

ADEM Fish Tissue Monitoring Program 2017 Annual Report

*Black Warrior and Cahaba River Basins and Coastal
Region*

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Alabama Department of Environmental Management

Field Operations Division

Montgomery Branch

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INTRODUCTION

The Alabama Department of Environmental Management (ADEM) and its predecessor, the Alabama Water Improvement Commission (AWIC), have collected fish for analysis of contaminant levels since 1970. For the 20 years that followed, fish collections focused on areas of known or suspected contamination. In 1991, the ADEM expanded its Fish Tissue Monitoring Program (FTMP) to provide statewide screening of bioaccumulative contaminants in fish tissue, and to provide the Alabama Department of Public Health (ADPH) with data needed for determination of potential risk to those who consume fish from Alabama waters and to issue/modify fish consumption advisories within the state. The expanded program historically exists as a cooperative effort between the ADEM, the ADPH, the Alabama Department of Conservation and Natural Resources (ADCNR) and the Tennessee Valley Authority (TVA).

Following expansion of the program to statewide screening, fish from all of Alabama's major reservoirs, rivers, streams and state-managed public fishing lakes were collected over a five-year period. Data from these locations were provided to the ADPH for issuance, modification, or removal of fish consumption advisories to the public. The results of the program over the five-year period indicated that the majority of Alabama waterbodies supported healthy fish populations, with low to undetectable contaminant levels where any contaminants existed. However, the ADPH determined that fish from certain waterbodies were found to contain contaminant levels in excess of Environmental Protection Agency (EPA) and Food and Drug Administration (FDA) guidance levels.

In 1997, the FTMP was incorporated into the ADEM Watershed Management Approach. Pursuant to this approach, water quality of each major drainage basin in the state was assessed by

ADEM on a five-year rotating basis. The initial rotation was completed in 2001 with the five major basins and years sampled as follows:

- a) Black Warrior and Cahaba Rivers (1997)
- b) Tennessee River (1998)
- c) Chattahoochee and Conecuh Rivers (1999)
- d) Coosa, Tallapoosa and Alabama Rivers (2000)
- e) Escatawpa, Mobile and Tombigbee Rivers (2001)

In addition to the basin locations sampled each year, the ADEM continued to sample areas of concern outside the focus basin as needed or requested by cooperating agencies and as resources allowed. To date, samples comprised of several thousand fish have been collected from 380 sites for the FTMP.

Because of the variability in contaminant concentrations observed in fish collected from locations over several years, and the need for additional monitoring at a number of locations, the approach to annual monitoring was refined in 2002. Annual fish tissue monitoring by ADEM became multi-faceted and directed toward accomplishing three goals:

- a) sampling locations throughout the focus basin
- b) repetitive sampling of sites where the ADPH has determined that EPA/FDA limits have been exceeded and
- c) sampling remaining areas in Alabama where fish have not been collected for the FTMP.

Repetitive sampling of sites where EPA/FDA action levels have been exceeded proceeds as follows:

- a) Sites that exceeded EPA/FDA limits for the first time the previous year will be sampled for a minimum of two concurrent years to provide verification of contaminant concentrations as requested by the ADPH.
- b) Sites where ADPH consumption advisories currently exist will be sampled at a minimum of every three years to provide data for analysis of trends in contaminant concentrations.

In June 2006 the ADPH adopted the EPA guidance level of 0.33 ug/g mercury in fish for issuance of public consumption advisories, replacing the FDA guidance level of 1.0 ug/g previously used.

The program was further modified in 2015 to meet the data needs of the ADEM water quality assessment and listing process. In order to meet these needs, fish tissue samples will be collected within each major river basin in the state on a three-year rotating basis, providing two repetitions of sampling within the six-year period required for monitoring data in the assessment and listing methodology. The initial regional rotation will be as follows:

- a) Alabama, Cahaba, Tallapoosa, and Tennessee Rivers
- b) Coosa, Mobile, and Tombigbee Rivers
- c) Black Warrior, Perdido-Escambia, Choctawhatchee, Pea, and Chattahoochee Rivers

In addition to the major river basin schedule, coastal sample locations (locations south of the I-65 Mobile River bridge) will be divided into three geographic regions, eastern, central and western, and sampled on a three-year rotation as well.

Within the river basins and coastal zones, site selection will be directed toward accomplishing three goals:

- a) Repetitive sampling of sites where the ADPH has determined that EPA/FDA limits have been exceeded
- b) Repetitive sampling of sites within each major Alabama reservoir in support of Alabama's Assessment and Listing Methodology
- c) Sampling remaining areas in Alabama where fish have not been collected for the FTMP or other areas of concern as they arise.

Since the adoption of the lower EPA guidance level for mercury in 2006 the number of sample locations with consumption advisories for mercury has steadily increased. The combination of this increase in advisory locations with the three year basin rotation instituted in 2015 has caused an increase in the number of yearly sample locations to a point that has become unsustainable due to laboratory limitations as well as funding constraints. In order to maximize available laboratory resources, as well as streamline data reporting, the program was further modified in 2017 as follows. Beginning in 2017 annual fish tissue sampling will be directed toward accomplishing three main goals:

- a) Sampling locations throughout the focus basin
- b) Repetitive sampling of sites within the focus basin where the ADPH has determined that EPA/FDA action limits have been exceeded

- c) Sampling remaining areas in Alabama where fish have not been collected for the FTMP or other areas of concern as they arise.

Each major drainage basin will be monitored once on a five-year rotating basis. The basin rotation will be as follows:

- a) Black Warrior and Cahaba Rivers (2017)
- b) Tennessee River (2018)
- c) Perdido-Escambia, Choctawhatchee, Pea and Chattahoochee Rivers (2019)
- d) Alabama, Coosa and Tallapoosa Rivers (2020)
- e) Mobile and Tombigbee Rivers (2021)

In addition to the major river basin schedule, coastal sample locations (locations south of the I-65 Mobile River bridge) will be divided roughly into five geographic regions and sampled on a five-year rotation as well.

The extent to which the above goals are accomplished each year is dependent upon available resources.

METHODS

Fish sampling and tissue preparation procedures for the FTMP are as described in the ADEM documents: *Fish Tissue Monitoring Program Sample Collection Procedures (SOP #2300)* and *Fish Tissue Monitoring Sample Processing and Data Reporting Procedures (SOP# 2301)*.

Sampling is typically conducted in the fall of the year, generally October-December for the FTMP. These months are preferred in fish tissue monitoring programs because:

- a) Organic pollutants, primarily stored in fatty (lipid) tissue, would be at the greatest concentration as fat content of fish is highest at this time of year.
- b) Target species are more easily collected while water levels are low and as water temperatures cool.
- c) Fall collections do not interfere with spawning seasons of target species.

Collection methods may include electrofishing and/or gillnets as needed. Typically six individuals of the same species are collected at each location from each of two primary feeding groups, predators and bottom-feeders. At stations where FDA and/or EPA guidance levels have been exceeded, multiple commercial and/or sport fish species may be collected if available and as resources allow. Collected fish are within a size range identified in the SOP, with the additional requirement that catfish weigh a minimum of one pound as requested by the ADPH.

After collection, fish are weighed and measured with any abnormalities noted. The skin of each fish is removed and discarded, followed by the removal of left and right side fillets that are packaged separately for laboratory analysis (Table 1) and storage as needed. Otoliths and or spines are removed from the carcass and preserved for age determinations.

Table 1. Analytical parameters for the ADEM Fish Tissue Monitoring Program.

Parameter	Method	RL	MDL	FDA Guidance Level	EPA Guidance Level
Arsenic, Total	EPA200.9	0.5 ug/g	0.177 ug/g		
Cadmium	EPA200.9	0.02 ug/g	0.005 ug/g		
Mercury, Total	EPA245.6	0.1 ug/g	0.015 ug/g	1.0 ug/g	0.33 ug/g
Selenium, Total	EPA200.9	0.5 ug/g	0.144 ug/g		
Chlordane, Total	SW8081A	0.01 ug/g		0.3 ug/g	
4,4-DDD	SW8081A	0.01 ug/g		Total DDT 5.0 ug/g	
4,4-DDE	SW8081A	0.01 ug/g			
4,4-DDT	SW8081A	0.01 ug/g			
2,4-DDD	SW8081A	0.01 ug/g			
2,4-DDE	SW8081A	0.01 ug/g			
2,4-DDT	SW8081A	0.01 ug/g			
Chlorpyrifos	SW8081A	0.01 ug/g			
Dieldrin	SW8081A	0.01 ug/g		0.3 ug/g	
Endosulfan I	SW8081A	0.01 ug/g			
Endosulfan II	SW8081A	0.01 ug/g			
Endrin	SW8081A	0.01 ug/g			
gamma-BHC (Lindane)	SW8081A	0.01 ug/g			
Heptachlor	SW8081A	0.01 ug/g		0.3 ug/g	
Heptachlor Epoxide	SW8081A	0.01 ug/g		0.3 ug/g	
Hexachlorobenzene	SW8081A	0.05 ug/g			
Mirex	SW8081A	0.01 ug/g		0.1 ug/g	
Arochlor 1016	SW8082	0.125 ug/g			
Arochlor 1221	SW8082	0.125 ug/g			
Arochlor 1232	SW8082	0.125 ug/g			
Arochlor 1242	SW8082	0.125 ug/g			
Arochlor 1248	SW8082	0.125 ug/g			
Arochlor 1254	SW8082	0.125 ug/g			
Arochlor 1260	SW8082	0.125 ug/g			
Total PCBs	SW8082	0.35 ug/g		2.0 ug/g	
Toxaphene	SW8081A	0.05 ug/g		5.0 ug/g	
Percent lipids	SW3640A	0.10%			

Following completion of analyses, all data are compiled and distributed to cooperating agencies. Analytical results are published and provided to the public through the ADEM website.

RESULTS

From September through December 2017, 421 fish (15 different species) from 36 locations (Figure 1 and Table 2) were collected, processed and analyzed for the FTMP. Twenty-eight different waterbodies were sampled. Eighteen locations with current consumption advisories for mercury were sampled. Analytical results for the 2017 FTMP are presented in Table 3. Information on current fish consumption advisories that were developed from FTMP data is available on the ADPH website at <http://www.adph.org/tox/index.asp?id=1360>. Nutritional information and safe practices for selecting and preparing fish are also available at [this site](#).

ADEM's monitoring program also includes an evaluation of the physical condition of important sport and/or commercial fish species. Results of the evaluation indicate the majority of the fish evaluated were in good to excellent condition. Fish were also checked for external anomalies, such as lesions, tumors, parasites and deformities. Some 90 percent of the fish observed had no anomalies, a value similar to those of previous years. The most commonly observed anomalies were lesions on the body surface and internal and external parasites. The occurrence of lesions on fish during spring and fall may be the result of bacterial infections associated with changing water temperatures, spawning stress or a combination of natural occurrences. These infections are not dangerous to the consumer and the fish are edible if properly prepared.

For more information regarding ADEM's Fish Tissue Monitoring Program please contact Michael Len at 334-260-2787.

Figure 1. CY 2017 FTMP sample locations.

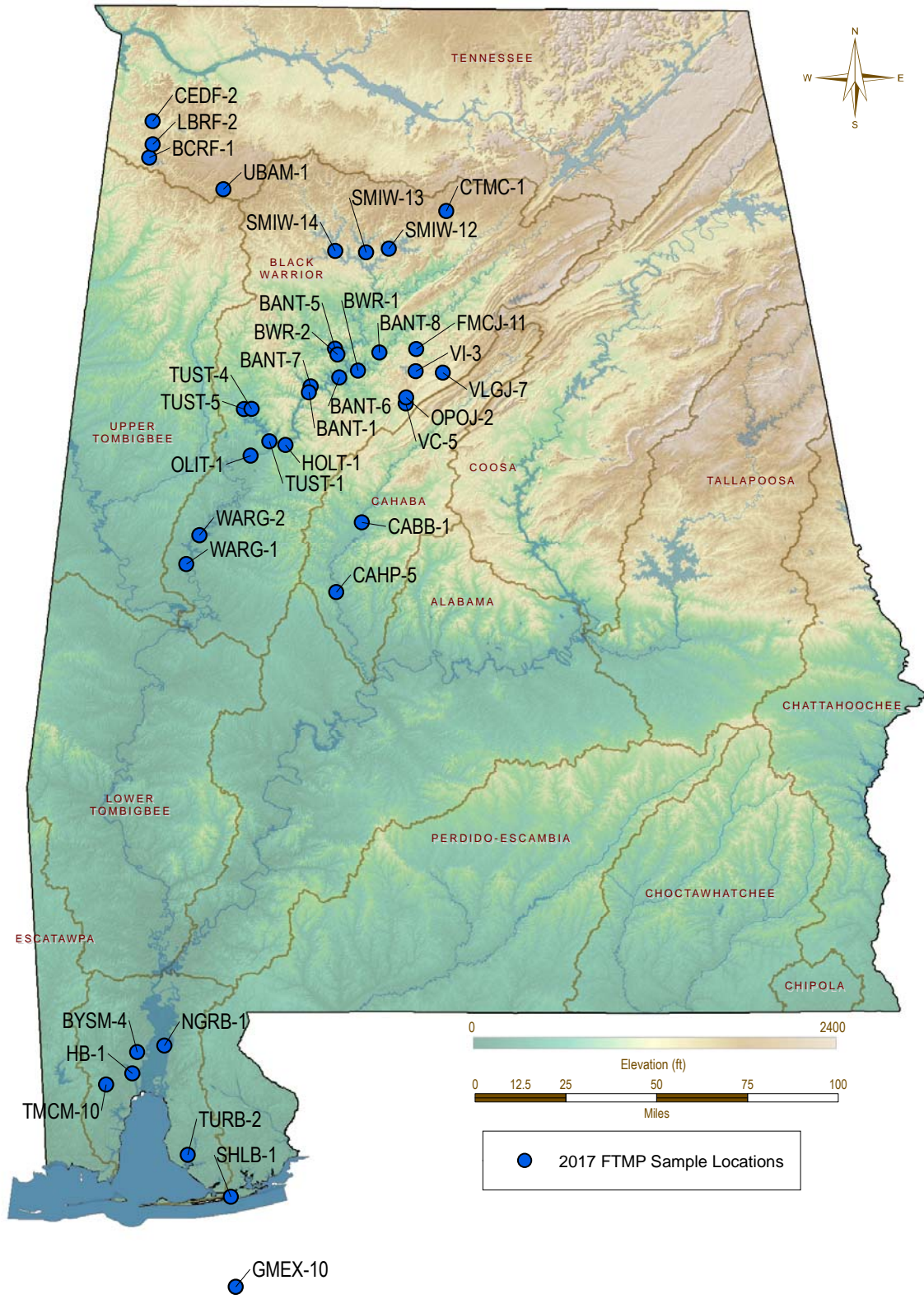


Table 2. CY 2017 FTMP sample location information; basin, locale, station ID, species collected and location description.

Basin	Locale	Station ID	County	Species Collected	Location Description
Black Warrior	Bankhead Res	BANT-1	Tuscaloosa	Largemouth bass Channel catfish	Lower reservoir. Deepest point, main river channel, dam forebay.
Black Warrior	Big Yellow Ck (Bankhead)	BANT-7	Tuscaloosa	Largemouth bass Channel catfish	Big Yellow Creek embayment, approximately 1 mile upstream of confluence with Warrior River.
Black Warrior	Binion Ck (Tuscaloosa)	TUST-5	Tuscaloosa	Channel catfish Largemouth bass	Binion Creek, deepest point, main channel, immediately upstream of Hwy 43.
Black Warrior	Fivemile Ck	FMCJ-11	Jefferson	Golden redhorse Spotted bass	Fivemile Ck between Brookside and Cardiff.
Black Warrior	Holt Res	HOLT-1	Tuscaloosa	Channel catfish Largemouth bass	Lower reservoir. Forebay area, downstream of Deerlick Creek public access area.
Black Warrior	Lake Catoma	CTMC-1	Cullman	River redhorse Largemouth bass	Lake Catoma lower reservoir. Deepest point of main river channel dam forebay.
Black Warrior	Locust Fk	BWR-1	Jefferson	Largemouth bass Channel catfish	Locust Fork at river mile 388.5 near Vines Fish Camp.
Black Warrior	Lost Ck (Bankhead)	BANT-5	Walker	Largemouth bass Channel catfish	Deepest point, main creek channel, Lost Creek embayment. Approximately 0.5 mile downstream of Walker Co. Rd. 53 bridge.

Table 2. CY 2017 FTMP sample location information; basin, locale, station ID, species collected and location description.

Basin	Locale	Station ID	County	Species Collected	Location Description
Black Warrior	Mulberry Fk	BWR-2	Walker	Channel catfish Largemouth bass	Mulberry Fork at river mile 391.8 downstream of Lost Creek.
Black Warrior	Oliver Res	OLIT-1	Tuscaloosa	Channel catfish Largemouth bass	Lower reservoir. Deepest point, main river channel, dam forebay.
Black Warrior	Opossum Ck	OPOJ-2	Jefferson	Bluegill Largemouth bass Yellow bullhead Alabama Hog Sucker Green Sunfish	Opossum Ck at Woodward Road.
Black Warrior	Rock Ck (Lewis Smith)	SMIW-13	Winston	Channel catfish Largemouth bass	Rock Creek, Smith Reservoir in vicinity of Little Crooked Creek and Rock Creek Marina. Approximately 5.0 miles upstream from Sipsey Fork.
Black Warrior	Ryan Ck (Lewis Smith)	SMIW-12	Cullman	Channel catfish Largemouth bass Spotted bass	Ryan Creek, Smith Reservoir approximately 2.2 miles upstream of Big Bridge and approximately 12 miles upstream of Sipsey Fork.
Black Warrior	Smith Res	SMIW-14	Winston	Channel catfish Largemouth bass	Smith Reservoir mouth of Clear Creek, mouth of Butler Creek, Sipsey Fork in vicinity of Clear and Butler creeks. 2.3 miles upstream of State Rt. 257 bridge.
Black Warrior	Tuscaloosa Res	TUST-1	Tuscaloosa	Channel catfish Largemouth bass	Lower reservoir. Deepest point, main river channel, dam forebay.

Table 2. CY 2017 FTMP sample location information; basin, locale, station ID, species collected and location description.

Basin	Locale	Station ID	County	Species Collected	Location Description
Black Warrior	Tuscaloosa Res	TUST-4	Tuscaloosa	Channel catfish Largemouth bass	North River immediately upstream of Bull Slough Road crossing, deepest point, main channel.
Black Warrior	Valley Ck	VALJ-9	Jefferson	Bluegill Largemouth bass Longear sunfish	Downstream of Opossum Ck confluence.
Black Warrior	Valley Ck (Bankhead)	BANT-6	Jefferson	Largemouth bass Channel catfish	Deepest point, main creek channel, Valley Creek embayment. Approximately 1.0 mile upstream of confluence with Warrior River.
Black Warrior	Village Ck	VI-3	Jefferson	Bluegill Largemouth bass	Village Creek at Jefferson Co Rd 65.
Black Warrior	Village Ck	VLGJ-7	Jefferson	Bluegill Largemouth bass	Village Creek at 24th Street, Birmingham, AL.
Black Warrior	Village Ck (Bankhead)	BANT-8	Jefferson	Largemouth bass Channel catfish Spotted bass	Village Creek embayment approximately 0.5 mile upstream of confluence with Warrior River.
Black Warrior	Warrior Res	WARG-1	Greene	Blue catfish Largemouth bass	Lower reservoir. Deepest point, main river channel, dam forebay.
Black Warrior	Warrior Res	WARG-2	Greene	Blue catfish Largemouth bass	Mid reservoir. Deepest point, main river channel, immediately downstream of Lock 8 Public Use Area.

Table 2. CY 2017 FTMP sample location information; basin, locale, station ID, species collected and location description.

Basin	Locale	Station ID	County	Species Collected	Location Description
Cahaba	Cahaba R	CABB-1	Bibb	Channel catfish Spotted bass	Cahaba River at AL Hwy 219.
Cahaba	Cahaba R	CAHP-5	Perry	Channel catfish Spotted bass	Cahaba River at AL Hwy 183.
Mobile	Bayou Sara	BYSM-4	Mobile	Channel catfish Largemouth bass	Bayou Sara approximately 0.75 mile upstream of Gunnison Creek.
Mobile	Gulf Of Mexico	GMEX-10	Mobile	Red Snapper	Gulf of Mexico.
Mobile	Hog Bayou	HB-1	Mobile	Channel catfish Largemouth bass	Hog Bayou at buried pipeline crossing 1/2 mile upstream from mouth.
Mobile	Negro Sl	NGRB-1	Baldwin	Channel catfish Largemouth bass	Negro Slough at Tensaw River, lat/lon calculated 1.0 mile upstream of confluence with the Tensaw River.
Mobile	Three Mile Ck Res	TMCM-10	Mobile	Black crappie Largemouth bass Redear sunfish	Langan Municipal Lake located on Three Mile Ck.
Mobile	Turkey Br	TURB-2	Baldwin	Largemouth bass Striped mullet	Turkey Branch upstream of Fish River confluence.

Table 2. CY 2017 FTMP sample location information; basin, locale, station ID, species collected and location description.

Basin	Locale	Station ID	County	Species Collected	Location Description
Perdido	L Shelby	SHLB-1	Baldwin	Channel catfish Largemouth bass Striped mullet	Lake Shelby in Gulf State Park in deep hole ~ 15-18 feet deep created by a spring.
Tennessee	Bear Ck Res	BCRF-1	Franklin	Channel catfish Largemouth bass	Dam forebay area of Bear Creek Reservoir. Bear Creek mile 75.
Tennessee	Cedar Ck Res	CEDF-2	Franklin	Channel catfish Largemouth bass	Dam forebay to 1.0 mile upstream of the dam.
Tennessee	Little Bear Ck Res	LBRF-2	Franklin	Channel catfish Largemouth bass	Dam forebay area, Little Bear Creek mile 12.5.
Tennessee	U Bear Ck Res	UBAM-1	Marion	Channel catfish Largemouth bass	Upper Bear Creek Reservoir dam forebay area. Upper Bear Creek mile 115.



Table 3. CY2017 Fish Tissue Monitoring Program analytical results.

BANT-1, Bankhead Res - Lower reservoir. Deepest point, main river channel, dam forebay.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	427	416	397	393	421	401
Length (inches)	16.81	16.38	15.63	15.47	16.57	15.79
Weight (g)	590	622	626	472	742	556
Weight (oz)	20.81	21.94	22.08	16.65	26.17	19.61
Sex/Age	M/5	M/5	M/6	M/5	F/6	M/6
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	10-30-17	10-30-17	10-30-17	10-30-17	10-30-17	10-30-17
Skin on Fillet	N	N	N	N	N	N
Internal Parasite		Slight/Mild	Slight/Mild			Slight/Mild

Composite - 6 Fish**Bottle Code: 10/30/2017 BANT-1 CHC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	< .056
SELENIUM, TOTAL ug/g	.165 JI

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	330	405	415	403	360	355
Length (inches)	12.99	15.94	16.34	15.87	14.17	13.98
Weight (g)	506	958	1,008	980	606	661
Weight (oz)	17.85	33.79	35.56	34.57	21.38	23.32
Sex/Age	M/2	F/3	F/3	M/4	F/2	M/3
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-30-17	10-30-17	10-30-17	10-30-17	10-30-17	10-30-17
Skin on Fillet	N	N	N	N	N	N
Internal Parasite		Slight/Mild	Slight/Mild			
Lesions			Slight/Mild			

Composite - 6 Fish**Bottle Code: 10/30/2017 BANT-1 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	.008 JI
MERCURY, TOTAL ug/g	.133
SELENIUM, TOTAL ug/g	.287 JI

BYSM-4, Bayou Sara - Bayou Sara approximately 0.75 mile upstream of Gunnison Creek.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	390	355	377	378	361	352
Length (inches)	15.35	13.98	14.84	14.88	14.21	13.86
Weight (g)	540	356	468	384	368	342
Weight (oz)	19.05	12.56	16.51	13.55	12.98	12.06
Sex/Age	F/5	M/4	M/5	M/5	M/5	M/4
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	11-07-17	11-07-17	11-07-17	11-07-17	11-07-17	11-07-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.151	.204	.146	< .056	.175	.12
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Composite - 6 Fish**Bottle Code: 11/7/2017 BYSM-4 CHC 01-06**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	< .00137
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	< .012
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	.45
MERCURY, TOTAL ug/g	.135
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.154 JI
TOXAPHENE ug/g	< .00002

BYSM-4, Bayou Sara - Bayou Sara approximately 0.75 mile upstream of Gunnison Creek.

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	355	346	366	375	330	413
Length (inches)	13.98	13.62	14.41	14.76	12.99	16.26
Weight (g)	582	622	614	778	496	912
Weight (oz)	20.53	21.94	21.66	27.44	17.50	32.17
Sex/Age	M/5	F/5	F/5	F/5	F/5	F/5
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-07-17	11-07-17	11-07-17	11-07-17	11-07-17	11-07-17
Skin on Fillet	N	N	N	N	N	N

Internal Parasite Slight/Mild

MERCURY, TOTAL ug/g	.667	.753	.719	.466	.346	.458
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Composite - 6 Fish**Bottle Code: 11/7/2017 BYSM-4 LMB 01-06**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	< .00137
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	< .012
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	.009
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	.14
MERCURY, TOTAL ug/g	.451
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.156 JI
TOXAPHENE ug/g	< .00002

BCRF-1, Bear Ck Res - Dam forebay area of Bear Creek Reservoir. Bear Creek mile 75.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	492	460	561	422	465	433
Length (inches)	19.37	18.11	22.09	16.61	18.31	17.05
Weight (g)	1,080	714	1,396	646	936	692
Weight (oz)	38.10	25.19	49.24	22.79	33.02	24.41
Sex/Age	/6	/4	/6	/5		
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	11-13-17	11-13-17	11-13-17	11-13-17	11-13-17	11-13-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.062 JI	< .056	< .056	.149	.183	.153
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Composite - 6 Fish**Bottle Code: 11/13/2017 BCRF-1 CHC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	< .0424

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	419	360	387	463	357	351
Length (inches)	16.50	14.17	15.24	18.23	14.06	13.82
Weight (g)	1,000	768	772	1,556	612	516
Weight (oz)	35.27	27.09	27.23	54.89	21.59	18.20
Sex/Age	/3	/2	/3	/4	/3	/3
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-13-17	11-13-17	11-13-17	11-13-17	11-13-17	11-13-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.571	.268	.652	.495	.398	.868
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Composite - 6 Fish**Bottle Code: 11/13/2017 BCRF-1 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	.06 JM
SELENIUM, TOTAL ug/g	< .0424

BANT-7, Big Yellow Ck (Bankhead) - Big Yellow Creek embayment, approximately 1 mile upstream of confluence with Warrior River.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	526	421	393	426	425	372
Length (inches)	20.71	16.57	15.47	16.77	16.73	14.65
Weight (g)	1,258	644	526	578	648	394
Weight (oz)	44.37	22.72	18.55	20.39	22.86	13.90
Sex/Age	F/6	F/6	F/4	M/8	M/7	F/5
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	10-30-17	10-30-17	10-30-17	10-30-17	10-30-17	10-30-17
Skin on Fillet	N	N	N	N	N	N
Internal Parasite	Slight/Mild					

Composite - 6 Fish**Bottle Code: 10/30/2017 BANT-7 CHC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.081
SELENIUM, TOTAL ug/g	.193 JI

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	432	387	384	404	404	331
Length (inches)	17.01	15.24	15.12	15.91	15.91	13.03
Weight (g)	1,138	894	742	850	866	464
Weight (oz)	40.14	31.53	26.17	29.98	30.55	16.37
Sex/Age	F/4	F/3	M/4	F/3	M/3	F/3
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-30-17	10-30-17	10-30-17	10-30-17	10-30-17	10-30-17
Skin on Fillet	N	N	N	N	N	N
Lesions	Slight/Mild					

Composite - 6 Fish**Bottle Code: 10/30/2017 BANT-7 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.251
SELENIUM, TOTAL ug/g	.278 JI

TUST-5, Binion Ck (Tuscaloosa) - Binion Creek, deepest point, main channel, immediately upstream of Hwy 43.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	523	493	465	475	437	366
Length (inches)	20.59	19.41	18.31	18.70	17.20	14.41
Weight (g)	1,150	1,086	726	806	666	336
Weight (oz)	40.57	38.31	25.61	28.43	23.49	11.85
Sex/Age	F/5	F/6	F/5	F/5	F/5	M/4
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	10-04-17	10-04-17	10-04-17	10-04-17	10-04-17	10-04-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.104	.114	.102	.096 JI	.197	.625
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Composite - 6 Fish**Bottle Code: 10/4/2017 TUST-5 CHC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	.06 JI

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	450	370	365	440	360	327
Length (inches)	17.72	14.57	14.37	17.32	14.17	12.87
Weight (g)	1,098	616	592	1,078	642	456
Weight (oz)	38.73	21.73	20.88	38.03	22.65	16.08
Sex/Age	M/6	M/3	F/4	M/7	F/3	M/2
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-04-17	10-04-17	10-04-17	10-04-17	10-04-17	10-04-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.599	.387	.515	.524	.39	.277
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Composite - 6 Fish**Bottle Code: 10/4/2017 TUST-5 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	.135 JI

CABB-1, Cahaba R - Cahaba River at AL Hwy 219.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5
Length (mm)	401	528	389	345	351
Length (inches)	15.79	20.79	15.31	13.58	13.82
Weight (g)	528	1,166	434	272	312
Weight (oz)	18.62	41.13	15.31	9.59	11.01
Sex/Age	M/7	M/7	M/6	M/5	M/4
Age Method	Spine	Spine	Spine	Spine	Spine
Collection Date	10-31-17	10-31-17	10-31-17	10-31-17	10-31-17
Skin on Fillet	N	N	N	N	N
Internal Parasite	Moderate	Slight/Mild	Moderate	Slight/Mild	Slight/Mild

Composite - 5 Fish**Bottle Code: 10/31/2017 CABB-1 CHC 01-05**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.109
SELENIUM, TOTAL ug/g	.172 JI

Spotted Bass (*Micropterus punctulatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	347	335	293	274	296	280
Length (inches)	13.66	13.19	11.54	10.79	11.65	11.02
Weight (g)	536	448	274	266	296	248
Weight (oz)	18.91	15.80	9.67	9.38	10.44	8.75
Sex/Age	M/3	F/3	M/3	F/2	F/4	M/2
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-31-17	10-31-17	10-31-17	10-31-17	10-31-17	10-31-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.335	.283	.268	.229	.393	.271
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Composite - 6 Fish**Bottle Code: 10/31/2017 CABB-1 SPB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.327
SELENIUM, TOTAL ug/g	.342 JI

CAHP-5, Cahaba R - Cahaba River at AL Hwy 183.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	520	403	366	394	384	410
Length (inches)	20.47	15.87	14.41	15.51	15.12	16.14
Weight (g)	1,304	502	382	420	428	662
Weight (oz)	46.00	17.71	13.47	14.82	15.10	23.35
Sex/Age	F/7	M/4	F/3	M/4	M/4	M/4
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	11-08-17	11-08-17	11-08-17	11-08-17	11-08-17	11-08-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.086 JI	.071 JI	.067 JI	.071 JI	.102	.064 JI
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Composite - 6 Fish**Bottle Code: 11/8/2017 CAHP-5 CHC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	.012
SELENIUM, TOTAL ug/g	< .0424

Spotted Bass (*Micropterus punctulatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	438	367	350	251	265	264
Length (inches)	17.24	14.45	13.78	9.88	10.43	10.39
Weight (g)	1,040	592	452	186	196	168
Weight (oz)	36.68	20.88	15.94	6.56	6.91	5.93
Sex/Age	F/6	M/2	F/3	M/3	F/3	M/2
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-08-17	11-08-17	11-08-17	11-08-17	11-08-17	11-08-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.41	.134	.4	.339	.303	.476
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Composite - 6 Fish**Bottle Code: 11/8/2017 CAHP-5 SPB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	.012
SELENIUM, TOTAL ug/g	.312 JI

CEDF-2, Cedar Ck Res - Dam forebay to 1.0 mile upstream of the dam.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	572	392	476	411	622	582
Length (inches)	22.52	15.43	18.74	16.18	24.49	22.91
Weight (g)	1,576	496	930	506	2,570	2,102
Weight (oz)	55.59	17.50	32.80	17.85	90.65	74.15
Sex/Age	/7	/6	/6	/6	/8	/7
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	11-15-17	11-15-17	11-15-17	11-15-17	11-15-17	11-15-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.116	.06 JI	.089 JI	< .056	.221	.569
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Composite - 6 Fish**Bottle Code: 11/15/2017 CEDF-2 CHC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	.096 JM
SELENIUM, TOTAL ug/g	< .0424

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	382	462	421	341	471	502
Length (inches)	15.04	18.19	16.57	13.43	18.54	19.76
Weight (g)	646	1,504	1,214	488	1,348	1,860
Weight (oz)	22.79	53.05	42.82	17.21	47.55	65.61
Sex/Age	/4	/5	/4	/2	/5	/7
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-15-17	11-15-17	11-15-17	11-15-17	11-15-17	11-15-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.345	.26	.267	.138	.439	.454
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Composite - 6 Fish**Bottle Code: 11/15/2017 CEDF-2 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	.062 JI

FMCJ-11, Fivemile Ck - Fivemile Ck between Brookside and Cardiff.

Golden Redhorse (*Moxostoma erythrurum*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	360	360	420	370	365	320
Length (inches)	14.17	14.17	16.54	14.57	14.37	12.60
Weight (g)	496	522	908	620	548	352
Weight (oz)	17.50	18.41	32.03	21.87	19.33	12.42
Sex/Age	M	M	M	M	F	M
Age Method	N/A	N/A	N/A	N/A	N/A	N/A
Collection Date	10-30-17	10-30-17	10-30-17	10-30-17	10-30-17	10-30-17
Skin on Fillet	N	N	N	N	N	N

Composite - 6 Fish**Bottle Code: 10/30/2017 FMCJ-11 GOR 01-06**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	< .00137
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	.034 JI
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	.73
MERCURY, TOTAL ug/g	.057
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.612
TOXAPHENE ug/g	< .00002

FMCJ-11, Fivemile Ck - Fivemile Ck between Brookside and Cardiff.

Spotted Bass (*Micropterus punctulatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	445	440	385	460	405	435
Length (inches)	17.52	17.32	15.16	18.11	15.94	17.13
Weight (g)	1,236	1,112	676	1,370	898	1,096
Weight (oz)	43.60	39.22	23.85	48.33	31.68	38.66
Sex/Age	F/7	F/6	F/5	F/6	F/6	F/6
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-30-17	10-30-17	10-30-17	10-30-17	10-30-17	10-30-17
Skin on Fillet	N	N	N	N	N	N
Internal Parasite	Moderate	Slight/Mild	Slight/Mild			

Composite - 6 Fish**Bottle Code: 10/30/2017 FMCJ-11 SPB 01-06**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	< .00137
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	.046 JI
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	.39
MERCURY, TOTAL ug/g	.153
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.503 JI
TOXAPHENE ug/g	< .00002

GMEX-10, Gulf Of Mexico - Gulf of Mexico.

Red Snapper (*Lutjanus campechanus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	308	336	304	335	346	380
Length (inches)	12.13	13.23	11.97	13.19	13.62	14.96
Weight (g)	420	632	404	568	638	756
Weight (oz)	14.82	22.29	14.25	20.04	22.50	26.67
Sex/Age	F/3	F/3	M/3	M/3	M/3	F/5
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-11-17	10-11-17	10-11-17	10-11-17	10-11-17	10-11-17
Skin on Fillet	N	N	N	N	N	N

Composite - 6 Fish**Bottle Code: 10/11/2017 GMEX-10 RSN 01-06**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	< .00137
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	< .012
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	.193 JI
CADMIUM, TOTAL ug/g	< .0079
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE ug/g	< .00111
HEXACHLOROBENZENE ug/g	< .00051
LINDANE ug/g	< .00178
LIPIDS %	.34
MERCURY, TOTAL ug/g	< .056
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.279 JI
TOXAPHENE ug/g	< .00002

HB-1, Hog Bayou - Hog Bayou at buried pipeline crossing 1/2 mile upstream from mouth.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	358	362	380	369	400	347
Length (inches)	14.09	14.25	14.96	14.53	15.75	13.66
Weight (g)	418	384	486	398	593	330
Weight (oz)	14.74	13.55	17.14	14.04	20.92	11.64
Sex/Age	F/4	F/4	F/4	M/4	F/5	F/3
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	11-07-17	11-07-17	11-07-17	11-07-17	11-07-17	11-07-17
Skin on Fillet	N	N	N	N	N	N

Internal Parasite

Slight/Mild

MERCURY, TOTAL ug/g	.278	.114	.256	.19	.201	.145
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Composite - 6 Fish**Bottle Code: 11/7/2017 HB-1 CHC 01-06**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	< .00137
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	.026 JI
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	1.1
MERCURY, TOTAL ug/g	.151
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.125 JI
TOXAPHENE ug/g	< .00002

HB-1, Hog Bayou - Hog Bayou at buried pipeline crossing 1/2 mile upstream from mouth.

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	340	310	312	314	318	303
Length (inches)	13.39	12.20	12.28	12.36	12.52	11.93
Weight (g)	620	450	456	432	460	384
Weight (oz)	21.87	15.87	16.08	15.24	16.23	13.55
Sex/Age	F/3	M/1	M/2	M/1	F/2	M/1
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-07-17	11-07-17	11-07-17	11-07-17	11-07-17	11-07-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.372	.147	.412	.31	.306	.286
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Composite - 6 Fish**Bottle Code: 11/7/2017 HB-1 LMB 01-06**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	< .00137
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	< .012
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	.12
MERCURY, TOTAL ug/g	.329
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.209 JI
TOXAPHENE ug/g	< .00002

HOLT-1, Holt Res - Lower reservoir. Forebay area, downstream of Deerlick Creek public access area.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	390	412	271	346	272	285
Length (inches)	15.35	16.22	10.67	13.62	10.71	11.22
Weight (g)	506	574	147	314	160	160
Weight (oz)	17.85	20.25	5.19	11.08	5.64	5.64
Sex/Age	M/8	M/8	F/3	M/5	F/4	F/6
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	10-11-17	10-11-17	10-11-17	10-11-17	10-11-17	10-11-17
Skin on Fillet	N	N	N	N	N	N
Internal Parasite	Slight/Mild	Moderate	Slight/Mild			

Composite - 6 Fish**Bottle Code: 10/11/2017 HOLT-1 CHC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	< .056
SELENIUM, TOTAL ug/g	.075 JQ4I

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	380	386	350	351	342	485
Length (inches)	14.96	15.20	13.78	13.82	13.46	19.09
Weight (g)	726	774	526	582	514	1,606
Weight (oz)	25.61	27.30	18.55	20.53	18.13	56.65
Sex/Age	F/3	M/3	M/3	F/2	M/3	F/6
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-11-17	10-11-17	10-11-17	10-11-17	10-11-17	10-11-17
Skin on Fillet	N	N	N	N	N	N

Composite - 6 Fish**Bottle Code: 10/11/2017 HOLT-1 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.156
SELENIUM, TOTAL ug/g	.273 JI

SHLB-1, L Shelby - Lake Shelby in Gulf State Park in deep hole ~ 15-18 feet deep created by a spring.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2
Length (mm)	575	523
Length (inches)	22.64	20.59
Weight (g)	2,140	1,452
Weight (oz)	75.49	51.22
Sex/Age	M/6	M/7
Age Method	Spine	Spine
Collection Date	11-07-17	11-07-17
Skin on Fillet	N	N
Internal Parasite		Moderate

MERCURY, TOTAL ug/g	.207	.145
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Composite - 2 Fish**Bottle Code: 11/7/2017 SHLB-1 CHC 01-02**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	.003 JI
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	< .012
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	1.475
MERCURY, TOTAL ug/g	.162
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.115 JI
TOXAPHENE ug/g	< .00002

SHLB-1, L Shelby - Lake Shelby in Gulf State Park in deep hole ~ 15-18 feet deep created by a spring.

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	303	381	316	336	349	410
Length (inches)	11.93	15.00	12.44	13.23	13.74	16.14
Weight (g)	356	816	430	472	584	936
Weight (oz)	12.56	28.78	15.17	16.65	20.60	33.02
Sex/Age	F/2	F/2	M/3	M/2	M/2	M/4
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-07-17	11-07-17	11-07-17	11-07-17	11-07-17	11-07-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.503	.259	.653	.485	.258	.543
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Composite - 6 Fish**Bottle Code: 11/7/2017 SHLB-1 LMB 01-06**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	< .00137
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	< .012
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	.134 JI
CADMIUM, TOTAL ug/g	< .0079
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	.19
MERCURY, TOTAL ug/g	.417
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.201 JI
TOXAPHENE ug/g	< .00002

SHLB-1, L Shelby - Lake Shelby in Gulf State Park in deep hole ~ 15-18 feet deep created by a spring.

Striped Mullet (Mugil cephalus)

	Fish 1	Fish 2	Fish 3	Fish 4
Length (mm)	405	315	390	357
Length (inches)	15.94	12.40	15.35	14.06
Weight (g)	706	336	490	458
Weight (oz)	24.90	11.85	17.28	16.16
Sex/Age	F/4	M/3	M/3	M/2
Age Method	Otolith	Otolith	Otolith	Otolith
Collection Date	11-07-17	11-07-17	11-07-17	11-07-17
Skin on Fillet	N	N	N	N

MERCURY, TOTAL ug/g	< .056	< .056	< .056	< .056
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Composite - 4 Fish**Bottle Code: 11/7/2017 SHLB-1 STM 01-04**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	< .00137
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	< .012
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	.152 JI
CADMIUM, TOTAL ug/g	< .0079
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	.675
MERCURY, TOTAL ug/g	< .056
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.146 JI
TOXAPHENE ug/g	< .00002

CTMC-1, Lake Catoma - Lake Catoma lower reservoir. Deepest point of main river channel dam forebay.

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	329	360	380	403	435	314
Length (inches)	12.95	14.17	14.96	15.87	17.13	12.36
Weight (g)	476	680	768	806	1,022	422
Weight (oz)	16.79	23.99	27.09	28.43	36.05	14.89
Sex/Age	F/2	F/2	M/3	M/8	F/4	F/2
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-30-17	10-30-17	10-30-17	10-30-17	10-30-17	10-30-17
Skin on Fillet	N	N	N	N	N	N

Lesions Moderate

MERCURY, TOTAL ug/g	.439	.465	.529	1.214	.971	.42
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Composite - 6 Fish**Bottle Code: 10/30/2017 CTMC-1 LMB 01-06**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	< .00137
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	< .012
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	.012 JI
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	.52
MERCURY, TOTAL ug/g	.46
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	< .0424
TOXAPHENE ug/g	< .00002

CTMC-1, Lake Catoma - Lake Catoma lower reservoir. Deepest point of main river channel dam forebay.

River Redhorse (*Moxostoma carinatum*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	343	409	396	375	383	431
Length (inches)	13.50	16.10	15.59	14.76	15.08	16.97
Weight (g)	1,242	864	916	906	726	966
Weight (oz)	43.81	30.48	32.31	31.96	25.61	34.07
Sex/Age	M	M	F	M	F	F
Age Method	N/A	N/A	N/A	N/A	N/A	N/A
Collection Date	10-30-17	10-30-17	10-30-17	10-30-17	10-30-17	10-30-17
Skin on Fillet	N	N	N	N	N	N
Internal Parasite			Slight/Mild	Slight/Mild		

Composite - 6 Fish**Bottle Code: 10/30/2017 CTMC-1 RRH 01-06**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	< .00137
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	< .012
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	3.875
MERCURY, TOTAL ug/g	.214
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.186 JI
TOXAPHENE ug/g	< .00002

LBRF-2, Little Bear Ck Res - Dam forebay area, Little Bear Creek mile 12.5.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	391	517	513	543	522	694
Length (inches)	15.39	20.35	20.20	21.38	20.55	27.32
Weight (g)	530	1,034	960	1,032	1,364	4,638
Weight (oz)	18.70	36.47	33.86	36.40	48.11	163.60
Sex/Age	/4	/5	/5	/5	/5	/8
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	11-14-17	11-14-17	11-14-17	11-14-17	11-14-17	11-14-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.129	.137	< .056	.163	.083 JI	.346
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Composite - 6 Fish**Bottle Code: 11/14/2017 LBRF-2 CHC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	< .0424

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	390	341	378	336	457	464
Length (inches)	15.35	13.43	14.88	13.23	17.99	18.27
Weight (g)	788	560	784	472	1,132	1,188
Weight (oz)	27.80	19.75	27.65	16.65	39.93	41.91
Sex/Age		/2	/2	/2	/9	/7
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-14-17	11-14-17	11-14-17	11-14-17	11-14-17	11-14-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.295	.14	.357	.193	.656	.657
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Composite - 6 Fish**Bottle Code: 11/14/2017 LBRF-2 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	.053 JI

BWR-1, Locust Fk - Locust Fork at river mile 388.5 near Vines Fish Camp.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	541	490	453	376	399	396
Length (inches)	21.30	19.29	17.83	14.80	15.71	15.59
Weight (g)	1,576	1,108	966	488	482	520
Weight (oz)	55.59	39.08	34.07	17.21	17.00	18.34
Sex/Age	F/8	F/7	M/9	M/6	M/6	M/7
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	10-10-17	10-10-17	10-10-17	10-10-17	10-10-17	10-10-17
Skin on Fillet	N	N	N	N	N	N
Internal Parasite						Slight/Mild

Composite - 6 Fish**Bottle Code: 10/10/2017 BWR-1 CHC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	< .056
SELENIUM, TOTAL ug/g	.147 JI

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	373	416	375	341	395	399
Length (inches)	14.69	16.38	14.76	13.43	15.55	15.71
Weight (g)	778	1,198	810	490	852	968
Weight (oz)	27.44	42.26	28.57	17.28	30.05	34.15
Sex/Age	M/3	F/3	F/3	M/5	M/3	F/2
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-10-17	10-10-17	10-10-17	10-10-17	10-10-17	10-10-17
Skin on Fillet	N	N	N	N	N	N

Composite - 6 Fish**Bottle Code: 10/10/2017 BWR-1 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.069 JI
SELENIUM, TOTAL ug/g	.451 JI

Walker County

Lat/Lon: 33.63799 / -87.24702

BANT-5, Lost Ck (Bankhead) - Deepest point, main creek channel, Lost Creek embayment. Approximately 0.5 mile downstream of Walker Co. Rd. 53 bridge.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4
Length (mm)	500	371	371	370
Length (inches)	19.69	14.61	14.61	14.57
Weight (g)	948	404	430	408
Weight (oz)	33.44	14.25	15.17	14.39
Sex/Age	F/7	M/5	M/5	F/4
Age Method	Spine	Spine	Spine	Spine
Collection Date	10-10-17	10-10-17	10-10-17	10-10-17
Skin on Fillet	N	N	N	N
Internal Parasite	Slight/Mild			

Composite - 4 Fish**Bottle Code: 10/10/2017 BANT-5 CHC 01-04**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.087 JI
SELENIUM, TOTAL ug/g	< .0424

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	402	388	354	395	337	455
Length (inches)	15.83	15.28	13.94	15.55	13.27	17.91
Weight (g)	904	774	602	696	532	1,472
Weight (oz)	31.89	27.30	21.23	24.55	18.77	51.92
Sex/Age	F/4	M/3	F/2	F/3	F/2	F/4
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-10-17	10-10-17	10-10-17	10-10-17	10-10-17	10-10-17
Skin on Fillet	N	N	N	N	N	N
Internal Parasite	Slight/Mild					

Composite - 6 Fish**Bottle Code: 10/10/2017 BANT-5 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.126
SELENIUM, TOTAL ug/g	.172 JI

BWR-2, Mulberry Fk - Mulberry Fork at river mile 391.8 downstream of Lost Creek.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	467	452	531	414	388	344
Length (inches)	18.39	17.80	20.91	16.30	15.28	13.54
Weight (g)	904	760	1,642	596	446	322
Weight (oz)	31.89	26.81	57.92	21.02	15.73	11.36
Sex/Age	M/8	M/8	M/9	M/7	M/7	M/5
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	10-10-17	10-10-17	10-10-17	10-10-17	10-10-17	10-10-17
Skin on Fillet	N	N	N	N	N	N
Internal Parasite					Slight/Mild	Slight/Mild

Composite - 6 Fish**Bottle Code: 10/10/2017 BWR-2 CHC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.09 JI
SELENIUM, TOTAL ug/g	.095 JI

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	362	393	363	390	349	342
Length (inches)	14.25	15.47	14.29	15.35	13.74	13.46
Weight (g)	652	932	634	798	630	576
Weight (oz)	23.00	32.88	22.36	28.15	22.22	20.32
Sex/Age	M/2	M/5	M/2	F/3	M/2	M/3
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-10-17	10-10-17	10-10-17	10-10-17	10-10-17	10-10-17
Skin on Fillet	N	N	N	N	N	N

Composite - 6 Fish**Bottle Code: 10/10/2017 BWR-2 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.139
SELENIUM, TOTAL ug/g	.263 JI

NGRB-1, Negro Sl - Negro Slough at Tensaw River, lat/lon calculated 1.0 mile upstream of confluence with the Tensaw River.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	472	414	374	318	319	300
Length (inches)	18.58	16.30	14.72	12.52	12.56	11.81
Weight (g)	838	634	492	254	224	212
Weight (oz)	29.56	22.36	17.35	8.96	7.90	7.48
Sex/Age	M/5	F/6	M/6	M/4	M/4	M/4
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	11-07-17	11-07-17	11-07-17	11-07-17	11-07-17	11-07-17
Skin on Fillet	N	N	N	N	N	N
Internal Parasite	Slight/Mild					

MERCURY, TOTAL ug/g	.429	.246	.112	.161	.148	.204
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Composite - 6 Fish**Bottle Code: 11/7/2017 NGRB-1 CHC 01-06**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	.004 JI
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	< .012
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	.01
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	.605
MERCURY, TOTAL ug/g	.189
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.048 JI
TOXAPHENE ug/g	< .00002

NGRB-1, Negro Sl - Negro Slough at Tensaw River, lat/lon calculated 1.0 mile upstream of confluence with the Tensaw River.

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	451	430	385	329	314	335
Length (inches)	17.76	16.93	15.16	12.95	12.36	13.19
Weight (g)	1,218	1,138	754	428	428	454
Weight (oz)	42.96	40.14	26.60	15.10	15.10	16.01
Sex/Age	F/7	F/5	F/3	M/3	M/3	M/4
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-07-17	11-07-17	11-07-17	11-07-17	11-07-17	11-07-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	1.258	1.19	.767	.57	.477	.623
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Composite - 6 Fish**Bottle Code: 11/7/2017 NGRB-1 LMB 01-06**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	.002 JI
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	< .012
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	.076 JI
CADMIUM, TOTAL ug/g	.025
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	.15
MERCURY, TOTAL ug/g	.66
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.109 JI
TOXAPHENE ug/g	< .00002

OLIT-1, Oliver Res - Lower reservoir. Deepest point, main river channel, dam forebay.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	490	353	394	339	352	340
Length (inches)	19.29	13.90	15.51	13.35	13.86	13.39
Weight (g)	1,092	306	444	274	312	262
Weight (oz)	38.52	10.79	15.66	9.67	11.01	9.24
Sex/Age	M/8	M/6	M/8	F/6	M/5	M/5
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	10-11-17	10-11-17	10-11-17	10-11-17	10-11-17	10-11-17
Skin on Fillet	N	N	N	N	N	N
Internal Parasite	Slight/Mild	Moderate	Slight/Mild	Moderate	Slight/Mild	Slight/Mild

Composite - 6 Fish**Bottle Code: 10/11/2017 OLIT-1 CHC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.07 JI
SELENIUM, TOTAL ug/g	< .0424

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	440	422	404	365	385	357
Length (inches)	17.32	16.61	15.91	14.37	15.16	14.06
Weight (g)	1,086	970	920	658	590	570
Weight (oz)	38.31	34.22	32.45	23.21	20.81	20.11
Sex/Age	F/5	F/5	M/4	F/2	M/4	M/2
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-11-17	10-11-17	10-11-17	10-11-17	10-11-17	10-11-17
Skin on Fillet	N	N	N	N	N	N

Composite - 6 Fish**Bottle Code: 10/11/2017 OLIT-1 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.24
SELENIUM, TOTAL ug/g	.212 JI

OPOJ-2, Opossum Ck - Opossum Ck at Woodward Road.

Alabama Hog Sucker (Hypentelium etowanum)Fish 1

Length (mm)	198
Length (inches)	7.80
Weight (g)	84
Weight (oz)	2.96
Sex/Age	F
Age Method	N/A
Collection Date	10-30-17
Skin on Fillet	N

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	< .00137
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	.023 JI
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
CHLORDANE, TOTAL ug/g	.00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE ug/g	< .00111
HEXACHLOROBENZENE ug/g	< .00051
LINDANE ug/g	< .00178
LIPIDS %	.485
MERCURY, TOTAL ug/g	< .056
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.914
TOXAPHENE ug/g	< .00002

OPOJ-2, Opossum Ck - Opossum Ck at Woodward Road.

Bluegill (*Lepomis macrochirus*)

	Fish 1	Fish 2
Length (mm)	172	161
Length (inches)	6.77	6.34
Weight (g)	92	88
Weight (oz)	3.25	3.10
Sex/Age	M/2	M/2
Age Method	Otolith	Otolith
Collection Date	10-30-17	10-30-17
Skin on Fillet	N	N

2,4'-DDD ug/g	< .00037	< .00037
2,4'-DDE ug/g	< .00144	< .00144
2,4'-DDT ug/g	< .00038	< .00038
4,4'-DDD ug/g	< .00046	< .00046
4,4'-DDE ug/g	< .00137	< .00137
4,4'-DDT ug/g	< .00037	< .00037
AROCHLOR 1016 ug/g	< .048	< .048
AROCHLOR 1221 ug/g	< .125	< .125
AROCHLOR 1232 ug/g	< .125	< .125
AROCHLOR 1242 ug/g	< .125	< .125
AROCHLOR 1248 ug/g	< .125	< .125
AROCHLOR 1254 ug/g	< .027	< .027
AROCHLOR 1260 ug/g	.031 JI	< .012
PCB'S, TOTAL ug/g	< .048	< .048
ARSENIC, TOTAL ug/g	< .059	< .059
CADMIUM, TOTAL ug/g	< .0079	< .0079
CHLORDANE, TOTAL ug/g	.00001	< .00001
CHLORPYRIFOS ug/g	< .00082	< .00082
DIELDRIN ug/g	< .00028	< .00028
ENDOSULFAN I ug/g	< .00055	< .00055
ENDOSULFAN II ug/g	< .00048	< .00048
ENDRIN ug/g	< .00078	< .00078
HEPTACHLOR ug/g	< .00036	< .00036
HEPTACHLOR EPOXIDE ug/g	< .00111	< .00111
HEXACHLOROBENZENE ug/g	< .00051	< .00051
LINDANE ug/g	< .00178	< .00178
LIPIDS %	.17	.37
MERCURY, TOTAL ug/g	< .056	< .056
MIREX ug/g	< .00112	< .00112
SELENIUM, TOTAL ug/g	1.01	1.481
TOXAPHENE ug/g	< .00002	< .00002

OPOJ-2, Opossum Ck - Opossum Ck at Woodward Road.

Green Sunfish (*Lepomis cyanellus*)

	Fish 1	Fish 2	Fish 3	Fish 4
Length (mm)	160	172	156	170
Length (inches)	6.30	6.77	6.14	6.69
Weight (g)	80	106	76	96
Weight (oz)	2.82	3.74	2.68	3.39
Sex/Age	F/3	M/2	M/2	M/2
Age Method	Otolith	Otolith	Otolith	Otolith
Collection Date	10-30-17	10-30-17	10-30-17	10-30-17
Skin on Fillet	N	N	N	N

2,4'-DDD ug/g	< .00037	< .00037	< .00037	< .00037
2,4'-DDE ug/g	< .00144	< .00144	< .00144	< .00144
2,4'-DDT ug/g	< .00038	< .00038	< .00038	< .00038
4,4'-DDD ug/g	< .00046	< .00046	< .00046	< .00046
4,4'-DDE ug/g	< .00137	< .00137	< .00137	< .00137
4,4'-DDT ug/g	< .00037	< .00037	< .00037	< .00037
AROCHLOR 1016 ug/g	< .048	< .048	< .048	< .048
AROCHLOR 1221 ug/g	< .125	< .125	< .125	< .125
AROCHLOR 1232 ug/g	< .125	< .125	< .125	< .125
AROCHLOR 1242 ug/g	< .125	< .125	< .125	< .125
AROCHLOR 1248 ug/g	< .125	< .125	< .125	< .125
AROCHLOR 1254 ug/g	< .027	< .027	< .027	< .027
AROCHLOR 1260 ug/g	< .012	< .012	< .012	< .012
PCB'S, TOTAL ug/g	< .048	< .048	< .048	< .048
ARSENIC, TOTAL ug/g	< .059	< .059	< .059	< .059
CADMIUM, TOTAL ug/g	< .0079	< .0079	< .0079	< .0079
CHLORDANE, TOTAL ug/g	< .00001	< .00001	< .00001	< .00001
CHLORPYRIFOS ug/g	< .00082	< .00082	< .00082	< .00082
DIELDRIN ug/g	< .00028	< .00028	< .00028	< .00028
ENDOSULFAN I ug/g	< .00055	< .00055	< .00055	< .00055
ENDOSULFAN II ug/g	< .00048	< .00048	< .00048	< .00048
ENDRIN ug/g	< .00078	< .00078	< .00078	< .00078
HEPTACHLOR ug/g	< .00036	< .00036	< .00036	< .00036
HEPTACHLOR EPOXIDE ug/g	< .00111	< .00111	< .00111	< .00111
HEXACHLOROBENZENE ug/g	< .00051	< .00051	< .00051	< .00051
LINDANE ug/g	< .00178	< .00178	< .00178	< .00178
LIPIDS %	.205	.21	.225	.34
MERCURY, TOTAL ug/g	< .056	< .056	< .056	< .056
MIREX ug/g	< .00112	< .00112	< .00112	< .00112
SELENIUM, TOTAL ug/g	.646	.741	.692	.533
TOXAPHENE ug/g	< .00002	< .00002	< .00002	< .00002

OPOJ-2, Opossum Ck - Opossum Ck at Woodward Road.

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3
Length (mm)	371	265	285
Length (inches)	14.61	10.43	11.22
Weight (g)	824	274	322
Weight (oz)	29.07	9.67	11.36
Sex/Age	F/4	F/1	M/2
Age Method	Otolith	Otolith	Otolith
Collection Date	10-30-17	10-30-17	10-30-17
Skin on Fillet	N	N	N

Internal Parasite Moderate

2,4'-DDD ug/g	< .00037	< .00037	< .00037
2,4'-DDE ug/g	< .00144	< .00144	< .00144
2,4'-DDT ug/g	< .00038	< .00038	< .00038
4,4'-DDD ug/g	< .00046	< .00046	< .00046
4,4'-DDE ug/g	< .00137	< .00137	< .00137
4,4'-DDT ug/g	< .00037	< .00037	< .00037
AROCHLOR 1016 ug/g	< .048	< .048	< .048
AROCHLOR 1221 ug/g	< .125	< .125	< .125
AROCHLOR 1232 ug/g	< .125	< .125	< .125
AROCHLOR 1242 ug/g	< .125	< .125	< .125
AROCHLOR 1248 ug/g	< .125	< .125	< .125
AROCHLOR 1254 ug/g	.074 JI	.076 JI	.081 JI
AROCHLOR 1260 ug/g	.102 JI	.051 JI	.044 JI
PCB'S, TOTAL ug/g	.176	.127	.125
ARSENIC, TOTAL ug/g	< .059	< .059	< .059
CADMIUM, TOTAL ug/g	< .0079	< .0079	< .0079
CHLORDANE, TOTAL ug/g	< .00001	< .00001	< .00001
CHLORPYRIFOS ug/g	< .00082	< .00082	< .00082
DIELDRIN ug/g	< .00028	< .00028	< .00028
ENDOSULFAN I ug/g	< .00055	< .00055	< .00055
ENDOSULFAN II ug/g	< .00048	< .00048	< .00048
ENDRIN ug/g	< .00078	< .00078	< .00078
HEPTACHLOR ug/g	< .00036	< .00036	< .00036
HEPTACHLOR EPOXIDE ug/g	< .00111	< .00111	< .00111
HEXACHLOROBENZENE ug/g	< .00051	< .00051	< .00051
LINDANE ug/g	< .00178	< .00178	< .00178
LIPIDS %	1.055	.22	.205
MERCURY, TOTAL ug/g	.118	.143	.099
MIREX ug/g	< .00112	< .00112	< .00112
SELENIUM, TOTAL ug/g	.362 JI	.213 JI	.358 JI
TOXAPHENE ug/g	< .00002	< .00002	< .00002

OPOJ-2, Opossum Ck - Opossum Ck at Woodward Road.

Yellow Bullhead (*Ameiurus natalis*)**Fish 1**

Length (mm)	282
Length (inches)	11.10
Weight (g)	300
Weight (oz)	10.58
Sex/Age	F/3
Age Method	Spine
Collection Date	10-30-17
Skin on Fillet	N

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	< .00137
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	.024 JI
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
CHLORDANE, TOTAL ug/g	.00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE ug/g	< .00111
HEXACHLOROBENZENE ug/g	< .00051
LINDANE ug/g	< .00178
LIPIDS %	.46
MERCURY, TOTAL ug/g	< .056
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.321 JI
TOXAPHENE ug/g	< .00002

Winston County

Lat/Lon: 34.02169 / -87.12319

SMIW-13, Rock Ck (Lewis Smith) - Rock Creek, Smith Reservoir in vicinity of Little Crooked Creek and Rock Creek Marina.

Approximately 5.0 miles upstream from Sipsey Fork.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	460	530	470	530	540	531
Length (inches)	18.11	20.87	18.50	20.87	21.26	20.91
Weight (g)	814	1,530	970	1,474	1,360	1,400
Weight (oz)	28.71	53.97	34.22	51.99	47.97	49.38
Sex/Age	F/4	F/6	M/5	M/6	F/6	M/6
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	10-03-17	10-03-17	10-03-17	10-03-17	10-03-17	10-03-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.187	.247	.212	.288	.509	.189
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Composite - 6 Fish

Bottle Code: 10/3/2017 SMIW-13 CHC 01-06

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	< .0424

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	370	390	340	440	330	330
Length (inches)	14.57	15.35	13.39	17.32	12.99	12.99
Weight (g)	714	874	544	1,506	510	476
Weight (oz)	25.19	30.83	19.19	53.12	17.99	16.79
Sex/Age	F/2	F/3	F/2	F/6	F/2	M/2
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-03-17	10-03-17	10-03-17	10-03-17	10-03-17	10-03-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.21	.385	.25	.649	.312	.21
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Composite - 6 Fish

Bottle Code: 10/3/2017 SMIW-13 LMB 01-06

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	.115 JI

Cullman County

Lat/Lon: 34.03603 / -87.03286

SMIW-12, Ryan Ck (Lewis Smith) - Ryan Creek, Smith Reservoir approximately 2.2 miles upstream of Cullman County Road 222 and approximately 12 miles upstream of Sipsey Fork.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	545	510	603	494	515	470
Length (inches)	21.46	20.08	23.74	19.45	20.28	18.50
Weight (g)	1,776	1,326	1,528	1,172	942	962
Weight (oz)	62.65	46.77	53.90	41.34	33.23	33.93
Sex/Age	M/6	F/5	M/6	F/5	M/5	F/4
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	10-03-17	10-03-17	10-03-17	10-03-17	10-03-17	10-03-17
Skin on Fillet	N	N	N	N	N	N

Internal Parasite Slight/Mild

MERCURY, TOTAL ug/g	.289	.251	.201	.234	.214	.199
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Composite - 6 Fish

Bottle Code: 10/3/2017 SMIW-12 CHC 01-06

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	.085 JI

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4
Length (mm)	370	449	405	429
Length (inches)	14.57	17.68	15.94	16.89
Weight (g)	682	1,242	924	1,122
Weight (oz)	24.06	43.81	32.59	39.58
Sex/Age	M/4	M/5	M/4	F/4
Age Method	Otolith	Otolith	Otolith	Otolith
Collection Date	10-03-17	10-03-17	10-03-17	10-03-17
Skin on Fillet	N	N	N	N

MERCURY, TOTAL ug/g	.576	.561	.369	.51
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Composite - 4 Fish

Bottle Code: 10/3/2017 SMIW-12 LMB 01-04

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	.168 JI

Spotted Bass (*Micropterus punctulatus*)

	Fish 1	Fish 2
Length (mm)	406	435
Length (inches)	15.98	17.13
Weight (g)	1,096	1,142
Weight (oz)	38.66	40.28
Sex/Age	F/3	F/4
Age Method	Otolith	Otolith
Collection Date	10-03-17	10-03-17
Skin on Fillet	N	N

MERCURY, TOTAL ug/g	.446	.511
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Composite - 2 Fish

Bottle Code: 10/3/2017 SMIW-12 SPB 01-02

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	.187 JI

SMIW-14, Smith Res - Smith Reservoir mouth of Clear Creek, mouth of Butler Creek, Sipse Fork in vicinity of Clear and Butler creeks. 2.3 miles upstream of State Rt. 257 bridge.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	582	565	500	576	460	405
Length (inches)	22.91	22.24	19.69	22.68	18.11	15.94
Weight (g)	1,328	1,460	984	1,396	782	524
Weight (oz)	46.84	51.50	34.71	49.24	27.58	18.48
Sex/Age	M/6	M/7	F/6	M/7	F/4	F/4
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	10-03-17	10-03-17	10-03-17	10-03-17	10-03-17	10-03-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.304	.322	.12	.675	.159	.124
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Composite - 6 Fish**Bottle Code: 10/3/2017 SMIW-14 CHC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	.123 JI

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	303	362	366	395	375	461
Length (inches)	11.93	14.25	14.41	15.55	14.76	18.15
Weight (g)	318	516	552	762	634	1,402
Weight (oz)	11.22	18.20	19.47	26.88	22.36	49.45
Sex/Age	F/1	F/2	M/5	F/7	F/3	F/8
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-03-17	10-03-17	10-03-17	10-03-17	10-03-17	10-03-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.304	.397	.551	.937	.503	1.081
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Composite - 6 Fish**Bottle Code: 10/3/2017 SMIW-14 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	.224 JI

TMCM-10, Three Mile Ck Res - Langan Municipal Lake located on Three Mile Ck.

Black Crappie (*Pomoxis nigromaculatus*)

	Fish 1	Fish 2	Fish 3
Length (mm)	347	349	324
Length (inches)	13.66	13.74	12.76
Weight (g)	726	432	582
Weight (oz)	25.61	15.24	20.53
Sex/Age	F/4	M/2	F/3
Age Method	Otolith	Otolith	Otolith
Collection Date	11-28-17	11-28-17	11-28-17
Skin on Fillet	N	N	N

MERCURY, TOTAL ug/g	.3	.181	.283
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Composite - 3 Fish**Bottle Code: 11/28/2017 TMCM-10 BCR 01-03**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	< .00137
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	< .012
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	.37
MERCURY, TOTAL ug/g	.25
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	< .0424
TOXAPHENE ug/g	< .00002

TMCM-10, Three Mile Ck Res - Langan Municipal Lake located on Three Mile Ck.

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5
Length (mm)	245	244	276	256	236
Length (inches)	9.65	9.61	10.87	10.08	9.29
Weight (g)	194	206	260	214	162
Weight (oz)	6.84	7.27	9.17	7.55	5.71
Sex/Age	M/1	F/1	M/1	M/1	M/1
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-28-17	11-28-17	11-28-17	11-28-17	11-28-17
Skin on Fillet	N	N	N	N	N

MERCURY, TOTAL ug/g	.16	.154	.145	.196	.184
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Composite - 5 Fish

Bottle Code: 11/28/2017 TMCM-10 LMB 01-05

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	< .00137
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	< .012
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	.205
MERCURY, TOTAL ug/g	.194
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	< .0424
TOXAPHENE ug/g	< .00002

TMCM-10, Three Mile Ck Res - Langan Municipal Lake located on Three Mile Ck.

Redear Sunfish (*Lepomis microlophus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	195	200	150	182	233	165
Length (inches)	7.68	7.87	5.91	7.17	9.17	6.50
Weight (g)	154	140	62	102	230	84
Weight (oz)	5.43	4.94	2.19	3.60	8.11	2.96
Sex/Age	F/2	F/2	M/1	F/2	F/4	F/1
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-28-17	11-28-17	11-28-17	11-28-17	11-28-17	11-28-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.075 JI	.096 JI	< .056	< .056	< .056	< .056
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Composite - 6 Fish**Bottle Code: 11/28/2017 TMCM-10 RES 01-06**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	< .00137
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	< .012
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	.17
MERCURY, TOTAL ug/g	.085 JI
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.086 JI
TOXAPHENE ug/g	< .00002

TURB-2, Turkey Br - Turkey Branch upstream of Fish River confluence.

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	447	434	380	405	342	335
Length (inches)	17.60	17.09	14.96	15.94	13.46	13.19
Weight (g)	1,310	1,256	906	826	500	476
Weight (oz)	46.21	44.30	31.96	29.14	17.64	16.79
Sex/Age	F/5	M/6	M/5	F/4	F/4	F/2
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-08-17	11-08-17	11-08-17	11-08-17	11-08-17	11-08-17
Skin on Fillet	N	N	N	N	N	N
Deformities	Slight/Mild					
Internal Parasite	Slight/Mild					

MERCURY, TOTAL ug/g	.942	.956	.677	.984	.827	.349
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Composite - 6 Fish**Bottle Code: 11/8/2017 TURB-2 LMB 01-06**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	.002 JI
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	< .012
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	.152 JI
CADMIUM, TOTAL ug/g	.011 JI
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	.11
MERCURY, TOTAL ug/g	.721
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.155 JI
TOXAPHENE ug/g	< .00002

TURB-2, Turkey Br - Turkey Branch upstream of Fish River confluence.

Striped Mullet (Mugil cephalus)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	355	301	290	372	356	361
Length (inches)	13.98	11.85	11.42	14.65	14.02	14.21
Weight (g)	474	290	266	502	514	534
Weight (oz)	16.72	10.23	9.38	17.71	18.13	18.84
Sex/Age	F/2	F/2	M/1	F/2	F/2	F/2
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-08-17	11-08-17	11-08-17	11-08-17	11-08-17	11-08-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	< .056	< .056	< .056	< .056	< .056	< .056
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Composite - 6 Fish**Bottle Code: 11/8/2017 TURB-2 STM 01-06**

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	< .00038
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	.006 JI
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	< .012
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	.219 JI
CADMIUM, TOTAL ug/g	.011
CHLORDANE, TOTAL ug/g	< .00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	< .00028
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE u	< .00111
HEXACHLOROBENZENE u	< .00051
LINDANE ug/g	< .00178
LIPIDS %	1.27
MERCURY, TOTAL ug/g	< .056
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.09 JI
TOXAPHENE ug/g	< .00002

TUST-1, Tuscaloosa Res - Lower reservoir. Deepest point, main river channel, dam forebay.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	521	525	453	480	490	497
Length (inches)	20.51	20.67	17.83	18.90	19.29	19.57
Weight (g)	1,430	1,390	818	982	1,166	1,082
Weight (oz)	50.44	49.03	28.85	34.64	41.13	38.17
Sex/Age	F/5	F/5	M/4	M/4	F/4	M/4
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	10-04-17	10-04-17	10-04-17	10-04-17	10-04-17	10-04-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.255	.215	.113	.238	.093 JI	.256
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Composite - 6 Fish**Bottle Code: 10/4/2017 TUST-1 CHC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	.11 JI

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	364	393	422	341	362	370
Length (inches)	14.33	15.47	16.61	13.43	14.25	14.57
Weight (g)	584	784	976	496	688	758
Weight (oz)	20.60	27.65	34.43	17.50	24.27	26.74
Sex/Age	M/2	M/3	M/4	M/5	M/3	M/3
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-04-17	10-04-17	10-04-17	10-04-17	10-04-17	10-04-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.237	.506	.508	.423	.344	.383
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Composite - 6 Fish**Bottle Code: 10/4/2017 TUST-1 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	.189 JI

TUST-4, Tuscaloosa Res - North River immediately upstream of Bull Slough Road crossing, deepest point, main channel.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5
Length (mm)	611	590	501	505	405
Length (inches)	24.06	23.23	19.72	19.88	15.94
Weight (g)	2,272	2,044	1,108	1,084	548
Weight (oz)	80.14	72.10	39.08	38.24	19.33
Sex/Age	M/8	F/6	M/6	M/5	F/4
Age Method	Spine	Spine	Spine	Spine	Spine
Collection Date	10-17-17	10-17-17	10-17-17	10-17-17	10-17-17
Skin on Fillet	N	N	N	N	N
Internal Parasite	Slight/Mild				

MERCURY, TOTAL ug/g	.097 JI	.176	.148	.153	.076 JI
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Composite - 5 Fish**Bottle Code: 10/17/2017 TUST-4 CHC 01-05**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	< .0424

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	407	400	340	324	409	375
Length (inches)	16.02	15.75	13.39	12.76	16.10	14.76
Weight (g)	964	886	538	434	810	680
Weight (oz)	34.00	31.25	18.98	15.31	28.57	23.99
Sex/Age	F/7	F/3	M/3	M/1	F/4	F/3
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-17-17	10-17-17	10-17-17	10-17-17	10-17-17	10-17-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.619	.408	.289	.262	.616	.378
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Composite - 6 Fish**Bottle Code: 10/17/2017 TUST-4 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	.143 JI

UBAM-1, U Bear Ck Res - Upper Bear Creek Reservoir dam forebay area. Upper Bear Creek mile 115.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	531	569	538	542	624	674
Length (inches)	20.91	22.40	21.18	21.34	24.57	26.54
Weight (g)	1,724	2,216	1,700	1,450	2,864	3,630
Weight (oz)	60.81	78.17	59.97	51.15	101.02	128.04
Sex/Age	/5	/7	/5	/5	/8	/8
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	11-28-17	11-28-17	11-28-17	11-28-17	11-28-17	11-28-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.183	.291	.108	.275	.66	.551
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Composite - 6 Fish**Bottle Code: 11/28/2017 UBAM-1 CHC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	< .0424

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	436	366	350	387	416	346
Length (inches)	17.17	14.41	13.78	15.24	16.38	13.62
Weight (g)	1,230	640	596	760	1,040	582
Weight (oz)	43.39	22.58	21.02	26.81	36.68	20.53
Sex/Age	/4	/2	/2	/2	/3	/3
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-28-17	11-28-17	11-28-17	11-28-17	11-28-17	11-28-17
Skin on Fillet	N	N	N	N	N	N

MERCURY, TOTAL ug/g	.254	.219	.133	.199	.329	.159
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Composite - 6 Fish**Bottle Code: 11/28/2017 UBAM-1 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
SELENIUM, TOTAL ug/g	< .0424

BANT-6, Valley Ck (Bankhead) - Deepest point, main creek channel, Valley Creek embayment. Approximately 1.0 mile upstream of confluence with Warrior River.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	556	350	416	412	385	430
Length (inches)	21.89	13.78	16.38	16.22	15.16	16.93
Weight (g)	1,874	356	686	724	518	570
Weight (oz)	66.10	12.56	24.20	25.54	18.27	20.11
Sex/Age	M/8	F/7	M/7	F/6	F/6	M/6
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	10-10-17	10-10-17	10-10-17	10-10-17	10-10-17	10-10-17
Skin on Fillet	N	N	N	N	N	N

Composite - 6 Fish**Bottle Code: 10/10/2017 BANT-6 CHC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	< .056
SELENIUM, TOTAL ug/g	.062 JI

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	379	365	385	400	366	355
Length (inches)	14.92	14.37	15.16	15.75	14.41	13.98
Weight (g)	868	754	920	792	700	718
Weight (oz)	30.62	26.60	32.45	27.94	24.69	25.33
Sex/Age	F/3	M/4	F/3	M/4	F/5	F/4
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-10-17	10-10-17	10-10-17	10-10-17	10-10-17	10-10-17
Skin on Fillet	N	N	N	N	N	N

Composite - 6 Fish**Bottle Code: 10/10/2017 BANT-6 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.073 JI
SELENIUM, TOTAL ug/g	.216 JI

VALJ-9, Valley Ck - Downstream of Opossum Ck confluence.

Bluegill (*Lepomis macrochirus*)**Fish 1**

Length (mm)	169
Length (inches)	6.65
Weight (g)	102
Weight (oz)	3.60
Sex/Age	M
Age Method	Otolith
Collection Date	11-15-17
Skin on Fillet	N

2,4'-DDD ug/g	< .00037
2,4'-DDE ug/g	< .00144
2,4'-DDT ug/g	.001 JI
4,4'-DDD ug/g	< .00046
4,4'-DDE ug/g	< .00137
4,4'-DDT ug/g	< .00037
AROCHLOR 1016 ug/g	< .048
AROCHLOR 1221 ug/g	< .125
AROCHLOR 1232 ug/g	< .125
AROCHLOR 1242 ug/g	< .125
AROCHLOR 1248 ug/g	< .125
AROCHLOR 1254 ug/g	< .027
AROCHLOR 1260 ug/g	< .012
PCB'S, TOTAL ug/g	< .048
ARSENIC, TOTAL ug/g	.114 JI
CADMIUM, TOTAL ug/g	.017
CHLORDANE, TOTAL ug/g	.00001
CHLORPYRIFOS ug/g	< .00082
DIELDRIN ug/g	.004 JI
ENDOSULFAN I ug/g	< .00055
ENDOSULFAN II ug/g	< .00048
ENDRIN ug/g	< .00078
HEPTACHLOR ug/g	< .00036
HEPTACHLOR EPOXIDE ug/g	.00111
HEXACHLOROBENZENE ug/g	.00051
LINDANE ug/g	< .00178
LIPIDS %	.325
MERCURY, TOTAL ug/g	< .056
MIREX ug/g	< .00112
SELENIUM, TOTAL ug/g	.543
TOXAPHENE ug/g	< .00002

VALJ-9, Valley Ck - Downstream of Opossum Ck confluence.

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	317	357	320	363	331	402
Length (inches)	12.48	14.06	12.60	14.29	13.03	15.83
Weight (g)	448	762	478	662	564	868
Weight (oz)	15.80	26.88	16.86	23.35	19.89	30.62
Sex/Age	M/1	F/2	M/1	M/3	F/1	F/4
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-15-17	11-15-17	11-15-17	11-15-17	11-15-17	11-15-17
Skin on Fillet	N	N	N	N	N	N

2,4'-DDD ug/g	< .00037	< .00037	< .00037	< .00037	< .00037	< .00037
2,4'-DDE ug/g	< .00144	< .00144	< .00144	< .00144	< .00144	< .00144
2,4'-DDT ug/g	.001 JI	< .00038	< .00038	< .00038	< .00038	< .00038
4,4'-DDD ug/g	< .00046	< .00046	< .00046	< .00046	< .00046	< .00046
4,4'-DDE ug/g	< .00137	< .00137	< .00137	< .00137	< .00137	< .00137
4,4'-DDT ug/g	< .00037	< .00037	< .00037	< .00037	< .00037	< .00037
AROCHLOR 1016 ug/g	< .048	< .048	< .048	< .048	< .048	< .048
AROCHLOR 1221 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1232 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1242 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1248 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1254 ug/g	< .027	< .027	.105 JI	< .027	.104 JI	< .027
AROCHLOR 1260 ug/g	.024 JI	< .012	.201	< .012	.065 JI	< .012
PCB'S, TOTAL ug/g	< .048	< .048	.306	< .048	.169	< .048
ARSENIC, TOTAL ug/g	< .059	< .059	< .059	< .059	< .059	< .059
CADMIUM, TOTAL ug/g	.013	.012	.011	.012	.013	.016
CHLORDANE, TOTAL ug/g	.00001	< .00001	< .00001	< .00001	< .00001	< .00001
CHLORPYRIFOS ug/g	< .00082	< .00082	< .00082	< .00082	< .00082	< .00082
DIELDIN ug/g	.01	.007 JI	< .00028	.004 JI	< .00028	.004 JI
ENDOSULFAN I ug/g	< .00055	< .00055	< .00055	< .00055	< .00055	< .00055
ENDOSULFAN II ug/g	< .00048	< .00048	< .00048	< .00048	< .00048	< .00048
ENDRIN ug/g	< .00078	< .00078	< .00078	< .00078	< .00078	< .00078
HEPTACHLOR ug/g	< .00036	< .00036	< .00036	< .00036	< .00036	< .00036
HEPTACHLOR EPOXIDE ug/g	< .00111	< .00111	< .00111	< .00111	< .00111	< .00111
HEXACHLOROBENZENE ug/g	< .00051	< .00051	< .00051	< .00051	< .00051	< .00051
LINDANE ug/g	< .00178	< .00178	< .00178	< .00178	< .00178	< .00178
LIPIDS %	.305	.365	2.265	.21	1.16	.24
MERCURY, TOTAL ug/g	.107	.114	.065 JI	.103	.076 JI	.117
MIREX ug/g	< .00112	< .00112	< .00112	< .00112	< .00112	< .00112
SELENIUM, TOTAL ug/g	.343 JI	.487 JI	.32 JI	.505	.399 JI	.416 JI
TOXAPHENE ug/g	< .00002	< .00002	< .00002	< .00002	< .00002	< .00002

VALJ-9, Valley Ck - Downstream of Opossum Ck confluence.

Longear Sunfish (*Lepomis megalotis*)

	Fish 1	Fish 2	Fish 3
Length (mm)	134	125	145
Length (inches)	5.28	4.92	5.71
Weight (g)	44	38	56
Weight (oz)	1.55	1.34	1.98
Sex/Age	M/2	M/2	M/3
Age Method	Otolith	Otolith	Otolith
Collection Date	11-15-17	11-15-17	11-15-17
Skin on Fillet	N	N	N

2,4'-DDD ug/g	< .00037	< .00037	< .00037
2,4'-DDE ug/g	< .00144	< .00144	< .00144
2,4'-DDT ug/g	< .00038	< .00038	< .00038
4,4'-DDD ug/g	< .00046	< .00046	< .00046
4,4'-DDE ug/g	< .00137	< .00137	< .00137
4,4'-DDT ug/g	< .00037	< .00037	< .00037
AROCHLOR 1016 ug/g	< .048	< .048	< .048
AROCHLOR 1221 ug/g	< .125	< .125	< .125
AROCHLOR 1232 ug/g	< .125	< .125	< .125
AROCHLOR 1242 ug/g	< .125	< .125	< .125
AROCHLOR 1248 ug/g	< .125	< .125	< .125
AROCHLOR 1254 ug/g	< .027	< .027	< .027
AROCHLOR 1260 ug/g	< .012	.062 JI	.066 JI
PCB'S, TOTAL ug/g	< .048	< .048	< .048
ARSENIC, TOTAL ug/g	< .059	< .059	< .059
CADMIUM, TOTAL ug/g	.019	.013	.016
CHLORDANE, TOTAL ug/g	< .00001	< .00001	< .00001
CHLORPYRIFOS ug/g	< .00082	< .00082	< .00082
DIELDRIN ug/g	< .00028	< .00028	< .00028
ENDOSULFAN I ug/g	< .00055	< .00055	< .00055
ENDOSULFAN II ug/g	< .00048	< .00048	< .00048
ENDRIN ug/g	< .00078	< .00078	< .00078
HEPTACHLOR ug/g	< .00036	< .00036	< .00036
HEPTACHLOR EPOXIDE ug/g	< .00111	< .00111	< .00111
HEXACHLOROBENZENE ug/g	< .00051	< .00051	< .00051
LINDANE ug/g	< .00178	< .00178	< .00178
LIPIDS %	.34	.3	.29
MERCURY, TOTAL ug/g	.133	< .056	.085 JI
MIREX ug/g	< .00112	< .00112	< .00112
SELENIUM, TOTAL ug/g	.654	.508	.669
TOXAPHENE ug/g	< .00002	< .00002	< .00002

BANT-8, Village Ck (Bankhead) - Village Creek embayment approximately 0.5 mile upstream of confluence with Warrior River.

Channel Catfish (*Ictalurus punctatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	485	472	471	416	417	397
Length (inches)	19.09	18.58	18.54	16.38	16.42	15.63
Weight (g)	858	932	770	584	580	480
Weight (oz)	30.27	32.88	27.16	20.60	20.46	16.93
Sex/Age	F/7	F/5	F/7	M/6	F/6	M/6
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	10-31-17	10-31-17	10-31-17	10-31-17	10-31-17	10-31-17
Skin on Fillet	N	N	N	N	N	N
Internal Parasite	Slight/Mild					

Composite - 6 Fish**Bottle Code: 10/31/2017 BANT-8 CHC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	< .056
SELENIUM, TOTAL ug/g	.165 JI

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3
Length (mm)	440	325	314
Length (inches)	17.32	12.80	12.36
Weight (g)	1,384	446	384
Weight (oz)	48.82	15.73	13.55
Sex/Age	F/3	F/1	M/1
Age Method	Otolith	Otolith	Otolith
Collection Date	10-31-17	10-31-17	10-31-17
Skin on Fillet	N	N	N
Lesions	Slight/Mild		

Composite - 3 Fish**Bottle Code: 10/31/2017 BANT-8 LMB 01-03**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.1
SELENIUM, TOTAL ug/g	.422 JI

Spotted Bass (*Micropterus punctulatus*)

	Fish 1	Fish 2	Fish 3
Length (mm)	368	318	330
Length (inches)	14.49	12.52	12.99
Weight (g)	616	396	456
Weight (oz)	21.73	13.97	16.08
Sex/Age	F/2	M/2	F/2
Age Method	Otolith	Otolith	Otolith
Collection Date	10-31-17	10-31-17	10-31-17
Skin on Fillet	N	N	N

Composite - 3 Fish**Bottle Code: 10/31/2017 BANT-8 SPB 01-03**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.086
SELENIUM, TOTAL ug/g	.353 JI

VI-3, Village Ck - Village Creek at Jefferson Co Rd 65.

Bluegill (<i>Lepomis macrochirus</i>)						
	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	166	173	175	165	158	152
Length (inches)	6.54	6.81	6.89	6.50	6.22	5.98
Weight (g)	90	92	96	82	72	60
Weight (oz)	3.17	3.25	3.39	2.89	2.54	2.12
Sex/Age	M/4	F/4	F/6	M/4	F/3	M/3
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-14-17	11-14-17	11-14-17	11-14-17	11-14-17	11-14-17
Skin on Fillet	N	N	N	N	N	N
2,4'-DDD ug/g	< .00037	< .00037	< .00037	< .00037	< .00037	< .00037
2,4'-DDE ug/g	< .00144	< .00144	< .00144	< .00144	< .00144	< .00144
2,4'-DDT ug/g	< .00038	< .00038	< .00038	< .00038	< .00038	< .00038
4,4'-DDD ug/g	< .00046	< .00046	< .00046	< .00046	< .00046	< .00046
4,4'-DDE ug/g	< .00137	< .00137	< .00137	< .00137	< .00137	< .00137
4,4'-DDT ug/g	< .00037	< .00037	< .00037	< .00037	< .00037	< .00037
AROCHLOR 1016 ug/g	< .048	< .048	< .048	< .048	< .048	< .048
AROCHLOR 1221 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1232 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1242 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1248 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1254 ug/g	< .027	< .027	< .027	.031 JI	< .027	< .027
AROCHLOR 1260 ug/g	.083 JI	.09 JI	.082 JI	.088 JI	.059 JI	.071 JI
PCB'S, TOTAL ug/g	< .048	< .048	< .048	.119	< .048	< .048
ARSENIC, TOTAL ug/g	< .059	< .059 JQ1	< .059	< .059	< .059	< .059
CADMIUM, TOTAL ug/g	.011	< .0079	< .0079	< .0079	< .0079	< .0079
CHLORDANE, TOTAL ug/g	.00001	< .00001	< .00001	< .00001	< .00001	< .00001
CHLORPYRIFOS ug/g	< .00082	< .00082	< .00082	< .00082	< .00082	< .00082
DIELDRIN ug/g	< .00028	< .00028	< .00028	< .00028	< .00028	< .00028
ENDOSULFAN I ug/g	< .00055	< .00055	< .00055	< .00055	< .00055	< .00055
ENDOSULFAN II ug/g	< .00048	< .00048	< .00048	< .00048	< .00048	< .00048
ENDRIN ug/g	< .00078	< .00078	< .00078	< .00078	< .00078	< .00078
HEPTACHLOR ug/g	< .00036	< .00036	< .00036	< .00036	< .00036	< .00036
HEPTACHLOR EPOXIDE ug/g	< .00111	< .00111	< .00111	< .00111	< .00111	< .00111
HEXACHLOROBENZENE ug/g	< .00051	< .00051	< .00051	< .00051	< .00051	< .00051
LINDANE ug/g	< .00178	< .00178	< .00178	< .00178	< .00178	< .00178
LIPIDS %	.49	.13	.245	.395	.265	.28
MERCURY, TOTAL ug/g	< .056	< .056	< .056	< .056	< .056	< .056
MIREX ug/g	< .00112	< .00112	< .00112	< .00112	< .00112	< .00112
SELENIUM, TOTAL ug/g	.454 JI	.472 JQ1I	.338 JI	.442 JI	.308 JI	.462 JI
TOXAPHENE ug/g	< .00002	< .00002	< .00002	< .00002	< .00002	< .00002

VI-3, Village Ck - Village Creek at Jefferson Co Rd 65.

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	385	237	334	320	310	285
Length (inches)	15.16	9.33	13.15	12.60	12.20	11.22
Weight (g)	718	192	608	550	500	322
Weight (oz)	25.33	6.77	21.45	19.40	17.64	11.36
Sex/Age	F/5	F/2	F/2	F/2	F/2	F/1
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-14-17	11-14-17	11-14-17	11-14-17	11-14-17	11-14-17
Skin on Fillet	N	N	N	N	N	N
Disease	Slight/Mild					
2,4'-DDD ug/g	< .00037	< .00037	< .00037	< .00037	< .00037	< .00037
2,4'-DDE ug/g	< .00144	< .00144	< .00144	< .00144	< .00144	< .00144
2,4'-DDT ug/g	< .00038	< .00038	< .00038	< .00038	< .00038	< .00038
4,4'-DDD ug/g	< .00046	< .00046	< .00046	< .00046	< .00046	< .00046
4,4'-DDE ug/g	< .00137	< .00137	< .00137	< .00137	< .00137	< .00137
4,4'-DDT ug/g	< .00037	< .00037	< .00037	< .00037	< .00037	< .00037
AROCHLOR 1016 ug/g	< .048	< .048	< .048	< .048	< .048	< .048
AROCHLOR 1221 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1232 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1242 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1248 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1254 ug/g	.034 JI	< .027	.087 JI	.142	.045 JI	.047 JI
AROCHLOR 1260 ug/g	.092 JI	.055 JI	.221	.282	.103 JI	.148
PCB'S, TOTAL ug/g	.126	< .048	.308	.424	.148	.194
ARSENIC, TOTAL ug/g	< .059	< .059	< .059	< .059	< .059	< .059
CADMIUM, TOTAL ug/g	< .0079	< .0079	< .0079	< .0079	< .0079	< .0079
CHLORDANE, TOTAL ug/g	.00001	< .00001	< .00001	< .00001	< .00001	< .00001
CHLORPYRIFOS ug/g	< .00082	< .00082	< .00082	< .00082	< .00082	< .00082
DIELDRIN ug/g	< .00028	< .00028	< .00028	< .00028	< .00028	< .00028
ENDOSULFAN I ug/g	< .00055	< .00055	< .00055	< .00055	< .00055	< .00055
ENDOSULFAN II ug/g	< .00048	< .00048	< .00048	< .00048	< .00048	< .00048
ENDRIN ug/g	< .00078	< .00078	< .00078	< .00078	< .00078	< .00078
HEPTACHLOR ug/g	< .00036	< .00036	< .00036	< .00036	< .00036	< .00036
HEPTACHLOR EPOXIDE ug/g	< .00111	< .00111	< .00111	< .00111	< .00111	< .00111
HEXACHLOROBENZENE ug/g	< .00051	< .00051	< .00051	< .00051	< .00051	< .00051
LINDANE ug/g	< .00178	< .00178	< .00178	< .00178	< .00178	< .00178
LIPIDS %	.715	.33	1.775	2.1	1.065	.615
MERCURY, TOTAL ug/g	.088 JI	< .056	.09 JI	< .056	< .056	< .056
MIREX ug/g	< .00112	< .00112	< .00112	< .00112	< .00112	< .00112
SELENIUM, TOTAL ug/g	.247 JI	.18 JI	.161 JI	.091 JI	.07 JI	.129 JI
TOXAPHENE ug/g	< .00002	< .00002	< .00002	< .00002	< .00002	< .00002

VLGJ-7, Village Ck - Village Creek at 24th Street, Birmingham, AL.

Bluegill (*Lepomis macrochirus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	167	189	175	189	187	192
Length (inches)	6.57	7.44	6.89	7.44	7.36	7.56
Weight (g)	92	134	114	134	150	162
Weight (oz)	3.25	4.73	4.02	4.73	5.29	5.71
Sex/Age	M	M/3	M/4	M/3	M/3	M/3
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-28-17	11-28-17	11-28-17	11-28-17	11-28-17	11-28-17
Skin on Fillet	N	N	N	N	N	N
2,4'-DDD ug/g	< .00037	< .00037	< .00037	< .00037	< .00037	< .00037
2,4'-DDE ug/g	< .00144	< .00144	< .00144	< .00144	< .00144	< .00144
2,4'-DDT ug/g	< .00038	< .00038	< .00038	< .00038	< .00038	< .00038
4,4'-DDD ug/g	< .00046	< .00046	< .00046	< .00046	< .00046	< .00046
4,4'-DDE ug/g	< .00137	< .00137	< .00137	< .00137	< .00137	< .00137
4,4'-DDT ug/g	< .00037	< .00037	< .00037	< .00037	< .00037	< .00037
AROCHLOR 1016 ug/g	< .048	< .048	< .048	< .048	< .048	< .048
AROCHLOR 1221 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1232 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1242 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1248 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1254 ug/g	< .027	< .027	< .027	< .027	< .027	.053 JI
AROCHLOR 1260 ug/g	.035 JI	.04 JI	.038 JI	.074 JI	.031 JI	.062 JI
PCB'S, TOTAL ug/g	< .048	< .048	< .048	< .048	< .048	.115
ARSENIC, TOTAL ug/g	< .059	< .059	< .059	< .059	< .059	< .059
CADMIUM, TOTAL ug/g	.008 JI	< .0079	< .0079	< .0079	< .0079	< .0079
CHLORDANE, TOTAL ug/g	.00001	< .00001	< .00001	< .00001	< .00001	< .00001
CHLORPYRIFOS ug/g	< .00082	< .00082	< .00082	< .00082	< .00082	< .00082
DIELDRIN ug/g	< .00028	< .00028	< .00028	< .00028	< .00028	< .00028
ENDOSULFAN I ug/g	< .00055	< .00055	< .00055	< .00055	< .00055	< .00055
ENDOSULFAN II ug/g	< .00048	< .00048	< .00048	< .00048	< .00048	< .00048
ENDRIN ug/g	< .00078	< .00078	< .00078	< .00078	< .00078	< .00078
HEPTACHLOR ug/g	< .00036	< .00036	< .00036	< .00036	< .00036	< .00036
HEPTACHLOR EPOXIDE ug/g	< .00111	< .00111	< .00111	< .00111	< .00111	< .00111
HEXACHLOROBENZENE ug/g	< .00051	< .00051	< .00051	< .00051	< .00051	< .00051
LINDANE ug/g	< .00178	< .00178	< .00178	< .00178	< .00178	< .00178
LIPIDS %	.21	.51	.375	.115	.365	.835
MERCURY, TOTAL ug/g	< .056	.077 JI	< .056	< .056	.084 JI	.064 JI
MIREX ug/g	< .00112	< .00112	< .00112	< .00112	< .00112	< .00112
SELENIUM, TOTAL ug/g	.238 JI	.476 JI	.312 JI	.188 JI	.281 JI	.29 JI
TOXAPHENE ug/g	< .00002	< .00002	< .00002	< .00002	< .00002	< .00002

VLGJ-7, Village Ck - Village Creek at 24th Street, Birmingham, AL.

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	220	244	241	256	298	315
Length (inches)	8.66	9.61	9.49	10.08	11.73	12.40
Weight (g)	128	188	186	228	374	450
Weight (oz)	4.52	6.63	6.56	8.04	13.19	15.87
Sex/Age	F/1	F/1	F/1	F/1	F/2	M/2
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	11-28-17	11-28-17	11-28-17	11-28-17	11-28-17	11-28-17
Skin on Fillet	N	N	N	N	N	N

2,4'-DDD ug/g	< .00037	< .00037	< .00037	< .00037	< .00037	< .00037
2,4'-DDE ug/g	< .00144	< .00144	< .00144	< .00144	< .00144	< .00144
2,4'-DDT ug/g	< .00038	< .00038	< .00038	< .00038	< .00038	< .00038
4,4'-DDD ug/g	< .00046	< .00046	< .00046	< .00046	< .00046	< .00046
4,4'-DDE ug/g	< .00137	< .00137	< .00137	< .00137	< .00137	< .00137
4,4'-DDT ug/g	< .00037	< .00037	< .00037	< .00037	< .00037	< .00037
AROCHLOR 1016 ug/g	< .048	< .048	< .048	< .048	< .048	< .048
AROCHLOR 1221 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1232 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1242 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1248 ug/g	< .125	< .125	< .125	< .125	< .125	< .125
AROCHLOR 1254 ug/g	< .027	< .027	< .027	.064 JI	< .027	< .027
AROCHLOR 1260 ug/g	.041 JI	.027 JI	.032 JI	.105 JI	.052 JI	.031 JI
PCB'S, TOTAL ug/g	< .048	< .048	< .048	.169	< .048	< .048
ARSENIC, TOTAL ug/g	< .059	< .059	< .059	< .059	< .059	< .059
CADMIUM, TOTAL ug/g	< .0079	< .0079	< .0079	< .0079	< .0079	< .0079
CHLORDANE, TOTAL ug/g	< .00001	< .00001	< .00001	< .00001	< .00001	< .00001
CHLORPYRIFOS ug/g	< .00082	< .00082	< .00082	< .00082	< .00082	< .00082
DIELDRIN ug/g	< .00028	< .00028	< .00028	< .00028	< .00028	< .00028
ENDOSULFAN I ug/g	< .00055	< .00055	< .00055	< .00055	< .00055	< .00055
ENDOSULFAN II ug/g	< .00048	< .00048	< .00048	< .00048	< .00048	< .00048
ENDRIN ug/g	< .00078	< .00078	< .00078	< .00078	< .00078	< .00078
HEPTACHLOR ug/g	< .00036	< .00036	< .00036	< .00036	< .00036	< .00036
HEPTACHLOR EPOXIDE ug/g	< .00111	< .00111	< .00111	< .00111	< .00111	< .00111
HEXACHLOROBENZENE ug/g	< .00051	< .00051	< .00051	< .00051	< .00051	< .00051
LINDANE ug/g	< .00178	< .00178	< .00178	< .00178	< .00178	< .00178
LIPIDS %	.35	.27	.42	.445	.34	.295
MERCURY, TOTAL ug/g	< .056	< .056	< .056	< .056	.066 JI	.07 JI
MIREX ug/g	< .00112	< .00112	< .00112	< .00112	< .00112	< .00112
SELENIUM, TOTAL ug/g	.359 JI	.27 JI	.212 JI	.243 JI	.229 JI	.12 JI
TOXAPHENE ug/g	< .00002	< .00002	< .00002	< .00002	< .00002	< .00002

WARG-1, Warrior Res - Lower reservoir. Deepest point, main river channel, dam forebay.

Blue Catfish (*Ictalurus furcatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	340	485	337	403	385	326
Length (inches)	13.39	19.09	13.27	15.87	15.16	12.83
Weight (g)	314	922	332	556	428	274
Weight (oz)	11.08	32.52	11.71	19.61	15.10	9.67
Sex/Age	M/6	M/7	M/6	M/6	M/6	M/5
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	10-31-17	10-31-17	10-31-17	10-31-17	10-31-17	10-31-17
Skin on Fillet	N	N	N	N	N	N

Composite - 6 Fish**Bottle Code: 10/31/2017 WARG-1 BLC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.094
SELENIUM, TOTAL ug/g	.157 JI

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	361	415	362	353	344	427
Length (inches)	14.21	16.34	14.25	13.90	13.54	16.81
Weight (g)	618	1,014	570	636	432	1,032
Weight (oz)	21.80	35.77	20.11	22.43	15.24	36.40
Sex/Age	F/3	F/5	F/3	F/3	M/2	F/4
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-31-17	10-31-17	10-31-17	10-31-17	10-31-17	10-31-17
Skin on Fillet	N	N	N	N	N	N

Internal Parasite Slight/Mild

Composite - 6 Fish**Bottle Code: 10/31/2017 WARG-1 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.227
SELENIUM, TOTAL ug/g	.251 JI

WARG-2, Warrior Res - Mid reservoir. Deepest point, main river channel, immediately downstream of Lock 8 Public Use Area.

Blue Catfish (*Ictalurus furcatus*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	476	537	402	397	420	435
Length (inches)	18.74	21.14	15.83	15.63	16.54	17.13
Weight (g)	892	1,372	446	480	602	704
Weight (oz)	31.46	48.40	15.73	16.93	21.23	24.83
Sex/Age	F/8	F/9	M/6	F/6	F/5	F/6
Age Method	Spine	Spine	Spine	Spine	Spine	Spine
Collection Date	10-18-17	10-18-17	10-18-17	10-18-17	10-18-17	10-18-17
Skin on Fillet	N	N	N	N	N	N

Composite - 6 Fish**Bottle Code: 10/18/2017 WARG-2 BLC 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	< .056
SELENIUM, TOTAL ug/g	< .0424

Largemouth Bass (*Micropterus salmoides*)

	Fish 1	Fish 2	Fish 3	Fish 4	Fish 5	Fish 6
Length (mm)	415	434	373	362	342	341
Length (inches)	16.34	17.09	14.69	14.25	13.46	13.43
Weight (g)	1,030	1,130	636	600	530	522
Weight (oz)	36.33	39.86	22.43	21.16	18.70	18.41
Sex/Age	F/5	M/6	M/4	M/3	F/3	F/2
Age Method	Otolith	Otolith	Otolith	Otolith	Otolith	Otolith
Collection Date	10-18-17	10-18-17	10-18-17	10-18-17	10-18-17	10-18-17
Skin on Fillet	N	N	N	N	N	N

Composite - 6 Fish**Bottle Code: 10/18/2017 WARG-2 LMB 01-06**

ARSENIC, TOTAL ug/g	< .059
CADMIUM, TOTAL ug/g	< .0079
MERCURY, TOTAL ug/g	.18
SELENIUM, TOTAL ug/g	.187 JI

ADEM Qualifiers *

JI - Estimated/Between MDL & PQL

JM - Estimated/Matrix Interference

JQ1 - Estimated/QC1

JQ1I - Estimated/QC1/Between mdl & rl

JQ4I - Estimated/QC4/Between mdl & rl

** See SOP #4910 for more details.*