generally decreases toxicity of these metals.

[9] National Interim Primary Drinking Water Standard is 50 μg/L for hexavalent chromium (Cr^{+6}). The criteria listed for aquatic life, irrigation, and livestock are for total chromium, which was the species measured in this study.

[10] No applicable criteria available.

Table IV-2

CRITERIA AND SELECTED DATA FOR CHEMICAL PARAMETERS IN SEDIMENT AND SOIL
INSTREAM CONTAMINANT STUDY - TASK 5

Parameter[1] (ppm)	Proposed Virginia Criteria[2]	Average Earth's Crust[3]	Mean Concentrations of Upper Tennessee River[4]	Mean Concentrations of Tributary Streams to Upper Tennessee River[5]	Mean Concentrations of Clinch River[6]
Mercury (ppm)	0.3	0.5	1.00 (<0.05-4.3)	0.25 (<0.05-0.98)	0.16[7] (<0.05-0.51)
Arsenic	-	-	12.00 (7.4-17.5)	12.20 (2.0-56.0)	8.70 (2.0-16.0)
Cadmium	-	0.2	5.50 (0.4-12.0)	1.80 (<0.4-11.0)	1.40 (<0.4 to 3.7)
Chromium	-	200.0	48.00 (14.0-86.0)	19.70 (5.0-46.0)	19.30 (6.3-44.7)
Lead	-	16.0	59.70 (<10.0-99.0)	47.90 (<3.0-300.0)	31.60 (13.1-72.0)
Nickel	-	100.0	33.60 (5.8-57.0)	22.40 (<3.3-70.0)	30.00 (16.0-70.0)
Silver	-	-	2.50 (0.5-5.0)	1.30 (0.4-2.1)	1.60 (1.3-2.0)
Zirconium	-	-	-	-	-

[1] Concentrations given in mg/kg (ppm), dry weight, range in parenthesis.
[2] State of Virginia proposed regulation for total mercury in freshwater river sediment.
[3] Y. M. Goldschmidt. Courtesy A. Muir, editor, and Clarendon Press, Oxford, publishers of "Geochemistry," average abundance of trace elements in the crust of the earth.
[4] Average concentrations in river sediment for reach from Nickajack Dam to confluence of the Holston and French Broad Rivers, TRMs 427 to 652; 24 sampling locations - 1970 to 1983, TVA STORET data.
[5] Average concentrations in river sediment for streams tributary to the Tennessee River between miles 424 and 652; 43 sampling locations 1970 to 1981, TVA STORET data.
[6] Average concentrations in Clinch River sediment above Melton Hill Dam, CRM 23.2; 12 sampling locations - 1970 to 1981, TVA STORET data.
[7] Seven of twelve samples below detection limits.

Table IV-3

CRITERIA AND SELECTED DATA FOR CHEMICAL PARAMETERS IN FISH[1]
INSTREAM CONTAMINANT STUDY - TASK 5

Parameter[2] (ppm)	FDA Criteria[3]	Tennessee[4] State-Wide Mean	Melton Hill Reservoir[5] CRM 52.2 Bluegill	Melton Hill Reservoir[5] CRM 41.2 Channel Catfish	Melton Hill Reservoir[5] CRM 37.3 Channel Catfish	Clinch River[6] at Kyles Ford Spotted Bass	Great Smoky Mountains National Park[7] Rainbow Trout	Nolichucky[8] River Mile 98.5 Game Fish	Nolichucky[8] River Mile 98.5 Rough Fish	Cayuga Lake[9] New York Lake Trout	Wintergreen Lake[10] Illinois Largemouth Bass	Wintergreen Lake[10] Illinois Hybrid Sunfish	Skinface Pond[11] South Carolina Largemouth Bass	Skinface Pond[11] South Carolina Hybrid Sunfish
METALS														
Mercury	1.0	0.28	0.06 (0.03-0.08)	0.12 (0.1-0.44)	<0.1	0.27 (0.52-0.13)	0.036[12] (0.003-0.18)	0.18 (0.17-0.20)	0.14 (0.11-0.17)	-	0.47 (0.19-0.90)	0.26 (0.14-0.38)	-	-
Cadmium	-	0.07	0.018 (0.001-0.042)	0.003 (0.002-0.008)	0.005 (0.002-0.032)	<0.02	-	0.04 (0.02-0.09)	<0.02	0.004 (0.002-0.006)	0.036 (0.020-0.048)	0.039 (0.026-0.051)	-	-
Chromium	-	0.11	0.030 (0.022-0.044)	0.071 (0.02-0.16)	0.12 (0.04-0.36)	0.023 (0.02-0.03)	-	0.03 (0.02-0.06)	0.05 (0.02-0.07)	0.016 (0.002-0.090)	-	-	-	-
Copper	-	0.87	0.16 (0.06-0.30)	0.65 (0.24-1.8)	0.42 (0.1-1.1)	0.21 (0.06-0.33)	-	0.42 (0.3-0.5)	0.6 (0.34-0.85)	0.022 (0.015-0.056)	-	-	0.22 (0.09-0.50)	0.12 (0.07-0.02)
Lead	-	0.70	0.027 (0.017-0.042)	0.18 (0.04-0.41)	0.29 (0.02-1.6)	0.22 (0.02-0.27)	-	<0.20	0.18 (0.16-0.20)	0.011 (0.004-0.022)	0.30 (0.17-0.45)	0.20 (0.03-0.41)	0.1 (<0.1-0.4)[13]	0.3[13] (<0.1-1.1)
Nickel	-	-	0.40 (0.23-0.65)	<1.0	<1.0	-	-	-	-	0.014 (0.007-0.025)	-	-	-	-
Antimony	-	-	5.4 (4.5-7.5)	<1.0	<1.0	-	-	-	-	-	-	-	-	-
Arsenic	-	-	-	<0.1	<0.1	<0.03	-	<0.03	<0.03	-	-	-	-	-
Beryllium	-	-	-	0.052 (0.02-0.06)	<0.02	-	-	-	-	-	-	-	-	-
Selenium	-	-	-	0.77 (0.34-0.98)	0.57 (0.18-0.73)	-	-	-	-	-	-	-	-	-
Silver	-	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	-
Thallium	-	-	-	<1.0	<1.0	-	-	-	-	-	-	-	-	-
Zinc	-	-	5.4 (4.5-7.5)	7.4 (6.3-8.0)	6.4 (5.2-8.2)	-	-	-	-	0.210 (0.035-0.48)	-	-	2.5 (1.4-4.9)	6.3 (2.5-9.7)
PRIORITY POLLUTANT ORGANICS														
PCBs	2.0	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-
Other Priority Pollutants	-	-	-	-[14]	-[14]	-	-	-	-	-	-	-	-	-

[1]Dashes indicate criteria or background concentration not available.

[2]Concentrations given in mg/kg, wet weight, range in parenthesis.

[3]The Food and Drug Administration recommends an action level of 1.0 ppm and 2.0 ppm for methyl mercury and PCBs, respectively.

[4]Sinclair, et al. (1979), Heavy Metals Concentrations in Fish Tissue in Tennessee (1977-78), Tennessee Division of Health and Environment, Division of Water Quality Control.

[5]CRM 52.2 data from Loar, et al. (1981), Description of the Aquatic Ecology of White Oak Creek Watershed and the Clinch River Below Melton Hill Dam, ORNL Report TM-7509/V2. Data for CRM 41.2 and 37.3 are from fish samples collected from Scarboro Creek Embayment and McCoy Branch Embayment during Task 4 of the Instream Contaminant Study.

[6]McKinney and Melgaard (1980), The Occurrence of Heavy Metals in Norris Reservoir, Tennessee Division of Health and Environment, Division of Water Quality Control.

[7]Huckabee, et al. (1974), "Mercury Concentrations in Fish from the Great Smoky Mountains National Park," Anal. Chim Acta 70: 41-47.

[8]McKinney and Melgaard (1979), Heavy Metals in Fish Flesh from Selected East Tennessee Fisheries, Tennessee Division of Health and Environment, Division of Water Quality Control.

[9]Tong, et al. (1974), "Trace Metals in Lake Cayuga Lake Trout (Salvelinus namaycush) in Relation to Age," J. Fish. Res. Board Canada 31: 258-259. Composite sample of three decapitated and enviscerated fish was analyzed for each of 12 age classes.

[10]Mathis and Kevern, (1975), "Distribution of Mercury Cadmium, Lead, and Thallium in a Eutrophic Lake," Hydrobiologia 46: 207-222. Largemouth bass used in Hg analysis ranged from 400 to 2,400 g (no additional size/age data reported).

[11]Wiener and Giesy, (1979), "Concentrations of Cd, Cu, Mn, Pb, and Zn in Fishes in a Highly Organic Softwater Pond," J. Fish. Res. Board Canada 36: 270-279.

[12]Value based on both axial and whole body concentrations.

[13]Whole body concentration. Wet wt. of fish ranged from 0.34 to 69.36 g and 0.03 to 20.58 g for largemouth bass and bluegill, respectively.

[14]For a detailed listing of concentrations see Task 4 report (5).

Table IV-4

CRITERIA AND SELECTED DATA FOR RADILOGICAL PARAMETERS IN WATER, SEDIMENT, AND FISH INSTREAM CONTAMINANT STUDY - TASK 5

WATER

	LLD[1] (pCi/L)	Standards and Background Levels (pCi/L)		
		Drinking Water Standard[2]	MPC[3]	Tennessee River[4]
ANALYSIS/ISOTOPE				
Gross Alpha	2.0	15	30	4.0
Gross Beta	2.4	--[5]	3,000	9.6
Tritium	330.0	20,000	3,000,000	712.0
Strontium-90	--	--[5]	300	--[6]
GAMMA SPECTRAL ANALYSIS				
Cesium-137	5.0	--[5]	20,000	--[7]
Cobalt-60	5.0	--[5]	30,000	--[7]

SEDIMENT

	Norris Reservoir Control Station[8]		Comparison Data	
	Clinch River Upstream	Powell River	Tennessee River[4]	Clinch River[9]
ANALYSIS/ISOTOPE (pCi/g)				
Gross Alpha	4	3	15	100
Gross Beta	42	37	65	91
Uranium[10]	5.9	2.3	--[6]	2.0
Strontium-89	4	1	14	12.1
Strontium-90	.4	.5	.6	0.6
GAMMA SPECTRAL ANALYSIS[7] (pCi/g)				
Cobalt-60	--	--	.6	2.7
Cesium-134	--	--	.13	.01
Cesium-137	.9	.7	5.5	83
Potassium-40	27	16	27	84
Radium-226	--	--	2.3	1.4
Thorium-234	--	--	--	--
Europium-152	--	--	--	--
Europium-154	--	--	--	--
Americium-241	--	--	--	--
Actinium-228	2.2	1.8	2.7	2.1
Protactinium-234	--	--	4.6	4.8

Table IV-4 Continued

CRITERIA AND SELECTED DATA FOR RADIOLOGICAL PARAMETERS IN WATER, SEDIMENT, AND FISH INSTREAM CONTAMINANT STUDY - TASK 5

FISH

Analysis/Isotope	NRC Reporting Level[11]	Tennessee River[4]	Lower Limit of Detection[1]
ANALYSIS/ISOTOPE			
Gross Alpha	--[5]	5	0.1
Gross Beta	--[5]	45	0.1
Strontium-89	--[5]	1.2	0.5
Strontium-90	--[5]	0.3	0.1
GAMMA SPECTRAL ANALYSIS			
Cobalt-60	40	.03	.01
Cesium-134	4	--[7]	.08
Cesium-137	8	.2	.02
Potassium-40	--[5]	20	1.00

[1] Lower limit of detection as calculated by the method developed by Pasternack and Harley and described in HASL-300 and Nuclear Instruments Methods 91, 533-40 (1971).

[2] Interim Primary Drinking Water Regulations as outlined in 40 CFR 141.

[3] Maximum Permissible Concentrations (MPC) recommended by 10 CFR 20 for nonoccupational exposure.

[4] Maximum concentrations reported by TVA in the Tennessee River samples collected in 1981-83.

[5] No standard available.

[6] Analysis not performed.

[7] Dashes indicate isotope not found in gamma spectral analyses.

[8] Norris Reservoir control station data was obtained from fine-particle sediment samples collected during Task 2 of the Instream Contaminant Study.

[9] Maximum concentrations reported by TVA in surface sediment samples collected from the Clinch River from 1974-1983.

[10] Uranium reported in units of mg/kg, dry weight.

[11] Reporting levels for radioactivity concentrations in environmental samples as outlined in Draft NUREG-0472, Rev. 3, Standard Radiological Effluent Technical Specifications for Pressurized Water Reactors, January 1983.

Table IV-5

SUMMARY OF ORGANIC COMPOUND RESULTS POSSIBLY INFLUENCED BY THE PRESENCE OF PCBS
INSTREAM CONTAMINANT STUDY - TASK 5

Stream	Stream Mile	Species	Laboratory Identification Number	Total PCB (mg/kg)	4,4 DDD (mg/kg)	4,4 DDE (mg/kg)	4,4 DDT (mg/kg)	Endrin Aldehyde (mg/kg)	Aldrin (mg/kg)	Toxaphene (mg/kg)	Heptachlor Epoxide (mg/kg)
East Fork Poplar Creek	13.8	Carp	889	3.1		0.12R	0.12R			0.50R	0.04R
		Carp	891	3.7		0.04R			0.02R		
		Carp	892	2.0		0.06R					
Poplar Creek	0.2	Channel Catfish	1124	<0.10	0.04R	0.02R		0.04R			
		Channel Catfish	1125	<0.10		0.04R		0.04R			
		Channel Catfish	1126	2.1	0.04R	0.04R		0.04R			
		Channel Catfish	1128	<0.10	0.04R	0.02R	0.04R				0.06R
		Channel Catfish	1129	<0.10	0.06R	0.02R		0.04R			
		Channel Catfish	1130	0.65	0.06R	0.04R		0.02R			
		Channel Catfish	1131	1.8	0.10R	0.06R		0.04R			0.02R
		Channel Catfish	1132	<0.10	0.12R	0.12R					
		Channel Catfish	1134	3.4	0.22R	0.16R		0.08R			
White Oak Creek	0.2	Channel Catfish	1135	3.0	0.14R	0.08R		0.06R			
		Channel Catfish	1136	2.4	0.14R	0.10R	0.02R	0.06R			
		Channel Catfish	1137	3.6	0.14R	0.12R		0.06R			
		Channel Catfish	1138	2.2	0.10R	0.04R		0.04R			
		Channel Catfish	1139	5.6	0.18R	0.08R		0.10R			
		Channel Catfish	1140	2.7	0.12R	0.06R		0.06R			
		Channel Catfish	1141	3.5	0.16R	0.10R		0.08R			
		Channel Catfish	1142	2.8	0.10R	0.06R		0.06R			
		Channel Catfish	1143	2.8		0.04R					
Clinch River	41.2	Channel Catfish	1120	<0.10	0.04R			0.02R			
		Channel Catfish	1121	<0.10	0.04R	0.04R		0.02R			
Clinch River	37.3	Channel Catfish	893	1.0	0.10R	0.04R					
		Channel Catfish	896	<0.10	0.06R						
		Channel Catfish	1109	<0.10	0.02R						

APPENDIX V

CONTAMINATED SEDIMENT AND MERCURY ESTIMATES
EAST FORK POPLAR CREEK

INSTREAM CONTAMINANT STUDY - TASK 5

APPENDIX V

CONTAMINATED SEDIMENT AND MERCURY ESTIMATES EAST FORK POPLAR CREEK

INSTREAM CONTAMINATION STUDY - TASK 5

Sediment samples were collected to quantify mercury contamination in the channel and floodplain of East Fork Poplar Creek (EFPC). A total of 394 samples were collected from 130 locations along 30 transects from EFPCM 0.23 to EFPCM 14.31. The samples included 30 surface layer samples and 122 sediment cores that were divided into 3- to 9-inch layers. Approximately 80 percent of the cores penetrated to underlying "uncontaminated" sediment, as defined by a mercury concentration of less than 5.0 mg/kg. Figures V-1 and V-2 illustrate the core data obtained for two of the transects. A complete presentation of the data is given in the Task 2 report.

Mercury concentrations for the <500 μm particle size fraction were used in estimating the volume of contaminated sediment and the amount of mercury present. Over 90 percent of the mercury is contained in this size fraction. Two levels of contamination were examined (i.e., mercury concentrations from 5 to 100 mg/kg and concentrations exceeding 100 mg/kg).

Estimates were developed for each level of contamination using two methods of calculation. Method 1, the transect-reach method, assumes the data at each transect represents a predetermined stream reach. Method 2, the average end-area method, assumes that the average of two adjacent transects represents the stream reach between the two transects.

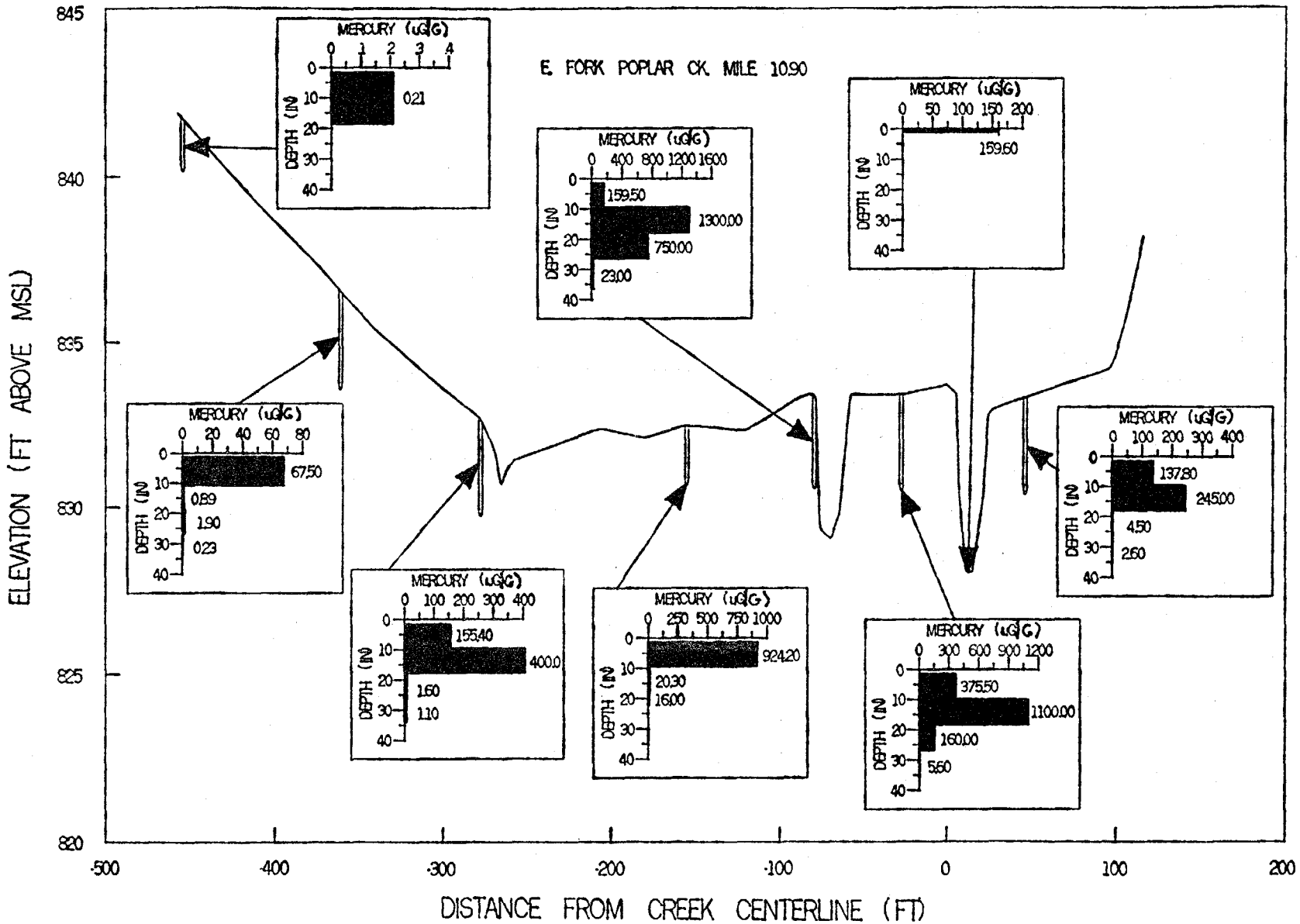

FIGURE V-1: MERCURY CONCENTRATIONS IN SEDIMENT CORES - FLOODPLAIN TRANSECT AT EFPCM 10.90

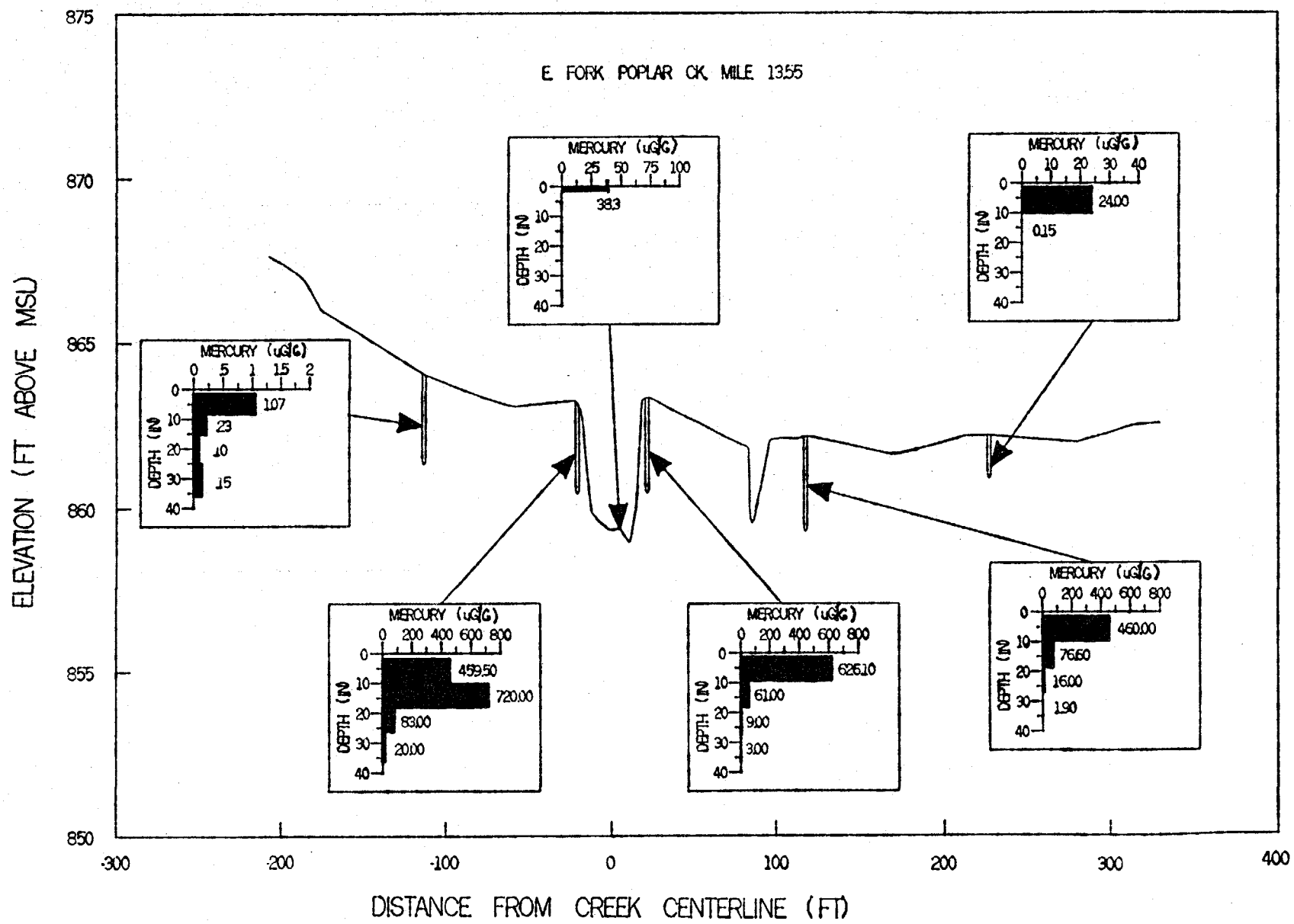

FIGURE V-2: MERCURY CONCENTRATIONS IN SEDIMENT CORES - FLOODPLAIN TRANSECT AT EFPCM 13.55

The two methods also differ in their treatment of the mercury concentration data. Method 1 assumes that the mean mercury concentration (for each level of contamination) at each transect is representative of the transect reach. Method 2 uses the depth weighted mercury concentration (for each level of contamination) at each sampling location on a transect and the distance between these sampling locations to determine the pounds of mercury per foot of stream length at each transect. A mercury quantity for the reach is then determined using the average end-area method.

A third difference between the two methods is in the length used for each stream segment. In Method 1, the effective stream length for a transect reach is obtained by dividing the associated floodplain area by the floodplain width. In Method 2, the stream reach between each transect is the distance measured along the stream channel. The Method 1 length provides a better estimate for a stream which meanders from side to side within the floodplain, but is limited by the number of transects where accurate measurements of the floodplain width are available.

The two methods can be expressed mathematically as follows:

<u>Method 1 - Transect-Reach Method</u>

Equation 1: $V = A_x \Delta L = \frac{A_x A_s}{W_s}$

Equation 2: $Hg = V\ s\ \bar{c}_x \times 10^{-6}$

V = contaminated sediment volume of transect reach in cubic feet

A_x = cross sectional area of contamination at transect x in square feet

ΔL = length of transect reach in feet

A_s = floodplain surface area of transect reach in feet, as planimetered from floodplain maps

W_s = mean floodplain width of transect reach in feet, as determined from field measurements at each transect within the reach

Hg = quantity of mercury in transect reach in pounds

s = specific weight of sediment in pounds per cubic foot

$\bar{c}_x$ = mean mercury concentration of A_x in parts per million

<u>Method 2 - Average End-Area Method</u>

Equation 1: $$V = \frac{A_{x_1} + A_{x_2}}{2} \times \Delta L$$

Equation 2: $$h_x = s \times 10^{-6} \sum_{i=0}^{n} \frac{\left(\sum_{j=1}^{m_i} d_{i,j} c_{i,j} + \sum_{j=1}^{m_{i+1}} d_{i+1,j} c_{i+1,j}\right)(Z_{i+1} - Z_i)}{2}$$

Equation 3: $$Hg = \frac{h_{x_1} + h_{x_2}}{2} \times \Delta L$$

V = contaminated sediment volume of transect reach in cubic feet

A_{x_1} = cross sectional area of contamination at transect x_1 in square feet

ΔL = length of transect reach in feet

h_x = quantity of mercury at transect x per foot of stream length in pounds per foot, as determined from depth weighted mercury concentration at each sampling site along the transect

s = specific weight of sediment in pounds per cubic foot

$d_{i,j}$ = depth of sample layer j from sampling site i along transect x in feet

$c_{i,j}$ = mercury concentration of sample j from sampling site i along transect x in parts per million

$Z_{i+1} - Z_i$ = distance between sampling sites i+1 and i along transect x in feet

n = number of sampling sites along transect x

m_i = number of layers sampled at site i along transect x

Hg = quantity of mercury between transects x_1 and x_2 in pounds

Tables V-1 and V-2 give the estimated sediment volumes and mercury quantities for Method 1. Table V-3 compares the results from Methods 1 and 2 for each level of contamination. The comparison yields two key observations. First, the average end-area method (Method 2) gives larger estimates for total sediment volume and mercury for both levels of contamination. Second, with the exception of the stream reach from EFPCM 10.15 to EFPCM 11.50, the two methods give essentially the same totals. Thus, the net effect of variations within each reach appears to balance out when this one stream reach is excluded. The differences between Methods 1 and 2 for this reach is due primarily to the difference in reach length values (i.e., 4747 feet for Method 1 and 7128 feet for Method 2). Examination of the Task 2 floodplain maps suggests that the best estimate may be somewhere between the Methods 1 and 2 values.

In summary, the two methods of estimating sediment volumes and mercury quantities provide a reasonable range for individual reaches and for the total sediment volume and mercury estimates. For the purpose of this study, the mean of Methods 1 and 2 are used as the best estimates for the individual reaches and the two concentration levels. It should be noted

Table V-1

ESTIMATED VOLUME OF MERCURY CONTAMINATED SEDIMENT[1] - TRANSECT REACH METHOD
EAST FORK POPLAR CREEK CHANNEL AND FLOODPLAIN
INSTREAM CONTAMINANT STUDY - TASK 5

Stream Reach (Miles)	Floodplain Area (Sq. Ft. x 10^6)	Floodplain Width at Transect (Feet)	Cross Sectional Area of Contamination at Transect (Square Feet)			Estimated Volume of Contaminated Sediment (Cubic Feet x 10^6)		
			5-100 mg/kg	>100 mg/kg	Total[2]	5-100 mg/kg	>100 mg/kg	Total
0.00-1.29	2.587	508	60.00	-	60.00	0.306	-	0.306
1.29-2.00	2.511	350	345.95	109.88	445.83	2.482	0.788	3.270
2.00-2.70	0.982	535	183.15	-	183.15	0.336	-	0.336
2.70-3.60	1.527	223	83.12	-	83.12	0.571	-	0.571
3.60-4.80	1.315	560	138.31	-	138.31	0.325	-	0.325
4.80-6.10	2.524	478	160.57	-	160.57	0.848	-	0.848
6.10-6.89	1.420	540	359.83	161.80	521.63	0.946	0.425	1.371
6.89-7.95	2.070	275	84.40	9.38	93.78	0.635	0.071	0.706
7.95-8.45	0.847	205	102.41	25.92	128.33	0.423	0.107	0.530
8.45-9.45	1.490	370	188.31	8.88	197.19	0.758	0.036	0.794
9.45-10.15	1.674	467	199.16	103.12	302.28	0.714	0.370	1.084
10.15-11.50	2.364	498	337.50	268.56	606.06	1.602	1.275	2.877
11.50-12.12	1.859	360	30.59	20.25	50.84	0.158	0.105	0.263
12.12-12.89	1.200	550	92.53	-	92.53	0.202	-	0.202
12.89-13.27	0.743	485	265.81	157.97	423.78	0.407	0.242	0.649
13.27-13.85	1.229	512	403.12	220.78	623.90	0.968	0.530	1.498
13.85-14.40	0.194	130	33.27	30.45	63.72	0.050	0.045	0.095
Totals	26.536					11.731	3.994	15.725

[1]Based on sample results for size fraction less than 500 μm and mercury concentrations between 5.0 and 100 mg/kg and exceeding 100 mg/kg. See Task 2 report for details on individual transects and mercury concentrations.

[2]Some values modified from Task 2 report to include minor transect area corrections.

Table V-2

ESTIMATED QUANTITY OF MERCURY IN CONTAMINATED SEDIMENT[1] - TRANSECT REACH METHOD
EAST FORK POPLAR CREEK CHANNEL AND FLOODPLAIN
INSTREAM CONTAMINANT STUDY - TASK 5

Stream Reach (Miles)	Mean Mercury Concentration (mg/kg day weight, <500 μm)		Estimated Quantity of Mercury in Sediment (Pounds)		
	5-100 mg/kg	>100 mg/kg	5-100 mg/kg	>100 mg/kg	Total
0.00-1.29	27.1	-	790	-	790
1.29-2.00	27.3	140.7	6,430	10,530	16,960
2.00-2.70	17.8	-	570	-	570
2.70-3.60	31.1	-	1,680	-	1,680
3.60-4.80	33.1	-	1,020	-	1,020
4.80-6.10	21.3	-	1,720	-	1,720
6.10-6.89	39.1	222.2	3,480	9,120	12,600
6.89-7.95	25.8	110.6	1,560	740	2,300
7.95-8.45	35.5	145.0	1,430	1,470	2,900
8.45-9.45	46.8	173.7	3,370	590	3,960
9.45-10.15	37.9	185.4	2,570	6,510	9,080
10.15-11.50	31.9	488.9	4,850	59,220	64,070
11.50-12.12	39.1	131.0	590	1,300	1,890
12.12-12.89	42.8	-	820	-	820
12.89-13.27	33.4	110.8	1,230	2,760	3,990
13.27-13.85	34.1	616.7	3,140	31,060	34,200
13.85-14.40	40.0	139.4	190	600	790
Mean/Total	33.0	354.8	35,440	123,900	159,340

[1]Based on sample results for size fraction less than 500 μm; mean mercury concentration for each reach for mercury values between 5.0 and 100 mg/kg and exceeding 100 mg/kg; estimated volume of contaminated sediment given in Table V-1; and assumed specific sediment weight of 95 pounds per cubic foot.

Table V-3

COMPARISON OF ESTIMATED SEDIMENT AND MERCURY QUANTITIES FOR METHODS 1 AND 2[1]
EAST FORK POPLAR CREEK CHANNEL AND FLOODPLAIN
INSTREAM CONTAMINANT STUDY - TASK 5

Stream Reach (Miles)	Estimated Volume of Contaminated Sediment ($Ft^3 x10^6$)						Estimated Quantity of Mercury in Sediment (Pounds)					
	5-100 mg/kg		>100 mg/kg		Total		5-100 mg/kg		>100 mg/kg		Total	
	Method 1	Method 2	Method 1	Method 2	Method 1	Method 2	Method 1	Method 2	Method 1	Method 2	Method 1	Method 2
0.00-1.29	0.306	0.381	-	0.031	0.306	0.412	790	840	-	420	790	1,260
1.29-2.00	2.482	0.893	0.788	0.247	3.270	1.140	6,430	2,290	10,530	3,330	16,960	5,620
2.00-2.70	0.336	0.768	-	0.125	0.336	0.893	570	2,180	-	1,690	570	3,870
2.70-3.60	0.571	0.518	-	-	0.571	0.518	1,680	1,710	-	-	1,680	1,710
3.60-4.80	0.325	0.826	-	-	0.325	0.826	1,020	2,110	-	-	1,020	2,110
4.80-6.10	0.848	1.261	-	0.212	0.848	1.473	1,720	2,240	-	3,520	1,720	5,760
6.10-6.89	0.946	0.943	0.425	0.475	1.371	1.418	3,480	1,990	9,120	7,820	12,600	9,810
6.89-7.95	0.635	0.586	0.071	0.154	0.706	0.740	1,560	1,540	740	2,190	2,300	3,730
7.95-8.45	0.423	0.362	0.107	0.081	0.530	0.443	1,430	1,110	1,470	880	2,900	1,990
8.45-9.45	0.758	0.906	0.036	0.089	0.794	0.995	3,370	4,370	590	1,570	3,960	5,940
9.45-10.15	0.714	0.555	0.370	0.330	1.084	0.885	2,570	1,720	6,510	10,180	9,080	11,900
10.15-11.50	1.602	1.932	1.275	1.938	2.877	3.870	4,850	5,190	59,220	89,930	64,070	95,120
11.50-12.12	0.158	0.570	0.105	0.034	0.263	0.604	590	2,410	1,300	430	1,890	2,840
12.12-12.89	0.202	0.185	-	0.043	0.202	0.228	820	770	-	530	820	1,300
12.89-13.27	0.407	0.600	0.242	0.257	0.649	0.857	1,230	2,450	2,760	8,490	3,990	10,940
13.27-13.85	0.968	0.869	0.530	0.450	1.498	1.319	3,140	3,120	31,060	21,370	34,200	24,490
13.85-14.40	0.050	0.083	0.045	0.048	0.095	0.131	190	220	600	540	790	760
Totals	11.731	12.238	3.994	4.514	15.725	16.752	35,440	36,260	123,900	152,890	159,340	189,150

[1]Based on sample results for size fraction less than 500 μm; mercury concentrations between 5.0 and 100 mg/kg and exceeding 100 mg/kg; an assumed specific sediment weight of 95 pounds per cubic foot. See Task 2 report for additional detail.

that these estimates do not include the small amount of mercury contained in sediments larger than 500 μm or those sediments with a mercury concentration less than <5.0 mg/kg.