PORTLAND HARBOR RI/FS

ROUND 2 MUSSEL AND LAMPREY AMMOCOETE TISSUE DATA REPORT

DRAFT

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Prepared for
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LIST OF ACRONYMS

Axys	Axys Analytical Services
CAS	Columbia Analytical Services
CLP	Contract Laboratory Program
EDD	electronic data deliverable
EPA	U.S. Environmental Protection Agency
EQuIS	Environmental Quality Information System
FSP	field sampling plan
FSR	field sampling report
GC/ECD	gas chromatography/electron capture detection
HHRA	human health risk assessment
HRGC/HRMS	high-resolution gas chromatography/high resolution mass spectrometry
LWG	Lower Willamette Group
NOAA	National Oceanic and Atmospheric Administration
PAHs	polycyclic aromatic hydrocarbons
PARCC	precision, accuracy, representativeness, completeness, comparability
PCBs	polychlorinated biphenyls
PCDD/F	polychlorinated dibenzo-*p*-dioxin/furan
QA	quality assurance
QC	quality control
QAPP	quality assurance project plan
RI/FS	remedial investigation and feasibility study
RM	river mile
SCRA	site characterization and risk assessment
SDG	sample delivery group
SOP	standard operating procedure
SVOCs	semivolatile organic compounds
VOCs	volatile organic compounds

1.0 INTRODUCTION

As part of the Round 2 benthic tissue sampling effort, the U.S. Environmental Protection Agency (EPA) requested the Lower Willamette Group (LWG) to retain any lamprey ammocoetes collected in the Study Area and mussels collected as bycatch at five sampling locations (Windward and Integral 2005). During the field effort in November and December 2005, lamprey ammocoetes were collected at nine locations. Mussels were collected at four of the five requested locations and at an additional 15 locations in the Study Area.

A detailed description of the Round 2 benthic tissue collection effort is included in the field sampling report (FSR; (Windward 2006). In accordance with the field sampling plan (FSP; (Windward and Integral 2005) and as discussed in the FSR (Windward and Integral 2006), all mussel and lamprey ammocoetes collected during the R2 benthic tissue sampling effort were archived frozen at -20 °C until analytical schemes for each tissue matrix were approved. Mussel and lamprey tissue samples were composited and analyses selected as described in Section 3.1 of this report.

The remaining sections of this document include a summary of the data collection activities (Section 2); details on the laboratory sample analyses, data quality reviews, data management, and laboratory deviations (Section 3); results (Section 4); and references (Section 5).

Supporting information is provided in the following three appendices:

- **Appendix A**: Data Quality Summary
- **Appendix B**: Data Validation Reports
- **Appendix C**: EPA Communications
- **Appendix D**: SCRA (site characterization and risk assessment) Database, Excel® Flat File Format

2.0 SAMPLE COLLECTION ACTIVITIES

This section summarizes the Round 2 benthic tissue collection activities during the 2005 sampling event. Station navigation and positioning, record keeping, and sample handling and storage details are presented in the FSR (Windward and Integral 2006).

Sampling of clams (*Corbicula* sp.) was conducted at 33 locations within the Study Area between river mile (RM) 2 and RM 10 in November and December 2005. In accordance with the FSP, all lamprey ammocoetes and mussels collected at the 33 locations were retained for possible chemical analysis (Windward and Integral 2005). One to two lamprey ammocoete individuals were collected at nine locations (Table 2-1). Mussels were collected at 19 locations with numbers ranging between 1 and 7 individuals (Table 2-2). The majority of the mussels were tentatively identified as Western pearlshell mussels (*Margaritifera falcata*); only a few individuals (5) collected at BT007 and BT009 were tentatively identified as winged floaters (*Anodonta nuttalliana*).

Chemical analysis was performed on the composite lamprey ammocoete sample and seven mussel tissue samples collected at stations BT001, BT004, BT006, BT009, BT021, BT025, and BT033. Chemical analysis was not conducted on two of the mussel samples requested by EPA because the sample collected at BT017 consisted of one mussel that turned out to be an empty shell and the other sample collected at BT015 consisted of only one mussel.

3.0 CHEMICAL ANALYSES AND DATA MANAGEMENT

The following sections describe the chemical analysis of the tissue samples, including any deviations from the analytical methods detailed in the Round 2 QAPP and QAPP Addendum 6 (Integral and Windward 2004, 2005). The data management subsection describes the data validation process from receipt of the laboratory data package to the generation of a final validated electronic data deliverable (EDD). Furthermore, it describes how the SCRA database was compiled into a series of compatible Excel® tables, which were then distributed to the SCRA data users. The data validation reports are provided as Appendix B.

3.1 CHEMICAL ANALYSES

All mussels and lamprey ammocoetes collected during the Round 2 benthic tissue sampling effort were archived frozen at -20 °C until analytical schemes for each tissue matrix were approved (Appendix C). Chemical analysis was performed on the composite lamprey ammocoete sample and seven mussel tissue samples collected at stations BT001, BT004, BT006, BT009, BT021, BT025, and BT033. Mussel and lamprey tissue samples were composited and analyses selected as described below.

EPA requested (Appendix C) that the ammocoetes be combined into one tissue sample and analyzed for polychlorinated biphenyl (PCB) congeners, organochlorine pesticides, lipid content, and percent moisture.

For the mussels, EPA requested that LWG analyze the samples with adequate tissue. As a result, LWG proposed five locations (BT001, BT004, BT009, BT021, and BT025). EPA agreed to those locations and in addition requested analysis of four samples collected at BT006, BT015, BT017, and BT033 (Appendix C). On October 27, 2006, EPA directed LWG to perform the chemical analysis of the mussel samples (Appendix C). At the request of LWG, the chemical analysis of the mussels was conducted in February 2007, after receipt of data quality objectives (DQOs) from EPA. The mussel tissue samples were composited by sampling station, and the chemical analyses were performed on the composited tissue samples. The tissue samples were analyzed for PCB congeners (209), polycyclic aromatic hydrocarbons (PAHs), organochlorine pesticides (with the addition of hexachlorobenzene and hexachlorobutadiene to allow lower detection limits), butyltin compounds, semivolatile organic compounds (SVOCs), metals, dioxins and furans, lipid content, and percent moisture.

Chemical analyses of the lamprey and mussel tissue samples were performed by two laboratories: Columbia Analytical Services, Inc. of Kelso, Washington (CAS), and Axys Analytical Services, Ltd. of Sidney, BC, Canada (Axys). CAS shucked all mussels, composited and homogenized the mussel tissue samples, and

completed analyses for phthalates and selected SVOCs, PAHs, mercury and other metals, butyltin compounds, and percent moisture. Axys composited and homogenized the lamprey tissue and completed analyses of lipids, organochlorine pesticides (with the addition of hexachlorobenzene and hexachlorobutadiene), PCB congeners, and dioxins and furans.

The laboratories and methods of analysis for the tissue samples are included in Table 3-1. The tissue samples were analyzed according to the sample preparation and analytical procedures in the Round 2 QAPP and the associated Addendum 6 (Integral and Windward 2004, 2005). Deviations from the Round 2 QAPP and Addendum 6 are noted in Section 3.4 of this report.

3.2 DATA VALIDATION

Due to the small number of R2 mussel and lamprey samples, 100% of the data was fully validated using procedures specified in the Round 2 QAPP (Integral and Windward 2004). The data validation subcontractor for the Round 2 mussel and lamprey tissue was EcoChem, Inc., located in Seattle, WA.

The inorganic, organic, PCB congener, and PCDD/F data were validated in accordance with guidance specified by the EPA Contract Laboratory Program (CLP) *National Functional Guidelines for Inorganic and Organic Data Review* (EPA 2004, 1999b, 2002b), by EPA Region 10 standard operating procedures (SOPs) for validation of PCB congener data and PCDD/F data (EPA 1995, 1996, 1999a) and by *Guidance on Environmental Data Verification and Validation* (EPA 2002a). Modifications were made to the Functional Guidelines to accommodate quality assurance/quality control (QA/QC) requirements of the non-CLP methods that were used for this project. Data qualifiers were assigned during data validation if applicable control limits were not met, in accordance with the EPA data validation guidelines and the quality control requirements included in the referenced methods. The data validation qualifiers and definitions are summarized in Table 3-2.

The following laboratory deliverables were reviewed during full data validation:

- The case narrative discussing analytical problems (if any) and procedures
- Chain-of-custody documentation and laboratory sample receipt logs
- Instrument calibration results
- Method blank results
- Results for laboratory quality control samples required by the referenced method, including laboratory control sample/laboratory control sample

duplicate analyses, surrogate recoveries, and other method specific quality control samples (e.g., serial dilutions for inductively coupled plasma analyses)

- Results for field quality control samples (i.e., equipment blanks, field duplicates, and field split samples)
- Analytical results for the tissue samples.

In addition to the review and assessment of the documentation identified above, the data validation included the verification of calculations of reported concentrations for the field and QC samples, verification of intermediate transcriptions, and review of instrument data such as mass spectra to verify analyte identification procedures.

After completing the data validation activities for each sample type, a data quality report and a tabular summary of qualified data were generated by EcoChem. The EcoChem data quality reports are included in Appendix B. Data qualifiers that were assigned during validation were added to the laboratory EDDs by EcoChem. The revised EDDs and the hard-copy data validation reports were submitted as the project deliverable. The revised EDDs were then incorporated into the project database, as described in Section 3.5.

3.3 DATA QUALITY AND USABILITY

Data generated in the field and at the laboratories were verified and validated according to the criteria and procedures described in the Round 2 QAPP and QAPP Addendum 6 (Integral and Windward 2004, 2005). Data quality and usability were evaluated based on the results of the data validation and the data quality objectives for the Round 2 data.

The performance criteria in the QAPP included goals for precision, accuracy, representativeness, completeness, and comparability (PARCC) of the Round 2 data. Completeness is calculated by comparing the total number of acceptable data (nonrejected data) to the total number of data points generated. Completeness for the Round 2 benthic chemistry data was greater than 99% overall, which exceeds the QAPP completeness objective of 95%. Completeness for the Round 2 mussel and lamprey tissue data is summarized by parameter group and matrix in Table 3-3. Completeness ranged from 95 to 100% for the various parameter groups.

The validation reports (Appendix B) provide detailed information on the data quality issues and data validation qualifiers for each tissue type and parameter group. Qualified chemistry data for tissue samples are included in Tables 4-1a (lamprey) and 4-1b (mussels). A complete list of qualified results with reason codes is provided in the data validation reports in Appendix B.

3.3.1 Quality Control Samples

Quality control samples were prepared in the laboratories to monitor the bias and precision of the analysis procedures. Due to limited sample volume, no post-homogenization split or replicate samples were prepared. Additional sample mass from samples LW2-BTFM009 Comp and LW2-BTFM021 Comp was used to analyze laboratory quality control samples such as matrix spike, matrix spike duplicate and laboratory duplicate analyses.

A laboratory homogenization blank was created at CAS in association with mussel tissue sample preparation in compliance with the FSP (Windward and Integral 2005).

3.3.2 Summary of Qualified Data

Selected data not meeting the data quality criteria were qualified as undetected, estimated, tentatively identified, or rejected during validation, in accordance with the QAPP. A tabular summary of the results, with the data qualifiers, is included in Table 4-1a,b. A complete list of qualified results with reason codes is provided in Appendix B. Data qualified as undetected are usable for all intended purposes. Data qualified as estimated or tentatively identified are usable for all intended purposes with the knowledge that these data may be less precise or less accurate than unqualified data. Rejected data are not usable for any purpose. Concentrations associated with rejected data have been removed from the database, and an “R” qualifier has been retained to flag the results that were removed.

3.4 LABORATORY DEVIATIONS FROM THE QAPP

This section discusses laboratory deviations from the Round 2 QAPP and QAPP Addendum 6 (Integral and Windward 2004, 2005). Deviations from the FSP (Windward and Integral 2005) were included in the FSR (Windward and Integral 2006). The tissue analyses were conducted according to the Round 2 QAPP and the associated Addendum 6 with the exceptions described in this section.

3.4.1 Deviations in Priorities for Analysis

The analysis of all chemicals listed in the FSP and QAPP required a minimum of 30 g of tissue. Due to limited sample volume, samples were composited and analyzed as directed by EPA and as detailed in Section 3.1 above.

Chemical analysis could not be conducted on two of the mussel samples requested by EPA because the samples did not meet the 30 gram minimum mass requirement. A single mussel was collected at location BT017, and this was discovered to be an empty shell during sample processing at the laboratory. The sample collected at location BT015 consisted of only one mussel and did not meet the 30 gram minimum mass requirement.

3.4.2 Deviations in Holding Times

In accordance with field sampling plan, all mussel and lamprey ammocoetes collected during the Round 2 benthic sampling effort were initially archived frozen at -20 °C. Due to the time period between the original mussel sample collection in December, 2005 and final authorization of the analysis scheme in December, 2006, the analysis of all mussel samples occurred past the 1-year holding time specified in the QAPP for organic analyses. Data for pesticides, PAHs and SVOCs, butyltins, and mercury were qualified as estimated for holding times. Data for PCB congeners and dioxins and furans were not qualified for holding times as these compounds are extremely persistent and samples were stored under archive conditions at -20°C as described in Appendix B. A holding time of 2 years is allowed by PSEP for metals other than mercury in frozen tissue samples (PSEP 1997). This holding time was met for the mussel samples. All holding times were met for the lamprey sample.

3.4.3 Deviations in Field QC Procedures

Insufficient tissue sample mass was available to prepare field replicate samples. Additional sample mass from samples LW2-BTFM009 Comp and LW2-BTFM021 Comp was used to prepare matrix spike/matrix spike duplicate samples (as specified for organics) or laboratory duplicate samples (as specified for metals).

3.5 DATA MANAGEMENT

Once the laboratories completed their internal QA/QC checks, they exported the analytical data (sample, test, batch, and result information) into comma-delimited text files with data columns arranged in an order that was recognized by the project's Environmental Quality Information System (EQuIS) database. These EDDs were e-mailed to Integral where they were checked for proper EQuIS structure and appended with specific information that was unknown by the labs, such as sampling location, composite information, and field replicate and split information. If any problems were found in the structure of the EDDs, then the laboratory was notified and asked to correct the problem and resubmit the EDD. Each e-mailed EDD transmission, with the original, unaltered EDD attachment, was stored to document and track the laboratories' delivery of electronic data to Integral.

When the EDDs were correct and complete, they were checked electronically by loading them into the temporary section of Integral's LWG project database. In the process of loading, EQuIS checked the EDDs for correct lookup codes (such as for analytes, test methods, and sample matrices); proper relationships for results, tests,

batches, and samples (to ensure all results matched with a test, tests with samples, and sample/test pairs with batches); and that all derived samples (such as replicates, splits, and matrix spikes) had corresponding parent samples.

In addition to these checks, EQuIS also checked “less important” characteristics, such as date and time formats and text field lengths, to ensure consistency throughout the database. Any error prevents the EDD from loading until the error is corrected. If errors were found that were related to the way the laboratory reported the data or constructed the EDD, then the laboratory was notified and asked to correct the problem and resubmit the EDD. If errors were related to Excel® automatically formatting date and time fields, for example, then the error was corrected and steps were taken to avoid repeats of the problem (such as changing default settings in the software). Successfully loaded EDDs were saved to document and track the data that were loaded into Integral's LWG project database.

Each verified and accurate EDD was provided to the Round 2 data validation contractor (EcoChem, Seattle, WA) for data review and validation. These EDDs were also stored in a temporary section of the project database, where they could be queried and examined, if desired, until validation was complete. As EcoChem completed validation of the data by sample delivery group (SDG) or small groups of SDGs, the validator qualifiers and reason codes were applied to the data in the temporary section of the database. The validated data were then merged into the permanent project database. During the merging process, all previously performed electronic checks were repeated to ensure nothing was incorrectly modified with the application of the validation results.

Several queries were set up in the permanent project database to translate the data structure to a form compatible with the National Oceanic and Atmospheric Administration’s (NOAA) Query Manager. The data translation included creating station and sample identifiers, converting the sample type code, and changing the date format. The translated data were imported into an Access file provided by NOAA that contained template tables for the Query Manager structure.

Integral’s LWG project database contains all of the data reported by the analytical laboratories. This includes field and lab replicates, lab dilutions, results for the same analyte from multiple analytical methods (SW8270 and SW8270-SIM, for example), and laboratory QA samples such as matrix spikes, surrogates, and method blanks. The data handling rules described in *Guidelines for Data Averaging and Treatment of Non-detected Values for the Round 1 Database* (Kennedy/Jenks et al. 2004) were used to create a data set for the SCRA data users that was simpler: the data set contained only one result per analyte per sample and excluded all of the laboratory QA results. This involved creating a SCRA database that excluded lab QA results, contained only the most appropriate dilution result and analytical method for each analyte, and contained the average of replicates. Excluding the lab QA results was a simple database querying step. Selection of the most appropriate

dilution was either done by the reporting laboratory or by the data validator. Selection of the most appropriate analytical method was described in the guidelines document and was accomplished by flagging the appropriate method in the project database.

The guidelines document described the rules used for averaging data and carrying qualifiers. Because it was the most data manipulation intensive procedure, the data were divided into subgroups and approximately 40% of each subgroup was verified. If any problems were found with the averaging, then 100% of the subgroup was verified and problems were corrected. The preliminary SCRA database was compiled into a series of database-compatible Excel® tables and distributed to the SCRA data users.

4.0 ROUND 2 RESULTS

Results for individual samples are presented in Tables 4-1a (lamprey) and 4-1b (mussels). The tissue data generated from this effort will be evaluated in conjunction with Round 1, 2, and 3 tissue data will be reported in the baseline ecological risk assessment in fall/winter 2008. Summary statistics for the mussel tissue samples are compiled in Table 4-2.

5.0 REFERENCES

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Table 2-1. Summary of Sampling Data for Lamprey Ammocoetes Collected during Round 2 Benthic Tissue Sampling Effort

Station ID	Location	Number of Ammocoetes	Estimated Weight (g)
BT001	OSM downstream	1	<0.1[a]
BT003	Multnomah Channel	1	0.3
BT005	Mouth of International Slip	1	1.1
BT010	Terminal 4, upstream Slip 3	1	0.3
BT011	Linnton Plywood	1	2.3
BT020	Saltman Creek	1	0.8
BT025	Shaver	1	3
BT027	Portland Shipyard upstream	2	3.6 and 0.8
BT028	Gunderson	1	1.8
Total		**10**	**14**

a The accuracy of the scale was 0.1 g

Table 2-2. Summary of Sampling Data for Mussels Collected during Round 2 Benthic Tissue Sampling Effort.

Station ID	Location	Number of Mussels	Mussel Size (mm)	Tentative Identification
BT001	OSM downstream	3	81, 83, 89	Western pearlshell mussels (*Margaritifera falcata*)
BT002	OSM upstream	2	73, 84	Western pearlshell mussels (*Margaritifera falcata*)
BT003	Multnomah Channel	1	81	Western pearlshell mussel (*Margaritifera falcata*)
BT004	Time Oil	5	18, 14, 25, 100, 13	Western pearlshell mussels (*Margaritifera falcata*)
BT006	Head of International Slip	3	81, 79, 34	Western pearlshell mussels (*Margaritifera falcata*)
BT007	Schnitzer and Terminal 4	1	92	Winged floater (*Anodonta nuttalliana*)
BT009	Wheeler Bay	4	95, 92, 89, 82	Winged floaters (*Anodonta nuttalliana*)
BT010	Terminal 4, upstream Slip 3	1	92	Western pearlshell mussel (*Margaritifera falcata*)
BT011	Linnton Plywood	1	110	Western pearlshell mussel (*Margaritifera falcata*)
BT012	ARCO seawall downstream	1	58	Western pearlshell mussel (*Margaritifera falcata*)
BT013	Cathedral Park	1	108	Western pearlshell mussel (*Margaritifera falcata*)
BT014	U.S. Moorings	1	76	Western pearlshell mussel (*Margaritifera falcata*)
BT015	Gasco	1	78	Western pearlshell mussel (*Margaritifera falcata*)
BT017	Arkema downstream	1	85	Western pearlshell mussel (*Margaritifera falcata*)
BT021	Willbridge Docks upstream	7	87, 87, 84, 91, 76, 97, 15	Western pearlshell mussels (*Margaritifera falcata*)
BT022	Coast Guard Facility	1	51	Western pearlshell mussel (*Margaritifera falcata*)
BT025	Shaver	3	97, 74, 130	Western pearlshell mussels (*Margaritifera falcata*)
BT028	Gunderson	1	75	Western pearlshell mussel (*Margaritifera falcata*)
BT033	Goldendale Aluminum	2	87, 94	Western pearlshell mussels (*Margaritifera falcata*)
Total		**40**		

Table 3-1. Laboratory Methods for Round 2 Mussel and Lamprey Tissue Samples.

Analysis	Laboratory	Sample Preparation		Quantitati
		Protocol	Procedure	Protocol
Percent moisture	CAS	CAS SOP	Freeze dry	CAS SOP
Metals	CAS			
Aluminum, antimony, arsenic, cadmium, copper, lead nickel, silver, zinc		EPA 3050B/PSEP	Acid digestion	EPA 6020
Chromium		EPA 3050B/PSEP	Acid digestion	EPA 6010B
Selenium		EPA 3050B/PSEP	Acid digestion	EPA 7740
Mercury		EPA 7470	Acid digestion/oxidation	EPA 7470
Butyltin compounds	CAS	Krone et al. 1988 Krone et al. 1988	Solvent extraction Derivatization	Krone et al. 1988
Selected SVOCs	CAS	EPA 3541 EPA 3640A	Automated Soxhlet extraction Gel permeation chromatography	EPA 8270C-SIM
Polycyclic aromatic hydrocarbons	CAS	EPA 3541 EPA 3640A EPA 3630C	Automated Soxhlet extraction Gel permeation chromatography Silica gel cleanup	EPA 8270C-SIM
Lipids	Axys	EPA 3540C[a]	Soxhlet extraction	Axys SOP
PCB congeners [b]	Axys	EPA 1668A	Soxhlet extraction Gel permeation chromatography Acid/base silica column Florisil® chromatography 1% deactivated basic Alumina	EPA 1668A
Chlorinated dioxins and furans	Axys	EPA 1613B	Soxhlet extraction Gel permeation chromatography Acid/base silica column Florisil® chromatography Carbon celite Layered silver nitrate/acid/base silica 1% deactivated basic Alumina	EPA 1613B
Organochlorine Pesticides and selected SVOCs[c]	Axys	Axys SOP	Soxhlet extraction Gel permeation chromatography Acid/base silica column Florisil® chromatography 1% deactivated basic Alumina	

CAS - Columbia Analytical Services
CVAA - cold vapor atomic absorption spectrometry
EPA - U.S. Environmental Protection Agency
GC/ECD - gas chromatography/electron capture detection
GC/FPD - gas chromatography/flame photometric detection
GC/MS - gas chromatography/mass spectrometry
GFAA - graphite furnace atomic absorption spectrometry
HRGC/HRMS - high-resolution gas chromatography/high-resolution mass spectrometry
ICP/AES - inductively coupled plasma/atomic emission spectrometr
ICP/MS - inductively coupled plasma - mass spectrometry
PCB - polychlorinated biphenyl
PSEP - Puget Sound Estuary Program
SIM - selected ion monitoring
SOP - Standard operating procedure
SVOC - semivolatile organic compound

[a] PCDD/Fs, PCBs, pesticides, and lipids analyzed from the same extract.
[b] Includes all 209 congeners. Includes analyses for PCB congener homologs and PCB Aroclors.
[c] The SVOCs hexachlorobenzene and hexachlorobutadiene were analyzed with the pesticides to improve detection limits as described in QAPP addendum 6 (Integral and Winc
Hexachlorobenzene and hexachlorobutadiene were also analyzed with the SVOCs.

ive Analysis
Procedure
Balance
ICP/MS
ICP/AES GFAA CVAA
GC/FPD
GC/MS-SIM
GC/MS-SIM
Balance
HRGC/HRMS
HRGC/HRMS
HRGC/HRMS

try

lward 2006).

Table 3-2. Data Validation Qualifiers and Definitions.

Data Qualifier	Definition
U	The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
J	The associated numerical value is an estimated quantity.
R	Rejected.
NJ	Presumptive evidence of the presence of the material at an estimated quantity.
UJ	The material was analyzed for, but was not detected. The sample quantitation limit is an estimated quantity.
T	The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.

Table 3-3. Percent Completeness by Parameter Group.

Analysis	Total # of Data Points[a]	Number of Data Points		Completeness (%)
		Accepted	Rejected	
Butyltins	28	28	0	100
Conventionals [b]	15	15	0	100
Dioxin/furan homologs	80	80	0	100
Dioxins/furans	120	120	0	100
Metals	84	84	0	100
Organochlorine pesticides	208	208	0	100
PAHs	119	119	0	100
PCB congeners	1273	1265	8	99
Phenols	35	35	0	100
Phthalates	42	42	0	100
SVOCs	79	75	4	95
Round 2 Mussel and Lampreyy Ammocoete Tissue Sampling Project Total	**2083**	**2071**	**12**	**>99**

Notes:
[a] Totals include field replicates and split samples and exclude field blanks.
[b] Lipids, total solids.

Table 4-1a. Analytical Results for Lamprey Tissue Sample.

	Sample ID	**LW2-BTF Lamp Comp**		
	Sample Date	**11/30/2005**		
Chemical Name	**Unit**			
Conventionals				
Lipids	percent		4.65	
Dioxin/Furan Homolog				
Heptachlorodibenzofuran homologs	pg/g		6.76	
Heptachlorodibenzo-p-dioxin homologs	pg/g		12.8	
Hexachlorodibenzofuran homologs	pg/g		11	
Hexachlorodibenzo-p-dioxin homologs	pg/g		5.55	
Octachlorodibenzofuran	pg/g		2.78	
Octachlorodibenzo-p-dioxin	pg/g		24.3	
Pentachlorodibenzofuran homologs	pg/g		7.89	
Pentachlorodibenzo-p-dioxin homologs	pg/g		1.35	
Tetrachlorodibenzofuran homologs	pg/g		7.33	
Tetrachlorodibenzo-p-dioxin homologs	pg/g		0.839	
Total PCDD/F	pg/g		80.6	T
Dioxins/Furans				
1,2,3,4,6,7,8-Heptachlorodibenzofuran	pg/g		1.82	
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	pg/g		10.9	
1,2,3,4,7,8,9-Heptachlorodibenzofuran	pg/g		0.182	J
1,2,3,4,7,8-Hexachlorodibenzofuran	pg/g		0.885	J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	pg/g		0.858	J
1,2,3,6,7,8-Hexachlorodibenzofuran	pg/g		0.444	J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	pg/g		3.03	
1,2,3,7,8,9-Hexachlorodibenzofuran	pg/g		0.058	J
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	pg/g		1.01	J
1,2,3,7,8-Pentachlorodibenzofuran	pg/g		0.657	J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	pg/g		1.21	
2,3,4,6,7,8-Hexachlorodibenzofuran	pg/g		0.293	U
2,3,4,7,8-Pentachlorodibenzofuran	pg/g		0.837	J
2,3,7,8-Tetrachlorodibenzofuran	pg/g		2.29	
2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/g		0.566	
Dioxin/furan TCDD toxicity equivalent	pg/g		3.22	JT
Dioxin-like PCB congener TCDD toxicity equivalent	pg/g		3.11	T
Total TCDD toxicity equivalent	pg/g		6.33	JT
PCB Congeners				
PCB001	pg/g		16.2	
PCB002	pg/g		11.2	
PCB003	pg/g		6.72	
PCB004	pg/g		585	
PCB005	pg/g		4.17	
PCB006	pg/g		93.4	
PCB007	pg/g		19.8	
PCB008	pg/g		420	
PCB009	pg/g		24.8	
PCB010	pg/g		32.8	

Table 4-1a. Analytical Results for Lamprey Tissue Sample.

	Sample ID	**LW2-BTF Lamp Comp**		
	Sample Date	**11/30/2005**		
Chemical Name	**Unit**			
PCB011	pg/g		830	
PCB012 & 013	pg/g		42.4	
PCB014	pg/g		0.621	U
PCB015	pg/g		256	
PCB016	pg/g		743	
PCB017	pg/g		1790	
PCB018 & 030	pg/g		2030	
PCB019	pg/g		2100	
PCB020 & 028	pg/g		3680	
PCB021 & 033	pg/g		1150	
PCB022	pg/g		962	
PCB023	pg/g		3.26	
PCB024	pg/g		24.4	
PCB025	pg/g		333	
PCB026 & 029	pg/g		627	
PCB027	pg/g		438	
PCB031	pg/g		2760	
PCB032	pg/g		1110	
PCB034	pg/g		25.7	
PCB035	pg/g		11.6	
PCB036	pg/g		0.82	U
PCB037	pg/g		648	
PCB038	pg/g		3.41	U
PCB039	pg/g		42.8	
PCB040 & 041 & 071	pg/g		3810	
PCB042	pg/g		1790	
PCB043	pg/g		299	
PCB044 & 047 & 065	pg/g		8870	
PCB045 & 051	pg/g		1990	
PCB046	pg/g		366	
PCB048	pg/g		1230	
PCB049 & 069	pg/g		6550	
PCB050 & 053	pg/g		2120	
PCB052	pg/g		10700	
PCB054	pg/g		487	
PCB055	pg/g		7.22	U
PCB056	pg/g		2670	
PCB057	pg/g		23.7	
PCB058	pg/g		22.7	
PCB059 & 062 & 075	pg/g		660	
PCB060	pg/g		1480	
PCB061 & 070 & 074 & 076	pg/g		12500	
PCB063	pg/g		342	
PCB064	pg/g		3360	
PCB066	pg/g		7420	
PCB067	pg/g		194	
PCB068	pg/g		110	

Table 4-1a. Analytical Results for Lamprey Tissue Sample.

	Sample ID	**LW2-BTF Lamp Comp**		
	Sample Date	**11/30/2005**		
Chemical Name	**Unit**			
PCB072	pg/g		139	
PCB073	pg/g		1.37	U
PCB077	pg/g		463	
PCB078	pg/g		7.03	U
PCB079	pg/g		108	
PCB080	pg/g		6.41	U
PCB081	pg/g		15.5	
PCB082	pg/g		1020	
PCB083 & 099	pg/g		7670	
PCB084	pg/g		2330	
PCB085 & 116 & 117	pg/g		2060	
PCB086 & 087 & 097 & 108 & 119 & 125	pg/g		6880	
PCB088 & 091	pg/g		2210	
PCB089	pg/g		161	
PCB090 & 101 & 113	pg/g		11900	
PCB092	pg/g		2420	
PCB093 & 095 & 098 & 100 & 102	pg/g		9280	
PCB094	pg/g		191	
PCB096	pg/g		166	
PCB103	pg/g		351	
PCB104	pg/g		40.9	
PCB105	pg/g		2350	
PCB106	pg/g		12	U
PCB107 & 124	pg/g		326	
PCB109	pg/g		685	
PCB110 & 115	pg/g		8530	
PCB111	pg/g		28	
PCB112	pg/g		2.45	U
PCB114	pg/g		202	
PCB118	pg/g		7480	
PCB120	pg/g		71	
PCB121	pg/g		33.5	
PCB122	pg/g		80.9	
PCB123	pg/g		157	
PCB126	pg/g		17	
PCB127	pg/g		12.9	U
PCB128 & 166	pg/g		573	
PCB129 & 138 & 160 & 163	pg/g		6460	
PCB130	pg/g		415	
PCB131	pg/g		76.2	
PCB132	pg/g		1630	
PCB133	pg/g		306	
PCB134 & 143	pg/g		395	
PCB135 & 151 & 154	pg/g		3960	
PCB136	pg/g		1230	
PCB137	pg/g		279	
PCB139 & 140	pg/g		146	

Table 4-1a. Analytical Results for Lamprey Tissue Sample.

	Sample ID	**LW2-BTF Lamp Comp**		
	Sample Date	**11/30/2005**		
Chemical Name	**Unit**			
PCB141	pg/g		1190	
PCB142	pg/g		6.81	U
PCB144	pg/g		440	
PCB145	pg/g		3.33	
PCB146	pg/g		2050	
PCB147 & 149	pg/g		6690	
PCB148	pg/g		108	
PCB150	pg/g		88.7	
PCB152	pg/g		23.5	
PCB153 & 168	pg/g		9090	
PCB155	pg/g		9.82	
PCB156 & 157	pg/g		511	
PCB158	pg/g		590	
PCB159	pg/g		27.1	
PCB161	pg/g		4.76	U
PCB162	pg/g		15.2	
PCB164	pg/g		264	
PCB165	pg/g		27.9	
PCB167	pg/g		229	
PCB169	pg/g		6.39	U
PCB170	pg/g		672	
PCB171 & 173	pg/g		256	
PCB172	pg/g		236	
PCB174	pg/g		706	
PCB175	pg/g		60.6	
PCB176	pg/g		161	
PCB177	pg/g		611	
PCB178	pg/g		455	
PCB179	pg/g		642	
PCB180 & 193	pg/g		2690	
PCB181	pg/g		11	
PCB182	pg/g		10.6	
PCB183 & 185	pg/g		1070	
PCB184	pg/g		3.54	
PCB186	pg/g		0.533	U
PCB187	pg/g		2180	
PCB188	pg/g		11.9	
PCB189	pg/g		37.8	
PCB190	pg/g		188	
PCB191	pg/g		30.9	
PCB192	pg/g		1.24	U
PCB194	pg/g		329	
PCB195	pg/g		97.1	
PCB196	pg/g		138	
PCB197 & 200	pg/g		53.7	
PCB198 & 199	pg/g		337	
PCB201	pg/g		67.5	

Table 4-1a. Analytical Results for Lamprey Tissue Sample.

	Sample ID	**LW2-BTF Lamp Comp**		
	Sample Date	**11/30/2005**		
Chemical Name	**Unit**			
PCB202	pg/g		176	
PCB203	pg/g		323	
PCB204	pg/g		0.381	J
PCB205	pg/g		11	
PCB206	pg/g		114	
PCB207	pg/g		18.8	
PCB208	pg/g		65.3	
PCB209	pg/g		125	
Pesticides				
2,4'-DDD	ug/kg		7.54	
2,4'-DDE	ug/kg		1.05	
2,4'-DDT	ug/kg		0.719	
4,4'-DDD	ug/kg		27.6	
4,4'-DDE	ug/kg		31	
4,4'-DDT	ug/kg		2.23	
Aldrin	ug/kg		1.7	
alpha-Endosulfan	ug/kg		0.503	
alpha-Hexachlorocyclohexane	ug/kg		0.033	J
beta-Endosulfan	ug/kg		0.327	
beta-Hexachlorocyclohexane	ug/kg		0.013	J
cis-Chlordane	ug/kg		5.09	
cis-Nonachlor	ug/kg		1.51	
delta-Hexachlorocyclohexane	ug/kg		0.006	U
Dieldrin	ug/kg		2.51	
Endosulfan sulfate	ug/kg		0.864	
Endrin	ug/kg		0.031	J
Endrin aldehyde	ug/kg		0.00794	U
Endrin ketone	ug/kg		0.008	J
gamma-Hexachlorocyclohexane	ug/kg		0.046	J
Heptachlor	ug/kg		0.022	J
Heptachlor epoxide	ug/kg		0.125	
Methoxychlor	ug/kg		0.164	
Oxychlordane	ug/kg		0.25	J
Total Chlordanes	ug/kg		15.7	JT
Total Endosulfan	ug/kg		1.69	T
Total of 2,4' and 4,4'-DDD	ug/kg		35.14	T
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	ug/kg		70.139	T
Total of 2,4' and 4,4'-DDE	ug/kg		32.05	T
Total of 2,4' and 4,4'-DDT	ug/kg		2.949	T
Total of 4,4'-DDD, -DDE, -DDT	ug/kg		60.83	T
trans-Chlordane	ug/kg		4.15	
trans-Nonachlor	ug/kg		4.68	
SVOCs				
Hexachlorobenzene	ug/kg		4.06	
Hexachlorobutadiene	ug/kg	R		

Table 4-1b. Analytical Results for Mussel Tissue Samples.

	Sample ID	LW2-BTFM001 Comp		LW2-BTFM004 Comp		LW2-BTFM006 Comp		LW2-BTFM009 Comp		LW2-BTFM021 Comp		LW2-BTFM025 Comp		LW2-BTFM033 Comp	
	Sample Date	12/13/2005		12/12/2005		12/12/2005		12/9/2005		12/5/2005		12/7/2005		12/6/2005	
Chemical Name	**Unit**														
Butyltins															
Butyltin ion	ug/kg	0.44	J	1.4	J	1.5	J	0.87	J	1.5	J	2.2	J	0.68	J
Dibutyltin ion	ug/kg	0.85	J	1.9	J	3.8	J	1.8	J	1.8	J	2.5	J	1.3	J
Tetrabutyltin	ug/kg	0.85	UJ	0.85	UJ	0.85	UJ	0.86	UJ	0.85	UJ	0.84	UJ	0.86	UJ
Tributyltin ion	ug/kg	5.9	J	3.8	J	16	J	5.7	J	4.1	J	2.9	J	2.2	J
Conventionals															
Lipids	percent	0.37		0.18		0.51		0.4		0.31		0.64		0.4	
Total solids	percent	5.85		3.65		8.08		5.18	T	9.11		8.83		6.91	
Dioxin/Furan Homolog															
Heptachlorodibenzofuran homologs	pg/g	0.732		0.357		2.76		1.12		1.53		1.8		2.98	
Heptachlorodibenzo-p-dioxin homologs	pg/g	2.48		2.25		10.7		4.09		5.93		7.15		10.5	
Hexachlorodibenzofuran homologs	pg/g	0.664		0.241		2.37		1.25		1.42		1.86		0.94	
Hexachlorodibenzo-p-dioxin homologs	pg/g	0.992		0.618		2.89		1.05		1.73		2.44		0.291	
Octachlorodibenzofuran	pg/g	0.524	J	0.446	J	2.34	J	0.813	J	1.45		1.5		2.86	J
Octachlorodibenzo-p-dioxin	pg/g	7.71		8.56		33.9		16		22.6		26		35.8	
Pentachlorodibenzofuran homologs	pg/g	0.916		0.513		3.35		1.34		1.7		2.22		1.1	
Pentachlorodibenzo-p-dioxin homologs	pg/g	0.311		0.0197	U	0.648		0.232		0.548		0.595		0.212	
Tetrachlorodibenzofuran homologs	pg/g	2.11		0.889		5.81		1.08		2.4		3.61		0.587	
Tetrachlorodibenzo-p-dioxin homologs	pg/g	0.986		0.556		1.42		0.613		0.773		2.3		0.679	
Total PCDD/F	pg/g	17.4	JT	14.4	JT	66.2	JT	27.6	JT	40.1	T	49.5	T	55.9	JT
Dioxins/Furans															
1,2,3,4,6,7,8-Heptachlorodibenzofuran	pg/g	0.255	J	0.204	U	0.921	J	0.397	J	0.52		0.608		1.07	J
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	pg/g	1.21		1.08	J	5.12		2.06		2.8		3.35		5.14	
1,2,3,4,7,8,9-Heptachlorodibenzofuran	pg/g	0.027	J	0.024	J	0.079	U	0.052	U	0.057	J	0.048		0.099	U
1,2,3,4,7,8-Hexachlorodibenzofuran	pg/g	0.052	J	0.049	J	0.179	J	0.142	J	0.121	J	0.112		0.123	J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	pg/g	0.042	J	0.038	U	0.121	J	0.064	U	0.079	J	0.114		0.113	U
1,2,3,6,7,8-Hexachlorodibenzofuran	pg/g	0.032	U	0.03	J	0.098	U	0.059	J	0.075	J	0.09		0.127	U
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	pg/g	0.186	J	0.152	J	0.527	J	0.228	J	0.351	J	0.499		0.493	U
1,2,3,7,8,9-Hexachlorodibenzofuran	pg/g	0.0367	U	0.0958	U	0.0945	U	0.0904	U	0.0311	U	0.0918	U	0.191	U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	pg/g	0.083	J	0.057	U	0.239	J	0.104	J	0.154	J	0.192		0.262	U
1,2,3,7,8-Pentachlorodibenzofuran	pg/g	0.064	J	0.055	U	0.144	J	0.075	U	0.165	J	0.075	U	0.238	U
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	pg/g	0.068	J	0.041	U	0.178	J	0.086	U	0.122	J	0.155	U	0.154	U
2,3,4,6,7,8-Hexachlorodibenzofuran	pg/g	0.045	J	0.061	U	0.121	U	0.082	J	0.069	J	0.102		0.16	J
2,3,4,7,8-Pentachlorodibenzofuran	pg/g	0.1	U	0.112	J	0.286	J	0.198	J	0.156	J	0.177		0.155	J
2,3,7,8-Tetrachlorodibenzofuran	pg/g	0.213	U	0.109	U	0.454	U	0.139	U	0.305		0.277		0.052	U
2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/g	0.048	J	0.059	U	0.088	U	0.053	U	0.057	J	0.127	U	0.102	U
Dioxin/furan TCDD toxicity equivalent	pg/g	0.176	JT	0.091	JT	0.499	JT	0.187	JT	0.417	JT	0.27	T	0.172	JT
Dioxin-like PCB congener TCDD toxicity equivalent	pg/g	0.323	T	0.139	T	1.93	T	0.0487	T	0.203	T	0.324	T	0.113	JT
Total TCDD toxicity equivalent	pg/g	0.499	JT	0.23	JT	2.43	JT	0.235	JT	0.62	JT	0.594	T	0.284	JT
Metals															
Aluminum	mg/kg	155		5.9		211		144	T	114		101		210	
Antimony	mg/kg	0.0008		0.001		0.0035		0.00205	T	0.0026		0.0024		0.0027	
Arsenic	mg/kg	0.35		0.224		0.325		0.345	T	0.616		0.393		0.439	
Cadmium	mg/kg	0.108		0.0988		0.188		0.134	T	0.142		0.1		0.0905	
Chromium	mg/kg	0.21		0.13	U	0.28		0.255	T	0.33	U	0.34	U	0.27	U
Copper	mg/kg	1.7		1.01		1.82		1.37	T	1.62		1.13		1.11	
Lead	mg/kg	0.0823		0.0386		0.22		0.211	T	0.118		0.196		0.105	

Table 4-1b. Analytical Results for Mussel Tissue Samples.

	Sample ID	LW2-BTFM001 Comp		LW2-BTFM004 Comp		LW2-BTFM006 Comp		LW2-BTFM009 Comp		LW2-BTFM021 Comp		LW2-BTFM025 Comp		LW2-BTFM033 Comp	
	Sample Date	12/13/2005		12/12/2005		12/12/2005		12/9/2005		12/5/2005		12/7/2005		12/6/2005	
Chemical Name	**Unit**														
Mercury	mg/kg	0.0032	J	0.0022	J	0.0054	J	0.0031	J	0.0061	J	0.0049	JT	0.0048	J
Nickel	mg/kg	0.508		0.308		0.336		0.405	T	0.712		0.511		0.41	
Selenium	mg/kg	0.056		0.058		0.098		0.0735	T	0.128		0.091		0.11	
Silver	mg/kg	0.0237		0.0398		0.0335		0.0474	T	0.0759		0.0313		0.0434	
Zinc	mg/kg	16.6		15.7		27.4		26.6	T	41.5		33.5		27.5	
PAHs															
2-Methylnaphthalene	ug/kg	0.9	UJ	0.51	UJ	0.79	UJ	0.84	UJ	0.88	UJ	0.98	UJ	1.2	J
Acenaphthene	ug/kg	0.23	J	0.14	J	0.6	J	1	J	0.33	J	0.48	J	2	J
Acenaphthylene	ug/kg	0.3	UJ	0.3	UJ	0.39	J	1.7	J	0.3	UJ	0.3	UJ	1.8	J
Anthracene	ug/kg	0.82	J	0.33	UJ	2.3	J	1	J	0.61	J	1	J	0.72	J
Benzo(a)anthracene	ug/kg	1.2	J	1	J	11	J	1.7	J	0.78	J	1.8	J	0.73	J
Benzo(a)pyrene	ug/kg	0.79	J	0.51	J	5.2	J	1.2	J	0.74	J	0.76	J	0.93	J
Benzo(b)fluoranthene	ug/kg	0.87	J	0.69	J	12	J	1.2	J	0.59	J	1.2	J	0.8	J
Benzo(g,h,i)perylene	ug/kg	0.68	J	0.47	J	7.1	J	0.9	J	0.43	J	0.81	J	0.2	UJ
Benzo(k)fluoranthene	ug/kg	0.43	J	0.23	J	4.2	J	0.71	J	0.26	J	0.52	J	0.33	J
Chrysene	ug/kg	3.1	J	2.1	J	27	J	3	J	2.4	J	4.9	J	2.1	J
Dibenzo(a,h)anthracene	ug/kg	0.14	UJ	0.14	UJ	0.67	J	0.14	UJ	0.14	UJ	0.14	UJ	0.28	UJ
Fluoranthene	ug/kg	5.2	J	3.5	J	27	J	8.9	J	5.9	J	8.9	J	4.4	J
Fluorene	ug/kg	0.5	J	0.35	J	1	J	1.1	J	0.75	J	1.3	J	0.7	J
High Molecular Weight PAH	ug/kg	19	JT	13	JT	130	JT	26	JT	17	JT	27	JT	13	JT
Indeno(1,2,3-cd)pyrene	ug/kg	0.33	J	0.1	J	3.1	J	0.096	UJ	6.4	UJ	0.096	UJ	0.19	UJ
Low Molecular Weight PAH	ug/kg	5.2	JT	3	JT	14	JT	10	JT	5.9	JT	8.4	JT	11	JT
Naphthalene	ug/kg	1.6	J	1.1	J	1.6	J	1.1	J	1.3	J	1.5	J	2.1	J
Phenanthrene	ug/kg	2	J	1.4	J	8.4	J	4.4	J	2.9	J	4.1	J	2.4	J
Pyrene	ug/kg	6.6	J	4.7	J	36	J	8.5	J	5.9	J	8.2	J	4.2	J
Total PAHs	ug/kg	24	JT	16	JT	150	JT	36	JT	23	JT	35	JT	24	JT
PCB Congeners															
PCB001	pg/g	0.926		1.21	J	3.1									
PCB002	pg/g	0.614		0.616	J	1.09									
PCB003	pg/g	0.693		0.956		2.54		0.814	U	0.476	J	0.577	UJ	1.06	U
PCB004	pg/g	16.3		6.84	J	49.2	J	2.27	U	2.71	J	4.11	U	17.7	J
PCB005	pg/g	0.412	U	0.82	U	3.09		0.792	U	0.191	U	1.09	U	2.41	U
PCB006	pg/g	5.09		5.52	U	41.6		0.707	U	1.14		1.59	U	2.86	U
PCB007	pg/g	0.875	U	1.25		9.1		0.747	U	0.345	U	1	U	2.22	U
PCB008	pg/g	25.7		29.7		230		2.24		4.87		8.17		17.3	
PCB009	pg/g	1.49		2.16		14.3		0.696	U	0.284		0.946	U	2.1	U
PCB010	pg/g	0.363	U	0.819	U	2.74	U	0.697	U	0.167	U	0.955	U	2.12	U
PCB011	pg/g	24.4		18		26		16.9		34		50.4		36.1	
PCB012 & 013	pg/g	2.83	U	3.39		28.2		0.755	U	1.32	U	1.08	U	2.4	U
PCB014	pg/g	0.386	U	0.769	U	0.723	U	0.742	U	0.182	U	1.04	U	2.3	U
PCB015	pg/g	17.8		18.6		272		2.78		4.47		10.5		9.65	
PCB016	pg/g	21.8		27.9		258		2.29		8.26		12		12.3	
PCB017	pg/g	39.3		36.8		350		4.43		13.9		20.8		20.6	
PCB018 & 030	pg/g	54.1		60.8		604		5.19		21.3		27		23.7	
PCB019	pg/g	15.7		10.5		73.7		6.07	J	5.26	J	8.77	J	15.7	J
PCB020 & 028	pg/g	212		202		2190		24.9		84.6		137		89.1	
PCB021 & 033	pg/g	95.9		131		1240		11		33.9		55.1		44.2	
PCB022	pg/g	69		78.3		792		8.42		23.7		41.1		27.1	
PCB023	pg/g	0.198	J	0.295	J	2.69		0.399	U	0.096	J	0.406	U	0.846	U
PCB024	pg/g	1.06		1.2		11.8		0.101	J	0.372		0.434	U	0.385	U

Table 4-1b. Analytical Results for Mussel Tissue Samples.

	Sample ID	LW2-BTFM001 Comp		LW2-BTFM004 Comp		LW2-BTFM006 Comp		LW2-BTFM009 Comp		LW2-BTFM021 Comp		LW2-BTFM025 Comp		LW2-BTFM033 Comp	
	Sample Date	12/13/2005		12/12/2005		12/12/2005		12/9/2005		12/5/2005		12/7/2005		12/6/2005	
Chemical Name	Unit														
PCB025	pg/g	15		15.4		163		2.02		5.83		10.4		7.74	
PCB026 & 029	pg/g	33.3		35.4		383		3.98		12.4		19.5		15.8	
PCB027	pg/g	6.98		6.55		62		1.18		2.35		3.53		3.61	
PCB031	pg/g	158		165		1810		17.7		63.2		98.2		63.2	
PCB032	pg/g	45		35.8		387		4.27		12.9		18.9		18.7	
PCB034	pg/g	0.872		0.795	U	7.4		0.532	U	0.693		0.788	U	1.13	U
PCB035	pg/g	2.87		2.77		31.5		0.518	J	1.46		2.68		0.95	U
PCB036	pg/g	0.217	U	0.14	J	0.579	U	0.562	U	0.355	U	0.642	U	1.19	U
PCB037	pg/g	47		45.2		508		6.87		17.5		31.9		17	
PCB038	pg/g	0.519		0.208	U	2.27	U	0.443	U	0.211	U	0.335	J	0.94	U
PCB039	pg/g	3.26		2.42		24.5		0.41	J	1.63		2.35	U	0.98	U
PCB040 & 041 & 071	pg/g	219		120		1390		24.1		78.5		134		40.6	
PCB042	pg/g	101		56		663		10.9		40.4		64.9		18.8	
PCB043	pg/g	17.7		10.6		125		1.97	U	6.54		10.8		2.89	
PCB044 & 047 & 065	pg/g	423		209		2550		70		179		307		77.3	
PCB045 & 051	pg/g	67.2		36.9		380		12.3		24.4		42.3		13.5	
PCB046	pg/g	16.5		9.45		116		1.77		5.44		9.26		3.2	
PCB048	pg/g	77.7		51.7		598		8.38		33.1		49.2		16.1	
PCB049 & 069	pg/g	267		131		1700		33.5		117		182		44.4	
PCB050 & 053	pg/g	48.6		24.1		264		8.44		19.6		30.6		11.7	
PCB052	pg/g	410		200		3300		51.1		187		285		72.9	
PCB054	pg/g	3.56		2.16		8.27		2.68		1.75		2.8		2.32	
PCB055	pg/g	0.509	U	4.91		38.9		0.547	U	0.289	U	0.728	U	1.16	U
PCB056	pg/g	178		70.6		708		21.9		83.7		141		37.7	
PCB057	pg/g	2.26		1.5		15.4		0.501	J	1.11		1.44	U	0.814	U
PCB058	pg/g	0.549	U	0.517	U	2.64	U	0.488	U	0.262	U	0.661	U	1.03	U
PCB059 & 062 & 075	pg/g	36.1		20.9		244		4.4		14.1		23.9		6.16	
PCB060	pg/g	91		41.9		387		12.2		34.9		64.1		24.8	
PCB061 & 070 & 074 & 076	pg/g	657		282		3960		97.4		372		568		142	
PCB063	pg/g	16.3		7.38		88.5		2.4		9.11		13.2		3.92	
PCB064	pg/g	198		99.7		1210		19.6		69.8		110		30	
PCB066	pg/g	392		145		1710		54.4		205		326		88.5	
PCB067	pg/g	12.4		6.77	U	89		2	U	5.74	U	9.65		2.91	U
PCB068	pg/g	2.49	U	1.16	U	15.5		1.08	U	2.78	U	4.48	U	0.926	U
PCB072	pg/g	4.49		1.8	U	30.6		0.938	U	4.01		6.03		0.908	U
PCB073	pg/g	0.18	U	0.47	U	0.457	U	1.09		0.153	U	0.451	U	0.94	U
PCB077	pg/g	31.1		12.6		146		5.18		15.3		24.6		7.88	
PCB078	pg/g	0.513	U	0.517	U	2.47	U	0.488	U	0.28	U	0.706	U	1.03	U
PCB079	pg/g	8.56		3.03		61		1.69	U	5.46		9.98		2.06	
PCB080	pg/g	0.445	U	0.407	U	2.14	U	0.384	U	0.25	U	0.63	U	0.814	U
PCB081	pg/g	1.5		0.773		5.11		0.355	U	0.465		0.989	U	0.72	U
PCB082	pg/g	77.7		25.7		434		14.1		38.1		72.9		13.1	
PCB083 & 099	pg/g	372		123		2300		98.4		306		542		95.2	
PCB084	pg/g	125		43.5		883		22.3		70.3		152		21.9	
PCB085 & 116 & 117	pg/g	139		41.8		747		27		73.5		124		28.1	
PCB086 & 087 & 097 & 108 & 119 & 125	pg/g	400		136		2640		87.9		259		461		84.1	
PCB088 & 091	pg/g	109		38.3		577		26.3		70.1		139		20.7	
PCB089	pg/g	10.1		2.6		37		1.21		4.48		7.2		1.48	U
PCB090 & 101 & 113	pg/g	647		231		4650		174		503		875		143	
PCB092	pg/g	132		51.3		831		39.9		110		185		29.7	
PCB093 & 095 & 098 & 100 & 102	pg/g	487		202		3460		128		320		596		96.4	
PCB094	pg/g	8.92		4.14		25.8		4.13		4.7		8.98		1.73	

Table 4-1b. Analytical Results for Mussel Tissue Samples.

	Sample ID	LW2-BTFM001 Comp		LW2-BTFM004 Comp		LW2-BTFM006 Comp		LW2-BTFM009 Comp		LW2-BTFM021 Comp		LW2-BTFM025 Comp		LW2-BTFM033 Comp	
	Sample Date	12/13/2005		12/12/2005		12/12/2005		12/9/2005		12/5/2005		12/7/2005		12/6/2005	
Chemical Name	Unit														
PCB096	pg/g	6.88		2.87		28		1.64		3.39		6.35		1.24	J
PCB103	pg/g	13.4		5.76		38.2		6.24		14.2		22.7		4.09	
PCB104	pg/g	1.85		0.967		2.34		1.37	U	1.04		1.35		0.527	J
PCB105	pg/g	271		97.8		1570		62.2		129		226		63.2	
PCB106	pg/g	0.358	U	0.219	U	1	U	0.403	U	0.178	U	0.508	U	0.57	U
PCB107 & 124	pg/g	27.8		8.8		204		6.37		14.4		28.2		6.96	
PCB109	pg/g	44.4		15.8		297		13		30.8		47.2		11.6	
PCB110 & 115	pg/g	634		239		5040		158		422		804		140	
PCB111	pg/g	0.904		0.498	U	3.27		0.656		1.05	U	1.86	U	0.416	U
PCB112	pg/g	0.222	U	0.235	U	0.229	U	0.222	U	0.184	U	0.263	U	0.47	U
PCB114	pg/g	16.3		5.72		93.9		3.91		8.55		13.2		3.97	
PCB118	pg/g	645		241		4820		182		396		687		160	
PCB120	pg/g	3.24		1.56		14.6		1.96	U	4.34		7.01		1.4	
PCB121	pg/g	1		0.512	J	1.3	U	0.631	U	1.09		1.67		0.632	J
PCB122	pg/g	10.3		3.48		54.1		2.07		4.84		9.43		2.16	U
PCB123	pg/g	14		4.9		85.5		3.43		6.41		12		3.15	
PCB126	pg/g	1.76		0.772		8.46		0.594	U	1.11		1.66		0.69	J
PCB127	pg/g	0.357	U	0.266	U	0.996	U	0.402	U	0.195	U	0.558	U	0.625	U
PCB128 & 166	pg/g	112		62.6		1110		57.9		105		182		70.7	
PCB129 & 138 & 160 & 163	pg/g	1000		505		7710		570		859		1520		406	
PCB130	pg/g	50.4		23.2		354		26.1		45		79		18.1	
PCB131	pg/g	10.3		4.32		85.4		3.93		6.48		11.9		2.32	
PCB132	pg/g	324		138		2210		139		255		445		79.1	
PCB133	pg/g	22.6		11.1	U	91.7		14.7		23.2		38.4		8.06	
PCB134 & 143	pg/g	46.5		22.1		283		23.3		34.7		66.4		11.8	
PCB135 & 151 & 154	pg/g	453		241		2060		268		411		653		129	
PCB136	pg/g	115		50.3		552		55.2		113		204		28.9	
PCB137	pg/g	41.3		19.4		372		14.5		26.5		53.3		13.8	
PCB139 & 140	pg/g	17.5		7.88		138		7.91		13.9		24		5.11	
PCB141	pg/g	205		102		1220		113		176		340		66.1	
PCB142	pg/g	0.679	U	0.613	U	2.74	U	0.431	U	0.191	U	0.492	U	0.675	U
PCB144	pg/g	56.4		26.7		302		28.1		45.1		71.2		13.4	
PCB145	pg/g	0.412		0.175	J	2.36		0.143	J	0.255		0.556	U	0.501	U
PCB146	pg/g	173		93.3		1010		106		181		312		68.3	
PCB147 & 149	pg/g	938		451		5490		498		824		1340		267	
PCB148	pg/g	4.94		2.71		11.4		3.67		5.52		8.83		2.04	
PCB150	pg/g	3.72		1.79		8.31		2.49		4.36		7.48		1.47	
PCB152	pg/g	2.34		1.23		6.34		1.68		1.53		2.84		0.519	U
PCB153 & 168	pg/g	1070		549		7160		649		980		1840		393	
PCB155	pg/g	0.836	U	0.525	J	1.13		0.94	U	0.661		0.911	U	0.524	U
PCB156 & 157	pg/g	83.6		44.1		735		41		63.5		109		35.1	
PCB158	pg/g	86.6		41.9		678		45.6		67.2		126		32.8	
PCB159	pg/g	15.1		8.36		66.9		10.6		14.9		27.7		7.79	
PCB161	pg/g	0.431	U	0.389	U	1.74	U	0.355	U	0.137	U	0.361	U	0.752	U
PCB162	pg/g	3.24		1.25	U	26.7		1.62		2.46		4.6		1.29	U
PCB164	pg/g	75.1		32.2		466		40.5		60.1		121		22.3	
PCB165	pg/g	1.43		0.861	U	1.92	U	1.03	U	1.41		2.61		0.794	U
PCB167	pg/g	36.6		19.5		297		19.6		28.7		55.8		14.8	
PCB169	pg/g	0.7	U	0.517	U	3.57	U	0.606	U	1.01	U	1.73	U	0.811	U
PCB170	pg/g	204		147		1350		184		236		445		161	
PCB171 & 173	pg/g	79.9		46.6		479		63.9		89.7		163		48.4	
PCB172	pg/g	40.7		26.1		233		33.7		48.6		91.3		25.9	

Table 4-1b. Analytical Results for Mussel Tissue Samples.

	Sample ID	LW2-BTFM001 Comp		LW2-BTFM004 Comp		LW2-BTFM006 Comp		LW2-BTFM009 Comp		LW2-BTFM021 Comp		LW2-BTFM025 Comp		LW2-BTFM033 Comp	
	Sample Date	12/13/2005		12/12/2005		12/12/2005		12/9/2005		12/5/2005		12/7/2005		12/6/2005	
Chemical Name	**Unit**														
PCB174	pg/g	313		178		1510		232		311		606		146	
PCB175	pg/g	9.83		5.79		49.5		7.54		12.4		22.6		5.8	
PCB176	pg/g	42.8		24		190		32.3		45.8		91.9		19.4	
PCB177	pg/g	153		100		684		127		146		262		81.3	
PCB178	pg/g	65.9		37.1		264		52.6		69.4		135		30.2	
PCB179	pg/g	148		87.5		554		114		150		266		61.2	
PCB180 & 193	pg/g	638		455		3920		549		682		1330		406	
PCB181	pg/g	2.47		1.57		16.2		1.68		2.36		3.47		1.43	
PCB182	pg/g	2.39		1.68		12.3		2.22		3.13		6.16		1.65	
PCB183 & 185	pg/g	230		135		1290		179		236		457		122	
PCB184	pg/g	0.625		0.328	U	1.93		0.447	U	0.543		1.17		0.579	J
PCB186	pg/g	0.06	U	0.157	U	0.152	U	0.148	U	0.0509	U	0.15	U	0.313	U
PCB187	pg/g	372		279		2110		305		469		832		316	
PCB188	pg/g	1.25		0.861		3.49		1.27	U	1.31		2.33		1.05	J
PCB189	pg/g	8.66		5.85		49.6		7.19		8.07		13.7		4.59	
PCB190	pg/g	42.1		29.9		259		38.1		49		90.8		31.2	
PCB191	pg/g	10.2		6.17	U	54.5		8.81		10.3		21.8		6.89	
PCB192	pg/g	0.12	U	0.313	U	0.305	U	0.296	U	0.102	U	0.301	U	0.626	U
PCB194	pg/g	105		73.7		688		95.2		125		212		91.6	
PCB195	pg/g	53.5		33.4		340		46.6		67.7		99.7		45.9	
PCB196	pg/g	67.1		32.4		372		51.3		78.3		134		52.1	
PCB197 & 200	pg/g	26		14.8		154		19.1		30.7		52		19.1	
PCB198 & 199	pg/g	142		77.2		804		99.2		163		328		99.7	
PCB201	pg/g	19.5		11.9		105		14.8		24.2		38.3		14.7	
PCB202	pg/g	41.3		22.9		183		29.6		39.1		71.3		21.4	
PCB203	pg/g	115		68.4		813		91.5		152		266		95.9	
PCB204	pg/g	0.132	U	0.101	U	0.425	U	0.086	U	0.166	J	0.166	J	0.151	J
PCB205	pg/g	6.12		4.18		36.1		5.44		6.47		11.7		4.63	
PCB206	pg/g	66.6		43		565		54.6		85.8		134		49.5	
PCB207	pg/g	7.89		3.38		42.9		5.97		9.91		13.9		7.12	
PCB208	pg/g	22.7		12.3		131		17.7		26		46.1		14.2	
PCB209	pg/g	41.1		26.8		160		38.1		88.9		136		48.8	
Total PCB Congeners	pg/g	16400	JT	8440	JT	108000	JT	6870	JT	12500	JT	22000	JT	5750	JT
Pesticides															
2,4'-DDD	ug/kg	0.073	J	0.03	J	0.12	J	0.038	J	0.107	J	0.143	J	0.05	J
2,4'-DDE	ug/kg	0.03	J	0.0215	UJ	0.033	J	0.014	J	0.034	J	0.102	J	0.019	J
2,4'-DDT	ug/kg	0.056	J	0.035	J	0.082	J	0.045	J	0.065	J	0.062	J	0.063	J
4,4'-DDD	ug/kg	0.571	J	0.279	J	1.22	J	0.296	J	0.998	J	0.799	J	0.277	J
4,4'-DDE	ug/kg	1.71	J	0.544	J	1.45	J	0.844	J	1.72	J	3.15	J	0.941	J
4,4'-DDT	ug/kg	0.182	J	0.091	J	0.239	J	0.152	J	0.215	J	0.182	J	0.216	J
Aldrin	ug/kg	0.01	J	0.005	UJ	0.007	J	0.006	UJ	0.005	UJ	0.067	J	0.008	J
alpha-Endosulfan	ug/kg	0.0117	UJ	0.018	UJ	0.015	UJ	0.0145	UJ	0.00827	UJ	0.0294	UJ	0.034	UJ
alpha-Hexachlorocyclohexane	ug/kg	0.003	UJ	0.426	UJ	0.004	UJ	0.407	UJ	0.003	J	0.414	UJ	0.005	J
beta-Endosulfan	ug/kg	0.022	UJ	0.0258	UJ	0.025	UJ	0.117	UJ	0.0172	J	0.0507	UJ	0.0589	UJ
beta-Hexachlorocyclohexane	ug/kg	0.0248	UJ	0.0675	UJ	0.0669	UJ	0.0644	UJ	0.0222	UJ	0.0655	UJ	0.136	UJ
cis-Chlordane	ug/kg	0.113	J	0.053	J	0.151	J	0.076	J	0.13	J	0.261	J	0.123	J
cis-Nonachlor	ug/kg	0.054	J	0.03	J	0.066	J	0.039	J	0.065	J	0.092	J	0.057	J
delta-Hexachlorocyclohexane	ug/kg	0.00304	UJ	0.00167	UJ	0.00172	UJ	0.00282	UJ	0.000865	UJ	0.0286	UJ	0.0596	UJ
Dieldrin	ug/kg	0.143	J	0.0742	J	0.157	J	0.105	J	0.137	J	0.186	J	0.148	J
Endosulfan sulfate	ug/kg	0.192	J	0.11	J	0.234	J	0.176	J	0.175	J	0.239	J	0.267	J
Endrin	ug/kg	0.00134	UJ	0.0222	UJ	0.0219	UJ	0.0211	UJ	0.00224	J	0.0215	UJ	0.00418	J

Table 4-1b. Analytical Results for Mussel Tissue Samples.

	Sample ID	LW2-BTFM001 Comp		LW2-BTFM004 Comp		LW2-BTFM006 Comp		LW2-BTFM009 Comp		LW2-BTFM021 Comp		LW2-BTFM025 Comp		LW2-BTFM033 Comp	
	Sample Date	12/13/2005		12/12/2005		12/12/2005		12/9/2005		12/5/2005		12/7/2005		12/6/2005	
Chemical Name	**Unit**														
Endrin aldehyde	ug/kg	0.0162	UJ	0.042	UJ	0.0414	UJ	0.0399	UJ	0.0137	UJ	0.0405	UJ	0.0844	UJ
Endrin ketone	ug/kg	0.0162	UJ	0.042	UJ	0.0414	UJ	0.0399	UJ	0.0137	UJ	0.0405	UJ	0.0844	UJ
gamma-Hexachlorocyclohexane	ug/kg	0.004	UJ	0.0307	UJ	0.007	J	0.0293	UJ	0.003	UJ	0.0298	UJ	0.062	UJ
Heptachlor	ug/kg	0.002	UJ	0.0399	UJ	0.0396	UJ	0.003	UJ	0.001	UJ	0.006	J	0.0806	UJ
Heptachlor epoxide	ug/kg	0.0104	J	0.0075	J	0.0131	J	0.00891	J	0.00994	J	0.0135	J	0.0106	UJ
Methoxychlor	ug/kg	0.00426	UJ	0.00237	UJ	0.00679	UJ	0.00281	UJ	0.00403	UJ	0.00536	UJ	0.0136	J
Oxychlordane	ug/kg	0.012	J	0.092	UJ	0.011	UJ	0.0879	UJ	0.013	J	0.02	J	0.186	UJ
Total Chlordanes	ug/kg	0.399	JT	0.191	JT	0.521	JT	0.266	JT	0.482	JT	0.866	JT	0.434	JT
Total Endosulfan	ug/kg	0.192	JT	0.11	JT	0.234	JT	0.176	JT	0.192	JT	0.239	JT	0.267	JT
Total of 2,4' and 4,4'-DDD	ug/kg	0.644	JT	0.309	JT	1.34	JT	0.334	JT	1.11	JT	0.942	JT	0.327	JT
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	ug/kg	2.62	JT	0.979	JT	3.14	JT	1.39	JT	3.14	JT	4.44	JT	1.57	JT
Total of 2,4' and 4,4'-DDE	ug/kg	1.74	JT	0.544	JT	1.48	JT	0.858	JT	1.75	JT	3.25	JT	0.96	JT
Total of 2,4' and 4,4'-DDT	ug/kg	0.238	JT	0.126	JT	0.321	JT	0.197	JT	0.28	JT	0.244	JT	0.279	JT
trans-Chlordane	ug/kg	0.075	J	0.04	J	0.106	J	0.051	J	0.101	J	0.232	J	0.098	J
trans-Nonachlor	ug/kg	0.145	J	0.068	J	0.198	J	0.1	J	0.173	J	0.261	J	0.156	J
Phenols															
2,4-Dimethylphenol	ug/kg	20	UJ	40	UJ	40	UJ	20	UJ	20	UJ	20	UJ	39	UJ
2-Methylphenol	ug/kg	20	UJ	40	UJ	40	UJ	20	UJ	20	UJ	20	UJ	39	UJ
4-Methylphenol	ug/kg	20	UJ	40	UJ	40	UJ	20	UJ	20	UJ	20	UJ	39	UJ
Pentachlorophenol	ug/kg	20	UJ	40	UJ	40	UJ	20	UJ	20	UJ	20	UJ	39	UJ
Phenol	ug/kg	20	UJ	40	UJ	40	UJ	20	UJ	20	UJ	20	UJ	39	UJ
Phthalates															
Bis(2-ethylhexyl) phthalate	ug/kg	49	UJ	98	UJ	120	J	88	J	54	J	49	UJ	100	J
Butylbenzyl phthalate	ug/kg	130	UJ	260	UJ	260	UJ	130	UJ	130	UJ	130	UJ	260	UJ
Dibutyl phthalate	ug/kg	8.9	UJ	32	J	21	J	17	J	12	J	8.9	UJ	32	J
Diethyl phthalate	ug/kg	13	UJ	26	UJ	26	UJ	13	UJ	13	UJ	13	UJ	26	UJ
Dimethyl phthalate	ug/kg	11	UJ	22	UJ	22	UJ	11	UJ	11	UJ	11	UJ	22	UJ
Di-n-octyl phthalate	ug/kg	39	UJ	78	UJ	78	UJ	39	UJ	39	UJ	39	UJ	76	UJ
SVOCs															
1,2,4-Trichlorobenzene	ug/kg	4.7	UJ	9.4	UJ	9.4	UJ	4.7	UJ	4.7	UJ	4.7	UJ	9.1	UJ
1,2-Dichlorobenzene	ug/kg	7.7	UJ	16	UJ	16	UJ	7.7	UJ	7.7	UJ	7.7	UJ	15	UJ
1,3-Dichlorobenzene	ug/kg	9.8	UJ	20	UJ	20	UJ	9.8	UJ	9.8	UJ	9.8	UJ	19	UJ
1,4-Dichlorobenzene	ug/kg	8.9	UJ	18	UJ	18	UJ	8.9	UJ	8.9	UJ	8.9	UJ	18	UJ
Benzyl alcohol	ug/kg	22	UJ	44	UJ	48	J	22	UJ	22	J	22	UJ	170	J
Hexachlorobenzene	ug/kg	0.125	J	0.063	J	0.145	J	0.089	J	0.113	J	0.181	J	0.14	J
Hexachlorobutadiene	ug/kg	5.4	UJ	0.0257	UJ	0.0243	UJ	0.0234	UJ	0.00809	UJ	5.4	UJ	11	UJ
Hexachloroethane	ug/kg	9.3	UJ	19	UJ	19	UJ	9.3	UJ	9.3	UJ	9.3	UJ	18	UJ
N-Nitrosodiphenylamine	ug/kg	12	UJ	24	UJ	24	UJ	12	UJ	12	UJ	12	UJ	24	UJ

Table 4-2. Summary Statistics of Chemical Concentrations for Mussel Tissue Samples.

					Detected Concentrations								Nondetected Concentrations			
Chemical Name	**Units**	**N**	**N Detected**	**% Detected**	**Minimum**		**Maximum**		**Mean Detected Value**		**Mean Detected Value or Half RL**		**Minimum RL**		**Maximum RL**	
Butyltins																
Butyltin ion	ug/kg	7	7	100	0.44	J	2.2	J	1.23		1.4	J	0.44	J	2.2	J
Dibutyltin ion	ug/kg	7	7	100	0.85	J	3.8	J	1.99		1.8	J	0.85	J	3.8	J
Tetrabutyltin	ug/kg	7	0	0									0.84	UJ	0.86	UJ
Tributyltin ion	ug/kg	7	7	100	2.2	J	16	J	5.8		4.1	J	2.2	J	16	J
Conventionals																
Lipids	percent	7	7	100	0.18		0.64		0.401		0.4		0.18		0.64	
Total solids	percent	7	7	100	3.65		9.11		6.8		6.91		3.65		9.11	
Dioxin/Furan Homolog																
Heptachlorodibenzofuran homologs	pg/g	7	7	100	0.357		2.98		1.61		1.53		0.357		2.98	
Heptachlorodibenzo-p-dioxin homologs	pg/g	7	7	100	2.25		10.7		6.16		5.93		2.25		10.7	
Hexachlorodibenzofuran homologs	pg/g	7	7	100	0.241		2.37		1.25		1.25		0.241		2.37	
Hexachlorodibenzo-p-dioxin homologs	pg/g	7	7	100	0.291		2.89		1.43		1.05		0.291		2.89	
Octachlorodibenzofuran	pg/g	7	7	100	0.446	J	2.86	J	1.42		1.45		0.446	J	2.86	J
Octachlorodibenzo-p-dioxin	pg/g	7	7	100	7.71		35.8		21.5		22.6		7.71		35.8	
Pentachlorodibenzofuran homologs	pg/g	7	7	100	0.513		3.35		1.59		1.34		0.513		3.35	
Pentachlorodibenzo-p-dioxin homologs	pg/g	7	6	85.7	0.212		0.648		0.424		0.311		0.0197	U	0.648	
Tetrachlorodibenzofuran homologs	pg/g	7	7	100	0.587		5.81		2.36		2.11		0.587		5.81	
Tetrachlorodibenzo-p-dioxin homologs	pg/g	7	7	100	0.556		2.3		1.05		0.773		0.556		2.3	
Total PCDD/F	pg/g	7	7	100	14.4	JT	66.2	JT	38.7		40.1	T	14.4	JT	66.2	JT
Dioxins/Furans																
1,2,3,4,6,7,8-Heptachlorodibenzofuran	pg/g	7	6	85.7	0.255	J	1.07	J	0.629		0.52		0.204	U	1.07	J
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	pg/g	7	7	100	1.08	J	5.14		2.97		2.8		1.08	J	5.14	
1,2,3,4,7,8,9-Heptachlorodibenzofuran	pg/g	7	4	57.1	0.024	J	0.057	J	0.039		0.027	J	0.024	J	0.099	U
1,2,3,4,7,8-Hexachlorodibenzofuran	pg/g	7	7	100	0.049	J	0.179	J	0.111		0.121	J	0.049	J	0.179	J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	pg/g	7	4	57.1	0.042	J	0.121	J	0.089		0.079	J	0.038	U	0.121	J
1,2,3,6,7,8-Hexachlorodibenzofuran	pg/g	7	4	57.1	0.03	J	0.09		0.0635		0.059	J	0.03	J	0.127	U
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	pg/g	7	6	85.7	0.152	J	0.527	J	0.324		0.228	J	0.152	J	0.527	J
1,2,3,7,8,9-Hexachlorodibenzofuran	pg/g	7	0	0									0.0311	U	0.191	U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	pg/g	7	5	71.4	0.083	J	0.239	J	0.154		0.154	J	0.057	U	0.262	U
1,2,3,7,8-Pentachlorodibenzofuran	pg/g	7	3	42.9	0.064	J	0.165	J	0.124		0.144	J	0.055	U	0.238	U
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	pg/g	7	3	42.9	0.068	J	0.178	J	0.123		0.122	J	0.041	U	0.178	J
2,3,4,6,7,8-Hexachlorodibenzofuran	pg/g	7	5	71.4	0.045	J	0.16	J	0.0916		0.082	J	0.045	J	0.16	J
2,3,4,7,8-Pentachlorodibenzofuran	pg/g	7	6	85.7	0.112	J	0.286	J	0.181		0.156	J	0.1	U	0.286	J
2,3,7,8-Tetrachlorodibenzofuran	pg/g	7	2	28.6	0.277		0.305		0.291		0.277		0.052	U	0.454	U
2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/g	7	2	28.6	0.048	J	0.057	J	0.0525		0.048	J	0.048	J	0.127	U
Dioxin/furan TCDD toxicity equivalent	pg/g	7	7	100	0.091	JT	0.499	JT	0.259		0.187	JT	0.091	JT	0.499	JT
Dioxin-like PCB congener TCDD toxicity equivalent	pg/g	7	7	100	0.0487	T	1.93	T	0.44		0.203	T	0.0487	T	1.93	T
Total TCDD toxicity equivalent	pg/g	7	7	100	0.23	JT	2.43	JT	0.699		0.499	JT	0.23	JT	2.43	JT
Metals																
Aluminum	mg/kg	7	7	100	5.9		211		134		144	T	5.9		211	
Antimony	mg/kg	7	7	100	0.0008		0.0035		0.0022		0.0024		0.0008		0.0035	
Arsenic	mg/kg	7	7	100	0.224		0.616		0.385		0.35		0.224		0.616	
Cadmium	mg/kg	7	7	100	0.0905		0.188		0.123		0.108		0.0905		0.188	
Chromium	mg/kg	7	3	42.9	0.21		0.28		0.248		0.255	T	0.13	U	0.34	U
Copper	mg/kg	7	7	100	1.01		1.82		1.39		1.37	T	1.01		1.82	
Lead	mg/kg	7	7	100	0.0386		0.22		0.139		0.118		0.0386		0.22	
Mercury	mg/kg	7	7	100	0.0022		0.0061		0.0042		0.0048		0.0022		0.0061	
Nickel	mg/kg	7	7	100	0.308		0.712		0.456		0.41		0.308		0.712	
Selenium	mg/kg	7	7	100	0.056		0.128		0.0878		0.091		0.056		0.128	
Silver	mg/kg	7	7	100	0.0237		0.0759		0.0421		0.0398		0.0237		0.0759	
Zinc	mg/kg	7	7	100	15.7		41.5		27		27.4		15.7		41.5	
PAHs																
2-Methylnaphthalene	ug/kg	7	1	14.3	1.2	J	1.2	J	1.2		1.2	J	0.51	UJ	1.2	J
Acenaphthene	ug/kg	7	7	100	0.14	J	2	J	0.683		0.48	J	0.14	J	2	J
Acenaphthylene	ug/kg	7	3	42.9	0.39	J	1.8	J	1.3		1.7	J	0.3	UJ	1.8	J
Anthracene	ug/kg	7	6	85.7	0.61	J	2.3	J	1.08		0.82	J	0.33	UJ	2.3	J
Benzo(a)anthracene	ug/kg	7	7	100	0.73	J	11	J	2.6		1.2	J	0.73	J	11	J
Benzo(a)pyrene	ug/kg	7	7	100	0.51	J	5.2	J	1.45		0.79	J	0.51	J	5.2	J
Benzo(b)fluoranthene	ug/kg	7	7	100	0.59	J	12	J	2.48		0.87	J	0.59	J	12	J
Benzo(g,h,i)perylene	ug/kg	7	6	85.7	0.43	J	7.1	J	1.73		0.68	J	0.2	UJ	7.1	J
Benzo(k)fluoranthene	ug/kg	7	7	100	0.23	J	4.2	J	0.954		0.43	J	0.23	J	4.2	J
Chrysene	ug/kg	7	7	100	2.1	J	27	J	6.37		3	J	2.1	J	27	J
Dibenzo(a,h)anthracene	ug/kg	7	1	14.3	0.67	J	0.67	J	0.67		0.67	J	0.14	UJ	0.67	J
Fluoranthene	ug/kg	7	7	100	3.5	J	27	J	9.11		5.9	J	3.5	J	27	J
Fluorene	ug/kg	7	7	100	0.35	J	1.3	J	0.814		0.75	J	0.35	J	1.3	J
High Molecular Weight PAH	ug/kg	7	7	100	13	JT	130	JT	35		19	JT	13	JT	130	JT
Indeno(1,2,3-cd)pyrene	ug/kg	7	3	42.9	0.1	J	3.1	J	1.18		0.33	J	0.096	UJ	6.4	UJ
Low Molecular Weight PAH	ug/kg	7	7	100	3	JT	14	JT	8.21		8.4	JT	3	JT	14	JT
Naphthalene	ug/kg	7	7	100	1.1	J	2.1	J	1.47		1.5	J	1.1	J	2.1	J
Phenanthrene	ug/kg	7	7	100	1.4	J	8.4	J	3.66		2.9	J	1.4	J	8.4	J

Table 4-2. Summary Statistics of Chemical Concentrations for Mussel Tissue Samples.

					Detected Concentrations								Nondetected Concentrations			
Chemical Name	**Units**	**N**	**N Detected**	**% Detected**	**Minimum**		**Maximum**		**Mean Detected Value**		**Mean Detected Value or Half RL**		**Minimum RL**		**Maximum RL**	
Pyrene	ug/kg	7	7	100	4.2	J	36	J	10.6		6.6	J	4.2	J	36	J
Total PAHs	ug/kg	7	7	100	16	JT	150	JT	44		24	JT	16	JT	150	JT
PCB Congeners																
PCB001	pg/g	3	3	100	0.926		3.1		1.75		1.21	J	0.926		3.1	
PCB002	pg/g	3	3	100	0.614		1.09		0.773		0.616	J	0.614		1.09	
PCB003	pg/g	7	4	57.1	0.476	J	2.54		1.17		0.693		0.476	J	2.54	
PCB004	pg/g	7	5	71.4	2.71	J	49.2	J	18.6		16.3		2.27	U	49.2	J
PCB005	pg/g	7	1	14.3	3.09		3.09		3.09		3.09		0.191	U	3.09	
PCB006	pg/g	7	3	42.9	1.14		41.6		15.9		5.09		0.707	U	41.6	
PCB007	pg/g	7	2	28.6	1.25		9.1		5.18		1.25		0.345	U	9.1	
PCB008	pg/g	7	7	100	2.24		230		45.4		17.3		2.24		230	
PCB009	pg/g	7	4	57.1	0.284		14.3		4.56		1.49		0.284		14.3	
PCB010	pg/g	7	0	0									0.167	U	2.74	U
PCB011	pg/g	7	7	100	16.9		50.4		29.4		26		16.9		50.4	
PCB012 & 013	pg/g	7	2	28.6	3.39		28.2		15.8		3.39		0.755	U	28.2	
PCB014	pg/g	7	0	0									0.182	U	2.3	U
PCB015	pg/g	7	7	100	2.78		272		48		10.5		2.78		272	
PCB016	pg/g	7	7	100	2.29		258		48.9		12.3		2.29		258	
PCB017	pg/g	7	7	100	4.43		350		69.4		20.8		4.43		350	
PCB018 & 030	pg/g	7	7	100	5.19		604		114		27		5.19		604	
PCB019	pg/g	7	7	100	5.26	J	73.7		19.4		10.5		5.26	J	73.7	
PCB020 & 028	pg/g	7	7	100	24.9		2190		420		137		24.9		2190	
PCB021 & 033	pg/g	7	7	100	11		1240		230		55.1		11		1240	
PCB022	pg/g	7	7	100	8.42		792		149		41.1		8.42		792	
PCB023	pg/g	7	4	57.1	0.096	J	2.69		0.82		0.198	J	0.096	J	2.69	
PCB024	pg/g	7	5	71.4	0.101	J	11.8		2.91		1.06		0.101	J	11.8	
PCB025	pg/g	7	7	100	2.02		163		31.3		10.4		2.02		163	
PCB026 & 029	pg/g	7	7	100	3.98		383		71.9		19.5		3.98		383	
PCB027	pg/g	7	7	100	1.18		62		12.3		3.61		1.18		62	
PCB031	pg/g	7	7	100	17.7		1810		339		98.2		17.7		1810	
PCB032	pg/g	7	7	100	4.27		387		74.7		18.9		4.27		387	
PCB034	pg/g	7	3	42.9	0.693		7.4		2.99		0.872		0.532	U	7.4	
PCB035	pg/g	7	6	85.7	0.518	J	31.5		6.97		2.68		0.518	J	31.5	
PCB036	pg/g	7	1	14.3	0.14	J	0.14	J	0.14		0.14	J	0.14	J	1.19	U
PCB037	pg/g	7	7	100	6.87		508		96.2		31.9		6.87		508	
PCB038	pg/g	7	2	28.6	0.335	J	0.519		0.427		0.335	J	0.208	U	2.27	U
PCB039	pg/g	7	5	71.4	0.41	J	24.5		6.44		2.42		0.41	J	24.5	
PCB040 & 041 & 071	pg/g	7	7	100	24.1		1390		287		120		24.1		1390	
PCB042	pg/g	7	7	100	10.9		663		136		56		10.9		663	
PCB043	pg/g	7	6	85.7	2.89		125		28.9		10.6		1.97	U	125	
PCB044 & 047 & 065	pg/g	7	7	100	70		2550		545		209		70		2550	
PCB045 & 051	pg/g	7	7	100	12.3		380		82.4		36.9		12.3		380	
PCB046	pg/g	7	7	100	1.77		116		23.1		9.26		1.77		116	
PCB048	pg/g	7	7	100	8.38		598		119		49.2		8.38		598	
PCB049 & 069	pg/g	7	7	100	33.5		1700		354		131		33.5		1700	
PCB050 & 053	pg/g	7	7	100	8.44		264		58.1		24.1		8.44		264	
PCB052	pg/g	7	7	100	51.1		3300		644		200		51.1		3300	
PCB054	pg/g	7	7	100	1.75		8.27		3.36		2.68		1.75		8.27	
PCB055	pg/g	7	2	28.6	4.91		38.9		21.9		4.91		0.289	U	38.9	
PCB056	pg/g	7	7	100	21.9		708		177		83.7		21.9		708	
PCB057	pg/g	7	5	71.4	0.501	J	15.4		4.15		1.5		0.501	J	15.4	
PCB058	pg/g	7	0	0									0.262	U	2.64	U
PCB059 & 062 & 075	pg/g	7	7	100	4.4		244		49.9		20.9		4.4		244	
PCB060	pg/g	7	7	100	12.2		387		93.7		41.9		12.2		387	
PCB061 & 070 & 074 & 076	pg/g	7	7	100	97.4		3960		868		372		97.4		3960	
PCB063	pg/g	7	7	100	2.4		88.5		20.1		9.11		2.4		88.5	
PCB064	pg/g	7	7	100	19.6		1210		248		99.7		19.6		1210	
PCB066	pg/g	7	7	100	54.4		1710		417		205		54.4		1710	
PCB067	pg/g	7	3	42.9	9.65		89		37		12.4		2	U	89	
PCB068	pg/g	7	1	14.3	15.5		15.5		15.5		15.5		0.926	U	15.5	
PCB072	pg/g	7	4	57.1	4.01		30.6		11.3		4.49		0.908	U	30.6	
PCB073	pg/g	7	1	14.3	1.09		1.09		1.09		1.09		0.153	U	1.09	
PCB077	pg/g	7	7	100	5.18		146		34.7		15.3		5.18		146	
PCB078	pg/g	7	0	0									0.28	U	2.47	U
PCB079	pg/g	7	6	85.7	2.06		61		15		5.46		1.69	U	61	
PCB080	pg/g	7	0	0									0.25	U	2.14	U
PCB081	pg/g	7	4	57.1	0.465		5.11		1.96		0.773		0.355	U	5.11	
PCB082	pg/g	7	7	100	13.1		434		96.5		38.1		13.1		434	
PCB083 & 099	pg/g	7	7	100	95.2		2300		548		306		95.2		2300	
PCB084	pg/g	7	7	100	21.9		883		188		70.3		21.9		883	
PCB085 & 116 & 117	pg/g	7	7	100	27		747		169		73.5		27		747	
PCB086 & 087 & 097 & 108 & 119 & 125	pg/g	7	7	100	84.1		2640		581		259		84.1		2640	
PCB088 & 091	pg/g	7	7	100	20.7		577		140		70.1		20.7		577	
PCB089	pg/g	7	6	85.7	1.21		37		10.4		4.48		1.21		37	
PCB090 & 101 & 113	pg/g	7	7	100	143		4650		1030		503		143		4650	

Table 4-2. Summary Statistics of Chemical Concentrations for Mussel Tissue Samples.

					Detected Concentrations								Nondetected Concentrations			
Chemical Name	Units	N	N Detected	% Detected	Minimum		Maximum		Mean Detected Value		Mean Detected Value or Half RL		Minimum RL		Maximum RL	
PCB092	pg/g	7	7	100	29.7		831		197		110		29.7		831	
PCB093 & 095 & 098 & 100 & 102	pg/g	7	7	100	96.4		3460		756		320		96.4		3460	
PCB094	pg/g	7	7	100	1.73		25.8		8.34		4.7		1.73		25.8	
PCB096	pg/g	7	7	100	1.24	J	28		7.2		3.39		1.24	J	28	
PCB103	pg/g	7	7	100	4.09		38.2		14.9		13.4		4.09		38.2	
PCB104	pg/g	7	6	85.7	0.527	J	2.34		1.35		1.04		0.527	J	2.34	
PCB105	pg/g	7	7	100	62.2		1570		346		129		62.2		1570	
PCB106	pg/g	7	0	0									0.178	U	1	U
PCB107 & 124	pg/g	7	7	100	6.37		204		42.4		14.4		6.37		204	
PCB109	pg/g	7	7	100	11.6		297		65.7		30.8		11.6		297	
PCB110 & 115	pg/g	7	7	100	140		5040		1060		422		140		5040	
PCB111	pg/g	7	3	42.9	0.656		3.27		1.61		0.904		0.416	U	3.27	
PCB112	pg/g	7	0	0									0.184	U	0.47	U
PCB114	pg/g	7	7	100	3.91		93.9		20.8		8.55		3.91		93.9	
PCB118	pg/g	7	7	100	160		4820		1020		396		160		4820	
PCB120	pg/g	7	6	85.7	1.4		14.6		5.36		3.24		1.4		14.6	
PCB121	pg/g	7	5	71.4	0.512	J	1.67		0.981		1		0.512	J	1.67	
PCB122	pg/g	7	6	85.7	2.07		54.1		14		4.84		2.07		54.1	
PCB123	pg/g	7	7	100	3.15		85.5		18.5		6.41		3.15		85.5	
PCB126	pg/g	7	6	85.7	0.69	J	8.46		2.41		1.11		0.594	U	8.46	
PCB127	pg/g	7	0	0									0.195	U	0.996	U
PCB128 & 166	pg/g	7	7	100	57.9		1110		243		105		57.9		1110	
PCB129 & 138 & 160 & 163	pg/g	7	7	100	406		7710		1800		859		406		7710	
PCB130	pg/g	7	7	100	18.1		354		85.1		45		18.1		354	
PCB131	pg/g	7	7	100	2.32		85.4		17.8		6.48		2.32		85.4	
PCB132	pg/g	7	7	100	79.1		2210		513		255		79.1		2210	
PCB133	pg/g	7	6	85.7	8.06		91.7		33.1		22.6		8.06		91.7	
PCB134 & 143	pg/g	7	7	100	11.8		283		69.7		34.7		11.8		283	
PCB135 & 151 & 154	pg/g	7	7	100	129		2060		602		411		129		2060	
PCB136	pg/g	7	7	100	28.9		552		160		113		28.9		552	
PCB137	pg/g	7	7	100	13.8		372		77.3		26.5		13.8		372	
PCB139 & 140	pg/g	7	7	100	5.11		138		30.6		13.9		5.11		138	
PCB141	pg/g	7	7	100	66.1		1220		317		176		66.1		1220	
PCB142	pg/g	7	0	0									0.191	U	2.74	U
PCB144	pg/g	7	7	100	13.4		302		77.6		45.1		13.4		302	
PCB145	pg/g	7	5	71.4	0.143	J	2.36		0.669		0.255		0.143	J	2.36	
PCB146	pg/g	7	7	100	68.3		1010		278		173		68.3		1010	
PCB147 & 149	pg/g	7	7	100	267		5490		1400		824		267		5490	
PCB148	pg/g	7	7	100	2.04		11.4		5.59		4.94		2.04		11.4	
PCB150	pg/g	7	7	100	1.47		8.31		4.23		3.72		1.47		8.31	
PCB152	pg/g	7	6	85.7	1.23		6.34		2.66		1.68		0.519	U	6.34	
PCB153 & 168	pg/g	7	7	100	393		7160		1810		980		393		7160	
PCB155	pg/g	7	3	42.9	0.525	J	1.13		0.772		0.661		0.524	U	1.13	
PCB156 & 157	pg/g	7	7	100	35.1		735		159		63.5		35.1		735	
PCB158	pg/g	7	7	100	32.8		678		154		67.2		32.8		678	
PCB159	pg/g	7	7	100	7.79		66.9		21.6		14.9		7.79		66.9	
PCB161	pg/g	7	0	0									0.137	U	1.74	U
PCB162	pg/g	7	5	71.4	1.62		26.7		7.72		3.24		1.25	U	26.7	
PCB164	pg/g	7	7	100	22.3		466		117		60.1		22.3		466	
PCB165	pg/g	7	3	42.9	1.41		2.61		1.82		1.43		0.794	U	2.61	
PCB167	pg/g	7	7	100	14.8		297		67.4		28.7		14.8		297	
PCB169	pg/g	7	0	0									0.517	U	3.57	U
PCB170	pg/g	7	7	100	147		1350		390		204		147		1350	
PCB171 & 173	pg/g	7	7	100	46.6		479		139		79.9		46.6		479	
PCB172	pg/g	7	7	100	25.9		233		71.3		40.7		25.9		233	
PCB174	pg/g	7	7	100	146		1510		471		311		146		1510	
PCB175	pg/g	7	7	100	5.79		49.5		16.2		9.83		5.79		49.5	
PCB176	pg/g	7	7	100	19.4		190		63.7		42.8		19.4		190	
PCB177	pg/g	7	7	100	81.3		684		222		146		81.3		684	
PCB178	pg/g	7	7	100	30.2		264		93.5		65.9		30.2		264	
PCB179	pg/g	7	7	100	61.2		554		197		148		61.2		554	
PCB180 & 193	pg/g	7	7	100	406		3920		1140		638		406		3920	
PCB181	pg/g	7	7	100	1.43		16.2		4.17		2.36		1.43		16.2	
PCB182	pg/g	7	7	100	1.65		12.3		4.22		2.39		1.65		12.3	
PCB183 & 185	pg/g	7	7	100	122		1290		378		230		122		1290	
PCB184	pg/g	7	5	71.4	0.543		1.93		0.969		0.625		0.328	U	1.93	
PCB186	pg/g	7	0	0									0.0509	U	0.313	U
PCB187	pg/g	7	7	100	279		2110		669		372		279		2110	
PCB188	pg/g	7	6	85.7	0.861		3.49		1.72		1.25		0.861		3.49	
PCB189	pg/g	7	7	100	4.59		49.6		14		8.07		4.59		49.6	
PCB190	pg/g	7	7	100	29.9		259		77.2		42.1		29.9		259	
PCB191	pg/g	7	6	85.7	6.89		54.5		18.8		10.2		6.17	U	54.5	
PCB192	pg/g	7	0	0									0.102	U	0.626	U
PCB194	pg/g	7	7	100	73.7		688		199		105		73.7		688	
PCB195	pg/g	7	7	100	33.4		340		98.1		53.5		33.4		340	
PCB196	pg/g	7	7	100	32.4		372		112		67.1		32.4		372	

Table 4-2. Summary Statistics of Chemical Concentrations for Mussel Tissue Samples.

					Detected Concentrations								Nondetected Concentrations			
Chemical Name	**Units**	**N**	**N Detected**	**% Detected**	**Minimum**		**Maximum**		**Mean Detected Value**		**Mean Detected Value or Half RL**		**Minimum RL**		**Maximum RL**	
PCB197 & 200	pg/g	7	7	100	14.8		154		45.1		26		14.8		154	
PCB198 & 199	pg/g	7	7	100	77.2		804		245		142		77.2		804	
PCB201	pg/g	7	7	100	11.9		105		32.6		19.5		11.9		105	
PCB202	pg/g	7	7	100	21.4		183		58.4		39.1		21.4		183	
PCB203	pg/g	7	7	100	68.4		813		229		115		68.4		813	
PCB204	pg/g	7	3	42.9	0.151	J	0.166	J	0.161		0.166	J	0.086	U	0.425	U
PCB205	pg/g	7	7	100	4.18		36.1		10.7		6.12		4.18		36.1	
PCB206	pg/g	7	7	100	43		565		143		66.6		43		565	
PCB207	pg/g	7	7	100	3.38		42.9		13		7.89		3.38		42.9	
PCB208	pg/g	7	7	100	12.3		131		38.6		22.7		12.3		131	
PCB209	pg/g	7	7	100	26.8		160		77.1		48.8		26.8		160	
Total PCB Congeners	pg/g	7	7	100	5750	JT	108000	JT	25700		12500	JT	5750	JT	108000	JT
Pesticides																
2,4'-DDD	ug/kg	7	7	100	0.03	J	0.143	J	0.0801		0.073	J	0.03	J	0.143	J
2,4'-DDE	ug/kg	7	6	85.7	0.014	J	0.102	J	0.0387		0.03	J	0.014	J	0.102	J
2,4'-DDT	ug/kg	7	7	100	0.035	J	0.082	J	0.0583		0.062	J	0.035	J	0.082	J
4,4'-DDD	ug/kg	7	7	100	0.277	J	1.22	J	0.634		0.571	J	0.277	J	1.22	J
4,4'-DDE	ug/kg	7	7	100	0.544	J	3.15	J	1.48		1.45	J	0.544	J	3.15	J
4,4'-DDT	ug/kg	7	7	100	0.091	J	0.239	J	0.182		0.182	J	0.091	J	0.239	J
Aldrin	ug/kg	7	4	57.1	0.007	J	0.067	J	0.023		0.008	J	0.005	UJ	0.067	J
alpha-Endosulfan	ug/kg	7	0	0									0.0083	UJ	0.034	UJ
alpha-Hexachlorocyclohexane	ug/kg	7	2	28.6	0.003	J	0.005	J	0.004		0.003	J	0.003	UJ	0.426	UJ
beta-Endosulfan	ug/kg	7	1	14.3	0.0172	J	0.0172	J	0.0172		0.0172	J	0.0172	J	0.117	UJ
beta-Hexachlorocyclohexane	ug/kg	7	0	0									0.0222	UJ	0.136	UJ
cis-Chlordane	ug/kg	7	7	100	0.053	J	0.261	J	0.13		0.123	J	0.053	J	0.261	J
cis-Nonachlor	ug/kg	7	7	100	0.03	J	0.092	J	0.0576		0.057	J	0.03	J	0.092	J
delta-Hexachlorocyclohexane	ug/kg	7	0	0									0.0009	UJ	0.0596	UJ
Dieldrin	ug/kg	7	7	100	0.0742	J	0.186	J	0.136		0.143	J	0.0742	J	0.186	J
Endosulfan sulfate	ug/kg	7	7	100	0.11	J	0.267	J	0.199		0.192	J	0.11	J	0.267	J
Endrin	ug/kg	7	2	28.6	0.0022	J	0.0042	J	0.0032		0.0022	J	0.0013	UJ	0.0222	UJ
Endrin aldehyde	ug/kg	7	0	0									0.0137	UJ	0.0844	UJ
Endrin ketone	ug/kg	7	0	0									0.0137	UJ	0.0844	UJ
gamma-Hexachlorocyclohexane	ug/kg	7	1	14.3	0.007	J	0.007	J	0.007		0.007	J	0.003	UJ	0.062	UJ
Heptachlor	ug/kg	7	1	14.3	0.006	J	0.006	J	0.006		0.006	J	0.001	UJ	0.0806	UJ
Heptachlor epoxide	ug/kg	7	6	85.7	0.0075	J	0.0135	J	0.0106		0.0099	J	0.0075	J	0.0135	J
Methoxychlor	ug/kg	7	1	14.3	0.0136	J	0.0136	J	0.0136		0.0136	J	0.0024	UJ	0.0136	J
Oxychlordane	ug/kg	7	3	42.9	0.012	J	0.02	J	0.015		0.013	J	0.011	UJ	0.186	UJ
Total Chlordanes	ug/kg	7	7	100	0.191	JT	0.866	JT	0.451		0.434	JT	0.191	JT	0.866	JT
Total Endosulfan	ug/kg	7	7	100	0.11	JT	0.267	JT	0.201		0.192	JT	0.11	JT	0.267	JT
Total of 2,4' and 4,4'-DDD	ug/kg	7	7	100	0.309	JT	1.34	JT	0.715		0.644	JT	0.309	JT	1.34	JT
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	ug/kg	7	7	100	0.979	JT	4.44	JT	2.47		2.62	JT	0.979	JT	4.44	JT
Total of 2,4' and 4,4'-DDE	ug/kg	7	7	100	0.544	JT	3.25	JT	1.51		1.48	JT	0.544	JT	3.25	JT
Total of 2,4' and 4,4'-DDT	ug/kg	7	7	100	0.126	JT	0.321	JT	0.241		0.244	JT	0.126	JT	0.321	JT
trans-Chlordane	ug/kg	7	7	100	0.04	J	0.232	J	0.1		0.098	J	0.04	J	0.232	J
trans-Nonachlor	ug/kg	7	7	100	0.068	J	0.261	J	0.157		0.156	J	0.068	J	0.261	J
Phenols																
2,4-Dimethylphenol	ug/kg	7	0	0									20	UJ	40	UJ
2-Methylphenol	ug/kg	7	0	0									20	UJ	40	UJ
4-Methylphenol	ug/kg	7	0	0									20	UJ	40	UJ
Pentachlorophenol	ug/kg	7	0	0									20	UJ	40	UJ
Phenol	ug/kg	7	0	0									20	UJ	40	UJ
Phthalates																
Bis(2-ethylhexyl) phthalate	ug/kg	7	4	57.1	54	J	120	J	90.5		88	J	49	UJ	120	J
Butylbenzyl phthalate	ug/kg	7	0	0									130	UJ	260	UJ
Dibutyl phthalate	ug/kg	7	5	71.4	12	J	32	J	22.8		21	J	8.9	UJ	32	J
Diethyl phthalate	ug/kg	7	0	0									13	UJ	26	UJ
Dimethyl phthalate	ug/kg	7	0	0									11	UJ	22	UJ
Di-n-octyl phthalate	ug/kg	7	0	0									39	UJ	78	UJ
SVOCs																
1,2,4-Trichlorobenzene	ug/kg	7	0	0									4.7	UJ	9.4	UJ
1,2-Dichlorobenzene	ug/kg	7	0	0									7.7	UJ	16	UJ
1,3-Dichlorobenzene	ug/kg	7	0	0									9.8	UJ	20	UJ
1,4-Dichlorobenzene	ug/kg	7	0	0									8.9	UJ	18	UJ
Benzyl alcohol	ug/kg	7	3	42.9	22	J	170	J	80		48	J	22	UJ	170	J
Hexachlorobenzene	ug/kg	7	7	100	0.063	J	0.181	J	0.122		0.125	J	0.063	J	0.181	J
Hexachlorobutadiene	ug/kg	7	0	0									0.0081	UJ	11	UJ
Hexachloroethane	ug/kg	7	0	0									9.3	UJ	19	UJ
N-Nitrosodiphenylamine	ug/kg	7	0	0									12	UJ	24	UJ

PORTLAND HARBOR RI/FS

ROUND 2 MUSSEL AND LAMPREY AMMOCOETE TISSUE DATA REPORT

APPENDIX A

DATA QUALITY SUMMARY

DRAFT

DRAFT DOCUMENT: DO NOT QUOTE OR CITE
This document is currently under review by US EPA and its federal, state, and tribal partners, and is subject to change in whole or in part

October 1, 2007

Prepared for

The Lower Willamette Group

Prepared by

Integral Consulting Inc.

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LIST OF ACRONYMS

CAS	Columbia Analytical Services
CLP	Contract Laboratory
DQOs	data quality objectives
EPA	U.S. Environmental Protection Agency
FSP	field sampling plan
FSR	field sampling report
GC/ECD	gas chromatography/electron capture detection
HRGC/HRMS	high resolution gas chromatography/ high resolution mass spectrometry
LCS/LCSD	laboratory control sample / laboratory control sample duplicate
MDL	method detection limit
MRL	method reporting limit
MS/MSD	matrix spike / matrix spike duplicate
OPR	ongoing precision and recovery
PAHs	polycyclic aromatic hydrocarbons
PARCC	precision, accuracy, representativeness, completeness, comparability
PCB	polychlorinated biphenyl
PCDD/Fs	polychlorinated dibenzo-p-dioxins/furans
PSEP	Puget Sound Estuary Program
QA	quality assurance
QAPP	quality assurance project plan
QC	quality control
RDL	reported detection limit
RI/FS	remedial investigation and feasibility study
RPD	relative percent difference
SOP	standard operating procedures
SVOCs	semivolatile organic compounds
VOCs	volatile organic compounds

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1.0 INTRODUCTION

This Round 2 Mussel and Lamprey (*Lampetra sp.)* Ammocoete Tissue Data Report summarizes the results for lamprey ammocoete and mussel samples collected during Round 2 benthic tissue sampling. A detailed description of the Round 2 collection effort is included in the field sampling report (FSR; (Windward 2006). In accordance to the field sampling plan (FSP; (Windward and Integral 2005), and as discussed in the Round 2 benthic tissue FSR (Windward and Integral 2006), all mussel and lamprey ammocoetes collected during the R2 benthic sampling effort were archived frozen at -20 ºC until analytical schemes for each tissue matrix were approved. As directed by EPA (Appendix C), mussel and lamprey tissue samples were composited and analyses selected as described in Section 3.1 in the main body of this report.

Chemical analyses of the lamprey and mussel tissue samples were performed by two laboratories: Columbia Analytical Services, Inc. of Kelso, Washington (CAS), and Axys Analytical Services, Ltd. of Sidney, BC, Canada (Axys). CAS shucked all mussel samples, composited and homogenized the mussel tissue samples, and completed analyses for phthalates and selected semivolatile organic compounds (SVOCs), polycyclic aromatic hydrocarbons (PAHs), mercury and other metals, butyltin compounds, and percent moisture. Axys composited and homogenized the lamprey samples and completed analyses of lipids, organochlorine pesticides, polychlorinated biphenyl (PCB) congeners, and dioxins and furans.

Tissue sample analysis and QA/QC procedures were completed as described in the Round 2 QAPP and the associated Addendum 6 (Integral and Windward 2004, 2005). The laboratories and methods of analysis for the tissue samples are included in Table A-1. Deviations from the Round 2 QAPP and the associated Addendum 6 are noted in Section 3.4 of the main body of this report

2.0 DATA QUALITY AND USABILITY

Data generated in the field and at the laboratories were verified and validated according to the criteria and procedures described in the Round 2 QAPP (Integral and Windward 2004) and QAPP Addendum 6 (Integral and Windward 2005). The precision, accuracy, representativeness, and comparability of the data were assessed during data validation, as described in Section 2.1 below and in the Round 2 QAPP. Completeness is calculated by comparing the total number of acceptable data (nonrejected data) to the total number of data points generated. Completeness for the data is summarized by parameter group in Table A-2. Completeness was greater than 99% overall, which exceeds the QAPP completeness objective of 95%.

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2.1 DATA VALIDATION

Data validation was conducted as specified in the Round 2 QAPP and is summarized in Section 3.3 of the main report. The inorganic, organic, PCB congener, and PCDD/F data were validated in accordance with guidance specified by the USEPA Contract Laboratory Program (CLP) *National Functional Guidelines for Inorganic and Organic Data Review* (EPA 1994b, 1999b, 2002b), by U.S. Environmental Protection Agency (EPA) Region 10 standard operating procedures (SOPs) for validation of PCB congener data and PCDD/F data (EPA 1995, 1996), and by *Guidance on Environmental Data Verification and Validation* (EPA 2002a). Modifications were made to the Functional Guidelines to accommodate quality assurance/quality control (QA/QC) requirements of the non-Contract Laboratory Program methods that were used for this project.

Data validation was completed by EcoChem (Seattle, WA). All of the Round 2 lamprey and mussel tissue data were fully validated, as described in the Round 2 QAPP, because only one data package was generated for each tissue matrix for each analysis for these samples. The following deliverables were reviewed during full data validation:

- The case narrative discussing analytical problems (if any) and procedures
- Chain-of-custody documentation and laboratory sample receipt logs
- Instrument calibration results
- Method blank results
- Results for laboratory quality control samples required by the referenced method including laboratory control sample and laboratory control sample duplicate analyses, surrogate recoveries, and other method specific quality control samples (e.g., serial dilutions for inductively coupled plasma analyses)
- Results for field quality control samples (i.e., equipment blanks, field duplicates, and field split samples)
- Analytical results for the tissue samples.

In addition to review and assessment of the documentation identified above, the full validation included verification of calculations of reported concentrations for the field and QC samples, verification of intermediate transcriptions, and review of instrument data such as mass spectra to verify analyte identification procedures.

Data qualifiers were assigned during data validation if applicable control limits were not met, in accordance with the EPA data validation guidelines (EPA 1994b, 1995, 1996, 1999b, 2002b) and the quality control requirements included in the referenced methods. The control limits for surrogate recoveries, matrix spike, laboratory control samples, and precision are summarized in Tables A-3 and A-4. The data validation qualifiers and definitions are summarized in Table A-5. Data quality reports and a tabular summary of qualified data generated by EcoChem are included in Appendix B of this report.

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2.2 DATA QUALITY

Detailed information on the data quality issues and data validation qualifiers for each parameter group for each data package is included in the data validation reports (Appendix B). A summary of the qualified data by parameter group, with the reasons for qualification, is included in Table A-6. The SCRA database files, Appendix C of this report (provided on CD), includes original laboratory qualifiers, final qualifiers applied after validation, and reason codes for the qualifiers. A table of definitions for the qualifier reason codes is also provided in Table A-5.

The discussion below includes a comparison of the reported detection limits to the target detection limits provided in QAPP Addendum 6 (Integral and Windward 2005), followed by a summary of the qualified data for each parameter group and a discussion of the usability of the data.

2.2.1 Reported Detection Limits

Tissue data for Round 2 of the Portland Harbor remedial investigation and feasibility study (RI/FS) were reported to the method detection limit (MDL) in most cases. When an analyte was not detected, the MDL was reported, adjusted for sample mass used and final extract volume. Sample-specific detection limits were reported for all high resolution gas chromatography/high resolution mass spectrometry (HRGC/HRMS) analyses (PCB congeners, PCDD/Fs and pesticides), as specified in the respective method protocols (EPA methods 1613B and 1668A [EPA 1994a; 1999a]). These detection limits are based on the signal-to-noise ratio of the analytical system for each analyte and sample. In several cases, the MDLs and method reporting limits (MRLs) were elevated because of matrix interference or when results were restated as undetected during data validation because of possible sample contamination, as indicated by the presence of target analytes in an associated method blank or equipment blank.

The reported detection limit (RDL) is the collective term for the detection limit or reporting limit used to quantify nondetects, as applicable to each sample and analyte. Table A-7 provides the lowest MDLs included in the Round 2 QAPP Addendum 6 (Integral and Windward 2005) and the minimum and maximum RDL attained by the laboratories for each analyte. Because limited tissue mass was available for some analyses, elevated detection limits were expected for selected parameter groups for these tissue samples. Generally, for the results that were generated using the subsample mass identified in the QAPP, the detection limits reported by the laboratories for the tissue samples were similar to the detection limit goals established in the QAPP.

2.2.2 Homogenization Quality Control Samples

A homogenization blank was generated at CAS in connection with tissue sample preparation and analyzed for the same chemicals as the mussel samples. Selected dioxin

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and PAH results were qualified as estimated because of levels detected in the associated homogenization blank.

Due to limited sample volume, no post-homogenization split samples were prepared. When available, additional sample volume was used to prepare laboratory quality control samples such as matrix spike, matrix spike duplicate and laboratory duplicate samples.

2.2.3 Laboratory Quality Control Samples

Laboratory quality control samples were prepared in accordance with the Round 2 QAPP and cited methods to monitor the bias and precision of the sample analysis procedures. Samples LW2-BTFM009 Comp and LW2-BTFM021 Comp were used to analyze matrix spike/matrix spike duplicate (MS/MSD) or laboratory duplicate samples for applicable analyses. Precision was also measured using a laboratory control sample/laboratory control sample duplicate.

The control limits for surrogates, matrix spikes and laboratory control samples are summarized in Tables A-3 and A-4. The evaluation of these QC samples is included as part of the data validation as described in section 2.1 above. Selected results for the tissue samples were qualified based on results of the laboratory control samples, matrix spike or surrogate recoveries as summarized in Table A-6.

2.2.4 Summary of Qualified Data

Selected data not meeting the data quality criteria were qualified as undetected or estimated during validation, in accordance with the QAPP. A summary of the qualified data by parameter group, including the reasons for qualification, is included in Table A-6. Data qualified as undetected are usable for all intended purposes. Data qualified as estimated are usable for all intended purposes, with the knowledge that these data may be less precise or less accurate than unqualified data. Rejected data are not usable for any purpose. Concentrations associated with rejected data have been removed from the database, and an “R” qualifier is retained to flag the results that were removed.

The overall completeness goal of 95 percent was met for the tissue samples.

The mussel tissue samples were originally collected between 12/6/2005 and 12/13/2005, and stored under archive conditions at -20°C until analyses were authorized. Due to the time period between the original mussel sample collection and final determination of the analysis scheme for the mussel tissue in December 2006, the analysis of all mussel samples occurred past the 1-year holding time for frozen tissue samples specified in the QAPP for organic analyses. Data for pesticides, PAHs, SVOCs, butyltins, and mercury were qualified as estimated for holding times. These data are usable for the RI/FS as described in Section 3.3.2. Data for PCB congeners and dioxins and furans were not qualified for holding times as these compounds are extremely persistent and samples were stored under archive conditions at -20°C as described in

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Appendix B. A holding time of 2 years is allowed by PSEP for metals other than mercury in frozen tissue samples (PSEP 1997). This holding time was met for the mussel samples. Analysis of the composite lamprey sample was performed within the QAPP-specified holding time.

Eight PCB congener results and four hexachlorobutadiene results were rejected due to poor internal standard recoveries. Any issues related to rejected data will be addressed in subsequent interpretive reports.

The precision and accuracy of the Round 2 lamprey and mussel data was acceptable and the tissue data are usable for all project purposes. Overall, the data quality was acceptable and will meet program objectives and goals for the RI/FS.

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Table A-1. Laboratory Methods for Round 2 Mussel and Lamprey Tissue Samples.

Analysis	Laboratory	Sample Preparation		Quantitative Analysis	
		Protocol	Procedure	Protocol	Procedure
Percent moisture	CAS	CAS SOP	Freeze dry	CAS SOP	Balance
Metals	CAS				
Aluminum, antimony, arsenic, cadmium, copper, lead, nickel, silver, zinc		EPA 3050B/PSEP	Acid digestion	EPA 6020	ICP/MS
Chromium		EPA 3050B/PSEP	Acid digestion	EPA 6010B	ICP/AES
Selenium		EPA 3050B/PSEP	Acid digestion	EPA 7740	GFAA
Mercury		EPA 7470	Acid digestion/oxidation	EPA 7470	CVAA
Butyltin compounds	CAS	Krone et al. 1988 Krone et al. 1988	Solvent extraction Derivatization	Krone et al. 1988	GC/FPD
Selected SVOCs	CAS	EPA 3541 EPA 3640A	Automated Soxhlet extraction Gel permeation chromatography	EPA 8270C-SIM	GC/MS-SIM
Polycyclic aromatic hydrocarbons	CAS	EPA 3541 EPA 3640A EPA 3630C	Automated Soxhlet extraction Gel permeation chromatography Silica gel cleanup	EPA 8270C-SIM	GC/MS-SIM
Lipids	Axys	EPA 3540C[a]	Soxhlet extraction	Axys SOP	Balance
PCB congeners [b]	Axys	EPA 1668A	Soxhlet extraction Gel permeation chromatography Acid/base silica column Florisil® chromatography 1% deactivated basic Alumina	EPA 1668A	HRGC/HRMS
Chlorinated dioxins and furans	Axys	EPA 1613B	Soxhlet extraction Gel permeation chromatography Acid/base silica column Florisil® chromatography Carbon celite Layered silver nitrate/acid/base silica 1% deactivated basic Alumina	EPA 1613B	HRGC/HRMS
Organochlorine Pesticides and selected SVOCs[c]	Axys	Axys SOP	Soxhlet extraction Gel permeation chromatography Acid/base silica column Florisil® chromatography 1% deactivated basic Alumina		HRGC/HRMS

CAS - Columbia Analytical Services
CVAA - cold vapor atomic absorption spectrometry
EPA - U.S. Environmental Protection Agency
GC/ECD - gas chromatography/electron capture detection
GC/FPD - gas chromatography/flame photometric detection
GC/MS - gas chromatography/mass spectrometry
GFAA - graphite furnace atomic absorption spectrometry
HRGC/HRMS - high-resolution gas chromatography/high-resolution mass spectrometry
ICP/AES - inductively coupled plasma/atomic emission spectrometry
ICP/MS - inductively coupled plasma - mass spectrometry
PCB - polychlorinated biphenyl
PSEP - Puget Sound Estuary Program
SIM - selected ion monitoring
SOP - Standard operating procedure
SVOC - semivolatile organic compound

[a] PCDD/Fs, PCBs, pesticides, and lipids analyzed from the same extract.
[b] Includes all 209 congeners. Includes analyses for PCB congener homologs and PCB Aroclors.
[c] The SVOCs hexachlorobenzene and hexachlorobutadiene were analyzed with the pesticides to improve detection limits as described in QAPP addendum 6 (Integral and Windward 2006). Hexachlorobenzene and hexachlorobutadiene were also analyzed with the SVOCs.

Table A-2. Percent Completeness by Parameter Group.

Analysis	Total # of Data Points[a]	Number of Data Points		Completeness (%)
		Accepted	Rejected	
Butyltins	28	28	0	100
Conventionals [b]	15	15	0	100
Dioxin/furan homologs	80	80	0	100
Dioxins/furans	120	120	0	100
Metals	84	84	0	100
Organochlorine pesticides	208	208	0	100
PAHs	119	119	0	100
PCB congeners	1273	1265	8	99
Phenols	35	35	0	100
Phthalates	42	42	0	100
SVOCs	79	75	4	95
Round 2 Mussel and Lampreyy Ammocoete Tissue Sampling Project Total	**2083**	**2071**	**12**	**>99**

Notes:
[a] Totals include field replicates and split samples and exclude field blanks.
[b] Lipids, Total Solids.

Table A-3. Laboratory Control Limits for Surrogate Recovery.

Analysis	CAS Number	Percent Recovery
Butyltins		
Tripropyltin hydride	761-44-4	10 - 114
Semivolatile Organic Compounds		
2,4,6-Tribromophenol	118-79-6	47 - 152
2-Fluoro-1,1'-biphenyl	321-60-8	43 - 133
Nitrobenzene-d5	4165-60-0	35 - 128
Phenol-d6	13127-88-3	43 - 133
p-Terphenyl-d14	1718-51-0	49 - 137
Polycyclic Aromatic Hydrocarbons		
Fluoranthene-d10	93951-69-0	48 - 108
Fluorene-d10	81103-79-9	40 - 97
Organochlorine pesticides		
^{13}C-1,2,3-Trichlorobenzene	C87-61-6	20 - 130
^{13}C-2,4'-DDE	C3424-82-6	40 - 150
^{13}C-2,4'-DDT	C789-02-6	40 - 150
^{13}C-4,4'-DDE	C72-55-9	40 - 150
^{13}C-4,4'-DDT	C50-29-3	40 - 150
^{13}C-Aldrin	C309-00-2	30 - 150
^{13}C-alpha-Endosulfan	C959-98-8	30 - 150
^{13}C-beta-Endosulfan	C33213-65-9	30 - 150
^{13}C-beta-Hexachlorocyclohexane	C319-85-7	30 - 150
^{13}C-cis-Nonachlor	C5103-73-1	30 - 150
^{13}C-delta-Hexachlorocyclohexane	C319-86-8	30 - 150
^{13}C-Dieldrin	C60-57-1	30 - 150
^{13}C-Endrin	C72-20-8	30 - 150
^{13}C-gamma-Hexachlorocyclohexane	C58-89-9	30 - 150
^{13}C-Heptachlor	C76-44-8	30 - 150
^{13}C-Heptachlor epoxide	C1024-57-3	30 - 150
^{13}C-Hexachlorobenzene	C118-74-1	20 - 150
^{13}C-Methoxychlor	C72-43-5	30 - 150
^{13}C-Oxychlordane	C27304-13-8	30 - 200
^{13}C-trans-Chlordane	C5103-74-2	30 - 200
^{13}C-trans-Nonachlor	C39765-80-5	30 - 150
PCB congeners		
PCB001L	234432-85-0	15 - 150
PCB003L	208263-77-8	15 - 150
PCB004L	234432-86-1	25 - 150
PCB015L	208263-67-6	25 - 150
PCB019L	234432-87-2	25 - 150
PCB028L	208263-76-7	30 - 135
PCB037L	208263-79-0	25 - 150
PCB054L	234432-88-3	25 - 150
PCB077L	105600-23-5	25 - 150
PCB081L	208461-24-9	25 - 150
PCB104L	234432-89-4	25 - 150
PCB105L	208263-62-1	25 - 150
PCB111L	235416-29-2	30 - 135
PCB114L	208263-63-2	25 - 150
PCB118L	104130-40-7	25 - 150
PCB123L	208263-64-3	25 - 150
PCB126L	208263-65-4	25 - 150
PCB155L	234432-90-7	25 - 150
PCB156L & 157L	PCB156L_157L	25 - 150
PCB167L	208263-69-8	25 - 150
PCB169L	208263-70-1	25 - 150
PCB170L	160901-80-4	25 - 150
PCB178L	232919-67-4	30 - 135
PCB180L	160901-82-6	25 - 150
PCB188L	234432-91-8	25 - 150
PCB189L	208263-73-4	25 - 150
PCB202L	105600-26-8	25 - 150
PCB205L	234446-64-1	25 - 150
PCB206L	208263-75-6	25 - 150
PCB208L	234432-92-9	25 - 150
PCB209L	105600-27-9	25 - 150
Dioxin/Furans		
^{13}C-1,2,3,4,6,7,8-Heptachlorodibenzofuran	109719-84-8	28 - 143
^{13}C-1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	109719-83-7	23 - 140
^{13}C-1,2,3,4,7,8,9-Heptachlorodibenzofuran	109719-94-0	26 - 138
^{13}C-1,2,3,4,7,8-Hexachlorodibenzofuran	114423-98-2	26 - 152

Table A-3. Laboratory Control Limits for Surrogate Recovery.

Analysis	CAS Number	Percent Recovery
^{13}C-1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	109719-80-4	32 - 141
^{13}C-1,2,3,6,7,8-Hexachlorodibenzofuran	116843-03-9	26 - 123
^{13}C-1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	109719-81-5	28 - 130
^{13}C-1,2,3,7,8,9-Hexachlorodibenzofuran	116843-04-0	29 - 147
^{13}C-1,2,3,7,8-Pentachlorodibenzofuran	109719-77-9	24 - 185
^{13}C-1,2,3,7,8-Pentachlorodibenzo-p-dioxin	109719-79-1	25 - 181
^{13}C-2,3,4,6,7,8-Hexachlorodibenzofuran	116843-05-1	28 - 136
^{13}C-2,3,4,7,8-Pentachlorodibenzofuran	116843-02-8	21 - 178
^{13}C-2,3,7,8-Tetrachlorodibenzofuran	89059-46-1	24 - 169
^{13}C-2,3,7,8-Tetrachlorodibenzo-p-dioxin	76523-40-5	25 - 164
^{13}C-Octachlorodibenzo-p-dioxin	114423-97-1	17 - 157
^{37}Cl-2,3,7,8-Tetrachlorodibenzo-p-dioxin	85508-50-5	35 - 197

Table A-4. Laboratory Control Limits for Tissue Matrix Spike, and Laboratory Control Samples Precision and Recovery.

Analysis	CAS #	Lab	Matrix Spike/Matrix Spike Duplicate Recovery (percent)	LCS and LCS Duplicate Recovery (percent)	Control Limit Relative Percent Difference		
					SD	LR	BD
Conventionals							
Total solids	TSO	CASK	--	--	--	40	--
Lipids	66455-18-3	AXYS	--	--	--	--	--
Metals							
Aluminum	7429-90-5	CASK	75 - 125	73 - 129	--	30	--
Antimony	7440-36-0	CASK	70 - 130	--	--	30	--
Arsenic	7440-38-2	CASK	70 - 130	75 - 127	--	30	--
Cadmium	7440-43-9	CASK	70 - 130	77 - 123	--	30	--
Chromium	7440-47-3	CASK	75 - 125	67 - 138	--	30	--
Copper	7440-50-8	CASK	70 - 130	74 - 128	--	30	--
Lead	7439-92-1	CASK	70 - 130	30 - 139	--	30	--
Mercury	7439-97-6	CASK	60 - 128	76 - 124	--	30	--
Nickel	7440-02-0	CASK	70 - 130	67 - 139	--	30	--
Selenium	7782-49-2	CASK	60 - 130	74 - 128	--	30	--
Silver	7440-22-4	CASK	70 - 130	75 - 126	--	30	--
Zinc	7440-66-6	CASK	75 - 125	77 - 123	--	30	--
Butyltins							
Butyltin ion	78763-54-9	CASK	10 - 113	10 - 115	50	--	--
Dibutyltin ion	14488-53-0	CASK	10 - 121	10 - 94	50	--	--
Tetrabutyltin	1461-25-2	CASK	10 - 125	10 - 110	50	--	--
Tributyltin ion	36643-28-4	CASK	10 - 113	10 - 97	50	--	--
PAHs							
2-Methylnaphthalene	91-57-6	CASK	39 - 116	12 - 159	40	--	40
Acenaphthene	83-32-9	CASK	52 - 112	44 - 120	40	--	40
Acenaphthylene	208-96-8	CASK	44 - 126	44 - 124	40	--	40
Anthracene	120-12-7	CASK	51 - 121	47 - 128	40	--	40
Benzo(a)anthracene	56-55-3	CASK	49 - 127	51 - 135	40	--	40
Benzo(a)pyrene	50-32-8	CASK	50 - 126	49 - 144	40	--	40
Benzo(b)fluoranthene	205-99-2	CASK	46 - 124	54 - 138	40	--	40
Benzo(g,h,i)perylene	191-24-2	CASK	46 - 124	45 - 138	40	--	40
Benzo(k)fluoranthene	207-08-9	CASK	51 - 126	55 - 141	40	--	40
Chrysene	218-01-9	CASK	59 - 123	59 - 132	40	--	40
Dibenzo(a,h)anthracene	53-70-3	CASK	42 - 144	36 - 155	40	--	40
Fluoranthene	206-44-0	CASK	49 - 130	47 - 139	40	--	40
Fluorene	86-73-7	CASK	53 - 120	49 - 120	40	--	40
Indeno(1,2,3-cd)pyrene	193-39-5	CASK	30 - 148	37 - 148	40	--	40
Naphthalene	91-20-3	CASK	30 - 112	42 - 116	40	--	40
Phenanthrene	85-01-8	CASK	58 - 108	49 - 121	40	--	40
Pyrene	129-00-0	CASK	58 - 110	52 - 129	40	--	40
Phenols							
2,4-Dimethylphenol	105-67-9	CASK	56 - 145	10 - 107	40	--	40
2-Methylphenol	95-48-7	CASK	66 - 123	45 - 113	40	--	40
4-Methylphenol	106-44-5	CASK	60 - 134	45 - 115	40	--	40
Pentachlorophenol	87-86-5	CASK	10 - 181	27 - 160	40	--	40
Phenol	108-95-2	CASK	55 - 130	52 - 118	40	--	40
Phthalates							
Bis(2-ethylhexyl) phthalate	117-81-7	CASK	53 - 172	39 - 174	40	--	40
Butylbenzyl phthalate	85-68-7	CASK	39 - 171	56 - 145	40	--	40
Dibutyl phthalate	84-74-2	CASK	47 - 161	60 - 146	40	--	40
Diethyl phthalate	84-66-2	CASK	60 - 139	61 - 133	40	--	40
Dimethyl phthalate	131-11-3	CASK	68 - 124	60 - 120	40	--	40
Di-n-octyl phthalate	117-84-0	CASK	35 - 184	49 - 156	40	--	40
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	120-82-1	CASK	59 - 109	41 - 114	40	--	40
1,2-Dichlorobenzene	95-50-1	CASK	51 - 106	41 - 117	40	--	40
1,3-Dichlorobenzene	541-73-1	CASK	43 - 104	41 - 112	40	--	40
1,4-Dichlorobenzene	106-46-7	CASK	45 - 101	41 - 109	40	--	40
Benzyl alcohol	100-51-6	CASK	46 - 133	30 - 122	40	--	40
Hexachlorobenzene	118-74-1	CASK	62 - 121	59 - 124	40	--	40
Hexachlorobutadiene	87-68-3	CASK	43 - 114	51 - 105	40	--	40
Hexachloroethane	67-72-1	CASK	29 - 116	51 - 110	40	--	40
N-Nitrosodiphenylamine	86-30-6	CASK	71 - 132	58 - 132	40	--	40
Organochlorine pesticides and selected SVOC							
2,4'-DDD	53-19-0	AXYS	--	70 - 130	--	--	--
2,4'-DDE	3424-82-6	AXYS	--	70 - 130	--	--	--
2,4'-DDT	789-02-6	AXYS	--	70 - 130	--	--	--
4,4'-DDD	72-54-8	AXYS	--	70 - 130	--	--	--
4,4'-DDE	72-55-9	AXYS	--	70 - 130	--	--	--
4,4'-DDT	50-29-3	AXYS	--	70 - 130	--	--	--

Analysis	CAS #	Lab	Matrix Spike/Matrix Spike Duplicate Recovery (percent)	LCS and LCS Duplicate Recovery (percent)	Control Limit Relative Percent Difference		
					SD	LR	BD
Aldrin	309-00-2	AXYS	--	70 - 130	--	--	--
alpha-Endosulfan	959-98-8	AXYS	--	70 - 130	--	--	--
alpha-Hexachlorocyclohexane	319-84-6	AXYS	--	70 - 130	--	--	--
beta-Endosulfan	33213-65-9	AXYS	--	70 - 130	--	--	--
beta-Hexachlorocyclohexane	319-85-7	AXYS	--	70 - 130	--	--	--
cis-Chlordane	5103-71-9	AXYS	--	70 - 130	--	--	--
cis-Nonachlor	5103-73-1	AXYS	--	70 - 130	--	--	--
delta-Hexachlorocyclohexane	319-86-8	AXYS	--	60 - 130	--	--	--
Dieldrin	60-57-1	AXYS	--	60 - 130	--	--	--
Endosulfan sulfate	1031-07-8	AXYS	--	70 - 130	--	--	--
Endrin	72-20-8	AXYS	--	60 - 130	--	--	--
Endrin aldehyde	7421-93-4	AXYS	--	10 - 130	--	--	--
Endrin ketone	53494-70-5	AXYS	--	60 - 130	--	--	--
gamma-Hexachlorocyclohexane	58-89-9	AXYS	--	70 - 130	--	--	--
Heptachlor	76-44-8	AXYS	--	70 - 130	--	--	--
Heptachlor epoxide	1024-57-3	AXYS	--	60 - 130	--	--	--
Methoxychlor	72-43-5	AXYS	--	60 - 130	--	--	--
Oxychlordane	27304-13-8	AXYS	--	70 - 130	--	--	--
trans-Chlordane	5103-74-2	AXYS	--	70 - 130	--	--	--
trans-Nonachlor	39765-80-5	AXYS	--	70 - 130	--	--	--
Hexachlorobenzene	118-74-1	AXYS	--	70 - 130	--	--	--
Hexachlorobutadiene	87-68-3	AXYS	--	--	--	--	--
PCB congeners							
PCB001	2051-60-7	AXYS	--	50 - 150	--	--	--
PCB002	2051-61-8	AXYS	--	--	--	--	--
PCB003	2051-62-9	AXYS	--	50 - 150	--	--	--
PCB004	13029-08-8	AXYS	--	50 - 150	--	--	--
PCB005	16605-91-7	AXYS	--	--	--	--	--
PCB006	25569-80-6	AXYS	--	--	--	--	--
PCB007	33284-50-3	AXYS	--	--	--	--	--
PCB008	34883-43-7	AXYS	--	--	--	--	--
PCB009	34883-39-1	AXYS	--	--	--	--	--
PCB010	33146-45-1	AXYS	--	--	--	--	--
PCB011	2050-67-1	AXYS	--	--	--	--	--
PCB012 & 013	PCB012_013	AXYS	--	--	--	--	--
PCB014	34883-41-5	AXYS	--	--	--	--	--
PCB015	2050-68-2	AXYS	--	50 - 150	--	--	--
PCB016	38444-78-9	AXYS	--	--	--	--	--
PCB017	37680-66-3	AXYS	--	--	--	--	--
PCB018 & 030	PCB018_030	AXYS	--	--	--	--	--
PCB019	38444-73-4	AXYS	--	50 - 150	--	--	--
PCB020 & 028	PCB020_028	AXYS	--	--	--	--	--
PCB021 & 033	PCB021_033	AXYS	--	--	--	--	--
PCB022	38444-85-8	AXYS	--	--	--	--	--
PCB023	55720-44-0	AXYS	--	--	--	--	--
PCB024	55702-45-9	AXYS	--	--	--	--	--
PCB025	55712-37-3	AXYS	--	--	--	--	--
PCB026 & 029	PCB026_029	AXYS	--	--	--	--	--
PCB027	38444-76-7	AXYS	--	--	--	--	--
PCB031	16606-02-3	AXYS	--	--	--	--	--
PCB032	38444-77-8	AXYS	--	--	--	--	--
PCB034	37680-68-5	AXYS	--	--	--	--	--
PCB035	37680-69-6	AXYS	--	--	--	--	--
PCB036	38444-87-0	AXYS	--	--	--	--	--
PCB037	38444-90-5	AXYS	--	50 - 150	--	--	--
PCB038	53555-66-1	AXYS	--	--	--	--	--
PCB039	38444-88-1	AXYS	--	--	--	--	--
PCB040 & 041 & 071	PCB040_041_071	AXYS	--	--	--	--	--
PCB042	36559-22-5	AXYS	--	--	--	--	--
PCB043	70362-46-8	AXYS	--	--	--	--	--
PCB044 & 047 & 065	PCB044_047_065	AXYS	--	--	--	--	--
PCB045 & 051	PCB045_051	AXYS	--	--	--	--	--
PCB046	41464-47-5	AXYS	--	--	--	--	--
PCB048	70362-47-9	AXYS	--	--	--	--	--
PCB049 & 069	PCB049_069	AXYS	--	--	--	--	--
PCB050 & 053	PCB050_053	AXYS	--	--	--	--	--
PCB052	35693-99-3	AXYS	--	--	--	--	--
PCB054	15968-05-5	AXYS	--	50 - 150	--	--	--
PCB055	74338-24-2	AXYS	--	--	--	--	--
PCB056	41464-43-1	AXYS	--	--	--	--	--
PCB057	70424-67-8	AXYS	--	--	--	--	--
PCB058	41464-49-7	AXYS	--	--	--	--	--
PCB059 & 062 & 075	PCB059_062_075	AXYS	--	--	--	--	--
PCB060	33025-41-1	AXYS	--	--	--	--	--
PCB061 & 070 & 074 & 076	PCB061_070_074_	AXYS	--	--	--	--	--
PCB063	74472-34-7	AXYS	--	--	--	--	--
PCB064	52663-58-8	AXYS	--	--	--	--	--

Analysis	CAS #	Lab	Matrix Spike/Matrix Spike Duplicate Recovery (percent)	LCS and LCS Duplicate Recovery (percent)	Control Limit Relative Percent Difference		
					SD	LR	BD
PCB066	32598-10-0	AXYS	--	--	--	--	--
PCB067	73575-53-8	AXYS	--	--	--	--	--
PCB068	73575-52-7	AXYS	--	--	--	--	--
PCB072	41464-42-0	AXYS	--	--	--	--	--
PCB073	74338-23-1	AXYS	--	--	--	--	--
PCB077	32598-13-3	AXYS	--	50 - 150	--	--	--
PCB078	70362-49-1	AXYS	--	--	--	--	--
PCB079	41464-48-6	AXYS	--	--	--	--	--
PCB080	33284-52-5	AXYS	--	--	--	--	--
PCB081	70362-50-4	AXYS	--	50 - 150	--	--	--
PCB082	52663-62-4	AXYS	--	--	--	--	--
PCB083 & 099	PCB083_099	AXYS	--	--	--	--	--
PCB084	52663-60-2	AXYS	--	--	--	--	--
PCB085 & 116 & 117	?CB085_116_117	AXYS	--	--	--	--	--
PCB086 & 087 & 097 & 108 & 119 & 125	'CB086_087_097_	AXYS	--	--	--	--	--
PCB088 & 091	PCB088_091	AXYS	--	--	--	--	--
PCB089	73575-57-2	AXYS	--	--	--	--	--
PCB090 & 101 & 113	?CB090_101_113	AXYS	--	--	--	--	--
PCB092	52663-61-3	AXYS	--	--	--	--	--
PCB093 & 095 & 098 & 100 & 102	'CB093_095_098_	AXYS	--	--	--	--	--
PCB094	73575-55-0	AXYS	--	--	--	--	--
PCB096	73575-54-9	AXYS	--	--	--	--	--
PCB103	60145-21-3	AXYS	--	--	--	--	--
PCB104	56558-16-8	AXYS	--	50 - 150	--	--	--
PCB105	32598-14-4	AXYS	--	50 - 150	--	--	--
PCB106	70424-69-0	AXYS	--	--	--	--	--
PCB107 & 124	PCB107_124	AXYS	--	--	--	--	--
PCB109	74472-35-8	AXYS	--	--	--	--	--
PCB110 & 115	PCB110_115	AXYS	--	--	--	--	--
PCB111	39635-32-0	AXYS	--	--	--	--	--
PCB112	74472-36-9	AXYS	--	--	--	--	--
PCB114	74472-37-0	AXYS	--	50 - 150	--	--	--
PCB118	31508-00-6	AXYS	--	50 - 150	--	--	--
PCB120	68194-12-7	AXYS	--	--	--	--	--
PCB121	56558-18-0	AXYS	--	--	--	--	--
PCB122	76842-07-4	AXYS	--	--	--	--	--
PCB123	65510-44-3	AXYS	--	50 - 150	--	--	--
PCB126	57465-28-8	AXYS	--	50 - 150	--	--	--
PCB127	39635-33-1	AXYS	--	--	--	--	--
PCB128 & 166	PCB128_166	AXYS	--	--	--	--	--
PCB129 & 138 & 160 & 163	'CB129_138_160_	AXYS	--	--	--	--	--
PCB130	52663-66-8	AXYS	--	--	--	--	--
PCB131	61798-70-7	AXYS	--	--	--	--	--
PCB132	38380-05-1	AXYS	--	--	--	--	--
PCB133	35694-04-3	AXYS	--	--	--	--	--
PCB134 & 143	PCB134_143	AXYS	--	--	--	--	--
PCB135 & 151 & 154	?CB135_151_154	AXYS	--	--	--	--	--
PCB136	38411-22-2	AXYS	--	--	--	--	--
PCB137	35694-06-5	AXYS	--	--	--	--	--
PCB139 & 140	PCB139_140	AXYS	--	--	--	--	--
PCB141	52712-04-6	AXYS	--	--	--	--	--
PCB142	41411-61-4	AXYS	--	--	--	--	--
PCB144	68194-14-9	AXYS	--	--	--	--	--
PCB145	74472-40-5	AXYS	--	--	--	--	--
PCB146	51908-16-8	AXYS	--	--	--	--	--
PCB147 & 149	PCB147_149	AXYS	--	--	--	--	--
PCB148	74472-41-6	AXYS	--	--	--	--	--
PCB150	68194-08-1	AXYS	--	--	--	--	--
PCB152	68194-09-2	AXYS	--	--	--	--	--
PCB153 & 168	PCB153_168	AXYS	--	--	--	--	--
PCB155	33979-03-2	AXYS	--	50 - 150	--	--	--
PCB156 & 157	PCB156_157	AXYS	--	50 - 150	--	--	--
PCB158	74472-42-7	AXYS	--	--	--	--	--
PCB159	39635-35-3	AXYS	--	--	--	--	--
PCB161	74472-43-8	AXYS	--	--	--	--	--
PCB162	39635-34-2	AXYS	--	--	--	--	--
PCB164	74472-45-0	AXYS	--	--	--	--	--
PCB165	74472-46-1	AXYS	--	--	--	--	--
PCB167	52663-72-6	AXYS	--	50 - 150	--	--	--
PCB169	32774-16-6	AXYS	--	50 - 150	--	--	--
PCB170	35065-30-6	AXYS	--	--	--	--	--
PCB171 & 173	PCB171_173	AXYS	--	--	--	--	--
PCB172	52663-74-8	AXYS	--	--	--	--	--
PCB174	38411-25-5	AXYS	--	--	--	--	--
PCB175	40186-70-7	AXYS	--	--	--	--	--
PCB176	52663-65-7	AXYS	--	--	--	--	--
PCB177	52663-70-4	AXYS	--	--	--	--	--
PCB178	52663-67-9	AXYS	--	--	--	--	--

Analysis	CAS #	Lab	Matrix Spike/Matrix Spike Duplicate Recovery (percent)	LCS and LCS Duplicate Recovery (percent)	Control Limit Relative Percent Difference		
					SD	LR	BD
PCB179	52663-64-6	AXYS	--	--	--	--	--
PCB180 & 193	PCB180_193	AXYS	--	--	--	--	--
PCB181	74472-47-2	AXYS	--	--	--	--	--
PCB182	60145-23-5	AXYS	--	--	--	--	--
PCB183 & 185	PCB183_185	AXYS	--	--	--	--	--
PCB184	74472-48-3	AXYS	--	--	--	--	--
PCB186	74472-49-4	AXYS	--	--	--	--	--
PCB187	52663-68-0	AXYS	--	--	--	--	--
PCB188	74487-85-7	AXYS	--	50 - 150	--	--	--
PCB189	39635-31-9	AXYS	--	50 - 150	--	--	--
PCB190	41411-64-7	AXYS	--	--	--	--	--
PCB191	74472-50-7	AXYS	--	--	--	--	--
PCB192	74472-51-8	AXYS	--	--	--	--	--
PCB194	35694-08-7	AXYS	--	--	--	--	--
PCB195	52663-78-2	AXYS	--	--	--	--	--
PCB196	42740-50-1	AXYS	--	--	--	--	--
PCB197 & 200	PCB197_200	AXYS	--	--	--	--	--
PCB198 & 199	PCB198_199	AXYS	--	--	--	--	--
PCB201	40186-71-8	AXYS	--	--	--	--	--
PCB202	2136-99-4	AXYS	--	50 - 150	--	--	--
PCB203	52663-76-0	AXYS	--	--	--	--	--
PCB204	74472-52-9	AXYS	--	--	--	--	--
PCB205	74472-53-0	AXYS	--	50 - 150	--	--	--
PCB206	40186-72-9	AXYS	--	50 - 150	--	--	--
PCB207	52663-79-3	AXYS	--	--	--	--	--
PCB208	52663-77-1	AXYS	--	50 - 150	--	--	--
PCB209	2051-24-3	AXYS	--	50 - 150	--	--	--
Total PCB Congeners	1336-36-3	AXYS	--	--	--	--	--
Dioxin/Furans							
Heptachlorodibenzofuran homologs	38998-75-3	AXYS	--	--	--	--	--
Heptachlorodibenzo-p-dioxin homologs	37871-00-4	AXYS	--	--	--	--	--
Hexachlorodibenzofuran homologs	55684-94-1	AXYS	--	--	--	--	--
Hexachlorodibenzo-p-dioxin homologs	34465-46-8	AXYS	--	--	--	--	--
Octachlorodibenzofuran	39001-02-0	AXYS	--	63 - 170	--	--	--
Octachlorodibenzo-p-dioxin	3268-87-9	AXYS	--	78 - 144	--	--	--
Pentachlorodibenzofuran homologs	30402-15-4	AXYS	--	--	--	--	--
Pentachlorodibenzo-p-dioxin homologs	36088-22-9	AXYS	--	--	--	--	--
Tetrachlorodibenzofuran homologs	30402-14-3	AXYS	--	--	--	--	--
Tetrachlorodibenzo-p-dioxin homologs	41903-57-5	AXYS	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	AXYS	--	82 - 122	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	AXYS	--	70 - 140	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	AXYS	--	78 - 138	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	AXYS	--	72 - 134	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	AXYS	--	70 - 164	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	AXYS	--	84 - 130	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	AXYS	--	76 - 134	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	AXYS	--	78 - 130	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	AXYS	--	64 - 162	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	AXYS	--	80 - 134	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4	AXYS	--	70 - 142	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	AXYS	--	70 - 156	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	AXYS	--	68 - 160	--	--	--
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	AXYS	--	75 - 158	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	AXYS	--	67 - 158	--	--	--

Table A-5. Data Validation Qualifiers and Definitions.

Data Qualifier	Definition
U	The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
J	The associated numerical value is an estimated quantity.
R	Rejected.
NJ	Presumptive evidence of the presence of the material at an estimated quantity.
UJ	The material was analyzed for, but was not detected. The sample quantitation limit is an estimated quantity.
T	The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.

Table A-6. Summary of Qualified Data by Parameter Group for Round 2 Mussel and Lamprey Tissue Samples.

Analyte Group	Number of Samples	Number of Data Points		Total # of Data Points	Detection and Qualification Frequencies (percent)		Reason Codes for Qualification
		Detected	Undetected				
Butyltins	7	21	7	28	75	detected	
					25	undetected	
					75	J	HT, MS, LCSR
					25	UJ	HT
Conventionals	8	15	0	15	100	detected	
					0	undetected	
Dioxin/Furan Homologs	8	79	1	80	99	detected	
					1	undetected	
Dioxin/Furans	8	78	42	120	65	detected	
					35	undetected	
					28	U	LB, PFP
Metals	7	80	4	84	95	detected	
					5	undetected	
					8	J	HT
Organochlorine Pesticides	8	128	80	208	62	detected	
					38	undetected	
					50	J	HT
					0.5	U	PFP
					38	UJ	HT, LB, PFP
Polycyclic Aromatic Hydrocarbons	7	97	22	119	82	detected	
					18	undetected	
					82	J	HT
					18	UJ	HT, LB
PCB congeners	8	1044	229	1273	82	detected	
					18	undetected	
					1	J	SSR
					0.6	R	SSR
					6	U	SSR, PFP
					0.1	UJ	SSR
Phenols	7	0	35	35	0	detected	
					100	undetected	
					100	UJ	HT, MS
Phthalates	7	9	33	42	21	detected	
					79	undetected	
					21	J	HT
					79	UJ	HT
Semivolatile Organic Compounds	8	11	68	79	14	detected	
					86	undetected	
					13	J	HT
					5	R	SSR
					81	UJ	HT,Ci, Cc,LCSR,SSR

Notes:

Includes replicates and splits, excludes field blanks.

Reason for Qualification:

Cc - Calibration (continuing)
Ci - Calibration (initial)
HT-Holding time
LB - Lab blank contamination
LCSR - Laboratory control sample recoveries
MS- Matrix Spike recoveries
PFP - Potential false positive (mass spectrum does not meet all identification criteria)
SSR - Surrogate spike recoveries

Table A-7a. Reported Detection Limits - Round 2 Mussel and Lamprey Tissue

Analyte	CAS Number	Lab	Units	Round 2 QAPP MDL	Method Detection Limits		Total No. Data Points	No. Undetected Results
					Minimum	Maximum		
Conventionals								
Lipids	66455-18-3	AXYS	percent	--	--	--	8	0
Total solids	TSO	CASK	percent	0.01	--	--	7	0
Metals								
Aluminum	7429-90-5	CASK	mg/kg	0.06	--	--	7	0
Antimony	7440-36-0	CASK	mg/kg	0.0016	--	--	7	0
Arsenic	7440-38-2	CASK	mg/kg	0.006	--	--	7	0
Cadmium	7440-43-9	CASK	mg/kg	0.0012	--	--	7	0
Chromium	7440-47-3	CASK	mg/kg	0.1	0.13	0.34	7	4
Copper	7440-50-8	CASK	mg/kg	0.018	--	--	7	0
Lead	7439-92-1	CASK	mg/kg	0.0014	--	--	7	0
Mercury	7439-97-6	CASK	mg/kg	0.0004	--	--	7	0
Nickel	7440-02-0	CASK	mg/kg	0.006	--	--	7	0
Selenium	7782-49-2	CASK	mg/kg	0.2	--	--	7	0
Silver	7440-22-4	CASK	mg/kg	0.0008	--	--	7	0
Zinc	7440-66-6	CASK	mg/kg	0.012	--	--	7	0
Butyltins								
Butyltin ion	78763-54-9	CASK	ug/kg	0.38	--	--	7	0
Dibutyltin ion	14488-53-0	CASK	ug/kg	0.35	--	--	7	0
Tetrabutyltin	1461-25-2	CASK	ug/kg	0.33	0.84	0.86	7	7
Tributyltin ion	36643-28-4	CASK	ug/kg	0.38	--	--	7	0
Polycyclic Aromatic Hydrocarbons								
2-Methylnaphthalene	91-57-6	CASK	ug/kg	0.15	0.22	0.22	7	6
Acenaphthene	83-32-9	CASK	ug/kg	0.074	--	--	7	0
Acenaphthylene	208-96-8	CASK	ug/kg	0.05	0.3	0.3	7	4
Anthracene	120-12-7	CASK	ug/kg	0.055	0.063	0.063	7	1
Benzo(a)anthracene	56-55-3	CASK	ug/kg	0.054	--	--	7	0
Benzo(a)pyrene	50-32-8	CASK	ug/kg	0.076	--	--	7	0
Benzo(b)fluoranthene	205-99-2	CASK	ug/kg	0.045	--	--	7	0
Benzo(g,h,i)perylene	191-24-2	CASK	ug/kg	0.097	0.2	0.2	7	1
Benzo(k)fluoranthene	207-08-9	CASK	ug/kg	0.081	--	--	7	0
Chrysene	218-01-9	CASK	ug/kg	0.08	--	--	7	0
Dibenzo(a,h)anthracene	53-70-3	CASK	ug/kg	0.079	0.14	0.28	7	6
Fluoranthene	206-44-0	CASK	ug/kg	0.053	--	--	7	0
Fluorene	86-73-7	CASK	ug/kg	0.054	--	--	7	0
Indeno(1,2,3-cd)pyrene	193-39-5	CASK	ug/kg	0.073	0.096	6.4	7	4
Naphthalene	91-20-3	CASK	ug/kg	0.26	--	--	7	0
Phenanthrene	85-01-8	CASK	ug/kg	0.066	--	--	7	0
Pyrene	129-00-0	CASK	ug/kg	0.07	--	--	7	0
Phenols								
2,4-Dimethylphenol	105-67-9	CASK	ug/kg	13	20	40	7	7
2-Methylphenol	95-48-7	CASK	ug/kg	53	20	40	7	7
4-Methylphenol	106-44-5	CASK	ug/kg	15	20	40	7	7
Pentachlorophenol	87-86-5	CASK	ug/kg	31	20	40	7	7
Phenol	108-95-2	CASK	ug/kg	17	20	40	7	7
Phthalates								
Bis(2-ethylhexyl) phthalate	117-81-7	CASK	ug/kg	5.1	49	98	7	3
Butylbenzyl phthalate	85-68-7	CASK	ug/kg	9.4	130	260	7	7
Dibutyl phthalate	84-74-2	CASK	ug/kg	16	8.9	8.9	7	2
Diethyl phthalate	84-66-2	CASK	ug/kg	14	13	26	7	7
Dimethyl phthalate	131-11-3	CASK	ug/kg	53	11	22	7	7
Di-n-octyl phthalate	117-84-0	CASK	ug/kg	13	39	78	7	7
Semivolatile Organic Compounds								
Hexachlorobenzene	118-74-1	AXYS	ug/kg	0.01	--	--	8	0
Hexachlorobutadiene	87-68-3	AXYS	ug/kg	--	0.00809	0.0496	8	8
1,2,4-Trichlorobenzene	120-82-1	CASK	ug/kg	9.9	4.7	9.4	7	7
1,2-Dichlorobenzene	95-50-1	CASK	ug/kg	12	7.7	16	7	7
1,3-Dichlorobenzene	541-73-1	CASK	ug/kg	11	9.8	20	7	7
1,4-Dichlorobenzene	106-46-7	CASK	ug/kg	11	8.9	18	7	7
Benzyl alcohol	100-51-6	CASK	ug/kg	6.7	22	44	7	4
Hexachlorobenzene	118-74-1	CASK	ug/kg	5.9	8.4	17	7	7
Hexachlorobutadiene	87-68-3	CASK	ug/kg	8.5	5.4	11	7	7
Hexachloroethane	67-72-1	CASK	ug/kg	8.5	9.3	19	7	7
N-Nitrosodiphenylamine	86-30-6	CASK	ug/kg	9.5	12	24	7	7
Organochlorine pesticides								
2,4'-DDD	53-19-0	AXYS	ug/kg	0.01	--	--	8	0
2,4'-DDE	3424-82-6	AXYS	ug/kg	0.01	0.0215	0.0215	8	1
2,4'-DDT	789-02-6	AXYS	ug/kg	0.01	--	--	8	0
4,4'-DDD	72-54-8	AXYS	ug/kg	0.01	--	--	8	0
4,4'-DDE	72-55-9	AXYS	ug/kg	0.01	--	--	8	0
4,4'-DDT	50-29-3	AXYS	ug/kg	0.01	--	--	8	0
Aldrin	309-00-2	AXYS	ug/kg	0.02	0.0172	0.0521	8	3
alpha-Endosulfan	959-98-8	AXYS	ug/kg	0.02	0.0282	0.174	8	7

Table A-7a. Reported Detection Limits - Round 2 Mussel and Lamprey Tissue

Analyte	CAS Number	Lab	Units	Round 2 QAPP MDL	Method Detection Limits		Total No. Data Points	No. Undetected Results
					Minimum	Maximum		
alpha-Hexachlorocyclohexane	319-84-6	AXYS	ug/kg	0.02	0.156	0.426	8	5
beta-Endosulfan	33213-65-9	AXYS	ug/kg	0.02	0.0477	0.248	8	6
beta-Hexachlorocyclohexane	319-85-7	AXYS	ug/kg	0.02	0.0222	0.136	8	7
cis-Chlordane	5103-71-9	AXYS	ug/kg	0.01	--	--	8	0
cis-Nonachlor	5103-73-1	AXYS	ug/kg	0.01	--	--	8	0
delta-Hexachlorocyclohexane	319-86-8	AXYS	ug/kg	0.02	0.00968	0.0596	8	8
Dieldrin	60-57-1	AXYS	ug/kg	0.01	--	--	8	0
Endosulfan sulfate	1031-07-8	AXYS	ug/kg	0.01	--	--	8	0
Endrin	72-20-8	AXYS	ug/kg	0.1	0.00859	0.0222	8	5
Endrin aldehyde	7421-93-4	AXYS	ug/kg	0.1	0.00794	0.0844	8	8
Endrin ketone	53494-70-5	AXYS	ug/kg	0.1	0.0137	0.0844	8	7
gamma-Hexachlorocyclohexane	58-89-9	AXYS	ug/kg	0.1	0.0101	0.062	8	6
Heptachlor	76-44-8	AXYS	ug/kg	0.1	0.0131	0.0806	8	6
Heptachlor epoxide	1024-57-3	AXYS	ug/kg	0.1	0.0447	0.0447	8	1
Methoxychlor	72-43-5	AXYS	ug/kg	0.1	0.00807	0.0247	8	6
Oxychlordane	27304-13-8	AXYS	ug/kg	0.02	0.0879	0.186	8	4
trans-Chlordane	5103-74-2	AXYS	ug/kg	0.02	--	--	8	0
trans-Nonachlor	39765-80-5	AXYS	ug/kg	0.5	--	--	8	0
PCB Congeners								
PCB001	2051-60-7	AXYS	pg/g	0.24 - 6.68	0.0967	0.595	8	4
PCB002	2051-61-8	AXYS	pg/g	0.24 - 6.68	0.0814	0.501	8	4
PCB003	2051-62-9	AXYS	pg/g	0.24 - 6.68	0.399	0.846	8	3
PCB004	13029-08-8	AXYS	pg/g	0.24 - 6.68	0.502	0.511	8	2
PCB005	16605-91-7	AXYS	pg/g	0.24 - 6.68	0.102	0.626	8	6
PCB006	25569-80-6	AXYS	pg/g	0.24 - 6.68	0.34	0.72	8	4
PCB007	33284-50-3	AXYS	pg/g	0.24 - 6.68	0.127	0.783	8	5
PCB008	34883-43-7	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB009	34883-39-1	AXYS	pg/g	0.24 - 6.68	0.369	0.783	8	3
PCB010	33146-45-1	AXYS	pg/g	0.24 - 6.68	0.102	0.626	8	7
PCB011	2050-67-1	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB012 & 013	PCB012_013	AXYS	pg/g	0.24 - 6.68	0.142	0.877	8	5
PCB014	34883-41-5	AXYS	pg/g	0.24 - 6.68	0.173	1.06	8	8
PCB015	2050-68-2	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB016	38444-78-9	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB017	37680-66-3	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB018 & 030	PCB018_030	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB019	38444-73-4	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB020 & 028	PCB020_028	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB021 & 033	PCB021_033	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB022	38444-85-8	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB023	55720-44-0	AXYS	pg/g	0.24 - 6.68	0.399	0.846	8	3
PCB024	55702-45-9	AXYS	pg/g	0.24 - 6.68	0.255	0.532	8	2
PCB025	55712-37-3	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB026 & 029	PCB026_029	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB027	38444-76-7	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB031	16606-02-3	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB032	38444-77-8	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB034	37680-68-5	AXYS	pg/g	0.24 - 6.68	0.532	1.13	8	4
PCB035	37680-69-6	AXYS	pg/g	0.24 - 6.68	1.38	1.38	8	1
PCB036	38444-87-0	AXYS	pg/g	0.24 - 6.68	0.193	1.19	8	7
PCB037	38444-90-5	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB038	53555-66-1	AXYS	pg/g	0.24 - 6.68	0.153	0.94	8	6
PCB039	38444-88-1	AXYS	pg/g	0.24 - 6.68	0.556	1.16	8	2
PCB040 & 041 & 071	PCB040_041_071	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB042	36559-22-5	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB043	70362-46-8	AXYS	pg/g	0.24 - 6.68	0.384	0.384	8	1
PCB044 & 047 & 065	PCB044_047_065	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB045 & 051	PCB045_051	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB046	41464-47-5	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB048	70362-47-9	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB049 & 069	PCB049_069	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB050 & 053	PCB050_053	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB052	35693-99-3	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB054	15968-05-5	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB055	74338-24-2	AXYS	pg/g	0.24 - 6.68	0.188	1.6	8	6
PCB056	41464-43-1	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB057	70424-67-8	AXYS	pg/g	0.24 - 6.68	0.391	0.814	8	2
PCB058	41464-49-7	AXYS	pg/g	0.24 - 6.68	0.168	1.03	8	7
PCB059 & 062 & 075	PCB059_062_075	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB060	33025-41-1	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB061 & 070 & 074 & 076	PCB061_070_074_	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB063	74472-34-7	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB064	52663-58-8	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB066	32598-10-0	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB067	73575-53-8	AXYS	pg/g	0.24 - 6.68	0.148	0.908	8	4

Table A-7a. Reported Detection Limits - Round 2 Mussel and Lamprey Tissue

Analyte	CAS Number	Lab	Units	Round 2 QAPP MDL	Method Detection Limits		Total No. Data Points	No. Undetected Results
					Minimum	Maximum		
PCB068	73575-52-7	AXYS	pg/g	0.24 - 6.68	0.137	0.846	8	6
PCB072	41464-42-0	AXYS	pg/g	0.24 - 6.68	0.429	0.908	8	3
PCB073	74338-23-1	AXYS	pg/g	0.24 - 6.68	0.153	1.37	8	7
PCB077	32598-13-3	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB078	70362-49-1	AXYS	pg/g	0.24 - 6.68	0.168	1.03	8	8
PCB079	41464-48-6	AXYS	pg/g	0.24 - 6.68	0.488	0.488	8	1
PCB080	33284-52-5	AXYS	pg/g	0.24 - 6.68	0.132	1.75	8	8
PCB081	70362-50-4	AXYS	pg/g	0.24 - 6.68	0.34	0.72	8	3
PCB082	52663-62-4	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB083 & 099	PCB083_099	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB084	52663-60-2	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB085 & 116 & 117	PCB085_116_117	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB086 & 087 & 097 & 108 & 119 & 125	PCB086_087_097_	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB088 & 091	PCB088_091	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB089	73575-57-2	AXYS	pg/g	0.24 - 6.68	0.752	0.752	8	1
PCB090 & 101 & 113	PCB090_101_113	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB092	52663-61-3	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB093 & 095 & 098 & 100 & 102	PCB093_095_098_	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB094	73575-55-0	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB096	73575-54-9	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB103	60145-21-3	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB104	56558-16-8	AXYS	pg/g	0.24 - 6.68	0.207	0.207	8	1
PCB105	32598-14-4	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB106	70424-69-0	AXYS	pg/g	0.24 - 6.68	0.0712	0.603	8	8
PCB107 & 124	PCB107_124	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB109	74472-35-8	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB110 & 115	PCB110_115	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB111	39635-32-0	AXYS	pg/g	0.24 - 6.68	0.056	0.344	8	4
PCB112	74472-36-9	AXYS	pg/g	0.24 - 6.68	0.0763	0.528	8	8
PCB114	74472-37-0	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB118	31508-00-6	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB120	68194-12-7	AXYS	pg/g	0.24 - 6.68	0.296	0.296	8	1
PCB121	56558-18-0	AXYS	pg/g	0.24 - 6.68	0.222	0.229	8	2
PCB122	76842-07-4	AXYS	pg/g	0.24 - 6.68	0.689	0.689	8	1
PCB123	65510-44-3	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB126	57465-28-8	AXYS	pg/g	0.24 - 6.68	0.502	0.502	8	1
PCB127	39635-33-1	AXYS	pg/g	0.24 - 6.68	0.0865	0.752	8	8
PCB128 & 166	PCB128_166	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB129 & 138 & 160 & 163	PCB129_138_160_	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB130	52663-66-8	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB131	61798-70-7	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB132	38380-05-1	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB133	35694-04-3	AXYS	pg/g	0.24 - 6.68	0.407	0.407	8	1
PCB134 & 143	PCB134_143	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB135 & 151 & 154	PCB135_151_154	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB136	38411-22-2	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB137	35694-06-5	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB139 & 140	PCB139_140	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB141	52712-04-6	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB142	41411-61-4	AXYS	pg/g	0.24 - 6.68	0.0814	0.501	8	8
PCB144	68194-14-9	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB145	74472-40-5	AXYS	pg/g	0.24 - 6.68	0.24	0.501	8	2
PCB146	51908-16-8	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB147 & 149	PCB147_149	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB148	74472-41-6	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB150	68194-08-1	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB152	68194-09-2	AXYS	pg/g	0.24 - 6.68	0.313	0.313	8	1
PCB153 & 168	PCB153_168	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB155	33979-03-2	AXYS	pg/g	0.24 - 6.68	0.084	0.438	8	4
PCB156 & 157	PCB156_157	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB158	74472-42-7	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB159	39635-35-3	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB161	74472-43-8	AXYS	pg/g	0.24 - 6.68	0.122	0.752	8	8
PCB162	39635-34-2	AXYS	pg/g	0.24 - 6.68	0.235	0.47	8	2
PCB164	74472-45-0	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB165	74472-46-1	AXYS	pg/g	0.24 - 6.68	0.251	0.532	8	4
PCB167	52663-72-6	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB169	32774-16-6	AXYS	pg/g	0.24 - 6.68	0.0763	0.47	8	8
PCB170	35065-30-6	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB171 & 173	PCB171_173	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB172	52663-74-8	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB174	38411-25-5	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB175	40186-70-7	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB176	52663-65-7	AXYS	pg/g	0.24 - 6.68	--	--	8	0

Table A-7a. Reported Detection Limits - Round 2 Mussel and Lamprey Tissue

Analyte	CAS Number	Lab	Units	Round 2 QAPP MDL	Method Detection Limits		Total No. Data Points	No. Undetected Results
					Minimum	Maximum		
PCB177	52663-70-4	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB178	52663-67-9	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB179	52663-64-6	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB180 & 193	PCB180_193	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB181	74472-47-2	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB182	60145-23-5	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB183 & 185	PCB183_185	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB184	74472-48-3	AXYS	pg/g	0.24 - 6.68	0.222	0.235	8	2
PCB186	74472-49-4	AXYS	pg/g	0.24 - 6.68	0.0509	0.533	8	8
PCB187	52663-68-0	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB188	74487-85-7	AXYS	pg/g	0.24 - 6.68	0.369	0.369	8	1
PCB189	39635-31-9	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB190	41411-64-7	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB191	74472-50-7	AXYS	pg/g	0.24 - 6.68	0.219	0.219	8	1
PCB192	74472-51-8	AXYS	pg/g	0.24 - 6.68	0.102	1.24	8	8
PCB194	35694-08-7	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB195	52663-78-2	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB196	42740-50-1	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB197 & 200	PCB197_200	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB198 & 199	PCB198_199	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB201	40186-71-8	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB202	2136-99-4	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB203	52663-76-0	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB204	74472-52-9	AXYS	pg/g	0.24 - 6.68	0.12	0.313	8	4
PCB205	74472-53-0	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB206	40186-72-9	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB207	52663-79-3	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB208	52663-77-1	AXYS	pg/g	0.24 - 6.68	--	--	8	0
PCB209	2051-24-3	AXYS	pg/g	0.24 - 6.68	--	--	8	0
Total PCB Congeners	1336-36-3	AXYS	pg/g	--	--	--	1	0
Dioxin/Furans								
Heptachlorodibenzofuran homologs	38998-75-3	AXYS	pg/g	--	--	--	8	0
Heptachlorodibenzo-p-dioxin homologs	37871-00-4	AXYS	pg/g	--	--	--	8	0
Hexachlorodibenzofuran homologs	55684-94-1	AXYS	pg/g	--	--	--	8	0
Hexachlorodibenzo-p-dioxin homologs	34465-46-8	AXYS	pg/g	--	--	--	8	0
Octachlorodibenzofuran	39001-02-0	AXYS	pg/g	0.41	--	--	8	0
Octachlorodibenzo-p-dioxin	3268-87-9	AXYS	pg/g	0.73	--	--	8	0
Pentachlorodibenzofuran homologs	30402-15-4	AXYS	pg/g	--	--	--	8	0
Pentachlorodibenzo-p-dioxin homologs	36088-22-9	AXYS	pg/g	--	0.139	0.139	8	1
Tetrachlorodibenzofuran homologs	30402-14-3	AXYS	pg/g	--	--	--	8	0
Tetrachlorodibenzo-p-dioxin homologs	41903-57-5	AXYS	pg/g	--	--	--	8	0
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	AXYS	pg/g	0.10	0.159	0.159	8	1
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	AXYS	pg/g	0.16	--	--	8	0
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	AXYS	pg/g	0.12	0.126	0.266	8	3
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	AXYS	pg/g	0.09	--	--	8	0
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	AXYS	pg/g	0.14	0.235	0.497	8	3
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	AXYS	pg/g	0.08	0.041	0.214	8	3
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	AXYS	pg/g	0.09	0.308	0.308	8	1
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	AXYS	pg/g	0.12	0.0311	0.191	8	7
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	AXYS	pg/g	0.08	0.111	0.221	8	2
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	AXYS	pg/g	0.12	0.113	0.238	8	4
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4	AXYS	pg/g	0.10	0.153	0.323	8	4
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	AXYS	pg/g	0.10	0.0737	0.116	8	3
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	AXYS	pg/g	0.09	0.0487	0.0487	8	1
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	AXYS	pg/g	0.03	0.0129	0.0671	8	5
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	AXYS	pg/g	0.03	0.0505	0.107	8	5

PORTLAND HARBOR RI/FS

ROUND 2 MUSSEL AND LAMPREY AMMOCOETE TISSUE DATA REPORT

APPENDIX B

DATA VALIDATION REPORTS

Appendix B1:	Data Quality Evaluation for Mussel Sample Analyses Completed at Columbia Analytical Services
Appendix B2:	Data Quality Evaluation for Mussel Sample Analyses Completed at Axys Analytical
Appendix B3:	Data Quality Evaluation for Lamprey Sample Analyses Completed at Columbia Analytical Services and Axys Analytical

DRAFT

DRAFT DOCUMENT: DO NOT QUOTE OR CITE
This document is currently under review by US EPA and its federal, state, and tribal partners, and is subject to change in whole or in part

October 1, 2007

Prepared for

The Lower Willamette Group

Prepared by

Integral Consulting Inc.

APPENDIX B1

DATA QUALITY EVALUATION FOR MUSSEL SAMPLE ANALYSES COMPLETED AT COLUMBIA ANALYTICAL SERVICES

EcoChem, INC.
Environmental Data Quality

DATA QUALITY EVALUATION

PORTLAND HARBOR
BENTHIC INVERTEBRATE TISSUES
Archived Mussels

Semivolatile Organic Compounds (SVOC) – Methods SW8270 & SW8270-SIM
Polycyclic Aromatic Hydrocarbons (PAH) – Methods SW8270 & SW8270-SIM
Organotins - Krone Method
Metals - Methods E200.8, SW6010/6020, SW7470/7471A, & SW7740/7742
Total Solids by Freeze Drying – CAS ZFZDRY

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March 29, 2007

Approved for Release:

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Project Manager/Technical Director
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DATA QUALITY EVALUATION

BASIS OF DATA EVALUATION

The data were validated using guidance and quality control (QC) criteria documented in the analytical methods; *Guidance on Environmental Data Verification and Validation* (EPA 2002c); *Portland Harbor RI/FS, Round 2, Quality Assurance Project Plan* (QAPP) (Integral 2004)*; Addendum 6: Benthic Invertebrate Tissue* (Integral 2005), and *National Functional Guidelines for Organic and/or Inorganic Data Review* (USEPA 1994, 1999 & 2002).

Data qualifier definitions, reason codes, and validation criteria are included as **Appendix A**. Data validation reports, which discuss individual findings for each quality control element [by sample delivery group (SDG)], are provided in **Appendix B**. Data validation worksheets and communication records are organized by SDG and will be kept on file at EcoChem.

PROCESS FOR DATA VALIDATION

All electronic data deliverable files (EDD) were verified by comparing 100% of the field sample results and 10% of the QC sample results to the hardcopy data package.

All (100%) of the mussel data received a full (Level IV) validation, which included evaluation (as appropriate for each method) of:

- Package completeness
- Sample chain-of-custody and sample preservation
- Analytical holding times
- Blank contamination
- Precision (replicate analyses)
- Accuracy (compound recovery)
- Chromatogram review (pesticide, PCB, and fuel fractions)
- Detection limits
- Instrument performance (initial calibration, continuing calibration, tuning, sensitivity and degradation)
- Compound Identification
- Quantitation (transcription and calculation checks)

A dual-tier system of primary and secondary reviewers is utilized to ensure technical correctness and QC of the validation process; and all data validation is documented using standardized and controlled validation worksheets and spreadsheets. These worksheets are completed for each SDG, documenting all deficiencies, outliers and subsequent qualifiers.

After qualifiers are entered into the EcoChem database, a second party verifies 100% of the qualifier entry. Interpretive qualifiers are then applied to the field samples and qualified data is exported to the project database (Integral).

SUMMARY OF DATA VALIDATION: SEMIVOLATILE ORGANIC COMPOUNDS (INCLUDING POLYCYCLIC AROMATIC HYDROCARBONS, PAH)

A total of seven mussel tissue composite samples were analyzed for semivolatile organic compounds (SVOC) for the Portland Harbor Phase 2 RI/FS Benthic Invertebrate Tissues study. One rinse blank was collected to monitor the tissue homogenization process. The tissue samples were analyzed using GCMS-SIM (Selected Ion Monitoring) to achieve lower detection limits. The rinse blank was analyzed using the standard SW8270 method. Columbia Analytical Services, Kelso, Washington completed the SVOC analyses.

The SVOC data for the tissue samples were generally acceptable. No data were rejected for any reason. A total of 259 data points (all of the mussel tissue SVOC data) were estimated because control limits were exceeded in one or more laboratory QC samples or procedures. Qualified data points may have a larger associated bias or may be less precise than unqualified data, but are usable for the intended purpose.

The laboratory data were evaluated in terms of completeness, holding times, instrument performance, bias, and precision. The results of the QC procedures used during the analyses are discussed below.

Completeness of Data Set

Completeness is defined as the total number of usable results (results that were not rejected during data validation) divided by the total results reported by the laboratory. The results reported by the laboratory were greater than 100% complete for the tissue SVOC analyses.

Holding Times and Sample Preservation

The samples were held at the laboratory under archive conditions of -20°C. The samples were originally collected in December 2005, and prepped for analysis in January 2007. This is beyond the one-year holding time criterion specified in the QAPP. Due to this, all results and reporting limits were estimated (J/UJ).

Instrument Performance

Initial and continuing calibrations were completed for all target analytes and met the criteria for frequency of analysis. The calibrations met all acceptance criteria.

Method Blank Analyses

To assess the impact of each blank contaminant on the reported sample results, an action level is established at five times (5x) the concentration detected in the blank for most compounds and ten times (10x) for phthalates. If a contaminant is detected in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U). If the result is also less than the reporting limit, then the result is elevated to the reporting limit. No action is taken if the sample result is greater than the action level, or for non-detected results.

Various target analytes were detected in the method blanks. A total of seven results (2.7% of all tissue SVOC results) were qualified as not detected (U) based on method blank contamination. The qualifiers were issued to 2-methylnaphthalene (6 results) and anthracene (1 result).

Accuracy

Surrogate Compound Recoveries

Surrogate compounds were added to all samples. The mussel tissue surrogate recoveries reported by the laboratory met the criteria for acceptable performance.

Matrix Spike Recoveries

Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed at the proper frequency. Several of the recovery values reported by the laboratory for MS/MSD analyses did not meet the criteria for acceptable performance. One tissue SVOC result (0.39% overall) was estimated (UJ) because the control limits for MS/MSD recovery were not met.

Laboratory Control Sample Recoveries

Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analyses were performed at the proper frequency. All of the recovery values were acceptable in the LCS analysis associated with the tissue samples.

Precision

MS/MSD and LCS/LCSD analyses were evaluated for laboratory precision.

All of the relative percent difference (RPD) values for the MS/MSD and LCS/LCSD analyses met the criteria for acceptable performance.

Method Detection Limits and Method Reporting Limits

To try to meet the project analytical concentration goals (ACG), the laboratory reported non-detects at the method detection limits (MDLs), adjusted for sample size, percent moisture, and any dilution factor. These method reporting limits (MRLs) ranged from 0.063 μg/Kg to 260 μg/Kg for the non-detected results, with roughly 65% of the MRL values greater than 10 μg/Kg. The ACG were not met for several of the SVOC compounds.

Field Quality Control Samples

Field QC samples collected for the benthic tissue study included a rinse blank sample. The results for the field QC samples are discussed in the following section.

Rinse Blanks

One rinse blank was associated with the tissue samples. The rinse blank was prepared during the tissue homogenization stage. Pyrene was detected in the rinse blank. The pyrene results in the associated tissue samples were present at concentrations greater than the action levels. No data were qualified based on rinsate blank contamination.

SUMMARY OF DATA VALIDATION: ORGANOTINS

A total of seven mussel tissue composite samples were analyzed for organotin compounds for the Portland Harbor Phase 2 RI/FS Benthic Invertebrate Tissues study. One rinse blank was collected to monitor the tissue homogenization process. Columbia Analytical Services, Kelso, Washington completed the organotin analyses.

The organotin data for the tissue samples were generally acceptable. No data were rejected for any reason. Twenty-eight (28) data points (all of the tissue organotin results) were estimated because control limits were exceeded in one or more laboratory quality control (QC) samples or procedures. These qualified data points may have a larger associated bias or may be less precise than unqualified data, but are usable for the intended purpose.

The laboratory data were evaluated in terms of completeness, holding times, instrument performance, bias, and precision. The results of the QC procedures used during sample analyses are discussed below.

Completeness of Data Set

Completeness is defined as the total number of usable results (results that were not rejected during data validation) divided by the total results reported by the laboratory. The results reported by the laboratory were 100% complete for the tissue organotin analyses.

Holding Times and Sample Preservation

The samples were held at the laboratory under archive conditions of -20°C. The samples were originally collected in December 2005, and prepped for analysis in January 2007. This is beyond the one-year holding time criterion specified in the QAPP. Due to this, all results and reporting limits were estimated (J/UJ).

Instrument Performance

Initial and continuing calibrations were completed for all target analytes and met the criteria for frequency of analysis. All initial and continuing calibration analyses met acceptance criteria.

Method Blank Analyses

Method blanks were analyzed at the appropriate frequency. No target analytes were detected in the method blanks.

Accuracy

Surrogate Compound Recoveries

A surrogate compound was added to all field and QC samples. All surrogate recovery values met the criteria for acceptable performance.

Matrix Spike Recoveries

Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed at the proper frequency. Two of the recovery values reported by the laboratory for MS/MSD analyses did not meet the criteria for acceptable performance. The associated results in the parent sample were estimated (J). Two (2) results (7.1% of all mussel tissue organotin results) were qualified based on MS recovery outliers.

Laboratory Control Sample Recoveries

Laboratory control sample (LCS) and LCS duplicate (LCSD) analyses met the criteria for frequency of analysis. Two of the recovery values reported by the laboratory for LCS analyses did not meet the criteria for acceptable performance. The results in the associated samples were estimated (J). Fourteen (14) results (50% of all mussel tissue organotin results) were qualified based on LCS/LCSD recovery outliers.

Precision

MS/MSD and LCS/LCSD analyses were evaluated for laboratory precision. All relative percent difference (RPD) values were acceptable.

Method Detection Limits and Method Reporting Limits

The laboratory reported non-detects at the method detection limits (MDL), adjusted for sample size and any dilution factor. These method reporting limits (MRL) ranged from 0.84 to 0.86 µg/Kg for the non-detected results. These generally met the MRL values from the QAPP.

Field Quality Control Samples

Field QC samples collected for the benthic tissue study included a rinse blank. The results for the field QC samples are discussed in the following section.

Rinse Blanks

One rinse blank was associated with the tissue samples. The rinse blank was prepared during the tissue homogenization stage. No target analytes were detected in the rinse blank.

SUMMARY OF DATA VALIDATION: METALS

A total of seven mussel tissue composite samples were analyzed for total metals for the Portland Harbor Phase 2 RI/FS Benthic Invertebrate Tissues study. One rinse blank was collected to monitor the tissue homogenization process. Columbia Analytical Services, Kelso, Washington completed all analyses. The following analytical methods were used:

Parameter	Method
ICP Metals	SW6010B
ICP-MS Metals	SW6020
Mercury	SW7471A
Selenium	SW7742

The metals data for the tissue samples were generally acceptable. No data were rejected for any reason. A total of 8 data points (8.3% of the tissue metals results) were estimated because control limits were exceeded in one or more laboratory quality control (QC) samples or procedures. These qualified data points may have a larger associated bias or may be less precise than unqualified data, but are usable for the intended purpose.

The laboratory data were evaluated in terms of completeness, holding times, instrument performance, bias, and precision. The results of the QC procedures used during the analyses are discussed below.

Completeness of Data Set

Completeness is defined as the total number of usable results (results that were not rejected during data validation) divided by the total results reported by the laboratory. The results reported by the laboratory were 100% complete for the tissue metals analyses.

Holding Times and Sample Preservation

The samples were held at the laboratory under archive conditions of -20°C. The samples were originally collected in December 2005, and prepped for analysis in January 2007. This is beyond the one-year holding time criterion specified in the QAPP. However, under the PSDDA/PSEP program protocols, a two year holding time for metals is acceptable for frozen samples. Due to this, no action was taken for the metals data.

The samples were analyzed for mercury past the QAPP holding time of 6 months, and also past the PSDDA/PSEP holding time of 28 days. Mercury was detected in all tissue samples; all mercury results were estimated (J/UJ).

Instrument Performance

Initial and continuing calibrations were completed for all target analytes and met the criteria for frequency of analysis. The calibrations met all acceptance criteria.

Method Blank Analyses

To assess the impact of each blank contaminant on the reported sample results, an action level is established at five times (5x) the concentration detected in the blank. If a contaminant is detected in

an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U). No action is taken if the sample result is greater than the action level, or for non-detected results.

Method and instrument blanks were analyzed at the appropriate frequency. Various target analytes were detected in the method and/or instrument blanks. The contaminant levels, associated samples, and action levels are documented in the data validation worksheets. All sample results were significantly greater than the action levels. No mussel tissue data were qualified based on method blank contamination.

In addition, some analytes were found at levels less than the negative method detection limit (MDL) in some instrument blanks. For negative blanks, action levels of five times the absolute value of the blank concentrations were established. All of the results in the associated samples were greater than the action levels; no data were qualified.

Accuracy

The accuracy of the analytical results is evaluated in the following sections in terms of analytical bias (matrix spike [MS], laboratory control sample [LCS], contract required detection limit [CRDL] standard recovery values, interference check samples [ICS], and serial dilution percent difference [%D] values).

Matrix Spike Recoveries

MS analyses met the criteria for frequency of analysis. All of the recovery values reported by the laboratory for the MS analyses met the criteria for acceptable performance.

Laboratory Control Sample Recoveries

LCS and Standard Reference Materials (SRM) analyses met the criteria for frequency of analysis. The LCS recovery values reported by the laboratory met the criteria for acceptable performance.

One of the recoveries in each of the SRM analyses did not meet the criteria for acceptable performance. As there was only one outlier per SRM and as all LCS recovery values were acceptable, no action was taken.

Contract Required Detection Limit Standard Analyses

CRDL standards were analyzed at the beginning of each analytical sequence. All CRDL recovery values were acceptable.

Interference Check Samples

ICP interference check samples were analyzed at the beginning of each analytical sequence. All ICP interference check sample results were within the acceptance criteria.

Serial Dilution Analyses

Serial dilution analyses were performed at the proper frequency. All serial dilution %D values were acceptable.

Precision

Laboratory duplicate analyses were evaluated for laboratory precision. All relative percent difference (RPD) values were acceptable for results greater than the reporting limit.

Method Detection Limits and Method Reporting Limits

The laboratory reported non-detects at the MDLs, adjusted for sample size and any dilution factor. With the exception of chromium in four samples (MDL values 0.13 to 0.34 mg/Kg), all metals were detected in all samples.

Field Quality Control Samples

Field QC samples collected for the benthic tissue study included a rinse blank sample. The results for the field QC samples are discussed in the following section.

Rinse Blanks

One rinse blank was associated with the tissue samples. The rinse blank was prepared during the tissue homogenization stage. Various target analytes were detected in the rinse blank. The contaminants present in each rinse blank are documented in the data validation worksheets.

In all cases, these analytes were either not detected or were present at concentrations greater than the action levels in the associated samples. No data were qualified based on rinsate blank contamination.

SUMMARY OF DATA VALIDATION: CONVENTIONAL PARAMETERS

All tissue samples were analyzed for total solids/percent moisture, using a freeze drying method. No QC outliers were noted. All total solids/percent moisture results were acceptable as reported.

EcoChem, INC.
Environmental Data Quality

APPENDIX A

DATA QUALIFIER DEFINITIONS AND VALIDATION CRITERIA

DATA VALIDATION QUALIFIER CODES
National Functional Guidelines

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents the approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The following is an EcoChem qualifier that may also be assigned during the data review process:

DNR	Do not report; a more appropriate result is reported from another analysis or dilution.

DATA QUALIFIER REASON CODES

1	Holding Time/Sample Preservation
2	Chromatographic pattern in sample does not match pattern of calibration standard.
3	Compound Confirmation
4	Tentatively Identified Compound (TIC) (associated with NJ only)
5A	Calibration (initial)
5B	Calibration (continuing)
6	Field Blank Contamination
7	Lab Blank Contamination (e.g., method blank, instrument, etc.)
8	Matrix Spike(MS & MSD) Recoveries
9	Precision (all replicates)
10	Laboratory Control Sample Recoveries
11	A more appropriate result is reported (associated with “R” and “DNR” only)
12	Reference Material
13	Surrogate Spike Recoveries (a.k.a., labeled compounds & recovery standards)
14	Other (define in validation report)
15	GFAA Post Digestion Spike Recoveries
16	ICP Serial Dilution % Difference
17	ICP Interference Check Standard Recovery
18	Trip Blank Contamination
19	Internal Standard Performance (e.g., area, retention time, recovery)
20	Linear Range Exceeded
21	Potential False Positives

Integral - Portland Harbor Site
Semivolatile Compounds by GC/MS (Based on Organic NFG 1999)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler/Storage Temperature	Aqueous/Soil/Sediment <4°C Tissues <-10°C	J(+)/UJ(-) if greater than 6 deg. C (EcoChem PJ)	1
Holding Time	Water: 7 days from collection Soil: 14 days from collection Analysis: 40 days from extraction	Water: J(+)/UJ(-) if ext. > 7 and < 21 days J(+)/R(-) if ext > 21 days (EcoChem PJ) Solids/Wastes: J(+)/UJ(-) if ext. > 14 and < 42 days J(+)/R(-) if ext. > 42 days (EcoChem PJ) J(+)/UJ(-) if analysis >40 days	1
Tuning	DFTPP Beginning of each 12 hour period Method acceptance criteria	R(+/-) all analytes in all samples associated with the tune	5A
Initial Calibration (Minimum 5 stds.)	RRF > 0.05	(EcoChem PJ, see TM-06) If MDL= reporting limit: J(+)/R(-) if RRF < 0.05 If reporting limit > MDL: note in worksheet if RRF <0.05	5A
	%RSD < 30%	(EcoChem PJ, see TM-06) J(+) if %RSD > 30%	5A
Continuing Calibration (Prior to each 12 hr. shift)	RRF > 0.05	(EcoChem PJ, see TM-06) If MDL= reporting limit: J(+)/R(-) if RRF < 0.05 If reporting limit > MDL: note in worksheet if RRF <0.05	5B
	%D <25%	(EcoChem PJ, see TM-06) If > +/-90%: J+/R- If -90% to -26%: J+ (high bias) If 26% to 90%: J+/UJ- (low bias)	5B
Method Blank	One per matrix per batch No results > QL	U(+) if sample (+) result is less than QL and less than appropriate 5X or 10X rule (raise sample value to QL)	7
		U(+) if sample (+) result is greater than or equal to QL and less than appropriate 5X and 10X rule (at reported sample value)	7
	No TICs present	R(+) TICs using 10X rule	7
Field Blanks	No results > QL	Apply 5X/10X rule; U(+) < action level	6

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Integral - Portland Harbor Site
Semivolatile Compounds by GC/MS (Based on Organic NFG 1999)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
MS/MSD (recovery)	One per matrix per batch Use method acceptance criteria	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
MS/MSD (RPD)	One per matrix per batch Use method acceptance criteria	J(+) if RPD > CL	9
Lab Duplicate	Results >5X reporting limit (RL): RPD criteria: use QAPP limits, all matrices Results <5X RL: Solid: Absolute difference < 2X RL Aqueous: Absolute difference < 1X RL	J(+)/UJ(-) if outside limits	9
LCS low conc. H2O SVOA	One per lab batch Within method control limits	J(+) assoc. cmpd if > UCL J(+)/R(-) assoc. cmpd if < LCL J(+)/R(-) all cmpds if half are < LCL	10
LCS regular SVOA (H2O & solid)	One per lab batch Lab or method control limits	J(+) if %R > UCL J(+)/UJ(-) if %R <LCL J(+)/R(-) if %R < 10% (EcoChem PJ)	10
LCS/LCSD *(if required)*	One set per matrix and batch of 20 samples RPD < 35%	J(+) assoc. cmpd. in all samples	9
Surrogates	Minimum of 3 acid and 3 base/neutral compounds Use method acceptance criteria	Do not qualify if only 1 acid and/or 1 B/N surrogate is out unless <10% J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) if %R < 10%	13
Internal Standards	Added to all samples Acceptable Range: IS area 50% to 200% of CCAL area RT within 30 seconds of CC RT	J(+) if > 200% J(+)/UJ(-) if < 50% J(+)/R(-) if < 25% R T>30 seconds, narrate and Notify PM	19
Field Duplicates	Results >5X reporting limit (RL): RPD < 50% (all matrices, QAPP specified) Results <5X RL: Solid: Absolute difference < 2X RL Aqueous: Absolute difference < 1X RL	Narrate; do not qualify	na
TICs	Major ions (>10%) in reference must be present in sample; intensities agree within 20%; check identification	R(+) common laboratory contaminants R(+) target compouds from other fractions See Technical Director for ID issues	4
Quantitation/ Identification	RRT within 0.06 of standard RRT Ion relative intensity within 20% of standard All ions in std. at > 10% intensity must be present in sample	See Technical Director if outliers	14 21 (false +)

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Compounds Analyzed By HRMS (Methods 1613B or SW846 - 8290)
Polycyclic Aromatic Hydrocarbons (PAH), PCB Congeners and Dioxins/Furans

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler/Storage Temperature	Aqueous/Soil/Sediment <4°C Tissues <-10°C	EcoChem PJ, see TM-05	1
Holding Time	Water: 30 days from collection Soil: 30 days from collection Analysis: 40 days from extraction Note: Under CWA, SDWA, and RCRA the HT for H2O is 7 days	J(+)/UJ(-) if ext > 30 days J(+)/UJ(-) if analysis > 40 Days EcoChem PJ, see TM-05	1
Mass Resolution	>=10,000 resolving power at m/z 304.9824 Exact mass of m/z 380.9760 w/in 5 ppm of theoretical value (380.97410 to 380.97790) . Analyzed prior to ICAL and at the start and end of each 12 hr. shift	R(+/-) if not met	14
Window Defining Mix and Column Performance Mix	Window defining mixture/Isomer specificity std run before ICAL and CCAL Valley < 25% (valley = (x/y)*100%) x = ht. of TCDD y = baseline to bottom of valley For all isomers eluting near 2378-TCDD/TCDF isomers (TCDD only for 8290)	J(+) if valley > 25%	5A (ICAL) 5B (CCAL
Initial Calibration	ICAL: Minimum of five standards %RSD < 20% for native compounds %RSD <30% for labeled compounds (%RSD <35% for labeled compounds under 1613b)	J(+) natives if %RSD > 20%	5A
	Abs. RT of $^{13}C_{12}$-1234-TCDD >25 min on DB5 >15 min on DB-225	EcoChem PJ, see TM-05	
	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	EcoChem PJ, see TM-05	
	S/N ratio > 10 for all native and labeled compounds in CS1 std.	If <10, elevate Det. Limit or R(-)	

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Integral - Portland Harbor Site
Compounds Analyzed By HRMS (Methods 1613B or SW846 - 8290)
Polycyclic Aromatic Hydrocarbons (PAH), PCB Congeners and Dioxins/Furans

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Continuing Calibration	Analyzed at the start and end of each 12 hour shift. %D+/-20% for native compounds %D +/-30% for labeled compounds (Must meet limits in Table 6 for 1613B) (If %D in the closing CCAL are w/in 25%/35%, the avg RF from the 2 CCAL may be used to calculate samples per Section 8.3.2.4 of 8290)	Do not qualify labeled compounds. Narrate in report for labeled compound %D outliers. For native compound %D outliers: *Method 8290:* J(+)/UJ(-) if %D = 20% - 75% J(+)/R(-) if %D > 75% *Method 1613:* J(+)/UJ(-) if %D is outside Table 6 limits J(+)/R(-) if %D is +/- 75% of Table 6 limit	5B
	Abs. RT of $^{13}C_{12}$-1234-TCDD and ^{13}C12-123789-HxCDD +/- 15 sec of ICAL.	EcoChem PJ, see ICAL section of TM-05	
	RRT of all other compounds must meet table 2 of 1613B.	EcoChem PJ, see TM-05	
	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	EcoChem PJ, see TM-05	
	S/N ratio > 10	If <10, elevate Det. Limit or R(-)	
Method Blank	One per matrix per batch No positive results	If sample result <5X action level, qualify U at reported value. (<10X for phthalates)	7
Field Blanks	No results > QL	Apply 5X rule; U(+) < action level	6
LCS / OPR	Concentrations must meet limits in Table 6 of method 1613B or lab limits.	J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) using PJ if %R <<LCL (< 10%)	10
MS/MSD (recovery)	May not analyze MS/MSD %R should meet lab limits.	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8

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Integral - Portland Harbor Site
Compounds Analyzed By HRMS (Methods 1613B or SW846 - 8290)
Polycyclic Aromatic Hydrocarbons (PAH), PCB Congeners and Dioxins/Furans

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
MS/MSD (RPD)	May not analyze MS/MSD RPD < 20%	J(+) if RPD > CL	9
Lab Duplicate	RPD <25% if present.	J(+) if outside limts	9
Labeled Compounds / Internal Standards	*Method 8290:* %R = 40% - 135% in all samples	J(+)/UJ(-) if %R = 10% to LCL J(+) if %R > UCL J(+)/R(-) if %R < 10%	13
	Method 1613B: %R must meet limits specified inTable 7		
Quantitation/ Identification	Ions for analyte, IS, and rec. std. must max w/in 2 sec. S/N >2.5 IA ratios meet limits in Table 9 of 1613B or Table 8 of 8290 RRTs w/in limits in table 2 of 1613B	If RT criteria not met, use PJ (see TM-05) If S/N criteria not met, J(+). if unlabelled ion abundance not met, change to EMPC If labelled ion abundance not met, J(+).	21
EMPC (estimated maximum possible concentration)	If quantitation identification criteria are not met, laboratory should report an EMPC value.	If laboratory correctly reported an EMPC value, qualify with U to indicate that the value is a detection limit.	14
Interferences	PCDF interferences from PCDPE	If both detected, change PCDF result to EMPC	14
Second Column Confirmation	All 2378-TCDF hits must be confirmed on a DB-225 column (or equiv). All QC specs in this table must be met for the confirmation analysis.	Report lower of the two values. If not performed use PJ (see TM-05).	3
Field Duplicates	QAPP specified RPD < 50% (all matrices)	Narrate; do not qualify	na
Two analyses for one sample	Report only one result per analyte	"DNR" results that should not be used	11

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Butyltins by GC/FPD

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler/Storage Temperature	Aqueous/Soil/Sediment <4°C Tissues <-10°C	J(+)/UJ(-) if greater than 6 deg. C (EcoChem PJ)	1
Holding Time	Water: 7 days from collection Soil: 14 days from collection Analysis: 40 days from extraction	J(+)/UJ(-) if ext/analyzed > HT J(+)/R(-) if ext/analyzed > 3X HT (EcoChem PJ)	1
Initial Calibration	%RSD<30% or correlation co-efficient >0.99	J(high bias), J/UJ(low bias)	5A
Continuing Calibration	%D < 25%	J(high bias), J/UJ(low bias)	5B
Method Blank	One per matrix per batch	U(+) if sample result is < QL and < 5X rule (raise sample value to QL)	7
		U(+) if sample result is > or equal to QL and < 5X rule (at reported sample value)	7
Instrument Blanks	Analyzed at the beginning of every 12 hour sequence No analyte > MRL	Same as Method Blank	7
Field Blanks	No results > QL	Apply 5X rule; U(+) < action level	6
MS/MSD (recovery)	One set per matrix per batch Method Acceptance Criteria	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
MS/MSD (RPD)	One set per matrix per batch Method Acceptance Criteria	J(+) if RPD > CL	9
Lab Duplicate	Results >5X reporting limit (RL): RPD criteria: use QAPP limits, all matrices Results <5X RL: Solid: Absolute difference < 2X RL Aqueous: Absolute difference < 1X RL	J(+)/UJ(-) if outside limits	9
LCS	One per SDG Method Acceptance Criteria	J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) using PJ if %R <<LCL (< 10%)	10

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Butyltins by GC/FPD

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
LCS/LCSD *(if required)*	One set per matrix and batch of 20 samples RPD < 35%	J(+) assoc. cmpd. in all samples	9
Surrogates	tri-n-propyltin added to every sample %R = Laboratory control limits	J(+)/UJ(-) if both %R = 10 - 60% J(+) if both >150% J(+)/R(-) if any %R <10%	13
Quantitation/ Identification	Analyte within RTW on both columns Quantitated using ICAL CF Higher value from either column reported RPD between columns (40%)	J(+) if RPD = 40 - 60% NJ(+) if RPD >60% (EcoChem PJ)	3
Two analyses for one sample	Report only one result per analyte	"DNR" results that should not be used to avoid reporting two results for one sample	11
Field Duplicates	Results >5X reporting limit (RL): RPD < 50% (all matrices, QAPP specified) Results <5X RL: Solid: Absolute difference < 2X RL Aqueous: Absolute difference < 1X RL	Narrate; do not qualify	na

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Integral - Portland Harbor Site
Metals by ICP (Based on Inorganic NFG 1994 & 2002)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler/Storage Temperature and Preservation	Aqueous/Soil/Sediment <4°C Tissues <-10°C Water Only: Nitric Acid to pH < 2 For Dissolved metals, 0.45 um filter preserve after filtration	EcoChem PJ J(+)/UJ(-) if preservation requirements are not met	1
Holding Time	180 days	EcoChem PJ J(+)/UJ(-)	1
Initial Calibration	Blank + minimum 1 standard once every 24 hours if more than 1 standard r>0.995	EcoChem PJ J(+)/UJ(-) if r<0.995 (multi point cal)	5A
Initial Calibration Verification (ICV)	Independent source analyzed immed. after cal. %R within +/- 10% of true value	EcoChem PJ J(+)/UJ(-) if %R 75%-89% J(+) if %R = 111-125% R(+) if %R > 125% R(+/-) if %R < 75%	5A
Continuing Cal Verification (CCV)	Every ten samples, immed. Before samples+ and end of run %R within +/- 10% of true value	EcoChem PJ J(+)/UJ(-) if %R = 75%-89% J(+) if %R 111-125% R(+) if %R > 125% R(+/-) if %R < 75%	5B
CRI Standard (to check RL)	2X RL (or 2X IDL if greater) analyzed beginning and end of run (at least 8 hrs) Not required for Al, Ba, Ca, Fe, Mg, Na, K %R = 70%-130% (50%-150% Sb, Pb, Tl)	EcoChem PJ R(-),(+)<2XRL if %R <50% (< 30% Sb, Pb, Tl) J(+)<2XRL, UJ(-) if %R 50-69% (30%-49% Sb, Pb,Tl) J(+) <2X RL if %R 130%-180% (150%-200%Sb, Pb, Tl) R(+)<2X RL if %R>180%(200% Sb, Pb, Tl)	14

Initial and Continuing Cal Blanks (ICB/CCB)	after each ICV and CCV
	every ten samples and end of run
	blank < +/- IDL
		Action level is 5x abs. value of blk conc.
		For (+) blk value, U(+) values < action level
		For (-) blk value, J(+)/UJ(-) values < action level
			7

Prep Blank	One per matrix per batch
	(not to exceed 20 samples)
		Action level is 5x abs. value of blk conc.
		For (+) blk value, U(+) values < action level
		For (-) blk value, J(+)/UJ(-) values < action level
			7

Interference Check Samples ICSA/ICSAB	Beginning and end of each run or every eight hours ICSAB +/- 20% ICSA < +/- IDL	For samp with Al,Ca,Fe,Mg > ICS levels R(+/-) if %R<50% J(+) if %R >120% J(+)/UJ(-) if %R= 50% to 79% EcoChem PJ ICSA	17
Post Digestion Spike	If ICP Matrix Spike is outside 75-125%, spike at twice the sample conc.	No Quals assigned based on this element	

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Metals by ICP (Based on Inorganic NFG 1994 & 2002)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Matrix Spike	One per matrix per batch 75-125% for samples less than 4 x spike level	J(+) if %R>125% J(+)/UJ(-) if %R <75% J(+)/R(-) if %R<30%	8
Laboratory Duplicate	One per matrix per batch RPD <20% for samples > 5x RL Diff <RL for samples >RL and <5 x RL (may use RPD < 35%, Diff < 2X RL for solids)	J(+)/UJ(-) if RPD > 20% or diff > RL	9
Serial Dilution	5x dilution one per matrix %D <10% for values > 50x IDL	J(+)/UJ(-) if %D >10%	16
Laboratory Control Sample	Waters: One per matrix per batch %R (80-120%)	R(+/-) if %R < 50% J(+)/UJ(-) if %R = 50-79% J(+) if %R >120%	10
	Soils: One per matrix per batch Result within manufacturer's certified acceptance range	J(+)/UJ(-) if < LCL, J(+) if > UCL	10
Field Blanks	No results > QL	Apply 5X rule; U(+) < action level	6
Field Duplicates	QAPP specified RPD < 50% (all matrices)	Narrate; do not qualify	na
Instrument Detection Limit	determined every 3 months	EcoChem PJ	14
Linear Range	determined yearly samples diluted to fall within range	J(+) values over range	20

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Metals by ICP-MS (Based on Inorganic NFG 1994 & 2002)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler/Storage Temperature and Preservation	Aqueous/Soil/Sediment <4°C Tissues <-10°C Water Only: Nitric Acid to pH < 2 For Dissolved metals, 0.45 um filter preserve after filtration	EcoChem PJ J(+)/UJ(-) if preservation requirements are not met	1
Holding Time	180 days	EcoChem PJ J(+)/UJ(-) if holding time exceeded J(+)/R(-) if HT exceeded by 3x	1
Tune	Prior to ICAL Analyzed 5 times wih Std Dev. ≤ 5% mass calibration <0.1 amu from True Value Resolution < 0.9 AMU @ 10% peak height or <0.75 amu @ 5% peak height	EcoChem PJ No Tune - R all results criteria not met - J(+)/UJ(-)	5A
Initial Calibration	Mininum Blank+1 Standard every 24 hours	EcoChem PJ J(+)/UJ(-) >24 hours J(+)/UJ(-) if r<0.995 (for multi point cal)	5A
Initial Calibration Verification (ICV)	Independent source; analyzed post ICAL and prior to samples +/-10% of the True value	EcoChem PJ J(+)/UJ(-) if %R 75%-89% J(+) if %R = 111-125% R(+) if %R > 125% R(+/-) if %R < 75%	5A
Continuing Cal Verification (CCV)	Every 10 samples,post ICV/ICB and end of run +/- 10% of True value	EcoChem PJ J(+)/UJ(-) if %R 75%-89% J(+) if %R = 111-125% R(+) if %R > 125% R(+/-) if %R < 75%	5B
RL Standard (CRI)	2X RL (or 2X IDL if greater) analyzed beginning and end of run (at least 8 hrs) Not required for Al, Ba, Ca, Fe, Mg, Na, K %R = 70%-130% (50%-150% Co,Mn, Zn)	EcoChem PJ R(-),(+)<2XRL if %R <50% (< 30% Co,Mn, Zn) J(+)<2XRL, UJ(-) if %R 50-69% (30%-49% Co,Mn, Zn) J(+) <2X RL if %R 130%-180% (150%-200% Co,Mn, Zn) R(+)<2X RL if %R>180%(200% Co,Mn, Zn)	14

Initial and Continuing Cal Blanks (ICB/CCB)	after each ICV and CCV every ten samples and end of run blank < +/- IDL	Action level is 5x abs. value of blk conc.
		For (+) blk value, U(+) values < AL
		For (-) blk value, J(+)/UJ(-) values < AL
			7

Prep Blank	One per matrix per batch (not to exceed 20 samples)	Action level is 5x abs. value of blk conc.
		For (+) blk value, U(+) values < AL
		For (-) blk value, J(+)/UJ(-) values < AL
			7

Field Blanks	No results > QL	Apply 5X rule; U(+) < action level	6

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Metals by ICP-MS (Based on Inorganic NFG 1994 & 2002)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Interference Check Samples ICSA/ICSAB	ICSAB +/- 20% of true value ICSA < +/- IDL	Where Al,Ca,Fe,Mg = ICS levels J(+) if %R >120% J(+)/UJ(-) if %R = 50% to 79% R(+/-) if %R<50% EcoChem PJ for ICSA > +/- IDL	17
Post Digestion Spike	If ICP Matrix Spike is outside 75-125% Spike parent sample at 2X the sample conc.	EcoChem PJ - usually no action	14
Matrix Spike	One per matrix, batch and SDG 75-125% for samples where results do not exceed 4x spike level	J (+) if %R > 125% J(+)/UJ(-) if %R < 75% J(+)/R(-) if %R < 30% UJ(-) if %R = 30-74%	8
Laboratory Duplicate	One per matrix per batch RPD <20% for samples > 5x RL Diff<RL for samples >RL and <5 x RL (may use RPD < 35%, Diff < 2X RL for solids)	J(+)/UJ(-) associated samples if RPD > 20% or diff > RL	9
Laboratory Control Sample	Waters: One per matrix per batch %R (80-120%)	R(+/-) if %R < 50% J(+)/UJ(-) if %R = 50-79% J(+) if %R >120%	10
	Soils: One per matrix per batch result within manufaturer's certified acceptance range	J(+)/UJ(-) if < LCL, J(+) if > UCL	10
Serial Dilution	5x dilution one per matrix (or SDG) %D <10% of the undiluted value for values > 50x IDL	J(+)/UJ(-) if %D >10%	16
Field Duplicates	QAPP specified RPD < 50% (all matrices)	Narrate; do not qualify	na
Internal Standards	Every Sample 60%-125% of ICAL IS	J (+)/UJ (-) analytes associated with IS outlier	19
Instrument Detection Limit	Determined every 3 months	EcoChem PJ	14
Linear Range	determined yearly samples diluted to fall within range	J(+) values over range	20

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Mercury by CVAA (Based on Inorganic NFG 1994 & 2002)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler/Storage Temperature and Preservation	Aqueous/Soil/Sediment <4°C Tissues <-10°C Water Only: Nitric Acid to pH < 2 For Dissolved metals, 0.45 um filter preserve after filtration	EcoChem PJ J(+)/UJ(-) if preservation requirements are not met	1
Holding Time	28 days from date sampled	EcoChem PJ J(+)/UJ(-) if holding time exceeded	1
Initial Calibration	Blank + 4 standards r > 0.995 once every 24 hours	EcoChem PJ J(+)/UJ(-) if r<0.995	5A
Initial Calibration Verification (ICV)	Independent source analyzed immediately after cal. %R within +/- 20% of true value	EcoChem PJ R(+/-) if %R < 65% R(+) if %R > 135% J(+)/UJ(-) if %R = 65%-79% J(+) if %R = 121-135%	5A
Continuing Cal Verification (CCV)	Every ten samples, immed. following ICV/ICB and end of run %R within +/- 20% of true value	R(+/-) if %R < 65% R(+) if %R > 135% J(+)/UJ(-) if %R = 65%-79% J(+) if %R = 121-135%	5B
RL Standard (CRA)	Beginning of run after ICV/ICB CCV/CCB Conc = RL 70% - 130%	EcoChem PJ R(-),(+)<2XRL if %R <50% J(+)<2XRL, UJ(-) if %R 50-69% J(+) <2X RL if %R 130%-180% R(+)<2X RL if %R>180%	14

Initial and Continuing Cal Blanks (ICB/CCB)	After each ICV and CCV every ten samples and end of run
	blank < +/- IDL
		Action level is 5x abs. value of blk conc.
		For (+) blk value, U(+) sample values < AL
		For (-) blk value, J(+)/UJ(-) sample values < AL
			7

Prep Blank	One per matrix per batch
	(not to exceed 20 samples)
		Action level is 5x abs. value of blk conc.
		For (+) blk value, U(+) sample values < AL
		For (-) blk value, J(+)/UJ(-) sample values < AL
			7

Matrix Spike	One per matrix per batch 5% frequency 75-125% for samples less than 4x spike level	J(+) if %R > 125% J(+)/UJ(-) if %R < 75% J(+)/R(-) if %R < 30%	8
Laboratory Duplicate	One per matrix per batch RPD <20% for samples > 5x RL (+/-)RL for samples >RL and <5 x RL (may use RPD < 35%, Diff < 2X RL for solids)	J(+)/UJ(-) if RPD > 20% or diff > RL	9

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Mercury by CVAA (Based on Inorganic NFG 1994 & 2002)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Laboratory Control Sample	Waters: One per matrix per batch %R (80-120%)	R(+/-) if %R < 50%; J(+) if %R >120% J(+)/UJ(-) if %R = 50-79%	10
	Soils: One per matrix per batch Result within manufacturer's certified acceptance range	J(+)/UJ(-) if < LCL, J(+) if > UCL	10
Field Duplicates	QAPP specified RPD < 50% (all matrices)	Narrate; do not qualify	na

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Metals by AA-Hydride (Based on Inorganic NFG 1994 & 2002)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler/Storage Temperature and Preservation	Aqueous/Soil/Sediment <4°C Tissues <-10°C Water Only: Nitric Acid to pH < 2 For Dissolved metals, 0.45 um filter preserve after filtration	J(+)/UJ(-) if preservation requirements are not met	1
Holding Time	180 Days from collection	J(+)/UJ(-) >180 Days	1
Initial Calibration	Blank + 3 standards (1 at RL) every 24 hours; r>0.995	R(+/-) if <5 standards or >24 hours J(+)/UJ(-) if r<0.995	5A
Initial Calibration Verification (ICV)	Independent source > CRA std. conc. Post ICAL & prior to samples +/-10% of the True value	J(+) if %R < 75% J(+)/UJ(-) if %R = 75%-89% J(+) if %R = 111-125% R(-) if %R<75% R(+) if %R>125%	5A
Continuing Cal Verification (CCV)	Every 10 samples,post ICV/ICB and end of run +/- 10% of True value	J(+) if %R < 75% J(+)/UJ(-) if %R 75%-89% J(+) if %R 111-125% R(-) if %R<75% R(+) if %R>125%	5B
RL Standard (CRA)	@ RL; analyzed beginning of run %R = 70%-130%	EcoChem PJ %R <50% - R(-),(+) <2X RL %R 50-69% - J(+) <2X RL, UJ(-) %R 130%-180% - J(+) <2X RL %R>180% - R(+)< 2X RL	14
Initial and Continuing Cal Blanks (ICB/CCB)	After each ICV and CCV - every ten samples (or 2 hours) and end of run blank < IDL and > -RL	Action level 5x(+)/5x(-) For positive blank hit, U(+) values < AL For negative blank hit, J(+)/UJ(-) < AL	7
Prep Blank	One per matrix per batch (Max 20 samples)	Action level 5x(+)/5x(-) For positive blank hit, U(+) values < AL For negative blank hit, J(+)/UJ(-) < AL	7
Field Blanks	No results > QL	Apply 5X rule; U(+) < action level	6
Matrix Spike	One per matrix, batch and SDG 75-125% for samples where results do not exceed 4x spike level	J (+) if %R > 125% J(+)/UJ(-), %R < 75% J(+)/R(-), %R < 30% UJ(-), %R 30-74%	8
Laboratory Duplicate	One per matrix per batch RPD <20% for samples > 5x RL (+/-)RL for samples >RL and <5 x RL (may use RPD < 35%, Diff < 2X RL for solids)	J(+)/UJ(-) associated samples if RPD > 20% or diff > RL	9

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Metals by AA-Hydride (Based on Inorganic NFG 1994 & 2002)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Laboratory Control Sample	Waters: One per matrix per batch %R (80-120%)	R(+/-) if %R < 50% J(+)/UJ(-) if %R = 50-79% J(+) if %R >120%	10
	Soils: One per matrix per batch Result within manufacturer's certified acceptance range	J(+)/UJ(-) if < LCL, J(+) if > UCL	10
Field Duplicates	QAPP specified RPD < 50% (all matrices)	Narrate; do not qualify	na
Linear Range	Sample results must be less than 110% of high standard	J(+) values over range	20

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EcoChem Validation Guidelines for Conventional Chemistry Analysis (Based on EPA Standard Methods)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature and Preservation	Cooler Temperature 4°C ±2°C Preservation: Method Specific	Use Professional Judgment to qualify based to qualify for coole temp outliers J(+)/UJ(-) if preservation requirements not met	1
Holding Time	Method Specific	Professional Judgment J(+)/UJ(-) if holding time exceeded J(+)/R(-) if HT exceeded by > 3X	1
Initial Calibration	Method specific r>0.995	Use professional judgment J(+)/UJ(-) for r < 0.995	5A
Initial Calibration Verification (ICV)	Where applicable to method Independent source analyzed immediately after calibration %R method specific, usually 90% - 110%	R(+/-) if %R significantly < LCL J(+)/UJ(-) if %R < LCL J(+) if %R > UCL R(+) if %R significantly > UCL	5A
Continuing Cal Verification (CCV)	Where applicable to method Every ten samples, immed. following ICV/ICB and end of run %R method specific, usually 90% - 110%	R(+/-) if %R significantly < LCL J(+)/UJ(-) if %R < LCL J(+) if %R > UCL R(+) if %R significantly > UCL	5B

Initial and Continuing Cal Blanks (ICB/CCB)	Where applicable to method
	After each ICV and CCV every ten samples and end of run
	| blank| < MDL
		Action level is 5x absolute value of blank conc.
		For (+) blanks, U(+) results < action level
		For (-) blanks, J(+)/UJ(-) results < action level
		refer to TM-02 for additional details
			7

Method Blank	One per matrix per batch
	(not to exceed 20 samples)
	blank < MDL
		Action level is 5x absolute value of blank conc.
		For (+) blk value, U(+) results < action level
		For (-) blk value, J(+)/UJ(-) results < action level
			7

Laboratory Control Sample	Waters: One per matrix per batch %R (80-120%)	R(+/-) if %R < 50% J(+)/UJ(-) if %R = 50-79% J(+) if %R >120%	10
	Soils: One per matrix per batch Result within manufacturer's certified acceptance range	J(+)/UJ(-) if < LCL, J(+) if > UCL	10
Matrix Spike	One per matrix per batch; 5% frequency 75-125% for samples less than 4 x spike level	J(+) if %R > 125% or < 75% UJ(-) if %R = 30-74% R(+/-) results < IDL if %R < 30%	8
Laboratory Duplicate	One per matrix per batch RPD <20% for samples > 5x RL Diff <RL for samples >RL and <5 x RL (may use RPD < 35%, Diff < 2X RL for solids)	J(+)/UJ(-) if RPD > 20% or diff > RL all samples in batch	9

EcoChem Validation Guidelines for Conventional Chemistry Analysis
(Based on EPA Standard Methods)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Field Blank	blank < MDL	Action level is 5x blank conc. U(+) sample values < action level in associated field samples only	6
Field Duplicate	For results > 5X RL: Water: RPD < 35% Solid: RPD < 50% For results < 5 x RL: Water: Diff<RL Solid: Diff < 2X RL	J(+)/UJ(-) in parent samples only	9

EcoChem, INC.
Environmental Data Quality

APPENDIX B
DATA VALIDATION REPORTS

DATA VALIDATION REPORT
Portland Harbor RI/FS
Archived Mussel Tissue Study
Semivolatile Organic Compounds - Method SW8270C
Columbia Analytical Services - Kelso

This report documents the review of analytical data from the analyses of archived mussel tissue and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Columbia Analytical Services, Inc., Kelso, Washington.

SDG	No. Samples	Validation Level
K0611011	7 Tissue 1 Equipment Blank	Full

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

2 Holding Times and Sample Receipt
Initial Calibration (ICAL)
Continuing Calibration (CCAL)
2 Laboratory Blanks
1 Equipment Blanks
2 Surrogate Compounds
2 Matrix Spikes/Matrix Spike Duplicates
2 Laboratory Control Samples (LCS/LCSD)
1 Reporting Limits (MDL and MRL)
1 Compound Identification
1 Calculation Verification (full validation only)

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Holding Times and Sample Receipt

The mussel tissue samples were received by the laboratory in May 2006 and stored under archive conditions at -20°C until analyses were requested. All tissue samples were extracted outside the one year hold time. All results and reporting limits were estimated (J/UJ-1).

Laboratory Blanks

To assess the impact of each blank contaminant on the reported sample results, an action level is established at five times the concentration reported in the blank (ten times for common laboratory contaminants). If a contaminant is reported in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-7). If the result is also less than the reporting limit, then the result is elevated to the reporting limit. No action is taken if the sample result is greater than the action level, or for non-detected results.

Method blanks were analyzed at the appropriate frequency. Contaminant levels, associated samples, and action levels are documented in the data validation worksheets. Various target analytes were detected in the method blanks. However, only the following analytes were qualified as not detected in one or more samples in the associated laboratory data sets:

SDG K0611011 - aqueous: Di-n-butyl phthalate (1 result)

Equipment Blanks

Method blanks are used to evaluate all associated equipment blanks. Any remaining positive results in the equipment blanks are used to evaluate all associated samples.

One equipment blank (RinseBlank_20070102) was submitted. A positive result for pyrene was detected. All associated sample results (from PAH analysis by SIM) were greater than the action level, so no qualifiers were required.

Surrogates

The percent recovery (%R) values for the surrogates were within the specified control limits with the exceptions noted below. Qualifiers were only assigned when more than one %R value per fraction (acid or base-neutral) is outside the control limits. If the outliers indicated a potential high bias, only the associated positive results were estimated (J-13). If the outliers indicated a potential low bias, positive results and reporting limits were estimated (J/UJ-13).

The %R values for two base-neutral fraction surrogates (nitrobenzene-d5 and 2-fluorobiphenyl) and one acid surrogate (phenol-d6) were less than the lower control limits in Sample RinseBlank_20070102. All results and reporting limits for base-neutral analytes were estimated (J/UJ-13). There were also single surrogate outliers in the associated method blank and LCS samples. No further qualifiers were required.

Matrix Spike/Matrix Spike Duplicates

One set of matrix spike/matrix spike duplicate (MS/MSD) analyses was performed on Sample LW2-BTFM009 Comp. The MS/MSD %R values for 2-methylphenol were less than the lower control limit. The 2-methylphenol reporting limit was estimated (UJ-8) in the parent sample. The MSD %R values for the following analytes were less than control limits, no qualifiers were applied as the MS,

laboratory control sample (LCS), and LCS duplicate (LCSD) %R values were acceptable: 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, and 1,2,4-trichlorobenzene.

Laboratory Control Sample/Laboratory Control Sample Duplicates

The %R values for many analytes were less than lower control limits in the aqueous matrix LCS/LCSD. The outliers are documented in the data validation worksheets. Results and reporting limits for these compounds were estimated (J/UJ-10) in Sample RinseBlank_20070102.

Reporting Limits (Method Detection Limit and Method Reporting Limit)

Reporting limits were elevated for one or more analytes in all samples. No action was taken other than noting this discrepancy.

Compound Identification

It was noted by the laboratory that 3-methylphenol could not be separated from 4-methylphenol.

Calculation Verification

Calculation verifications were performed on this SDG. No errors were found.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the appropriate analytical method. Accuracy was acceptable, as demonstrated by the surrogate, MS/MSD and LCS/LCSD %R values, with the exceptions noted above. Precision was acceptable as demonstrated by the relative percent difference values for the MS/MSD and LCS/LCSD analyses.

Data were estimated based on holding time outliers. Data were also estimated based on surrogate, LCS/LCSD, and MS/MSD %R outliers. Data were qualified as not detected based on laboratory blank contamination.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
Portland Harbor RI/FS
Archived Mussel Tissue Study
Polyaromatic Hydrocarbons (PAH) by Method SW8270-SIM
Columbia Analytical Services - Kelso

This report documents the review of analytical data from the analyses of archived mussel tissue and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Columbia Analytical Services, Inc., Kelso, Washington.

SDG	No. Samples	Validation Level
K0611011	7 Tissue	Full

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

2	Holding Times and Sample Receipt		Matrix Spikes/Matrix Spike Duplicates
	Initial Calibration (ICAL)		Laboratory Control Samples (LCS/LCSD)
	Continuing Calibration (CCAL)		Reporting Limits (MDL and MRL)
2	Laboratory Blanks		Compound Identification
1	Equipment Blanks	1	Calculation Verification (full validation only)
	Surrogate Compounds		

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Holding Times and Sample Receipt

The mussel tissue samples were received by the laboratory in May 2006 and stored under archive conditions at -20°C until analyses were requested. All tissue samples were extracted outside the one year hold time. All results and reporting limits were estimated (J/UJ-1).

Laboratory Blanks

To assess the impact of each blank contaminant on the reported sample results, an action level is established at five times the concentration reported in the blank (ten times for common laboratory contaminants). If a contaminant is reported in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-7). If the result is also less than the reporting limit, then the result is elevated to the reporting limit. No action is taken if the sample result is greater than the action level, or for non-detected results.

Method blanks were analyzed at the appropriate frequency. Contaminant levels, associated samples, and action levels are documented in the data validation worksheets. Various target analytes were detected in the method blanks. However, only the following analytes were qualified as not detected in one or more samples in the associated laboratory data sets:

SDG K0611011 - tissue: 2-methylnaphthalene (6 results), anthracene (1 result)

Equipment Blanks

The equipment blank associated with the PAH analyses was analyzed using Method SW8270. The validation of this blank is reported in the SVOC report.

Calculation Verification

Calculation verifications were performed on this SDG. No errors were found.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory performed an appropriate analytical method. Accuracy was acceptable, as demonstrated by the surrogate, matrix spike/matrix spike duplicate (MS/MSD), and laboratory control sample/laboratory control sample duplicate (LCS/LCSD) percent recovery values. Precision was acceptable as demonstrated by the relative percent difference values for the MS/MSD and LCS/LCSD analyses.

Data were estimated based on holding time outliers. Data were qualified as not detected based on laboratory blank contamination.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
Portland Harbor RI/FS
Archived Mussel Tissue Study
Organotins - Krone Method
Columbia Analytical Services - Kelso

This report documents the review of analytical data from the analyses of archived mussel tissue and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Columbia Analytical Services, Inc., Kelso, Washington.

SDG	No. Samples	Validation Level
K0611011	7 Tissue 1 Equipment Blank	Full

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%). No errors were found.

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

2 Holding Times and Sample Receipt
Instrument Performance Check
Initial Calibration (ICAL)
Continuing Calibration (CCAL)
Laboratory Blanks
1 Equipment Blanks
Surrogate Compounds
2 Matrix Spikes/Matrix Spike Duplicates (MS/MSD)
2 Laboratory Control Samples (LCS)
Field Duplicate Analyses
Reporting Limits (MDL and MRL)
Compound Identification
1 Calculation Verification (full validation only)

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Holding Times and Sample Receipt

The mussel tissue samples were received by the laboratory in May 2006 and stored under archive conditions at -20°C until analyses were requested. All tissue samples were extracted outside the one year hold time. All results and reporting limits were estimated (J/UJ-1).

Equipment Blanks

Method blanks are used to evaluate all associated equipment blanks. Any remaining positive results in the equipment blanks are used to evaluate all associated samples.

One equipment blank, RinseBlank_20070102, was submitted with this SDG. No target analytes were detected in this blank.

Matrix Spikes/Matrix Spike Duplicates (MS/MSD)

Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on Sample LW2-BTFM009 Comp. The percent recovery (%R) values for n-butyltin and tri-n-butyltin from the MSD sample were greater than the upper control limits. The results for these compounds were estimated (J-8) in the parent sample.

Laboratory Control Sample/Laboratory Control Sample Duplicates

The laboratory control sample (LCS) %R values for di-n-butyltin and tri-n-butyltin were greater than the upper control limits. All associated results for these compounds were estimated (J-10).

Calculation Verification

Calculation verifications were performed on this SDG. No calculation or transcription errors were found.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the surrogate, LCS, and MS/MSD %R values, with the exceptions noted above. Precision was also acceptable as demonstrated by the RPD values for the MS/MSD.

Data were estimated based on holding time outliers. Data were also estimated based on LCS and MS %R outliers.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
Portland Harbor RI/FS
Archived Mussel Tissue Study
Metals - EPA Method 200.8, 6010B, 6020
Mercury - EPA Method 7040, 7471A
Selenium - EPA Method 7742
Columbia Analytical Services - Kelso

This report documents the review of analytical data from the analyses of archived mussel tissue samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Columbia Analytical Services, Inc., Kelso, Washington.

SDG	No. Samples	Validation Level
K0611011	7 Tissue 1 Equipment Blank	Full

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

I. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

2 Holding Times and Sample Preservation
Initial Calibration
Calibration Verification
CRDL Standards
2 Laboratory Blanks
1 Equipment Blanks
1 Laboratory Control Samples
Matrix Spike Samples
Laboratory Replicates
ICPMS Internal Standards
1 Reporting Limits and Reported Results
1 Calculation Verification (Full validation only)

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Holding Times and Sample Preservation

The mussel tissue samples were received by the laboratory in May 2006 and stored at -20°C until analyses were requested. All tissue samples were analyzed outside the QAPP specified holding times of one year for metals and 6 months for mercury. However, the PSDDA/PSEP program holding time for metals in frozen samples is 2 years. The mussel samples were analyzed 13 months after collection. Since the actual hold time for the metals was significantly less than two years, no action was taken for the metals based on the holding time. The mercury samples were analyzed past the QAPP holding time of 6 months, and also past the PSDDA/PSEP program holding time of 28 days. Mercury was detected in all samples; the mercury results were estimated (J-1).

Laboratory Blanks

Various analytes were detected in the method and instrument blanks at levels greater than the method detection limits (MDL). To evaluate the effect on the sample data, action levels of five times the blank concentrations were established. Positive results less than the action levels in the associated samples were qualified as not detected (U) at the reported concentration. No action was taken for non-detects.

In addition, some analytes were found at levels less than the negative MDL in some instrument blanks. For negative blanks, action levels of five times the absolute value of the blank concentrations were established. Results less than the action levels in the associated samples were estimated (J/UJ) to indicate a potential low bias.

For the RinseBlank_20070102 analysis, chromium and silver were detected in the method and/or instrument blanks at levels greater than the MDL. The RinseBlank_20070102 results for chromium and silver were less than the action levels and were qualified as not detected (U-7).

There was a result for mercury in an instrument blank that was less than the negative MDL. Mercury was not detected in the associated sample; the reporting limit was estimated (UJ-7).

Equipment Blanks

One equipment blank, RinseBlank_20070102, was submitted with this SDG. After qualification for laboratory blank contamination, positive results remained for copper, nickel, and zinc. Results for these analytes in the associated samples were greater than the action level of five times the blank concentrations; no action was required.

Laboratory Control Samples

Laboratory control samples (LCS) and Standard Reference Materials (SRM) were analyzed at the proper frequency of one per 20 samples or one per batch; whichever was more frequent. The LCS percent recovery (%R) values were within the QAPP specified control limits of 80%-120%. The SRM recovery values were within the certified acceptance limits with the following exceptions:

Two SRM were analyzed: NRCC Dorm-2 and NRCC Dolt-3. For Dorm-2, the recovery for lead (163%) was greater than the upper control limit. For Dolt-3, the recovery of nickel (167%) was also greater than the upper control limit. No action was taken as there was an acceptable SRM recovery for each analyte.

Reporting Limits and Reported Results

Some samples required additional dilutions due to high concentrations of manganese. All elements that exhibit potential interference from manganese were reported form the dilution. Reporting limits were elevated accordingly. No further action was taken.

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were found.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the LCS, SRM, and matrix spike recovery values, with the exceptions noted above. Precision was also acceptable as demonstrated by the relative percent difference values for the laboratory duplicate analyses.

Data were estimated based on exceeded holding times. Data were qualified as estimated and/or not detected based on laboratory blank results.

All data, as qualified, are acceptable for use.

APPENDIX B2

DATA QUALITY EVALUATION FOR MUSSEL SAMPLE ANALYSES COMPLETED AT AXYS ANALYTICAL

EcoChem, INC.
Environmental Data Quality

DATA QUALITY EVALUATION

PORTLAND HARBOR

MUSSEL COMPOSITE TISSUE

Chlorinated Pesticides - Axys Method MLA-028 Rev 01
Polychlorinated Biphenyl (PCB) Congeners – Axys Method MLA-010 Rev 05
Dioxin/Furan Compounds – Axys Method MLA-017 Rev 12

Prepared for:

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July 17, 2007

Approved for Release:

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DATA QUALITY EVALUATION

BASIS OF DATA EVALUATION

The data were validated using guidance and quality control (QC) criteria documented in the analytical methods; *Guidance on Environmental Data Verification and Validation* (EPA 2002c); *Portland Harbor RI/FS, Round 2, Quality Assurance Project Plan* (QAPP) (Integral 2004)*; Addendum 6: Benthic Invertebrate Tissue* (Integral 2005), and *National Functional Guidelines for Organic Data Review* (USEPA 1999). Additional guidance for polychlorinated biphenyl (PCB) congener data validation was from the *EPA Region 10 SOP for the Validation of Method 1668 Toxic, Dioxin-like PCB Data* (USEPA 1995) and for the dioxin/furan data, *EPA Region 10 SOP for the Validation of Polychlorinated Dibenzodioxin (PCDD) and Polychlorinated Dibenzofuran (PCDF) Data* (EPA 1996).

Data qualifier definitions, reason codes, and validation criteria are included as **Appendix A**. Data validation reports, which discuss individual findings for each quality control element [by sample delivery group (SDG)], are provided in **Appendix B**. Data validation worksheets and communication records are organized by SDG and will be kept on file at EcoChem.

PROCESS FOR DATA VALIDATION

All electronic data deliverable files (EDD) were verified by comparing 100% of the field sample results and 10% of the QC sample results to the hardcopy data package.

These data packages received a Level III validation, which included evaluation (as appropriate for each method) of:

- Package completeness
- Sample chain-of-custody and sample preservation
- Analytical holding times
- Blank contamination
- Precision (replicate analyses)
- Accuracy (compound recovery)
- Chromatogram review (pesticide fractions)
- Detection limits
- Instrument performance (initial calibration, continuing calibration, tuning, sensitivity and degradation)

A dual-tier system of primary and secondary reviewers is utilized to ensure technical correctness and QC of the validation process; and all data validation is documented using standardized and controlled validation worksheets and spreadsheets. These worksheets are completed for each SDG, documenting all deficiencies, outliers and subsequent qualifiers.

After qualifiers are entered into the EcoChem database, a second party verifies 100% of the qualifier entry. Interpretive qualifiers are then applied to the field samples and qualified data is exported to the project database (Integral).

SUMMARY OF DATA VALIDATION: PESTICIDE COMPOUNDS

Seven mussel composite tissue samples were analyzed for chlorinated pesticide compounds for the Portland Harbor Phase 2 RI/FS Benthic Invertebrate Tissues study. Axys Analytical, Sidney, British Columbia, completed the pesticide analyses.

The pesticide data for the tissue samples were generally acceptable. Three data points (1.53% of all mussel tissue pesticides results) were of unacceptable quality and were rejected (R). All other data points were estimated (J/UJ) because control limits were exceeded in one or more laboratory quality control (QC) samples or procedures. These qualified data points may have a larger associated bias or may be less precise than unqualified data, but are usable for the intended purpose.

The data were evaluated in terms of completeness, holding times, instrument performance, bias, and precision. The results of the QC procedures used during sample analyses are discussed below.

Completeness of Data Set

Completeness is defined as the total number of usable results (results that were not rejected during data validation) divided by the total results reported by the laboratory. The results reported by the laboratory were 98.5% complete for the mussel tissue pesticide analyses.

Holding Times and Sample Preservation

All samples were extracted 3 months beyond the specified holding time of 1 year from the date of collection. Due to this, all results were estimated (J/UJ) unless rejected due to another reason.

Instrument Performance

Calibrations

The analyte hexachlorobutadiene was not included in the standards used for the calibrations. Hexachlorobutadiene was not detected in any sample. The four hexachlorobutadiene reporting limits that were not previously rejected were estimated (UJ) based on the lack of an acceptable calibration.

Initial and continuing calibrations were completed for all other reported analytes at the proper frequency. All initial and continuing calibrations met all acceptance criteria.

Endrin/DDT Breakdown

Breakdown evaluation mixtures were analyzed at the proper frequency to measure percent breakdown of 4,4'-DDT and endrin. All percent breakdown values met the acceptance criteria.

Method Blank Analyses

To assess the impact of each blank contaminant on the reported sample results, an action level is established at five times (5x) the concentration detected in the blank. If a contaminant is detected in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U). If the result is also less than the reporting limit, then the result is elevated to the reporting limit. No action is taken if the sample result is greater than the action level, or for non-detected results.

Two target analytes (delta-BHC and methoxychlor) were detected in the tissue method blank. One delta-BHC result and two methoxychlor results were qualified as not detected due to method blank contamination. Two target analytes (aldrin and hexachlorobenzene) were detected in the method blank associated with the rinse blank. One aldrin and one hexachlorobenzene result were qualified as not detected in the rinse blank.

Accuracy

Labeled Compound Recovery

One labeled compound ($^{13}C_{12}$-1,2,3-trichlorobenzene) was not recovered in three mussel tissue samples. This labeled compound was flagged as "NQ" (not quantifiable) by the laboratory. The quantitation of hexachlorobutadiene is associated with this labeled compound. Due to the significant low bias, the hexachlorobutadiene reporting limit was rejected (R). The $^{13}C_{12}$-1,2,3-trichlorobenzene percent recovery (%R) values were less than the lower control limit in four samples. Hexachlorobutadiene was not detected. The hexachlorobutadiene reporting limits results were estimated (UJ) in these samples.

Matrix Spike Recovery

Matrix and duplicate matrix spike (MS/MSD) analyses were not performed. Accuracy was assessed using the labeled compound and ongoing precision and recovery (OPR) analyses.

Ongoing Precision and Recovery Sample Recovery

Hexachlorobutadiene was not added to any OPR analysis. Hexachlorobutadiene was not detected in any sample. The four hexachlorobutadiene reporting limits that were not previously rejected were estimated (UJ) based on the lack of acceptable precision/accuracy results. For all other compounds, the OPR recovery values were acceptable.

Precision

OPR/OPR Duplicate analyses were evaluated for laboratory precision. All relative percent difference (RPD) values were acceptable.

Method Detection Limits and Method Reporting Limits

To meet the project analytical concentration goals (ACG), the laboratory reporting limits (MRLs) were based on the method detection limits (MDLs), adjusted for sample size, percent moisture, and any dilution factor. These MRLs ranged from 0.000865 µg/Kg to 0.426 µg/Kg for the non-detected results. With the exception of three alpha-BHC results, the ACG were met for all non-detects.

Compound Identification

Several different flags were used by the laboratory to provide information about the reported results. A "K" flag indicates that a peak was detected at the correct retention time for the target analyte; however, the ion abundance ratio criteria were not met. The reported result is an estimated maximum possible concentration value, which is essentially an elevated detection limit. Data flagged "K" by the laboratory were qualified as not detected (U) to make this relationship clear to the data user. A total of 33 results (16.8%) were qualified.

Field Quality Control Samples

Field QC samples collected for the benthic tissue study included a rinse blank. The results for the field QC samples are discussed in the following section.

Rinse Blanks

A rinse blank was submitted with the mussel composite samples. No positive results remained in the rinse blank after qualification for method blank contamination. No data were qualified based on rinsate blank contamination.

SUMMARY OF DATA VALIDATION: PCB CONGENERS

Seven mussel composite tissue samples were analyzed for polychlorinated biphenyl (PCB) congeners for the Portland Harbor Phase 2 RI/FS Benthic Invertebrate Tissues study. Axys Analytical, Sidney, British Columbia, completed the PCB congener analyses.

The PCB congener data for the tissue samples were generally acceptable. Eight data points (0.69% of all mussel tissue PCB congener results) were of unacceptable quality and were rejected (R). Thirty-six (36) data points (3.1% of all mussel tissue PCB congener results) were estimated (J/UJ/NJ) because control limits were exceeded in one or more laboratory quality control (QC) samples or procedures. These qualified data points may have a larger associated bias or may be less precise than unqualified data, but are usable for the intended purpose.

The laboratory data were evaluated in terms of completeness, holding times, instrument performance, bias, and precision. The results of the QC procedures used during sample analyses are discussed below.

Completeness of Data Set

Completeness is defined as the total number of usable results (results that were not rejected during data validation) divided by the total results reported by the laboratory. The results reported by the laboratory were 99.3% complete for the mussel tissue PCB congener analyses.

Holding Times and Sample Preservation

The mussel tissue samples were originally collected between 12/6/2005 and 12/13/2005, and stored under archive conditions at -20°C until analyses were requested. All tissue samples were extracted 3 months beyond the 1 year hold time. Since the samples were stored properly and as PCB congeners are extremely persistent compounds, no qualifiers were issued based on holding time.

Instrument Performance

Initial and continuing calibrations were completed for all target analytes and met the criteria for frequency of analysis. All calibrations met all acceptance criteria.

All other instrument performance criteria were met by the laboratory.

Method Blank Analyses

To assess the impact of each blank contaminant on the reported sample results, an action level is established at five times (5x) the concentration detected in the blank. If a contaminant is detected in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U). If the result is also less than the reporting limit, then the result is elevated to the reporting limit. No action is taken if the sample result is greater than the action level, or for non-detected results.

Method blanks were analyzed at the appropriate frequency. A total of 46 target analytes were detected in the blank. However, these compounds were either not detected, or were present at concentrations greater than the action level in the mussel tissue sample. No action was necessary.

Accuracy

Labeled Compound Recovery

Labeled compounds were added to the field and QC samples. The percent recovery (%R) values were less than the lower control limit (but greater than 10%) for 15 labeled compounds. The 15 associated native congener results (1.3% of tissue PCB congener results) were estimated (J/UJ) based on these outliers. Eight (8) results (0.69%) were rejected (R) when %R values were less than 10%.

Matrix Spike Recovery

Matrix and duplicate matrix spike (MS/MSD) analyses were not performed. Accuracy was assessed using the labeled compound and ongoing precision and recovery (OPR) analyses.

Ongoing Precision and Recovery Sample Recovery

OPR analyses met the criteria for frequency of analysis. The recovery values reported by the laboratory met the criteria for acceptable performance.

Precision

OPR/OPR Duplicate analyses were evaluated for laboratory precision. All relative percent difference (RPD) values met the criteria for acceptable performance.

Method Detection Limits and Method Reporting Limits

To meet the project analytical concentration goals (ACG), the laboratory reported non-detects at the detection limits, adjusted for sample size and any dilution factor. These method reporting limits (MRLs) range from 0.0509 pg/g to 11.1 pg/g for the non-detected results.

Compound Identification

Different flags were used by the laboratory to provide information about the reported results. A "K" flag indicates that a peak was detected at the correct retention time for the target analyte; however, the ion abundance ratio criteria were not met. The reported result is an estimated maximum possible concentration value, which is essentially an elevated detection limit. Data flagged "K" by the laboratory were qualified as not detected (U) to make this relationship clear to the data user. A total of 73 results (6.3%) were qualified.

For the Aroclors, the laboratory reported default identifications for Aroclors 1242, 1254, and 1260. Although the case narrative (and additional emailed communications from the laboratory) state that the Aroclors are reported as a "mixture" (Aroclors 1242/1254/1260), discrete concentrations are reported for each Aroclor. The values reported for Aroclors were calculated by summing the concentrations of specified PCB congeners for each Aroclor, and multiplying the summed concentration against a laboratory-derived correction factor. Aroclor standards were not analyzed, and no reconstructed ion chromatograms were submitted to review for the presence of potential Aroclor patterns. Only the HRMS single-ion chromatograms were submitted. For these reasons all positive Aroclor results were qualified as estimated and tentatively identified (NJ). The 22 positive Aroclor results (1.89% of PCB results) were qualified as tentatively identified at estimated concentrations.

Field Quality Control Samples

Field QC samples collected for the benthic tissue study included rinse blanks. The results for the field QC samples are discussed in the following section.

Rinse Blanks

A rinse blank was submitted with the mussel composite samples. In all cases, analytes present in the rinse blank were either not detected or were present at concentrations greater than the action levels in the mussel composite samples. No data were qualified based on rinsate blank contamination.

SUMMARY OF DATA VALIDATION: DIOXIN/FURAN COMPOUNDS

Seven mussel composite tissue samples were analyzed for dioxin and furan compounds for the Portland Harbor Phase 2 RI/FS Benthic Invertebrate Tissues study. Axys Analytical, Sidney, British Columbia, completed the analyses.

The dioxin/furan data for the tissue samples were generally acceptable. No data were rejected or estimated for any reason. Thirty-three (33) data points (18.9% of all mussel tissue dioxin/furan results) were qualified as not detected (U).

The laboratory data were evaluated in terms of completeness, holding times, instrument performance, bias, and precision. The results of the quality control (QC) procedures used during sample analyses are discussed below.

Completeness of Data Set

Completeness is defined as the total number of usable results (results that were not rejected during data validation) divided by the total results reported by the laboratory. The results reported by the laboratory were 100% complete for the tissue dioxin/furan analyses.

Holding Times and Sample Preservation

The mussel tissue samples were originally collected between 12/6/2005 and 12/13/2005, and stored under archive conditions at -20°C until analyses were requested. All tissue samples were extracted 3 months beyond the 1 year hold time. Since the samples were stored properly and as dioxin/furan compounds are extremely persistent, no qualifiers were issued based on holding time.

Instrument Performance

Initial and continuing calibrations were completed for all target analytes and met the criteria for frequency of analysis. All calibrations met all acceptance criteria.

Method Blank Analyses

To assess the impact of each blank contaminant on the reported sample results, an action level is established at five times (5x) the concentration detected in the blank. If a contaminant is detected in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U). If the result is also less than the reporting limit, then the result is elevated to the reporting limit. No action is taken if the sample result is greater than the action level, or for non-detected results.

Method blanks are used to evaluate all associated samples, including field blanks. Any remaining positive results in the field blanks are used to evaluate all associated samples.

Method blanks were analyzed at the appropriate frequency. Although several target analytes were detected in the method blank, none of the field sample results were qualified based on method blank contamination.

Accuracy

Labeled Compound Recovery

Labeled compounds were added to all field and QC samples. All of the recovery values reported by the laboratory met the criteria for acceptable performance.

Matrix Spike Recovery

Matrix and duplicate matrix spike (MS/MSD) analyses were not performed. Accuracy was assessed using the labeled compound and ongoing precision and recovery (OPR) analyses.

Ongoing Precision and Recovery Sample Recovery

OPR analyses met the criteria for frequency of analysis. All of the recovery values reported by the laboratory met the criteria for acceptable performance.

Precision

OPR/OPR Duplicate analyses were evaluated for laboratory precision. All relative percent difference (RPD) values were acceptable.

Method Detection Limits and Method Reporting Limits

To meet the project analytical concentration goals (ACG), the laboratory reporting limits (MRLs) were based on the method detection limits (MDLs), adjusted for sample size, percent moisture, and any dilution factor. These MRLs ranged from 0.0311 ng/Kg to 0.493 ng/Kg for the non-detected results. The ACG were not met for the non-detects; however, the QAPP notes that the MRL were not expected to meet the ACG for most dioxin/furan compounds. No action was taken.

Compound Identification

Different flags were used by the laboratory to provide information about the reported results. A "K" flag indicates that a peak was detected at the correct retention time for the target analyte; however, the ion abundance ratio criteria were not met. The reported result is an estimated maximum possible concentration value, which is essentially an elevated detection limit. Data flagged "K" by the laboratory were qualified as not detected (U) to make this relationship clear to the data user. Thirty-three (33) data points (18.9% of all mussel tissue dioxin/furan data points) were qualified as not detected because the ion abundance ratio criteria were not met.

Field Quality Control Samples

Field QC samples collected for the benthic tissue study included rinse blanks. The results for the field QC samples are discussed in the following section.

Rinse Blanks

A rinse blank was submitted with the mussel composite samples. After qualification for method blank contamination no positive results remained in the rinse blank. No data were qualified based on rinsate blank contamination.

EcoChem, INC.
Environmental Data Quality

APPENDIX A

DATA QUALIFIER DEFINITIONS, REASON CODES, AND CRITERIA TABLES

DATA VALIDATION QUALIFIER CODES
National Functional Guidelines

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents the approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The following is an EcoChem qualifier that may also be assigned during the data review process:

DNR	Do not report; a more appropriate result is reported from another analysis or dilution.

DATA QUALIFIER REASON CODES

1	Holding Time/Sample Preservation
2	Chromatographic pattern in sample does not match pattern of calibration standard.
3	Compound Confirmation
4	Tentatively Identified Compound (TIC) (associated with NJ only)
5A	Calibration (initial)
5B	Calibration (continuing)
6	Field Blank Contamination
7	Lab Blank Contamination (e.g., method blank, instrument, etc.)
8	Matrix Spike(MS & MSD) Recoveries
9	Precision (all replicates)
10	Laboratory Control Sample Recoveries
11	A more appropriate result is reported (associated with "R" and "DNR" only)
12	Reference Material
13	Surrogate Spike Recoveries (a.k.a., labeled compounds & recovery standards)
14	Other (define in validation report)
15	GFAA Post Digestion Spike Recoveries
16	ICP Serial Dilution % Difference
17	ICP Interference Check Standard Recovery
18	Trip Blank Contamination
19	Internal Standard Performance (e.g., area, retention time, recovery)
20	Linear Range Exceeded
21	Potential False Positives

Integral - Portland Harbor Site
Compounds Analyzed By HRMS (Methods 1613B or SW846 - 8290)
Polycyclic Aromatic Hydrocarbons (PAH), PCB Congeners and Dioxins/Furans

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler/Storage Temperature	Aqueous/Soil/Sediment <4°C Tissues <-10°C	**EcoChem PJ, see TM-05**	1
Holding Time	Water: 30 days from collection Soil: 30 days from collection Analysis: 40 days from extraction Note: Under CWA, SDWA, and RCRA the HT for H2O is 7 days	J(+)/UJ(-) if ext > 30 days J(+)/UJ(-) if analysis > 40 Days **EcoChem PJ, see TM-05**	1
Mass Resolution	>=10,000 resolving power at m/z 304.9824 Exact mass of m/z 380.9760 w/in 5 ppm of theoretical value (380.97410 to 380.97790) . Analyzed prior to ICAL and at the start and end of each 12 hr. shift	R(+/-) if not met	14
Window Defining Mix and Column Performance Mix	Window defining mixture/Isomer specificity std run before ICAL and CCAL Valley < 25% (valley = (x/y)*100%) x = ht. of TCDD y = baseline to bottom of valley For all isomers eluting near 2378-TCDD/TCDF isomers (TCDD only for 8290)	J(+) if valley > 25%	5A (ICAL) 5B (CCAL
Initial Calibration	ICAL: Minimum of five standards %RSD < 20% for native compounds %RSD <30% for labeled compounds (%RSD <35% for labeled compounds under 1613b)	J(+) natives if %RSD > 20%	5A
	Abs. RT of $^{13}C_{12}$-1234-TCDD >25 min on DB5 >15 min on DB-225	**EcoChem PJ, see TM-05**	
	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	**EcoChem PJ, see TM-05**	
	S/N ratio > 10 for all native and labeled compounds in CS1 std.	If <10, elevate Det. Limit or R(-)	

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Integral - Portland Harbor Site
Compounds Analyzed By HRMS (Methods 1613B or SW846 - 8290)
Polycyclic Aromatic Hydrocarbons (PAH), PCB Congeners and Dioxins/Furans

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Continuing Calibration	Analyzed at the start and end of each 12 hour shift. %D+/-20% for native compounds %D +/-30% for labeled compounds (Must meet limits in Table 6 for 1613B) (If %D in the closing CCAL are w/in 25%/35%, the avg RF from the 2 CCAL may be used to calculate samples per Section 8.3.2.4 of 8290)	**Do not qualify labeled compounds.** Narrate in report for labeled compound %D outliers. **For native compound %D outliers:** *Method 8290:* J(+)/UJ(-) if %D = 20% - 75% J(+)/R(-) if %D > 75% *Method 1613:* J(+)/UJ(-) if %D is outside Table 6 limits J(+)/R(-) if %D is +/- 75% of Table 6 limit	5B
	Abs. RT of $^{13}C_{12}$-1234-TCDD and ^{13}C12-123789-HxCDD +/- 15 sec of ICAL.	**EcoChem PJ, see ICAL section of TM-05**	
	RRT of all other compounds must meet table 2 of 1613B.	**EcoChem PJ, see TM-05**	
	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	**EcoChem PJ, see TM-05**	
	S/N ratio > 10	If <10, elevate Det. Limit or R(-)	
Method Blank	One per matrix per batch No positive results	If sample result <5X action level, qualify U at reported value. (<10X for phthalates)	7
Field Blanks	No results > QL	Apply 5X rule; U(+) < action level	6
LCS / OPR	Concentrations must meet limits in Table 6 of method 1613B or lab limits.	J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) using PJ if %R <<LCL (< 10%)	10
MS/MSD (recovery)	May not analyze MS/MSD %R should meet lab limits.	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% **PJ if only one %R outlier**	8

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Integral - Portland Harbor Site
Compounds Analyzed By HRMS (Methods 1613B or SW846 - 8290)
Polycyclic Aromatic Hydrocarbons (PAH), PCB Congeners and Dioxins/Furans

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
MS/MSD (RPD)	May not analyze MS/MSD RPD < 20%	J(+) if RPD > CL	9
Lab Duplicate	RPD <25% if present.	J(+) if outside limts	9
Labeled Compounds / Internal Standards	*Method 8290:* %R = 40% - 135% in all samples *Method 1613B:* %R must meet limits specified inTable 7	J(+)/UJ(-) if %R = 10% to LCL J(+) if %R > UCL J(+)/R(-) if %R < 10%	13
Quantitation/ Identification	Ions for analyte, IS, and rec. std. must max w/in 2 sec. S/N >2.5 IA ratios meet limits in Table 9 of 1613B or Table 8 of 8290 RRTs w/in limits in table 2 of 1613B	If RT criteria not met, use PJ (**see TM-05**) If S/N criteria not met, J(+). if unlabelled ion abundance not met, change to EMPC If labelled ion abundance not met, J(+).	21
EMPC (estimated maximum possible concentration)	If quantitation identification criteria are not met, laboratory should report an EMPC value.	If laboratory correctly reported an EMPC value, qualify with U to indicate that the value is a detection limit.	14
Interferences	PCDF interferences from PCDPE	If both detected, change PCDF result to EMPC	14
Second Column Confirmation	All 2378-TCDF hits must be confirmed on a DB-225 column (or equiv). All QC specs in this table must be met for the confirmation analysis.	Report lower of the two values. If not performed use PJ (**see TM-05**).	3
Field Duplicates	QAPP specified RPD < 50% (all matrices)	Narrate; do not qualify	na
Two analyses for one sample	Report only one result per analyte	"DNR" results that should not be used	11

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Environmental Data Quality

APPENDIX B
DATA VALIDATION REPORTS

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DATA VALIDATION REPORT
Portland Harbor RI/FS
Benthic Mussel Tissue
Chlorinated Pesticides by Axys Method MLA-028

This report documents the review of analytical data from the analyses of benthic mussel tissue samples and the associated laboratory and field quality control (QC) samples. Axys Analytical Services, Ltd., Sidney, British Columbia, Canada, analyzed the samples.

SDG	No. Samples	Validation Level
WG21537	7 Tissue	Full
WG21592	1 Rinse Blank	Screening

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

2	Holding Times and Sample Receipt	1	Matrix Spikes/Matrix Spike Duplicates (MS/MSD)
2	Initial Calibration (ICAL)	2	Ongoing Precision and Recovery (OPR)
2	Continuing Calibration (CCAL)		DDT/Endrin Breakdown
2	Laboratory Blanks	2	Compound Identification
1	Field Blanks	1	Reporting Limits (MDL and MRL)
2	Labeled Compounds	1	Calculation Verification (full validation only)

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Holding Times and Sample Receipt

The mussel tissue samples were received by the laboratory in February 2007 and stored under archive conditions at -20°C until analyses were requested. All tissue samples were 3 months beyond the 1 year hold time. All pesticides results were estimated (J/UJ-1).

Initial Calibration

All percent relative standard deviation (%RSD) values were within the control limits.

The analyte hexachlorobutadiene was not included in the standards used for calibration. The values reported of this analyte were based on the response of 1,2,4-trichlorobenzene and an experimentally determined ratio of the response of hexachlorobutadiene to that of 1,2,4-trichlorobenzene. All values and/or reporting limits for hexachlorobutadiene were estimated (U/UJ-5A).

Continuing Calibration

All percent difference (%D) values were within the control limit of ±25%.

The analyte hexachlorobutadiene was not included in the continuing calibration standards. All values and/or reporting limits for hexachlorobutadiene were estimated (J/UJ-5B).

Laboratory Blanks

To assess the impact of each blank contaminant on the reported sample results, an action level is established at five times the concentration detected in the blank. If a contaminant is detected in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-7). If the result is also less than the reporting limit, then the result is elevated to the reporting limit. No action is taken if the sample result is greater than the action level, or for non-detected results.

Method blanks were analyzed at the appropriate frequency. A summary of contaminant levels, associated samples, and action levels is provided in the data validation worksheets. Various target analytes were detected in the method blanks. However, only the following analytes were qualified as not detected in one or more samples in the associated laboratory data set:

SDG WG21537: delta-BHC (1 result) & methoxychlor (2 results)

SDG WG21592: aldrin (1 result) & hexachlorobenzene (1 result)

Field Blanks

Method blanks are used to evaluate all associated samples, including field blanks. Any remaining positive results in the field blanks are used to evaluate all samples. If a contaminant is reported in any field sample and the concentration is less than the action level, the result is qualified as not detected (U-6).

SDG WG21592: One field blank (Rinse Blank) was reported. No positive results remained after qualification for laboratory method blank contamination.

Labeled Compounds

SDG WG21537: The percent recovery (%R) value for $^{13}C_{12}$-1,2,3-trichlorobenzene was less than the lower control limit in the laboratory method blank and all samples. The quantitation of

hexachlorobutadiene is associated with this labeled compound. Hexachlorobutadiene results were qualified as estimated (J/UJ-13) based on these outliers. These results were rejected (R-13) when %R values were below 10% (in Samples LW2-BTFM 001 Comp, LW2-BTFM 025 Comp, and LW2-BTFM 033 Comp). No qualifiers are assigned to QC samples.

Matrix Spikes/Matrix Spike Duplicates

No matrix spike/matrix spike duplicate (MS/MSD) sets were performed. Accuracy and precision were assessed using labeled compound recovery, ongoing precision and recovery samples (OPR), and ongoing precision and recovery duplicate samples.

Ongoing Precision and Recovery

SDG WG21537: Hexachlorobutadiene was not included in the spiking mix. For three samples in this SDG, hexachlorobutadiene was flagged "NQ" by the laboratory to indicate data for this analyte were not quantifiable. These results were rejected (R-13). For Samples LW2-BTFM 004 Comp, LW2-BTFM 006 Comp, LW2-BTFM 009 Comp, and LW2-BTFM 021 Comp, hexachlorobutadiene was reported as not detected (U) at the reporting limit. These results were estimated (UJ-10).

Compound Identification

The laboratory assigned a "K" flag to one or more analytes in all samples to indicate the ion ratio criterion were not met. Since the ion abundance ratio is the primary identification criterion for high resolution mass spectroscopy, an outlier indicates that the reported result may be a false positive. Due to this, these results were qualified as not detected (U-21) at the reported concentration.

Reporting Limits (Method Detection Limit and Method Reporting Limit)

To meet the project analytical concentration goals (ACG), the laboratory reporting limits (MRLs) were based on the method detection limits (MDLs), adjusted for sample size, percent moisture, and any dilution factor. These MRLs ranged from 0.000865 µg/Kg to 0.426 µg/Kg for the non-detected results. With the exception of three alpha-BHC results, the ACG were met for all non-detects.

Additionally, toxaphene is listed as a target analyte in the QAPP, but no toxaphene analysis was performed.

Calculation Verification

SDG WG21537: A full (Level IV) validation was performed this SDG. No anomalies were identified.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method.

Accuracy was acceptable, as demonstrated by the labeled compound and OPR %R values, with the exceptions noted above. Precision was acceptable, as demonstrated by the OPR duplicate analyses RPD values.

Data were estimated due to holding time outliers, labeled compound recovery outliers, and due to an analyte not being included in the calibration standards and OPR. Data were qualified as not detected due to ion ratio criteria outliers and contamination in the associated laboratory blanks.

Results which were not quantitated (due to non-recovery of surrogates) were rejected. Rejected data are not useable for any purpose.

All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
Portland Harbor RI/FS
Benthic Mussel Tissue
PCB Congeners by Axys Method MLA-010 (EPA 1668A)

This report documents the review of analytical data from the analyses of benthic mussel tissue samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Axys Analytical Services, Ltd. Sidney, British Columbia, Canada

SDG	No. Samples	Validation Level
WG21537	7 Tissue	Full
WG21592	1 Rinse Blank	Screening

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A 10% verification of the PCB congener electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

1 Holding Times and Sample Receipt
Initial Calibration (ICAL)
Continuing Calibration (CCAL)
2 Laboratory Blanks
1 Field Blanks
2 Labeled Compounds
1 Matrix Spikes/Matrix Spike Duplicates (MS/MSD)
Ongoing Precision and Recovery (OPR)
2 Compound Identification
1 Reporting Limits (MDL and MRL)
1 Calculation Verification (full validation only)

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Holding Times and Sample Receipt

The mussel tissue samples were originally collected between 12/6/2005 and 12/13/2005, and stored under archive conditions at -20°C until analyses were requested. All tissue samples were extracted 3 months beyond the 1 year hold time. Since the samples were stored properly and as PCB congeners are extremely persistent compounds, no qualifiers were issued based on holding time.

Laboratory Blanks

To assess the impact of each blank contaminant on the reported sample results, an action level is established at five times the concentration detected in the blank. If a contaminant is detected in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-7). If the result is also less than the reporting limit, then the result is elevated to the reporting limit. No action is taken if the sample result is greater than the action level, or for non-detected results.

Method blanks were analyzed at the appropriate frequency. A summary of contaminant levels, associated samples, and action levels is provided in the data validation worksheets. Various target analytes were detected in the method blanks. However, only the following analytes were qualified as not detected in one or more samples in the associated laboratory data set:

SDG WG21537: Results for several target analytes were reported in the method blank. All positive results in the field samples were greater than the action levels. No qualifiers were required.

SDG WG21592: Results for several target analytes were reported in the method blank. Positive results less than the action levels were qualified as not detected (U-7) in the rinse blank sample.

Field Blanks

Method blanks are used to evaluate all associated samples, including field blanks. Any remaining positive results in the field blanks are used to evaluate all samples. If a contaminant is reported in any field sample and the concentration is less than the action level, the result is qualified as not detected (U-6).

SDG WG21592: One field blank (Rinse Blank) was reported. Results for several target analytes remained in this blank. All positive results in the associated samples were greater than the action levels. No qualifiers were required.

Labeled Compounds

SDG WG21537: The percent recovery (%R) values for labeled congeners were less than the lower control limit in the samples listed below. The associated native congener results were estimated (J/UJ-13) based on these outliers. These results were rejected (R-13) when %R values were less than 10%.

Sample Name	Labeled Congener	Percent Recovery	Bias	Qualifier
LW2-BTFM 004 Comp	$^{13}C_{12}$-PCB 1	13%	Low	J-13
	$^{13}C_{12}$-PCB 4	18.3%	Low	J-13
LW2-BTFM 006 Comp	$^{13}C_{12}$-PCB 4	23.6%	Low	J-13
LW2-BTFM 009 Comp	$^{13}C_{12}$-PCB 1	<10%	Low	R-13
	$^{13}C_{12}$-PCB 3	11.7%	Low	J-13
	$^{13}C_{12}$-PCB 4	12.3%	Low	J-13
	$^{13}C_{12}$-PCB 19	20.7%	Low	J-13

Sample Name	Labeled Congener	Percent Recovery	Bias	Qualifier
LW2-BTFM 025 Comp	$^{13}C_{12}$-PCB 1	<10%	Low	R-13
	$^{13}C_{12}$-PCB 3	10.6%	Low	UJ-13
	$^{13}C_{12}$-PCB 4	12.2%	Low	J-13
	$^{13}C_{12}$-PCB 19	20.4%	Low	J-13
LW2-BTFM 033 Comp	$^{13}C_{12}$-PCB 1	<10%	Low	R-13
	$^{13}C_{12}$-PCB 3	11.6%	Low	J-13
	$^{13}C_{12}$-PCB 4	12.0%	Low	J-13
	$^{13}C_{12}$-PCB 19	19.6%	Low	J-13
LW2-BTFM 021 Comp	$^{13}C_{12}$-PCB 1	<10%	Low	R-13
	$^{13}C_{12}$-PCB 3	11.6%	Low	J-13
	$^{13}C_{12}$-PCB 4	12.8%	Low	J-13
	$^{13}C_{12}$-PCB 19	23.3%	Low	J-13

Matrix Spikes/Matrix Spike Duplicates

No matrix spike/matrix spike duplicate (MS/MSD) sets were performed. Accuracy and precision were assessed using labeled compound recovery, ongoing precision and recovery samples (OPR), and ongoing precision and recovery duplicate samples.

Compound Identification

The laboratory assigned a "K" flag to one or more analytes in all samples to indicate the ion abundance ratio criteria were not met. Since the ion abundance ratio is the primary identification criterion for high resolution mass spectroscopy, an outlier indicates that the reported result may be a false positive. Due to this, these results were qualified as not detected (U-21).

The laboratory did not include Aroclor identification standards to assess pattern matching. Additionally, values reported for Aroclors were calculated from PCB congener results using a laboratory-derived calculation factor, instead of an Aroclor specific response factor. Therefore, all positive Aroclor results were qualified as estimated and tentatively identified (NJ-14).

The PCB 86/87/97/108/119/125 co-elution in all samples was flagged "G" by the laboratory to indicate a potential interferent. The laboratory case narrative states that the interferent is due to the presence of a pesticide surrogate, and that a dilution study proved that the presence of the surrogate would not impact the reported results. The potential interferent peak is small, and elutes slightly after the co-elution peak. The reviewer determined that the potential interferent would not significantly impact the reported results, and no further action was taken.

Reporting Limits (Method Detection Limit and Method Reporting Limit)

SDG WG20181 & WG20301: Some analytes were reported from dilution analyses. Reporting limits were adjusted accordingly.

Calculation Verification

SDG WG20158: A full (Level IV) validation was performed on this SDG. No calculation or transcription errors were found.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the labeled compound and OPR %R values, with the exceptions noted above. Precision was not measured by the laboratory and could not be assessed.

Data were estimated due to a labeled compound recovery outlier. Data were qualified as not detected due to ion ratio criteria outliers and contamination from the associated laboratory blanks. Aroclor results were qualified as tentatively identified at estimated concentrations.

Data were rejected based on low labeled compound recovery values.

Rejected data are not usable for any purpose. All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
Portland Harbor RI/FS
Benthic Mussel Tissue
Dioxin & Furan Compounds by Axys Method MLA-017 (EPA 1613B)

This report documents the review of analytical data from the analyses of mussel tissue samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Axys Analytical Services, Ltd. of Sidney, British Columbia, Canada.

SDG	No. Samples	Validation Level
WG21537	7 Tissue	Full
WG21592	1 Rinse Blank	Screening

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

1 Holding Times and Sample Receipt
Initial Calibration (ICAL)
Continuing Calibration (CCAL)
2 Laboratory Blanks
1 Field Blanks
Labeled Compounds
1 Matrix Spikes/Matrix Spike Duplicates (MS/MSD)
Ongoing Precision and Recovery (OPR)
2 Compound Identification
Reporting Limits (MDL and MRL)
1 Calculation Verification (full validation only)

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Holding Times and Sample Receipt

The mussel tissue samples were originally collected between 12/6/2005 and 12/13/2005, and stored under archive conditions at -20°C until analyses were requested. All tissue samples were extracted 3 months beyond the 1 year hold time. Since the samples were stored properly and as dioxin/furan compounds are extremely persistent, no qualifiers were issued based on holding time.

Laboratory Blanks

To assess the impact of each blank contaminant on the reported sample results, an action level is established at five times (5x) the concentration detected in the blank. If a contaminant is detected in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-7). If the result is also less than the reporting limit, then the result is elevated to the reporting limit. No action is taken if the sample result is greater than the action level, or for non-detected results.

Method blanks were analyzed at the appropriate frequency. Contaminant levels, associated samples, and action levels are documented in the data validation worksheets. Various target analytes were detected in the method blanks. However, only the following analytes were qualified as not detected in one or more samples in the associated laboratory data sets.

WG21592: OCDD (1 result)

Field Blanks

Method blanks are used to evaluate all associated samples, including field blanks. Any remaining positive results in the field blanks are used to evaluate all samples. If a contaminant is reported in any field sample and the concentration is less than the action level, the result is qualified as not detected (U-6).

WG21592: One field blank (Rinse Blank) was reported. No positive results were detected in this blank after qualifiers based on the laboratory blanks were assigned.

Matrix Spike/Matrix Spike Duplicates

No matrix spike/matrix spike duplicate (MS/MSD) sets were performed. Accuracy and precision were assessed using labeled compound recovery, ongoing precision and recovery samples (OPR), and ongoing precision and recovery duplicate samples.

Compound Identification

The laboratory assigned a" K" flag to one or more analytes in all samples to indicate the ion ratio criterion were not met. Since the ion abundance ratio is the primary identification criterion for high resolution mass spectroscopy, an outlier indicates that the reported result may be a false positive. Due to this, the results were qualified as not detected (U-21).

All results for 2,3,7,8-TCDF were confirmed on a DB-225 column as required by the method. Both sets of results (from the DB-5 and DB-225 columns) were reported. The 2,3,7,8-TCDF results on the DB-5 column were qualified as do-not-report (DNR-11), and results from the DB-225 column were reported instead.

Calculation Verification

SDG WG21537: Calculation verification was performed on this SDG. No transcription or calculation errors were found.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the labeled compound and OPR percent recovery values. Precision was acceptable as demonstrated by the OPR duplicate RPD values.

Data were qualified as not detected due to ion ratio criteria outliers and contamination from the associated laboratory and field blanks. Data were qualified as do-not-report to indicate which result (of duplicate results) should be used.

Data qualified as do-not-report should not be used for any purpose. All other data, as qualified, are acceptable for use.

APPENDIX B3

DATA QUALITY EVALUATION FOR LAMPREY SAMPLE ANALYSES COMPLETED AT COLUMBIA ANALYTICAL SERVICES AND AXYS ANALYTICAL

EcoChem, INC.
Environmental Data Quality

DATA QUALITY EVALUATION

PORTLAND HARBOR

LAMPREY COMPOSITE TISSUE

Chlorinated Pesticides - Axys Method MLA-028 Rev 01
Polychlorinated Biphenyl (PCB) Congeners – Axys Method MLA-010 Rev 05
Dioxin/Furan Compounds – Axys Method MLA-017 Rev 12

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January 5, 2007

Approved for Release:

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Project Manager/Technical Director
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DATA QUALITY EVALUATION

BASIS OF DATA EVALUATION

The data were validated using guidance and quality control (QC) criteria documented in the analytical methods; *Guidance on Environmental Data Verification and Validation* (EPA 2002c); *Portland Harbor RI/FS, Round 2, Quality Assurance Project Plan* (QAPP) (Integral 2004)*; Round 2 QAPP, Addendum 6: Benthic Invertebrate Tissue* (Integral 2005), and *National Functional Guidelines for Organic Data Review* (USEPA 1999). Additional guidance for polychlorinated biphenyl (PCB) congener data validation was from the *EPA Region 10 SOP for the Validation of Method 1668 Toxic, Dioxin-like PCB Data* (USEPA 1995) and for the dioxin/furan data, *EPA Region 10 SOP for the Validation of Polychlorinated Dibenzodioxin (PCDD) and Polychlorinated Dibenzofuran (PCDF) Data* (EPA 1996).

Data qualifier definitions, reason codes, and validation criteria are included as **Appendix A**. Findings for each quality control element are discussed in data validation reports and are provided in **Appendix B**. Data validation worksheets and communication records are organized by SDG and will be kept on file at EcoChem.

PROCESS FOR DATA VALIDATION

All electronic data deliverable files (EDD) were verified by comparing 100% of the field sample results and 10% of the QC sample results to the hardcopy data package.

These data packages received a Level III validation, which included evaluation (as appropriate for each method) of:

- Package completeness
- Sample chain-of-custody and sample preservation
- Analytical holding times
- Blank contamination
- Precision (replicate analyses)
- Accuracy (compound recovery)
- Chromatogram review (pesticide, PCB, and fuel fractions)
- Detection limits
- Instrument performance (initial calibration, continuing calibration, tuning, sensitivity and degradation)

A dual-tier system of primary and secondary reviewers is utilized to ensure technical correctness and QC of the validation process; and all data validation is documented using standardized and controlled validation worksheets and spreadsheets. These worksheets are completed for each SDG, documenting all deficiencies, outliers and subsequent qualifiers.

After qualifiers are entered into the EcoChem database, a second party verifies 100% of the qualifier entry. Interpretive qualifiers are then applied to the field samples and qualified data is exported to the project database (Integral).

SUMMARY OF DATA VALIDATION: PESTICIDE COMPOUNDS

One lamprey composite tissue sample was analyzed for chlorinated pesticide compounds for the Portland Harbor Phase 2 RI/FS Benthic Invertebrate Tissues study. Axys Analytical, Sidney, British Columbia, completed the pesticide analyses.

The pesticide data for the tissue samples were generally acceptable. One data point (3.6% of all lamprey tissue pesticides results) was of unacceptable quality and was rejected. One data point (3.6%) was qualified as not detected (U). No other lamprey pesticides data were qualified.

The laboratory data were evaluated in terms of completeness, holding times, instrument performance, bias, and precision. The results of the QC procedures used during sample analyses are discussed below.

Completeness of Data Set

Completeness is defined as the total number of usable results (results that were not rejected during data validation) divided by the total results reported by the laboratory. The results reported by the laboratory were 96.4% complete for the lamprey tissue pesticide analyses.

Holding Times and Sample Preservation

All samples were extracted within the method specified holding time of 1 year from the date of collection and all extracts were analyzed within 40 days from the date of extraction.

Instrument Performance

Calibrations

The analyte hexachlorobutadiene was not included in the standards used for the calibrations. As the hexachlorobutadiene reporting limit was rejected based on low labeled compound recoveries, no further action was necessary.

Initial and continuing calibrations were completed for all other reported analytes at the proper frequency. All initial and continuing calibrations met all acceptance criteria.

Endrin/DDT Breakdown

Breakdown evaluation mixtures were analyzed at the proper frequency to measure percent breakdown of 4,4'-DDT and endrin. All percent breakdown values met the acceptance criteria.

Method Blank Analyses

To assess the impact of each blank contaminant on the reported sample results, an action level is established at five times (5X) the concentration detected in the blank. If a contaminant is detected in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U). If the result is also less than the reporting limit, then the result is elevated to the reporting limit. No action is taken if the sample result is greater than the action level, or for non-detected results.

Five target analytes (endosulfan I, endosulfan II, methoxychlor, hexachlorobutadiene, and hexachlorobenzene) were detected in the method blank. These compounds were either not detected, or were present at concentrations greater than the action level in the lamprey tissue sample. No action was necessary.

Accuracy

Labeled Compound Recoveries

One labeled compound ($^{13}C_{12}$-1,2,3-trichlorobenzene) was not recovered in the lamprey tissue sample. This labeled compound was flagged as "NQ" (not quantifiable) by the laboratory. The quantitation of hexachlorobutadiene is associated with this labeled compound. Due to the significant low bias, the hexachlorobutadiene reporting limit was rejected (R).

Matrix Spike Recoveries

Matrix and duplicate matrix spike (MS/MSD) analyses were not performed. Accuracy was assessed using the labeled compound and ongoing precision and recovery (OPR) analyses.

Ongoing Precision and Recovery Sample Recoveries

Hexachlorobutadiene was not added to any OPR analysis. As the associated hexachlorobutadiene result was rejected, no further action was taken. For all other compounds, the OPR recovery values were acceptable.

Precision

OPR/OPR Duplicate analyses were evaluated for laboratory precision. All relative percent difference (RPD) values were acceptable.

Method Detection Limits and Method Reporting Limits

To meet the project analytical concentration goals (ACG), the laboratory reporting limits (MRLs) were based on the method detection limits (MDLs), adjusted for sample size, percent moisture, and any dilution factor. These MRLs ranged from 0.00794 µg/Kg to 0.0151 µg/Kg for the non-detected results. The ACG were met for all non-detects.

Compound Identification

Several different flags were used by the laboratory to provide information about the reported results. A "K" flag indicates that a peak was detected at the correct retention time for the target analyte; however, the ion abundance ratio criteria were not met. The reported result is an estimated maximum possible concentration value, which is essentially an elevated detection limit. Data flagged "K" by the laboratory were qualified as not detected (U) to make this relationship clear to the data user. One (1) data point (the delta-BHC result in the lamprey composite tissue sample) was qualified as not detected because the ion abundance ratio criteria were not met.

Additional Quality Control Samples

Homogenization Rinse Blanks

Homogenization rinse blanks were not submitted with the lamprey composite sample however, the results of the lamprey analysis were compared to data from previous homogenization analyses (associated with clam and worm samples). In all cases, the analytes present in the rinse blanks were either not detected or were present at concentrations greater than the action levels in the lamprey composite sample. No data were qualified based on rinsate blank contamination.

SUMMARY OF DATA VALIDATION: PCB CONGENERS

One lamprey composite tissue sample was analyzed for polychlorinated biphenyl (PCB) congeners for the Portland Harbor Phase 2 RI/FS Benthic Invertebrate Tissues study. Axys Analytical, Sidney, British Columbia, completed the pesticide analyses.

The PCB congener data for the tissue samples were generally acceptable. No data were rejected for any reason. Three data points (1.3% of all lamprey tissue PCB congener results) were estimated because control limits were exceeded in one or more laboratory quality control (QC) samples or procedures. These qualified data points may have a larger associated bias or may be less precise than unqualified data, but are usable for the intended purpose.

The laboratory data were evaluated in terms of completeness, holding times, instrument performance, bias, and precision. The results of the QC procedures used during sample analyses are discussed below.

Completeness of Data Set

Completeness is defined as the total number of usable results (results that were not rejected during data validation) divided by the total results reported by the laboratory. The results reported by the laboratory were 100% complete for the lamprey tissue PCB congener analyses.

Holding Times and Sample Preservation

All samples were extracted within the method specified holding time of 1 year from the date of collection and all extracts were analyzed within 40 days from the date of extraction.

Instrument Performance

Initial and continuing calibrations were completed for all target analytes and met the criteria for frequency of analysis. All calibrations met all acceptance criteria.

All other instrument performance criteria were met by the laboratory.

Method Blank Analyses

To assess the impact of each blank contaminant on the reported sample results, an action level is established at five times (5X) the concentration detected in the blank. If a contaminant is detected in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U). If the result is also less than the reporting limit, then the result is elevated to the reporting limit. No action is taken if the sample result is greater than the action level, or for non-detected results.

Method blanks were analyzed at the appropriate frequency. A total of 52 target analytes were detected in the blank. However, these compounds were either not detected, or were present at concentrations greater than the action level in the lamprey tissue sample. No action was necessary.

Accuracy

Labeled Compound Recoveries

Labeled compounds were added to the field and QC samples. All labeled compound recovery values were acceptable.

Matrix Spike Recoveries

Matrix and duplicate matrix spike (MS/MSD) analyses were not performed. Accuracy was assessed using the labeled compound and ongoing precision and recovery (OPR) analyses.

Ongoing Precision and Recovery Sample Recoveries

OPR analyses met the criteria for frequency of analysis. The recoveries reported by the laboratory met the criteria for acceptable performance.

Precision

OPR/OPR Duplicate analyses were evaluated for laboratory precision. All relative percent difference (RPD) values met the criteria for acceptable performance.

Method Detection Limits and Method Reporting Limits

Analytical concentration goals (ACG) were not specified in the QAPP, although method detection limits (MDLs) and method reporting limits (MRLs) criteria were specified for the 12 PCB congeners on the World Health Organization (WHO) list.

The laboratory MRLs were based on the MDLs, adjusted for sample size, percent moisture, and any dilution factor. These MRLs ranged from 0.446 pg/g to 1.75 pg/g for the non-detected results.

Compound Identification

Different flags were used by the laboratory to provide information about the reported results. A "K" flag indicates that a peak was detected at the correct retention time for the target analyte; however, the ion abundance ratio criteria were not met. The reported result is an estimated maximum possible concentration value, which is essentially an elevated detection limit. Data flagged "K" by the laboratory were qualified as not detected (U) to make this relationship clear to the data user. One data point (the 3,4,5-trichlorobiphenyl result in the lamprey composite tissue sample) was qualified as not detected because the ion abundance ratio criteria were not met.

For the Aroclors, the laboratory reported default identifications for Aroclors 1242, 1254, and 1260. Although the case narrative (and additional emailed communications from the laboratory) state that the Aroclors are reported as a "mixture" (Aroclors 1242/1254/1260), discrete concentrations are reported for each Aroclor. The values reported for Aroclors were calculated by summing the concentrations of specified PCB congeners for each Aroclor, and multiplying the summed concentration against a laboratory-derived correction factor. Aroclor standards were not analyzed, and no reconstructed ion chromatograms were submitted to review for the presence of potential Aroclor patterns. Only the HRMS single-ion chromatograms were submitted. For these reasons all positive Aroclor results were qualified as estimated and tentatively identified (NJ-14). The three positive

Aroclor results (1.3% of all lamprey tissue PCB congener data points) were qualified as tentatively identified at estimated concentrations.

Additional Quality Control Samples

Homogenization Rinse Blanks

Homogenization rinse blanks were not submitted with the lamprey composite sample however, the results of the lamprey analysis were compared to data from previous homogenization analyses (associated with clam and worm samples). In all cases, the analytes present in the rinse blanks were either not detected or were present at concentrations greater than the action levels in the lamprey composite sample. No data were qualified based on rinsate blank contamination.

SUMMARY OF DATA VALIDATION: DIOXIN/FURAN COMPOUNDS

One lamprey composite tissue sample was analyzed for dioxin and furan compounds for the Portland Harbor Phase 2 RI/FS Benthic Invertebrate Tissues study. Axys Analytical, Sidney, British Columbia, completed the analyses.

The dioxin/furan data for the tissue samples were generally acceptable. No data were rejected or estimated for any reason.

The laboratory data were evaluated in terms of completeness, holding times, instrument performance, bias, and precision. The results of the QC procedures used during sample analyses are discussed below.

Completeness of Data Set

Completeness is defined as the total number of usable results (results that were not rejected during data validation) divided by the total results reported by the laboratory. The results reported by the laboratory were 100% complete for the tissue dioxin/furan analyses.

Holding Times and Sample Preservation

All analytical holding time requirements were met for the dioxin/furan analyses of the tissue samples and associated field QC samples.

Instrument Performance

Initial and continuing calibrations were completed for all target analytes and met the criteria for frequency of analysis. All calibrations met all acceptance criteria.

Method Blank Analyses

To assess the impact of each blank contaminant on the reported sample results, an action level is established at five times (5X) the concentration detected in the blank. If a contaminant is detected in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U). If the result is also less than the reporting limit, then the result is elevated to the reporting limit. No action is taken if the sample result is greater than the action level, or for non-detected results.

Method blanks are used to evaluate all associated samples, including field blanks. Any remaining positive results in the field blanks are used to evaluate all associated samples.

Method blanks were analyzed at the appropriate frequency. One (1) result (3.8% of all lamprey tissue dioxin/furan results) was qualified as not detected (U) based on method blank contamination.

Accuracy

Labeled Compound Recoveries

Labeled compounds were added to all field and QC samples. All of the recoveries reported by the laboratory met the criteria for acceptable performance.

Matrix Spike Recoveries

Matrix and duplicate matrix spike (MS/MSD) analyses were not performed. Accuracy was assessed using the labeled compound and ongoing precision and recovery (OPR) analyses.

Ongoing Precision and Recovery Sample Recoveries

OPR analyses met the criteria for frequency of analysis. All of the recoveries reported by the laboratory met the criteria for acceptable performance.

Precision

OPR/OPR Duplicate analyses were evaluated for laboratory precision. All relative percent difference (RPD) values were acceptable.

Method Detection Limits and Method Reporting Limits

All of the dioxin/furan target analytes were detected in the lamprey composite tissue sample therefore; detection and reporting limits were not evaluated.

Compound Identification

The reported identifications for all positive results were acceptable.

Additional Quality Control Samples

Homogenization Rinse Blanks

Homogenization rinse blanks were not submitted with the lamprey composite sample however, the results of the lamprey analysis were compared to data from previous homogenization analyses (associated with clam and worm samples). In all cases, the analytes present in the rinse blanks were either not detected or were present at concentrations greater than the action levels in the lamprey composite sample. No data were qualified based on rinsate blank contamination.

EcoChem, INC.
Environmental Data Quality

APPENDIX A

DATA QUALIFIER DEFINITIONS, REASON CODES, AND CRITERIA TABLES

DATA VALIDATION QUALIFIER CODES
National Functional Guidelines

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents the approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The following is an EcoChem qualifier that may also be assigned during the data review process:

DNR	Do not report; a more appropriate result is reported from another analysis or dilution.

DATA QUALIFIER REASON CODES

1	Holding Time/Sample Preservation
2	Chromatographic pattern in sample does not match pattern of calibration standard.
3	Compound Confirmation
4	Tentatively Identified Compound (TIC) (associated with NJ only)
5A	Calibration (initial)
5B	Calibration (continuing)
6	Field Blank Contamination
7	Lab Blank Contamination (e.g., method blank, instrument, etc.)
8	Matrix Spike(MS & MSD) Recoveries
9	Precision (all replicates)
10	Laboratory Control Sample Recoveries
11	A more appropriate result is reported (associated with “R” and “DNR” only)
12	Reference Material
13	Surrogate Spike Recoveries (a.k.a., labeled compounds & recovery standards)
14	Other (define in validation report)
15	GFAA Post Digestion Spike Recoveries
16	ICP Serial Dilution % Difference
17	ICP Interference Check Standard Recovery
18	Trip Blank Contamination
19	Internal Standard Performance (e.g., area, retention time, recovery)
20	Linear Range Exceeded
21	Potential False Positives

Integral - Portland Harbor Site
Pesticides/PCBs/Herbicides/Phenols by GC/ECD (Based on Organic NFG 1999)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature	4°C ±2°	J(+)/UJ(-) if greater than 6 deg. C (**EcoChem PJ**)	1
Holding Time	Water: 7 days from collection Soil: 14 days from collection Analysis: 40 days from extraction	J(+)/UJ(-) if ext/analyzed > HT J(+)/R(-) if ext/analyzed > 3X HT (**EcoChem PJ**)	1
Resolution Check	Beginning of ICAL Sequence Within RTW Resolution >90%	Narrate (Use Professional Judgement to qualify)	14
Instrument Performance (Breakdown)	DDT Breakdown: < 20% Endrin Breakdown: <20% Combined Breakdown: <30% Compounds within RTW	J(+) DDT NJ(+) DDD and/or DDE R(-) DDT - If (+) for either DDE or DDD J(+) Endrin NJ(+) EK and/or EA R(-) Endrin - If (+) for either EK or EA	5A
Retention Times	Surrogates: TCX (+/- 0.05); DCB (+/- 0.10) Target compounds: elute before heptachlor epoxide (+/- 0.05) elute after heptachlor epoxide (+/- 0.07)	NJ(+)/R(-) results for analytes with RT shifts **For full DV, use PJ based on examination of raw data**	5B
Initial Calibration	Pesticides: Low=CRQL, Mid=4X, High=16X Multiresponse - one point Calibration %RSD<20% %RSD<30% for surr; two comp. may exceed if <30% Resolution in Mix A and Mix B >90%	J(+)/UJ(-)	5A
Continuing Calibration	Alternating PEM standard and INDA/INDB standards every 12 hours (each preceeded by an inst. Blank) %D < 25% Resolution >90% in IND mixes; 100% for PEM	J(+)/UJ(-) J(+)R(-) if %D > 90% **PJ for resolution**	5B
Method Blank	One per matrix per batch No results > CRQL	U(+) if sample result is < CRQL and < 5X rule (raise sample value to CRQL)	7
		U(+) if sample result is > or equal to CRQL and < 5X rule (at reported sample value)	7
Instrument Blanks	Analyzed at the beginning of every 12 hour sequence No analyte > 1/2 CRQL	Same as Method Blank	7
Field Blanks	No results > QL	Apply 5X rule; U(+) < action level	6

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Integral - Portland Harbor Site
Pesticides/PCBs/Herbicides/Phenols by GC/ECD (Based on Organic NFG 1999)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
MS/MSD (recovery)	One set per matrix per batch Method Acceptance Criteria	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% **PJ if only one %R outlier**	8
MS/MSD (RPD)	One set per matrix per batch Method Acceptance Criteria	J(+) if RPD > CL	9
LCS	One per SDG Method Acceptance Criteria	J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) using PJ if %R <<LCL (< 10%)	10
LCS/LCSD *(if required)*	One set per matrix and batch of 20 samples RPD < 35%	J(+) assoc. cmpd. in all samples	9
Surrogates	TCX and DCB added to every sample %R = 30-150%	J(+)/UJ(-) if both %R = 10 - 60% J(+) if both >150% J(+)/R(-) if any %R <10%	13
Quantitation/ Identification	Analyte within RTW on both columns Quantitated using CCV or ICAL CF Lowest value from either column reported %D between columns (25%)	J(+) if RPD = 25-60% (Pest/Aroclor); 40-60% (Herb/Phenol) NJ(+) using PJ if RPD > 60%	3
Two analyses for one sample	Report only one result per analyte	"DNR" results that should not be used to avoid reporting two results for one sample	11
Sample Clean-up	GPC required for soil samples Florisil required for all samples Sulfur is optional Clean-up standard check %R within CLP limits	J(+)/UJ(-) if %R < LCL J(+) if %R > UCL	14
Field Duplicates	QAPP specified RPD < 50% (sediment & water)	Narrate; do not qualify.	na

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Integral - Portland Harbor Site
Compounds Analyzed By HRMS (Methods 1613B or SW846 - 8290)
Polycyclic Aromatic Hydrocarbons (PAH), PCB Congeners and Dioxins/Furans

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler/Storage Temperature	Waters/Solids <4°C Tissues <-10°C	**EcoChem PJ, see TM-05**	1
Holding Time	Water: 30 days from collection Soil: 30 days from collection Analysis: 40 days from extraction Note: Under CWA, SDWA, and RCRA the HT for H2O is 7 days	J(+)/UJ(-) if ext > 30 days J(+)/UJ(-) if analysis > 40 Days **EcoChem PJ, see TM-05**	1
Mass Resolution	>=10,000 resolving power at m/z 304.9824 Exact mass of m/z 380.9760 w/in 5 ppm of theoretical value (380.97410 to 380.97790) . Analyzed prior to ICAL and at the start and end of each 12 hr. shift	R(+/-) if not met	14
Window Defining Mix and Column Performance Mix	Window defining mixture/Isomer specificity std run before ICAL and CCAL Valley < 25% (valley = (x/y)*100%) x = ht. of TCDD y = baseline to bottom of valley For all isomers eluting near 2378-TCDD/TCDF isomers (TCDD only for 8290)	J(+) if valley > 25%	5A (ICAL) 5B (CCAL
Initial Calibration	ICAL: Minimum of five standards %RSD < 20% for native compounds %RSD <30% for labeled compounds (%RSD <35% for labeled compounds under 1613b)	J(+) natives if %RSD > 20%	5A
	Abs. RT of $^{13}C_{12}$-1234-TCDD >25 min on DB5 >15 min on DB-225	**EcoChem PJ, see TM-05**	
	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	**EcoChem PJ, see TM-05**	
	S/N ratio > 10 for all native and labeled compounds in CS1 std.	If <10, elevate Det. Limit or R(-)	

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Integral - Portland Harbor Site
Compounds Analyzed By HRMS (Methods 1613B or SW846 - 8290)
Polycyclic Aromatic Hydrocarbons (PAH), PCB Congeners and Dioxins/Furans

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Continuing Calibration	Analyzed at the start and end of each 12 hour shift. %D+/-20% for native compounds %D +/-30% for labeled compounds (Must meet limits in Table 6 for 1613B) (If %Ds in the closing CCAL are w/in 25%/35% the avg RF from the 2 CCAL may be used to calculate samples per Section 8.3.2.4 of 8290)	Do not qualify labeled compounds. Narrate in report for labeled compound %D outliers. For native compound %D outliers: 8290: J(+)/UJ(-) if %D = 20% - 75% J(+)/R(-) if %D > 75% 1613: J(+)/UJ(-) if %D is outside Table 6 limits J(+)/R(-) if %D is +/- 75% of Table 6 limit	5B
	Abs. RT of $^{13}C_{12}$-1234-TCDD and ^{13}C12-123789-HxCDD +/- 15 sec of ICAL.	**EcoChem PJ, see ICAL section of TM-05**	
	RRT of all other compounds must meet table 2 of 1613B.	**EcoChem PJ, see TM-05**	
	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	**EcoChem PJ, see TM-05**	
	S/N ratio > 10	If <10, elevate Det. Limit or R(-)	
Method Blank	One per matrix per batch No positive results	If sample result <5X action level, qualify U at reported value. (<10X for phthalates)	7
Field Blanks	No results > QL	Apply 5X rule; U(+) < action level	6
LCS / OPR	Concentrations must meet limits in Table 6 of method 1613B or lab limits.	J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) using PJ if %R <<LCL (< 10%)	10
MS/MSD (recovery)	May not analyze MS/MSD %R should meet lab limits.	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% **PJ if only one %R outlier**	8

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Integral - Portland Harbor Site
Compounds Analyzed By HRMS (Methods 1613B or SW846 - 8290)
Polycyclic Aromatic Hydrocarbons (PAH), PCB Congeners and Dioxins/Furans

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
MS/MSD (RPD)	May not analyze MS/MSD RPD < 20%	J(+) if RPD > CL	9
Lab Duplicate	RPD <25% if present.	J(+) if outside limts	9
Labeled Compounds / Internal Standards	*Method 8290:* %R = 40% - 135% in all samples	J(+)/UJ(-) if %R = 10% to LCL J(+) if %R > UCL J(+)/R(-) if %R < 10%	13
	Method 1613B: %R must meet limits specified inTable 7		
Quantitation/ Identification	Ions for analyte, IS, and rec. std. must max w/in 2 sec. S/N >2.5 IA ratios meet limits in Table 9 of 1613B or Table 8 of 8290 RRTs w/in limits in table 2 of 1613B	If RT criteria not met, use PJ (**see TM-05**) If S/N criteria not met, J(+). if unlabelled ion abundance not met, change to EMPC If labelled ion abundance not met, J(+).	21
EMPC (estimated maximum possible concentration)	If quantitation identification criteria are not met, laboratory should report an EMPC value.	If laboratory correctly reported an EMPC value, qualify with U to indicate that the value is a detection limit.	14
Interferences	PCDF interferences from PCDPE	If both detected, change PCDF result to EMPC	14
Second Column Confirmation	All 2378-TCDF hits must be confirmed on a DB-225 (or equiv) column. All QC specs in this table must be met for the confirmation analysis.	Report lower of the two values. If not performed use PJ (**see TM-05**).	3
Field Duplicates	QAPP specified RPD < 50% (sediment & water)	Narrate; do not qualify.	na
Two analyses for one sample	Report only one result per analyte	"DNR" results that should not be used	11

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Environmental Data Quality

APPENDIX B
DATA VALIDATION REPORTS

DATA VALIDATION REPORT
Portland Harbor RI/FS
Lamprey Tissues
Pesticide Analysis - Method: MLA013
Axys Analytical Services, Ltd.

This report documents the review of analytical data from the analyses of a composite lamprey tissue sample and the associated laboratory and field quality control (QC) samples. The analytical data were reviewed using QC criteria documented in the analytical methods, the *Analytical Quality Assurance Plan (Version 2.0, March 2005)*, and *National Functional Guidelines for Organic Data Review* (USEPA 1999).

SDG	No. Samples	Validation Level
WG20170	1 Lamprey Tissue Composite	Summary

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

	Holding Times and Sample Receipt	1	Ongoing Precision & Recovery (OPR)
1	Initial Calibration (ICAL)		DDT/Endrin Breakdown
1	Continuing Calibration (CCAL)	2	Compound Identification
1	Laboratory Blanks		Reporting Limits (MDL and MRL)
2	Labeled Compounds		Calculation Verification (full validation only)
1	Matrix Spikes/Matrix Spike Duplicates (MS/MSD)		

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Initial Calibration (ICAL)

The analyte hexachlorobutadiene was not included in the standards used for the initial calibration. The hexachlorobutadiene reporting limits were rejected based on very low labeled compound recovery; no further action was necessary.

Continuing Calibration (CCAL)

The analyte hexachlorobutadiene was not included in the continuing calibration verification standards. The hexachlorobutadiene reporting limits were rejected based on very low labeled compound recovery; no further action was necessary.

Laboratory Blanks

To assess the impact of each blank contaminant on the reported sample results, an action level is established at five times the concentration detected in the blank. If a contaminant is detected in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-7). If the result is also less than the reporting limit, then the result is elevated to the reporting limit. No action is taken if the sample result is greater than the action level, or for non-detected results.

Method blanks were analyzed at the appropriate frequency. Contaminant levels, associated samples, and action levels are documented in the data validation worksheets. Various target analytes were detected in the method blanks. However, results were above action levels so no qualifiers were required.

Labeled Compounds

Labeled compound percent recovery (%R) values were used to assess the recovery accuracy for all associated compounds in a sample. All labeled compound %R values were acceptable, with the exception of $^{13}C_{12}$-1,2,3-trichlorobenzene in Sample LW2-BTFLamp Comp. This labeled compound was flagged as "NQ" (not quantifiable) by the laboratory. The quantitation of hexachlorobutadiene is associated with this labeled compound. Since the labeled compound was not quantifiable, the hexachlorobutadiene reporting limit was rejected (R-13).

Matrix Spikes/Matrix Spike Duplicates

No matrix spike/matrix spike duplicate (MS/MSD) sets were performed. Accuracy and precision were assessed using labeled compound recoveries, ongoing precision and recovery/ongoing precision and recovery duplicate (OPR) samples.

Ongoing Precision & Recovery

Hexachlorobutadiene was not included in the OPR samples. The reporting limit for this analyte was already rejected due to very low labeled compound recovery.

Compound Identification & Quantitation

The laboratory applied a "K" flag to the delta-BHC result in Sample LW2-BTFLamp Comp because a peak was detected, but the peak did meet the identification criteria. Therefore, the reported value is considered a potential false positive and was qualified as not detected (U-21).

Reporting Limits (Method Detection Limit and Method Reporting Limits)

Toxaphene is listed as a target analyte in the QAPP but was not reported by the laboratory.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the surrogate and OPR %R values, with the exceptions noted above. Precision was acceptable as demonstrated by the RPD values for the duplicate OPR analyses, with the exceptions noted above.

Data were qualified as not detected based on potential false positive results.

Data were rejected due to a very low (less than 10%) labeled compound recovery. Data that have been rejected should not be used for any purpose.

All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
Portland Harbor RI/FS
Lamprey Tissues
PCB Congeners - Method: MLA013 Rev. 5
Axys Analytical Services, Ltd.

This report documents review of the data from the analysis of a composite lamprey tissue sample for polychlorinated biphenyl (PCB) congeners. The analytical data were reviewed using quality control (QC) criteria documented in the analytical methods, the *Analytical Quality Assurance Plan (Version 2.0, March 2005)*, and *National Functional Guidelines for Organic Data Review* (USEPA 1999).

SDG	Number of Samples	Validation Level
WG20170	1 Lamprey Tissue Composite	Summary

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

	Holding Times and Sample Receipt		Laboratory Duplicates
	Initial Calibration (ICAL)		Spiked Matrix (OPR)
	Continuing Calibration (CCAL)	1	Matrix Spike/Matrix Spike Duplicate (MS/MSD)
1	Laboratory Blanks		Field Duplicates
	Rinse Blanks	2	Compound Identification and Quantitation
	Labeled Compound Recovery		Calculation Verification (full validation only)

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Laboratory Blanks

To assess the impact of each blank contaminant on the reported sample results, an action level is established at five times the concentration detected in the blank. If a contaminant is detected in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-7). If the result is also less than the reporting limit, then the result is elevated to the

reporting limit. No action is taken if the sample result is greater than the action level, or for non-detected results.

The laboratory assigned K-flags to PCB values when a peak was detected but did not meet quantitation criteria. These values cannot be considered as positive identifications, but are "estimated maximum possible concentrations". When these occurred in the method blank, the results were considered as false positives. No action levels were established for K-flagged values.

Method blanks were analyzed at the appropriate frequency. Contaminant levels, associated samples, and action levels are documented in the data validation worksheets. A total of 52 target analytes were detected in the method blank. No qualifiers were required as all sample results exceeded action levels.

Matrix Spikes/Matrix Spike Duplicates

No matrix spike/matrix spike duplicate (MS/MSD) sets were performed with this SDG. Accuracy and precision were assessed using labeled compound recoveries, ongoing precision and recovery/ongoing precision and recovery duplicate (OPR) samples, and OPR duplicate samples.

Compound Identification & Quantification

The laboratory assigned K-flags to PCB congener values when a peak was detected but did not meet quantitation criteria, therefore the reported values were not considered as positive identification for these analytes. These results were considered potential false positives or "estimated maximum possible concentrations" and were qualified as not detected (U-21) at the reported values.

For the Aroclors, the laboratory reported default identifications for Aroclors 1242, 1254, and 1260. Although the case narrative (and additional emailed communications from the laboratory) state that the Aroclors are reported as a “mixture” (Aroclors 1242/1254/1260), discrete concentrations are reported for each Aroclor. The values reported for Aroclors were calculated by summing the concentrations of specified PCB congeners for each Aroclor, and multiplying the summed concentration against a laboratory-derived correction factor. Aroclor standards were not analyzed, and no reconstructed ion chromatograms were submitted to review for the presence of potential Aroclor patterns. Only the HRMS single-ion chromatograms were submitted. For these reasons all positive Aroclor results were qualified as estimated and tentatively identified (NJ-14).

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the labeled compound and OPR percent recovery values. Precision was acceptable, as demonstrated by the OPR duplicate RPD values.

Data were qualified as not detected based on potential false positive results. Aroclor data were qualified as tentatively identified at estimated concentrations.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
Portland Harbor RI/FS
Lamprey Tissues
Dioxin/Furan Compounds by EPA 1613B
Axys Analytical Services, Ltd.

This report documents the review of analytical data from the analyses of a composite lamprey tissue sample and the associated laboratory and field quality control (QC) samples. The analytical data were reviewed using QC criteria documented in the analytical methods, the *Analytical Quality Assurance Plan (Version 2.0, March 2005)*, and *National Functional Guidelines for Organic Data Review* (USEPA 1999).

SDG	No. Samples	Validation Level
WG20170	1 Lamprey Tissue Composite	Summary

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables, with the exceptions noted below. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

The closing calibration standards from the DB-5 column were not included in the data packages. A closing calibration is not required by EPA Method 1613 version B. As nearly all of the submitted calibration standards were acceptable no action was taken.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%). No problems were noted.

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

	Holding Times and Sample Receipt	Ongoing Precision and Recovery (OPR)
	Initial Calibration (ICAL)	Field Duplicates
	Continuing Calibration (CCAL)	Laboratory Duplicates
2	Laboratory Blanks	Compound Identification
	Field Blanks	Reporting Limits (MDL and MRL)
	Labeled Compounds	Calculation Verification (full validation only)
1	Matrix Spikes/Matrix Spike Duplicates (MS/MSD)	

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Laboratory Blanks

To assess the impact of each blank contaminant on the reported sample results, an action level is established at five times (5x) the concentration detected in the blank. If a contaminant is detected in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-7). If the result is also less than the reporting limit, then the result is elevated to the reporting limit. No action is taken if the sample result is greater than the action level, or for non-detected results.

Method blanks were analyzed at the appropriate frequency. Contaminant levels, associated samples, and action levels are documented in the data validation worksheets. Various target analytes were detected in the method blanks. However, only the following analyte was qualified as not detected in the associated laboratory data sets:

SDG WG20170: 2,3,4,6,7,8-HxCDF (1 result)

Matrix Spikes/Matrix Spike Duplicates

No matrix spike/matrix spike duplicate (MS/MSD) sets were performed. Accuracy and precision were assessed using labeled compound recoveries, ongoing precision and recovery (OPR) samples, and OPR duplicate samples.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the labeled compound and OPR %R values. Precision was acceptable as demonstrated by the RPD values for the OPR and OPR duplicate analyses.

Data were qualified as not detected due to contamination in the associated laboratory blank.

All data, as qualified, are acceptable for use.

APPENDIX C

From: Blischke.Eric@epamail.epa.gov [mailto:Blischke.Eric@epamail.epa.gov]
Sent: Thursday, May 25, 2006 2:10 PM
To: Jim.McKenna@portofportland.com; rjw@nwnatural.com; ricka@bes.ci.portland.or.us
Cc: Helle B. Andersen; Lisa Saban; Goulet.Joe@epamail.epa.gov; Davoli.Dana@epamail.epa.gov; Humphrey.Chip@epamail.epa.gov; kpine@integral-corp.com
Subject: RE: Lamprey and mussel information

All, after looking over the table provided by Helle Anderson earlier, we agree with the freshwater mussel samples selected for analysis. In addition, we have proposed a number of additional analyses to take advantage of the fact that freshwater mussels were collected at numerous locations throughout the Portland Harbor study area. For lamprey, all individual lampreys should be composited into one sample and analyzed pesticides/PCBs and percent moisture.

STATION ID	LOCATION	ANALYSES	RATIONALE
BT006	Head of Int'l Slip	All analyses shown on table	Source of metals and PCB contamination; sufficient tissue mass available; off-channel habitat.
BT015	GASCO	Axys Analyses, PAHs, % moisture	Source of PAHs; downstream from pesticide and dioxin source; original location proposed by EPA
BT017	Arkema (Downstream)	Axys Analyses, PAHs, % moisture	Source of pesticides and dioxin; upstream from PAH sources
BT033	Goldendale	Axys Analyses and PAHs at a minimum; if sufficient mass is available, add the following analyses in order of priority: Other metals, % moisture, phthalates/SVOCs, TBTs, mercury.	Upstream location along east side of river.

Note: Axys Analyses includes Pesticides, PCBs and Dioxins and Furans

EPA understands that all station locations with the exception of Wheeler Bay are the western pearlshell mussel (Margaritifera falcata) and that the Wheeler Bay location is the winged floater (Anodonta nuttalliana).
However, mussel shells should be saved to confirm species identification if necessary. If you have any questions, please contact Chip or myself.

Thanks, Eric

"Helle B. Andersen" helleb@windwardenv.com
To Eric Blischke/R10/USEPA/US@EPA
cc Lisa Saban <lisas@windwardenv.com>
04/11/2006
09:48 AM Subject
RE: Lamprey and mussel information

Eric,
Attached please find the requested information on the mussels and lamprey ammocoetes collected during the benthic invertebrate sampling effort last winter.
Helle

-----Original Message-----
From: Blischke.Eric@epamail.epa.gov
[mailto:Blischke.Eric@epamail.epa.gov]
Sent: Wednesday, December 21, 2005 2:37 PM
To: Helle B. Andersen
Subject: Re: Lamprey and mussel information

Thanks.

Eric

"Helle B.
Andersen"
helleb@windward_env.com
To Eric Blischke/R10/USEPA/US@EPA,
Joe Goulet/R10/USEPA/US@EPA
12/21/2005 09:59 AM
ccLisa Saban <lisas@windwardenv.com>
Subject Lamprey and mussel information

Eric and Joe,
Attached please find summary tables and pictures of the lamprey and mussels collected during the clam sampling effort. The identification of the mussels is tentative - Jessie Bennings from Parametrix took some empty shells with him and he will identify them when he has time. Please give me a call if you have any questions. I will send out the clam information as soon as I have completed the summary table.
Helle

Helle B. Andersen
Windward Environmental, LLC
200 West Mercer St., Suite 401
Seattle, WA 98119

Phone(direct line): 206-577-1287

Phone(main line): 206-378-1364
Fax: 206-217-0089
E-mail: hellea@windwardenv.com
www.windwardenv.com

Attachment to 4/11/06 e-mail from Helle B. Andersen regarding the mussel tissue referred to in the 5/25/06 e-mail from EPA

Station ID	Location	Number of Mussels	Mussel Size (mm)	Tentative Identification
BT001	OSM downstream	3	81, 83, 89	Western pearlshell mussels (*Margaritifera falcata*)
BT002	OSM Upstream	2	73, 84	Western pearlshell mussels (*Margaritifera falcata*)
BT003	Multnomah Channel	1	81	Western pearlshell mussel (*Margaritifera falcata*)
BT004	Time Oil	5	18, 14, 25, 100, 13	Western pearlshell mussels (*Margaritifera falcata*)
BT005	Mouth of International Slip			
BT006	Head of International Slip	3	81, 79, 34	Western pearlshell mussels (*Margaritifera falcata*)
BT007	Schnitzer and Terminal 4	1	92	Winged floater (*Anodonta nuttalliana*)
BT008	Terminal 4, Slip 1			
BT009	Wheeler Bay	4	95, 92, 89, 82	Winged floaters (*Anodonta nuttalliana*)
BT010	Terminal 4, upstream Slip 3	1	92	Western pearlshell mussel (*Margaritifera falcata*)
BT011	Linnton Plywood	1	110	Western pearlshell mussel (*Margaritifera falcata*)
BT012	Arco seawall downstream	1	58	Western pearlshell mussel (*Margaritifera falcata*)
BT013	Cathedral Park	1	108	Western pearlshell mussel (*Margaritifera falcata*)
BT014	U.S. Mooring	1	76	Western pearlshell mussel (*Margaritifera falcata*)
BT015	Gasco	1	78	Western pearlshell mussel (*Margaritifera falcata*)
BT016	Willamette Cove			
BT017	Arkema downstream	1	85	Western pearlshell mussel (*Margaritifera falcata*)
BT018	Arkema			
BT019	Reidell Cove			
BT020	Saltman Creek			

Station ID	Location	Number of Mussels	Mussel Size (mm)	Tentative Identification
BT021	Willbridge Docks upstream	7	87, 87, 84, 91, 76, 97, 15	Western pearlshell mussels (*Margaritifera falcata*)
BT022	Coast Guard Facility	1	51	Western pearlshell mussel (*Margaritifera falcata*)
BT023	Portland Shipyard			
BT024	Front Ave			
BT025	Shaver	3	97, 74, 130	Western pearlshell mussels (*Margaritifera falcata*)
BT026	Swan Island Lagoon middel			
BT027	Portland Shipyard upstream			
BT028	Gunderson	1	75	Western pearlshell mussel (*Margaritifera falcata*)
BT029	Swan Island Lagoon bottom			
BT030	Fireboat Cove downstream			
BT031	Portland Shipyard upstream across Fireboat Cove			
BT032	Fireboat Cove			
BT033	Goldendale Aluminum	2	87, 94	Western pearlshell mussels (*Margaritifera falcata*)
Total		40		

From: Humphrey.Chip@epamail.epa.gov [mailto:Humphrey.Chip@epamail.epa.gov]

Sent: Friday, October 27, 2006 12:24 PM

To: Jim.McKenna@portofportland.com; rjw@nwnatural.com; ricka@bes.ci.portland.or.us

Cc: Blischke.Eric@epamail.epa.gov; Helle B. Andersen; Lisa Saban; Goulet.Joe@epamail.epa.gov; Davoli.Dana@epamail.epa.gov; Humphrey.Chip@epamail.epa.gov; kpine@integral-corp.com

Subject: Mussel tissue analysis

Jim, Bob and Rick

This is to follow-up on an item that seems to have fallen through the cracks a bit. It is our understanding that the mussel tissue that was collected as part of the sampling last fall have not been sent to the lab for analysis because of questions regarding the use of the data. We further understand that neither the LWGs ERA or HH teams were proposing to use the data in risk evaluations.

Although we thought this was discussed at a previous managers meeting, it appears from our last correspondence on this subject that LWG is still awaiting clarification on the data uses prior to proceeding with the analysis. EPA's perspective is that the mussel tissue will be used in the same way that the clam tissue will be used - as an exposure dietary item, to provide additional data that could be helpful for developing BSAFs, and to provide data on impacts to mussels themselves.

Please proceed with analysis of the mussel tissue in accordance with the direction that was provided on May 25, 2006 (also provided below) for the analytes specified except for mercury, for which the holding time has been exceeded. Please call if you have any questions

thanks

Chip Humphrey

from Eric's 5/25/2006 email

All, after looking over the table provided by Helle Anderson earlier, we agree with the freshwater mussel samples selected for analysis. In addition, we have proposed a number of additional analyses to take advantage of the fact that freshwater mussels were collected at numerous locations throughout the Portland Harbor study area. For lamprey, all individual lampreys should be composited into one sample and analyzed pesticides/PCBs and percent moisture.

Station ID	Location	Analyses	Rationale
BT006	Head of Int'l Slip	All analyses shown on table	Source of metals and PCB contamination; sufficient tissue mass available; off-channel habitat.
BT015	GASCO	Axys Analyses, PAHs, % moisture	Source of PAHs; downstream from pesticide and dioxin source; original location proposed by EPA
BT017	Arkema (Downstream)	Axys Analyses, PAHs, % moisture	Source of pesticides and dioxin; upstream from PAH sources
BT033	Goldendale	Axys Analyses and PAHs at a minimum; if sufficient mass is available, add the following analyses in order of priority: Other metals, % moisture, phthalates/SVOCs, TBTs, mercury.	Upstream location along east side of river.

PORTLAND HARBOR RI/FS

ROUND 2 MUSSEL AND LAMPREY AMMOCOETE TISSUE DATA REPORT

APPENDIX D

SCRA DATABASE

EXCEL FLAT FILE FORMAT

DRAFT

DRAFT DOCUMENT: DO NOT QUOTE OR CITE
This document is currently under review by US EPA and its federal, state, and tribal partners, and is subject to change in whole or in part

October 1, 2007

Prepared for

The Lower Willamette Group

Prepared by

Integral Consulting Inc.

Qualifier	Description
J	Estimate.
JT	Combined qualifier.
R	Rejected.
T	Value is an average or selected result (see data rules).
U	Not detected at value shown.
UJ	Combined qualifier.

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	GC-FPD	1/24/2007	18:14	Butyltins	78763-54-9	Butyltin ion	NA	Y	0.44	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	GC-FPD	1/24/2007	18:14	Butyltins	14488-53-0	Dibutyltin ion	NA	Y	0.85	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	GC-FPD	1/24/2007	18:14	Butyltins	36643-28-4	Tributyltin ion	NA	Y	5.9	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	GC-FPD	1/24/2007	18:14	Butyltins	1461-25-2	Tetrabutyltin	NA	N	0.85	UJ	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Conventionals	66455-18-3	Lipids	NA	Y	0.37		percent	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	ZFZDRY	1/3/2007	12:00	Conventionals	TSO	Total solids	NA	Y	5.85		percent	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxin_Furan_Homolog	41903-57-5	Tetrachlorodibenzo-p-dioxin homologs	NA	Y	0.986		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxin_Furan_Homolog	36088-22-9	Pentachlorodibenzo-p-dioxin homologs	NA	Y	0.311		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxin_Furan_Homolog	34465-46-8	Hexachlorodibenzo-p-dioxin homologs	NA	Y	0.992		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxin_Furan_Homolog	37871-00-4	Heptachlorodibenzo-p-dioxin homologs	NA	Y	2.48		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxin_Furan_Homolog	3268-87-9	Octachlorodibenzo-p-dioxin	NA	Y	7.71		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxin_Furan_Homolog	30402-14-3	Tetrachlorodibenzofuran homologs	NA	Y	2.11		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxin_Furan_Homolog	30402-15-4	Pentachlorodibenzofuran homologs	NA	Y	0.916		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxin_Furan_Homolog	55684-94-1	Hexachlorodibenzofuran homologs	NA	Y	0.664		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxin_Furan_Homolog	38998-75-3	Heptachlorodibenzofuran homologs	NA	Y	0.732		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxin_Furan_Homolog	39001-02-0	Octachlorodibenzofuran	NA	Y	0.524	J	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxins_Furans	1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin	NA	Y	0.048	J	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxins_Furans	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	NA	Y	0.068	J	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxins_Furans	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	NA	Y	0.042	J	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxins_Furans	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	NA	Y	0.186	J	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxins_Furans	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	NA	Y	0.083	J	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxins_Furans	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	NA	Y	1.21		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/23/2007	00:43	Dioxins_Furans	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	NA	N	0.213	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxins_Furans	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	NA	Y	0.064	J	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxins_Furans	57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	NA	N	0.1	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxins_Furans	70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	NA	Y	0.052	J	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxins_Furans	57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	NA	N	0.032	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxins_Furans	72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	NA	N	0.0367	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxins_Furans	60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	NA	Y	0.045	J	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxins_Furans	67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	NA	Y	0.255	J	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	01:55	Dioxins_Furans	55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	NA	Y	0.027	J	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW6010B	1/24/2007	10:09	Metals	7429-90-5	Aluminum	total	Y	155		mg/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW6020	1/24/2007	09:24	Metals	7439-92-1	Lead	total	Y	0.0823		mg/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW7471A	1/18/2007	13:57	Metals	7439-97-6	Mercury	total	Y	0.0032	J	mg/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW6020	1/24/2007	09:24	Metals	7440-02-0	Nickel	total	Y	0.508		mg/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW6020	1/24/2007	09:24	Metals	7440-22-4	Silver	total	Y	0.0237		mg/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW6020	1/24/2007	11:26	Metals	7440-36-0	Antimony	total	Y	0.0008	J	mg/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW6020	1/24/2007	09:24	Metals	7440-38-2	Arsenic	total	Y	0.35		mg/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW6020	1/24/2007	09:24	Metals	7440-43-9	Cadmium	total	Y	0.108		mg/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW6010B	1/24/2007	10:09	Metals	7440-47-3	Chromium	total	Y	0.21		mg/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW6020	1/24/2007	09:24	Metals	7440-50-8	Copper	total	Y	1.7		mg/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW6010B	1/24/2007	10:09	Metals	7440-66-6	Zinc	total	Y	16.6		mg/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW7742	1/25/2007	16:19	Metals	7782-49-2	Selenium	total	Y	0.056		mg/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:20	PAHs	120-12-7	Anthracene	NA	Y	0.82	J	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:20	PAHs	129-00-0	Pyrene	NA	Y	6.6	J	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:20	PAHs	191-24-2	Benzo(g,h,i)perylene	NA	Y	0.68	J	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:20	PAHs	193-39-5	Indeno(1,2,3-cd)pyrene	NA	Y	0.33	J	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:20	PAHs	205-99-2	Benzo(b)fluoranthene	NA	Y	0.87	J	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:20	PAHs	206-44-0	Fluoranthene	NA	Y	5.2	J	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:20	PAHs	207-08-9	Benzo(k)fluoranthene	NA	Y	0.43	J	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:20	PAHs	208-96-8	Acenaphthylene	NA	N	0.3	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:20	PAHs	218-01-9	Chrysene	NA	Y	3.1	J	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:20	PAHs	50-32-8	Benzo(a)pyrene	NA	Y	0.79	J	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:20	PAHs	53-70-3	Dibenzo(a,h)anthracene	NA	N	0.14	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:20	PAHs	56-55-3	Benzo(a)anthracene	NA	Y	1.2	J	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:20	PAHs	83-32-9	Acenaphthene	NA	Y	0.23	J	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:20	PAHs	85-01-8	Phenanthrene	NA	Y	2	J	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:20	PAHs	86-73-7	Fluorene	NA	Y	0.5	J	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:20	PAHs	91-20-3	Naphthalene	NA	Y	1.6	J	ug/kg	Wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:20	PAHs	91-57-6	2-Methylnaphthalene	NA	N	0.9	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	2051-60-7	PCB001	NA	Y	0.926		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	2051-61-8	PCB002	NA	Y	0.614		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	2051-62-9	PCB003	NA	Y	0.693		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	13029-08-8	PCB004	NA	Y	16.3		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	16605-91-7	PCB005	NA	N	0.412	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	25569-80-6	PCB006	NA	Y	5.09		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	33284-50-3	PCB007	NA	N	0.875	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	34883-43-7	PCB008	NA	Y	25.7		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	34883-39-1	PCB009	NA	Y	1.49		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	33146-45-1	PCB010	NA	N	0.363	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	2050-67-1	PCB011	NA	Y	24.4		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB012_013	PCB012 & 013	NA	N	2.83	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	34883-41-5	PCB014	NA	N	0.386	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	2050-68-2	PCB015	NA	Y	17.8		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	38444-78-9	PCB016	NA	Y	21.8		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	37680-66-3	PCB017	NA	Y	39.3		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB018_030	PCB018 & 030	NA	Y	54.1		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	38444-73-4	PCB019	NA	Y	15.7		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB020_028	PCB020 & 028	NA	Y	212		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB021_033	PCB021 & 033	NA	Y	95.9		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	38444-85-8	PCB022	NA	Y	69		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	55720-44-0	PCB023	NA	Y	0.198	J	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	55702-45-9	PCB024	NA	Y	1.06		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	55712-37-3	PCB025	NA	Y	15		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB026_029	PCB026 & 029	NA	Y	33.3		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	38444-76-7	PCB027	NA	Y	6.98		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	16606-02-3	PCB031	NA	Y	158		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	38444-77-8	PCB032	NA	Y	45		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	37680-68-5	PCB034	NA	Y	0.872		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	37680-69-6	PCB035	NA	Y	2.87		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	38444-87-0	PCB036	NA	N	0.217	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	38444-90-5	PCB037	NA	Y	47		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	53555-66-1	PCB038	NA	Y	0.519		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	38444-88-1	PCB039	NA	Y	3.26		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB040_041	PCB040 & 041 & 071	NA	Y	219		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	36559-22-5	PCB042	NA	Y	101		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	70362-46-8	PCB043	NA	Y	17.7		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB044_047	PCB044 & 047 & 065	NA	Y	423		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB045_051	PCB045 & 051	NA	Y	67.2		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	41464-47-5	PCB046	NA	Y	16.5		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	70362-47-9	PCB048	NA	Y	77.7		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB049_069	PCB049 & 069	NA	Y	267		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB050_053	PCB050 & 053	NA	Y	48.6		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	35693-99-3	PCB052	NA	Y	410		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	15968-05-5	PCB054	NA	Y	3.56		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74338-24-2	PCB055	NA	N	0.509	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	41464-43-1	PCB056	NA	Y	178		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	70424-67-8	PCB057	NA	Y	2.26		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	41464-49-7	PCB058	NA	N	0.549	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB059_062	PCB059 & 062 & 075	NA	Y	36.1		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	33025-41-1	PCB060	NA	Y	91		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB061_070	PCB061 & 070 & 074 & 076	NA	Y	657		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74472-34-7	PCB063	NA	Y	16.3		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	52663-58-8	PCB064	NA	Y	198		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	32598-10-0	PCB066	NA	Y	392		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	73575-53-8	PCB067	NA	Y	12.4		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	73575-52-7	PCB068	NA	N	2.49	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	41464-42-0	PCB072	NA	Y	4.49		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74338-23-1	PCB073	NA	N	0.18	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	32598-13-3	PCB077	NA	Y	31.1		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	70362-49-1	PCB078	NA	N	0.513	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	41464-48-6	PCB079	NA	Y	8.56		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	33284-52-5	PCB080	NA	N	0.445	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	70362-50-4	PCB081	NA	Y	1.5		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	52663-62-4	PCB082	NA	Y	77.7		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB083_099	PCB083 & 099	NA	Y	372		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	52663-60-2	PCB084	NA	Y	125		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB085_116	PCB085 & 116 & 117	NA	Y	139		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB086_087	PCB086 & 087 & 097 & 108 & 119 & 125	NA	Y	400		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB088_091	PCB088 & 091	NA	Y	109		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	73575-57-2	PCB089	NA	Y	10.1		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB090_101	PCB090 & 101 & 113	NA	Y	647		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	52663-61-3	PCB092	NA	Y	132		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB093_095	PCB093 & 095 & 098 & 100 & 102	NA	Y	487		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	73575-55-0	PCB094	NA	Y	8.92		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	73575-54-9	PCB096	NA	Y	6.88		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	60145-21-3	PCB103	NA	Y	13.4		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	56558-16-8	PCB104	NA	Y	1.85		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	32598-14-4	PCB105	NA	Y	271		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	70424-69-0	PCB106	NA	N	0.358	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB107_124	PCB107 & 124	NA	Y	27.8		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74472-35-8	PCB109	NA	Y	44.4		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB110_115	PCB110 & 115	NA	Y	634		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	39635-32-0	PCB111	NA	Y	0.904		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74472-36-9	PCB112	NA	N	0.222	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74472-37-0	PCB114	NA	Y	16.3		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	31508-00-6	PCB118	NA	Y	645		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	68194-12-7	PCB120	NA	Y	3.24		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	56558-18-0	PCB121	NA	Y	1		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	76842-07-4	PCB122	NA	Y	10.3		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	65510-44-3	PCB123	NA	Y	14		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	57465-28-8	PCB126	NA	Y	1.76		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	39635-33-1	PCB127	NA	N	0.357	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB128_166	PCB128 & 166	NA	Y	112		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB129_138	PCB129 & 138 & 160 & 163	NA	Y	1000		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	52663-66-8	PCB130	NA	Y	50.4		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	61798-70-7	PCB131	NA	Y	10.3		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	38380-05-1	PCB132	NA	Y	324		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	35694-04-3	PCB133	NA	Y	22.6		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB134_143	PCB134 & 143	NA	Y	46.5		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB135_151	PCB135 & 151 & 154	NA	Y	453		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	38411-22-2	PCB136	NA	Y	115		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	35694-06-5	PCB137	NA	Y	41.3		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB139_140	PCB139 & 140	NA	Y	17.5		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	52712-04-6	PCB141	NA	Y	205		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	41411-61-4	PCB142	NA	N	0.679	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	68194-14-9	PCB144	NA	Y	56.4		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74472-40-5	PCB145	NA	Y	0.412		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	51908-16-8	PCB146	NA	Y	173		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB147_149	PCB147 & 149	NA	Y	938		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74472-41-6	PCB148	NA	Y	4.94		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	68194-08-1	PCB150	NA	Y	3.72		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	68194-09-2	PCB152	NA	Y	2.34		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB153_168	PCB153 & 168	NA	Y	1070		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	33979-03-2	PCB155	NA	N	0.836	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB156_157	PCB156 & 157	NA	Y	83.6		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74472-42-7	PCB158	NA	Y	86.6		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	39635-35-3	PCB159	NA	Y	15.1		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74472-43-8	PCB161	NA	N	0.431	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	39635-34-2	PCB162	NA	Y	3.24		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74472-45-0	PCB164	NA	Y	75.1		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74472-46-1	PCB165	NA	Y	1.43		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	52663-72-6	PCB167	NA	Y	36.6		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	32774-16-6	PCB169	NA	N	0.7	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	35065-30-6	PCB170	NA	Y	204		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB171_173	PCB171 & 173	NA	Y	79.9		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	52663-74-8	PCB172	NA	Y	40.7		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	38411-25-5	PCB174	NA	Y	313		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	40186-70-7	PCB175	NA	Y	9.83		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	52663-65-7	PCB176	NA	Y	42.8		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	52663-70-4	PCB177	NA	Y	153		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	52663-67-9	PCB178	NA	Y	65.9		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	52663-64-6	PCB179	NA	Y	148		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB180_193	PCB180 & 193	NA	Y	638		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74472-47-2	PCB181	NA	Y	2.47		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	60145-23-5	PCB182	NA	Y	2.39		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB183_185	PCB183 & 185	NA	Y	230		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74472-48-3	PCB184	NA	Y	0.625		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74472-49-4	PCB186	NA	N	0.06	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	52663-68-0	PCB187	NA	Y	372		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74487-85-7	PCB188	NA	Y	1.25		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	39635-31-9	PCB189	NA	Y	8.66		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	41411-64-7	PCB190	NA	Y	42.1		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74472-50-7	PCB191	NA	Y	10.2		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74472-51-8	PCB192	NA	N	0.12	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	35694-08-7	PCB194	NA	Y	105		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	52663-78-2	PCB195	NA	Y	53.5		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	42740-50-1	PCB196	NA	Y	67.1		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB197_200	PCB197 & 200	NA	Y	26		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	PCB198_199	PCB198 & 199	NA	Y	142		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	40186-71-8	PCB201	NA	Y	19.5		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	2136-99-4	PCB202	NA	Y	41.3		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	52663-76-0	PCB203	NA	Y	115		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74472-52-9	PCB204	NA	N	0.132	U	pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	74472-53-0	PCB205	NA	Y	6.12		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	40186-72-9	PCB206	NA	Y	66.6		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	52663-79-3	PCB207	NA	Y	7.89		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	52663-77-1	PCB208	NA	Y	22.7		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	14:00	PCB_Congeners	2051-24-3	PCB209	NA	Y	41.1		pg/g	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:11	Pesticides	1024-57-3	Heptachlor epoxide	NA	Y	0.0104	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:11	Pesticides	1031-07-8	Endosulfan sulfate	NA	Y	0.192	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	00:27	Pesticides	27304-13-8	Oxychlordane	NA	Y	0.012	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	00:27	Pesticides	309-00-2	Aldrin	NA	Y	0.01	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	00:27	Pesticides	319-84-6	alpha-Hexachlorocyclohexane	NA	N	0.003	UJ	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	00:27	Pesticides	319-85-7	beta-Hexachlorocyclohexane	NA	N	0.0248	UJ	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:11	Pesticides	319-86-8	delta-Hexachlorocyclohexane	NA	N	0.00304	UJ	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:11	Pesticides	33213-65-9	beta-Endosulfan	NA	N	0.022	UJ	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	00:27	Pesticides	3424-82-6	2,4'-DDE	NA	Y	0.03	J	ug/kg	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	00:27	Pesticides	39765-80-5	trans-Nonachlor	NA	Y	0.145	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	00:27	Pesticides	50-29-3	4,4'-DDT	NA	Y	0.182	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	00:27	Pesticides	5103-71-9	cis-Chlordane	NA	Y	0.113	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	00:27	Pesticides	5103-73-1	cis-Nonachlor	NA	Y	0.054	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	00:27	Pesticides	5103-74-2	trans-Chlordane	NA	Y	0.075	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	00:27	Pesticides	53-19-0	2,4'-DDD	NA	Y	0.073	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:11	Pesticides	53494-70-5	Endrin ketone	NA	N	0.0162	UJ	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	00:27	Pesticides	58-89-9	gamma-Hexachlorocyclohexane	NA	N	0.004	UJ	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:11	Pesticides	60-57-1	Dieldrin	NA	Y	0.143	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:11	Pesticides	72-20-8	Endrin	NA	N	0.00134	UJ	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:11	Pesticides	72-43-5	Methoxychlor	NA	N	0.00426	UJ	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	00:27	Pesticides	72-54-8	4,4'-DDD	NA	Y	0.571	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	00:27	Pesticides	72-55-9	4,4'-DDE	NA	Y	1.71	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:11	Pesticides	7421-93-4	Endrin aldehyde	NA	N	0.0162	UJ	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	00:27	Pesticides	76-44-8	Heptachlor	NA	N	0.002	UJ	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	00:27	Pesticides	789-02-6	2,4'-DDT	NA	Y	0.056	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:11	Pesticides	959-98-8	alpha-Endosulfan	NA	N	0.0117	UJ	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/26/2007	20:39	Phenols	105-67-9	2,4-Dimethylphenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/26/2007	20:39	Phenols	95-48-7	2-Methylphenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/26/2007	20:39	Phenols	106-44-5	4-Methylphenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/26/2007	20:39	Phenols	87-86-5	Pentachlorophenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/26/2007	20:39	Phenols	108-95-2	Phenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:02	Phthalates	131-11-3	Dimethyl phthalate	NA	N	11	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:02	Phthalates	84-66-2	Diethyl phthalate	NA	N	13	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:02	Phthalates	84-74-2	Dibutyl phthalate	NA	N	8.9	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:02	Phthalates	85-68-7	Butylbenzyl phthalate	NA	N	130	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:02	Phthalates	117-84-0	Di-n-octyl phthalate	NA	N	39	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:02	Phthalates	117-81-7	Bis(2-ethylhexyl) phthalate	NA	N	49	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:02	SVOCs	120-82-1	1,2,4-Trichlorobenzene	NA	N	4.7	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:02	SVOCs	95-50-1	1,2-Dichlorobenzene	NA	N	7.7	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:02	SVOCs	541-73-1	1,3-Dichlorobenzene	NA	N	9.8	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:02	SVOCs	106-46-7	1,4-Dichlorobenzene	NA	N	8.9	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:02	SVOCs	100-51-6	Benzyl alcohol	NA	N	22	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	00:27	SVOCs	118-74-1	Hexachlorobenzene	NA	Y	0.125	J	ug/kg	wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:02	SVOCs	87-68-3	Hexachlorobutadiene	NA	N	5.4	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:02	SVOCs	67-72-1	Hexachloroethane	NA	N	9.3	UJ	ug/kg	Wet	QA2Cat1	
Downstream	LW2-BTFM001	FM001	7617889.5	725152.87	-5	1.9	B01-01-51B_FM				12/13/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM001 Comp		normal	SW8270-SIM	1/25/2007	15:02	SVOCs	86-30-6	N-Nitrosodiphenylamine	NA	N	12	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	GC-FPD	1/24/2007	18:29	Butyltins	78763-54-9	Butyltin ion	NA	Y	1.4	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	GC-FPD	1/24/2007	18:29	Butyltins	14488-53-0	Dibutyltin ion	NA	Y	1.9	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	GC-FPD	1/24/2007	18:29	Butyltins	36643-28-4	Tributyltin ion	NA	Y	3.8	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	GC-FPD	1/24/2007	18:29	Butyltins	1461-25-2	Tetrabutyltin	NA	N	0.85	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Conventionals	66455-18-3	Lipids	NA	Y	0.18		percent	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	ZFZDRY	1/3/2007	12:00	Conventionals	TSO	Total solids	NA	Y	3.65		percent	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxin_Furan_Homolog	41903-57-5	Tetrachlorodibenzo-p-dioxin homologs	NA	Y	0.556		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxin_Furan_Homolog	36088-22-9	Pentachlorodibenzo-p-dioxin homologs	NA	N	0.0197	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxin_Furan_Homolog	34465-46-8	Hexachlorodibenzo-p-dioxin homologs	NA	Y	0.618		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxin_Furan_Homolog	37871-00-4	Heptachlorodibenzo-p-dioxin homologs	NA	Y	2.25		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxin_Furan_Homolog	3268-87-9	Octachlorodibenzo-p-dioxin	NA	Y	8.56		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxin_Furan_Homolog	30402-14-3	Tetrachlorodibenzofuran homologs	NA	Y	0.889		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxin_Furan_Homolog	30402-15-4	Pentachlorodibenzofuran homologs	NA	Y	0.513		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxin_Furan_Homolog	55684-94-1	Hexachlorodibenzofuran homologs	NA	Y	0.241		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxin_Furan_Homolog	38998-75-3	Heptachlorodibenzofuran homologs	NA	Y	0.357		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxin_Furan_Homolog	39001-02-0	Octachlorodibenzofuran	NA	Y	0.446	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxins_Furans	1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin	NA	N	0.059	U	pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxins_Furans	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	NA	N	0.041	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxins_Furans	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	NA	N	0.038	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxins_Furans	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	NA	Y	0.152	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxins_Furans	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	NA	N	0.057	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxins_Furans	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	NA	Y	1.08	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/23/2007	01:18	Dioxins_Furans	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	NA	N	0.109	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxins_Furans	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	NA	N	0.055	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxins_Furans	57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	NA	Y	0.112	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxins_Furans	70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	NA	Y	0.049	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxins_Furans	57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	NA	Y	0.03	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxins_Furans	72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	NA	N	0.0958	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxins_Furans	60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	NA	N	0.061	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxins_Furans	67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	NA	N	0.204	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	02:50	Dioxins_Furans	55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	NA	Y	0.024	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW6010B	1/24/2007	10:17	Metals	7429-90-5	Aluminum	total	Y	5.9		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW6020	1/24/2007	10:01	Metals	7439-92-1	Lead	total	Y	0.0386		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW7471A	1/18/2007	13:59	Metals	7439-97-6	Mercury	total	Y	0.0022	J	mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW6020	1/24/2007	10:01	Metals	7440-02-0	Nickel	total	Y	0.308		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW6020	1/24/2007	10:01	Metals	7440-22-4	Silver	total	Y	0.0398		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW6020	1/24/2007	11:38	Metals	7440-36-0	Antimony	total	Y	0.001	J	mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW6020	1/24/2007	10:01	Metals	7440-38-2	Arsenic	total	Y	0.224		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW6020	1/24/2007	10:01	Metals	7440-43-9	Cadmium	total	Y	0.0988		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW6010B	1/24/2007	10:17	Metals	7440-47-3	Chromium	total	N	0.13	U	mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW6020	1/24/2007	10:01	Metals	7440-50-8	Copper	total	Y	1.01		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW6010B	1/24/2007	10:17	Metals	7440-66-6	Zinc	total	Y	15.7		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW7742	1/25/2007	16:21	Metals	7782-49-2	Selenium	total	Y	0.058		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:46	PAHs	120-12-7	Anthracene	NA	N	0.33	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:46	PAHs	129-00-0	Pyrene	NA	Y	4.7	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:46	PAHs	191-24-2	Benzo(g,h,i)perylene	NA	Y	0.47	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:46	PAHs	193-39-5	Indeno(1,2,3-cd)pyrene	NA	Y	0.1	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:46	PAHs	205-99-2	Benzo(b)fluoranthene	NA	Y	0.69	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:46	PAHs	206-44-0	Fluoranthene	NA	Y	3.5	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:46	PAHs	207-08-9	Benzo(k)fluoranthene	NA	Y	0.23	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:46	PAHs	208-96-8	Acenaphthylene	NA	N	0.3	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:46	PAHs	218-01-9	Chrysene	NA	Y	2.1	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:46	PAHs	50-32-8	Benzo(a)pyrene	NA	Y	0.51	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:46	PAHs	53-70-3	Dibenzo(a,h)anthracene	NA	N	0.14	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:46	PAHs	56-55-3	Benzo(a)anthracene	NA	Y	1	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:46	PAHs	83-32-9	Acenaphthene	NA	Y	0.14	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:46	PAHs	85-01-8	Phenanthrene	NA	Y	1.4	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:46	PAHs	86-73-7	Fluorene	NA	Y	0.35	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:46	PAHs	91-20-3	Naphthalene	NA	Y	1.1	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:46	PAHs	91-57-6	2-Methylnaphthalene	NA	N	0.51	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	2051-60-7	PCB001	NA	Y	1.21	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	2051-61-8	PCB002	NA	Y	0.616	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	2051-62-9	PCB003	NA	Y	0.956		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	13029-08-8	PCB004	NA	Y	6.84	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	16605-91-7	PCB005	NA	N	0.82	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	25569-80-6	PCB006	NA	N	5.52	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	33284-50-3	PCB007	NA	Y	1.25		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	34883-43-7	PCB008	NA	Y	29.7		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	34883-39-1	PCB009	NA	Y	2.16		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	33146-45-1	PCB010	NA	N	0.819	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	2050-67-1	PCB011	NA	Y	18		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB012_013	PCB012 & 013	NA	Y	3.39		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	34883-41-5	PCB014	NA	N	0.769	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	2050-68-2	PCB015	NA	Y	18.6		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	38444-78-9	PCB016	NA	Y	27.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	37680-66-3	PCB017	NA	Y	36.8		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB018_030	PCB018 & 030	NA	Y	60.8		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	38444-73-4	PCB019	NA	Y	10.5		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB020_028	PCB020 & 028	NA	Y	202		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB021_033	PCB021 & 033	NA	Y	131		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	38444-85-8	PCB022	NA	Y	78.3		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	55720-44-0	PCB023	NA	Y	0.295	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	55702-45-9	PCB024	NA	Y	1.2		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	55712-37-3	PCB025	NA	Y	15.4		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB026_029	PCB026 & 029	NA	Y	35.4		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	38444-76-7	PCB027	NA	Y	6.55		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	16606-02-3	PCB031	NA	Y	165		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	38444-77-8	PCB032	NA	Y	35.8		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	37680-68-5	PCB034	NA	N	0.795	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	37680-69-6	PCB035	NA	Y	2.77		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	38444-87-0	PCB036	NA	Y	0.14	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	38444-90-5	PCB037	NA	Y	45.2		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	53555-66-1	PCB038	NA	N	0.208	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	38444-88-1	PCB039	NA	Y	2.42		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB040_041	PCB040 & 041 & 071	NA	Y	120		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	36559-22-5	PCB042	NA	Y	56		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	70362-46-8	PCB043	NA	Y	10.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB044_047	PCB044 & 047 & 065	NA	Y	209		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB045_051	PCB045 & 051	NA	Y	36.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	41464-47-5	PCB046	NA	Y	9.45		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	70362-47-9	PCB048	NA	Y	51.7		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB049_069	PCB049 & 069	NA	Y	131		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB050_053	PCB050 & 053	NA	Y	24.1		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	35693-99-3	PCB052	NA	Y	200		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	15968-05-5	PCB054	NA	Y	2.16		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74338-24-2	PCB055	NA	Y	4.91		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	41464-43-1	PCB056	NA	Y	70.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	70424-67-8	PCB057	NA	Y	1.5		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	41464-49-7	PCB058	NA	N	0.517	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB059_062	PCB059 & 062 & 075	NA	Y	20.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	33025-41-1	PCB060	NA	Y	41.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB061_070	PCB061 & 070 & 074 & 076	NA	Y	282		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74472-34-7	PCB063	NA	Y	7.38		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	52663-58-8	PCB064	NA	Y	99.7		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	32598-10-0	PCB066	NA	Y	145		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	73575-53-8	PCB067	NA	N	6.77	U	pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	73575-52-7	PCB068	NA	N	1.16	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	41464-42-0	PCB072	NA	N	1.8	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74338-23-1	PCB073	NA	N	0.47	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	32598-13-3	PCB077	NA	Y	12.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	70362-49-1	PCB078	NA	N	0.517	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	41464-48-6	PCB079	NA	Y	3.03		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	33284-52-5	PCB080	NA	N	0.407	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	70362-50-4	PCB081	NA	Y	0.773		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	52663-62-4	PCB082	NA	Y	25.7		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB083_099	PCB083 & 099	NA	Y	123		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	52663-60-2	PCB084	NA	Y	43.5		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB085_116	PCB085 & 116 & 117	NA	Y	41.8		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB086_087	PCB086 & 087 & 097 & 108 & 119 & 125	NA	Y	136		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB088_091	PCB088 & 091	NA	Y	38.3		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	73575-57-2	PCB089	NA	Y	2.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB090_101	PCB090 & 101 & 113	NA	Y	231		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	52663-61-3	PCB092	NA	Y	51.3		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB093_095	PCB093 & 095 & 098 & 100 & 102	NA	Y	202		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	73575-55-0	PCB094	NA	Y	4.14		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	73575-54-9	PCB096	NA	Y	2.87		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	60145-21-3	PCB103	NA	Y	5.76		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	56558-16-8	PCB104	NA	Y	0.967		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	32598-14-4	PCB105	NA	Y	97.8		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	70424-69-0	PCB106	NA	N	0.219	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB107_124	PCB107 & 124	NA	Y	8.8		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74472-35-8	PCB109	NA	Y	15.8		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB110_115	PCB110 & 115	NA	Y	239		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	39635-32-0	PCB111	NA	N	0.498	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74472-36-9	PCB112	NA	N	0.235	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74472-37-0	PCB114	NA	Y	5.72		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	31508-00-6	PCB118	NA	Y	241		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	68194-12-7	PCB120	NA	Y	1.56		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	56558-18-0	PCB121	NA	Y	0.512	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	76842-07-4	PCB122	NA	Y	3.48		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	65510-44-3	PCB123	NA	Y	4.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	57465-28-8	PCB126	NA	Y	0.772		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	39635-33-1	PCB127	NA	N	0.266	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB128_166	PCB128 & 166	NA	Y	62.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB129_138	PCB129 & 138 & 160 & 163	NA	Y	505		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	52663-66-8	PCB130	NA	Y	23.2		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	61798-70-7	PCB131	NA	Y	4.32		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	38380-05-1	PCB132	NA	Y	138		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	35694-04-3	PCB133	NA	N	11.1	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB134_143	PCB134 & 143	NA	Y	22.1		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB135_151	PCB135 & 151 & 154	NA	Y	241		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	38411-22-2	PCB136	NA	Y	50.3		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	35694-06-5	PCB137	NA	Y	19.4		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB139_140	PCB139 & 140	NA	Y	7.88		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	52712-04-6	PCB141	NA	Y	102		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	41411-61-4	PCB142	NA	N	0.613	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	68194-14-9	PCB144	NA	Y	26.7		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74472-40-5	PCB145	NA	Y	0.175	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	51908-16-8	PCB146	NA	Y	93.3		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB147_149	PCB147 & 149	NA	Y	451		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74472-41-6	PCB148	NA	Y	2.71		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	68194-08-1	PCB150	NA	Y	1.79		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	68194-09-2	PCB152	NA	Y	1.23		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB153_168	PCB153 & 168	NA	Y	549		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	33979-03-2	PCB155	NA	Y	0.525	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB156_157	PCB156 & 157	NA	Y	44.1		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74472-42-7	PCB158	NA	Y	41.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	39635-35-3	PCB159	NA	Y	8.36		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74472-43-8	PCB161	NA	N	0.389	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	39635-34-2	PCB162	NA	N	1.25	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74472-45-0	PCB164	NA	Y	32.2		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74472-46-1	PCB165	NA	N	0.861	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	52663-72-6	PCB167	NA	Y	19.5		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	32774-16-6	PCB169	NA	N	0.517	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	35065-30-6	PCB170	NA	Y	147		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB171_173	PCB171 & 173	NA	Y	46.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	52663-74-8	PCB172	NA	Y	26.1		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	38411-25-5	PCB174	NA	Y	178		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	40186-70-7	PCB175	NA	Y	5.79		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	52663-65-7	PCB176	NA	Y	24		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	52663-70-4	PCB177	NA	Y	100		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	52663-67-9	PCB178	NA	Y	37.1		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	52663-64-6	PCB179	NA	Y	87.5		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB180_193	PCB180 & 193	NA	Y	455		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74472-47-2	PCB181	NA	Y	1.57		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	60145-23-5	PCB182	NA	Y	1.68		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB183_185	PCB183 & 185	NA	Y	135		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74472-48-3	PCB184	NA	N	0.328	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74472-49-4	PCB186	NA	N	0.157	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	52663-68-0	PCB187	NA	Y	279		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74487-85-7	PCB188	NA	Y	0.861		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	39635-31-9	PCB189	NA	Y	5.85		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	41411-64-7	PCB190	NA	Y	29.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74472-50-7	PCB191	NA	N	6.17	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74472-51-8	PCB192	NA	N	0.313	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	35694-08-7	PCB194	NA	Y	73.7		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	52663-78-2	PCB195	NA	Y	33.4		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	42740-50-1	PCB196	NA	Y	32.4		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB197_200	PCB197 & 200	NA	Y	14.8		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	PCB198_199	PCB198 & 199	NA	Y	77.2		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	40186-71-8	PCB201	NA	Y	11.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	2136-99-4	PCB202	NA	Y	22.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	52663-76-0	PCB203	NA	Y	68.4		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74472-52-9	PCB204	NA	N	0.101	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	74472-53-0	PCB205	NA	Y	4.18		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	40186-72-9	PCB206	NA	Y	43		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	52663-79-3	PCB207	NA	Y	3.38		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	52663-77-1	PCB208	NA	Y	12.3		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	15:04	PCB_Congeners	2051-24-3	PCB209	NA	Y	26.8		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:52	Pesticides	1024-57-3	Heptachlor epoxide	NA	Y	0.0075	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:52	Pesticides	1031-07-8	Endosulfan sulfate	NA	Y	0.11	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	Pesticides	27304-13-8	Oxychlordane	NA	N	0.092	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	Pesticides	309-00-2	Aldrin	NA	N	0.005	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	Pesticides	319-84-6	alpha-Hexachlorocyclohexane	NA	N	0.426	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	Pesticides	319-85-7	beta-Hexachlorocyclohexane	NA	N	0.0675	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:52	Pesticides	319-86-8	delta-Hexachlorocyclohexane	NA	N	0.00167	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:52	Pesticides	33213-65-9	beta-Endosulfan	NA	N	0.0258	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	Pesticides	3424-82-6	2,4'-DDE	NA	N	0.0215	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	Pesticides	39765-80-5	trans-Nonachlor	NA	Y	0.068	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	Pesticides	50-29-3	4,4'-DDT	NA	Y	0.091	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	Pesticides	5103-71-9	cis-Chlordane	NA	Y	0.053	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	Pesticides	5103-73-1	cis-Nonachlor	NA	Y	0.03	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	Pesticides	5103-74-2	trans-Chlordane	NA	Y	0.04	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	Pesticides	53-19-0	2,4'-DDD	NA	Y	0.03	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:52	Pesticides	53494-70-5	Endrin ketone	NA	N	0.042	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	Pesticides	58-89-9	gamma-Hexachlorocyclohexane	NA	N	0.0307	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:52	Pesticides	60-57-1	Dieldrin	NA	Y	0.0742	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:52	Pesticides	72-20-8	Endrin	NA	N	0.0222	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:52	Pesticides	72-43-5	Methoxychlor	NA	N	0.00237	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	Pesticides	72-54-8	4,4'-DDD	NA	Y	0.279	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	Pesticides	72-55-9	4,4'-DDE	NA	Y	0.544	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:52	Pesticides	7421-93-4	Endrin aldehyde	NA	N	0.042	UJ	ug/kg	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	DepthUnit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	Pesticides	76-44-8	Heptachlor	NA	N	0.0399	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	Pesticides	789-02-6	2,4'-DDT	NA	Y	0.035	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	00:52	Pesticides	959-98-8	alpha-Endosulfan	NA	N	0.018	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/26/2007	21:05	Phenols	105-67-9	2,4-Dimethylphenol	NA	N	40	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/26/2007	21:05	Phenols	95-48-7	2-Methylphenol	NA	N	40	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/26/2007	21:05	Phenols	106-44-5	4-Methylphenol	NA	N	40	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/26/2007	21:05	Phenols	87-86-5	Pentachlorophenol	NA	N	40	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/26/2007	21:05	Phenols	108-95-2	Phenol	NA	N	40	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:32	Phthalates	131-11-3	Dimethyl phthalate	NA	N	22	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:32	Phthalates	84-66-2	Diethyl phthalate	NA	N	26	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:32	Phthalates	84-74-2	Dibutyl phthalate	NA	Y	32	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:32	Phthalates	85-68-7	Butylbenzyl phthalate	NA	N	260	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:32	Phthalates	117-84-0	Di-n-octyl phthalate	NA	N	78	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:32	Phthalates	117-81-7	Bis(2-ethylhexyl) phthalate	NA	N	98	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:32	SVOCs	120-82-1	1,2,4-Trichlorobenzene	NA	N	9.4	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:32	SVOCs	95-50-1	1,2-Dichlorobenzene	NA	N	16	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:32	SVOCs	541-73-1	1,3-Dichlorobenzene	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:32	SVOCs	106-46-7	1,4-Dichlorobenzene	NA	N	18	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:32	SVOCs	100-51-6	Benzyl alcohol	NA	N	44	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	SVOCs	118-74-1	Hexachlorobenzene	NA	Y	0.063	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:11	SVOCs	87-68-3	Hexachlorobutadiene	NA	N	0.0257	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:32	SVOCs	67-72-1	Hexachloroethane	NA	N	19	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM004	FM004	7617013.3	719460.33	-5	3.2	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM004 Comp		normal	SW8270-SIM	1/25/2007	15:32	SVOCs	86-30-6	N-Nitrosodiphenylamine	NA	N	24	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	GC-FPD	1/24/2007	18:44	Butyltins	78763-54-9	Butyltin ion	NA	Y	1.5	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	GC-FPD	1/24/2007	18:44	Butyltins	14488-53-0	Dibutyltin ion	NA	Y	3.8	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	GC-FPD	1/24/2007	18:44	Butyltins	36643-28-4	Tributyltin ion	NA	Y	16	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	GC-FPD	1/24/2007	18:44	Butyltins	1461-25-2	Tetrabutyltin	NA	N	0.85	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Conventionals	66455-18-3	Lipids	NA	Y	0.51		percent	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	ZFZDRY	1/3/2007	12:00	Conventionals	TSO	Total solids	NA	Y	8.08		percent	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxin_Furan_Homolog	41903-57-5	Tetrachlorodibenzo-p-dioxin homologs	NA	Y	1.42		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxin_Furan_Homolog	36088-22-9	Pentachlorodibenzo-p-dioxin homologs	NA	Y	0.648		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxin_Furan_Homolog	34465-46-8	Hexachlorodibenzo-p-dioxin homologs	NA	Y	2.89		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxin_Furan_Homolog	37871-00-4	Heptachlorodibenzo-p-dioxin homologs	NA	Y	10.7		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxin_Furan_Homolog	3268-87-9	Octachlorodibenzo-p-dioxin	NA	Y	33.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxin_Furan_Homolog	30402-14-3	Tetrachlorodibenzofuran homologs	NA	Y	5.81		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxin_Furan_Homolog	30402-15-4	Pentachlorodibenzofuran homologs	NA	Y	3.35		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxin_Furan_Homolog	55684-94-1	Hexachlorodibenzofuran homologs	NA	Y	2.37		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxin_Furan_Homolog	38998-75-3	Heptachlorodibenzofuran homologs	NA	Y	2.76		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxin_Furan_Homolog	39001-02-0	Octachlorodibenzofuran	NA	Y	2.34	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxins_Furans	1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin	NA	N	0.088	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxins_Furans	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	NA	Y	0.178	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxins_Furans	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	NA	Y	0.121	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxins_Furans	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	NA	Y	0.527	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxins_Furans	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	NA	Y	0.239	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxins_Furans	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	NA	Y	5.12		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/23/2007	01:54	Dioxins_Furans	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	NA	N	0.454	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxins_Furans	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	NA	Y	0.144	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxins_Furans	57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	NA	Y	0.286	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxins_Furans	70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	NA	Y	0.179	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxins_Furans	57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	NA	N	0.098	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxins_Furans	72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	NA	N	0.0945	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxins_Furans	60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	NA	N	0.121	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxins_Furans	67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	NA	Y	0.921	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	03:44	Dioxins_Furans	55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	NA	N	0.079	U	pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW6010B	1/24/2007	10:20	Metals	7429-90-5	Aluminum	total	Y	211		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW6020	1/24/2007	10:12	Metals	7439-92-1	Lead	total	Y	0.22		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW7471A	1/18/2007	14:01	Metals	7439-97-6	Mercury	total	Y	0.0054	J	mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW6020	1/24/2007	10:12	Metals	7440-02-0	Nickel	total	Y	0.336		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW6020	1/24/2007	10:12	Metals	7440-22-4	Silver	total	Y	0.0335		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW6020	1/24/2007	11:39	Metals	7440-36-0	Antimony	total	Y	0.0035	J	mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW6020	1/24/2007	10:12	Metals	7440-38-2	Arsenic	total	Y	0.325		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW6020	1/24/2007	10:12	Metals	7440-43-9	Cadmium	total	Y	0.188		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW6010B	1/24/2007	10:20	Metals	7440-47-3	Chromium	total	Y	0.28		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW6020	1/24/2007	10:12	Metals	7440-50-8	Copper	total	Y	1.82		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW6010B	1/24/2007	10:20	Metals	7440-66-6	Zinc	total	Y	27.4		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW7742	1/25/2007	16:23	Metals	7782-49-2	Selenium	total	Y	0.098		mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:12	PAHs	120-12-7	Anthracene	NA	Y	2.3	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:12	PAHs	129-00-0	Pyrene	NA	Y	36	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:12	PAHs	191-24-2	Benzo(g,h,i)perylene	NA	Y	7.1	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:12	PAHs	193-39-5	Indeno(1,2,3-cd)pyrene	NA	Y	3.1	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:12	PAHs	205-99-2	Benzo(b)fluoranthene	NA	Y	12	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:12	PAHs	206-44-0	Fluoranthene	NA	Y	27	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:12	PAHs	207-08-9	Benzo(k)fluoranthene	NA	Y	4.2	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:12	PAHs	208-96-8	Acenaphthylene	NA	Y	0.39	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:12	PAHs	218-01-9	Chrysene	NA	Y	27	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:12	PAHs	50-32-8	Benzo(a)pyrene	NA	Y	5.2	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:12	PAHs	53-70-3	Dibenzo(a,h)anthracene	NA	Y	0.67	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:12	PAHs	56-55-3	Benzo(a)anthracene	NA	Y	11	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:12	PAHs	83-32-9	Acenaphthene	NA	Y	0.6	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:12	PAHs	85-01-8	Phenanthrene	NA	Y	8.4	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:12	PAHs	86-73-7	Fluorene	NA	Y	1	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:12	PAHs	91-20-3	Naphthalene	NA	Y	1.6	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:12	PAHs	91-57-6	2-Methylnaphthalene	NA	N	0.79	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	2051-60-7	PCB001	NA	Y	3.1		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	2051-61-8	PCB002	NA	Y	1.09		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	2051-62-9	PCB003	NA	Y	2.54		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	13029-08-8	PCB004	NA	Y	49.2	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	16605-91-7	PCB005	NA	Y	3.09		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	25569-80-6	PCB006	NA	Y	41.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	33284-50-3	PCB007	NA	Y	9.1		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	34883-43-7	PCB008	NA	Y	230		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	34883-39-1	PCB009	NA	Y	14.3		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	33146-45-1	PCB010	NA	N	2.74	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	2050-67-1	PCB011	NA	Y	26		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB012_013	PCB012 & 013	NA	Y	28.2		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	34883-41-5	PCB014	NA	N	0.723	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	2050-68-2	PCB015	NA	Y	272		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	38444-78-9	PCB016	NA	Y	258		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	37680-66-3	PCB017	NA	Y	350		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB018_030	PCB018 & 030	NA	Y	604		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	38444-73-4	PCB019	NA	Y	73.7		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB020_028	PCB020 & 028	NA	Y	2190		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB021_033	PCB021 & 033	NA	Y	1240		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	38444-85-8	PCB022	NA	Y	792		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	55720-44-0	PCB023	NA	Y	2.69		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	55702-45-9	PCB024	NA	Y	11.8		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	55712-37-3	PCB025	NA	Y	163		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB026_029	PCB026 & 029	NA	Y	383		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	38444-76-7	PCB027	NA	Y	62		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	16606-02-3	PCB031	NA	Y	1810		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	38444-77-8	PCB032	NA	Y	387		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	37680-68-5	PCB034	NA	Y	7.4		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	37680-69-6	PCB035	NA	Y	31.5		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	38444-87-0	PCB036	NA	N	0.579	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	38444-90-5	PCB037	NA	Y	508		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	53555-66-1	PCB038	NA	N	2.27	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	38444-88-1	PCB039	NA	Y	24.5		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB040_041	PCB040 & 041 & 071	NA	Y	1390		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	36559-22-5	PCB042	NA	Y	663		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	70362-46-8	PCB043	NA	Y	125		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB044_047	PCB044 & 047 & 065	NA	Y	2550		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB045_051	PCB045 & 051	NA	Y	380		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	41464-47-5	PCB046	NA	Y	116		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	70362-47-9	PCB048	NA	Y	598		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB049_069	PCB049 & 069	NA	Y	1700		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB050_053	PCB050 & 053	NA	Y	264		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	35693-99-3	PCB052	NA	Y	3300		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	15968-05-5	PCB054	NA	Y	8.27		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74338-24-2	PCB055	NA	Y	38.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	41464-43-1	PCB056	NA	Y	708		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	70424-67-8	PCB057	NA	Y	15.4		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	41464-49-7	PCB058	NA	N	2.64	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB059_062	PCB059 & 062 & 075	NA	Y	244		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	33025-41-1	PCB060	NA	Y	387		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB061_070	PCB061 & 070 & 074 & 076	NA	Y	3960		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74472-34-7	PCB063	NA	Y	88.5		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	52663-58-8	PCB064	NA	Y	1210		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	32598-10-0	PCB066	NA	Y	1710		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	73575-53-8	PCB067	NA	Y	89		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	73575-52-7	PCB068	NA	Y	15.5		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	41464-42-0	PCB072	NA	Y	30.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74338-23-1	PCB073	NA	N	0.457	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	32598-13-3	PCB077	NA	Y	146		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	70362-49-1	PCB078	NA	N	2.47	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	41464-48-6	PCB079	NA	Y	61		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	33284-52-5	PCB080	NA	N	2.14	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	70362-50-4	PCB081	NA	Y	5.11		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	52663-62-4	PCB082	NA	Y	434		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB083_099	PCB083 & 099	NA	Y	2300		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	52663-60-2	PCB084	NA	Y	883		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB085_116	PCB085 & 116 & 117	NA	Y	747		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB086_087	PCB086 & 087 & 097 & 108 & 119 & 125	NA	Y	2640		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB088_091	PCB088 & 091	NA	Y	577		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	73575-57-2	PCB089	NA	Y	37		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB090_101	PCB090 & 101 & 113	NA	Y	4650		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	52663-61-3	PCB092	NA	Y	831		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB093_095	PCB093 & 095 & 098 & 100 & 102	NA	Y	3460		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	73575-55-0	PCB094	NA	Y	25.8		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	73575-54-9	PCB096	NA	Y	28		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	60145-21-3	PCB103	NA	Y	38.2		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	56558-16-8	PCB104	NA	Y	2.34		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	32598-14-4	PCB105	NA	Y	1570		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	70424-69-0	PCB106	NA	N	1	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB107_124	PCB107 & 124	NA	Y	204		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74472-35-8	PCB109	NA	Y	297		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB110_115	PCB110 & 115	NA	Y	5040		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	39635-32-0	PCB111	NA	Y	3.27		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74472-36-9	PCB112	NA	N	0.229	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74472-37-0	PCB114	NA	Y	93.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	31508-00-6	PCB118	NA	Y	4820		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	68194-12-7	PCB120	NA	Y	14.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	56558-18-0	PCB121	NA	N	1.3	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	76842-07-4	PCB122	NA	Y	54.1		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	65510-44-3	PCB123	NA	Y	85.5		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	57465-28-8	PCB126	NA	Y	8.46		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	39635-33-1	PCB127	NA	N	0.996	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB128_166	PCB128 & 166	NA	Y	1110		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB129_138	PCB129 & 138 & 160 & 163	NA	Y	7710		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	52663-66-8	PCB130	NA	Y	354		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	61798-70-7	PCB131	NA	Y	85.4		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	38380-05-1	PCB132	NA	Y	2210		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	35694-04-3	PCB133	NA	Y	91.7		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB134_143	PCB134 & 143	NA	Y	283		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB135_151	PCB135 & 151 & 154	NA	Y	2060		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	38411-22-2	PCB136	NA	Y	552		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	35694-06-5	PCB137	NA	Y	372		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB139_140	PCB139 & 140	NA	Y	138		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	52712-04-6	PCB141	NA	Y	1220		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	41411-61-4	PCB142	NA	N	2.74	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	68194-14-9	PCB144	NA	Y	302		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74472-40-5	PCB145	NA	Y	2.36		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	51908-16-8	PCB146	NA	Y	1010		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB147_149	PCB147 & 149	NA	Y	5490		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74472-41-6	PCB148	NA	Y	11.4		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	68194-08-1	PCB150	NA	Y	8.31		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	68194-09-2	PCB152	NA	Y	6.34		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB153_168	PCB153 & 168	NA	Y	7160		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	33979-03-2	PCB155	NA	Y	1.13		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB156_157	PCB156 & 157	NA	Y	735		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74472-42-7	PCB158	NA	Y	678		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	39635-35-3	PCB159	NA	Y	66.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74472-43-8	PCB161	NA	N	1.74	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	39635-34-2	PCB162	NA	Y	26.7		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74472-45-0	PCB164	NA	Y	466		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74472-46-1	PCB165	NA	N	1.92	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	52663-72-6	PCB167	NA	Y	297		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	32774-16-6	PCB169	NA	N	3.57	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	35065-30-6	PCB170	NA	Y	1350		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB171_173	PCB171 & 173	NA	Y	479		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	52663-74-8	PCB172	NA	Y	233		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	38411-25-5	PCB174	NA	Y	1510		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	40186-70-7	PCB175	NA	Y	49.5		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	52663-65-7	PCB176	NA	Y	190		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	52663-70-4	PCB177	NA	Y	684		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	52663-67-9	PCB178	NA	Y	264		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	52663-64-6	PCB179	NA	Y	554		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB180_193	PCB180 & 193	NA	Y	3920		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74472-47-2	PCB181	NA	Y	16.2		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	60145-23-5	PCB182	NA	Y	12.3		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB183_185	PCB183 & 185	NA	Y	1290		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74472-48-3	PCB184	NA	Y	1.93		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74472-49-4	PCB186	NA	N	0.152	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	52663-68-0	PCB187	NA	Y	2110		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74487-85-7	PCB188	NA	Y	3.49		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	39635-31-9	PCB189	NA	Y	49.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	41411-64-7	PCB190	NA	Y	259		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74472-50-7	PCB191	NA	Y	54.5		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74472-51-8	PCB192	NA	N	0.305	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	35694-08-7	PCB194	NA	Y	688		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	52663-78-2	PCB195	NA	Y	340		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	42740-50-1	PCB196	NA	Y	372		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB197_200	PCB197 & 200	NA	Y	154		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	PCB198_199	PCB198 & 199	NA	Y	804		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	40186-71-8	PCB201	NA	Y	105		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	2136-99-4	PCB202	NA	Y	183		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	52663-76-0	PCB203	NA	Y	813		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74472-52-9	PCB204	NA	N	0.425	U	pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	74472-53-0	PCB205	NA	Y	36.1		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	40186-72-9	PCB206	NA	Y	565		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	52663-79-3	PCB207	NA	Y	42.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	52663-77-1	PCB208	NA	Y	131		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	16:09	PCB_Congeners	2051-24-3	PCB209	NA	Y	160		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	01:34	Pesticides	1024-57-3	Heptachlor epoxide	NA	Y	0.0131	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	01:34	Pesticides	1031-07-8	Endosulfan sulfate	NA	Y	0.234	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	Pesticides	27304-13-8	Oxychlordane	NA	N	0.011	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	Pesticides	309-00-2	Aldrin	NA	Y	0.007	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	Pesticides	319-84-6	alpha-Hexachlorocyclohexane	NA	N	0.004	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	Pesticides	319-85-7	beta-Hexachlorocyclohexane	NA	N	0.0669	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	01:34	Pesticides	319-86-8	delta-Hexachlorocyclohexane	NA	N	0.00172	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	01:34	Pesticides	33213-65-9	beta-Endosulfan	NA	N	0.025	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	Pesticides	3424-82-6	2,4'-DDE	NA	Y	0.033	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	Pesticides	39765-80-5	trans-Nonachlor	NA	Y	0.198	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	Pesticides	50-29-3	4,4'-DDT	NA	Y	0.239	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	Pesticides	5103-71-9	cis-Chlordane	NA	Y	0.151	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	Pesticides	5103-73-1	cis-Nonachlor	NA	Y	0.066	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	Pesticides	5103-74-2	trans-Chlordane	NA	Y	0.106	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	Pesticides	53-19-0	2,4'-DDD	NA	Y	0.12	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	01:34	Pesticides	53494-70-5	Endrin ketone	NA	N	0.0414	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	Pesticides	58-89-9	gamma-Hexachlorocyclohexane	NA	Y	0.007	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	01:34	Pesticides	60-57-1	Dieldrin	NA	Y	0.157	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	01:34	Pesticides	72-20-8	Endrin	NA	N	0.0219	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	01:34	Pesticides	72-43-5	Methoxychlor	NA	N	0.00679	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	Pesticides	72-54-8	4,4'-DDD	NA	Y	1.22	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	Pesticides	72-55-9	4,4'-DDE	NA	Y	1.45	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	01:34	Pesticides	7421-93-4	Endrin aldehyde	NA	N	0.0414	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	Pesticides	76-44-8	Heptachlor	NA	N	0.0396	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	Pesticides	789-02-6	2,4'-DDT	NA	Y	0.082	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	01:34	Pesticides	959-98-8	alpha-Endosulfan	NA	N	0.015	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/26/2007	21:30	Phenols	105-67-9	2,4-Dimethylphenol	NA	N	40	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/26/2007	21:30	Phenols	95-48-7	2-Methylphenol	NA	N	40	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/26/2007	21:30	Phenols	106-44-5	4-Methylphenol	NA	N	40	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/26/2007	21:30	Phenols	87-86-5	Pentachlorophenol	NA	N	40	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/26/2007	21:30	Phenols	108-95-2	Phenol	NA	N	40	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:01	Phthalates	131-11-3	Dimethyl phthalate	NA	N	22	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:01	Phthalates	84-66-2	Diethyl phthalate	NA	N	26	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:01	Phthalates	84-74-2	Dibutyl phthalate	NA	Y	21	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:01	Phthalates	85-68-7	Butylbenzyl phthalate	NA	N	260	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:01	Phthalates	117-84-0	Di-n-octyl phthalate	NA	N	78	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:01	Phthalates	117-81-7	Bis(2-ethylhexyl) phthalate	NA	Y	120	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:01	SVOCs	120-82-1	1,2,4-Trichlorobenzene	NA	N	9.4	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:01	SVOCs	95-50-1	1,2-Dichlorobenzene	NA	N	16	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:01	SVOCs	541-73-1	1,3-Dichlorobenzene	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:01	SVOCs	106-46-7	1,4-Dichlorobenzene	NA	N	18	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:01	SVOCs	100-51-6	Benzyl alcohol	NA	Y	48	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	SVOCs	118-74-1	Hexachlorobenzene	NA	Y	0.145	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	01:55	SVOCs	87-68-3	Hexachlorobutadiene	NA	N	0.0243	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:01	SVOCs	67-72-1	Hexachloroethane	NA	N	19	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM006	FM006	7619692.2	717241.69	-1	3.7	B01-01-51B_FM				12/12/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM006 Comp		normal	SW8270-SIM	1/25/2007	16:01	SVOCs	86-30-6	N-Nitrosodiphenylamine	NA	N	24	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	GC-FPD	1/24/2007	18:59	Butyltins	78763-54-9	Butyltin ion	NA	Y	0.87	J	ug/kg	Wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	GC-FPD	1/24/2007	18:59	Butyltins	14488-53-0	Dibutyltin ion	NA	Y	1.8	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	GC-FPD	1/24/2007	18:59	Butyltins	36643-28-4	Tributyltin ion	NA	Y	5.7	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	GC-FPD	1/24/2007	18:59	Butyltins	1461-25-2	Tetrabutyltin	NA	N	0.86	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Conventionals	66455-18-3	Lipids	NA	Y	0.4		percent	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	ZFZDRY	1/3/2007	12:00	Conventionals	TSO	Total solids	NA	Y	5.18	T	percent	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxin_Furan_Homolog	41903-57-5	Tetrachlorodibenzo-p-dioxin homologs	NA	Y	0.613		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxin_Furan_Homolog	36088-22-9	Pentachlorodibenzo-p-dioxin homologs	NA	Y	0.232		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxin_Furan_Homolog	34465-46-8	Hexachlorodibenzo-p-dioxin homologs	NA	Y	1.05		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxin_Furan_Homolog	37871-00-4	Heptachlorodibenzo-p-dioxin homologs	NA	Y	4.09		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxin_Furan_Homolog	3268-87-9	Octachlorodibenzo-p-dioxin	NA	Y	16		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxin_Furan_Homolog	30402-14-3	Tetrachlorodibenzofuran homologs	NA	Y	1.08		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxin_Furan_Homolog	30402-15-4	Pentachlorodibenzofuran homologs	NA	Y	1.34		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxin_Furan_Homolog	55684-94-1	Hexachlorodibenzofuran homologs	NA	Y	1.25		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxin_Furan_Homolog	38998-75-3	Heptachlorodibenzofuran homologs	NA	Y	1.12		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxin_Furan_Homolog	39001-02-0	Octachlorodibenzofuran	NA	Y	0.813	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxins_Furans	1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin	NA	N	0.053	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxins_Furans	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	NA	N	0.086	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxins_Furans	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	NA	N	0.064	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxins_Furans	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	NA	Y	0.228	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxins_Furans	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	NA	Y	0.104	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxins_Furans	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	NA	Y	2.06		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/23/2007	02:29	Dioxins_Furans	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	NA	N	0.139	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxins_Furans	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	NA	N	0.075	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxins_Furans	57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	NA	Y	0.198	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxins_Furans	70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	NA	Y	0.142	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxins_Furans	57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	NA	Y	0.059	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxins_Furans	72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	NA	N	0.0904	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxins_Furans	60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	NA	Y	0.082	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxins_Furans	67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	NA	Y	0.397	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	04:39	Dioxins_Furans	55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	NA	N	0.052	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW6010B	1/24/2007	09:22	Metals	7429-90-5	Aluminum	total	Y	144	T	mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW6020	1/24/2007	09:51	Metals	7439-92-1	Lead	total	Y	0.211	T	mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW7471A	1/18/2007	14:07	Metals	7439-97-6	Mercury	total	Y	0.0031	J	mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW6020	1/24/2007	09:51	Metals	7440-02-0	Nickel	total	Y	0.405	T	mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW6020	1/24/2007	09:51	Metals	7440-22-4	Silver	total	Y	0.0474	T	mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW6020	1/24/2007	11:33	Metals	7440-36-0	Antimony	total	Y	0.00205	JT	mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW6020	1/24/2007	09:51	Metals	7440-38-2	Arsenic	total	Y	0.345	T	mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW6020	1/24/2007	09:51	Metals	7440-43-9	Cadmium	total	Y	0.134	T	mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW6010B	1/24/2007	09:22	Metals	7440-47-3	Chromium	total	Y	0.255	JT	mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW6020	1/24/2007	09:51	Metals	7440-50-8	Copper	total	Y	1.37	T	mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW6010B	1/24/2007	09:22	Metals	7440-66-6	Zinc	total	Y	26.6	T	mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW7742	1/25/2007	16:25	Metals	7782-49-2	Selenium	total	Y	0.0735	T	mg/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:38	PAHs	120-12-7	Anthracene	NA	Y	1	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:38	PAHs	129-00-0	Pyrene	NA	Y	8.5	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:38	PAHs	191-24-2	Benzo(g,h,i)perylene	NA	Y	0.9	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:38	PAHs	193-39-5	Indeno(1,2,3-cd)pyrene	NA	N	0.096	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:38	PAHs	205-99-2	Benzo(b)fluoranthene	NA	Y	1.2	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:38	PAHs	206-44-0	Fluoranthene	NA	Y	8.9	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:38	PAHs	207-08-9	Benzo(k)fluoranthene	NA	Y	0.71	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:38	PAHs	208-96-8	Acenaphthylene	NA	Y	1.7	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:38	PAHs	218-01-9	Chrysene	NA	Y	3	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:38	PAHs	50-32-8	Benzo(a)pyrene	NA	Y	1.2	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:38	PAHs	53-70-3	Dibenzo(a,h)anthracene	NA	N	0.14	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:38	PAHs	56-55-3	Benzo(a)anthracene	NA	Y	1.7	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:38	PAHs	83-32-9	Acenaphthene	NA	Y	1	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:38	PAHs	85-01-8	Phenanthrene	NA	Y	4.4	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:38	PAHs	86-73-7	Fluorene	NA	Y	1.1	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:38	PAHs	91-20-3	Naphthalene	NA	Y	1.1	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:38	PAHs	91-57-6	2-Methylnaphthalene	NA	N	0.84	UJ	ug/kg	Wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	2051-60-7	PCB001	NA	N		R	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	2051-61-8	PCB002	NA	N		R	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	2051-62-9	PCB003	NA	N	0.814	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	13029-08-8	PCB004	NA	N	2.27	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	16605-91-7	PCB005	NA	N	0.792	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	25569-80-6	PCB006	NA	N	0.707	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	33284-50-3	PCB007	NA	N	0.747	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	34883-43-7	PCB008	NA	Y	2.24		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	34883-39-1	PCB009	NA	N	0.696	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	33146-45-1	PCB010	NA	N	0.697	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	2050-67-1	PCB011	NA	Y	16.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB012_013	PCB012 & 013	NA	N	0.755	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	34883-41-5	PCB014	NA	N	0.742	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	2050-68-2	PCB015	NA	Y	2.78		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	38444-78-9	PCB016	NA	Y	2.29		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	37680-66-3	PCB017	NA	Y	4.43		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB018_030	PCB018 & 030	NA	Y	5.19		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	38444-73-4	PCB019	NA	Y	6.07	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB020_028	PCB020 & 028	NA	Y	24.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB021_033	PCB021 & 033	NA	Y	11		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	38444-85-8	PCB022	NA	Y	8.42		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	55720-44-0	PCB023	NA	N	0.399	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	55702-45-9	PCB024	NA	Y	0.101	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	55712-37-3	PCB025	NA	Y	2.02		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB026_029	PCB026 & 029	NA	Y	3.98		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	38444-76-7	PCB027	NA	Y	1.18		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	16606-02-3	PCB031	NA	Y	17.7		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	38444-77-8	PCB032	NA	Y	4.27		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	37680-68-5	PCB034	NA	N	0.532	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	37680-69-6	PCB035	NA	Y	0.518	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	38444-87-0	PCB036	NA	N	0.562	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	38444-90-5	PCB037	NA	Y	6.87		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	53555-66-1	PCB038	NA	N	0.443	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	38444-88-1	PCB039	NA	Y	0.41	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB040_041	PCB040 & 041 & 071	NA	Y	24.1		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	36559-22-5	PCB042	NA	Y	10.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	70362-46-8	PCB043	NA	N	1.97	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB044_047	PCB044 & 047 & 065	NA	Y	70		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB045_051	PCB045 & 051	NA	Y	12.3		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	41464-47-5	PCB046	NA	Y	1.77		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	70362-47-9	PCB048	NA	Y	8.38		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB049_069	PCB049 & 069	NA	Y	33.5		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB050_053	PCB050 & 053	NA	Y	8.44		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	35693-99-3	PCB052	NA	Y	51.1		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	15968-05-5	PCB054	NA	Y	2.68		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74338-24-2	PCB055	NA	N	0.547	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	41464-43-1	PCB056	NA	Y	21.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	70424-67-8	PCB057	NA	Y	0.501	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	41464-49-7	PCB058	NA	N	0.488	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB059_062	PCB059 & 062 & 075	NA	Y	4.4		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	33025-41-1	PCB060	NA	Y	12.2		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB061_070	PCB061 & 070 & 074 & 076	NA	Y	97.4		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74472-34-7	PCB063	NA	Y	2.4		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	52663-58-8	PCB064	NA	Y	19.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	32598-10-0	PCB066	NA	Y	54.4		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	73575-53-8	PCB067	NA	N	2	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	73575-52-7	PCB068	NA	N	1.08	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	41464-42-0	PCB072	NA	N	0.938	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74338-23-1	PCB073	NA	Y	1.09		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	32598-13-3	PCB077	NA	Y	5.18		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	70362-49-1	PCB078	NA	N	0.488	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	41464-48-6	PCB079	NA	N	1.69	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	33284-52-5	PCB080	NA	N	0.384	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	70362-50-4	PCB081	NA	N	0.355	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	52663-62-4	PCB082	NA	Y	14.1		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB083_099	PCB083 & 099	NA	Y	98.4		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	52663-60-2	PCB084	NA	Y	22.3		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB085_116	PCB085 & 116 & 117	NA	Y	27		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB086_087	PCB086 & 087 & 097 & 108 & 119 & 125	NA	Y	87.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB088_091	PCB088 & 091	NA	Y	26.3		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	73575-57-2	PCB089	NA	Y	1.21		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB090_101	PCB090 & 101 & 113	NA	Y	174		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	52663-61-3	PCB092	NA	Y	39.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB093_095	PCB093 & 095 & 098 & 100 & 102	NA	Y	128		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	73575-55-0	PCB094	NA	Y	4.13		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	73575-54-9	PCB096	NA	Y	1.64		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	60145-21-3	PCB103	NA	Y	6.24		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	56558-16-8	PCB104	NA	N	1.37	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	32598-14-4	PCB105	NA	Y	62.2		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	70424-69-0	PCB106	NA	N	0.403	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB107_124	PCB107 & 124	NA	Y	6.37		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74472-35-8	PCB109	NA	Y	13		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB110_115	PCB110 & 115	NA	Y	158		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	39635-32-0	PCB111	NA	Y	0.656		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74472-36-9	PCB112	NA	N	0.222	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74472-37-0	PCB114	NA	Y	3.91		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	31508-00-6	PCB118	NA	Y	182		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	68194-12-7	PCB120	NA	N	1.96	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	56558-18-0	PCB121	NA	N	0.631	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	76842-07-4	PCB122	NA	Y	2.07		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	65510-44-3	PCB123	NA	Y	3.43		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	57465-28-8	PCB126	NA	N	0.594	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	39635-33-1	PCB127	NA	N	0.402	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB128_166	PCB128 & 166	NA	Y	57.9		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB129_138	PCB129 & 138 & 160 & 163	NA	Y	570		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	52663-66-8	PCB130	NA	Y	26.1		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	61798-70-7	PCB131	NA	Y	3.93		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	38380-05-1	PCB132	NA	Y	139		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	35694-04-3	PCB133	NA	Y	14.7		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB134_143	PCB134 & 143	NA	Y	23.3		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB135_151	PCB135 & 151 & 154	NA	Y	268		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	38411-22-2	PCB136	NA	Y	55.2		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	35694-06-5	PCB137	NA	Y	14.5		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB139_140	PCB139 & 140	NA	Y	7.91		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	52712-04-6	PCB141	NA	Y	113		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	41411-61-4	PCB142	NA	N	0.431	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	68194-14-9	PCB144	NA	Y	28.1		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74472-40-5	PCB145	NA	Y	0.143	J	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	51908-16-8	PCB146	NA	Y	106		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB147_149	PCB147 & 149	NA	Y	498		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74472-41-6	PCB148	NA	Y	3.67		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	68194-08-1	PCB150	NA	Y	2.49		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	68194-09-2	PCB152	NA	Y	1.68		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB153_168	PCB153 & 168	NA	Y	649		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	33979-03-2	PCB155	NA	N	0.94	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB156_157	PCB156 & 157	NA	Y	41		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74472-42-7	PCB158	NA	Y	45.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	39635-35-3	PCB159	NA	Y	10.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74472-43-8	PCB161	NA	N	0.355	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	39635-34-2	PCB162	NA	Y	1.62		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74472-45-0	PCB164	NA	Y	40.5		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74472-46-1	PCB165	NA	N	1.03	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	52663-72-6	PCB167	NA	Y	19.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	32774-16-6	PCB169	NA	N	0.606	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	35065-30-6	PCB170	NA	Y	184		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB171_173	PCB171 & 173	NA	Y	63.9		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	52663-74-8	PCB172	NA	Y	33.7		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	38411-25-5	PCB174	NA	Y	232		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	40186-70-7	PCB175	NA	Y	7.54		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	52663-65-7	PCB176	NA	Y	32.3		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	52663-70-4	PCB177	NA	Y	127		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	52663-67-9	PCB178	NA	Y	52.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	52663-64-6	PCB179	NA	Y	114		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB180_193	PCB180 & 193	NA	Y	549		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74472-47-2	PCB181	NA	Y	1.68		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	60145-23-5	PCB182	NA	Y	2.22		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB183_185	PCB183 & 185	NA	Y	179		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74472-48-3	PCB184	NA	N	0.447	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74472-49-4	PCB186	NA	N	0.148	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	52663-68-0	PCB187	NA	Y	305		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74487-85-7	PCB188	NA	N	1.27	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	39635-31-9	PCB189	NA	Y	7.19		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	41411-64-7	PCB190	NA	Y	38.1		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74472-50-7	PCB191	NA	Y	8.81		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74472-51-8	PCB192	NA	N	0.296	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	35694-08-7	PCB194	NA	Y	95.2		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	52663-78-2	PCB195	NA	Y	46.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	42740-50-1	PCB196	NA	Y	51.3		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB197_200	PCB197 & 200	NA	Y	19.1		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	PCB198_199	PCB198 & 199	NA	Y	99.2		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	40186-71-8	PCB201	NA	Y	14.8		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	2136-99-4	PCB202	NA	Y	29.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	52663-76-0	PCB203	NA	Y	91.5		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74472-52-9	PCB204	NA	N	0.086	U	pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	74472-53-0	PCB205	NA	Y	5.44		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	40186-72-9	PCB206	NA	Y	54.6		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	52663-79-3	PCB207	NA	Y	5.97		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	52663-77-1	PCB208	NA	Y	17.7		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/26/2007	17:13	PCB_Congeners	2051-24-3	PCB209	NA	Y	38.1		pg/g	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:15	Pesticides	1024-57-3	Heptachlor epoxide	NA	Y	0.00891	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:15	Pesticides	1031-07-8	Endosulfan sulfate	NA	Y	0.176	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	Pesticides	27304-13-8	Oxychlordane	NA	N	0.0879	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	Pesticides	309-00-2	Aldrin	NA	N	0.006	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	Pesticides	319-84-6	alpha-Hexachlorocyclohexane	NA	N	0.407	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	Pesticides	319-85-7	beta-Hexachlorocyclohexane	NA	N	0.0644	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:15	Pesticides	319-86-8	delta-Hexachlorocyclohexane	NA	N	0.00282	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:15	Pesticides	33213-65-9	beta-Endosulfan	NA	N	0.117	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	Pesticides	3424-82-6	2,4'-DDE	NA	Y	0.014	J	ug/kg	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	Pesticides	39765-80-5	trans-Nonachlor	NA	Y	0.1	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	Pesticides	50-29-3	4,4'-DDT	NA	Y	0.152	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	Pesticides	5103-71-9	cis-Chlordane	NA	Y	0.076	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	Pesticides	5103-73-1	cis-Nonachlor	NA	Y	0.039	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	Pesticides	5103-74-2	trans-Chlordane	NA	Y	0.051	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	Pesticides	53-19-0	2,4'-DDD	NA	Y	0.038	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:15	Pesticides	53494-70-5	Endrin ketone	NA	N	0.0399	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	Pesticides	58-89-9	gamma-Hexachlorocyclohexane	NA	N	0.0293	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:15	Pesticides	60-57-1	Dieldrin	NA	Y	0.105	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:15	Pesticides	72-20-8	Endrin	NA	N	0.0211	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:15	Pesticides	72-43-5	Methoxychlor	NA	N	0.00281	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	Pesticides	72-54-8	4,4'-DDD	NA	Y	0.296	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	Pesticides	72-55-9	4,4'-DDE	NA	Y	0.844	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:15	Pesticides	7421-93-4	Endrin aldehyde	NA	N	0.0399	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	Pesticides	76-44-8	Heptachlor	NA	N	0.003	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	Pesticides	789-02-6	2,4'-DDT	NA	Y	0.045	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:15	Pesticides	959-98-8	alpha-Endosulfan	NA	N	0.0145	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/26/2007	21:56	Phenols	105-67-9	2,4-Dimethylphenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/26/2007	21:56	Phenols	95-48-7	2-Methylphenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/26/2007	21:56	Phenols	106-44-5	4-Methylphenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/26/2007	21:56	Phenols	87-86-5	Pentachlorophenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/26/2007	21:56	Phenols	108-95-2	Phenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:31	Phthalates	131-11-3	Dimethyl phthalate	NA	N	11	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:31	Phthalates	84-66-2	Diethyl phthalate	NA	N	13	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:31	Phthalates	84-74-2	Dibutyl phthalate	NA	Y	17	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:31	Phthalates	85-68-7	Butylbenzyl phthalate	NA	N	130	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:31	Phthalates	117-84-0	Di-n-octyl phthalate	NA	N	39	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:31	Phthalates	117-81-7	Bis(2-ethylhexyl) phthalate	NA	Y	88	J	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:31	SVOCs	120-82-1	1,2,4-Trichlorobenzene	NA	N	4.7	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:31	SVOCs	95-50-1	1,2-Dichlorobenzene	NA	N	7.7	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:31	SVOCs	541-73-1	1,3-Dichlorobenzene	NA	N	9.8	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:31	SVOCs	106-46-7	1,4-Dichlorobenzene	NA	N	8.9	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:31	SVOCs	100-51-6	Benzyl alcohol	NA	N	22	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	SVOCs	118-74-1	Hexachlorobenzene	NA	Y	0.089	J	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	02:39	SVOCs	87-68-3	Hexachlorobutadiene	NA	N	0.0234	UJ	ug/kg	wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:31	SVOCs	67-72-1	Hexachloroethane	NA	N	9.3	UJ	ug/kg	Wet	QA2Cat1	
Lower ISA	LW2-BTFM009	FM009	7619402.2	713912.07	-1	4.4	B01-01-51B_FM				12/9/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM009 Comp		normal	SW8270-SIM	1/25/2007	16:31	SVOCs	86-30-6	N-Nitrosodiphenylamine	NA	N	12	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	GC-FPD	1/24/2007	20:14	Butyltins	78763-54-9	Butyltin ion	NA	Y	1.5	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	GC-FPD	1/24/2007	20:14	Butyltins	14488-53-0	Dibutyltin ion	NA	Y	1.8	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	GC-FPD	1/24/2007	20:14	Butyltins	36643-28-4	Tributyltin ion	NA	Y	4.1	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	GC-FPD	1/24/2007	20:14	Butyltins	1461-25-2	Tetrabutyltin	NA	N	0.85	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Conventionals	66455-18-3	Lipids	NA	Y	0.31		percent	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	ZFZDRY	1/3/2007	12:00	Conventionals	TSO	Total solids	NA	Y	9.11		percent	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxin_Furan_Homolog	41903-57-5	Tetrachlorodibenzo-p-dioxin homologs	NA	Y	0.773		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxin_Furan_Homolog	36088-22-9	Pentachlorodibenzo-p-dioxin homologs	NA	Y	0.548		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxin_Furan_Homolog	34465-46-8	Hexachlorodibenzo-p-dioxin homologs	NA	Y	1.73		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxin_Furan_Homolog	37871-00-4	Heptachlorodibenzo-p-dioxin homologs	NA	Y	5.93		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxin_Furan_Homolog	3268-87-9	Octachlorodibenzo-p-dioxin	NA	Y	22.6		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxin_Furan_Homolog	30402-14-3	Tetrachlorodibenzofuran homologs	NA	Y	2.4		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxin_Furan_Homolog	30402-15-4	Pentachlorodibenzofuran homologs	NA	Y	1.7		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxin_Furan_Homolog	55684-94-1	Hexachlorodibenzofuran homologs	NA	Y	1.42		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxin_Furan_Homolog	38998-75-3	Heptachlorodibenzofuran homologs	NA	Y	1.53		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxin_Furan_Homolog	39001-02-0	Octachlorodibenzofuran	NA	Y	1.45		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxins_Furans	1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin	NA	Y	0.057	J	pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	Lower Depth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxins_Furans	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	NA	Y	0.122	J	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxins_Furans	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	NA	Y	0.079	J	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxins_Furans	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	NA	Y	0.351	J	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxins_Furans	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	NA	Y	0.154	J	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxins_Furans	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	NA	Y	2.8		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/23/2007	04:16	Dioxins_Furans	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	NA	Y	0.305		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxins_Furans	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	NA	Y	0.165	J	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxins_Furans	57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	NA	Y	0.156	J	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxins_Furans	70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	NA	Y	0.121	J	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxins_Furans	57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	NA	Y	0.075	J	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxins_Furans	72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	NA	N	0.0311	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxins_Furans	60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	NA	Y	0.069	J	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxins_Furans	67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	NA	Y	0.52		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/31/2007	00:23	Dioxins_Furans	55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	NA	Y	0.057	J	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW6010B	1/24/2007	11:00	Metals	7429-90-5	Aluminum	total	Y	114		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW6020	1/24/2007	10:25	Metals	7439-92-1	Lead	total	Y	0.118		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW7471A	1/18/2007	14:15	Metals	7439-97-6	Mercury	total	Y	0.0061	J	mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW6020	1/24/2007	10:25	Metals	7440-02-0	Nickel	total	Y	0.712		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW6020	1/24/2007	10:25	Metals	7440-22-4	Silver	total	Y	0.0759		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW6020	1/24/2007	11:43	Metals	7440-36-0	Antimony	total	Y	0.0026	J	mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW6020	1/24/2007	10:25	Metals	7440-38-2	Arsenic	total	Y	0.616		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW6020	1/24/2007	10:25	Metals	7440-43-9	Cadmium	total	Y	0.142		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW6010B	1/24/2007	11:00	Metals	7440-47-3	Chromium	total	N	0.33	U	mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW6020	1/24/2007	10:25	Metals	7440-50-8	Copper	total	Y	1.62		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW6010B	1/24/2007	11:00	Metals	7440-66-6	Zinc	total	Y	41.5		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW7742	1/25/2007	16:43	Metals	7782-49-2	Selenium	total	Y	0.128		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:56	PAHs	120-12-7	Anthracene	NA	Y	0.61	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:56	PAHs	129-00-0	Pyrene	NA	Y	5.9	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:56	PAHs	191-24-2	Benzo(g,h,i)perylene	NA	Y	0.43	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:56	PAHs	193-39-5	Indeno(1,2,3-cd)pyrene	NA	N	6.4	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:56	PAHs	205-99-2	Benzo(b)fluoranthene	NA	Y	0.59	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:56	PAHs	206-44-0	Fluoranthene	NA	Y	5.9	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:56	PAHs	207-08-9	Benzo(k)fluoranthene	NA	Y	0.26	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:56	PAHs	208-96-8	Acenaphthylene	NA	N	0.3	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:56	PAHs	218-01-9	Chrysene	NA	Y	2.4	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:56	PAHs	50-32-8	Benzo(a)pyrene	NA	Y	0.74	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:56	PAHs	53-70-3	Dibenzo(a,h)anthracene	NA	N	0.14	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:56	PAHs	56-55-3	Benzo(a)anthracene	NA	Y	0.78	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:56	PAHs	83-32-9	Acenaphthene	NA	Y	0.33	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:56	PAHs	85-01-8	Phenanthrene	NA	Y	2.9	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:56	PAHs	86-73-7	Fluorene	NA	Y	0.75	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:56	PAHs	91-20-3	Naphthalene	NA	Y	1.3	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:56	PAHs	91-57-6	2-Methylnaphthalene	NA	N	0.88	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	2051-60-7	PCB001	NA	N		R	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	2051-61-8	PCB002	NA	N		R	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	2051-62-9	PCB003	NA	Y	0.476	J	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	13029-08-8	PCB004	NA	Y	2.71	J	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	16605-91-7	PCB005	NA	N	0.191	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	25569-80-6	PCB006	NA	Y	1.14		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	33284-50-3	PCB007	NA	N	0.345	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	34883-43-7	PCB008	NA	Y	4.87		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	34883-39-1	PCB009	NA	Y	0.284		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	33146-45-1	PCB010	NA	N	0.167	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	2050-67-1	PCB011	NA	Y	34		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB012_013	PCB012 & 013	NA	N	1.32	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	34883-41-5	PCB014	NA	N	0.182	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	2050-68-2	PCB015	NA	Y	4.47		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	38444-78-9	PCB016	NA	Y	8.26		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	37680-66-3	PCB017	NA	Y	13.9		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB018_030	PCB018 & 030	NA	Y	21.3		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	38444-73-4	PCB019	NA	Y	5.26	J	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB020_028	PCB020 & 028	NA	Y	84.6		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB021_033	PCB021 & 033	NA	Y	33.9		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	38444-85-8	PCB022	NA	Y	23.7		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	55720-44-0	PCB023	NA	Y	0.096	J	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	55702-45-9	PCB024	NA	Y	0.372		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	55712-37-3	PCB025	NA	Y	5.83		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB026_029	PCB026 & 029	NA	Y	12.4		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	38444-76-7	PCB027	NA	Y	2.35		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	16606-02-3	PCB031	NA	Y	63.2		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	38444-77-8	PCB032	NA	Y	12.9		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	37680-68-5	PCB034	NA	Y	0.693		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	37680-69-6	PCB035	NA	Y	1.46		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	38444-87-0	PCB036	NA	N	0.355	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	38444-90-5	PCB037	NA	Y	17.5		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	53555-66-1	PCB038	NA	N	0.211	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	38444-88-1	PCB039	NA	Y	1.63		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB040_041	PCB040 & 041 & 071	NA	Y	78.5		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	36559-22-5	PCB042	NA	Y	40.4		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	70362-46-8	PCB043	NA	Y	6.54		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB044_047	PCB044 & 047 & 065	NA	Y	179		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB045_051	PCB045 & 051	NA	Y	24.4		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	41464-47-5	PCB046	NA	Y	5.44		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	70362-47-9	PCB048	NA	Y	33.1		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB049_069	PCB049 & 069	NA	Y	117		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB050_053	PCB050 & 053	NA	Y	19.6		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	35693-99-3	PCB052	NA	Y	187		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	15968-05-5	PCB054	NA	Y	1.75		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74338-24-2	PCB055	NA	N	0.289	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	41464-43-1	PCB056	NA	Y	83.7		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	70424-67-8	PCB057	NA	Y	1.11		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	41464-49-7	PCB058	NA	N	0.262	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB059_062	PCB059 & 062 & 075	NA	Y	14.1		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	33025-41-1	PCB060	NA	Y	34.9		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB061_070	PCB061 & 070 & 074 & 076	NA	Y	372		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74472-34-7	PCB063	NA	Y	9.11		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	52663-58-8	PCB064	NA	Y	69.8		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	32598-10-0	PCB066	NA	Y	205		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	73575-53-8	PCB067	NA	N	5.74	U	pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	73575-52-7	PCB068	NA	N	2.78	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	41464-42-0	PCB072	NA	Y	4.01		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74338-23-1	PCB073	NA	N	0.153	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	32598-13-3	PCB077	NA	Y	15.3		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	70362-49-1	PCB078	NA	N	0.28	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	41464-48-6	PCB079	NA	Y	5.46		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	33284-52-5	PCB080	NA	N	0.25	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	70362-50-4	PCB081	NA	Y	0.465		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	52663-62-4	PCB082	NA	Y	38.1		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB083_099	PCB083 & 099	NA	Y	306		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	52663-60-2	PCB084	NA	Y	70.3		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB085_116	PCB085 & 116 & 117	NA	Y	73.5		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB086_087	PCB086 & 087 & 097 & 108 & 119 & 125	NA	Y	259		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB088_091	PCB088 & 091	NA	Y	70.1		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	73575-57-2	PCB089	NA	Y	4.48		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB090_101	PCB090 & 101 & 113	NA	Y	503		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	52663-61-3	PCB092	NA	Y	110		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB093_095	PCB093 & 095 & 098 & 100 & 102	NA	Y	320		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	73575-55-0	PCB094	NA	Y	4.7		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	73575-54-9	PCB096	NA	Y	3.39		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	60145-21-3	PCB103	NA	Y	14.2		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	56558-16-8	PCB104	NA	Y	1.04		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	32598-14-4	PCB105	NA	Y	129		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	70424-69-0	PCB106	NA	N	0.178	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB107_124	PCB107 & 124	NA	Y	14.4		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74472-35-8	PCB109	NA	Y	30.8		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB110_115	PCB110 & 115	NA	Y	422		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	39635-32-0	PCB111	NA	N	1.05	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74472-36-9	PCB112	NA	N	0.184	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74472-37-0	PCB114	NA	Y	8.55		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	31508-00-6	PCB118	NA	Y	396		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	68194-12-7	PCB120	NA	Y	4.34		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	56558-18-0	PCB121	NA	Y	1.09		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	76842-07-4	PCB122	NA	Y	4.84		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	65510-44-3	PCB123	NA	Y	6.41		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	57465-28-8	PCB126	NA	Y	1.11		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	39635-33-1	PCB127	NA	N	0.195	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB128_166	PCB128 & 166	NA	Y	105		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB129_138	PCB129 & 138 & 160 & 163	NA	Y	859		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	52663-66-8	PCB130	NA	Y	45		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	61798-70-7	PCB131	NA	Y	6.48		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	38380-05-1	PCB132	NA	Y	255		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	35694-04-3	PCB133	NA	Y	23.2		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB134_143	PCB134 & 143	NA	Y	34.7		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB135_151	PCB135 & 151 & 154	NA	Y	411		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	38411-22-2	PCB136	NA	Y	113		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	35694-06-5	PCB137	NA	Y	26.5		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB139_140	PCB139 & 140	NA	Y	13.9		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	52712-04-6	PCB141	NA	Y	176		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	41411-61-4	PCB142	NA	N	0.191	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	68194-14-9	PCB144	NA	Y	45.1		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74472-40-5	PCB145	NA	Y	0.255		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	51908-16-8	PCB146	NA	Y	181		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB147_149	PCB147 & 149	NA	Y	824		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74472-41-6	PCB148	NA	Y	5.52		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	68194-08-1	PCB150	NA	Y	4.36		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	68194-09-2	PCB152	NA	Y	1.53		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB153_168	PCB153 & 168	NA	Y	980		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	33979-03-2	PCB155	NA	Y	0.661		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB156_157	PCB156 & 157	NA	Y	63.5		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74472-42-7	PCB158	NA	Y	67.2		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	39635-35-3	PCB159	NA	Y	14.9		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74472-43-8	PCB161	NA	N	0.137	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	39635-34-2	PCB162	NA	Y	2.46		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74472-45-0	PCB164	NA	Y	60.1		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74472-46-1	PCB165	NA	Y	1.41		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	52663-72-6	PCB167	NA	Y	28.7		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	32774-16-6	PCB169	NA	N	1.01	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	35065-30-6	PCB170	NA	Y	236		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB171_173	PCB171 & 173	NA	Y	89.7		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	52663-74-8	PCB172	NA	Y	48.6		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	38411-25-5	PCB174	NA	Y	311		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	40186-70-7	PCB175	NA	Y	12.4		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	52663-65-7	PCB176	NA	Y	45.8		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	52663-70-4	PCB177	NA	Y	146		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	52663-67-9	PCB178	NA	Y	69.4		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	52663-64-6	PCB179	NA	Y	150		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB180_193	PCB180 & 193	NA	Y	682		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74472-47-2	PCB181	NA	Y	2.36		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	60145-23-5	PCB182	NA	Y	3.13		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB183_185	PCB183 & 185	NA	Y	236		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74472-48-3	PCB184	NA	Y	0.543		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74472-49-4	PCB186	NA	N	0.0509	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	52663-68-0	PCB187	NA	Y	469		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74487-85-7	PCB188	NA	Y	1.31		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	39635-31-9	PCB189	NA	Y	8.07		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	41411-64-7	PCB190	NA	Y	49		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74472-50-7	PCB191	NA	Y	10.3		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74472-51-8	PCB192	NA	N	0.102	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	35694-08-7	PCB194	NA	Y	125		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	52663-78-2	PCB195	NA	Y	67.7		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	42740-50-1	PCB196	NA	Y	78.3		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB197_200	PCB197 & 200	NA	Y	30.7		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	PCB198_199	PCB198 & 199	NA	Y	163		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	40186-71-8	PCB201	NA	Y	24.2		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	2136-99-4	PCB202	NA	Y	39.1		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	52663-76-0	PCB203	NA	Y	152		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74472-52-9	PCB204	NA	Y	0.166	J	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	74472-53-0	PCB205	NA	Y	6.47		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	40186-72-9	PCB206	NA	Y	85.8		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	52663-79-3	PCB207	NA	Y	9.91		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	52663-77-1	PCB208	NA	Y	26		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	05:27	PCB_Congeners	2051-24-3	PCB209	NA	Y	88.9		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	04:20	Pesticides	1024-57-3	Heptachlor epoxide	NA	Y	0.00994	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	04:20	Pesticides	1031-07-8	Endosulfan sulfate	NA	Y	0.175	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	Pesticides	27304-13-8	Oxychlordane	NA	Y	0.013	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	Pesticides	309-00-2	Aldrin	NA	N	0.005	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	Pesticides	319-84-6	alpha-Hexachlorocyclohexane	NA	Y	0.003	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	Pesticides	319-85-7	beta-Hexachlorocyclohexane	NA	N	0.0222	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	04:20	Pesticides	319-86-8	delta-Hexachlorocyclohexane	NA	N	0.000865	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	04:20	Pesticides	33213-65-9	beta-Endosulfan	NA	Y	0.0172	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	Pesticides	3424-82-6	2,4'-DDE	NA	Y	0.034	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	Pesticides	39765-80-5	trans-Nonachlor	NA	Y	0.173	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	Pesticides	50-29-3	4,4'-DDT	NA	Y	0.215	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	Pesticides	5103-71-9	cis-Chlordane	NA	Y	0.13	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	Pesticides	5103-73-1	cis-Nonachlor	NA	Y	0.065	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	Pesticides	5103-74-2	trans-Chlordane	NA	Y	0.101	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	Pesticides	53-19-0	2,4'-DDD	NA	Y	0.107	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	04:20	Pesticides	53494-70-5	Endrin ketone	NA	N	0.0137	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	Pesticides	58-89-9	gamma-Hexachlorocyclohexane	NA	N	0.003	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	04:20	Pesticides	60-57-1	Dieldrin	NA	Y	0.137	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	04:20	Pesticides	72-20-8	Endrin	NA	Y	0.00224	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	04:20	Pesticides	72-43-5	Methoxychlor	NA	N	0.00403	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	Pesticides	72-54-8	4,4'-DDD	NA	Y	0.998	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	Pesticides	72-55-9	4,4'-DDE	NA	Y	1.72	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	04:20	Pesticides	7421-93-4	Endrin aldehyde	NA	N	0.0137	UJ	ug/kg	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	DepthUnit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	Pesticides	76-44-8	Heptachlor	NA	N	0.001	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	Pesticides	789-02-6	2,4'-DDT	NA	Y	0.065	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	04:20	Pesticides	959-98-8	alpha-Endosulfan	NA	N	0.00827	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/26/2007	23:12	Phenols	105-67-9	2,4-Dimethylphenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/26/2007	23:12	Phenols	95-48-7	2-Methylphenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/26/2007	23:12	Phenols	106-44-5	4-Methylphenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/26/2007	23:12	Phenols	87-86-5	Pentachlorophenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/26/2007	23:12	Phenols	108-95-2	Phenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:59	Phthalates	131-11-3	Dimethyl phthalate	NA	N	11	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:59	Phthalates	84-66-2	Diethyl phthalate	NA	N	13	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:59	Phthalates	84-74-2	Dibutyl phthalate	NA	Y	12	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:59	Phthalates	85-68-7	Butylbenzyl phthalate	NA	N	130	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:59	Phthalates	117-84-0	Di-n-octyl phthalate	NA	N	39	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:59	Phthalates	117-81-7	Bis(2-ethylhexyl) phthalate	NA	Y	54	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:59	SVOCs	120-82-1	1,2,4-Trichlorobenzene	NA	N	4.7	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:59	SVOCs	95-50-1	1,2-Dichlorobenzene	NA	N	7.7	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:59	SVOCs	541-73-1	1,3-Dichlorobenzene	NA	N	9.8	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:59	SVOCs	106-46-7	1,4-Dichlorobenzene	NA	N	8.9	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:59	SVOCs	100-51-6	Benzyl alcohol	NA	Y	22	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	SVOCs	118-74-1	Hexachlorobenzene	NA	Y	0.113	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:51	SVOCs	87-68-3	Hexachlorobutadiene	NA	N	0.00809	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:59	SVOCs	67-72-1	Hexachloroethane	NA	N	9.3	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM021	FM021	7629330.1	700154.37	-3	7.8	B01-01-51B_FM				12/5/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM021 Comp		normal	SW8270-SIM	1/25/2007	17:59	SVOCs	86-30-6	N-Nitrosodiphenylamine	NA	N	12	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	GC-FPD	1/24/2007	19:44	Butyltins	78763-54-9	Butyltin ion	NA	Y	2.2	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	GC-FPD	1/24/2007	19:44	Butyltins	14488-53-0	Dibutyltin ion	NA	Y	2.5	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	GC-FPD	1/24/2007	19:44	Butyltins	36643-28-4	Tributyltin ion	NA	Y	2.9	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	GC-FPD	1/24/2007	19:44	Butyltins	1461-25-2	Tetrabutyltin	NA	N	0.84	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Conventionals	66455-18-3	Lipids	NA	Y	0.64		percent	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	ZFZDRY	1/3/2007	12:00	Conventionals	TSO	Total solids	NA	Y	8.83		percent	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxin_Furan_Homolog	41903-57-5	Tetrachlorodibenzo-p-dioxin homologs	NA	Y	2.3		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxin_Furan_Homolog	36088-22-9	Pentachlorodibenzo-p-dioxin homologs	NA	Y	0.595		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxin_Furan_Homolog	34465-46-8	Hexachlorodibenzo-p-dioxin homologs	NA	Y	2.44		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxin_Furan_Homolog	37871-00-4	Heptachlorodibenzo-p-dioxin homologs	NA	Y	7.15		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxin_Furan_Homolog	3268-87-9	Octachlorodibenzo-p-dioxin	NA	Y	26		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxin_Furan_Homolog	30402-14-3	Tetrachlorodibenzofuran homologs	NA	Y	3.61		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxin_Furan_Homolog	30402-15-4	Pentachlorodibenzofuran homologs	NA	Y	2.22		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxin_Furan_Homolog	55684-94-1	Hexachlorodibenzofuran homologs	NA	Y	1.86		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxin_Furan_Homolog	38998-75-3	Heptachlorodibenzofuran homologs	NA	Y	1.8		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxin_Furan_Homolog	39001-02-0	Octachlorodibenzofuran	NA	Y	1.5		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxins_Furans	1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin	NA	N	0.127	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxins_Furans	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	NA	N	0.155	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxins_Furans	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	NA	Y	0.114		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxins_Furans	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	NA	Y	0.499		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxins_Furans	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	NA	Y	0.192		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxins_Furans	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	NA	Y	3.35		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/23/2007	03:05	Dioxins_Furans	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	NA	Y	0.277		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxins_Furans	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	NA	N	0.075	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxins_Furans	57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	NA	Y	0.177		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxins_Furans	70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	NA	Y	0.112		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxins_Furans	57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	NA	Y	0.09		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxins_Furans	72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	NA	N	0.0918	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxins_Furans	60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	NA	Y	0.102		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxins_Furans	67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	NA	Y	0.608		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	05:33	Dioxins_Furans	55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	NA	Y	0.048		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	Lower Depth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW6010B	1/24/2007	10:27	Metals	7429-90-5	Aluminum	total	Y	101		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW6020	1/24/2007	10:15	Metals	7439-92-1	Lead	total	Y	0.196		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW7471A	1/18/2007	14:09	Metals	7439-97-6	Mercury	total	Y	0.0049	JT	mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW6020	1/24/2007	10:15	Metals	7440-02-0	Nickel	total	Y	0.511		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW6020	1/24/2007	10:15	Metals	7440-22-4	Silver	total	Y	0.0313		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW6020	1/24/2007	11:40	Metals	7440-36-0	Antimony	total	Y	0.0024	J	mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW6020	1/24/2007	10:15	Metals	7440-38-2	Arsenic	total	Y	0.393		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW6020	1/24/2007	10:15	Metals	7440-43-9	Cadmium	total	Y	0.1		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW6010B	1/24/2007	10:27	Metals	7440-47-3	Chromium	total	N	0.34	U	mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW6020	1/24/2007	10:15	Metals	7440-50-8	Copper	total	Y	1.13		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW6010B	1/24/2007	10:27	Metals	7440-66-6	Zinc	total	Y	33.5		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW7742	1/25/2007	16:39	Metals	7782-49-2	Selenium	total	Y	0.091		mg/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:04	PAHs	120-12-7	Anthracene	NA	Y	1	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:04	PAHs	129-00-0	Pyrene	NA	Y	8.2	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:04	PAHs	191-24-2	Benzo(g,h,i)perylene	NA	Y	0.81	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:04	PAHs	193-39-5	Indeno(1,2,3-cd)pyrene	NA	N	0.096	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:04	PAHs	205-99-2	Benzo(b)fluoranthene	NA	Y	1.2	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:04	PAHs	206-44-0	Fluoranthene	NA	Y	8.9	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:04	PAHs	207-08-9	Benzo(k)fluoranthene	NA	Y	0.52	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:04	PAHs	208-96-8	Acenaphthylene	NA	N	0.3	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:04	PAHs	218-01-9	Chrysene	NA	Y	4.9	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:04	PAHs	50-32-8	Benzo(a)pyrene	NA	Y	0.76	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:04	PAHs	53-70-3	Dibenzo(a,h)anthracene	NA	N	0.14	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:04	PAHs	56-55-3	Benzo(a)anthracene	NA	Y	1.8	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:04	PAHs	83-32-9	Acenaphthene	NA	Y	0.48	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:04	PAHs	85-01-8	Phenanthrene	NA	Y	4.1	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:04	PAHs	86-73-7	Fluorene	NA	Y	1.3	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:04	PAHs	91-20-3	Naphthalene	NA	Y	1.5	J	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:04	PAHs	91-57-6	2-Methylnaphthalene	NA	N	0.98	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	2051-60-7	PCB001	NA	N		R	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	2051-61-8	PCB002	NA	N		R	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	2051-62-9	PCB003	NA	N	0.577	UJ	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	13029-08-8	PCB004	NA	N	4.11	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	16605-91-7	PCB005	NA	N	1.09	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	25569-80-6	PCB006	NA	N	1.59	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	33284-50-3	PCB007	NA	N	1	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	34883-43-7	PCB008	NA	Y	8.17		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	34883-39-1	PCB009	NA	N	0.946	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	33146-45-1	PCB010	NA	N	0.955	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	2050-67-1	PCB011	NA	Y	50.4		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB012_013	PCB012 & 013	NA	N	1.08	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	34883-41-5	PCB014	NA	N	1.04	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	2050-68-2	PCB015	NA	Y	10.5		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	38444-78-9	PCB016	NA	Y	12		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	37680-66-3	PCB017	NA	Y	20.8		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB018_030	PCB018 & 030	NA	Y	27		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	38444-73-4	PCB019	NA	Y	8.77	J	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB020_028	PCB020 & 028	NA	Y	137		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB021_033	PCB021 & 033	NA	Y	55.1		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	38444-85-8	PCB022	NA	Y	41.1		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	55720-44-0	PCB023	NA	N	0.406	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	55702-45-9	PCB024	NA	N	0.434	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	55712-37-3	PCB025	NA	Y	10.4		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB026_029	PCB026 & 029	NA	Y	19.5		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	38444-76-7	PCB027	NA	Y	3.53		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	16606-02-3	PCB031	NA	Y	98.2		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	38444-77-8	PCB032	NA	Y	18.9		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	37680-68-5	PCB034	NA	N	0.788	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	37680-69-6	PCB035	NA	Y	2.68		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	38444-87-0	PCB036	NA	N	0.642	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	38444-90-5	PCB037	NA	Y	31.9		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	53555-66-1	PCB038	NA	Y	0.335	J	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	38444-88-1	PCB039	NA	N	2.35	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB040_041	PCB040 & 041 & 071	NA	Y	134		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	36559-22-5	PCB042	NA	Y	64.9		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	70362-46-8	PCB043	NA	Y	10.8		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB044_047	PCB044 & 047 & 065	NA	Y	307		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB045_051	PCB045 & 051	NA	Y	42.3		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	41464-47-5	PCB046	NA	Y	9.26		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	70362-47-9	PCB048	NA	Y	49.2		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB049_069	PCB049 & 069	NA	Y	182		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB050_053	PCB050 & 053	NA	Y	30.6		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	35693-99-3	PCB052	NA	Y	285		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	15968-05-5	PCB054	NA	Y	2.8		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74338-24-2	PCB055	NA	N	0.728	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	41464-43-1	PCB056	NA	Y	141		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	70424-67-8	PCB057	NA	N	1.44	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	41464-49-7	PCB058	NA	N	0.661	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB059_062	PCB059 & 062 & 075	NA	Y	23.9		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	33025-41-1	PCB060	NA	Y	64.1		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB061_070	PCB061 & 070 & 074 & 076	NA	Y	568		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74472-34-7	PCB063	NA	Y	13.2		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	52663-58-8	PCB064	NA	Y	110		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	32598-10-0	PCB066	NA	Y	326		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	73575-53-8	PCB067	NA	Y	9.65		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	73575-52-7	PCB068	NA	N	4.48	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	41464-42-0	PCB072	NA	Y	6.03		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74338-23-1	PCB073	NA	N	0.451	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	32598-13-3	PCB077	NA	Y	24.6		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	70362-49-1	PCB078	NA	N	0.706	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	41464-48-6	PCB079	NA	Y	9.98		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	33284-52-5	PCB080	NA	N	0.63	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	70362-50-4	PCB081	NA	N	0.989	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	52663-62-4	PCB082	NA	Y	72.9		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB083_099	PCB083 & 099	NA	Y	542		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	52663-60-2	PCB084	NA	Y	152		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB085_116	PCB085 & 116 & 117	NA	Y	124		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB086_087	PCB086 & 087 & 097 & 108 & 119 & 125	NA	Y	461		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB088_091	PCB088 & 091	NA	Y	139		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	73575-57-2	PCB089	NA	Y	7.2		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB090_101	PCB090 & 101 & 113	NA	Y	875		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	52663-61-3	PCB092	NA	Y	185		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB093_095	PCB093 & 095 & 098 & 100 & 102	NA	Y	596		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	73575-55-0	PCB094	NA	Y	8.98		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	73575-54-9	PCB096	NA	Y	6.35		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	60145-21-3	PCB103	NA	Y	22.7		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	56558-16-8	PCB104	NA	Y	1.35		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	32598-14-4	PCB105	NA	Y	226		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	70424-69-0	PCB106	NA	N	0.508	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB107_124	PCB107 & 124	NA	Y	28.2		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74472-35-8	PCB109	NA	Y	47.2		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB110_115	PCB110 & 115	NA	Y	804		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	39635-32-0	PCB111	NA	N	1.86	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74472-36-9	PCB112	NA	N	0.263	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74472-37-0	PCB114	NA	Y	13.2		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	31508-00-6	PCB118	NA	Y	687		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	68194-12-7	PCB120	NA	Y	7.01		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	56558-18-0	PCB121	NA	Y	1.67		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	76842-07-4	PCB122	NA	Y	9.43		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	65510-44-3	PCB123	NA	Y	12		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	57465-28-8	PCB126	NA	Y	1.66		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	39635-33-1	PCB127	NA	N	0.558	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB128_166	PCB128 & 166	NA	Y	182		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB129_138	PCB129 & 138 & 160 & 163	NA	Y	1520		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	52663-66-8	PCB130	NA	Y	79		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	61798-70-7	PCB131	NA	Y	11.9		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	38380-05-1	PCB132	NA	Y	445		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	35694-04-3	PCB133	NA	Y	38.4		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB134_143	PCB134 & 143	NA	Y	66.4		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB135_151	PCB135 & 151 & 154	NA	Y	653		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	38411-22-2	PCB136	NA	Y	204		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	35694-06-5	PCB137	NA	Y	53.3		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB139_140	PCB139 & 140	NA	Y	24		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	52712-04-6	PCB141	NA	Y	340		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	41411-61-4	PCB142	NA	N	0.492	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	68194-14-9	PCB144	NA	Y	71.2		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74472-40-5	PCB145	NA	N	0.556	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	51908-16-8	PCB146	NA	Y	312		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB147_149	PCB147 & 149	NA	Y	1340		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74472-41-6	PCB148	NA	Y	8.83		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	68194-08-1	PCB150	NA	Y	7.48		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	68194-09-2	PCB152	NA	Y	2.84		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB153_168	PCB153 & 168	NA	Y	1840		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	33979-03-2	PCB155	NA	N	0.911	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB156_157	PCB156 & 157	NA	Y	109		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74472-42-7	PCB158	NA	Y	126		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	39635-35-3	PCB159	NA	Y	27.7		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74472-43-8	PCB161	NA	N	0.361	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	39635-34-2	PCB162	NA	Y	4.6		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74472-45-0	PCB164	NA	Y	121		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74472-46-1	PCB165	NA	Y	2.61		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	52663-72-6	PCB167	NA	Y	55.8		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	32774-16-6	PCB169	NA	N	1.73	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	35065-30-6	PCB170	NA	Y	445		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB171_173	PCB171 & 173	NA	Y	163		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	52663-74-8	PCB172	NA	Y	91.3		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	38411-25-5	PCB174	NA	Y	606		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	40186-70-7	PCB175	NA	Y	22.6		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	52663-65-7	PCB176	NA	Y	91.9		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	52663-70-4	PCB177	NA	Y	262		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	52663-67-9	PCB178	NA	Y	135		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	52663-64-6	PCB179	NA	Y	266		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB180_193	PCB180 & 193	NA	Y	1330		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74472-47-2	PCB181	NA	Y	3.47		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	60145-23-5	PCB182	NA	Y	6.16		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB183_185	PCB183 & 185	NA	Y	457		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74472-48-3	PCB184	NA	Y	1.17		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74472-49-4	PCB186	NA	N	0.15	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	52663-68-0	PCB187	NA	Y	832		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74487-85-7	PCB188	NA	Y	2.33		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	39635-31-9	PCB189	NA	Y	13.7		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	41411-64-7	PCB190	NA	Y	90.8		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74472-50-7	PCB191	NA	Y	21.8		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74472-51-8	PCB192	NA	N	0.301	U	pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	35694-08-7	PCB194	NA	Y	212		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	52663-78-2	PCB195	NA	Y	99.7		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	42740-50-1	PCB196	NA	Y	134		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB197_200	PCB197 & 200	NA	Y	52		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	PCB198_199	PCB198 & 199	NA	Y	328		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	40186-71-8	PCB201	NA	Y	38.3		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	2136-99-4	PCB202	NA	Y	71.3		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	52663-76-0	PCB203	NA	Y	266		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74472-52-9	PCB204	NA	Y	0.166	J	pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	74472-53-0	PCB205	NA	Y	11.7		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	40186-72-9	PCB206	NA	Y	134		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	52663-79-3	PCB207	NA	Y	13.9		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	52663-77-1	PCB208	NA	Y	46.1		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	03:18	PCB_Congeners	2051-24-3	PCB209	NA	Y	136		pg/g	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:57	Pesticides	1024-57-3	Heptachlor epoxide	NA	Y	0.0135	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:57	Pesticides	1031-07-8	Endosulfan sulfate	NA	Y	0.239	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	03:23	Pesticides	27304-13-8	Oxychlordane	NA	Y	0.02	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	03:23	Pesticides	309-00-2	Aldrin	NA	Y	0.067	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	03:23	Pesticides	319-84-6	alpha-Hexachlorocyclohexane	NA	N	0.414	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	03:23	Pesticides	319-85-7	beta-Hexachlorocyclohexane	NA	N	0.0655	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:57	Pesticides	319-86-8	delta-Hexachlorocyclohexane	NA	N	0.0286	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:57	Pesticides	33213-65-9	beta-Endosulfan	NA	N	0.0507	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	03:23	Pesticides	3424-82-6	2,4'-DDE	NA	Y	0.102	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	03:23	Pesticides	39765-80-5	trans-Nonachlor	NA	Y	0.261	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	03:23	Pesticides	50-29-3	4,4'-DDT	NA	Y	0.182	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	03:23	Pesticides	5103-71-9	cis-Chlordane	NA	Y	0.261	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	03:23	Pesticides	5103-73-1	cis-Nonachlor	NA	Y	0.092	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	03:23	Pesticides	5103-74-2	trans-Chlordane	NA	Y	0.232	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	03:23	Pesticides	53-19-0	2,4'-DDD	NA	Y	0.143	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:57	Pesticides	53494-70-5	Endrin ketone	NA	N	0.0405	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	03:23	Pesticides	58-89-9	gamma-Hexachlorocyclohexane	NA	N	0.0298	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:57	Pesticides	60-57-1	Dieldrin	NA	Y	0.186	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:57	Pesticides	72-20-8	Endrin	NA	N	0.0215	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:57	Pesticides	72-43-5	Methoxychlor	NA	N	0.00536	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	03:23	Pesticides	72-54-8	4,4'-DDD	NA	Y	0.799	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	03:23	Pesticides	72-55-9	4,4'-DDE	NA	Y	3.15	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:57	Pesticides	7421-93-4	Endrin aldehyde	NA	N	0.0405	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	03:23	Pesticides	76-44-8	Heptachlor	NA	Y	0.006	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	03:23	Pesticides	789-02-6	2,4'-DDT	NA	Y	0.062	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	02:57	Pesticides	959-98-8	alpha-Endosulfan	NA	N	0.0294	UJ	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/26/2007	22:21	Phenols	105-67-9	2,4-Dimethylphenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/26/2007	22:21	Phenols	95-48-7	2-Methylphenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/26/2007	22:21	Phenols	106-44-5	4-Methylphenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/26/2007	22:21	Phenols	87-86-5	Pentachlorophenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/26/2007	22:21	Phenols	108-95-2	Phenol	NA	N	20	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:00	Phthalates	131-11-3	Dimethyl phthalate	NA	N	11	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:00	Phthalates	84-66-2	Diethyl phthalate	NA	N	13	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:00	Phthalates	84-74-2	Dibutyl phthalate	NA	N	8.9	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:00	Phthalates	85-68-7	Butylbenzyl phthalate	NA	N	130	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:00	Phthalates	117-84-0	Di-n-octyl phthalate	NA	N	39	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:00	Phthalates	117-81-7	Bis(2-ethylhexyl) phthalate	NA	N	49	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:00	SVOCs	120-82-1	1,2,4-Trichlorobenzene	NA	N	4.7	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:00	SVOCs	95-50-1	1,2-Dichlorobenzene	NA	N	7.7	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:00	SVOCs	541-73-1	1,3-Dichlorobenzene	NA	N	9.8	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:00	SVOCs	106-46-7	1,4-Dichlorobenzene	NA	N	8.9	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:00	SVOCs	100-51-6	Benzyl alcohol	NA	N	22	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	03:23	SVOCs	118-74-1	Hexachlorobenzene	NA	Y	0.181	J	ug/kg	wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:00	SVOCs	87-68-3	Hexachlorobutadiene	NA	N	5.4	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:00	SVOCs	67-72-1	Hexachloroethane	NA	N	9.3	UJ	ug/kg	Wet	QA2Cat1	
Upper ISA	LW2-BTFM025	FM025	7632018.9	697645.99	-7	8.5	B01-01-51B_FM				12/7/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM025 Comp		normal	SW8270-SIM	1/25/2007	17:00	SVOCs	86-30-6	N-Nitrosodiphenylamine	NA	N	12	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	GC-FPD	1/24/2007	19:59	Butyltins	78763-54-9	Butyltin ion	NA	Y	0.68	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	GC-FPD	1/24/2007	19:59	Butyltins	14488-53-0	Dibutyltin ion	NA	Y	1.3	J	ug/kg	Wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	GC-FPD	1/24/2007	19:59	Butyltins	36643-28-4	Tributyltin ion	NA	Y	2.2	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	GC-FPD	1/24/2007	19:59	Butyltins	1461-25-2	Tetrabutyltin	NA	N	0.86	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Conventionals	66455-18-3	Lipids	NA	Y	0.4		percent	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	ZFZDRY	1/3/2007	12:00	Conventionals	TSO	Total solids	NA	Y	6.91		percent	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxin_Furan_Homolog	41903-57-5	Tetrachlorodibenzo-p-dioxin homologs	NA	Y	0.679		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxin_Furan_Homolog	36088-22-9	Pentachlorodibenzo-p-dioxin homologs	NA	Y	0.212		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxin_Furan_Homolog	34465-46-8	Hexachlorodibenzo-p-dioxin homologs	NA	Y	0.291		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxin_Furan_Homolog	37871-00-4	Heptachlorodibenzo-p-dioxin homologs	NA	Y	10.5		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxin_Furan_Homolog	3268-87-9	Octachlorodibenzo-p-dioxin	NA	Y	35.8		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxin_Furan_Homolog	30402-14-3	Tetrachlorodibenzofuran homologs	NA	Y	0.587		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxin_Furan_Homolog	30402-15-4	Pentachlorodibenzofuran homologs	NA	Y	1.1		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxin_Furan_Homolog	55684-94-1	Hexachlorodibenzofuran homologs	NA	Y	0.94		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxin_Furan_Homolog	38998-75-3	Heptachlorodibenzofuran homologs	NA	Y	2.98		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxin_Furan_Homolog	39001-02-0	Octachlorodibenzofuran	NA	Y	2.86	J	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxins_Furans	1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin	NA	N	0.102	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxins_Furans	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	NA	N	0.154	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxins_Furans	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	NA	N	0.113	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxins_Furans	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	NA	N	0.493	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxins_Furans	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	NA	N	0.262	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxins_Furans	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	NA	Y	5.14		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/23/2007	03:41	Dioxins_Furans	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	NA	N	0.052	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxins_Furans	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	NA	N	0.238	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxins_Furans	57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	NA	Y	0.155	J	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxins_Furans	70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	NA	Y	0.123	J	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxins_Furans	57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	NA	N	0.127	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxins_Furans	72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	NA	N	0.191	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxins_Furans	60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	NA	Y	0.16	J	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxins_Furans	67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	NA	Y	1.07	J	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-017 Rev 12	3/24/2007	06:28	Dioxins_Furans	55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	NA	N	0.099	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW6010B	1/24/2007	10:43	Metals	7429-90-5	Aluminum	total	Y	210		mg/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW6020	1/24/2007	10:22	Metals	7439-92-1	Lead	total	Y	0.105		mg/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW7471A	1/18/2007	14:13	Metals	7439-97-6	Mercury	total	Y	0.0048	J	mg/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW6020	1/24/2007	10:22	Metals	7440-02-0	Nickel	total	Y	0.41		mg/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW6020	1/24/2007	10:22	Metals	7440-22-4	Silver	total	Y	0.0434		mg/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW6020	1/24/2007	11:42	Metals	7440-36-0	Antimony	total	Y	0.0027	J	mg/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW6020	1/24/2007	10:22	Metals	7440-38-2	Arsenic	total	Y	0.439		mg/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW6020	1/24/2007	10:22	Metals	7440-43-9	Cadmium	total	Y	0.0905		mg/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW6010B	1/24/2007	10:43	Metals	7440-47-3	Chromium	total	N	0.27	U	mg/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW6020	1/24/2007	10:22	Metals	7440-50-8	Copper	total	Y	1.11		mg/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW6010B	1/24/2007	10:43	Metals	7440-66-6	Zinc	total	Y	27.5		mg/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW7742	1/25/2007	16:41	Metals	7782-49-2	Selenium	total	Y	0.11		mg/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:30	PAHs	120-12-7	Anthracene	NA	Y	0.72	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:30	PAHs	129-00-0	Pyrene	NA	Y	4.2	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:30	PAHs	191-24-2	Benzo(g,h,i)perylene	NA	N	0.2	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:30	PAHs	193-39-5	Indeno(1,2,3-cd)pyrene	NA	N	0.19	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:30	PAHs	205-99-2	Benzo(b)fluoranthene	NA	Y	0.8	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:30	PAHs	206-44-0	Fluoranthene	NA	Y	4.4	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:30	PAHs	207-08-9	Benzo(k)fluoranthene	NA	Y	0.33	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:30	PAHs	208-96-8	Acenaphthylene	NA	Y	1.8	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:30	PAHs	218-01-9	Chrysene	NA	Y	2.1	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:30	PAHs	50-32-8	Benzo(a)pyrene	NA	Y	0.93	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:30	PAHs	53-70-3	Dibenzo(a,h)anthracene	NA	N	0.28	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:30	PAHs	56-55-3	Benzo(a)anthracene	NA	Y	0.73	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:30	PAHs	83-32-9	Acenaphthene	NA	Y	2	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:30	PAHs	85-01-8	Phenanthrene	NA	Y	2.4	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:30	PAHs	86-73-7	Fluorene	NA	Y	0.7	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:30	PAHs	91-20-3	Naphthalene	NA	Y	2.1	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:30	PAHs	91-57-6	2-Methylnaphthalene	NA	Y	1.2	J	ug/kg	Wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	2051-60-7	PCB001	NA	N		R	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	2051-61-8	PCB002	NA	N		R	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	2051-62-9	PCB003	NA	N	1.06	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	13029-08-8	PCB004	NA	Y	17.7	J	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	16605-91-7	PCB005	NA	N	2.41	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	25569-80-6	PCB006	NA	N	2.86	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	33284-50-3	PCB007	NA	N	2.22	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	34883-43-7	PCB008	NA	Y	17.3		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	34883-39-1	PCB009	NA	N	2.1	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	33146-45-1	PCB010	NA	N	2.12	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	2050-67-1	PCB011	NA	Y	36.1		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB012_013	PCB012 & 013	NA	N	2.4	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	34883-41-5	PCB014	NA	N	2.3	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	2050-68-2	PCB015	NA	Y	9.65		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	38444-78-9	PCB016	NA	Y	12.3		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	37680-66-3	PCB017	NA	Y	20.6		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB018_030	PCB018 & 030	NA	Y	23.7		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	38444-73-4	PCB019	NA	Y	15.7	J	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB020_028	PCB020 & 028	NA	Y	89.1		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB021_033	PCB021 & 033	NA	Y	44.2		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	38444-85-8	PCB022	NA	Y	27.1		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	55720-44-0	PCB023	NA	N	0.846	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	55702-45-9	PCB024	NA	N	0.385	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	55712-37-3	PCB025	NA	Y	7.74		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB026_029	PCB026 & 029	NA	Y	15.8		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	38444-76-7	PCB027	NA	Y	3.61		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	16606-02-3	PCB031	NA	Y	63.2		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	38444-77-8	PCB032	NA	Y	18.7		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	37680-68-5	PCB034	NA	N	1.13	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	37680-69-6	PCB035	NA	N	0.95	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	38444-87-0	PCB036	NA	N	1.19	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	38444-90-5	PCB037	NA	Y	17		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	53555-66-1	PCB038	NA	N	0.94	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	38444-88-1	PCB039	NA	N	0.98	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB040_041	PCB040 & 041 & 071	NA	Y	40.6		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	36559-22-5	PCB042	NA	Y	18.8		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	70362-46-8	PCB043	NA	Y	2.89		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB044_047	PCB044 & 047 & 065	NA	Y	77.3		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB045_051	PCB045 & 051	NA	Y	13.5		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	41464-47-5	PCB046	NA	Y	3.2		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	70362-47-9	PCB048	NA	Y	16.1		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB049_069	PCB049 & 069	NA	Y	44.4		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB050_053	PCB050 & 053	NA	Y	11.7		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	35693-99-3	PCB052	NA	Y	72.9		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	15968-05-5	PCB054	NA	Y	2.32		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74338-24-2	PCB055	NA	N	1.16	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	41464-43-1	PCB056	NA	Y	37.7		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	70424-67-8	PCB057	NA	N	0.814	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	41464-49-7	PCB058	NA	N	1.03	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB059_062	PCB059 & 062 & 075	NA	Y	6.16		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	33025-41-1	PCB060	NA	Y	24.8		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB061_070	PCB061 & 070 & 074 & 076	NA	Y	142		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74472-34-7	PCB063	NA	Y	3.92		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	52663-58-8	PCB064	NA	Y	30		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	32598-10-0	PCB066	NA	Y	88.5		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	73575-53-8	PCB067	NA	N	2.91	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	73575-52-7	PCB068	NA	N	0.926	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	41464-42-0	PCB072	NA	N	0.908	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74338-23-1	PCB073	NA	N	0.94	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	32598-13-3	PCB077	NA	Y	7.88		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	70362-49-1	PCB078	NA	N	1.03	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	41464-48-6	PCB079	NA	Y	2.06		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	33284-52-5	PCB080	NA	N	0.814	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	70362-50-4	PCB081	NA	N	0.72	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	52663-62-4	PCB082	NA	Y	13.1		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB083_099	PCB083 & 099	NA	Y	95.2		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	52663-60-2	PCB084	NA	Y	21.9		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB085_116	PCB085 & 116 & 117	NA	Y	28.1		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB086_087	PCB086 & 087 & 097 & 108 & 119 & 125	NA	Y	84.1		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB088_091	PCB088 & 091	NA	Y	20.7		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	73575-57-2	PCB089	NA	N	1.48	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB090_101	PCB090 & 101 & 113	NA	Y	143		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	52663-61-3	PCB092	NA	Y	29.7		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB093_095	PCB093 & 095 & 098 & 100 & 102	NA	Y	96.4		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	73575-55-0	PCB094	NA	Y	1.73		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	73575-54-9	PCB096	NA	Y	1.24	J	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	60145-21-3	PCB103	NA	Y	4.09		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	56558-16-8	PCB104	NA	Y	0.527	J	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	32598-14-4	PCB105	NA	Y	63.2		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	70424-69-0	PCB106	NA	N	0.57	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB107_124	PCB107 & 124	NA	Y	6.96		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74472-35-8	PCB109	NA	Y	11.6		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB110_115	PCB110 & 115	NA	Y	140		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	39635-32-0	PCB111	NA	N	0.416	U	pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74472-36-9	PCB112	NA	N	0.47	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74472-37-0	PCB114	NA	Y	3.97		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	31508-00-6	PCB118	NA	Y	160		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	68194-12-7	PCB120	NA	Y	1.4		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	56558-18-0	PCB121	NA	Y	0.632	J	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	76842-07-4	PCB122	NA	N	2.16	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	65510-44-3	PCB123	NA	Y	3.15		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	57465-28-8	PCB126	NA	Y	0.69	J	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	39635-33-1	PCB127	NA	N	0.625	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB128_166	PCB128 & 166	NA	Y	70.7		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB129_138	PCB129 & 138 & 160 & 163	NA	Y	406		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	52663-66-8	PCB130	NA	Y	18.1		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	61798-70-7	PCB131	NA	Y	2.32		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	38380-05-1	PCB132	NA	Y	79.1		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	35694-04-3	PCB133	NA	Y	8.06		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB134_143	PCB134 & 143	NA	Y	11.8		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB135_151	PCB135 & 151 & 154	NA	Y	129		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	38411-22-2	PCB136	NA	Y	28.9		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	35694-06-5	PCB137	NA	Y	13.8		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB139_140	PCB139 & 140	NA	Y	5.11		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	52712-04-6	PCB141	NA	Y	66.1		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	41411-61-4	PCB142	NA	N	0.675	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	68194-14-9	PCB144	NA	Y	13.4		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74472-40-5	PCB145	NA	N	0.501	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	51908-16-8	PCB146	NA	Y	68.3		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB147_149	PCB147 & 149	NA	Y	267		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74472-41-6	PCB148	NA	Y	2.04		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	68194-08-1	PCB150	NA	Y	1.47		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	68194-09-2	PCB152	NA	N	0.519	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB153_168	PCB153 & 168	NA	Y	393		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	33979-03-2	PCB155	NA	N	0.524	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB156_157	PCB156 & 157	NA	Y	35.1		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74472-42-7	PCB158	NA	Y	32.8		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	39635-35-3	PCB159	NA	Y	7.79		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74472-43-8	PCB161	NA	N	0.752	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	39635-34-2	PCB162	NA	N	1.29	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74472-45-0	PCB164	NA	Y	22.3		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74472-46-1	PCB165	NA	N	0.794	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	52663-72-6	PCB167	NA	Y	14.8		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	32774-16-6	PCB169	NA	N	0.811	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	35065-30-6	PCB170	NA	Y	161		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB171_173	PCB171 & 173	NA	Y	48.4		pg/g	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	52663-74-8	PCB172	NA	Y	25.9		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	38411-25-5	PCB174	NA	Y	146		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	40186-70-7	PCB175	NA	Y	5.8		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	52663-65-7	PCB176	NA	Y	19.4		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	52663-70-4	PCB177	NA	Y	81.3		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	52663-67-9	PCB178	NA	Y	30.2		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	52663-64-6	PCB179	NA	Y	61.2		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB180_193	PCB180 & 193	NA	Y	406		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74472-47-2	PCB181	NA	Y	1.43		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	60145-23-5	PCB182	NA	Y	1.65		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB183_185	PCB183 & 185	NA	Y	122		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74472-48-3	PCB184	NA	Y	0.579	J	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74472-49-4	PCB186	NA	N	0.313	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	52663-68-0	PCB187	NA	Y	316		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74487-85-7	PCB188	NA	Y	1.05	J	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	39635-31-9	PCB189	NA	Y	4.59		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	41411-64-7	PCB190	NA	Y	31.2		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74472-50-7	PCB191	NA	Y	6.89		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74472-51-8	PCB192	NA	N	0.626	U	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	35694-08-7	PCB194	NA	Y	91.6		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	52663-78-2	PCB195	NA	Y	45.9		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	42740-50-1	PCB196	NA	Y	52.1		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB197_200	PCB197 & 200	NA	Y	19.1		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	PCB198_199	PCB198 & 199	NA	Y	99.7		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	40186-71-8	PCB201	NA	Y	14.7		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	2136-99-4	PCB202	NA	Y	21.4		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	52663-76-0	PCB203	NA	Y	95.9		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74472-52-9	PCB204	NA	Y	0.151	J	pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	74472-53-0	PCB205	NA	Y	4.63		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	40186-72-9	PCB206	NA	Y	49.5		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	52663-79-3	PCB207	NA	Y	7.12		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	52663-77-1	PCB208	NA	Y	14.2		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-010 Rev 08	3/27/2007	04:23	PCB_Congeners	2051-24-3	PCB209	NA	Y	48.8		pg/g	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	03:38	Pesticides	1024-57-3	Heptachlor epoxide	NA	N	0.0106	UJ	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	03:38	Pesticides	1031-07-8	Endosulfan sulfate	NA	Y	0.267	J	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:07	Pesticides	27304-13-8	Oxychlordane	NA	N	0.186	UJ	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:07	Pesticides	309-00-2	Aldrin	NA	Y	0.008	J	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:07	Pesticides	319-84-6	alpha-Hexachlorocyclohexane	NA	Y	0.005	J	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:07	Pesticides	319-85-7	beta-Hexachlorocyclohexane	NA	N	0.136	UJ	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	03:38	Pesticides	319-86-8	delta-Hexachlorocyclohexane	NA	N	0.0596	UJ	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	03:38	Pesticides	33213-65-9	beta-Endosulfan	NA	N	0.0589	UJ	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:07	Pesticides	3424-82-6	2,4'-DDE	NA	Y	0.019	J	ug/kg	wet	QA2Cat1	

RiverReach	LocationID	Location Name	X	Y	Z	RiverMile	Task	UpperDepth	LowerDepth	Depth Unit	Sample Date	Sample Time	Species	Tissue	Matrix	Lab Matrix	SampleID	ParentSample	Sample Type	Method	Analysis Date	Analysis Time	AnalyteGroup	cas_rn	Analyte	total or dissolved	detect flag	VALUE	Qualifiers	Units	Basis	DV Category	Notes
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:07	Pesticides	39765-80-5	trans-Nonachlor	NA	Y	0.156	J	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:07	Pesticides	50-29-3	4,4'-DDT	NA	Y	0.216	J	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:07	Pesticides	5103-71-9	cis-Chlordane	NA	Y	0.123	J	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:07	Pesticides	5103-73-1	cis-Nonachlor	NA	Y	0.057	J	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:07	Pesticides	5103-74-2	trans-Chlordane	NA	Y	0.098	J	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:07	Pesticides	53-19-0	2,4'-DDD	NA	Y	0.05	J	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	03:38	Pesticides	53494-70-5	Endrin ketone	NA	N	0.0844	UJ	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:07	Pesticides	58-89-9	gamma-Hexachlorocyclohexane	NA	N	0.062	UJ	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	03:38	Pesticides	60-57-1	Dieldrin	NA	Y	0.148	J	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	03:38	Pesticides	72-20-8	Endrin	NA	Y	0.00418	J	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	03:38	Pesticides	72-43-5	Methoxychlor	NA	Y	0.0136	J	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:07	Pesticides	72-54-8	4,4'-DDD	NA	Y	0.277	J	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:07	Pesticides	72-55-9	4,4'-DDE	NA	Y	0.941	J	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	03:38	Pesticides	7421-93-4	Endrin aldehyde	NA	N	0.0844	UJ	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:07	Pesticides	76-44-8	Heptachlor	NA	N	0.0806	UJ	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:07	Pesticides	789-02-6	2,4'-DDT	NA	Y	0.063	J	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	4/17/2007	03:38	Pesticides	959-98-8	alpha-Endosulfan	NA	N	0.034	UJ	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/26/2007	22:47	Phenols	105-67-9	2,4-Dimethylphenol	NA	N	39	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/26/2007	22:47	Phenols	95-48-7	2-Methylphenol	NA	N	39	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/26/2007	22:47	Phenols	106-44-5	4-Methylphenol	NA	N	39	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/26/2007	22:47	Phenols	87-86-5	Pentachlorophenol	NA	N	39	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:29	Phthalates	131-11-3	Dimethyl phthalate	NA	N	22	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:29	Phthalates	84-66-2	Diethyl phthalate	NA	N	26	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:29	Phthalates	84-74-2	Dibutyl phthalate	NA	Y	32	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:29	Phthalates	85-68-7	Butylbenzyl phthalate	NA	N	260	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:29	Phthalates	117-84-0	Di-n-octyl phthalate	NA	N	76	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:29	Phthalates	117-81-7	Bis(2-ethylhexyl) phthalate	NA	Y	100	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:29	SVOCs	120-82-1	1,2,4-Trichlorobenzene	NA	N	9.1	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:29	SVOCs	95-50-1	1,2-Dichlorobenzene	NA	N	15	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:29	SVOCs	541-73-1	1,3-Dichlorobenzene	NA	N	19	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:29	SVOCs	106-46-7	1,4-Dichlorobenzene	NA	N	18	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:29	SVOCs	100-51-6	Benzyl alcohol	NA	Y	170	J	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	AXYS METHOD MLA-028 Rev 02	3/27/2007	04:07	SVOCs	118-74-1	Hexachlorobenzene	NA	Y	0.14	J	ug/kg	wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:29	SVOCs	87-68-3	Hexachlorobutadiene	NA	N	11	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:29	SVOCs	67-72-1	Hexachloroethane	NA	N	18	UJ	ug/kg	Wet	QA2Cat1	
Upper Study Area	LW2-BTFM033	FM033	7639812.9	694629.46	-30	10.0	B01-01-51B_FM				12/6/2005	00:00	mussel	body without shell	tissue	tissue	LW2-BTFM033 Comp		normal	SW8270-SIM	1/25/2007	17:29	SVOCs	86-30-6	N-Nitrosodiphenylamine	NA	N	24	UJ	ug/kg	Wet	QA2Cat1	