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January 16, 2022

Mr. Joseph Kelly, PG
United States Environmental Protection Agency (USEPA)
Region 5
Mail Code: SR-6J
77 West Jackson Boulevard
Chicago, Illinois 60604-3507

Via Email: Kelly.joseph@epa.gov

RE: SME Serial Letter #83
Sheboygan River and Inner Harbor Site
EPA ID: WID980996367
Facility ID: 460143200
BRRTS ID: 0260529589
SME Project No. 069638.00.072

Dear Mr. Kelly:

On behalf of Pollution Risk Services, LLC (PRS), SME is submitting the 2022 Fish Monitoring Report for the Sheboygan River and Inner Harbor Superfund Site. This report is the product of many years of reporting and incorporates all past comments from the agency. We also are providing a response to comments on the 2021 report.

If you have questions regarding the report, feel free to contact Keith at (513) 319-8919 or via email at keith.egan@sme-usa.com.

Respectfully,

SME

Michael Yergin, CHMM
Project Consultant

Keith Egan, CP#259
Chief Consultant

Enclosure: 2022 Annual Fish Monitoring Report
Response to Technical Review of the 2021 Report

Distribution: Mr. Rick Nagel, United States Environmental Protection Agency via email (nagle.richard@epa.gov)
Mr. Chris Dietrich, Wisconsin Department of Natural Resources via email (christopher.dietrich@wisconsin.gov)
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RESPONSE TO TECHNICAL REVIEW OF THE 2021 ANNUAL FISH MONITORING REPORT SHEBOYGAN RIVER AND INNER HARBOR SUPERFUND SITE

SME is responding to the Wisconsin Department of Natural Resources (WDNR) comments based on their review of the 2021 Annual Fish Monitoring Report (Annual Report), Sheboygan River and Inner Harbor Superfund Site provided to us on May 16, 2022 by the United States Environmental Protection Agency (USEPA).

GENERAL COMMENTS

General Comment 1: *The report seems consistent with what was included in the most recent 5-year report. All data is presented in a similar format to that report. Tom Wentland was on the distribution list for the WDNR, please replace him with Chris Dietrich on future reports. An acronym and abbreviation list may be helpful.*

General Response 1: We will add Mr. Dietrich to the future reports. Due to the very limited audience of the report who are all knowledgeable, educated, and motivated, we do not think this list improves the report.

General Comment 2: *The t-test and the Mann-Kendall test should be considered the first step of the data analysis. There needs to be additional analysis to determine if the trends are likely due to remedial activities or compounding factors, such as percent lipids and age. It is highly recommended to use multivariate statistical analysis to examine trends. There are many factors that may introduce variation from one year to the next, and the multivariate analysis with help to determine if the concentrations are still declining or if other factors can explain the difference between years. The authors should also reconsider the Mann-Whitney test.*

General Response 2. Previous WDNR comments stated that the t-test and Mann-Kendall analyses were not appropriate for data analysis and the report was revised to document these methods were appropriate and in fact, recommended by the USEPA. We have been conducting these tests for more than 10 years since that initial WDNR comment with no issues from either WDNR or USEPA in that time.

In the past we have considered the Mann-Whitney test and believed it provided no more insight than the tests being performed currently. However, will start this analysis in 2023 after we have compiled the needed database.

We performed a multivariant regression analysis in 2014 and the test resulted in the same conclusions as the other statistical tests, there was a statistically significant decrease in PCB fish tissue concentrations. The decrease was not related to percent lipids or other factors. The test did not account for a control group which provides more power to the inferences of the test. For the Sheboygan River, the control group would be Middle River since it was not remediated.

As part of the 2022 data analysis, we evaluated the PCB reduction rate in fish in the other reaches to that in the Middle River. The slope of the PCB reduction is very similar in the remediated river reaches but steeper than that of control group, Middle River. Assuming that overall, the variables affecting PCB content in fish in the different reaches are the same from reach to reach, the faster reduction in PCB content in the remediated reaches is attributed to the remediation of those reaches. The effect of other variables on sample results overtime don't appear to be a contributing factor in the observed reduction of PCBs in fish tissue.

General Comment 3*: The WDNR recommends multivariate statistical analysis be included in future reports to determine if the population concentrations are still declining or if other factors can explain the variation. The smallmouth bass data WDNR collected in the AOC in 2015 indicated concentrations that are very similar to what is presented in this report for 2021. Both studies used skin on fillets with the same size class of fish, and the 2015 WDNR results showed that PCB levels in smallmouth bass were 1.05 +/- 0.46 (mg/kg), which are similar to the contaminants for the entire river reach of 1.17 +/- 0.35 (mg/kg) for smallmouth bass reported here for 2021. The 2015 WDNR data was in the range of the smallmouth bass data for the Superfund monitoring from 2015, which was 1.61 +/- 1.35 (mg/kg). Also, looking at the box plots, it is not clear that the fish tissue concentrations are still declining. There appears to be very little change in tissue concentrations within the past five years, and the report is not very convincing that the concentrations are still declining. It appears as if the concentrations are stabilizing well above the target concentration of 0.31 ppm for smallmouth bass. A similar trend seems evident for other species.*

General Response 3: It is very difficult to respond to this comment since WDNR has never shared their fish collection results with PRS or SME or even informed us the work was being performed. We could have combined the results forming a larger data set for analysis. A larger data set would reduce UCLs and provide us a more representative data set.

We agree the box plots are difficult to interpret and the only reason we included them is because WDNR requested them; our first report did not include them, and we had to revise the document.

Did WDNR compare their 2015 data to the 2021 using multivariant analysis to assess if the other variables may be responsible in the similarities? If so, we would like to have that data.

SPECIFIC COMMENTS

Specific Comment 1: Section 1, Introduction, Page 1: *The applicable Site EPA ID, FID, and BRRTS case numbers should be referenced in the introduction*.

Specific Response 1: We added these identification numbers to the introduction.

Specific Comment 2: Section 1.2, Site History, Page 2: *In the last paragraph, the SWAC values would be better displayed in a table or bullet list format.*

Specific Response 2: The format of this report was first established in 2010 and has been deemed satisfactory since then. There are not enough SWAC results discussed to warrant a table or bullet list and we believe the narrative form is informative.

Specific Comment 3: Section 4.2, Data Comparison, Page 16: *There is a lot of variation in the UCL from one year to the next and between reaches. Summarizing it as done on page 16 may be a little misleading. This method of summarizing is a way to verify if the tissue concentration is still decreasing. However, it is not very convincing when examining the variation in UCL in each river reach or the box plots.*

Specific Response 3: We have been presenting the results in this format since 2012. However, we welcome suggestions how to improve the presentation.

Specific Comment 4: Section 4.2, Data Comparison, Page 17: *Based on the figure, it appears that the decrease in PCB levels has really slowed/flattened within the past 5 years. This flattening is especially apparent for the Lower River and Inner Harbor reaches.*

Specific Response 4: Similar to other environmental data following remediation, decreases in contaminant reductions are expected over time. The remediation of the river was designed by USEPA to reach the goals over time. We are documenting the progress as required by the Record of Decision (ROD) but have no responsibility toward the success of the remediation. We note that the ROD

specifically states on page 1, "The State of Wisconsin is not expected to concur with the selected remedy." This comment and others appear to be trying to undermine the ROD decision on the selected remedy and involve PRS in the internecine disagreement between WDNR and the USEPA.

Specific Comment 5: Section 4.2, Data Comparison, Page 17: *The figure seems misleading. The report already mentioned the differences between fish species, but the figure lumps them all together into this graphic. It would be helpful for them to create a panel graphic by fish species with the trends for each section plotted. In this graphic, there would be one graph per species. Also, it would be helpful to plot the standard deviation on the points. Sediment information can be included on a separate plot.*

Specific Response 5: We are not sure what is being requested. However, what we do gather from the request would result in a cluttered graphic or more graphics than are really needed. The intent is to show that sediment and PCB concentrations are following the same trend which this graph does. Pease suggest specific edits.

Specific Comment 6: Section 4.2, Data Comparison, Page 17: *This section states "Based on the 2017 sediment results, all but one river reach, the Upper River, met the ROD SWAC goal of 0.5 ppm. Sediment sampling will continue to be conducted, as determined in the Post-Remediation Monitoring Plan, until the ROD SWAC goals are achieved." WDNR recommends additional sampling is conducted in the areas of the Upper River with elevated PCB concentrations as directed in the most recent five-year review, and that the results are evaluated to determine if any additional sediment remediation is needed.*

Specific Response 6: SME had no opportunity to review the Five-Year Review and believed the concern for the Upper River sediments during the first sampling event for a 30-year remedial period to be premature. Until recently, no request was made to PRS or SME to collect additional data. We readily agreed to conduct the sampling and the results demonstrated the concern is unfounded at this time.

Specific Comment 7: Table 4, Year by Year Statistical Comparison: *It would be helpful to include the average and standard deviation of lipid percentage in this table (or an additional table), as lipid percentage is an important factor when looking at PCB concentrations. It may affect the interpretation of the trend results. Also, it would be helpful if this table included the number of samples used in the statistical summary for each fish species for each year.*

Specific Response 7: SME is not using Table 4 to interpret trend results but to summarize historical results. We think that including this data would not provide a method to evaluate lipid impact on the data. However, including the average lipid percent would provide a more complete summary of the data as would the number of fish and we added this information.

Specific Comment 8: Table 5, Comparison of Statistically Significant Trends: ***Table*** *5 includes data regarding the 95% UCL PCB concentration decreases in 1 year, 5 year, 10 year, etc. increments. While interesting on the surface, the fact that the calculations are made by pooling fish from all areas of the river really diminishes its strength. By pooling all the reaches, the final result is diluted and muddies the actual patterns. A suggestion is to calculate these decreases (or potential decreases) based on each individual reach. This should provide some clarity as to if/whether certain areas are decreasing and/or whether the decrease has slowed in certain areas. While pooling results from all reaches can provide an overview of the situation, calculating trends for each reach would be much more beneficial and provide a much more accurate representation of fish PCB trends.*

Specific Response 8: Based on your comment, we evaluated the table and decided the UCL data does not really provide useful information. Regardless if calculated by reach or the entire river, the averages of the reaches would reflect the average of the entire river. We dropped this portion of the table.

ADDITIONAL COMMENTS

Additional Comment 1: *Based on the above, WDNR recommends more in depth (multivariate) analysis. It appears, at least in some species and some reaches, that the decrease in PCB levels has flattened. Perhaps a more detailed approach would provide insight as to why.*

Response to Additional Comment 1: The remedy was implemented and provides no alternatives if the selected remedy does not lead to meeting the goals in the 30-year monitoring period. See General Response 2 for our feeling about the multivariant analysis at this time.

Additional Comment 2: Appendix 3, Box Plots: *There appears to be very little change within the last 5 years. Most of the decreases in concentrations appear to have happened between 2008 and 2011. It would be helpful to have some analysis that looks more closely at the last 5 years to see if fish concentrations are still decreasing to a point where the targets will be met without further actions.*

Response to Additional Comment 2: The ROD does not require further actions for the 30-year attenuation process except further attenuation.

2022 ANNUAL FISH MONITORING REPORT

SHEBOYGAN RIVER AND INNER HARBOR SUPERFUND SITE
SHEBOYGAN, KOHLER AND SHEBOYGAN FALLS, WISCONSIN

SME Project Number: 069638.00.072
January 16, 2023

SME

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1. INTRODUCTION

Monitoring of post-remedial fish tissue concentrations of polychlorinated biphenyls (PCBs) is being conducted on the Sheboygan River in accordance with the Post-Remediation Monitoring Plan (PMP). As stated in the PMP, the monitoring is being conducted in three phases consisting of the following:

- Baseline monitoring after remediation of the Upper River and prior to remediation of the Lower River reaches to determine the mean PCB concentration of each fish species of interest and establish a comparison point for future sampling.[1]
- Phase 1 annual monitoring following remediation of each reach to establish a trend in mean PCB concentration for each fish species and track the progress of the fish in meeting the remedial goals.
- Phase 2 confirmatory sampling to verify the fish have reached the remedial goals.

This 2022 Fish Monitoring Report documents the Phase 1 fish monitoring activities performed in 2022 on the Upper River, Middle River, Lower River, and Inner Harbor reaches. The Middle River reach fish monitoring was performed as data from the 2009 Pre-Design Investigation indicated remediation would not be performed. This decision was approved by the United States Environmental Protection Agency (USEPA) and Wisconsin Department of Natural Resources (WDNR), hereafter known as the agencies. Remediation of the Lower River and Inner Harbor reaches was completed in 2012.

The data obtained during the Phase 1 annual monitoring allows post-remedial fish tissue concentrations to be compared to prior annual results to monitor remedial progress. Post-remedial monitoring will occur until fish consumption advisories are lifted by the Wisconsin Department of Health, fish fillet concentrations of PCBs decrease to the target levels specified on page 32 of the *Record of Decision* (ROD), or for 30 years (2042), whichever comes first.

1.1 SITE DESCRIPTION

The Sheboygan River and Harbor Superfund Site (the Site)[2] is located on the western shore of Lake Michigan approximately fifty-five miles north of Milwaukee, Wisconsin, in Sheboygan County (Figure 1). The Site includes the former Tecumseh Manufacturing site and the lower fourteen miles of the Sheboygan River from the Sheboygan Falls Dam downstream to, and including, the Inner Harbor. This segment of the river flows west to east through the City of Sheboygan Falls, the Village of Kohler, and the City of Sheboygan before entering Lake Michigan.

During the Remedial Investigations (RI), the river was segmented in separate sections, known as reaches, based on physical characteristics such as average depth, width, and level of polychlorinated biphenyl (PCB) sediment contamination. The Upper River extends from the Sheboygan Falls Dam downstream four miles to the Waelderhaus Dam in Kohler. The Middle River extends seven miles from the Waelderhaus Dam to the former Chicago & Northwestern (C&NW) railroad bridge. The Lower River extends two miles from the C&NW railroad bridge to the Pennsylvania Avenue Bridge in downtown Sheboygan. The Inner Harbor includes the Sheboygan River from the Pennsylvania Avenue Bridge to the river's outlet to the Outer Harbor. Figure 2 provides an overview of each river reach.

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[1] The Upper River, Lower River, and Inner Harbor have already been remediated. The first annual event will be used as the baseline event. The *Baseline Upper and Lower River Fish Monitoring Report* documented the fish monitoring performed in 2008 for the Upper River, Middle River, Lower River, and Inner Harbor reaches.

[2] EPA ID: WID980996367, Facility ID: 460143200, BRRTS ID: 0260529589

1.2 SITE HISTORY

The USEPA placed the Sheboygan River and Harbor Site on the National Priorities List (NPL) in 1986. Remedial Design (RD) and Remedial Action (RA) work at the Site was completed in phases.

Phase I[3] source work included installing a groundwater migration interceptor trench and removing contaminated soils at the former Tecumseh Manufacturing Site to reduce potential contaminated groundwater migration to the river. Phase I work was completed in 2004.

Phase II Upper River work included removing contaminated sediment from nine Armored Area Remedial Management Units (RMUs) and 122 Soft Sediment RMUs. The Soft Sediment RMUs and Armored Areas contained the majority of the PCB mass within the Upper River. The Upper River remedial action removed 20,728 cubic yards of contaminated sediment and 552 pounds of PCBs for a total mass removal percentage of 94.1 percent, which exceeded the ROD PCB mass reduction objective of 88 percent. The Upper River Surface-area Weighted Average Concentration (SWAC) was reduced from 5.2 ppm to 1.96 ppm. The Phase II Upper River work was completed in 2006 and 2007.

Phase II Floodplain work included removing contaminated soil from two areas in Floodplain 3, one area in Floodplain 4, and four areas in Floodplain 6. The Floodplain remedial action removed 10 cubic yards of contaminated soil. The Phase II Floodplain work was completed in 2012.

Phase III Lower River work included removing sediment from 46 grids in the Lower River and 40 in the Inner Harbor. The Lower River remedial action removed 65,475.10 cubic yards of contaminated sediment, exceeding the ROD objective of 53,000 cubic yards[4]. Phase III Lower River work was performed in 2011 and 2012.

Post-remedial monitoring of surface sediments was conducted in the Upper River, Middle River, Lower River, and Inner Harbor in 2017. The calculated SWAC for Upper River, Middle River, Lower River, and Inner Harbor were 1.82 ppm, 0.22 ppm, 0.29 ppm, 0.49 ppm and 0.56 ppm, respectively. The calculated SWAC for all of the portions of the River combined was 0.56 ppm. The Upper River and Overall River SWAC were both above the ROD target SWAC of 0.5 ppm.

1.3 RIVER CHARACTERISTICS

1.3.1 UPPER RIVER/MIDDLE RIVER

The Upper River consists of discrete Soft Sediment deposits and non-Soft Sediment areas, which include a mix of Soft Sediment, rocks, cobbles, and barren river bottom. The Middle River consists of Soft and non-Soft Sediment areas similar to the Upper River, but due to the hydrodynamics of this reach, the areas of Soft Sediment are shallower and more widely scattered.

1.3.2 LOWER RIVER/INNER HARBOR

The flow velocity in the Lower River decreases leading to a more continuous layer of Soft Sediment throughout the reach. Based on the hydrodynamics of this reach, the Lower River is where much of the sediment released in the Middle River is deposited.

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[3] Note: The Phase I, Phase II, and Phase III work activities described in Section 1.2 are not associated with the Phase I and Phase II monitoring activities described in Section 1.0.

[4] As listed in Record of Decision (ROD) for the Upper River, May 2000, page 61 and for the Lower River/Inner Harbor May 2000, page 77).

The Inner Harbor is generally the river reach where upstream Soft Sediment is deposited. The inner harbor area is a continuous deposit of soft sediments. However, while the Inner Harbor is generally depositional, deposition occurs primarily between the 8th Street Bridge and the harbor mouth. The area between the Pennsylvania Bridge and 8th Street Bridge has little deposition and shows evidence of scour.

1.4 PREVIOUS EVALUATIONS

1.4.1 PRE-REMEDIATION EVALUATION

The consumption of the fish is the primary exposure route for human receptors of the PCBs in the river sediments. The PCBs in the river sediments bioaccumulate in the fish from contact with impacted sediment, surface water, or by ingesting impacted prey. An understanding of the process in developing the sediment PCB cleanup goals based on allowable fish PCB concentrations is important in the evaluation of long-term assessment of remedial success.

There is considerable seasonal fishing in the Middle River, Lower River, and Inner Harbor.[5] Fishing is more limited in the Upper River. According to WDNR surveys, most fishing occurs during spring and fall salmon and trout runs. Resident fish that are taken from the Sheboygan River, between the Sheboygan Falls dam and the mouth of the river, fall into the “do not eat” consumption advisory category. Migrating trout and salmon are subject to Lake Michigan advisories as they obtain most of their PCB body burden from Lake Michigan. One objective of the sediment removal is to reduce the concentrations of PCBs in the fish over time so all of the consumption advisories are lifted.

There are several possible pathways of exposure to the contamination in the sediment: dermal contact, ingestion of contaminated surface water or sediment, and consumption of fish contaminated by sediment. However, the human health analysis assumed that for this Site, the pathway presenting the majority of the risk and likely to yield the most protective assessment of risks is consumption of contaminated fish and not dermal contact. This does not imply that no other exposure pathways are occurring at this Site but that there is a focus on the fish ingestion pathway that contributes the majority of risk.

An Interim Monitoring Program (IMP) was performed by Blasland, Bouck, and Lee, Inc. (BBL) that consisted of the collection of smallmouth bass and white suckers at Rochester Park in the Upper River reach and between the dams in the Upper River reach.[6] During the baseline and subsequent post-remedial monitoring, these areas are known as Upper River 1 and Upper River 2 Sites. These fish were also collected near Kiwanis Park or in the Lower River reach. The range of smallmouth bass PCB concentrations detected is as follows:

- Upper River 1: 2.1 to 10.3 ppm
- Upper River 2: 1.1 to 7.3 ppm
- Lower River: 0.82 to 3.7 ppm

The PCB concentration decreased between 1994 and 2002. The results for smallmouth bass in the Upper River Site 1 show a general decreasing trend and the regression shows a decrease with a moderate correlation. For Upper River Site 2, the decrease has a very strong correlation for the regression. The range of white sucker concentrations detected is as follows:

- Upper River 1: 2.7 to 18.3 ppm
- Upper River 2: 1.9 to 8.7 ppm
- Lower River: 1.4 to 3.9 ppm

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[5] Much of the information presented in this section was obtained from the ROD.
[6] Sampling conducted in 1994, 1995, 1996, 1998, 1999, 2000, 2001, and 2002.

In order to address unacceptable risks at the Site, USEPA calculated sediment cleanup goals, protective of human health. The USEPA made a conscious decision to model and be protective of the more contaminated resident fish species of smallmouth bass and carp at the Site. By selecting a cleanup goal protective of bass (or carp), the cleanup will be protective of the lesser contaminated species such as walleye, trout, salmon, and steelhead. Target fish tissue levels corresponding to the SWAC Sediment Cleanup Goal include the following:

- Smallmouth Bass 0.31 ppm (skin on fillet)
- Walleye 0.63 ppm (skin on fillet)
- Trout 0.09 ppm (skin on fillet)[7]
- Carp 2.58 ppm (skin on fillet)
- Catfish 2.53 ppm (skin off fillet)

1.4.2 BASELINE EVALUATION

The mean fish tissue PCB results for the 2008 baseline-sampling event are provided below.

FISH SPECIES	FISH TISSUE MEAN PCB RESULTS PER RIVER REACHES (MG/KG)					
	UPPER (Site 1)	UPPER (Site 2)	MIDDLE (Site 1)	MIDDLE (Site 2)	LOWER	INNER HARBOR
Smallmouth Bass	13.0	14.5	8.75	4.30	5.77	3.36
Adult Carp	25.9	14.7	4.44	1.27*	11.3	3.16
Adult White Suckers	12.4	8.92	8.77	3.96	4.31*	N/A
Juvenile White Suckers	6.01	6.82	N/A	1.37	1.04	N/A
Rock Bass	6.94	4.27	2.79*	2.49	2.60	N/A
Longnose Dace	7.67	N/A	9.47	8.51	N/A	N/A
Walleye	N/A	N/A	11.1	N/A	N/A	2.03*
Catfish	N/A	N/A	27.9	8.18	13.7	19.4*

N/A = Not Applicable, insufficient data
* Mean concentration was calculated using three fish or less.

For adult White Suckers, the target collection goal was missed in Middle River 1, Lower River, and in the Inner Harbor, which was attributed to lack of habitat. Very little areas with vegetation and warm shallows of estuaries and bays, the preferred habitat of white suckers, were observed in the Lower River and none were observed in the Inner Harbor. Information on habitat was obtained from Fishes of Wisconsin (1983). The WDNR has also experienced limited success collecting this species in the Lower River or Inner Harbor reaches.

[7] This is a migratory fish species and most PCB burden is from Lake Michigan.

The Sheboygan River is deep in many areas and does not appear to provide an abundance of quality habitat for Longnose Dace. However, there are areas of suitable habitat where shallows are present (i.e. Upper River, Site 1 and Site 2). The water is too deep in the Lower River and Inner Harbor reaches to provide suitable habitat.

The 2008 adult fish tissue PCB results tended to decrease moving from the Upper River to the Inner Harbor; except PCB concentrations were higher in the Lower River reach than the Middle River Site 2. This would correspond to the increase in PCBs in the sediment in the Lower River and Inner Harbor due to the suspected sources in these reaches such as from the potentially responsible parties whom have received a Notice of Intent from the USEPA.

Adult carp tended to have the highest mean PCB concentrations of the fish species. Although for the few caught, catfish had the highest mean concentration. Carp and catfish are bottom feeders and the concentrations are expected to be higher compared to sport fish. The 2008 results were also higher than previous results from the Interim Monitoring Program. Adult carp had the highest mean concentration in the Upper River. However, in both sites of the Middle River, as well as the Lower River and Inner Harbor reaches, carp were the only fish caught and many of the fish results were less than the ROD goal.

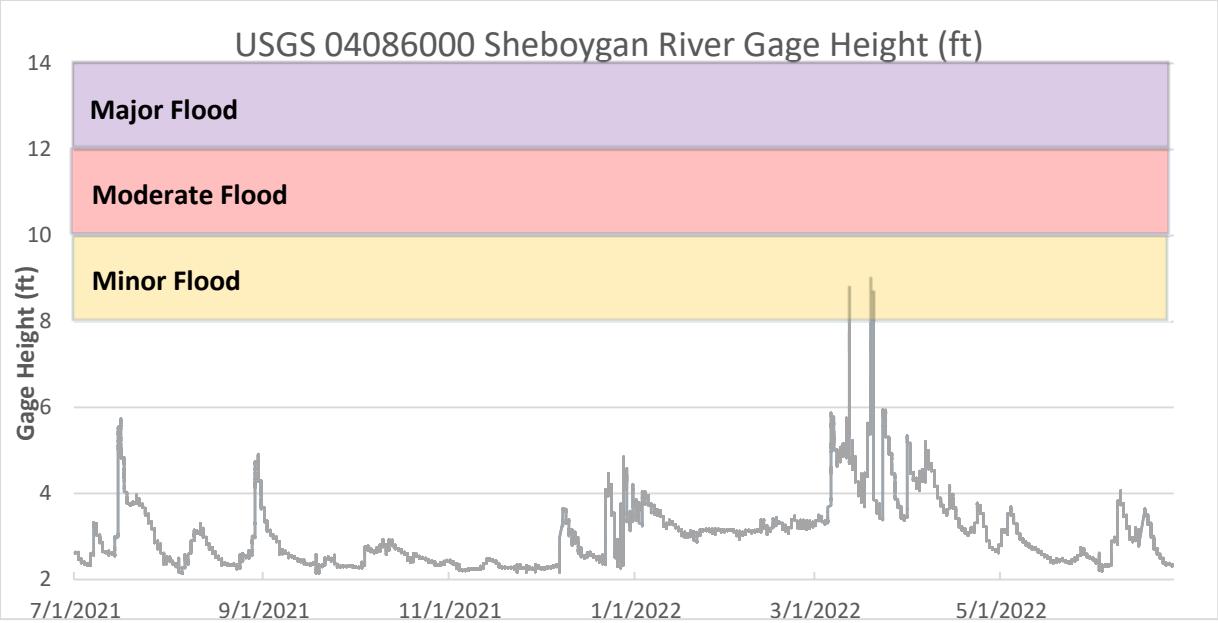
The data was compared to the historical data, where available. A non-statistical comparison of the means showed the 2008 mean concentrations were higher than the most recent historical result. The differences were most emphasized in the Upper River sites, the only areas remediated at the time of the baseline assessment. The smallmouth bass results and Upper River 2 white sucker were higher than the oldest of the Interim Monitoring results.

The statistical evaluation indicated that five of the eight adult fish species evaluated had statistically different results in the Upper River sites compared to historical data. Based on the weight of evidence, it appears that the remediation of the Upper River caused a temporary increase in the PCB concentrations in the fish. Prior to the fish collection, it was anticipated that this might occur due to disturbance of the sediment causing increased suspension of sediment. The increase in biota concentrations following dredging was discussed in *Sediment Dredging at Superfund Megasites, Assessing the Effectiveness* (National Academy of Sciences, 2007).

1.4.3 SIGNIFICANT RIVER RELATED EVENTS SINCE PREVIOUS SAMPLING EVENT

We also reviewed significant hydrological or other river related events that affected the Sheboygan River between the 2021 and 2022 sampling events. Significant hydrological or other river related events include but are not limited to major or moderate floods, significant river depth changes, dam failures, slope failures, and unusually high or low lake levels.

We reviewed the Sheboygan River gage height as measured by the United States Geological Survey (USGS) River Gage 04086000 for the timeframe from the end of the 2021 sampling event to the end of the 2022 sampling event. Information was downloaded from the USGS website and exported to Excel for formatting into a chart. Below is a chart depicting the Sheboygan River gage height with comparison to the criteria for major, moderate and minor floods.



Minor flooding occurred in the Sheboygan River on March 12, 19, and 20, 2022.

2. SAMPLING AND ANALYSIS

2.1 SUMMARY OF SAMPLING PLAN

The 2022 Phase 1 sampling and analysis of fish species was conducted consistent with the Post Remedial Monitoring Plan (PMP) and the Quality Assurance Project Plan (QAPP). These plans were conditionally approved with comment on August 13, 2008. The 2014 Annual Fish Monitoring Report determined the number of fish to collect at the two sites within the Upper River and Middle River reaches.

Smallmouth bass, carp, walleye, and catfish were selected as they have assigned target goals in the Record of Decision (ROD). According to the ROD, smallmouth bass and carp are the more contaminated resident fish species and the USEPA selected these fish to determine cleanup goals believing that if these fish met the goals, the lesser contaminated species such as walleye, trout, salmon, and steelhead would be protected. Therefore, the monitoring included these fish as well as walleye and catfish. Walleye and smallmouth bass will also help evaluate risk reduction for sport fisherman while carp and catfish for sustenance fisherman.

Rock bass were added because catfish and walleye are rarely caught according to WDNR. White suckers were added at the suggestion of the WDNR. The collection efforts have failed to catch Longnose Dace for several years using the recommended seine netting technique. We may continue to use the seine netting technique to attempt collection of Longnose Dace for select future sampling events. The following table outlines the final fish species collection goals for 2022.[8]

[8] Prior to the 2010 fish collection event, the agencies approved dropping the requirement to collect juvenile carp, walleye, and catfish in the Upper River because of two years with unsuccessful collection but required that the number of each fish species be increased from 8 to 12 fish.

FISH SPECIES	NUMBER OF SAMPLES PER RIVER REACH						
	UPPER (Site 1)	UPPER (Site 2)	MIDDLE (Site 1)	MIDDLE (Site 2)	LOWER RIVER	INNER HARBOR	SIZE RANGE (inches)
Adult Carp	12	12	8	8	8	8	15-25
Adult White Suckers	12	12	8	8	8	8	8-16
Juvenile Suckers	12	12	8	8	8	8	3-8
Rock Bass	12	12	8	8	9	9	5-9
Smallmouth Bass	12	12	8	8	8	8	10-17
Walleye	8	8	8	0	9	9	12-22
Longnose Dace	12	12	12	8	8	8	1-4
Channel Catfish	8	8	0	0	0	0	12-22

The WDNR requested that the Upper and Middle River be divided into two sites per reach. The rational was stated as “Sampling stations should include the following number of sites per reach in order to represent the amount of contaminated sediment that will be removed and the variability expected. Specimens may be collected at different locations within a reach and collections sites within a reach can vary in exact location and length of river sampled (distance and location data should be reported in annual reports).” The 2022 Phase 1 collection included the following locations:

- Two sites in the Upper River
    - From the former Tecumseh facility to Riverbend reach.
    - From the Riverbend to Waelderhaus Dam in Kohler.
- Two sites in the Middle River
    - From the Waelderhaus Dam in Kohler to the Kohler Landfill.
    - From the Kohler Landfill to the C&NW Railroad Bridge in Sheboygan.
- The Lower River from C&NW Railroad Bridge to Pennsylvania Avenue Bridge.
- The Inner Harbor from the Pennsylvania Avenue Bridge to the river mouth.

The fish collection would target the habitats most conducive for each species. Table 1 presents a summary of the fish species, known habitat, and range. This information was primarily obtained from Fishes in Wisconsin (1983) and is intended to provide a summary of the characteristics of the target species and their typical habitat and is not intended to describe the habitats where the target species were actually encountered in the Sheboygan River.

2.2 SAMPLING PROCEDURES

Collection began in the Inner Harbor reach, continued to the Lower River Reach, then the Upper River reach, and finally the Middle River reach. The fish collection occurred between June 24, 2022, to June 26, 2022 (Table 2). Figure 3 and Figure 4 show the locations where fish were collected in each site of the Upper River and Middle River. Figure 5 and Figure 6 depict the locations where fish were collected in each site of the Lower River and Inner Harbor.

Carp, white suckers, smallmouth bass, rock bass, walleye and/or channel catfish were collected using electro-fishing equipment. The electro-fishing equipment used to collect fish, a Smith Root, Inc. Model 2.5 GPP, was either a boat-mounted array set-up or a handheld wand, depending on the location and species to collect. Electro-fishing was performed by selecting the appropriate pulsed direct current (DC) power setting to stun-fish. The appropriate DC pulse setting (30 or 60) was made based on what set-up

was used (30 for the wand, 60 for the arrays). At that point, the percentage of output power was adjusted from 0-100 to stun the fish size needed without stunning more fish than needed or killing the fish. This percentage was determined by trial and error. Current was then applied to the river water by closure of the operating switch (i.e. foot pedal) while the generator and control equipment were operative. Once fish were stunned, the fish were collected with dip nets. The fish collected in the dip nets were identified for targeted species, measured to confirm they met size requirement, and were retained in a cooler until collection was completed.

All fish samples were processed and packaged in accordance with the procedures described in the WDNR's *Division of Environmental Standards Field Procedures Manual* in addition to the PMP. During and after collection, samples were held in a cooler. The fish were filleted and descaled but the skin was not removed with the exception of two juvenile white suckers from the Inner Harbor, which were unable to be filleted due to their size. Each fish was numbered and the following recorded in field logbook:

- Length
- Species[9]
- Sex (if possible)
- Age (if possible)
- Sample location
- Other distinguishing features
- Sampler(s)
- Any unusual skin lesions, tumors, or other irregularities should also be noted

The individual fish fillets were wrapped in aluminum foil, then in freezer paper, and finally taped securely so that the package did not open during shipment. All samples were frozen as soon as possible after collection. No composite samples were created or analyzed.

For shipment to the laboratory, all fish samples were placed in a Ziploc bag or industrial grade trash bag, a label affixed and placed into second Ziploc bag, and then into a freezer mounted on a trailer. A portable generator was used to power the freezer. A chain-of-custody form was placed in a sealable plastic bag and taped to the inside of cooler lid. The coolers were collected by the laboratory and as such, custody seals were not necessary.

The laboratory prepared and analyzed the samples in accordance with the analytical method USEPA SW846-8082 Modified and Laboratory Standard Operating Procedures (SOPs) developed in accordance with method 8082 including the following:

- GB-L-001, Rev .0 – Tissue Preparation
- GB-L-003, Rev. 0 – Lipids
- GB-O-031, Rev. 1 – Extraction
- GB-O-034, Rev. 1 – Sulfuric Acid Cleanup
- GB-O-036, Rev. 1 – Florosil Cleanup
- GB-O-026, Rev. 2 – PCB Analysis

The analysis to be performed on fish included total PCBs (Aroclor basis), percent lipids, and gender. The PCB method detection limit ranged from 0.0082 mg/kg to 0.819 mg/kg. Laboratory QA/QC samples consisted of a matrix spike and matrix spike duplicate. A minimum of one matrix spike/matrix spike

[9] Species was determined by SOP #10, *Fish Identification*.

duplicate analysis was performed with every batch of fish being analyzed for PCBs. Batch size was limited to no more than 20 samples. For analysis of PCBs in tissues, the QA procedures in USEPA's *Statement of Work for Organic Analysis* (Feb 1988) was used, including laboratory blanks consistent with required detection limits, and initial and continuing calibration to verify recoveries.

2.3 DEVIATION FROM PLAN

Due to the lack of success in obtaining fish of the desired length, PRS selected fish samples that are outside the target range. This practice had been used in the past and accepted by the USEPA. These deviations in target size range are summarized in the following tables and shown in Appendix 1.

FISH SPECIES	NUMBER OF TARGET RANGE DEVIATIONS PER RIVER REACH						
	UPPER (Site 1)		UPPER (Site 2)		MIDDLE (Site 1)		TARGET SIZE RANGE (inches)
	2022	Range (inches)	2022	Range (inches)	2022	Range (inches)	
Adult Carp	5	21-27	3	19-27	1	20-27	15-25
Adult White Suckers	10	14-19	8	16-20	6	10-18	8-16
Juvenile White Suckers	NC	NC	NC	NC	NC	NC	3-8
Smallmouth Bass	0	11-16	0	10-15	0	11-14	10-17
Rock Bass	0	6-8	0	6-7	0	5-8	5-9
Walleye	NC	NC	NC	NC	2	20-23	12-22
Longnose Dace	NC	NC	NC	NC	NC	NC	1-4
Channel Catfish	NC	NC	NC	NC	NC	NC	12-22

NC=None Caught

FISH SPECIES	NUMBER OF TARGET RANGE DEVIATIONS PER RIVER REACH						
	MIDDLE (Site 2)		LOWER		INNER HARBOR		TARGET SIZE RANGE (inches)
	2022	Range (inches)	2022	Range (inches)	2022	Range (inches)	
Adult Carp	4	22-27	6	21-27	7	25-27	15-25
Adult White Suckers	0	10-16	5	12-20	7	16-20	8-16
Juvenile White Suckers	NC	NC	NC	NC	0	4-7	3-8
Smallmouth Bass	1	10-18	0	10-14	1	14-18	10-17
Rock Bass	0	6-8	0	6-7	2	5-10	5-9
Walleye	NC	NC	NC	NC	NC	NC	12-22
Longnose Dace	NC	NC	NC	NC	NC	NC	1-4
Channel Catfish	2	23-25	NC	NC	NC	NC	12-22

NC=None Caught

The bias in the 2022 Phase I sampling event was primarily due to fish exceeding the target range. A qualitative evaluation of the target range bias was performed by either comparing PCB concentrations in the fish that did not meet the target range with those that did and to the historical data. Adult carp and adult white suckers were the most affected by the target range bias. Adult Carp generally have not shown a consistent decreasing trend or a statistically significant difference from the baseline event. Adult white suckers have shown a trend of decreasing concentrations; however, adult white suckers do not have a ROD goal. The target range bias in the bottom feeders, does appear to affect PCB concentration masking comparison of data over time.

Table 3 provides a summary of the success of the collection process.

- No longnose dace were collected during the 2022 sampling event.
- Juvenile White Suckers were only collected in the Inner Harbor.
- Walleye were only collected at the Middle River – Site 1.
- Channel Catfish were only collected at the Middle River – Site 2.

Fish collection targets were not achieved in the following reaches.

- From the Upper River – Site 1, five adult carp and ten adult white suckers were collected at lengths greater than the target size range.
- From the Upper River – Site 2, three adult carp and eight adult white suckers were collected at lengths greater than the target size range.
- From the Middle River – Site 1, one adult carp, six adult white suckers, and two walleye were collected at lengths greater than the target size range.
- From the Middle River – Site 2, four adult carp, one smallmouth bass, and two channel catfish were collected at a length greater than the target size range.
- From the Lower River, six adult carp and five adult white suckers were collected at lengths above the target size range.
- From the Inner Harbor, seven adult carp, seven adult white suckers, one smallmouth bass, and two rock bass were collected at lengths above the target size range.

The inability to collect the target number of fish of the correct size range for some of the species can increase the chances of Type I or Type II errors depending on if the fish were too small or too large. During the 2022 sampling event, 70 fish were too large and caught outside the target size range, creating a Type I error. The Type I error for this investigation is the belief that the fish tissue PCB results are greater than the action level when they may not be. During the 2022 sampling event, none of the fish caught were too small. Collecting fish too small would create a Type II error. The Type II error for this investigation is the belief that the fish tissue PCB results are less than the action level when they may not be. Reducing the number of samples reduces the confidence in the decision. For this collection effort, the chance of a Type II error does not affect decision making as no decisions are being made at this time. Further evaluation of this error may be necessary for decisions regarding comparison of PCB results when PCB concentrations are nearing the ROD goals.

To prevent overloading the small boat needed to collect fish in the river; ice was not kept in the cooler. Upon collection, fish were stored in a cooler, then brought to shore twice a day and placed into a freezer. SME does not believe that the fish sample results are biased when not preserved immediately and the project's data quality objectives are still met for the following reasons:

- The half-life of PCBs in fish has been calculated to be 340 to 1,450 days.[10]
- PCBs have an exceptionally low volatility. The average molecular weight for Aroclor 1260 is 375.7 g/mol and the vapor pressure is 4.05 × 10-5 mm Hg at 25°C.[11]
- PCBs are very stable and have a long holding time due to this stability. USEPA Method 8082 states PCBs are very stable in a variety of matrices and holding times may be as long as a year.

Based on the foregoing, failure to store fish on ice during the four to five hours from the start of collection until they are placed in the freezer at lunch or at the end of the day would not significantly affect the concentrations of PCBs found in the fish. The USEPA Method 8082 for PCBs has a holding time of up to one year from the date of sample collection and the longest hold time for samples collected during this event was less than a year. Each of the samples was analyzed well within the standard holding time.

There were no other deviations from the laboratory method in order to analyze or report the fish tissue results.

3. SAMPLING RESULTS

3.1 FISH TISSUE RESULTS

A summary of the 2022 results is provided in Appendix 1 while copies of the analytical reports are provided in Appendix 2. The majority of the fish collected were females. Lipid percentage ranged from 0.1 percent to 13.6 percent with an average of 2.15 percent.

3.2 DATA QUALITY

The laboratory performs a validation of the analytical procedure using the quality control sample results, as applicable. This validation is discussed in the Narrative and QC section of each of the twelve lab reports generated by this sampling and analysis event. The laboratory reported the following:

- There were no problems with the initial or continuing calibrations.
- All laboratory control spikes were within the allowable range.
- Surrogate recoveries were not compared against control limits in 32 samples from 8 sample batches due to sample dilution.
- Matrix spike/spike duplicate samples were not compared against control limits in two sample batches due to sample dilution.
- The presence of the spiked Aroclor could not be determined in three samples from one sample batch due to interference from large quantities of other PCB Aroclor.
- PCBs were not detected in the method blanks.

The matrix spike/spike duplicate, surrogate recovery, Aroclor distribution, and duplicate pair discrepancies noted above do not affect the usability of the data collected as no decisions are being made at this time.

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[10] Oost R, Beyer J, Vermeulen N. *Fish Bioaccumulation and Biomarkers in Environmental Risk Assessment: A Review*. Environmental Toxicology and Pharmacology. 2003;13:57-149.

[11] Agency for Toxic Substances and Disease Registry (ATSDR). *Toxicological Profile for Polychlorinated Biphenyls*. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1997.

4. DATA ANALYSIS

4.1 SUMMARY STATISTICS

Summary statistics are provided with the data in Appendix 1 (2022 sampling results) and in Table 4 (2008 to 2022 summary statistics). The data distribution and upper 95 percent confidence levels (95 percent UCL) were calculated using ProUCL. ProUCL documentation is provided in Appendix 4. Consistent with historical results, the variability of the data was rather low and the majority of the data had a normal distribution. The distribution was calculated by ProUCL using a variety of goodness-of-fit methods including Shapiro-Wilk, and Kolmogorov-Smirnov tests. Knowledge of the distribution is needed to determine the proper methods for calculating 95 percent UCL as well as other statistical tests.

Outliers are inevitable in data sets originating from environmental applications. Outliers are defined to be an observation that does not conform to the pattern established by other observations (Gilbert, 1987). Prior to calculating the UCL, ProUCL recommends an outlier analysis. A few of the results appeared to be outliers because the concentrations were significantly lower or higher than the mean for the same species within the same reach. As such, ProUCL was also used to evaluate the possibility of outliers. ProUCL uses both the Dixon and Rosner outlier tests and uses the Dixon test where the data sets are less than 25 samples.

The outliers could be eliminated when calculating the summary statistics for the fish species within the reach. However, Region V USEPA has requested that this not be done since fish from other reaches can migrate between reaches and represent possible exposure to humans via consumption.

Data analysis included an analysis of means using the t-test. During the baseline event, a one-way analysis of variance (ANOVA) was used. The ANOVA was judged to be redundant to the t-test as well as the WDNR suggested Mann-Whitney test. The t-test was performed based on unequal variance after an assessment indicated that was the most appropriate test. As far as the appropriateness of the test, PRS and SME reviewed several publications such as *A Guide for Selecting Statistical Techniques for Analyzing Social Science Data* (The University of Michigan, 1981), *Intuitive Biostatistics* (Oxford University Press, 1995), *Lake and Reservoir Bioassessment and Biocriteria Technical Guidance Document* (USEPA, 1998) and *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (USEPA, 2007). All of these indicated the t-test was an appropriate method for the comparisons being performed. This was also the test proposed in the Lower Fox River Baseline Monitoring Plan and was approved by WDNR.

The Mann-Whitney test is a non-parametric test for assessing whether two independent samples of observations come from the same distribution. It is virtually identical to performing an ordinary parametric t-test on the data after ranking over the combined samples. The null hypothesis in the Mann-Whitney test is that the two samples are drawn from a single population, and therefore that their probability distributions are equal. It requires the two samples to be independent, and the observations to be ordinal or continuous measurements, i.e. one can at least say, of any two observations, which is the greater. We reviewed historic results from the Mann-Whitney test and the t-test for data sets on this site. The t-test was determined to be more likely to produce a ‘significant difference’ result when comparing historic to current data than the Mann-Whitney test. However, no remedial decisions are currently being made based on the mean PCB concentrations in fish along the river reaches. Once t-test results are obtained which indicate that mean fish PCB concentration levels have met ROD objectives, the need to obtain Mann-Whitney results will be reevaluated. As is, the statistical tests are difficult to interpret. Unless decisions and recommendations based on the statistical tests are accepted, Mann-Whitney test results are currently unnecessary. In addition, the t-test is the USEPA accepted method of the comparison.

Box and whisker plots (boxplots) were also generated and are provided in Appendix 3. In descriptive statistics, a boxplot is a convenient way of graphically depicting groups of numerical data through their five-number summaries (the smallest observation (sample minimum), lower quartile (Q1), median (Q2), upper quartile (Q3), and largest observation (sample maximum). Boxplots can be useful to display differences between populations without making any assumptions of the underlying statistical distribution: they are non-parametric. While the boxplots provide a convenient way of comparing data, they were not used for making decisions concerning the data.

Boxplots were generated using ProUCL then exported to Excel for formatting. The plots were only generated to compare fish species collected in 2022 to the fish collected from 2008 to 2022, where appropriate.

In addition to the t-test, SME assessed the fish data using the Mann-Kendall test. Mann first suggested using the test for significance of Kendall's tau where the X variable is time as a test for trend. This was directly analogous to regression, where the test for significance of the correlation coefficient r is also the significance test for a simple linear regression. The Mann-Kendall test can be stated most generally as a test for whether Y values tend to increase or decrease with T (monotonic change). The Mann-Kendall test is valid for data sets with at least four sample intervals collected over time. As such, the test was not performed for fish species with less than four years of collection data. The test was performed using the USEPA designed and approved program ProUCL. The test results are summarized in Appendix 6 and will be discussed later in this section.

In statistics, the coefficient of variation is a normalized measure of dispersion (variation) in the frequency distribution. It is defined as the ration of the standard deviation (σ) and the mean (μ). Generally, a coefficient of variation of less than 0.5 demonstrates little variation and a normal distribution while a number between 0.5 and 1.0 showing moderate variation and may or may not indicate a normal distribution. A brief summary of the coefficient of variations follows:

- Coefficient of variation of PCBs in fish collected from the Upper River ranged from 0.50 to 1.25 with an average of 0.74. The highest coefficient of variation was observed in adult white suckers from Site 1 of the Upper River.
- Coefficient of variation of PCBs in fish collected from the Middle River ranged from 0.36 to 0.79 with an average of 0.62. The highest coefficient of variation was observed in adult white suckers from Site 2 of the Middle River.
- Coefficient of variation of PCBs in fish collected from the Lower River ranged from 0.34 to 0.88 with an average of 0.58. The highest coefficient of variation was observed in adult carp.
- Coefficient of variation of PCBs in fish collected from the Inner Harbor ranged from 0.23 to 0.91 with an average of 0.48. The highest coefficient of variation was observed in adult carp.

The calculated coefficient of variation values indicates a generally normal distribution.

4.2 DATA COMPARISON

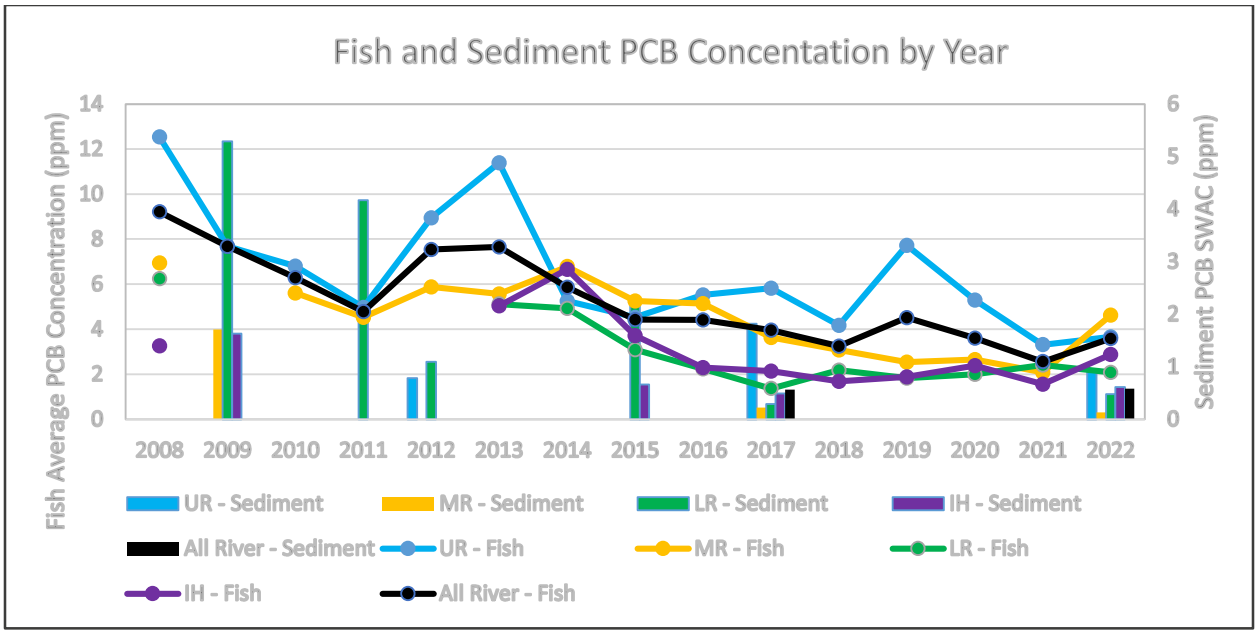
Box plots were generated using ProUCL software and were used to establish the mean PCB concentration general trends from 2008 to 2022 by site for each species, by species for the entire river segment and all species for the entire river. The Box plots are provided in Appendix 3. A comparison of PCB concentrations and summary statistics in fish from the 2022 sampling event to the 2008 baseline sampling event data is provided in Appendix 5. Analysis for significant trends of PCB results was assessed using ProUCL and the Mann-Kendall trend test analysis by site for each species, by species for the entire river segment and all species for the entire river. The results of the Mann-Kendall trend test analysis are provided in Appendix 6.

A summary of the results of the data analysis including general trends as identified by the box plots, significant differences from 2008/2013 to 2022 as identified by the t-test and significant trends as identified by the Mann-Kendall trend test is provided in Table 5. We also evaluated the percent decrease of the 95 percent UCL PCB concentration for each fish species compared to the previous year, 5 years, 10 years and 13 years (baseline sampling event) for each species with sufficient sampling recovery and results. A summary of the 95 percent UCL PCB concentration decreases are also provided in Table 5.

The collective PCB results from 2008 to 2022 show a general decrease in PCB concentrations in fish tissue across the river with less significant decrease in bottom feeding fish (Carp, White Suckers and Channel Catfish) and more significant decrease in sport fish (Smallmouth Bass, Rock Bass and Walleye). The collective PCB results in 2022 were generally higher than in 2021. Most of the increases were observed in the bottom feeding fish affecting the overall trend for all fish. A brief summary of the significant trends and differences of PCB concentrations for all river reaches combined follows:

- **Adult Carp** – Significant decreasing trend and significant difference in PCB concentrations since 2008. The 95 percent UCL PCB concentration increased 83 percent in the past year; however, it has decreased 10 percent in the past 5 years, 45 percent in the past 10 years and 42 percent since the baseline event.
- **Adult White Sucker** – Significant decreasing trend and significant difference in PCB concentrations since 2008. The 95 percent UCL PCB concentration has increased 35 percent in the past year; however, it has decreased 6 percent in the past 5 years, 51 percent in the past 10 years and 66 percent since the baseline event.
- **Juvenile White Sucker** – Significant decreasing trend and significant difference in PCB concentrations since 2008; however, the data is limited due to low recovery.
- **Smallmouth Bass** – Significant decreasing trend and significant difference in PCB concentrations since 2008. The 95 percent UCL PCB concentration has decreased 22 percent in the past year, 47 percent in the past 5 years, 77 percent in the past 10 years and 90 percent since the baseline event.
- **Rock Bass** – Significant decreasing trend and significant difference in PCB concentrations since 2008. The 95 percent UCL PCB concentration has decreased 16 percent over the past year, 39 percent in the past 5 years, 69 percent in the past 10 years and 85 percent since the baseline event.
- **Walleye** – Significant decreasing trend and significant difference in PCB concentrations since 2008; however, the data is limited due to low recovery.
- **Channel Catfish** – General decreasing trend and significant difference in PCB concentrations since 2008; however, no significant trend since 2008 due to low recovery and limited data.
- **Longnose Dace** – Longnose Dace were not collected in 2022.
- **All Fish Species** – Significant decreasing trend and significant difference in PCB concentrations since 2008. The 95 percent UCL PCB concentration has increased 89 percent in the past year; however it has decreased 7 percent in the past 5 years, 47 percent in the past 10 years and 48 percent since the baseline event.

We also evaluated the relationship of PCB concentrations in sediment (SWAC) and the average PCB concentration in all species of fish. Prior to 2017, sediment sampling was conducted in select river reaches and therefore, the SWAC for the entire river could not be calculated. The following chart shows the average fish (all species) PCB concentration and PCB SWAC of sediment by reach for each year.



As is shown above, PCB concentrations in both fish and sediment concentrations have decreased significantly since 2008 (fish) and 2009 (sediment). Based on the 2022 sediment results, all but two river reaches, the Upper River and the Inner Harbor, met the ROD SWAC goal of 0.5 ppm. Sediment sampling will continue to be conducted, as determined in the Post-Remediation Monitoring Plan, until the ROD SWAC goals are achieved. PCB concentrations in fish with consumption advisory still exceed the species-specific ROD goals. Fish sampling will continue to be conducted, as determined in the Post-Remediation Monitoring Plan, until ROD goals are met and fish consumption advisories are lifted by the WDNR.

4.3 MULTIVARIATE STATISTICAL ANALYSIS

As discussed in the previous subsection, the data analysis demonstrated a statistically significant reduction in PCBs in fish tissue and a statistically significant decreasing trend since the baseline sampling event (2008) or the earliest sampling event where selected fish types were obtained (2013). The 2022 annual results are quantitatively compared to previous sampling results in Table 4 and qualitatively compared to previous sampling events in the Box Plots in Appendix 3. However, the comparison of year-to-year results does not include evaluation of statistical significance. Overall statistically significant trends and statistically significant differences are used to evaluate the progress toward remedial goals. As noted above, PCB concentrations in fish tissue continue to have a statistically significant decreasing trend since 2008/2013. If subsequent sampling events identifies a change to the overall decreasing trend or a change to a sustained increasing trend, evaluation of additional variables potentially affecting the results may be necessary.

At this time, SME has decided not to assess PCB concentrations in fish tissue over time using a multivariate statistical analysis method. The multivariate analysis incorporates covariate data (fish length, percent lipids) to better assess trends in tissue PCB concentration by reducing the variation in the results originating from the covariate effects (differences in fish length and lipid content). We note the PCB concentrations in fish from the unremeditated Middle River are decreasing slower that the remediated reaches. Assuming an overall similarity in the lipid contents, weights, and lengths of fish from the different reaches, it appears the remediation has resulted in a reduction of fish tissue concentrations of PCBs.

5. FUTURE PHASE 1 MONITORING

The table below provides the target number of fish to collect in the Upper River, Middle River, Lower River, and Inner Harbor reach sites for the 2023 post remedial annual monitoring event. The number of fish to be collected is based on the variation of the PCB results. The PCB variability in 2022 was similar to 2021. As such, the number of fish to collect has not changed.

FISH SPECIES	NUMBER OF SAMPLES PER RIVER REACH						
	UPPER (Site 1)		UPPER (Site 2)		MIDDLE (Site 1)		SIZE RANGE (inches)
	2021	2022	2021	2022	2021	2022	
Adult Carp	12	12	8	8	8	8	15-25
Adult White Suckers	12	12	12	12	8	8	8-16
Juvenile White Suckers	12	12	12	12	8	8	3-8
Smallmouth Bass	12	12	12	12	8	8	10-17
Rock Bass	12	12	12	12	8	8	5-9
Walleye	0	0	0	0	8	8	12-22
Longnose Dace	12	12	12	12	12	12	1-4

FISH SPECIES	NUMBER OF SAMPLES PER RIVER REACH						
	MIDDLE (Site 2)		LOWER		INNER HARBOR		SIZE RANGE (inches)
	2021	2022	2021	2022	2021	2022	
Adult Carp	8	8	8	8	8	8	15-25
Adult White Suckers	8	8	8	8	8	8	8-16
Juvenile White Suckers	8	8	8	8	8	8	3-8
Smallmouth Bass	8	8	8	8	8	8	10-17
Rock Bass	8	8	9	9	9	9	5-9
Walleye	0	0	9	9	9	9	12-22
Longnose Dace	8	8	8	8	8	8	1-4

6. SIGNATURES

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7. REFERENCES

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TABLES

TABLE 1
SUMMARY OF TARGETED FISH SPECIES
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

FISH SPECIES	CHARACTERISTICS	HABITAT TARGETED FOR COLLECTION *	
		UPPER – LOWER RIVER	INNER HARBOR
Smallmouth bass	Occurs in all three drainage basins in Wisconsin. A non-migratory fish, they retreat to pools, undercut banks, or fairly deep water to avoid sunlight. Spawn in May through June when the water reaches 55-75ºF. The average length of young-of year in Wisconsin is 2.7 inches by the end of September. The fish begin to reach sexual maturity at the ages of 3-4 depending on sex. The usual longevity is 5-7 years.	Area of little soft sediment. Sandy or gravel bottom best. Area of stumps or downed trees.	Near structures offering protection. Bridge abutments, docks, etc.
Carp	Occurs in all drainage basins in Wisconsin. It is found in a wide variety of habitats but prefer warm turbid water. Spawn in April to August when the water reaches 65-75ºF. The average length of young-of year in Wisconsin is 3.7 inches by the end of September. In Wisconsin, carp mature between the ages of 2 and 3 depending on the sex. The usual longevity is 9-15 years. They can have a fairly extensive range and can jump small dams.	Areas with vegetation	
White suckers	Occurs in all drainage basins in Wisconsin and is probably the most widespread of all fish in Wisconsin. It is found in warm shallows of estuaries and bays and can tolerate all stream gradients and a wide range of environmental conditions and pollution. Spawn in April to May when the water reaches about 45ºF. The typical length of young-of year in Wisconsin is 2.6 inches by the end of September. The usual longevity is 5 years after maturing between the ages of 2 and 3. They move about extensively.	Areas with vegetation	
Rock Bass	Occurs in all three drainage basins in Wisconsin. It is found in clear water over a gravel or rocky bottom and is often found near breakwaters and stone-armored shorelines. Often found with other sunfish such as smallmouth bass. Spawn in spring when the water reaches 60-70ºF. The average length of young-of year in Wisconsin is 1.7 inches by the end of September. They reach maturity between ages 2 and 3. The usual longevity is 6-8 years. They have a limited range.	Prefers clear, rocky, and vegetated stream pools.	
Longnose Dace	Occurs in all drainage basins in Wisconsin. Occurs in riffles or torrential water over a bottom of boulder and gravel; it generally avoids pools and quiet runs. Spawn in late April to mid-June at an average water temperature of 63ºF. The average length of young-of year in Wisconsin is 1.7 inches by the end of September. The usual longevity is 3-4 years after reaching maturity at age 2. No information on their range of migration was found. These fish were removed from the sampling requirements for since the 2013 sampling event.	Area of little soft sediment. Sandy, gravel or cobble bottom that have some vegetation for cover are best.	
Walleye	Present throughout Wisconsin. During the day, hovers in shadows of submerged objects or in shadows of deep water. At dusk, emerge to feed over shallow weed beds or rocky shoals. Spawn in mid-April to mid-May when water reaches 42-50ºF. The average length of young-of year in Wisconsin is 3 inches by the end of July. Maturity occurs between the ages of 2 to 5 for males and 5 to 7 for females. The usual longevity is 6-7 years. They have a fairly extensive range and can jump small dams.	Area of little soft sediment. Sandy or gravel bottom best. Area of rough water.	
Catfish	Occurs in all three drainage basins in Wisconsin. It is found in a wide variety of habitats but prefer warm water. Spawn in May or June when the water reaches 75ºF. The average length of young-of year catfish in Wisconsin is 3.4 inches by the end of September. Sexual maturity varies by body of water but it appears both sexes begin maturing by the age of 5. Few catfish live beyond 8 years. They can have a fairly extensive range.	Prefers some current and deep water with sand, gravel or rubble bottoms. Areas near bank overhangs or downed trees or stumps	

* - General tips on fish locations: outside bends of river, downstream of rocks, area where fast water meets slower water, area of merging currents (streams, brooks, rivers et.) current edges, areas with overhanging trees or branches, drop offs, undercuts, below dams or falls, above springs, riparian zones

TABLE 2

2022 PHASE I DAILY FISH COLLECTION SUMMARY
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

DATE	RIVER REACH	ADULT CARP	ADULT WHITE SUCKER	JUVENILE WHITE SUCKERS	SMALL MOUTH BASS	ROCK BASS	LONGNOSE DANCE	WALLEYE	CHANNEL CATFISH
6/24/2022	IH	8	8	8	8	9	0	0	0
6/24/2022	LR	8	8	0	8	9	0	0	0
6/25/2022	UR1	12	12	0	12	12	0	0	0
6/25/2021	UR2	12	12	0	12	12	0	0	0
6/26/2021	MR1	8	8	0	8	8	0	3	0
6/26/2021	MR2	8	8	0	8	8	0	0	2
Total		**56**	**56**	**8**	**56**	**58**	**0**	**3**	**2**

UR1 – Upper River from former Tecumseh Site to Riverbend Dam
UR2 – Upper River from Riverbend Dam to Waelderhaus Dam
MR1 - Middle River from Waelderhaus Dam to Kohler Landfill
MR2 - Middle River from Kohler Landfill to C&NW Railroad Bridge
LR - Lower River from C&NW Railroad Bridge to Pennsylvania Avenue Bridge
IH - Inner Harbor from Pennsylvania Avenue Bridge to Sheboygan River outlet

TABLE 3
2022 PHASE I FISH COLLECTION SUMMARY
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

SPECIES	RIVER REACH											
	UR1	UR1	UR2	UR2	MR1	MR1	MR2	MR2	LR	LR	IH	IH
	Target	Collected	Target	Collected	Target	Collected	Target	Collected	Target	Collected	Target	Collected
Adult Carp	12	12	12	12	8	8	8	8	8	8	8	8
Adult White Sucker	12	12	12	12	8	8	8	8	8	8	8	8
Juvenile White Sucker	12	0	12	0	8	0	8	0	8	0	8	8
Smallmouth Bass	12	12	12	12	8	8	8	8	8	8	8	8
Rock Bass	12	12	12	12	8	8	8	8	9	9	9	9
Longnose Dance	12	0	12	0	0	0	0	0	0	0	0	0
Walleye	0	0	0	0	8	3	0	0	9	0	9	0
Channel Catfish	8	0	8	0	8	0	8	2	8	0	8	0
Total	**80**	**48**	**80**	**48**	**56**	**35**	**48**	**34**	**58**	**33**	**58**	**41**

UR1 – Upper River from former Tecumseh Site to Riverbend Dam
UR2 – Upper River from Riverbend Dam to Waelderhaus Dam
MR1 - Middle River from Waelderhaus Dam to Kohler Landfill
MR2 - Middle River from Kohler Landfill to C&NW Railroad Bridge
LR - Lower River from C&NW Railroad Bridge to Pennsylvania Avenue Bridge
IH - Inner Harbor from Pennsylvania Avenue Bridge to Sheboygan River outlet

TABLE 4

YEAR BY YEAR STATISTICAL COMPARISON

SHEBOYGAN RIVER AND HARBOR

SUPERFUND SITE, WISCONSIN

SME PROJECT NO. 069638.00.072

UR1 - AC	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Mean	25.88	6.04	13.89	17.86	28.46	37.02	8.44	16.78	13.23	22.53	4.28	22.61	10.90	10.63	6.76
Minimum	1.63	0.65	5.27	1.87	4.55	8.27	0.07	5.61	0.71	0.15	0.69	0.69	0.46	3.32	0.28
Maximum	73.13	15.70	34.70	58.90	52.20	100.00	20.00	39.20	42.50	53.00	11.20	52.90	28.50	23.90	14.50
Standard Deviation	21.45	5.38	8.74	17.53	15.78	24.62	5.99	12.29	14.69	16.92	2.79	16.78	9.68	6.76	4.92
Coefficient of Variation	0.83	0.89	0.63	0.98	0.55	0.67	0.71	0.73	1.11	0.75	0.65	0.74	0.89	0.64	0.73
Upper 95% UCL	35.28	8.83	8.83	30.85	36.64	51.44	11.54	27.12	31.72	31.30	5.63	31.31	15.91	14.13	9.31
UR1 - AWS	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	12.42	10.94	16.23	4.71	10.63	10.68	7.39	7.32	13.39	6.89	7.60	16.18	11.94	4.14	4.99
Minimum	5.74	0.25	3.92	1.67	2.67	2.21	1.15	0.68	3.86	0.65	1.69	5.90	1.44	1.04	0.86
Maximum	20.60	25.30	45.90	16.50	25.20	37.20	13.80	14.00	36.30	14.00	16.40	31.50	27.00	8.39	23.10
Standard Deviation	5.00	8.26	10.90	3.92	6.81	9.61	3.99	4.73	10.06	4.72	4.77	9.21	8.93	2.48	6.23
Coefficient of Variation	0.40	0.76	0.67	0.83	0.64	0.90	0.54	0.65	0.75	0.69	0.63	0.57	0.75	0.60	1.25
Upper 95% UCL	15.77	16.48	16.48	6.73	14.16	16.33	9.10	9.90	18.60	9.34	10.08	20.95	16.57	5.43	9.78
UR1 - JWS	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	6.01	3.10	9.87	2.32	1.79	-	-	-	-	-	-	-	-	-	-
Minimum	1.99	1.52	3.94	0.44	1.35	-	-	-	-	-	-	-	-	-	-
Maximum	9.71	5.81	16.60	5.36	2.22	-	-	-	-	-	-	-	-	-	-
Standard Deviation	2.85	1.65	4.27	1.71	0.62	-	-	-	-	-	-	-	-	-	-
Coefficient of Variation	0.47	0.53	0.43	0.74	0.34	-	-	-	-	-	-	-	-	-	-
Upper 95% UCL	7.92	4.48	4.48	3.53	12.08	-	-	-	-	-	-	-	-	-	-
UR1 - SMB	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	12.96	5.75	4.74	3.22	5.80	7.06	3.86	2.20	2.13	2.92	3.44	1.94	4.61	1.43	1.07
Minimum	4.09	1.28	0.52	0.69	2.52	0.14	0.85	0.36	0.26	0.84	0.71	0.39	0.33	0.21	0.53
Maximum	22.20	11.50	7.26	4.77	8.69	21.50	6.32	8.73	5.24	7.73	8.65	6.89	15.10	2.60	2.25
Standard Deviation	7.28	3.51	2.03	1.50	2.17	6.70	1.73	2.35	1.69	2.14	2.40	2.25	3.78	0.66	0.64
Coefficient of Variation	0.56	0.61	0.43	0.47	0.37	0.95	0.45	1.07	0.79	0.73	0.70	1.16	0.82	0.46	0.60
Upper 95% UCL	17.83	8.10	8.10	4.00	6.93	10.53	4.76	3.85	2.99	4.56	4.68	4.76	7.89	1.77	1.87
UR1 - RB	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	6.94	2.85	2.85	3.66	3.07	4.03	2.28	2.25	3.35	2.10	1.34	3.59	3.09	1.34	0.77
Minimum	1.22	0.90	0.30	0.41	1.18	0.15	0.06	0.46	0.53	0.38	0.18	1.53	0.32	0.11	0.18
Maximum	16.80	4.80	5.94	12.00	5.94	15.70	4.23	5.63	15.20	6.07	4.28	8.44	5.48	2.61	1.58
Standard Deviation	5.01	1.32	1.97	2.94	1.87	4.79	1.36	1.63	3.91	1.58	1.17	2.20	1.74	0.79	0.52
Coefficient of Variation	0.72	0.46	0.69	5.66	0.61	1.19	0.60	0.73	1.17	0.75	0.87	0.61	0.56	0.59	0.67
Upper 95% UCL	10.30	3.76	3.76	5.66	4.33	9.04	2.99	3.20	6.02	2.93	1.94	4.73	4.10	1.75	1.04
UR1 - LD	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	10.1	5.19	-	-	-	-	-	-	-	-	14.23	-	-	-	-
Minimum	5.11	3.87	-	-	-	-	-	-	-	-	4.08	-	-	-	-
Maximum	15.1	7.04	-	-	-	-	-	-	-	-	21.80	-	-	-	-
Standard Deviation	7.06	1.33	-	-	-	-	-	-	-	-	5.83	-	-	-	-
Coefficient of Variation	0.70	0.26	-	-	-	-	-	-	-	-	0.41	-	-	-	-
Upper 95% UCL	13.3	6.46	-	-	-	-	-	-	-	-	18.14	-	-	-	-

Notes:
Results in mg/Kg
UR1 - Upper River from former Tecumseh Site to Riverbend Dam
AC - Adult carp
AWS - Adult white sucker
JWS - Juvenile white sucker
SMB - Smallmouth bass
RB - Rock Bass
LD - Longnose Dance

"-" - no fish of this species were collected during this event

TABLE 4
YEAR BY YEAR STATISTICAL COMPARISON
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

UR2 - AC	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Mean	14.72	16.83	7.03	8.84	21.29	19.22	11.55	-	-	10.83	4.03	10.81	5.84	5.53	10.89
Minimum	1.02	5.04	0.29	2.44	4.65	1.05	1.37	-	-	0.70	0.61	1.50	0.30	1.65	0.32
Maximum	47.70	37.50	32.90	19.70	36.90	39.00	44.20	-	-	30.10	6.06	35.20	22.60	13.80	37.90
Standard Deviation	15.04	9.49	11.15	5.68	10.83	12.00	16.34	-	-	13.56	1.69	9.52	5.60	3.54	11.34
Coefficient of Variation	1.02	0.56	1.59	0.64	0.51	0.62	1.41	-	-	1.25	0.42	0.88	0.96	0.64	1.04
Upper 95% UCL	24.89	20.99	20.99	12.64	28.55	25.78	39.96	-	-	26.79	4.90	15.75	10.38	7.37	16.77
UR2 - AWS	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	8.92	11.58	5.11	4.31	3.71	6.87	6.95	3.69	4.73	3.14	3.16	3.75	3.07	1.74	3.43
Minimum	3.95	2.27	2.82	2.36	1.32	3.66	1.02	1.67	1.81	0.56	1.32	0.80	0.49	0.32	0.81
Maximum	16.60	25.00	11.00	7.69	8.31	12.40	14.00	5.3	7.94	7.67	10.50	8.23	6.76	4.53	7.58
Standard Deviation	4.19	7.69	2.57	1.64	2.50	2.28	3.95	1.07	2.00	1.86	2.66	2.10	1.74	1.35	2.11
Coefficient of Variation	0.47	0.66	0.50	0.38	0.67	0.33	0.57	0.29	0.42	0.59	0.84	0.56	0.56	0.77	0.62
Upper 95% UCL	11.72	16.73	16.73	5.16	5.35	8.05	9.00	4.248	5.77	4.10	4.80	4.84	3.98	2.44	4.53
UR2 - JWS	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	6.82	2.75	1.97	1.50	-	-	-	-	-	-	-	-	-	-	-
Minimum	3.73	0.71	0.46	0.87	-	-	-	-	-	-	-	-	-	-	-
Maximum	11.50	5.09	3.51	2.41	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	2.96	1.24	0.94	0.53	-	-	-	-	-	-	-	-	-	-	-
Coefficient of Variation	0.43	0.45	0.48	0.35	-	-	-	-	-	-	-	-	-	-	-
Upper 95% UCL	8.80	3.58	3.58	1.80	-	-	-	-	-	-	-	-	-	-	-
UR2 - SMB	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	14.52	3.52	4.32	2.28	2.69	2.93	3.61	1.55	0.96	0.91	0.93	1.64	1.80	1.09	0.63
Minimum	3.12	0.54	1.68	0.70	1.25	0.96	0.54	0.34	0.44	0.34	0.38	0.47	0.68	0.23	0.19
Maximum	33.50	9.20	7.72	4.11	9.72	5.80	7.88	4.98	2.35	1.91	2.17	4.28	3.11	3.18	1.29
Standard Deviation	11.11	3.22	1.92	1.17	2.30	1.60	2.20	1.27	0.53	0.52	0.46	1.12	0.72	0.92	0.33
Coefficient of Variation	0.77	0.91	0.44	0.51	0.85	0.54	0.61	0.82	0.55	0.57	0.49	0.68	0.40	0.85	0.52
Upper 95% UCL	21.96	5.68	5.68	2.89	3.80	3.76	4.75	2.32	1.24	1.18	1.24	2.48	2.18	1.80	0.80
UR2 - RB	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	4.27	6.70	1.63	2.20	1.18	2.28	1.42	0.56	0.89	0.56	0.56	1.22	0.72	0.59	0.72
Minimum	0.74	0.96	0.53	0.46	0.35	0.78	0.50	0.14	0.17	0.11	0.22	0.51	0.13	0.12	0.28
Maximum	8.72	14.00	3.10	4.80	2.25	9.96	3.53	1.27	3.81	1.14	1.16	2.57	1.95	1.65	1.45
Standard Deviation	2.94	4.91	0.94	1.21	0.68	2.49	0.87	0.41	0.96	0.32	0.26	0.60	0.68	0.44	0.35
Coefficient of Variation	0.69	0.73	0.57	0.55	0.57	1.09	0.61	0.72	1.08	0.57	0.46	0.49	0.95	0.75	0.50
Upper 95% UCL	6.23	9.99	9.99	2.82	1.54	3.55	1.87	0.77	1.68	0.72	0.70	1.53	1.33	0.82	0.90
UR2 - LD	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	-	-	-	-	-	-	-	-	-	-	11.70	-	-	-	-
Minimum	-	-	-	-	-	-	-	-	-	-	5.50	-	-	-	-
Maximum	-	-	-	-	-	-	-	-	-	-	17.90	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	8.77	-	-	-	-
Coefficient of Variation	-	-	-	-	-	-	-	-	-	-	0.75	-	-	-	-
Upper 95% UCL	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-

Notes:
Results in mg/Kg
UR2 - Upper River from Riverbend Dam to Waelderhaus Dam
AC - Adult carp
AWS - Adult white sucker
JWS - Juvenile white sucker
SMB - Smallmouth bass
RB - Rock Bass
LD - Longnose Dance

"-" - no fish of this species were collected during this event

TABLE 4
YEAR BY YEAR STATISTICAL COMPARISON
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

MR1 - AC	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Mean	4.44	-	25.81	17.01	14.19	15.54	20.89	17.63	16.36	10.70	9.79	5.51	5.34	3.33	19.41
Minimum	1.28	-	3.35	7.80	0.61	8.49	4.35	4.19	9.02	0.28	0.62	2.11	0.39	0.80	1.38
Maximum	22.80	-	123.00	25.00	24.90	22.90	29.30	32.50	22.90	28.90	15.80	9.55	12.80	6.69	47.10
Standard Deviation	7.43	-	39.96	5.76	7.27	5.24	9.20	9.91	6.21	9.76	6.76	2.91	4.87	2.03	14.76
Coefficient of Variation	1.67	-	1.55	0.34	0.51	0.34	0.44	0.56	0.38	0.91	0.69	0.53	0.91	0.61	0.76
Upper 95% UCL	15.89	-	8.83	20.87	19.06	19.04	27.06	24.27	20.52	17.24	12.53	7.45	8.61	4.69	29.29
MR1 - AWS	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	8.77	-	4.16	3.31	2.14	1.78	3.04	1.84	2.96	1.73	1.40	5.19	1.88	2.22	2.09
Minimum	3.24	-	0.47	0.42	0.68	0.63	1.03	1.16	2.05	0.26	0.44	1.46	0.31	0.22	0.91
Maximum	19.90	-	8.11	5.94	4.41	4.87	4.52	3.63	4.93	3.02	3.05	22.70	2.72	5.14	4.38
Standard Deviation	5.86	-	2.44	1.73	1.22	1.39	1.14	0.92	1.06	0.99	0.99	7.22	0.89	1.57	1.32
Coefficient of Variation	0.67	-	0.59	0.52	0.57	0.78	0.38	0.5	0.36	0.57	0.70	1.39	0.47	0.71	0.63
Upper 95% UCL	13.07	-	16.48	4.47	2.95	3.01	3.80	2.79	3.67	2.39	2.06	14.78	2.48	3.27	2.98
MR1 - JWS	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	-	-	-	1.12	2.13	-	-	-	-	-	-	-	-	-	-
Minimum	-	-	-	0.63	1.27	-	-	-	-	-	-	-	-	-	-
Maximum	-	-	-	1.84	3.92	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	0.39	0.96	-	-	-	-	-	-	-	-	-	-
Coefficient of Variation	-	-	-	0.34	0.45	-	-	-	-	-	-	-	-	-	-
Upper 95% UCL	-	-	-	1.39	2.92	-	-	-	-	-	-	-	-	-	-
MR1 - CC	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	27.88	-	-	-	-	12.75	-	-	-	3.45	-	-	2.91	-	-
Minimum	15.90	-	-	-	-	5.41	-	-	-	3.45	-	-	2.91	-	-
Maximum	49.20	-	-	-	-	18.70	-	-	-	3.45	-	-	2.91	-	-
Standard Deviation	15.59	-	-	-	-	4.39	-	-	-	NA	-	-	NA	-	-
Coefficient of Variation	0.56	-	-	-	-	0.34	-	-	-	NA	-	-	NA	-	-
Upper 95% UCL	15.08	-	-	-	-	15.69	-	-	-	NA	-	-	NA	-	-
MR1 - SMB	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	8.75	-	3.78	3.29	4.02	2.35	2.21	1.26	1.28	1.59	1.62	0.71	1.19	0.75	0.64
Minimum	4.20	-	0.69	0.19	1.05	0.35	0.69	0.46	0.67	0.29	1.13	0.21	0.28	0.31	0.23
Maximum	18.20	-	9.71	8.25	7.44	4.51	5.65	2.63	2.20	2.91	2.88	2.52	2.78	1.27	0.92
Standard Deviation	4.94	-	2.78	2.52	2.21	1.57	1.63	0.73	0.50	0.81	0.55	0.78	0.91	0.32	0.23
Coefficient of Variation	0.56	-	0.73	0.77	0.55	0.67	0.74	0.58	0.39	0.51	0.34	1.10	0.77	0.43	0.36
Upper 95% UCL	12.07	-	8.10	4.98	5.50	3.41	3.30	1.745	1.62	2.13	2.14	1.23	1.80	0.96	0.79

Notes:
Results in mg/Kg
MR1 - Middle River from Waelderhaus Dam to Kohler Landfill
AC - Adult carp
AWS - Adult white sucker
JWS - Juvenile white sucker
CC - Channel Catfish
SMB - Smallmouth bass

"-" - no fish of this species were collected during this event

TABLE 4

YEAR BY YEAR STATISTICAL COMPARISON
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

MR1- RB	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Mean	2.79	-	1.26	1.73	1.73	1.36	1.30	0.83	0.83	0.71	0.64	1.14	1.00	0.81	0.60
Minimum	2.79	-	0.92	0.41	1.15	0.97	0.41	0.52	0.18	0.15	0.23	0.47	0.59	0.25	0.19
Maximum	2.79	-	1.69	2.83	2.76	2.07	2.64	1.25	1.27	1.11	1.26	2.03	1.50	1.88	1.15
Standard Deviation	NA	-	0.24	0.83	0.55	0.35	0.79	0.32	0.39	0.36	0.37	0.52	0.32	0.51	0.35
Coefficient of Variation	NA	-	0.19	0.48	0.32	0.26	0.61	0.38	0.47	0.51	0.58	0.46	0.32	0.63	0.59
Upper 95% UCL	NA	-	3.76	2.29	2.10	1.60	1.83	1.07	1.09	0.96	0.90	1.49	1.22	1.16	0.84
MR1- W	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	2.79	-	6.36	3.89	-	10.53	6.70	6.19	-	2.78	2.08	2.20	-	2.56	1.75
Minimum	2.79	-	2.93	0.17	-	4.38	2.07	1.37	-	2.02	1.98	1.32	-	0.43	0.47
Maximum	2.79	-	10.50	6.93	-	21.10	22.40	10.9	-	3.25	2.17	3.70	-	5.16	3.03
Standard Deviation	NA	-	2.82	2.26	-	9.20	6.58	4.77	-	0.57	0.13	1.31	-	2.40	1.28
Coefficient of Variation	NA	-	0.44	0.58	-	0.87	0.98	0.77	-	0.20	0.06	0.60	-	0.94	0.73
Upper 95% UCL	NA	-	13.08	14.08	-	16.90	12.17	NA	-	3.44	NA	NA	-	6.61	3.91
MR2 - AC	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	1.27	-	5.88	9.83	19.21	15.58	18.59	13.08	16.36	10.41	8.37	3.94	7.43	5.76	12.22
Minimum	1.27	-	2.42	1.83	6.13	2.09	7.41	1.23	9.02	2.76	3.63	1.13	2.72	2.35	4.36
Maximum	1.27	-	11.70	20.50	37.00	45.30	31.30	29.3	22.90	17.90	19.80	14.50	23.90	12.20	29.20
Standard Deviation	NA	-	3.31	6.67	11.72	15.46	8.74	8.99	6.21	4.52	5.14	4.38	7.85	2.94	9.07
Coefficient of Variation	NA	-	0.56	0.68	0.61	0.99	0.47	0.69	0.38	0.43	0.61	1.11	1.06	0.51	0.74
Upper 95% UCL	NA	-	20.99	14.29	27.05	25.94	24.44	19.1	20.52	13.44	14.16	9.11	19.53	7.72	18.29
MR2 - AWS	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	3.96	-	2.77	2.21	3.21	0.73	3.50	1.8	1.63	1.49	1.31	1.39	1.94	1.52	1.83
Minimum	0.93	-	1.56	0.70	1.58	0.18	2.13	0.95	1.12	0.74	0.96	0.38	0.50	0.98	0.70
Maximum	6.98	-	4.08	5.91	4.61	1.31	7.11	2.82	2.97	2.72	1.73	2.12	3.66	2.30	4.95
Standard Deviation	2.01	-	1.08	1.76	1.22	0.39	1.59	0.59	0.63	0.73	0.30	0.68	1.05	0.48	1.45
Coefficient of Variation	0.51	-	0.39	0.80	0.38	0.54	0.45	0.33	0.39	0.49	0.23	0.49	0.54	0.31	0.79
Upper 95% UCL	5.31	-	16.73	3.39	4.02	0.99	4.69	2.195	20.55	1.99	1.51	1.85	2.64	1.84	3.515
MR2 - JWS	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	1.37	-	2.31	0.95	2.95	1.49	-	-	-	-	-	-	-	-	-
Minimum	0.98	-	1.19	0.03	1.41	1.15	-	-	-	-	-	-	-	-	-
Maximum	2.03	-	3.50	1.28	4.01	1.90	-	-	-	-	-	-	-	-	-
Standard Deviation	0.39	-	0.88	0.42	0.87	0.37	-	-	-	-	-	-	-	-	-
Coefficient of Variation	0.28	-	0.38	0.44	0.30	0.25	-	-	-	-	-	-	-	-	-
Upper 95% UCL	1.66	-	2.91	1.12	3.53	1.87	-	-	-	-	-	-	-	-	-

Notes:
Results in mg/Kg
MR1 - Middle River from Waelderhaus Dam to Kohler Landfill
MR2 - Middle River from Kohler Landfill to C&NW Railroad Bridge
AC - Adult carp
AWS - Adult white sucker
JWS - Juvenile white sucker
RB - Rock Bass
W - Walleye
NA - Not applicable

"-" - no fish of this species were collected during this event

TABLE 4
YEAR BY YEAR STATISTICAL COMPARISON
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

MR2 - CC	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Mean	8.18	18.03	5.97	-	-	-	-	-	-	6.51	-	-	-	-	0.86
Minimum	0.53	0.53	1.89	-	-	-	-	-	-	6.51	-	-	-	-	0.55
Maximum	16.60	49.2	10.50	-	-	-	-	-	-	6.51	-	-	-	-	1.17
Standard Deviation	6.62	15.29	3.31	-	-	-	-	-	-	NA	-	-	-	-	0.44
Coefficient of Variation	1.24	1.179	0.56	-	-	-	-	-	-	NA	-	-	-	-	0.51
Upper 95% UCL	NA	NA	8.62	-	-	-	-	-	-	NA	-	-	-	-	NA
MR2 - SMB	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	4.30	-	2.38	1.34	2.74	1.61	2.89	2.26	1.28	1.70	1.20	1.46	1.23	1.49	1.49
Minimum	2.64	-	0.89	0.85	1.92	1.03	1.10	1.19	0.63	0.52	0.58	0.47	0.56	0.46	0.84
Maximum	7.65	-	5.64	2.60	3.89	2.48	5.34	4.17	2.23	2.65	1.76	3.55	1.97	2.14	2.77
Standard Deviation	1.61	-	1.50	0.58	0.63	0.49	1.28	0.97	0.52	0.83	0.45	0.93	0.54	0.57	0.68
Coefficient of Variation	0.37	-	0.63	0.44	0.23	0.31	0.44	0.43	0.40	0.49	0.38	0.64	0.44	0.38	0.45
Upper 95% UCL	5.38	-	5.68	1.75	3.17	1.94	3.75	2.914	1.63	2.26	1.50	2.09	1.59	1.87	1.95
MR2 - RB	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	2.49	-	1.11	1.71	1.59	0.92	1.87	1.05	0.87	0.80	0.51	1.06	1.17	0.59	0.78
Minimum	1.42	-	0.43	0.41	1.15	0.45	0.31	0.38	0.50	0.49	0.24	0.44	0.27	0.45	0.22
Maximum	3.70	-	2.34	3.16	2.07	1.25	2.87	1.69	1.44	1.07	0.82	1.61	3.41	0.78	1.83
Standard Deviation	0.79	-	0.60	0.84	0.38	0.23	0.77	0.51	0.31	0.21	0.18	0.39	0.96	0.13	0.50
Coefficient of Variation	0.32	-	0.54	0.49	0.24	0.26	0.41	0.49	0.35	0.26	0.35	0.37	0.82	0.22	0.64
Upper 95% UCL	3.02	-	9.99	2.27	1.85	1.07	2.39	1.387	1.08	0.95	0.64	1.33	2.32	0.67	1.21
MR2 - W	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	-	-	-	-	-	-	-	-	-	1.38	-	-	-	-	-
Minimum	-	-	-	-	-	-	-	-	-	1.38	-	-	-	-	-
Maximum	-	-	-	-	-	-	-	-	-	1.38	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-
Coefficient of Variation	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-
Upper 95% UCL	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-
LR - AC	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	11.30	-	-	-	-	17.22	15.06	8.63	5.75	3.04	6.65	4.82	5.42	7.07	6.08
Minimum	0.46	-	-	-	-	2.17	0.97	2.55	1.42	1.06	1.76	1.04	1.03	1.90	1.13
Maximum	44.90	-	-	-	-	48.90	34.00	17.1	10.90	7.72	14.00	15.20	13.20	11.10	16.00
Standard Deviation	15.20	-	-	-	-	14.92	12.18	5.45	4.22	2.23	4.75	4.53	4.02	2.61	5.38
Coefficient of Variation	1.35	-	-	-	-	0.87	0.81	0.63	0.73	0.73	0.72	0.94	0.74	0.37	0.88
Upper 95% UCL	32.60	-	-	-	-	27.21	23.22	12.28	8.57	5.69	9.83	10.72	8.11	8.81	9.69

Notes:
Results in mg/Kg
MR2 - Middle River from Kohler Landfill to C&NW Railroad Bridge
LR - Lower River from C&NW Railroad Bridge to Pennsylvania Avenue Bridge
AC - Adult carp
AWS - Adult white sucker
RB - Rock Bass
SMB - Smallmouth bass
CC - Channel Catfish
W - Walleye
NA - Not applicable

"-" - no fish of this species were collected during this event

TABLE 4
YEAR BY YEAR STATISTICAL COMPARISON
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

LR - AWS	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Mean	4.31	-	-	-	-	1.08	1.48	1.13	1.19	0.58	0.86	0.79	1.00	1.16	0.92
Minimum	3.65	-	-	-	-	0.61	1.02	0.61	0.75	0.20	0.26	0.26	0.53	0.32	0.24
Maximum	4.96	-	-	-	-	1.76	1.77	1.58	1.68	0.79	2.34	1.36	1.98	2.07	1.93
Standard Deviation	0.93	-	-	-	-	0.39	0.27	0.3	0.32	0.20	0.67	0.31	0.44	0.55	0.60
Coefficient of Variation	0.22	-	-	-	-	0.36	0.18	0.26	0.27	0.35	0.77	0.39	0.44	0.47	0.65
Upper 95% UCL	few samp	-	-	-	-	1.35	1.65	1.333	1.41	0.71	1.69	1.00	1.30	1.53	1.33
LR - JWS	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	-	-	-	-	-	-	-	-	-	-	-	-	1.48	-	-
Minimum	-	-	-	-	-	-	-	-	-	-	-	-	0.55	-	-
Maximum	-	-	-	-	-	-	-	-	-	-	-	-	2.76	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	0.80	-	-
Coefficient of Variation	-	-	-	-	-	-	-	-	-	-	-	-	0.54	-	-
Upper 95% UCL	-	-	-	-	-	-	-	-	-	-	-	-	2.06	-	-
LR - SMB	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	5.77	-	-	-	-	1.34	2.08	1.02	1.44	1.05	0.88	1.01	1.55	1.24	0.88
Minimum	1.78	-	-	-	-	0.43	0.73	0.62	0.63	0.48	0.51	0.47	0.83	0.63	0.41
Maximum	10.90	-	-	-	-	2.52	3.78	1.44	2.41	1.61	1.45	1.60	3.21	2.05	1.47
Standard Deviation	3.05	-	-	-	-	0.75	0.97	0.26	0.65	0.39	0.36	0.34	0.75	0.42	0.40
Coefficient of Variation	0.53	-	-	-	-	0.56	0.46	0.26	0.45	0.38	0.40	0.33	0.48	0.34	0.45
Upper 95% UCL	7.81	-	-	-	-	1.84	1.84	1.194	1.88	1.31	1.12	1.24	2.05	1.52	1.15
LR - RB	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	2.60	-	-	-	-	1.30	1.17	1.01	0.75	0.80	0.49	0.80	0.61	0.51	0.63
Minimum	1.40	-	-	-	-	0.53	0.43	0.79	0.59	0.36	0.13	0.45	0.28	0.37	0.22
Maximum	4.27	-	-	-	-	1.84	2.69	1.24	1.16	1.70	1.08	1.52	1.49	0.78	0.99
Standard Deviation	1.11	-	-	-	-	0.42	0.80	0.32	0.20	0.45	0.29	0.33	0.38	0.14	0.21
Coefficient of Variation	0.43	-	-	-	-	0.32	0.68	0.31	0.27	0.56	0.59	0.41	0.63	0.28	0.34
Upper 95% UCL	3.29	-	-	-	-	1.56	1.71	NA	0.87	1.10	0.70	1.01	0.84	0.60	0.76
LR - W	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	-	-	-	-	-	-	4.24	1.47	-	-	-	-	-	1.35	-
Minimum	-	-	-	-	-	-	4.24	0.45	-	-	-	-	-	1.35	-
Maximum	-	-	-	-	-	-	4.24	2.32	-	-	-	-	-	1.35	-
Standard Deviation	-	-	-	-	-	-	NA	0.8	-	-	-	-	-	NA	-
Coefficient of Variation	-	-	-	-	-	-	NA	0.44	-	-	-	-	-	NA	-
Upper 95% UCL	-	-	-	-	-	-	NA	2.229	-	-	-	-	-	NA	-
IH - AC	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	3.16	-	-	-	-	15.77	14.05	9.38	6.58	5.92	4.14	5.48	7.01	4.41	12.13
Minimum	0.24	-	-	-	-	9.96	1.07	0.8	0.43	0.65	1.00	1.37	2.37	0.23	0.87
Maximum	9.14	-	-	-	-	24.70	35.20	21.4	15.80	13.80	13.80	16.30	13.70	8.84	36.60
Standard Deviation	2.81	-	-	-	-	4.92	11.96	7.04	5.20	4.61	4.39	6.38	3.86	3.11	10.99
Coefficient of Variation	0.89	-	-	-	-	0.31	0.85	0.75	0.79	0.78	1.06	1.16	0.55	0.71	0.91
Upper 95% UCL	5.05	-	-	-	-	19.38	22.06	14.1	10.07	9.01	7.08	15.45	9.59	6.50	19.49
IH - CC	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	-	-	-	-	-	-	-	-	-	-	-	-	4.67	-	-
Minimum	-	-	-	-	-	-	-	-	-	-	-	-	4.67	-	-
Maximum	-	-	-	-	-	-	-	-	-	-	-	-	4.67	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	NA	-	-
Coefficient of Variation	-	-	-	-	-	-	-	-	-	-	-	-	NA	-	-
Upper 95% UCL	-	-	-	-	-	-	-	-	-	-	-	-	NA	-	-

Notes:
Results in mg/Kg
LR - Lower River from C&NW Railroad Bridge to Pennsylvania Avenue Bridge
IH - Inner Harbor from Pennsylvania Avenue Bridge to Sheboygan River outlet
AC - Adult carp
CC - Channel catfish
AWS - Adult white sucker
SMB - Smallmouth bass
RB - Rock bass
W - Walleye
NA - Not applicable

"-" - no fish of this species were collected during this event

TABLE 4
YEAR BY YEAR STATISTICAL COMPARISON
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

IH - AWS	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Mean	-	-	-	-	-	0.91	3.32	0.95	0.92	0.43	0.72	0.78	0.51	0.53	0.81
Minimum	-	-	-	-	-	0.34	2.57	0.35	0.07	0.05	0.13	0.16	0.29	0.18	0.34
Maximum	-	-	-	-	-	2.03	4.91	1.71	1.69	0.77	1.12	1.56	0.70	0.67	1.74
Standard Deviation	-	-	-	-	-	0.66	0.96	0.41	0.50	0.28	0.38	0.44	0.14	0.16	0.47
Coefficient of Variation	-	-	-	-	-	0.73	0.29	0.44	0.55	0.65	0.53	0.56	0.27	0.30	0.58
Upper 95% UCL	-	-	-	-	-	1.52	3.98	1.228	1.26	0.62	0.98	1.08	0.60	0.63	1.13
IH - JWS	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	-	-	-	-	-	-	-	-	-	-	-	-	1.54	-	0.68
Minimum	-	-	-	-	-	-	-	-	-	-	-	-	0.31	-	0.35
Maximum	-	-	-	-	-	-	-	-	-	-	-	-	2.62	-	1.01
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	0.96	-	0.20
Coefficient of Variation	-	-	-	-	-	-	-	-	-	-	-	-	0.62	-	0.30
Upper 95% UCL	-	-	-	-	-	-	-	-	-	-	-	-	2.33	-	0.82
IH - SMB	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	3.36	-	-	-	-	1.60	3.13	1.15	1.08	1.59	1.40	0.68	1.54	0.92	0.75
Minimum	1.44	-	-	-	-	0.20	1.48	0.27	0.33	0.05	0.30	0.10	0.48	0.36	0.38
Maximum	4.43	-	-	-	-	2.91	4.42	1.82	1.80	3.99	2.87	1.45	2.68	1.54	0.97
Standard Deviation	1.04	-	-	-	-	0.99	0.95	0.48	0.52	1.10	0.77	0.40	0.72	0.35	0.17
Coefficient of Variation	0.31	-	-	-	-	0.62	0.30	0.41	0.48	0.69	0.55	0.59	0.47	0.38	0.23
Upper 95% UCL	4.06	-	-	-	-	2.22	3.77	1.47	1.42	6.05	1.91	0.95	2.02	1.15	0.87
IH - RB	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	-	-	-	-	-	2.24	-	1.11	0.75	0.60	0.63	0.73	0.79	0.55	0.35
Minimum	-	-	-	-	-	1.30	-	1.11	0.32	0.29	0.33	0.33	0.55	0.24	0.16
Maximum	-	-	-	-	-	3.94	-	1.11	1.26	0.89	1.14	1.34	1.21	1.45	0.61
Standard Deviation	-	-	-	-	-	1.16	-	NA	0.35	0.20	0.33	0.31	0.24	0.39	0.14
Coefficient of Variation	-	-	-	-	-	0.52	-	NA	0.47	0.34	0.53	0.42	0.30	0.72	0.48
Upper 95% UCL	-	-	-	-	-	2.72	-	NA	0.97	0.74	0.79	0.92	0.95	0.92	0.44
IH - W	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	-	-	-	-	-	-	4.53	-	-	-	-	-	-	1.18	-
Minimum	-	-	-	-	-	-	4.50	-	-	-	-	-	-	1.18	-
Maximum	-	-	-	-	-	-	4.55	-	-	-	-	-	-	1.18	-
Standard Deviation	-	-	-	-	-	-	0.04	-	-	-	-	-	-	NA	-
Coefficient of Variation	-	-	-	-	-	-	0.01	-	-	-	-	-	-	NA	-
Upper 95% UCL	-	-	-	-	-	-	NA	-	-	-	-	-	-	NA	-

Notes:
Results in mg/Kg
IH - Inner Harbor from Pennsylvania Avenue Bridge to Sheboygan River outlet
AWS - Adult white sucker
JWS - Juvenile white sucker
SMB - Smallmouth bass
RB - Rock Bass
W - Walleye
NA - Not applicable

"-" - no fish of this species were collected during this event

TABLE 4
YEAR BY YEAR STATISTICAL COMPARISON
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

ALL - AC	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Mean	14.07	12.20	13.24	13.88	21.64	21.28	14.39	13.19	11.80	11.55	5.92	9.98	7.19	6.40	10.90
Minimum	0.24	0.65	0.29	1.83	0.61	1.05	0.07	0.8	0.43	0.15	0.61	0.69	0.30	0.23	0.28
Maximum	73.10	37.50	123.00	58.90	52.20	100.00	44.20	39.2	42.50	53.00	19.80	52.90	28.50	23.90	47.10
Standard Deviation	17.17	9.56	20.69	11.65	13.03	16.74	10.93	9.45	9.76	12.20	4.65	11.65	6.65	4.64	10.29
Coefficient of Variation	1.22	0.78	1.56	0.84	0.60	0.79	0.76	0.716	0.83	1.06	0.79	1.17	0.92	0.72	0.94
Upper 95% UCL	23.98	15.28	18.74	17.65	25.31	25.64	16.98	15.68	14.96	15.38	7.10	14.44	8.88	7.54	13.82
ALL - AWS	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	8.25	11.26	7.79	3.81	5.37	4.42	4.62	3.149	4.84	2.75	2.92	5.44	3.98	2.04	2.61
Minimum	0.93	0.25	0.47	0.42	0.68	0.18	1.02	0.35	0.07	0.05	0.13	0.16	0.29	0.18	0.24
Maximum	20.60	25.30	45.90	16.50	25.20	37.20	14.00	14.00	36.30	14.00	16.40	31.50	27	8.39	23.10
Standard Deviation	5.17	7.72	8.29	2.66	5.28	5.89	3.40	3.21	6.59	3.31	3.61	7.68	5.93	1.86	3.41
Coefficient of Variation	0.63	0.69	1.06	0.70	0.98	1.33	0.74	1.02	1.36	1.20	1.24	1.41	1.49	0.97	1.30
Upper 95% UCL	9.78	14.64	10.74	4.58	6.82	7.26	5.42	4.01	6.97	3.54	4.11	8.95	5.52	2.47	3.33
ALL - SMB	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	8.28	4.64	3.95	2.58	3.62	3.14	3.07	1.61	1.39	1.67	1.66	1.32	2.16	1.17	0.90
Minimum	1.44	0.54	0.52	0.19	0.85	0.14	0.54	0.27	0.26	0.05	0.30	0.10	0.28	0.21	0.19
Maximum	33.50	11.50	9.71	8.25	9.72	21.50	7.88	8.73	5.24	7.73	8.65	6.89	15.1	3.18	2.77
Standard Deviation	7.08	3.45	2.18	1.67	2.57	3.82	1.67	1.35	0.98	1.36	1.51	1.31	2.22	0.35	0.53
Coefficient of Variation	0.86	0.74	0.55	0.65	0.71	1.22	0.54	0.84	0.70	0.81	0.91	0.99	1.03	0.55	0.58
Upper 95% UCL	10.19	6.15	4.53	3.02	4.43	4.31	3.45	1.88	1.60	1.97	1.95	1.67	2.67	1.33	1.04
ALL - RB	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	3.99	4.78	1.82	2.45	1.94	2.06	1.65	1.16	1.35	0.99	0.73	1.54	1.25	0.76	0.65
Minimum	0.74	0.90	0.30	0.41	0.35	0.15	0.06	0.14	0.17	0.11	0.13	0.33	0.13	0.11	0.16
Maximum	16.80	14.00	5.94	12.00	5.94	15.70	4.23	5.63	15.20	6.07	4.28	8.44	5.48	2.61	1.83
Standard Deviation	3.29	4.00	1.39	1.95	1.34	2.53	1.04	1.09	2.06	0.96	0.65	1.49	1.25	0.56	0.39
Coefficient of Variation	0.83	0.84	0.76	0.80	0.69	1.23	0.63	0.94	1.53	0.98	0.90	0.97	1.00	0.74	0.60
Upper 95% UCL	5.00	7.32	2.23	2.98	2.38	3.61	1.90	1.47	2.53	1.21	0.84	2.39	1.62	0.88	0.74
ALL - W	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	11.13	-	6.36	3.89	-	10.53	6.43	3.24	-	2.50	2.98	2.20	-	2.04	1.75
Minimum	5.58	-	2.93	0.17	-	4.38	2.07	0.45	-	1.38	1.98	1.32	-	0.43	0.47
Maximum	16.80	-	10.50	6.93	-	21.10	22.40	10.9	-	3.25	2.17	3.70	-	5.16	3.03
Standard Deviation	4.63	-	2.82	2.26	-	9.20	6.21	3.58	-	0.80	0.13	1.31	-	1.84	1.28
Coefficient of Variation	0.42	-	0.44	0.58	-	0.87	0.97	1.11	-	0.32	0.06	0.60	-	0.90	0.73
Upper 95% UCL	14.23	-	8.24	5.40	-	26.03	12.11	8.74	-	3.26	NA	NA	-	3.80	3.91
ALL - ALL	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Mean	9.28	7.82	6.30	4.92	7.34	7.67	5.88	4.43	4.42	3.94	3.25	4.51	3.54	2.56	3.59
Minimum	0.24	0.25	0.29	0.03	0.35	0.00	0.06	0.14	0.07	0.05	0.13	0.10	0.13	0.11	0.16
Maximum	73.10	37.50	123.00	58.90	52.20	100.00	44.20	39.20	42.50	53.00	21.80	52.90	28.50	23.90	47.10
Standard Deviation	11.10	7.58	10.53	6.83	9.89	11.68	7.42	6.58	6.94	7.17	4.32	7.77	5.00	3.34	6.65
Coefficient of Variation	1.20	0.97	1.67	1.39	1.35	1.52	1.26	1.49	1.57	1.82	1.33	1.72	1.41	1.30	1.85
Upper 95% UCL	10.81	9.24	7.29	5.76	10.61	10.98	7.11	6.47	6.49	6.04	4.47	6.75	4.17	2.97	5.62
Samples Collected	210	NA	212	204	172	234	221	197	222	223	248	229	230	231	239
Average Lipid %	NA	NA	NA	2.04	4.25	3.75	2.26	3.45	2.09	2.22	2.33	2.30	2.80	2.48	2.15

Notes:
Results in mg/Kg
AC - Adult carp
AWS - Adult white sucker
SMB - Smallmouth bass
RB - Rock bass
W - Walleye
NA - Not applicable
"-" - no fish of this species were collected during this event

TABLE 5
COMPARISON OF STATISTICALLY SIGNIFICANT TRENDS
SHEBOYGAN RIVER AND HARBOR SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

Fish Species	Upper River Site 1			Upper River Site 2			Middle River Site 1		
	Box Plot	T-test[1]	Mann-Kendall[2]	Box Plot	T-test[1]	Mann-Kendall[2]	Box Plot	T-test[1]	Mann-Kendall[2]
	General Trend	Significant Difference	Significant Trend	General Trend	Significant Difference	Significant Trend	General Trend	Significant Difference	Significant Trend
Adult Carp	↕	↓	-	↕	-	↓	↓	-	↓
Adult White Suckers	↕	↓	-	↓	↓	↓	↓	-	↓
Juvenile White Suckers	ID	ID	ID	↓	ID	↓	ID	ID	ID
Smallmouth Bass	↓	↓	↓	↓	↓	↓	↓	↓	↓
Rock Bass	↓	↓	↓	↓	↓	↓	↓	↓	↓
Walleye	ID	ID	ID	ID	ID	ID	↓	↓	↓
Channel Catfish	ID	ID	ID	ID	ID	ID	↓	ID	ID
Longnose Dance	ID	ID	ID	ID	ID	ID	ID	ID	ID

Fish Species	Middle River Site 2			Lower River			Inner Harbor		
	Box Plot	T-test[1]	Mann-Kendall[2]	Box Plot	T-test[1]	Mann-Kendall[2]	Box Plot	T-test[1]	Mann-Kendall[2]
	General Trend	Significant Difference	Significant Trend	General Trend	Significant Difference	Significant Trend	General Trend	Significant Difference	Significant Trend
Adult Carp	↑↓[3]	-	-	↑↓[3]	-	↓	↑↓[3]	↓	-
Adult White Suckers	↓	↓	↓	↕	↓	↓	↔	-	↓
Juvenile White Suckers	ID	ID	-	ID	ID	ID	↓	ID	ID
Smallmouth Bass	↕	↓	↓	↓	↓	↓	↓	↓	↓
Rock Bass	↓	↓	↓	↓	↓	↓	↓	↓	↓
Walleye	ID	ID	ID	ID	ID	ID	↓	ID	ID
Channel Catfish	↓	↓	-	ID	ID	ID	ID	ID	ID
Longnose Dance	ID	ID	ID	ID	ID	ID	ID	ID	ID

Fish Species	All River Reaches		
	Box Plot	T-test[1]	Mann-Kendall[2]
	General Trend	Significant Difference	Significant Trend
Adult Carp	↑↓[3]	-	↓
Adult White Suckers	↓	↓	↓
Juvenile White Suckers	↓	↓	↓
Smallmouth Bass	↓	↓	↓
Rock Bass	↓	↓	↓
Walleye	↓	↓	↓
Channel Catfish	↓	↓	ID
Longnose Dance	ID	ID	ID
All Fish Species	↓	↓	↓

ID = Insufficient Data

NA = Not applicable

↔ = Generally stable trend (box plots)

↕ = No general trend (box plots) but yearly fluctuations

↑ = General increasing trend (box plots), significant increase (t-test) or signifcant increasing trend (Mann-Kendall)

↓ = General decreasing trend (box plots), significant decrease (t-test) or signifcant decreasing trend (Mann-Kendall)

- = No significant difference (t-test) or significant decreasing trent (Mann-Kendall)

[1] T-test analysis of significant difference compared to baseline sampling event (2008) or the earliest sampling event where selected fish types were obtained (2013) on a two-tailed student's T-test with a 90% confidence interval

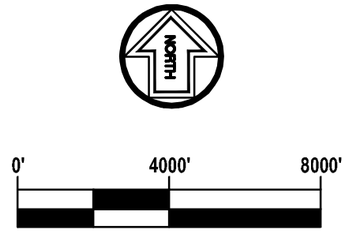
[2] Mann-Kendall analysis of significant trends completed based on available data since 2008 baseline sampling event or the earliest sampling event where selected fish types were obtained (2013) with a 90% confidence interval

[3] Mann-Kendall analysis of significant trends completed based on data from 2013 to 2017 with a 90% confidence interval. As discussed in Section 1.4.2, it appears that the remediation of the River caused a temporary increase in the PCB concentrations from 2008 to 2012/2013 and a decrease from 2013/2014 to 2019 in adult carp in the Middle River Site 2, Lower River, Inner Harbor and All reaches combined.

FIGURES

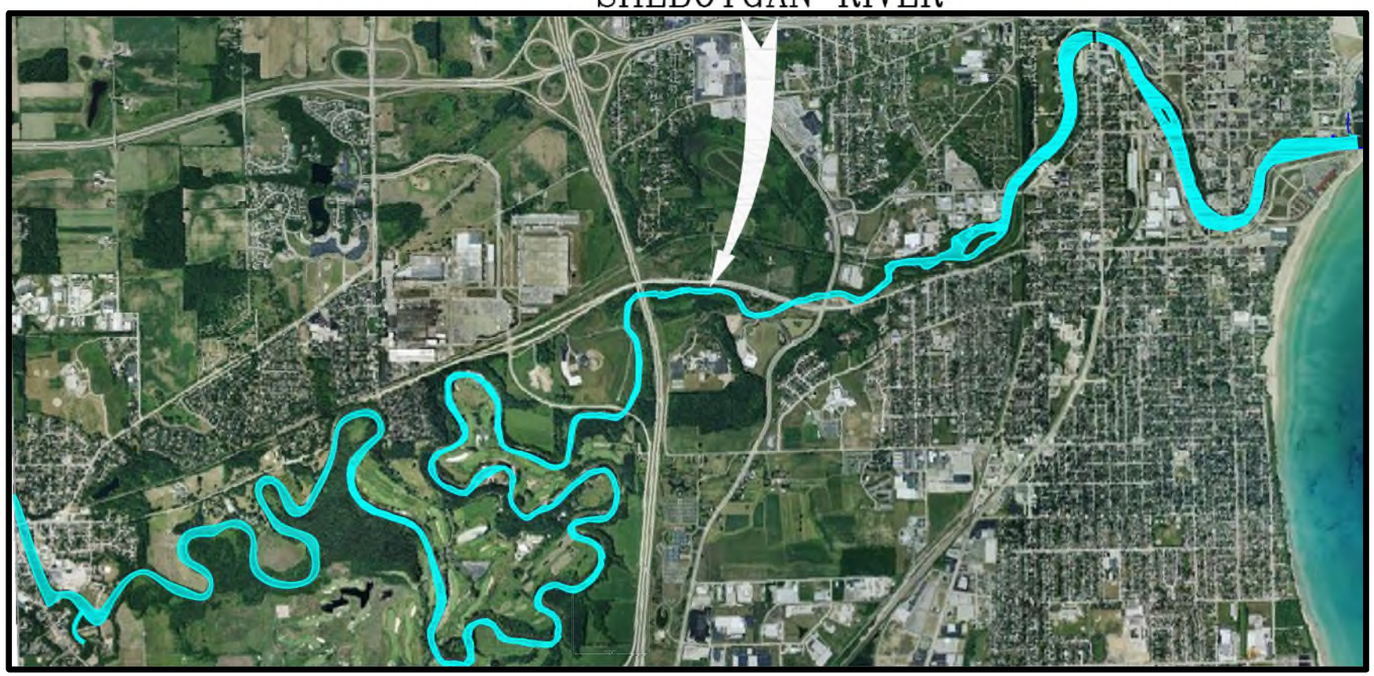
COUNTY LOCATION MAP

NOT TO SCALE



GRAPHIC SCALE: 1" = 4000'

SHEBOYGAN RIVER



NOTE:
DRAWING INFORMATION PROVIDED BY POLLUTION RISK SERVICES.

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SHEBOYGAN RIVER AND INNER HARBOR SUPERFUND SITE - 2019 FISH MONITORING

Project Location

SHEBOYGAN RIVER, SHEBOYGAN COUNTY, WISCONSIN

Sheet Name

SHEBOYGAN RIVER LOCATION MAP

No.	Revision Date

Date 12-18-19

CADD JAB

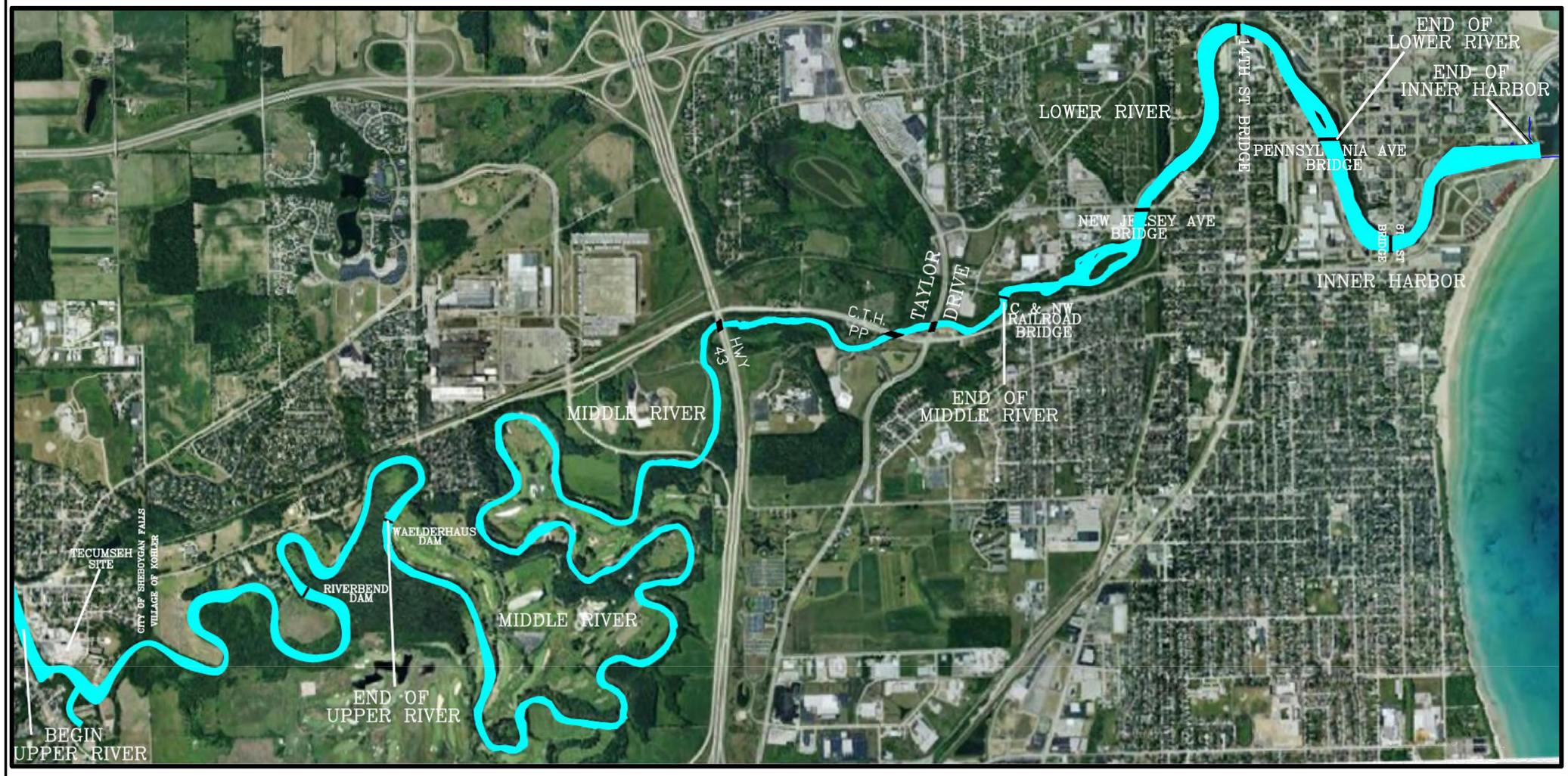
Designer AJL

Scale 1" = 4000'

Project 069638.00.044

Figure No. 1

PLOT DATE: Dec 18, 2019 - 12:15pm - jblake FILE LOCATION: \\sme-inc\pz\WIP\069638.00\CAD\069638.00.044\rev0\069638.00.044-01.dwg



NOTE:
DRAWING INFORMATION PROVIDED BY POLLUTION RISK SERVICES.

NORTH

0' 2000' 4000'

GRAPHIC SCALE: 1" = 2000'

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SHEBOYGAN RIVER AND INNER HARBOR SUPERFUND SITE - 2019 FISH MONITORING

Project Location

SHEBOYGAN RIVER, SHEBOYGAN COUNTY, WISCONSIN

Sheet Name

SHEBOYGAN RIVER REACH LOCATIONS

No.	Revision Date

Date 12-18-19

CADD JAB

Designer AJL

Scale 1" = 2000'

Project 069638.00.044

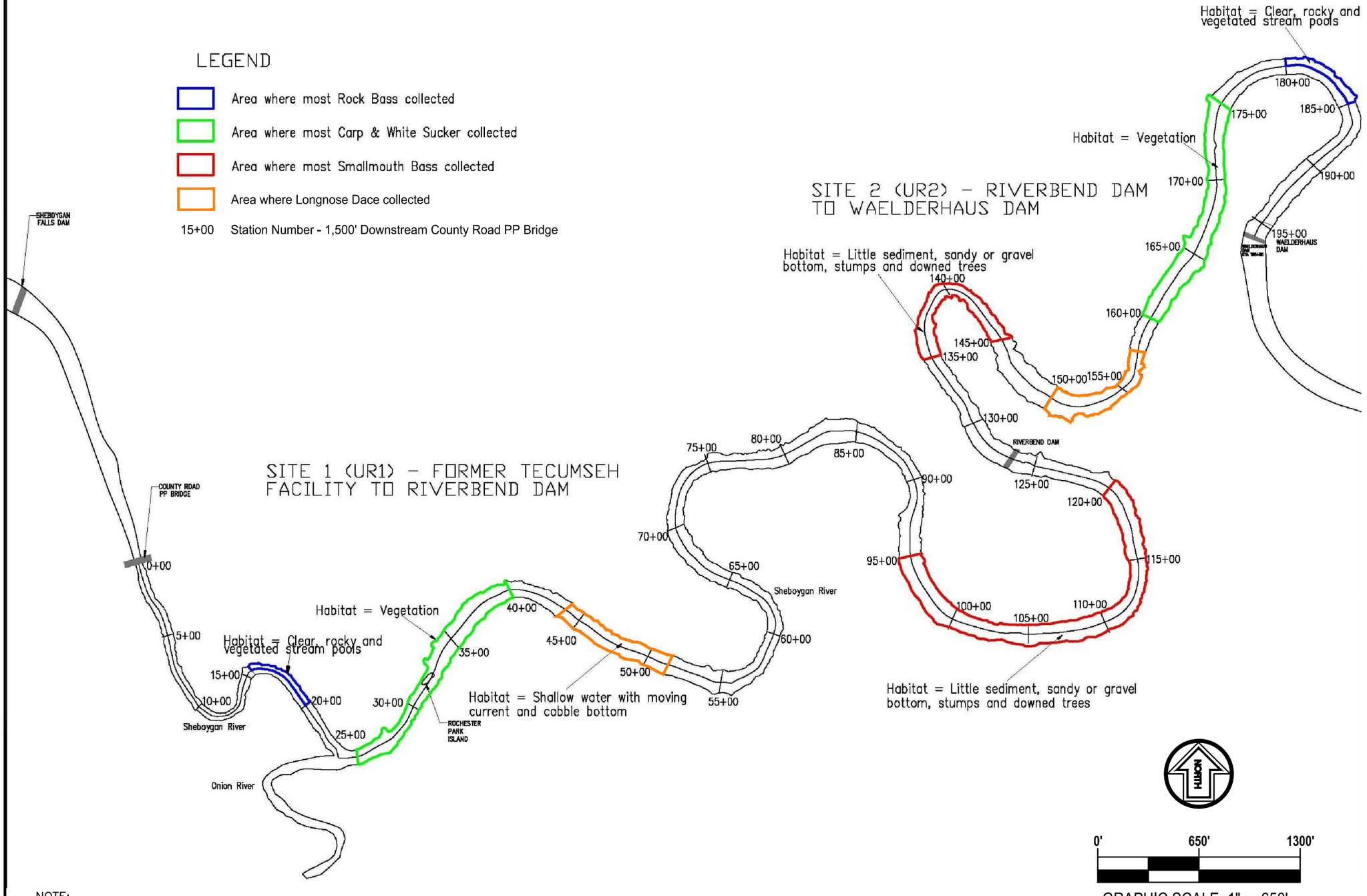
Figure No. 2

PLOT DATE: Dec 18, 2019 - 12:16pm - jblake FILE LOCATION: \\sme-inc\pz\WIP\069638.00\CAD\069638.00.044\rev0\069638.00.044-02.dwg

PLOT DATE: Dec 18, 2019 - 12:16pm - jblake FILE LOCATION: \\sme-inc\pz\WIP\069638.00\CAD\069638.00.044\rev0\069638.00.044-03.dwg

LEGEND

- Area where most Rock Bass collected
- Area where most Carp & White Sucker collected
- Area where most Smallmouth Bass collected
- Area where Longnose Dace collected
- 15+00 Station Number - 1,500' Downstream County Road PP Bridge



NOTE:
DRAWING INFORMATION PROVIDED BY POLLUTION RISK SERVICES.

NORTH

0' 650' 1300'

GRAPHIC SCALE: 1" = 650'

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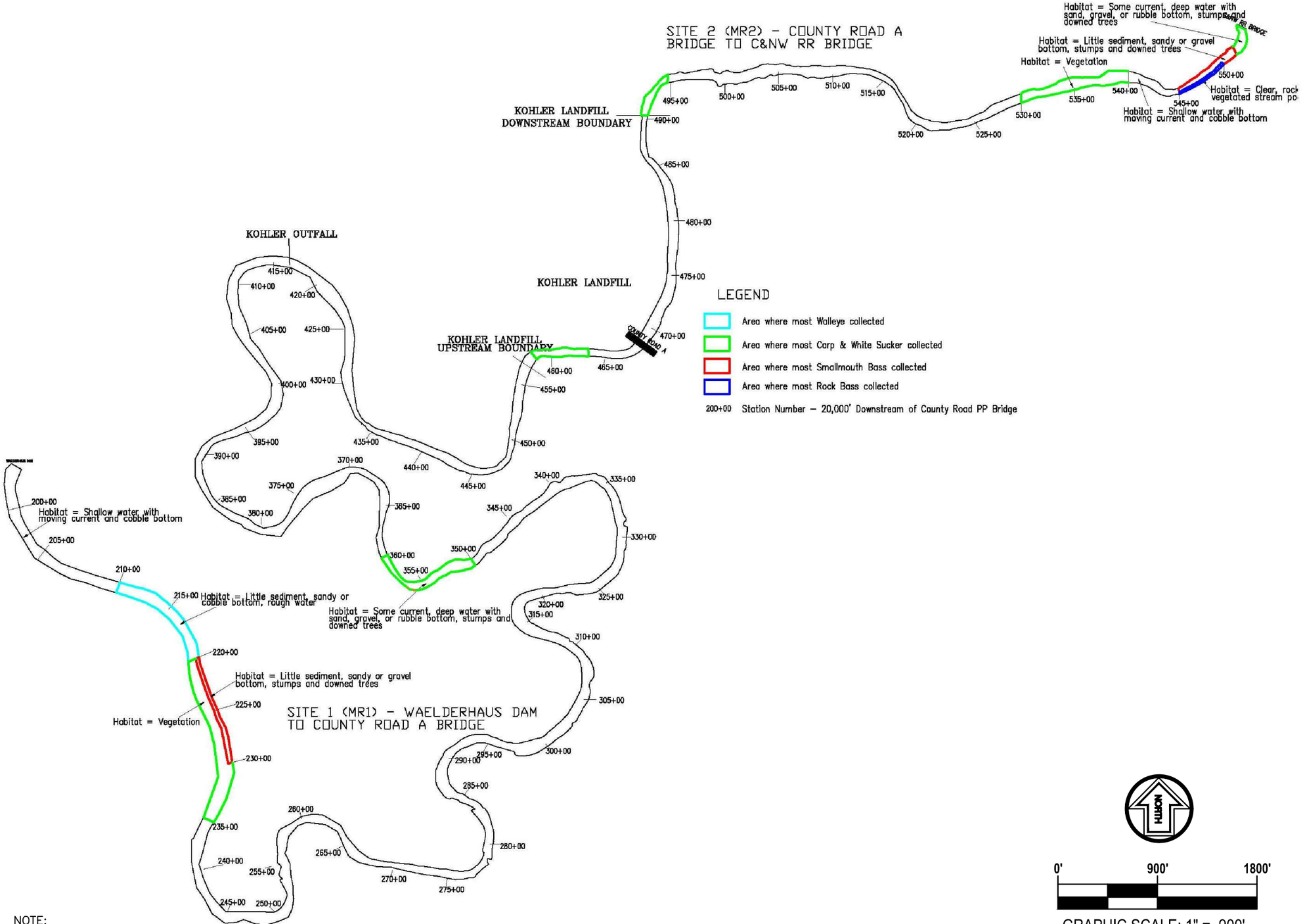
SHEBOYGAN RIVER AND INNER HARBOR SUPERFUND SITE - 2019 FISH MONITORING

Project Location
SHEBOYGAN RIVER, SHEBOYGAN COUNTY, WISCONSIN

Sheet Name
UPPER RIVER FISH COLLECTION AREAS

No.	Revision Date

Date	12-18-19
CADD	JAB
Designer	AJL
Scale	1" = 650'
Project	069638.00.044
Figure No.	3



NOTE:
DRAWING INFORMATION PROVIDED BY POLLUTION RISK SERVICES.

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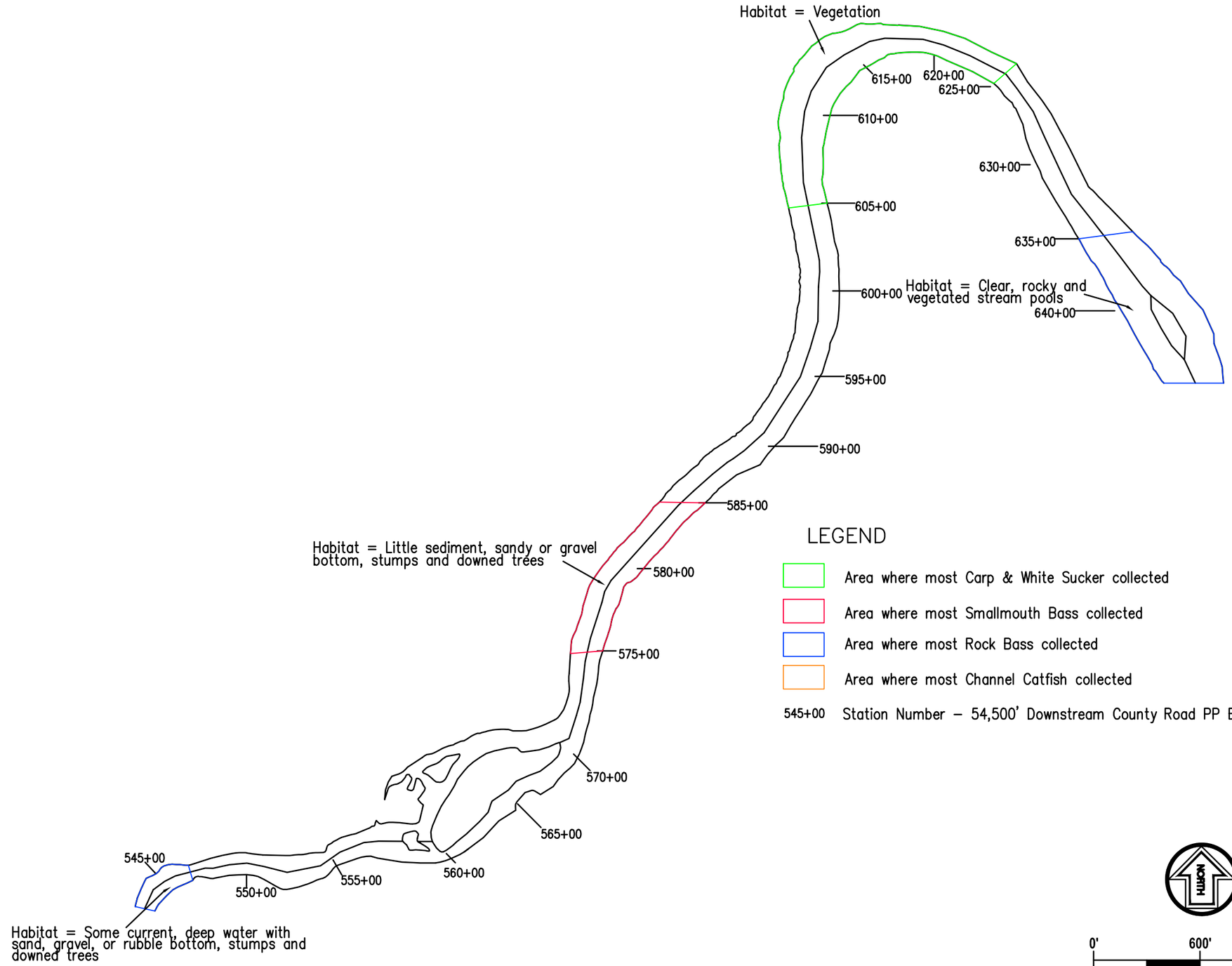
SHEBOYGAN RIVER AND INNER HARBOR SUPERFUND SITE - 2019 FISH MONITORING

Project Location
SHEBOYGAN RIVER, SHEBOYGAN COUNTY, WISCONSIN

Sheet Name
MIDDLE RIVER FISH COLLECTION AREAS

No.	Revision Date

Date 12-18-19
CADD JAB
Designer AJL
Scale 1" = 900'
Project 069638.00.044
Figure No. 4



LEGEND

- Area where most Carp & White Sucker collected
- Area where most Smallmouth Bass collected
- Area where most Rock Bass collected
- Area where most Channel Catfish collected
- 545+00 Station Number – 54,500' Downstream County Road PP Bridge

NOTE:
DRAWING INFORMATION PROVIDED BY POLLUTION RISK SERVICES.

NORTH

0' 600' 1200'

GRAPHIC SCALE: 1" = 600'

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SHEBOYGAN RIVER AND INNER HARBOR SUPERFUND SITE - 2019 FISH MONITORING

Project Location

SHEBOYGAN RIVER, SHEBOYGAN COUNTY, WISCONSIN

Sheet Name

LOWER RIVER FISH COLLECTION AREAS

No.	Revision Date

Date 12-18-19

CADD JAB

Designer AJL

Scale 1" = 600'

Project 069638.00.044

Figure No. 5

PLOT DATE: Dec 18, 2019 - 12:18pm - jblake FILE LOCATION: \\sme-inc\pz\WIP\069638.00\CAD\069638.00.044\rev0\069638.00.044-05.dwg

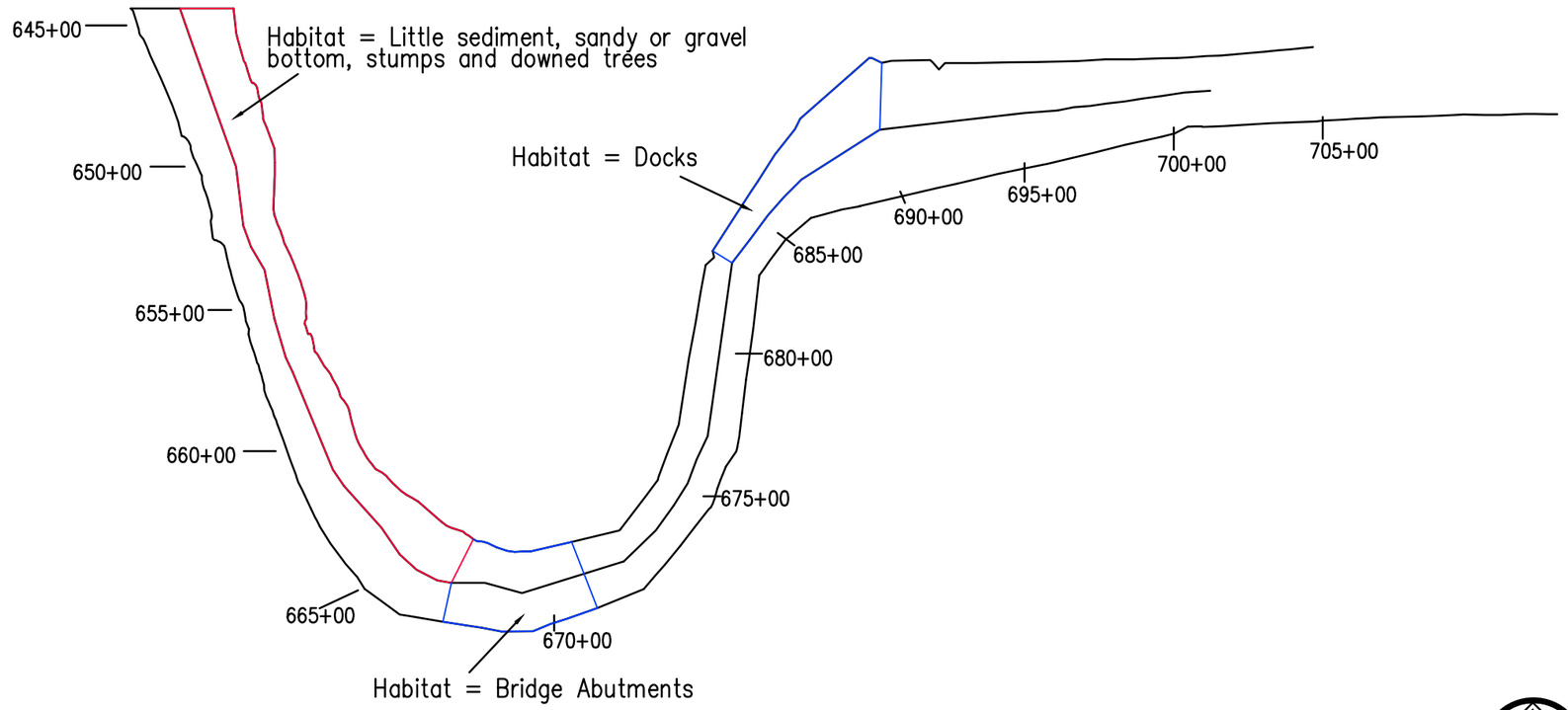
LEGEND

Area where most Carp & White Sucker collected

Area where most Smallmouth Bass collected

Area where most Walleye collected

645+00 Station Number – 64,500' Downstream County Road PP Bridge



NOTE:
DRAWING INFORMATION PROVIDED BY POLLUTION RISK SERVICES.

NORTH

0' 500' 1000'

GRAPHIC SCALE: 1" = 500'

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SHEBOYGAN RIVER AND INNER HARBOR SUPERFUND SITE - 2019 FISH MONITORING

Project Location
SHEBOYGAN RIVER, SHEBOYGAN COUNTY, WISCONSIN

Sheet Name
INNER HARBOR FISH COLLECTION AREAS

No.	Revision Date

Date 12-18-19

CADD JAB

Designer AJL

Scale 1" = 500'

Project 069638.00.044

Figure No. 6

PLOT DATE: Dec 18, 2019 - 12:19pm - jblake FILE LOCATION: \\sme-inc\pz\WIP\069638.00\CAD\069638.00.044\rev0\069638.00.044-06.dwg

APPENDIX 1
SUMMARY OF 2022 PHASE 1 FISH TISSUE RESULTS

APPENDIX 1
SUMMARY OF 2022 PHASE I FISH TISSUE RESULTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

2022 FISH SAMPLE RESULTS - UPPER RIVER SITE 1 (UR1)						
Sample ID	***Sample Type***	***Sample Form****	***Gender (M/F)***	***Length (inches)***	***Fat (%)***	***PCB (mg/kg)***
UR1 AC1	Adult Carp	SO	F	***27***	2.8	1.56
UR1 AC2			M	***26***	1.9	4.42
UR1 AC3			M	24	7.8	5.91
UR1 AC4			F	21	7.6	0.28
UR1 AC5			M	25	5.7	12.70
UR1 AC6			F	***26***	12.0	13.20
UR1 AC7			F	22	0.9	0.33
UR1 AC8			U	22	7.1	7.63
UR1 AC9			F	***26***	4.1	4.23
UR1 AC10			F	***27***	7.2	14.50
UR1 AC11			M	22	3.0	7.39
UR1 AC12			F	24	6.8	9.02
Mean Result for Adult Carp			NA	24.33	5.57	6.76
Minimum Results for Adult Carp			NA	21	0.86	0.28
Maximum Results for Adult Carp			NA	27	12.00	14.50
Standard Deviation for Adult Carp			NA	2.15	3.15	4.92
Coefficient of Variation for Adult Carp			NA	0.09	0.57	0.73
Upper 95% UCL for Adult Carp			NA	25.55	7.35	9.31
UR1 AWS1	Adult White Sucker	SO	M	***18***	1.8	1.44
UR1 AWS2			M	***18***	1.5	1.90
UR1 AWS3			M	***18***	4.3	23.10
UR1 AWS4			M	***17***	2.1	3.20
UR1 AWS5			U	***18***	2.0	3.88
UR1 AWS6			M	***19***	2.3	2.61
UR1 AWS7			U	***19***	2.0	1.31
UR1 AWS8			M	***18***	1.3	8.46
UR1 AWS9			U	16	2.6	4.71
UR1 AWS10			F	***17***	3.3	7.50
UR1 AWS11			F	***18***	1.1	0.86
UR1 AWS12			U	14	1.3	0.86
Mean Result for Adult White Sucker			NA	17.50	2.13	4.99
Minimum Results for Adult White Sucker			NA	14	1.10	0.86
Maximum Results for Adult White Sucker			NA	19	4.30	23.10
Standard Deviation for Adult White Sucker			NA	1.38	0.92	6.23
Coefficient of Variation for Adult White Sucker			NA	0.08	0.43	1.25
Upper 95% UCL for Adult White Sucker			NA	18.28	2.65	9.78

Notes:
Bold/Italics - did not meet target range.
Highlighed - concentration exceeded target levels.
NA - Not applicable
SO - Scale off, skin on fillet

APPENDIX 1
SUMMARY OF 2022 PHASE I FISH TISSUE RESULTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

2022 FISH SAMPLE RESULTS - UPPER RIVER SITE 1 (UR1)						
Sample ID	***Sample Type***	***Sample Form****	***Gender (M/F)***	***Length (inches)***	***Fat (%)***	***PCB (mg/kg)***
UR1 SMB1	Smallmouth Bass	SO	F	16	0.28	2.02
UR1 SMB2			F	15	0.35	0.65
UR1 SMB3			M	14	0.53	2.01
UR1 SMB4			F	14	0.45	0.53
UR1 SMB5			F	15	0.31	0.60
UR1 SMB6			F	14	0.26	0.78
UR1 SMB7			F	12	0.21	0.82
UR1 SMB8			F	12	0.31	0.63
UR1 SMB9			M	12	0.17	1.12
UR1 SMB10			F	11	1.10	0.80
UR1 SMB11			F	11	0.42	0.64
UR1 SMB12			M	11	0.59	2.25
Mean Result for Smallmouth Bass			NA	13.08	0.42	1.07
Minimum Results for Smallmouth Bass			NA	11.00	0.17	0.53
Maximum Results for Smallmouth Bass			NA	16.00	1.10	2.25
Standard Deviation for Smallmouth Bass			NA	1.78	0.25	0.64
Coefficient of Variation for Smallmouth Bass			NA	0.14	0.60	0.60
Upper 95% UCL for Smallmouth Bass			NA	14.09	0.56	1.87
UR1 RB1	Rock Bass	SO	F	8	0.21	0.19
UR1 RB2			M	8	0.32	1.42
UR1 RB3			F	8	0.23	0.18
UR1 RB4			M	8	0.19	0.73
UR1 RB5			F	7	0.25	0.20
UR1 RB6			F	7	0.15	0.40
UR1 RB7			F	7	0.14	0.73
UR1 RB8			M	7	0.35	1.58
UR1 RB9			U	6	0.20	0.61
UR1 RB10			F	6	0.49	1.48
UR1 RB11			F	6	0.59	1.16
UR1 RB12			M	6	0.27	0.61
Mean Result for Rock Bass			NA	7.00	0.28	0.77
Minimum Results for Rock Bass			NA	6	0.14	0.18
Maximum Results for Rock Bass			NA	8	0.59	1.58
Standard Deviation for Rock Bass			NA	0.85	0.14	0.52
Coefficient of Variation for Rock Bass			NA	0.12	0.48	0.67
Upper 95% UCL for Rock Bass			NA	7.48	0.36	1.04

Notes:
Bold/Italics - did not meet target range.
Highlighed - concentration exceeded target levels.
NA - Not applicable
SO - Scale off, skin on fillet

APPENDIX 1
SUMMARY OF 2022 PHASE I FISH TISSUE RESULTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

2022 FISH SAMPLE RESULTS - UPPER RIVER SITE 2 (UR2)						
Sample ID	***Sample Type***	***Sample Form****	***Gender (M/F)***	***Length (inches)***	***Fat (%)***	***PCB (mg/kg)***
UR2 AC1	Adult Carp	SO	F	22	3.4	18.30
UR2 AC2			F	24	2.8	15.4
UR2 AC3			F	25	3.4	0.32
UR2 AC4			M	22	2.7	8.65
UR2 AC5			F	***27***	3.5	22.30
UR2 AC6			M	25	0.73	0.41
UR2 AC7			F	***27***	2.2	4.86
UR2 AC8			F	***27***	4.2	37.9
UR2 AC9			F	24	2.9	0.582
UR2 AC10			F	24	2.1	1.13
UR2 AC11			F	22	5.3	7.65
UR2 AC12			F	19	3.1	13.2
Mean Result for Adult Carp			NA	24.00	3.03	10.89
Minimum Results for Adult Carp			NA	19	0.73	0.32
Maximum Results for Adult Carp			NA	27	5.30	37.90
Standard Deviation for Adult Carp			NA	2.45	1.13	11.34
Coefficient of Variation for Adult Carp			NA	0.10	0.37	1.04
Upper 95% UCL for Adult Carp			NA	25.39	3.67	16.77
UR2 AWS1	Adult White Sucker	SO	M	***20***	1.3	4.89
UR2 AWS2			M	***18***	1.5	4.20
UR2 AWS3			M	***18***	3.4	3.33
UR2 AWS4			M	***17***	1.10	7.58
UR2 AWS5			F	***18***	0.9	2.17
UR2 AWS6			M	16	1.5	6.70
UR2 AWS7			U	***18***	1.1	2.83
UR2 AWS8			U	16	2.7	0.81
UR2 AWS9			U	***17***	1.8	1.58
UR2 AWS10			U	15	1.5	1.05
UR2 AWS11			U	***18***	0.88	3.43
UR2 AWS12			M	16	1.7	2.64
Mean Result for Adult White Sucker			NA	17.25	1.61	3.43
Minimum Results for Adult White Sucker			NA	15	0.88	0.81
Maximum Results for Adult White Sucker			NA	20	3.40	7.58
Standard Deviation for Adult White Sucker			NA	1.36	0.75	2.11
Coefficient of Variation for Adult White Sucker			NA	0.08	0.46	0.62
Upper 95% UCL for Adult White Sucker			NA	18.02	2.04	4.53

Notes:
Bold/Italics - did not meet target range.
Highlighed - concentration exceeded target levels.
NA - Not applicable
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APPENDIX 1
SUMMARY OF 2022 PHASE I FISH TISSUE RESULTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

2022 FISH SAMPLE RESULTS - UPPER RIVER SITE 2 (UR2)						
Sample ID	***Sample Type***	***Sample Form****	***Gender (M/F)***	***Length (inches)***	***Fat (%)***	***PCB (mg/kg)***
UR2 SMB1	Smallmouth Bass	SO	F	15	0.27	0.71
UR2 SMB2			F	13	0.39	0.46
UR2 SMB3			M	12	0.32	1.08
UR2 SMB4			M	12	0.23	0.96
UR2 SMB5			F	11	0.39	0.32
UR2 SMB6			F	11	0.55	0.56
UR2 SMB7			F	10	0.27	0.37
UR2 SMB8			M	10	0.49	0.45
UR2 SMB9			F	11	0.36	0.19
UR2 SMB10			M	11	0.35	0.60
UR2 SMB11			F	11	0.28	0.59
UR2 SMB12			F	10	0.32	1.29
Mean Result for Smallmouth Bass			NA	11.42	0.35	0.63
Minimum Results for Smallmouth Bass			NA	10.00	0.23	0.19
Maximum Results for Smallmouth Bass			NA	15.00	0.55	1.29
Standard Deviation for Smallmouth Bass			NA	1.44	0.09	0.33
Coefficient of Variation for Smallmouth Bass			NA	0.13	0.27	0.52
Upper 95% UCL for Smallmouth Bass			NA	12.23	0.40	0.80
UR2 RB1	Rock Bass	SO	M	7	0.34	0.28
UR2 RB2			M	7	0.31	0.75
UR2 RB3			F	7	0.32	0.42
UR2 RB4			F	7	0.40	0.44
UR2 RB5			M	7	0.26	0.79
UR2 RB6			F	6	0.25	0.32
UR2 RB7			F	6	0.22	0.85
UR2 RB8			F	6	0.61	1.02
UR2 RB9			M	6	0.52	0.82
UR2 RB10			F	6	0.92	1.05
UR2 RB11			F	6	0.46	0.40
UR2 RB12			U	6	1.10	1.45
Mean Result for Rock Bass			NA	6.42	0.48	0.72
Minimum Results for Rock Bass			NA	6	0.22	0.28
Maximum Results for Rock Bass			NA	7	1.10	1.45
Standard Deviation for Rock Bass			NA	0.51	0.28	0.35
Coefficient of Variation for Rock Bass			NA	0.08	0.58	0.50
Upper 95% UCL for Rock Bass			NA	6.71	0.63	0.90

Notes:
Bold/Italics - did not meet target range.
Highlighed - concentration exceeded target levels.
NA - Not applicable
SO - Scale off, skin on fillet

APPENDIX 1
SUMMARY OF 2022 PHASE I FISH TISSUE RESULTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

2022 FISH SAMPLE RESULTS - MIDDLE RIVER SITE 1 (MR1)						
Sample ID	***Sample Type***	***Sample Form****	***Gender (M/F)***	***Length (inches)***	***Fat (%)***	***PCB (mg/kg)***
MR1 AC1	Adult Carp	SO	F	***27***	7.20	12.50
MR1 AC2			F	22	5.50	23.80
MR1 AC3			M	24	10.20	17.90
MR1 AC4			F	22	13.60	11.80
MR1 AC5			F	24	7.40	32.70
MR1 AC6			M	22	2.40	8.06
MR1 AC7			M	20	1.90	1.38
MR1 AC8			M	25	11.10	47.10
Mean Result for Adult Carp			NA	23.25	7.41	19.41
Minimum Results for Adult Carp			NA	20.00	1.90	1.38
Maximum Results for Adult Carp			NA	27.00	13.60	47.10
Standard Deviation for Adult Carp			NA	2.19	4.12	14.76
Coefficient of Variation for Adult Carp			NA	0.09	0.56	0.76
Upper 95% UCL for Adult Carp			NA	24.77	10.27	29.29
MR1 AWS1	Adult White Sucker	SO	M	***17***	2.00	1.60
MR1 AWS2			F	***18***	2.70	3.55
MR1 AWS3			M	***18***	0.51	4.38
MR1 AWS4			U	***18***	2.50	2.83
MR1 AWS5			U	***18***	1.60	1.04
MR1 AWS6			U	***18***	1.40	0.91
MR1 AWS7			U	10	0.73	1.12
MR1 AWS8			U	12	0.75	1.32
Mean Result for Adult White Sucker			NA	16.13	1.52	2.09
Minimum Results for Adult White Sucker			NA	10	0.51	0.91
Maximum Results for Adult White Sucker			NA	18	2.70	4.38
Standard Deviation for Adult White Sucker			NA	3.23	0.83	1.32
Coefficient of Variation for Adult White Sucker			NA	0.20	0.55	0.63
Upper 95% UCL for Adult White Sucker			NA	18.36	2.10	2.98

Notes:
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SUMMARY OF 2022 PHASE I FISH TISSUE RESULTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
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2022 FISH SAMPLE RESULTS - MIDDLE RIVER SITE 1 (MR1)						
Sample ID	***Sample Type***	***Sample Form****	***Gender (M/F)***	***Length (inches)***	***Fat (%)***	***PCB (mg/kg)***
MR1 SMB1	Smallmouth Bass	SO	M	14	0.46	0.83
MR1 SMB2			F	12	1.10	0.92
MR1 SMB3			M	12	0.33	0.51
MR1 SMB4			F	12	1.20	0.23
MR1 SMB5			M	12	0.45	0.52
MR1 SMB6			F	11	1.70	0.85
MR1 SMB7			F	11	0.21	0.56
MR1 SMB8			F	11	0.32	0.67
Mean Result for Smallmouth Bass			NA	11.88	0.72	0.64
Minimum Results for Smallmouth Bass			NA	11.00	0.21	0.23
Maximum Results for Smallmouth Bass			NA	14.00	1.70	0.92
Standard Deviation for Smallmouth Bass			NA	0.99	0.54	0.23
Coefficient of Variation for Smallmouth Bass			NA	0.08	0.75	0.36
Upper 95% UCL for Smallmouth Bass			NA	12.56	1.10	0.79
MR1 RB1	Rock Bass	SO	F	8	0.32	0.43
MR1 RB2			M	8	0.29	0.72
MR1 RB3			U	7	0.10	0.45
MR1 RB4			U	7	0.24	0.22
MR1 RB5			U	7	0.20	0.19
MR1 RB6			U	7	0.35	1.05
MR1 RB7			U	5	0.84	1.15
MR1 RB8			U	5	0.40	0.60
Mean Result for Rock Bass			NA	6.75	0.34	0.60
Minimum Results for Rock Bass			NA	5	0.10	0.19
Maximum Results for Rock Bass			NA	8	0.84	1.15
Standard Deviation for Rock Bass			NA	1.16	0.22	0.35
Coefficient of Variation for Rock Bass			NA	0.17	0.65	0.59
Upper 95% UCL for Rock Bass			NA	7.56	0.50	0.84
MR1 WAL1	Walleye	SO	F	20	1.70	0.47
MR1 WAL2			M	***23***	3.60	3.03
MR1 WAL3			M	***23***	2.60	1.76
Mean Result for Walleye			NA	23.00	2.63	1.75
Minimum Results for Walleye			NA	20.00	1.70	0.47
Maximum Results for Walleye			NA	23.00	3.60	3.03
Standard Deviation for Walleye			NA	1.73	0.95	1.28
Coefficient of Variation for Walleye			NA	0.08	0.36	0.73
Upper 95% UCL for Walleye			NA	24.96	3.71	3.91

Notes:
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Highlighed - concentration exceeded target levels.
NA - Not applicable
SO - Scale off, skin on fillet

APPENDIX 1
SUMMARY OF 2022 PHASE I FISH TISSUE RESULTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

2022 FISH SAMPLE RESULTS - MIDDLE RIVER SITE 2 (MR2)						
Sample ID	***Sample Type***	***Sample Form****	***Gender (M/F)***	***Length (inches)***	***Fat (%)***	***PCB (mg/kg)***
MR2 AC1	Adult Carp	SO	F	***27***	12.60	4.36
MR2 AC2			F	***27***	8.70	22.90
MR2 AC3			F	***27***	13.10	6.77
MR2 AC4			F	***27***	7.00	29.20
MR2 AC5			F	25	4.40	8.32
MR2 AC6			F	23	3.30	4.97
MR2 AC7			F	23	6.90	12.70
MR2 AC8			F	22	4.60	8.51
Mean Result for Adult Carp			NA	25.13	7.58	12.22
Minimum Results for Adult Carp			NA	22	3.30	4.36
Maximum Results for Adult Carp			NA	27	13.10	29.20
Standard Deviation for Adult Carp			NA	2.17	3.68	9.07
Coefficient of Variation for Adult Carp			NA	0.09	0.49	0.74
Upper 95% UCL for Adult Carp			NA	26.63	10.13	18.29
MR2 AWS1	Adult White Sucker	SO	U	15	3.10	0.70
MR2 AWS2			F	16	2.80	3.01
MR2 AWS3			U	15	4.00	4.95
MR2 AWS4			U	10	1.80	1.13
MR2 AWS5			U	10	2.00	1.19
MR2 AWS6			U	11	2.40	1.51
MR2 AWS7			U	11	1.40	0.91
MR2 AWS8			U	10	1.50	1.23
Mean Result for Adult White Sucker			NA	12.25	2.38	1.83
Minimum Results for Adult White Sucker			NA	10	1.40	0.70
Maximum Results for Adult White Sucker			NA	16	4.00	4.95
Standard Deviation for Adult White Sucker			NA	2.60	0.89	1.45
Coefficient of Variation for Adult White Sucker			NA	0.21	0.37	0.79
Upper 95% UCL for Adult White Sucker			NA	14.06	2.99	3.52

Notes:
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Highlighed - concentration exceeded target levels.
NA - Not applicable
SO - Scale off, skin on fillet

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SUMMARY OF 2022 PHASE I FISH TISSUE RESULTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

2022 FISH SAMPLE RESULTS - MIDDLE RIVER SITE 2 (MR2)						
Sample ID	*Sample Type*	*Sample Form**	*Gender (M/F)*	*Length (inches)*	*Fat (%)*	*PCB (mg/kg)*
MR2 SMB1	Smallmouth Bass	SO	F	***18***	0.84	2.17
MR2 SMB2			M	16	0.85	2.77
MR2 SMB3			M	15	0.80	1.33
MR2 SMB4			F	12	0.57	0.84
MR2 SMB5			F	12	0.96	1.58
MR2 SMB6			F	13	0.61	1.01
MR2 SMB7			F	11	1.00	1.39
MR2 SMB8			M	10	0.67	0.86
Mean Result for Smallmouth Bass			NA	13.38	0.79	1.49
Minimum Results for Smallmouth Bass			NA	10	0.57	0.84
Maximum Results for Smallmouth Bass			NA	18	1.00	2.77
Standard Deviation for Smallmouth Bass			NA	2.72	0.16	0.68
Coefficient of Variation for Smallmouth Bass			NA	0.20	0.20	0.45
Upper 95% UCL for Smallmouth Bass			NA	15.26	0.90	1.95
MR2 RB1	Rock Bass	SO	M	8	0.21	0.70
MR2 RB2			M	7	0.57	0.992
MR2 RB3			M	7	0.14	0.865
MR2 RB4			F	7	0.22	0.235
MR2 RB5			F	7	0.24	0.221
MR2 RB6			M	7	0.53	0.672
MR2 RB7			U	6	0.38	1.83
MR2 RB8			M	6	0.50	0.75
Mean Result for Rock Bass			NA	6.88	0.35	0.78
Minimum Results for Rock Bass			NA	6	0.14	0.22
Maximum Results for Rock Bass			NA	8	0.57	1.83
Standard Deviation for Rock Bass			NA	0.64	0.17	0.50
Coefficient of Variation for Rock Bass			NA	0.09	0.48	0.64
Upper 95% UCL for Rock Bass			NA	7.32	0.46	1.21
MR2 CC1	Catfish	SO	M	***23***	3.50	0.55
MR2 CC2			M	***25***	6.10	1.17
Mean Result for Catfish			NA	25.00	4.80	0.86
Minimum Results for Catfish			NA	23.00	3.50	0.55
Maximum Results for Catfish			NA	25.00	6.10	1.17
Standard Deviation for Catfish			NA	1.41	1.84	0.44
Coefficient of Variation for Catfish			NA	0.06	0.38	0.51
Upper 95% UCL for Catfish			NA	26.96	7.35	NA

Notes:
Bold/Italics - did not meet target range.
Highlighed - concentration exceeded target levels.
NA - Not applicable
SO - Scale off, skin on fillet

APPENDIX 1
SUMMARY OF 2022 PHASE I FISH TISSUE RESULTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

2022 FISH SAMPLE RESULTS - LOWER RIVER SITE (LR)						
Sample ID	*Sample Type*	*Sample Form**	*Gender (M/F)*	*Length (inches)*	*Fat (%)*	*PCB (mg/kg)*
LR AC1	Adult Carp	SO	M	***27***	4.30	2.36
LR AC2			F	***27***	8.40	3.96
LR AC3			F	***27***	6.70	10.60
LR AC4			M	***27***	6.40	9.80
LR AC5			F	***27***	13.30	16.00
LR AC6			F	***26***	6.50	2.21
LR AC7			M	22	10.60	1.13
LR AC8			F	21	9.40	2.59
Mean Result for Adult Carp			NA	25.50	8.20	6.08
Minimum Results for Adult Carp			NA	21	4.30	1.13
Maximum Results for Adult Carp			NA	27	13.30	16.00
Standard Deviation for Adult Carp			NA	2.51	2.85	5.38
Coefficient of Variation for Adult Carp			NA	0.10	0.35	0.88
Upper 95% UCL for Adult Carp			NA	27.24	10.17	9.69
LR AWS1	Adult White Sucker	SO	U	***19***	0.87	0.24
LR AWS2			U	***20***	1.50	0.61
LR AWS3			M	***18***	3.00	1.93
LR AWS4			U	***18***	2.10	1.64
LR AWS5			U	16	1.70	1.15
LR AWS6			U	***17***	0.97	0.81
LR AWS7			U	13	1.20	0.63
LR AWS8			U	12	0.95	0.39
Mean Result for Adult White Sucker			NA	16.63	1.54	0.92
Minimum Results for Adult White Sucker			NA	12	0.87	0.24
Maximum Results for Adult White Sucker			NA	20	3.00	1.93
Standard Deviation for Adult White Sucker			NA	2.83	0.73	0.60
Coefficient of Variation for Adult White Sucker			NA	0.17	0.47	0.65
Upper 95% UCL for Adult White Sucker			NA	18.58	2.04	1.33

Notes:
Bold/Italics - did not meet target range.
Highlighed - concentration exceeded target levels.
NA - Not applicable
SO - Scale off, skin on fillet

APPENDIX 1
SUMMARY OF 2022 PHASE I FISH TISSUE RESULTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

2022 FISH SAMPLE RESULTS - LOWER RIVER SITE (LR)						
Sample ID	***Sample Type***	***Sample Form****	***Gender (M/F)***	***Length (inches)***	***Fat (%)***	***PCB (mg/kg)***
LR SMB1	Smallmouth Bass	SO	F	14	1.20	0.41
LR SMB2			F	12	0.94	0.72
LR SMB3			M	12	1.10	0.53
LR SMB4			M	12	1.30	1.43
LR SMB5			F	11	0.83	0.76
LR SMB6			F	11	1.30	0.67
LR SMB7			M	10	1.30	1.47
LR SMB8			M	10	1.10	1.04
Mean Result for Smallmouth Bass			NA	11.50	1.13	0.88
Minimum Results for Smallmouth Bass			NA	10	0.83	0.41
Maximum Results for Smallmouth Bass			NA	14	1.30	1.47
Standard Deviation for Smallmouth Bass			NA	1.31	0.18	0.40
Coefficient of Variation for Smallmouth Bass			NA	0.11	0.16	0.45
Upper 95% UCL for Smallmouth Bass			NA	12.41	1.26	1.15
LR RB1	Rock Bass	SO	U	8	1.00	0.73
LR RB2			M	7	1.20	0.99
LR RB3			M	7	0.55	0.51
LR RB4			F	7	0.80	0.65
LR RB5			F	6	0.83	0.52
LR RB6			M	7	0.74	0.66
LR RB7			F	6	0.30	0.22
LR RB8			U	5	0.88	0.80
LR RB9			U	5	0.31	0.58
Mean Result for Rock Bass			NA	6.44	0.73	0.63
Minimum Results for Rock Bass			NA	5	0.30	0.22
Maximum Results for Rock Bass			NA	8	1.20	0.99
Standard Deviation for Rock Bass			NA	1.01	0.30	0.21
Coefficient of Variation for Rock Bass			NA	0.16	0.41	0.34
Upper 95% UCL for Rock Bass			NA	7.11	0.93	0.76

Notes:
Bold/Italics - did not meet target range.
Highlighed - concentration exceeded target levels.
NA - Not applicable
SO - Scale off, skin on fillet

APPENDIX 1
SUMMARY OF 2022 PHASE I FISH TISSUE RESULTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

2022 FISH SAMPLE RESULTS - INNER HARBOR SITE (IH)						
Sample ID	*Sample Type*	*Sample Form**	*Gender (M/F)*	*Length (inches)*	*Fat (%)*	*PCB (mg/kg)*
IH AC1	Adult Carp	SO	M	***27***	1.90	12.40
IH AC2			M	***27***	1.60	15.40
IH AC3			M	***27***	4.40	11.00
IH AC4			F	***27***	6.70	7.76
IH AC5			F	***27***	1.80	2.89
IH AC6			F	***27***	1.90	0.87
IH AC7			F	***27***	1.90	10.10
IH AC8			F	25	5.10	36.60
Mean Result for Adult Carp			NA	26.75	3.16	12.13
Minimum Results for Adult Carp			NA	25	1.60	0.87
Maximum Results for Adult Carp			NA	27	6.70	36.60
Standard Deviation for Adult Carp			NA	0.71	1.96	10.99
Coefficient of Variation for Adult Carp			NA	0.03	0.62	0.91
Upper 95% UCL for Adult Carp			NA	27.24	4.52	19.49
IH AWS1	Adult White Sucker	SO	F	***18***	1.70	0.34
IH AWS2			M	***18***	1.40	0.72
IH AWS3			F	***20***	1.20	1.15
IH AWS4			F	***20***	1.80	1.74
IH AWS5			F	***20***	2.90	0.39
IH AWS6			M	***18***	2.00	0.66
IH AWS7			F	***20***	0.96	1.03
IH AWS8			M	16	1.40	0.48
Mean Result for Adult White Sucker			NA	18.75	1.67	0.81
Minimum Results for Adult White Sucker			NA	16	0.96	0.34
Maximum Results for Adult White Sucker			NA	20	2.90	1.74
Standard Deviation for Adult White Sucker			NA	1.49	0.60	0.47
Coefficient of Variation for Adult White Sucker			NA	0.08	0.36	0.58
Upper 95% UCL for Adult White Sucker			NA	19.78	2.08	1.13

Notes:
Bold/Italics - did not meet target range.
Highlighed - concentration exceeded target levels.
NA - Not applicable
SO - Scale off, skin on fillet

APPENDIX 1
SUMMARY OF 2022 PHASE I FISH TISSUE RESULTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

2022 FISH SAMPLE RESULTS - INNER HARBOR SITE (IH)						
Sample ID	*Sample Type*	*Sample Form**	*Gender (M/F)*	*Length (inches)*	*Fat (%)*	*PCB (mg/kg)*
IH SMB1	Smallmouth Bass	SO	F	***18***	0.91	0.97
IH SMB2			F	17	0.69	0.80
IH SMB3			F	17	1.40	0.88
IH SMB4			F	16	1.10	0.74
IH SMB5			F	15	0.76	0.77
IH SMB6			F	16	0.80	0.74
IH SMB7			F	14	0.35	0.74
IH SMB8			F	14	0.77	0.38
Mean Result for Smallmouth Bass			NA	15.88	0.85	0.75
Minimum Results for Smallmouth Bass			NA	14	0.35	0.38
Maximum Results for Smallmouth Bass			NA	18	1.40	0.97
Standard Deviation for Smallmouth Bass			NA	1.46	0.31	0.17
Coefficient of Variation for Smallmouth Bass			NA	0.09	0.36	0.23
Upper 95% UCL for Smallmouth Bass			NA	16.89	1.06	0.87
IH RB1	Rock Bass	SO	M	***10***	0.52	0.61
IH RB2			F	***10***	0.44	0.23
IH RB3			M	7	1.00	0.39
IH RB4			F	7	0.56	0.44
IH RB5			F	6	0.53	0.16
IH RB6			F	6	0.54	0.20
IH RB7			F	6	0.68	0.34
IH RB8			F	6	0.65	0.33
IH RB9			U	5	0.92	0.44
Mean Result for Rock Bass			NA	7.00	0.65	0.35
Minimum Results for Rock Bass			NA	5	0.44	0.16
Maximum Results for Rock Bass			NA	10	1.00	0.61
Standard Deviation for Rock Bass			NA	1.80	0.19	0.14
Coefficient of Variation for Rock Bass			NA	0.83	0.68	0.41
Upper 95% UCL for Smallmouth Bass			NA	8.25	0.78	0.44

Notes:
Bold/Italics - did not meet target range.
Highlighed - concentration exceeded target levels.
NA - Not applicable
SO - Scale off, skin on fillet

APPENDIX 1

SUMMARY OF 2022 PHASE I FISH TISSUE RESULTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

2022 FISH SAMPLE RESULTS - INNER HARBOR SITE (IH)						
Sample ID	***Sample Type***	***Sample Form****	***Gender (M/F)***	***Length (inches)***	***Fat (%)***	***PCB (mg/kg)***
IH JWS1	Juvenile White Sucker	SO	U	7	0.67	0.68
IH JWS2			U	7	0.59	0.60
IH JWS3			U	6	0.79	0.55
IH JWS4			U	5	1.40	1.01
IH JWS5			U	6	0.70	0.68
IH JWS6			U	6	0.81	0.69
IH JWS7			U	4	3.70	0.35
IH JWS8			U	6	0.96	0.90
Mean Result for Juvenile White Sucker			NA	5.88	1.20	0.68
Minimum Results for Juvenile White Sucker			NA	4	0.59	0.35
Maximum Results for Adult White Sucker			NA	7	3.70	1.01
Standard Deviation for Adult White Sucker			NA	0.99	1.04	0.20
Coefficient of Variation for Adult White Sucker			NA	0.17	0.86	0.30
Upper 95% UCL for Adult White Sucker			NA	6.56	1.92	0.82

Notes:
Bold/Italics - did not meet target range.
Highlighed - concentration exceeded target levels.
NA - Not applicable
SO - Scale off, skin on fillet

APPENDIX 2
LABORATORY ANALYTICAL REPORTS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

September 22, 2022

Aaron Lammers
SME
3301 Tech Circle
Kalamazoo, MI 49008

RE: Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Dear Aaron Lammers:

Enclosed are the analytical results for sample(s) received by the laboratory on August 15, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tod Noltemeyer

Tod Noltemeyer
tod.noltemeyer@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Pace Analytical Services Green Bay
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40249870001	**IH-AC-1, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870002	**IH-AC-2, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870003	**IH-AC-3, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870004	**IH-AC-4, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870005	**IH-AC-5, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870006	**IH-AC-6, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870007	**IH-AC-7, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870008	**IH-AC-8, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870009	**IH-SMB-1, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870010	**IH-SMB-2, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870011	**IH-SMB-3, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870012	**IH-SMB-4, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870013	**IH-SMB-5, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870014	**IH-SMB-6, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870015	**IH-SMB-7, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870016	**IH-SMB-8, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870017	**IH-AWS-1, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870018	**IH-AWS-2, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870019	**IH-AWS-3, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249870020	**IH-AWS-4, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40249870001	IH-AC-1, 6/24/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870002	IH-AC-2, 6/24/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870003	IH-AC-3, 6/24/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870004	IH-AC-4, 6/24/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870005	IH-AC-5, 6/24/22	EPA 8082A	ASD	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870006	IH-AC-6, 6/24/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870007	IH-AC-7, 6/24/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870008	IH-AC-8, 6/24/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870009	IH-SMB-1, 6/24/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870010	IH-SMB-2, 6/24/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870011	IH-SMB-3, 6/24/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870012	IH-SMB-4, 6/24/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870013	IH-SMB-5, 6/24/22	EPA 8082A	BLM	10

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870014	**IH-SMB-6, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870015	**IH-SMB-7, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870016	**IH-SMB-8, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870017	**IH-AWS-1, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870018	**IH-AWS-2, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870019	**IH-AWS-3, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249870020	**IH-AWS-4, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3

PASI-G = Pace Analytical Services - Green Bay

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: September 22, 2022

General Information:
20 samples were analyzed for EPA 8082A by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 424939

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- IH-AC-1, 6/24/22 (Lab ID: 40249870001)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- IH-AC-2, 6/24/22 (Lab ID: 40249870002)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- IH-AC-3, 6/24/22 (Lab ID: 40249870003)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- IH-AC-4, 6/24/22 (Lab ID: 40249870004)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- IH-AC-7, 6/24/22 (Lab ID: 40249870007)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- IH-AC-8, 6/24/22 (Lab ID: 40249870008)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- MS (Lab ID: 2447230)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- MSD (Lab ID: 2447231)
  - Decachlorobiphenyl (S)

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: September 22, 2022

QC Batch: 424939

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- Tetrachloro-m-xylene (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 424939

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40249870001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2447230)
  - PCB-1254 (Aroclor 1254)
- MSD (Lab ID: 2447231)
  - PCB-1254 (Aroclor 1254)

QC Batch: 425755

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40249881006

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2451845)
  - PCB-1242 (Aroclor 1242)
- MSD (Lab ID: 2451846)
  - PCB-1242 (Aroclor 1242)

Additional Comments:

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Method: **Pace Gender Typing**
Description: Fish Gender Typing
Client: POLLUTION RISK SERVICES
Date: September 22, 2022

General Information:
20 samples were analyzed for Pace Gender Typing by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Method: **Pace Lipid**
Description: Lipid
Client: POLLUTION RISK SERVICES
Date: September 22, 2022

General Information:
20 samples were analyzed for Pace Lipid by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-AC-1, 6/24/22 **Lab ID: 40249870001** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<164**	ug/kg	499	164	20	09/01/22 09:49	09/07/22 04:56	12674-11-2	
PCB-1221 (Aroclor 1221)	**<164**	ug/kg	499	164	20	09/01/22 09:49	09/07/22 04:56	11104-28-2	
PCB-1232 (Aroclor 1232)	**<164**	ug/kg	499	164	20	09/01/22 09:49	09/07/22 04:56	11141-16-5	
PCB-1242 (Aroclor 1242)	**<164**	ug/kg	499	164	20	09/01/22 09:49	09/07/22 04:56	53469-21-9	
PCB-1248 (Aroclor 1248)	**4800**	ug/kg	499	164	20	09/01/22 09:49	09/07/22 04:56	12672-29-6	
PCB-1254 (Aroclor 1254)	**6950**	ug/kg	499	164	20	09/01/22 09:49	09/07/22 04:56	11097-69-1	M1
PCB-1260 (Aroclor 1260)	**634**	ug/kg	499	164	20	09/01/22 09:49	09/07/22 04:56	11096-82-5	
PCB, Total	**12400**	ug/kg	499	164	20	09/01/22 09:49	09/07/22 04:56	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		20	09/01/22 09:49	09/07/22 04:56	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		20	09/01/22 09:49	09/07/22 04:56	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:39		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:39		
Lipid	**1.9**	%			1		09/01/22 10:39		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-AC-2, 6/24/22 **Lab ID: 40249870002** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<246**	ug/kg	750	246	30	09/01/22 09:49	09/07/22 05:20	12674-11-2	
PCB-1221 (Aroclor 1221)	**<246**	ug/kg	750	246	30	09/01/22 09:49	09/07/22 05:20	11104-28-2	
PCB-1232 (Aroclor 1232)	**<246**	ug/kg	750	246	30	09/01/22 09:49	09/07/22 05:20	11141-16-5	
PCB-1242 (Aroclor 1242)	**<246**	ug/kg	750	246	30	09/01/22 09:49	09/07/22 05:20	53469-21-9	
PCB-1248 (Aroclor 1248)	**4730**	ug/kg	750	246	30	09/01/22 09:49	09/07/22 05:20	12672-29-6	
PCB-1254 (Aroclor 1254)	**9560**	ug/kg	750	246	30	09/01/22 09:49	09/07/22 05:20	11097-69-1	
PCB-1260 (Aroclor 1260)	**1130**	ug/kg	750	246	30	09/01/22 09:49	09/07/22 05:20	11096-82-5	
PCB, Total	**15400**	ug/kg	750	246	30	09/01/22 09:49	09/07/22 05:20	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		30	09/01/22 09:49	09/07/22 05:20	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		30	09/01/22 09:49	09/07/22 05:20	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:40		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:40		
Lipid	**1.6**	%			1		09/01/22 10:40		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-AC-3, 6/24/22 **Lab ID: 40249870003** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<164**	ug/kg	498	164	20	09/01/22 09:49	09/07/22 05:44	12674-11-2	
PCB-1221 (Aroclor 1221)	**<164**	ug/kg	498	164	20	09/01/22 09:49	09/07/22 05:44	11104-28-2	
PCB-1232 (Aroclor 1232)	**<164**	ug/kg	498	164	20	09/01/22 09:49	09/07/22 05:44	11141-16-5	
PCB-1242 (Aroclor 1242)	**<164**	ug/kg	498	164	20	09/01/22 09:49	09/07/22 05:44	53469-21-9	
PCB-1248 (Aroclor 1248)	**3240**	ug/kg	498	164	20	09/01/22 09:49	09/07/22 05:44	12672-29-6	
PCB-1254 (Aroclor 1254)	**6980**	ug/kg	498	164	20	09/01/22 09:49	09/07/22 05:44	11097-69-1	
PCB-1260 (Aroclor 1260)	**799**	ug/kg	498	164	20	09/01/22 09:49	09/07/22 05:44	11096-82-5	
PCB, Total	**11000**	ug/kg	498	164	20	09/01/22 09:49	09/07/22 05:44	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		20	09/01/22 09:49	09/07/22 05:44	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		20	09/01/22 09:49	09/07/22 05:44	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:40		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:40		
Lipid	**4.4**	%			1		09/01/22 10:40		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-AC-4, 6/24/22 **Lab ID: 40249870004** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<164**	ug/kg	500	164	20	09/01/22 09:49	09/07/22 06:09	12674-11-2	
PCB-1221 (Aroclor 1221)	**<164**	ug/kg	500	164	20	09/01/22 09:49	09/07/22 06:09	11104-28-2	
PCB-1232 (Aroclor 1232)	**<164**	ug/kg	500	164	20	09/01/22 09:49	09/07/22 06:09	11141-16-5	
PCB-1242 (Aroclor 1242)	**<164**	ug/kg	500	164	20	09/01/22 09:49	09/07/22 06:09	53469-21-9	
PCB-1248 (Aroclor 1248)	**2800**	ug/kg	500	164	20	09/01/22 09:49	09/07/22 06:09	12672-29-6	
PCB-1254 (Aroclor 1254)	**3940**	ug/kg	500	164	20	09/01/22 09:49	09/07/22 06:09	11097-69-1	
PCB-1260 (Aroclor 1260)	**1020**	ug/kg	500	164	20	09/01/22 09:49	09/07/22 06:09	11096-82-5	
PCB, Total	**7760**	ug/kg	500	164	20	09/01/22 09:49	09/07/22 06:09	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		20	09/01/22 09:49	09/07/22 06:09	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		20	09/01/22 09:49	09/07/22 06:09	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:40		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:40		
Lipid	**6.7**	%			1		09/01/22 10:40		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-AC-5, 6/24/22 **Lab ID: 40249870005** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.1**	ug/kg	125	41.1	5	09/13/22 07:53	09/20/22 13:37	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.1**	ug/kg	125	41.1	5	09/13/22 07:53	09/20/22 13:37	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.1**	ug/kg	125	41.1	5	09/13/22 07:53	09/20/22 13:37	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.1**	ug/kg	125	41.1	5	09/13/22 07:53	09/20/22 13:37	53469-21-9	
PCB-1248 (Aroclor 1248)	**1300**	ug/kg	125	41.1	5	09/13/22 07:53	09/20/22 13:37	12672-29-6	
PCB-1254 (Aroclor 1254)	**1470**	ug/kg	125	41.1	5	09/13/22 07:53	09/20/22 13:37	11097-69-1	
PCB-1260 (Aroclor 1260)	**123J**	ug/kg	125	41.1	5	09/13/22 07:53	09/20/22 13:37	11096-82-5	
PCB, Total	**2890**	ug/kg	125	41.1	5	09/13/22 07:53	09/20/22 13:37	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	113	%	80-120		5	09/13/22 07:53	09/20/22 13:37	877-09-8	
Decachlorobiphenyl (S)	113	%	78-120		5	09/13/22 07:53	09/20/22 13:37	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:40		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:40		
Lipid	**1.8**	%			1		09/01/22 10:40		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-AC-6, 6/24/22 **Lab ID: 40249870006** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/08/22 00:58	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/08/22 00:58	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/08/22 00:58	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/08/22 00:58	53469-21-9	
PCB-1248 (Aroclor 1248)	**361**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/08/22 00:58	12672-29-6	
PCB-1254 (Aroclor 1254)	**452**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/08/22 00:58	11097-69-1	
PCB-1260 (Aroclor 1260)	**56.4**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/08/22 00:58	11096-82-5	
PCB, Total	**869**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/08/22 00:58	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	119	%	80-120		1	09/01/22 09:49	09/08/22 00:58	877-09-8	
Decachlorobiphenyl (S)	120	%	78-120		1	09/01/22 09:49	09/08/22 00:58	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:41		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:41		
Lipid	**1.9**	%			1		09/01/22 10:41		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-AC-7, 6/24/22 **Lab ID: 40249870007** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<123**	ug/kg	374	123	15	09/01/22 09:49	09/07/22 07:22	12674-11-2	
PCB-1221 (Aroclor 1221)	**<123**	ug/kg	374	123	15	09/01/22 09:49	09/07/22 07:22	11104-28-2	
PCB-1232 (Aroclor 1232)	**<123**	ug/kg	374	123	15	09/01/22 09:49	09/07/22 07:22	11141-16-5	
PCB-1242 (Aroclor 1242)	**<123**	ug/kg	374	123	15	09/01/22 09:49	09/07/22 07:22	53469-21-9	
PCB-1248 (Aroclor 1248)	**3660**	ug/kg	374	123	15	09/01/22 09:49	09/07/22 07:22	12672-29-6	
PCB-1254 (Aroclor 1254)	**5170**	ug/kg	374	123	15	09/01/22 09:49	09/07/22 07:22	11097-69-1	
PCB-1260 (Aroclor 1260)	**1290**	ug/kg	374	123	15	09/01/22 09:49	09/07/22 07:22	11096-82-5	
PCB, Total	**10100**	ug/kg	374	123	15	09/01/22 09:49	09/07/22 07:22	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		15	09/01/22 09:49	09/07/22 07:22	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		15	09/01/22 09:49	09/07/22 07:22	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:41		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:41		
Lipid	**1.9**	%			1		09/01/22 10:41		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-AC-8, 6/24/22 **Lab ID: 40249870008** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<819**	ug/kg	2490	819	100	09/01/22 09:49	09/07/22 07:46	12674-11-2	
PCB-1221 (Aroclor 1221)	**<819**	ug/kg	2490	819	100	09/01/22 09:49	09/07/22 07:46	11104-28-2	
PCB-1232 (Aroclor 1232)	**<819**	ug/kg	2490	819	100	09/01/22 09:49	09/07/22 07:46	11141-16-5	
PCB-1242 (Aroclor 1242)	**<819**	ug/kg	2490	819	100	09/01/22 09:49	09/07/22 07:46	53469-21-9	
PCB-1248 (Aroclor 1248)	**11000**	ug/kg	2490	819	100	09/01/22 09:49	09/07/22 07:46	12672-29-6	
PCB-1254 (Aroclor 1254)	**23200**	ug/kg	2490	819	100	09/01/22 09:49	09/07/22 07:46	11097-69-1	
PCB-1260 (Aroclor 1260)	**2420J**	ug/kg	2490	819	100	09/01/22 09:49	09/07/22 07:46	11096-82-5	
PCB, Total	**36600**	ug/kg	2490	819	100	09/01/22 09:49	09/07/22 07:46	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		100	09/01/22 09:49	09/07/22 07:46	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		100	09/01/22 09:49	09/07/22 07:46	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:41		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:41		
Lipid	**5.1**	%			1		09/01/22 10:41		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-SMB-1, 6/24/22 **Lab ID: 40249870009** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 08:40	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 08:40	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 08:40	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 08:40	53469-21-9	
PCB-1248 (Aroclor 1248)	**403**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 08:40	12672-29-6	
PCB-1254 (Aroclor 1254)	**499**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 08:40	11097-69-1	
PCB-1260 (Aroclor 1260)	**70.0**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 08:40	11096-82-5	
PCB, Total	**972**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 08:40	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	119	%	80-120		1	09/01/22 09:49	09/07/22 08:40	877-09-8	
Decachlorobiphenyl (S)	108	%	78-120		1	09/01/22 09:49	09/07/22 08:40	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:41		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:41		
Lipid	**0.91**	%			1		09/01/22 10:41		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-SMB-2, 6/24/22 **Lab ID: 40249870010** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 09:05	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 09:05	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 09:05	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 09:05	53469-21-9	
PCB-1248 (Aroclor 1248)	**367**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 09:05	12672-29-6	
PCB-1254 (Aroclor 1254)	**386**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 09:05	11097-69-1	
PCB-1260 (Aroclor 1260)	**46.7**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 09:05	11096-82-5	
PCB, Total	**800**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 09:05	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	111	%	80-120		1	09/01/22 09:49	09/07/22 09:05	877-09-8	
Decachlorobiphenyl (S)	104	%	78-120		1	09/01/22 09:49	09/07/22 09:05	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:42		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:42		
Lipid	**0.69**	%			1		09/01/22 10:42		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-SMB-3, 6/24/22 **Lab ID: 40249870011** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 09:25	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 09:25	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 09:25	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 09:25	53469-21-9	
PCB-1248 (Aroclor 1248)	**392**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 09:25	12672-29-6	
PCB-1254 (Aroclor 1254)	**428**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 09:25	11097-69-1	
PCB-1260 (Aroclor 1260)	**62.4**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 09:25	11096-82-5	
PCB, Total	**882**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 09:25	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	107	%	80-120		1	09/01/22 09:49	09/07/22 09:25	877-09-8	
Decachlorobiphenyl (S)	106	%	78-120		1	09/01/22 09:49	09/07/22 09:25	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:42		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:42		
Lipid	**1.4**	%			1		09/01/22 10:42		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-SMB-4, 6/24/22 **Lab ID: 40249870012** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 09:45	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 09:45	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 09:45	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 09:45	53469-21-9	
PCB-1248 (Aroclor 1248)	**325**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 09:45	12672-29-6	
PCB-1254 (Aroclor 1254)	**367**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 09:45	11097-69-1	
PCB-1260 (Aroclor 1260)	**44.1**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 09:45	11096-82-5	
PCB, Total	**737**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 09:45	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	100	%	80-120		1	09/01/22 09:49	09/07/22 09:45	877-09-8	
Decachlorobiphenyl (S)	106	%	78-120		1	09/01/22 09:49	09/07/22 09:45	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:42		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:42		
Lipid	**1.1**	%			1		09/01/22 10:42		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-SMB-5, 6/24/22 **Lab ID: 40249870013** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 10:06	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 10:06	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 10:06	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 10:06	53469-21-9	
PCB-1248 (Aroclor 1248)	**318**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 10:06	12672-29-6	
PCB-1254 (Aroclor 1254)	**400**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 10:06	11097-69-1	
PCB-1260 (Aroclor 1260)	**46.7**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 10:06	11096-82-5	
PCB, Total	**765**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 10:06	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	108	%	80-120		1	09/01/22 09:49	09/07/22 10:06	877-09-8	
Decachlorobiphenyl (S)	107	%	78-120		1	09/01/22 09:49	09/07/22 10:06	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:42		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:42		
Lipid	**0.76**	%			1		09/01/22 10:42		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-SMB-6, 6/24/22 **Lab ID: 40249870014** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 10:27	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 10:27	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 10:27	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 10:27	53469-21-9	
PCB-1248 (Aroclor 1248)	**317**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 10:27	12672-29-6	
PCB-1254 (Aroclor 1254)	**379**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 10:27	11097-69-1	
PCB-1260 (Aroclor 1260)	**46.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 10:27	11096-82-5	
PCB, Total	**742**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 10:27	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	109	%	80-120		1	09/01/22 09:49	09/07/22 10:27	877-09-8	
Decachlorobiphenyl (S)	103	%	78-120		1	09/01/22 09:49	09/07/22 10:27	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:43		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:43		
Lipid	**0.80**	%			1		09/01/22 10:43		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-SMB-7, 6/24/22 **Lab ID: 40249870015** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 10:47	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 10:47	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 10:47	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 10:47	53469-21-9	
PCB-1248 (Aroclor 1248)	**317**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 10:47	12672-29-6	
PCB-1254 (Aroclor 1254)	**384**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 10:47	11097-69-1	
PCB-1260 (Aroclor 1260)	**33.3**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 10:47	11096-82-5	
PCB, Total	**735**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 10:47	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	109	%	80-120		1	09/01/22 09:49	09/07/22 10:47	877-09-8	
Decachlorobiphenyl (S)	110	%	78-120		1	09/01/22 09:49	09/07/22 10:47	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:43		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:43		
Lipid	**0.35**	%			1		09/01/22 10:43		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-SMB-8, 6/24/22 **Lab ID: 40249870016** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 11:07	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 11:07	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 11:07	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 11:07	53469-21-9	
PCB-1248 (Aroclor 1248)	**159**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 11:07	12672-29-6	
PCB-1254 (Aroclor 1254)	**199**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 11:07	11097-69-1	
PCB-1260 (Aroclor 1260)	**24.4J**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 11:07	11096-82-5	
PCB, Total	**382**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 11:07	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	99	%	80-120		1	09/01/22 09:49	09/07/22 11:07	877-09-8	
Decachlorobiphenyl (S)	99	%	78-120		1	09/01/22 09:49	09/07/22 11:07	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:43		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:43		
Lipid	**0.77**	%			1		09/01/22 10:43		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-AWS-1, 6/24/22 **Lab ID: 40249870017** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 11:27	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 11:27	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 11:27	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 11:27	53469-21-9	
PCB-1248 (Aroclor 1248)	**117**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 11:27	12672-29-6	
PCB-1254 (Aroclor 1254)	**193**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 11:27	11097-69-1	
PCB-1260 (Aroclor 1260)	**24.6J**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 11:27	11096-82-5	
PCB, Total	**335**	ug/kg	24.9	8.2	1	09/01/22 09:49	09/07/22 11:27	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	103	%	80-120		1	09/01/22 09:49	09/07/22 11:27	877-09-8	
Decachlorobiphenyl (S)	108	%	78-120		1	09/01/22 09:49	09/07/22 11:27	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:43		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:43		
Lipid	**1.7**	%			1		09/01/22 10:43		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-AWS-2, 6/24/22 **Lab ID: 40249870018** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 11:48	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 11:48	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 11:48	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 11:48	53469-21-9	
PCB-1248 (Aroclor 1248)	**312**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 11:48	12672-29-6	
PCB-1254 (Aroclor 1254)	**373**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 11:48	11097-69-1	
PCB-1260 (Aroclor 1260)	**34.9**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 11:48	11096-82-5	
PCB, Total	**720**	ug/kg	25.0	8.2	1	09/01/22 09:49	09/07/22 11:48	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	104	%	80-120		1	09/01/22 09:49	09/07/22 11:48	877-09-8	
Decachlorobiphenyl (S)	109	%	78-120		1	09/01/22 09:49	09/07/22 11:48	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:44		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:44		
Lipid	**1.4**	%			1		09/01/22 10:44		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-AWS-3, 6/24/22 **Lab ID: 40249870019** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.9	16.4	2	09/01/22 09:49	09/07/22 12:08	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.9	16.4	2	09/01/22 09:49	09/07/22 12:08	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.9	16.4	2	09/01/22 09:49	09/07/22 12:08	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.9	16.4	2	09/01/22 09:49	09/07/22 12:08	53469-21-9	
PCB-1248 (Aroclor 1248)	**403**	ug/kg	49.9	16.4	2	09/01/22 09:49	09/07/22 12:08	12672-29-6	
PCB-1254 (Aroclor 1254)	**685**	ug/kg	49.9	16.4	2	09/01/22 09:49	09/07/22 12:08	11097-69-1	
PCB-1260 (Aroclor 1260)	**62.3**	ug/kg	49.9	16.4	2	09/01/22 09:49	09/07/22 12:08	11096-82-5	
PCB, Total	**1150**	ug/kg	49.9	16.4	2	09/01/22 09:49	09/07/22 12:08	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	115	%	80-120		2	09/01/22 09:49	09/07/22 12:08	877-09-8	
Decachlorobiphenyl (S)	118	%	78-120		2	09/01/22 09:49	09/07/22 12:08	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:44		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:44		
Lipid	**1.2**	%			1		09/01/22 10:44		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Sample: IH-AWS-4, 6/24/22 **Lab ID: 40249870020** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<32.8**	ug/kg	100	32.8	4	09/01/22 09:49	09/07/22 12:29	12674-11-2	
PCB-1221 (Aroclor 1221)	**<32.8**	ug/kg	100	32.8	4	09/01/22 09:49	09/07/22 12:29	11104-28-2	
PCB-1232 (Aroclor 1232)	**<32.8**	ug/kg	100	32.8	4	09/01/22 09:49	09/07/22 12:29	11141-16-5	
PCB-1242 (Aroclor 1242)	**<32.8**	ug/kg	100	32.8	4	09/01/22 09:49	09/07/22 12:29	53469-21-9	
PCB-1248 (Aroclor 1248)	**673**	ug/kg	100	32.8	4	09/01/22 09:49	09/07/22 12:29	12672-29-6	
PCB-1254 (Aroclor 1254)	**969**	ug/kg	100	32.8	4	09/01/22 09:49	09/07/22 12:29	11097-69-1	
PCB-1260 (Aroclor 1260)	**96.7J**	ug/kg	100	32.8	4	09/01/22 09:49	09/07/22 12:29	11096-82-5	
PCB, Total	**1740**	ug/kg	100	32.8	4	09/01/22 09:49	09/07/22 12:29	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	114	%	80-120		4	09/01/22 09:49	09/07/22 12:29	877-09-8	
Decachlorobiphenyl (S)	116	%	78-120		4	09/01/22 09:49	09/07/22 12:29	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/26/22 06:42		
Fillet Selected	**Both**				1		08/26/22 06:42		
Fillet Weight	**0.0**	g			1		08/26/22 06:42		
Homogenized Weight	**0.0**	g			1		08/26/22 06:42		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**424939**				1		09/01/22 10:44		
Extraction Date/Time	**09/01/2022 10:36:01:287**				1		09/01/22 10:44		
Lipid	**1.8**	%			1		09/01/22 10:44		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

QC Batch: 424939
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249870001, 40249870002, 40249870003, 40249870004, 40249870006, 40249870007, 40249870008, 40249870009, 40249870010, 40249870011, 40249870012, 40249870013, 40249870014, 40249870015, 40249870016, 40249870017, 40249870018, 40249870019, 40249870020

METHOD BLANK: 2447228 Matrix: Tissue
Associated Lab Samples: 40249870001, 40249870002, 40249870003, 40249870004, 40249870006, 40249870007, 40249870008, 40249870009, 40249870010, 40249870011, 40249870012, 40249870013, 40249870014, 40249870015, 40249870016, 40249870017, 40249870018, 40249870019, 40249870020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<8.2	25.0	09/07/22 03:17	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2	25.0	09/07/22 03:17	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2	25.0	09/07/22 03:17	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2	25.0	09/07/22 03:17	
PCB-1248 (Aroclor 1248)	ug/kg	<8.2	25.0	09/07/22 03:17	
PCB-1254 (Aroclor 1254)	ug/kg	<8.2	25.0	09/07/22 03:17	
PCB-1260 (Aroclor 1260)	ug/kg	<8.2	25.0	09/07/22 03:17	
Decachlorobiphenyl (S)	%	92	78-120	09/07/22 03:17	
Tetrachloro-m-xylene (S)	%	100	80-120	09/07/22 03:17	

LABORATORY CONTROL SAMPLE: 2447229

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<8.2			
PCB-1221 (Aroclor 1221)	ug/kg		<8.2			
PCB-1232 (Aroclor 1232)	ug/kg		<8.2			
PCB-1242 (Aroclor 1242)	ug/kg		<8.2			
PCB-1248 (Aroclor 1248)	ug/kg		<8.2			
PCB-1254 (Aroclor 1254)	ug/kg	250	226	90	66-106	
PCB-1260 (Aroclor 1260)	ug/kg		<8.2			
Decachlorobiphenyl (S)	%			91	78-120	
Tetrachloro-m-xylene (S)	%			97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2447230 2447231

Parameter	Units	40249870001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<164			<164	<164					20	
PCB-1221 (Aroclor 1221)	ug/kg	<164			<164	<164					20	
PCB-1232 (Aroclor 1232)	ug/kg	<164			<164	<164					20	
PCB-1242 (Aroclor 1242)	ug/kg	<164			<164	<164					20	
PCB-1248 (Aroclor 1248)	ug/kg	4800			5170	4230				20	20	
PCB-1254 (Aroclor 1254)	ug/kg	6950	999	999	8340	6840	139	-12	60-110	20	20	M1
PCB-1260 (Aroclor 1260)	ug/kg	634			704	584				19	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2447230 2447231

Parameter	Units	40249870001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Decachlorobiphenyl (S)	%						0	0	78-120			S4
Tetrachloro-m-xylene (S)	%						0	0	80-120			S4

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

QC Batch: 425755
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249870005

METHOD BLANK: 2451843 Matrix: Tissue
Associated Lab Samples: 40249870005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<8.2	25.0	09/20/22 11:58	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2	25.0	09/20/22 11:58	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2	25.0	09/20/22 11:58	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2	25.0	09/20/22 11:58	
PCB-1248 (Aroclor 1248)	ug/kg	<8.2	25.0	09/20/22 11:58	
PCB-1254 (Aroclor 1254)	ug/kg	<8.2	25.0	09/20/22 11:58	
PCB-1260 (Aroclor 1260)	ug/kg	<8.2	25.0	09/20/22 11:58	
Decachlorobiphenyl (S)	%	99	78-120	09/20/22 11:58	
Tetrachloro-m-xylene (S)	%	103	80-120	09/20/22 11:58	

LABORATORY CONTROL SAMPLE: 2451844

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<8.2			
PCB-1221 (Aroclor 1221)	ug/kg		<8.2			
PCB-1232 (Aroclor 1232)	ug/kg		<8.2			
PCB-1242 (Aroclor 1242)	ug/kg	250	234	94	66-106	
PCB-1248 (Aroclor 1248)	ug/kg		<8.2			
PCB-1254 (Aroclor 1254)	ug/kg		<8.2			
PCB-1260 (Aroclor 1260)	ug/kg		<8.2			
Decachlorobiphenyl (S)	%			97	78-120	
Tetrachloro-m-xylene (S)	%			98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2451845 2451846

Parameter	Units	40249881006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<24.6			<41.0	<41.1					20	
PCB-1221 (Aroclor 1221)	ug/kg	<24.6			<41.0	<41.1					20	
PCB-1232 (Aroclor 1232)	ug/kg	<24.6			<41.0	<41.1					20	
PCB-1242 (Aroclor 1242)	ug/kg	<24.6	999	1000	1190	1200	119	120	60-110	1	20	M1
PCB-1248 (Aroclor 1248)	ug/kg	612			1730	1730				0	20	
PCB-1254 (Aroclor 1254)	ug/kg	972			1020	1000				2	20	
PCB-1260 (Aroclor 1260)	ug/kg	<24.6			<41.0	<41.1					20	
Decachlorobiphenyl (S)	%						113	113	78-120			
Tetrachloro-m-xylene (S)	%						107	109	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

QC Batch: 424966
QC Batch Method: Pace Lipid
Analysis Method: Pace Lipid
Analysis Description: LIPID
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249870001, 40249870002, 40249870003, 40249870004, 40249870005, 40249870006, 40249870007, 40249870008, 40249870009, 40249870010, 40249870011, 40249870012, 40249870013, 40249870014, 40249870015, 40249870016, 40249870017, 40249870018, 40249870019, 40249870020

METHOD BLANK: 2447324 Matrix: Tissue
Associated Lab Samples: 40249870001, 40249870002, 40249870003, 40249870004, 40249870005, 40249870006, 40249870007, 40249870008, 40249870009, 40249870010, 40249870011, 40249870012, 40249870013, 40249870014, 40249870015, 40249870016, 40249870017, 40249870018, 40249870019, 40249870020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Extraction Batch Number		424939		09/01/22 10:39	
Extraction Date/Time		09/01/2022		09/01/22 10:39	
Lipid	%	0.20		09/01/22 10:39	

SAMPLE DUPLICATE: 2447325

Parameter	Units	40249870001 Result	Dup Result	RPD	Max RPD	Qualifiers
Extraction Batch Number		424939	424939			
Extraction Date/Time		09/01/2022 10:36:01:287	09/01/2022			
Lipid	%	1.9	1.8	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249870001	IH-AC-1, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870002	IH-AC-2, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870003	IH-AC-3, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870004	IH-AC-4, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870005	IH-AC-5, 6/24/22	EPA 3541	425755	EPA 8082A	426343
40249870006	IH-AC-6, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870007	IH-AC-7, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870008	IH-AC-8, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870009	IH-SMB-1, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870010	IH-SMB-2, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870011	IH-SMB-3, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870012	IH-SMB-4, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870013	IH-SMB-5, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870014	IH-SMB-6, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870015	IH-SMB-7, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870016	IH-SMB-8, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870017	IH-AWS-1, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870018	IH-AWS-2, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870019	IH-AWS-3, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870020	IH-AWS-4, 6/24/22	EPA 3541	424939	EPA 8082A	425079
40249870001	IH-AC-1, 6/24/22	Pace Gender Typing	424777		
40249870002	IH-AC-2, 6/24/22	Pace Gender Typing	424777		
40249870003	IH-AC-3, 6/24/22	Pace Gender Typing	424777		
40249870004	IH-AC-4, 6/24/22	Pace Gender Typing	424777		
40249870005	IH-AC-5, 6/24/22	Pace Gender Typing	424777		
40249870006	IH-AC-6, 6/24/22	Pace Gender Typing	424777		
40249870007	IH-AC-7, 6/24/22	Pace Gender Typing	424777		
40249870008	IH-AC-8, 6/24/22	Pace Gender Typing	424777		
40249870009	IH-SMB-1, 6/24/22	Pace Gender Typing	424777		
40249870010	IH-SMB-2, 6/24/22	Pace Gender Typing	424777		
40249870011	IH-SMB-3, 6/24/22	Pace Gender Typing	424777		
40249870012	IH-SMB-4, 6/24/22	Pace Gender Typing	424777		
40249870013	IH-SMB-5, 6/24/22	Pace Gender Typing	424777		
40249870014	IH-SMB-6, 6/24/22	Pace Gender Typing	424777		
40249870015	IH-SMB-7, 6/24/22	Pace Gender Typing	424777		
40249870016	IH-SMB-8, 6/24/22	Pace Gender Typing	424777		
40249870017	IH-AWS-1, 6/24/22	Pace Gender Typing	424777		
40249870018	IH-AWS-2, 6/24/22	Pace Gender Typing	424777		
40249870019	IH-AWS-3, 6/24/22	Pace Gender Typing	424777		
40249870020	IH-AWS-4, 6/24/22	Pace Gender Typing	424777		
40249870001	IH-AC-1, 6/24/22	Pace Lipid	424966		
40249870002	IH-AC-2, 6/24/22	Pace Lipid	424966		
40249870003	IH-AC-3, 6/24/22	Pace Lipid	424966		
40249870004	IH-AC-4, 6/24/22	Pace Lipid	424966		
40249870005	IH-AC-5, 6/24/22	Pace Lipid	424966		
40249870006	IH-AC-6, 6/24/22	Pace Lipid	424966		
40249870007	IH-AC-7, 6/24/22	Pace Lipid	424966		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249870

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249870008	**IH-AC-8, 6/24/22**	Pace Lipid	424966		
40249870009	**IH-SMB-1, 6/24/22**	Pace Lipid	424966		
40249870010	**IH-SMB-2, 6/24/22**	Pace Lipid	424966		
40249870011	**IH-SMB-3, 6/24/22**	Pace Lipid	424966		
40249870012	**IH-SMB-4, 6/24/22**	Pace Lipid	424966		
40249870013	**IH-SMB-5, 6/24/22**	Pace Lipid	424966		
40249870014	**IH-SMB-6, 6/24/22**	Pace Lipid	424966		
40249870015	**IH-SMB-7, 6/24/22**	Pace Lipid	424966		
40249870016	**IH-SMB-8, 6/24/22**	Pace Lipid	424966		
40249870017	**IH-AWS-1, 6/24/22**	Pace Lipid	424966		
40249870018	**IH-AWS-2, 6/24/22**	Pace Lipid	424966		
40249870019	**IH-AWS-3, 6/24/22**	Pace Lipid	424966		
40249870020	**IH-AWS-4, 6/24/22**	Pace Lipid	424966		

40249870

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UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513-319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

FILTERED? (YES/NO) — Y/N
PRESERVATION (CODE)* — Pick Letter: A

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Analyses Requested: PCB	% Lipids	Gender	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	IH-Ac-1, 6/24/22	6/24/22		TS	X	X	X			
002	IH-Ac-2, 6/24/22									
003	IH-Ac-3, 6/24/22									
004	IH-Ac-4, 6/24/22									
005	IH-Ac-5, 6/24/22									
006	IH-Ac-6, 6/24/22									
007	IH-Ac-7, 6/24/22									
008	IH-Ac-8, 6/24/22									
009	IH-SMB-1, 6/24/22									
010	IH-SMB-2, 6/24/22									
011	IH-SMB-3, 6/24/22									
012	IH-SMB-4, 6/24/22									
013	IH-SMB-5, 6/24/22									

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 7:30		8/15/22 0730

PACE Project No.: 40249870

Receipt Temp = °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

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CHAIN OF CUSTODY

40249870

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Kath Egan
Phone:	513-319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Grinder
014	IH-SMB-6, 6/24/22	6/24/22		TS		A	X	X	X
015	IH-SMB-7, 6/24/22								
016	IH-SMB-8, 6/24/22								
017	IH-AWS-1, 6/24/22								
018	IH-AWS-2, 6/24/22								
019	IH-AWS-3, 6/24/22								
020	IH-AWS-4, 6/24/22								
	IH-AWS-5, 6/24/22								
	IH-AWS-6, 6/24/22								
	IH-AWS-7, 6/24/22								
	IH-AWS-8, 6/24/22								
	IH-RB-1, 6/24/22								
	IH-RB-2, 6/24/22								

CLIENT COMMENTS | LAB COMMENTS (Lab Use Only) | Profile #

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 7:30		8/15/22 0730

PACE Project No.: 40249870

Receipt Temp = 0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal: Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Preservation Receipt Form

Client Name: PRS Project # 40249870

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☑N/A Initial when completed: Date/ Time:

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted):

Pace Lab #	Glass								Plastic					Vials						Jars				General			VOA Vials (>6mm)	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN						
001																																2.5 / 5 / 10
002																																2.5 / 5 / 10
003																																2.5 / 5 / 10
004																																2.5 / 5 / 10
005																																2.5 / 5 / 10
006																																2.5 / 5 / 10
007																																2.5 / 5 / 10
008																																2.5 / 5 / 10
009																																2.5 / 5 / 10
010																																2.5 / 5 / 10
011																																2.5 / 5 / 10
012																																2.5 / 5 / 10
013																																2.5 / 5 / 10
014																																2.5 / 5 / 10
015																																2.5 / 5 / 10
016																																2.5 / 5 / 10
017																																2.5 / 5 / 10
018																																2.5 / 5 / 10
019																																2.5 / 5 / 10
020																																2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☑N/A ***If yes look in headspace column**

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN	

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40249870

40249870

Client Name: PRS

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☑ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used SR - 120 **Type of Ice:** Wet Blue Dry (None) ☐ Samples on ice

Cooler Temperature Uncorr: 0 /Corr 0

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☑ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
Date: 8/15/22 /Initials: MH

Labeled By Initials: NK

Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☐Yes	☑No	☐N/A	2. NO mail or invoice info MH 8/15/22
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No		5.
- VOA Samples frozen upon receipt	☐Yes	☐No		Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes	☑No		6.
Rush Turn Around Time Requested:	☐Yes	☑No		7.
Sufficient Volume:				8.
For Analysis: ☑Yes ☐No MS/MSD:	☐Yes	☑No	☐N/A	
Correct Containers Used:	☑Yes	☐No		9.
-Pace Containers Used:	☐Yes	☑No	☐N/A	
-Pace IR Containers Used:	☐Yes	☑No	☐N/A	
Containers Intact:	☑Yes	☐No		10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: B				
Trip Blank Present:	☐Yes	☐No	☑N/A	13.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased): _____				

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

September 19, 2022

Aaron Lammers
SME
3301 Tech Circle
Kalamazoo, MI 49008

RE: Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Dear Aaron Lammers:

Enclosed are the analytical results for sample(s) received by the laboratory on August 15, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tod Noltemeyer

Tod Noltemeyer
tod.noltemeyer@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Pace Analytical Services Green Bay
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

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Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40249871001	**IH-AWS-5, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871002	**IH-AWS-6, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871003	**IH-AWS-7, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871004	**IH-AWS-8, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871005	**IH-RB-1, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871006	**IH-RB-2, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871007	**IH-RB-3, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871008	**IH-RB-4, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871009	**IH-RB-5, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871010	**IH-RB-6, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871011	**IH-RB-7, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871012	**IH-RB-8, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871013	**IH-RB-9, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871014	**IH-JWS-1, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871015	**IH-JWS-2, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871016	**IH-JWS-3, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871017	**IH-JWS-4, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871018	**IH-JWS-5, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871019	**IH-JWS-6, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249871020	**IH-JWS-7, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30

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SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40249871001	**IH-AWS-5, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871002	**IH-AWS-6, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871003	**IH-AWS-7, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871004	**IH-AWS-8, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871005	**IH-RB-1, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871006	**IH-RB-2, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871007	**IH-RB-3, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871008	**IH-RB-4, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871009	**IH-RB-5, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871010	**IH-RB-6, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871011	**IH-RB-7, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871012	**IH-RB-8, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871013	**IH-RB-9, 6/24/22**	EPA 8082A	BLM	10

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871014	**IH-JWS-1, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871015	**IH-JWS-2, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871016	**IH-JWS-3, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871017	**IH-JWS-4, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871018	**IH-JWS-5, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871019	**IH-JWS-6, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249871020	**IH-JWS-7, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3

PASI-G = Pace Analytical Services - Green Bay

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Date: September 19, 2022

IH-JWS-4, 6/24/22 (Lab ID: 40249871017)

- Sample -017 was to small to filet. It was homogenized whole.

IH-JWS-7, 6/24/22 (Lab ID: 40249871020)

- Sample -020 was to small to filet. It was homogenized whole.

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: September 19, 2022

General Information:
20 samples were analyzed for EPA 8082A by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 425152

S0: Surrogate recovery outside laboratory control limits.

- BLANK (Lab ID: 2448581)
  - Tetrachloro-m-xylene (S)
- IH-JWS-1, 6/24/22 (Lab ID: 40249871014)
  - Tetrachloro-m-xylene (S)
- IH-JWS-3, 6/24/22 (Lab ID: 40249871016)
  - Tetrachloro-m-xylene (S)
- IH-JWS-5, 6/24/22 (Lab ID: 40249871018)
  - Tetrachloro-m-xylene (S)
- IH-JWS-6, 6/24/22 (Lab ID: 40249871019)
  - Tetrachloro-m-xylene (S)
- IH-RB-5, 6/24/22 (Lab ID: 40249871009)
  - Tetrachloro-m-xylene (S)
- IH-RB-6, 6/24/22 (Lab ID: 40249871010)
  - Tetrachloro-m-xylene (S)
- IH-RB-8, 6/24/22 (Lab ID: 40249871012)
  - Tetrachloro-m-xylene (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: September 19, 2022

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Method: **Pace Gender Typing**
Description: Fish Gender Typing
Client: POLLUTION RISK SERVICES
Date: September 19, 2022

General Information:
20 samples were analyzed for Pace Gender Typing by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Method: **Pace Lipid**
Description: Lipid
Client: POLLUTION RISK SERVICES
Date: September 19, 2022

General Information:
20 samples were analyzed for Pace Lipid by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-AWS-5, 6/24/22 **Lab ID: 40249871001** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 11:24	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 11:24	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 11:24	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 11:24	53469-21-9	
PCB-1248 (Aroclor 1248)	**163**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 11:24	12672-29-6	
PCB-1254 (Aroclor 1254)	**206**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 11:24	11097-69-1	
PCB-1260 (Aroclor 1260)	**24.5J**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 11:24	11096-82-5	
PCB, Total	**393**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 11:24	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	88	%	80-120		1	09/06/22 11:10	09/14/22 11:24	877-09-8	
Decachlorobiphenyl (S)	92	%	78-120		1	09/06/22 11:10	09/14/22 11:24	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**0.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:07		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:07		
Lipid	**2.9**	%			1		09/06/22 11:07		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-AWS-6, 6/24/22 **Lab ID: 40249871002** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 11:46	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 11:46	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 11:46	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 11:46	53469-21-9	
PCB-1248 (Aroclor 1248)	**297**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 11:46	12672-29-6	
PCB-1254 (Aroclor 1254)	**336**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 11:46	11097-69-1	
PCB-1260 (Aroclor 1260)	**26.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 11:46	11096-82-5	
PCB, Total	**659**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 11:46	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	86	%	80-120		1	09/06/22 11:10	09/14/22 11:46	877-09-8	
Decachlorobiphenyl (S)	89	%	78-120		1	09/06/22 11:10	09/14/22 11:46	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**0.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:08		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:08		
Lipid	**2.0**	%			1		09/06/22 11:08		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-AWS-7, 6/24/22 **Lab ID: 40249871003** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/15/22 10:42	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/15/22 10:42	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/15/22 10:42	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/15/22 10:42	53469-21-9	
PCB-1248 (Aroclor 1248)	**333**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/15/22 10:42	12672-29-6	
PCB-1254 (Aroclor 1254)	**645**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/15/22 10:42	11097-69-1	
PCB-1260 (Aroclor 1260)	**55.3**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/15/22 10:42	11096-82-5	
PCB, Total	**1030**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/15/22 10:42	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	100	%	80-120		2	09/06/22 11:10	09/15/22 10:42	877-09-8	
Decachlorobiphenyl (S)	96	%	78-120		2	09/06/22 11:10	09/15/22 10:42	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**0.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:08		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:08		
Lipid	**0.96**	%			1		09/06/22 11:08		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-AWS-8, 6/24/22 **Lab ID: 40249871004** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 12:30	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 12:30	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 12:30	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 12:30	53469-21-9	
PCB-1248 (Aroclor 1248)	**188**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 12:30	12672-29-6	
PCB-1254 (Aroclor 1254)	**265**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 12:30	11097-69-1	
PCB-1260 (Aroclor 1260)	**23.3J**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 12:30	11096-82-5	
PCB, Total	**477**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 12:30	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	85	%	80-120		1	09/06/22 11:10	09/14/22 12:30	877-09-8	
Decachlorobiphenyl (S)	88	%	78-120		1	09/06/22 11:10	09/14/22 12:30	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**0.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:08		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:08		
Lipid	**1.4**	%			1		09/06/22 11:08		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-RB-1, 6/24/22 **Lab ID: 40249871005** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 12:52	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 12:52	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 12:52	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 12:52	53469-21-9	
PCB-1248 (Aroclor 1248)	**229**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 12:52	12672-29-6	
PCB-1254 (Aroclor 1254)	**351**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 12:52	11097-69-1	
PCB-1260 (Aroclor 1260)	**33.0**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 12:52	11096-82-5	
PCB, Total	**614**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 12:52	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	81	%	80-120		1	09/06/22 11:10	09/14/22 12:52	877-09-8	
Decachlorobiphenyl (S)	83	%	78-120		1	09/06/22 11:10	09/14/22 12:52	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**0.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:09		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:09		
Lipid	**0.52**	%			1		09/06/22 11:09		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-RB-2, 6/24/22 **Lab ID: 40249871006** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 13:14	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 13:14	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 13:14	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 13:14	53469-21-9	
PCB-1248 (Aroclor 1248)	**108**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 13:14	12672-29-6	
PCB-1254 (Aroclor 1254)	**106**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 13:14	11097-69-1	
PCB-1260 (Aroclor 1260)	**12.2J**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 13:14	11096-82-5	
PCB, Total	**226**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 13:14	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	81	%	80-120		1	09/06/22 11:10	09/14/22 13:14	877-09-8	
Decachlorobiphenyl (S)	81	%	78-120		1	09/06/22 11:10	09/14/22 13:14	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**0.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:09		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:09		
Lipid	**0.44**	%			1		09/06/22 11:09		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-RB-3, 6/24/22 **Lab ID: 40249871007** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 13:36	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 13:36	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 13:36	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 13:36	53469-21-9	
PCB-1248 (Aroclor 1248)	**184**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 13:36	12672-29-6	
PCB-1254 (Aroclor 1254)	**207**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 13:36	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 13:36	11096-82-5	
PCB, Total	**391**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 13:36	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	83	%	80-120		1	09/06/22 11:10	09/14/22 13:36	877-09-8	
Decachlorobiphenyl (S)	84	%	78-120		1	09/06/22 11:10	09/14/22 13:36	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**0.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:10		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:10		
Lipid	**1.0**	%			1		09/06/22 11:10		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-RB-4, 6/24/22 **Lab ID: 40249871008** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 13:57	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 13:57	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 13:57	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 13:57	53469-21-9	
PCB-1248 (Aroclor 1248)	**193**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 13:57	12672-29-6	
PCB-1254 (Aroclor 1254)	**244**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 13:57	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 13:57	11096-82-5	
PCB, Total	**436**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 13:57	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	81	%	80-120		1	09/06/22 11:10	09/14/22 13:57	877-09-8	
Decachlorobiphenyl (S)	83	%	78-120		1	09/06/22 11:10	09/14/22 13:57	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**0.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:10		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:10		
Lipid	**0.56**	%			1		09/06/22 11:10		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-RB-5, 6/24/22 **Lab ID: 40249871009** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 15:03	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 15:03	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 15:03	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 15:03	53469-21-9	
PCB-1248 (Aroclor 1248)	**77.5**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 15:03	12672-29-6	
PCB-1254 (Aroclor 1254)	**72.2**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 15:03	11097-69-1	
PCB-1260 (Aroclor 1260)	**9.0J**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 15:03	11096-82-5	
PCB, Total	**159**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 15:03	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	78	%	80-120		1	09/06/22 11:10	09/14/22 15:03	877-09-8	S0
Decachlorobiphenyl (S)	79	%	78-120		1	09/06/22 11:10	09/14/22 15:03	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**0.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:10		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:10		
Lipid	**0.53**	%			1		09/06/22 11:10		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-RB-6, 6/24/22 **Lab ID: 40249871010** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 15:25	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 15:25	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 15:25	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 15:25	53469-21-9	
PCB-1248 (Aroclor 1248)	**92.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 15:25	12672-29-6	
PCB-1254 (Aroclor 1254)	**99.8**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 15:25	11097-69-1	
PCB-1260 (Aroclor 1260)	**10.5J**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 15:25	11096-82-5	
PCB, Total	**203**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 15:25	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	76	%	80-120		1	09/06/22 11:10	09/14/22 15:25	877-09-8	S0
Decachlorobiphenyl (S)	78	%	78-120		1	09/06/22 11:10	09/14/22 15:25	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**0.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:10		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:10		
Lipid	**0.54**	%			1		09/06/22 11:10		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-RB-7, 6/24/22 **Lab ID: 40249871011** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 15:47	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 15:47	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 15:47	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 15:47	53469-21-9	
PCB-1248 (Aroclor 1248)	**157**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 15:47	12672-29-6	
PCB-1254 (Aroclor 1254)	**163**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 15:47	11097-69-1	
PCB-1260 (Aroclor 1260)	**15.1J**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 15:47	11096-82-5	
PCB, Total	**335**	ug/kg	25.1	8.2	1	09/06/22 11:10	09/14/22 15:47	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	82	%	80-120		1	09/06/22 11:10	09/14/22 15:47	877-09-8	
Decachlorobiphenyl (S)	86	%	78-120		1	09/06/22 11:10	09/14/22 15:47	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**0.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:11		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:11		
Lipid	**0.68**	%			1		09/06/22 11:11		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-RB-8, 6/24/22 **Lab ID: 40249871012** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 16:08	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 16:08	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 16:08	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 16:08	53469-21-9	
PCB-1248 (Aroclor 1248)	**140**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 16:08	12672-29-6	
PCB-1254 (Aroclor 1254)	**174**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 16:08	11097-69-1	
PCB-1260 (Aroclor 1260)	**16.9J**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 16:08	11096-82-5	
PCB, Total	**332**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 16:08	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	79	%	80-120		1	09/06/22 11:10	09/14/22 16:08	877-09-8	S0
Decachlorobiphenyl (S)	82	%	78-120		1	09/06/22 11:10	09/14/22 16:08	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**0.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:11		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:11		
Lipid	**0.65**	%			1		09/06/22 11:11		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-RB-9, 6/24/22 **Lab ID: 40249871013** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 16:30	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 16:30	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 16:30	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 16:30	53469-21-9	
PCB-1248 (Aroclor 1248)	**197**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 16:30	12672-29-6	
PCB-1254 (Aroclor 1254)	**243**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 16:30	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 16:30	11096-82-5	
PCB, Total	**440**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 16:30	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	81	%	80-120		1	09/06/22 11:10	09/14/22 16:30	877-09-8	
Decachlorobiphenyl (S)	84	%	78-120		1	09/06/22 11:10	09/14/22 16:30	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**0.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:11		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:11		
Lipid	**0.92**	%			1		09/06/22 11:11		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-JWS-1, 6/24/22 **Lab ID: 40249871014** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/14/22 16:52	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/14/22 16:52	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/14/22 16:52	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/14/22 16:52	53469-21-9	
PCB-1248 (Aroclor 1248)	**361**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/14/22 16:52	12672-29-6	
PCB-1254 (Aroclor 1254)	**321**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/14/22 16:52	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/14/22 16:52	11096-82-5	
PCB, Total	**682**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/14/22 16:52	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	79	%	80-120		2	09/06/22 11:10	09/14/22 16:52	877-09-8	S0
Decachlorobiphenyl (S)	84	%	78-120		2	09/06/22 11:10	09/14/22 16:52	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**21.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:11		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:11		
Lipid	**0.67**	%			1		09/06/22 11:11		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-JWS-2, 6/24/22 **Lab ID: 40249871015** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/15/22 11:03	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/15/22 11:03	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/15/22 11:03	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/15/22 11:03	53469-21-9	
PCB-1248 (Aroclor 1248)	**264**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/15/22 11:03	12672-29-6	
PCB-1254 (Aroclor 1254)	**337**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/15/22 11:03	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/15/22 11:03	11096-82-5	
PCB, Total	**600**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/15/22 11:03	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	97	%	80-120		1	09/06/22 11:10	09/15/22 11:03	877-09-8	
Decachlorobiphenyl (S)	90	%	78-120		1	09/06/22 11:10	09/15/22 11:03	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**19.5**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:12		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:12		
Lipid	**0.59**	%			1		09/06/22 11:12		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-JWS-3, 6/24/22 **Lab ID: 40249871016** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 17:36	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 17:36	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 17:36	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 17:36	53469-21-9	
PCB-1248 (Aroclor 1248)	**253**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 17:36	12672-29-6	
PCB-1254 (Aroclor 1254)	**295**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 17:36	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 17:36	11096-82-5	
PCB, Total	**548**	ug/kg	24.9	8.2	1	09/06/22 11:10	09/14/22 17:36	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	79	%	80-120		1	09/06/22 11:10	09/14/22 17:36	877-09-8	S0
Decachlorobiphenyl (S)	80	%	78-120		1	09/06/22 11:10	09/14/22 17:36	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**14.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:12		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:12		
Lipid	**0.79**	%			1		09/06/22 11:12		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-JWS-4, 6/24/22 **Lab ID: 40249871017** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis
Comments: • Sample -017 was to small to filet. It was homogenized whole.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541								
	Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.5**	ug/kg	50.1	16.5	2	09/06/22 11:10	09/14/22 17:58	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.5**	ug/kg	50.1	16.5	2	09/06/22 11:10	09/14/22 17:58	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.5**	ug/kg	50.1	16.5	2	09/06/22 11:10	09/14/22 17:58	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.5**	ug/kg	50.1	16.5	2	09/06/22 11:10	09/14/22 17:58	53469-21-9	
PCB-1248 (Aroclor 1248)	**537**	ug/kg	50.1	16.5	2	09/06/22 11:10	09/14/22 17:58	12672-29-6	
PCB-1254 (Aroclor 1254)	**473**	ug/kg	50.1	16.5	2	09/06/22 11:10	09/14/22 17:58	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.5**	ug/kg	50.1	16.5	2	09/06/22 11:10	09/14/22 17:58	11096-82-5	
PCB, Total	**1010**	ug/kg	50.1	16.5	2	09/06/22 11:10	09/14/22 17:58	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	82	%	80-120		2	09/06/22 11:10	09/14/22 17:58	877-09-8	
Decachlorobiphenyl (S)	85	%	78-120		2	09/06/22 11:10	09/14/22 17:58	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
	Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/18/22 13:03		
Fillet Selected	**NA**				1		08/18/22 13:03		
Fillet Weight	**0.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid								
	Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:12		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:12		
Lipid	**1.4**	%			1		09/06/22 11:12		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-JWS-5, 6/24/22 **Lab ID: 40249871018** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/14/22 18:19	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/14/22 18:19	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/14/22 18:19	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/14/22 18:19	53469-21-9	
PCB-1248 (Aroclor 1248)	**310**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/14/22 18:19	12672-29-6	
PCB-1254 (Aroclor 1254)	**370**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/14/22 18:19	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/14/22 18:19	11096-82-5	
PCB, Total	**680**	ug/kg	50.0	16.4	2	09/06/22 11:10	09/14/22 18:19	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	78	%	80-120		2	09/06/22 11:10	09/14/22 18:19	877-09-8	S0
Decachlorobiphenyl (S)	79	%	78-120		2	09/06/22 11:10	09/14/22 18:19	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**14.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:12		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:12		
Lipid	**0.70**	%			1		09/06/22 11:12		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-JWS-6, 6/24/22 **Lab ID: 40249871019** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 18:41	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 18:41	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 18:41	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 18:41	53469-21-9	
PCB-1248 (Aroclor 1248)	**390**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 18:41	12672-29-6	
PCB-1254 (Aroclor 1254)	**295**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 18:41	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 18:41	11096-82-5	
PCB, Total	**685**	ug/kg	25.0	8.2	1	09/06/22 11:10	09/14/22 18:41	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	79	%	80-120		1	09/06/22 11:10	09/14/22 18:41	877-09-8	S0
Decachlorobiphenyl (S)	81	%	78-120		1	09/06/22 11:10	09/14/22 18:41	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/18/22 13:03		
Fillet Selected	**Both**				1		08/18/22 13:03		
Fillet Weight	**13.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:13		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:13		
Lipid	**0.81**	%			1		09/06/22 11:13		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Sample: IH-JWS-7, 6/24/22 **Lab ID: 40249871020** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis
Comments: • Sample -020 was to small to filet. It was homogenized whole.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541								
	Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<11.0**	ug/kg	33.6	11.0	1	09/06/22 11:10	09/14/22 19:03	12674-11-2	
PCB-1221 (Aroclor 1221)	**<11.0**	ug/kg	33.6	11.0	1	09/06/22 11:10	09/14/22 19:03	11104-28-2	
PCB-1232 (Aroclor 1232)	**<11.0**	ug/kg	33.6	11.0	1	09/06/22 11:10	09/14/22 19:03	11141-16-5	
PCB-1242 (Aroclor 1242)	**<11.0**	ug/kg	33.6	11.0	1	09/06/22 11:10	09/14/22 19:03	53469-21-9	
PCB-1248 (Aroclor 1248)	**232**	ug/kg	33.6	11.0	1	09/06/22 11:10	09/14/22 19:03	12672-29-6	
PCB-1254 (Aroclor 1254)	**116**	ug/kg	33.6	11.0	1	09/06/22 11:10	09/14/22 19:03	11097-69-1	
PCB-1260 (Aroclor 1260)	**<11.0**	ug/kg	33.6	11.0	1	09/06/22 11:10	09/14/22 19:03	11096-82-5	
PCB, Total	**348**	ug/kg	33.6	11.0	1	09/06/22 11:10	09/14/22 19:03	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	86	%	80-120		1	09/06/22 11:10	09/14/22 19:03	877-09-8	
Decachlorobiphenyl (S)	88	%	78-120		1	09/06/22 11:10	09/14/22 19:03	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
	Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/18/22 13:03		
Fillet Selected	**NA**				1		08/18/22 13:03		
Fillet Weight	**0.0**	g			1		08/18/22 13:03		
Homogenized Weight	**0.0**	g			1		08/18/22 13:03		
Lipid	Analytical Method: Pace Lipid								
	Pace Analytical Services - Green Bay								
Extraction Batch Number	**425152**				1		09/06/22 11:13		
Extraction Date/Time	**09/06/2022 11:03:55:254**				1		09/06/22 11:13		
Lipid	**3.7**	%			1		09/06/22 11:13		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

QC Batch: 425152
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249871001, 40249871002, 40249871003, 40249871004, 40249871005, 40249871006, 40249871007, 40249871008, 40249871009, 40249871010, 40249871011, 40249871012, 40249871013, 40249871014, 40249871015, 40249871016, 40249871017, 40249871018, 40249871019, 40249871020

METHOD BLANK: 2448581 Matrix: Tissue
Associated Lab Samples: 40249871001, 40249871002, 40249871003, 40249871004, 40249871005, 40249871006, 40249871007, 40249871008, 40249871009, 40249871010, 40249871011, 40249871012, 40249871013, 40249871014, 40249871015, 40249871016, 40249871017, 40249871018, 40249871019, 40249871020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<8.2	25.0	09/14/22 09:57	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2	25.0	09/14/22 09:57	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2	25.0	09/14/22 09:57	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2	25.0	09/14/22 09:57	
PCB-1248 (Aroclor 1248)	ug/kg	<8.2	25.0	09/14/22 09:57	
PCB-1254 (Aroclor 1254)	ug/kg	<8.2	25.0	09/14/22 09:57	
PCB-1260 (Aroclor 1260)	ug/kg	<8.2	25.0	09/14/22 09:57	
Decachlorobiphenyl (S)	%	78	78-120	09/14/22 09:57	
Tetrachloro-m-xylene (S)	%	79	80-120	09/14/22 09:57	S0

LABORATORY CONTROL SAMPLE: 2448582

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<8.2			
PCB-1221 (Aroclor 1221)	ug/kg		<8.2			
PCB-1232 (Aroclor 1232)	ug/kg		<8.2			
PCB-1242 (Aroclor 1242)	ug/kg	250	204	82	66-106	
PCB-1248 (Aroclor 1248)	ug/kg		<8.2			
PCB-1254 (Aroclor 1254)	ug/kg		<8.2			
PCB-1260 (Aroclor 1260)	ug/kg		<8.2			
Decachlorobiphenyl (S)	%			83	78-120	
Tetrachloro-m-xylene (S)	%			84	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2448586 2448587

Parameter	Units	40249871001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<8.2			<32.9	<32.8					20	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2			<32.9	<32.8					20	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2			<32.9	<32.8					20	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2	1000	998	939	921	94	92	60-110	2	20	
PCB-1248 (Aroclor 1248)	ug/kg	163			<32.9	<32.8					20	
PCB-1254 (Aroclor 1254)	ug/kg	206			285	287				1	20	
PCB-1260 (Aroclor 1260)	ug/kg	24.5J			<32.9	<32.8					20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2448586 2448587

Parameter	Units	40249871001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Decachlorobiphenyl (S)	%						95	91	78-120			
Tetrachloro-m-xylene (S)	%						91	87	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

QC Batch: 425178
QC Batch Method: Pace Lipid
Analysis Method: Pace Lipid
Analysis Description: LIPID
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249871001, 40249871002, 40249871003, 40249871004, 40249871005, 40249871006, 40249871007, 40249871008, 40249871009, 40249871010, 40249871011, 40249871012, 40249871013, 40249871014, 40249871015, 40249871016, 40249871017, 40249871018, 40249871019, 40249871020

METHOD BLANK: 2448662
Matrix: Tissue
Associated Lab Samples: 40249871001, 40249871002, 40249871003, 40249871004, 40249871005, 40249871006, 40249871007, 40249871008, 40249871009, 40249871010, 40249871011, 40249871012, 40249871013, 40249871014, 40249871015, 40249871016, 40249871017, 40249871018, 40249871019, 40249871020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Extraction Batch Number		425152		09/06/22 11:06	
Extraction Date/Time		09/06/2022		09/06/22 11:06	
Lipid	%	0.53		09/06/22 11:06	

SAMPLE DUPLICATE: 2448663

Parameter	Units	40249871001 Result	Dup Result	RPD	Max RPD	Qualifiers
Extraction Batch Number		425152	425152			
Extraction Date/Time		09/06/2022 11:03:55:254	09/06/2022			
Lipid	%	2.9	2.7	7	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

S0 Surrogate recovery outside laboratory control limits.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249871001	IH-AWS-5, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871002	IH-AWS-6, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871003	IH-AWS-7, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871004	IH-AWS-8, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871005	IH-RB-1, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871006	IH-RB-2, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871007	IH-RB-3, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871008	IH-RB-4, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871009	IH-RB-5, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871010	IH-RB-6, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871011	IH-RB-7, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871012	IH-RB-8, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871013	IH-RB-9, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871014	IH-JWS-1, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871015	IH-JWS-2, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871016	IH-JWS-3, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871017	IH-JWS-4, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871018	IH-JWS-5, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871019	IH-JWS-6, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871020	IH-JWS-7, 6/24/22	EPA 3541	425152	EPA 8082A	425821
40249871001	IH-AWS-5, 6/24/22	Pace Gender Typing	423863		
40249871002	IH-AWS-6, 6/24/22	Pace Gender Typing	423863		
40249871003	IH-AWS-7, 6/24/22	Pace Gender Typing	423863		
40249871004	IH-AWS-8, 6/24/22	Pace Gender Typing	423863		
40249871005	IH-RB-1, 6/24/22	Pace Gender Typing	423863		
40249871006	IH-RB-2, 6/24/22	Pace Gender Typing	423863		
40249871007	IH-RB-3, 6/24/22	Pace Gender Typing	423863		
40249871008	IH-RB-4, 6/24/22	Pace Gender Typing	423863		
40249871009	IH-RB-5, 6/24/22	Pace Gender Typing	423863		
40249871010	IH-RB-6, 6/24/22	Pace Gender Typing	423863		
40249871011	IH-RB-7, 6/24/22	Pace Gender Typing	423863		
40249871012	IH-RB-8, 6/24/22	Pace Gender Typing	423863		
40249871013	IH-RB-9, 6/24/22	Pace Gender Typing	423863		
40249871014	IH-JWS-1, 6/24/22	Pace Gender Typing	423863		
40249871015	IH-JWS-2, 6/24/22	Pace Gender Typing	423863		
40249871016	IH-JWS-3, 6/24/22	Pace Gender Typing	423863		
40249871017	IH-JWS-4, 6/24/22	Pace Gender Typing	423863		
40249871018	IH-JWS-5, 6/24/22	Pace Gender Typing	423863		
40249871019	IH-JWS-6, 6/24/22	Pace Gender Typing	423863		
40249871020	IH-JWS-7, 6/24/22	Pace Gender Typing	423863		
40249871001	IH-AWS-5, 6/24/22	Pace Lipid	425178		
40249871002	IH-AWS-6, 6/24/22	Pace Lipid	425178		
40249871003	IH-AWS-7, 6/24/22	Pace Lipid	425178		
40249871004	IH-AWS-8, 6/24/22	Pace Lipid	425178		
40249871005	IH-RB-1, 6/24/22	Pace Lipid	425178		
40249871006	IH-RB-2, 6/24/22	Pace Lipid	425178		
40249871007	IH-RB-3, 6/24/22	Pace Lipid	425178		
40249871008	IH-RB-4, 6/24/22	Pace Lipid	425178		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249871

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249871009	**IH-RB-5, 6/24/22**	Pace Lipid	425178		
40249871010	**IH-RB-6, 6/24/22**	Pace Lipid	425178		
40249871011	**IH-RB-7, 6/24/22**	Pace Lipid	425178		
40249871012	**IH-RB-8, 6/24/22**	Pace Lipid	425178		
40249871013	**IH-RB-9, 6/24/22**	Pace Lipid	425178		
40249871014	**IH-JWS-1, 6/24/22**	Pace Lipid	425178		
40249871015	**IH-JWS-2, 6/24/22**	Pace Lipid	425178		
40249871016	**IH-JWS-3, 6/24/22**	Pace Lipid	425178		
40249871017	**IH-JWS-4, 6/24/22**	Pace Lipid	425178		
40249871018	**IH-JWS-5, 6/24/22**	Pace Lipid	425178		
40249871019	**IH-JWS-6, 6/24/22**	Pace Lipid	425178		
40249871020	**IH-JWS-7, 6/24/22**	Pace Lipid	425178		

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

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www.pacelabs.com

CHAIN OF CUSTODY

4024987l

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513-319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air W = Water
B = Biota DW = Drinking Water
C = Charcoal GW = Ground Water
O = Oil SW = Surface Water
S = Soil WW = Waste Water
SI = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Cancer	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
	IH-SMB-6, 6/24/22	6/24/22		TS		A	X	X	X			
	IH-SMB-7, 6/24/22											
	IH-SMB-8, 6/24/22											
	IH-AWS-1, 6/24/22											
	IH-AWS-2, 6/24/22											
	IH-AWS-3, 6/24/22											
	IH-AWS-4, 6/24/22											
001	IH-AWS-5, 6/24/22											
002	IH-AWS-6, 6/24/22											
003	IH-AWS-7, 6/24/22											
004	IH-AWS-8, 6/24/22											
005	IH-RB-1, 6/24/22											
006	IH-RB-2, 6/24/22											

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 7:30		8/15/22 0730
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
4024987l

Receipt Temp = 0 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

40249871

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www.pacelabs.com

CHAIN OF CUSTODY

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513-319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Gender
007	IH-RB-3, 6/24/22	6/24/22		TS		A	X	X	X
008	IH-RB-4, 6/24/22								
009	IH-RB-5, 6/24/22								
010	IH-RB-6, 6/24/22								
011	IH-RB-7, 6/24/22								
012	IH-RB-8, 6/24/22								
013	IH-RB-9, 6/24/22								
014	IH-IWS-1, 6/24/22								
015	IH-IWS-2, 6/24/22								
016	IH-IWS-3, 6/24/22								
017	IH-IWS-4, 6/24/22								
018	IH-IWS-5, 6/24/22								
019	IH-IWS-6, 6/24/22								

CLIENT COMMENTS | LAB COMMENTS (Lab Use Only) | Profile #

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 7:30		8/15/22 0730
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
40249871

Receipt Temp = 0 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

4024987l

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CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513-319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Gender	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
020	IH-Sws-7, 6/24/22	6/24/22		TS		A	X	X	X			
	IH-Sws-8, 6/24/22											
	LR-Ac-1, 6/24/22											
	LR-Ac-2, 6/24/22											
	LR-Ac-3, 6/24/22											
	LR-Ac-4, 6/24/22											
	LR-Ac-5, 6/24/22											
	LR-Ac-6, 6/24/22											
	LR-Ac-7, 6/24/22											
	LR-Ac-8, 6/24/22											
	LR-SMB-1, 6/24/22											
	LR-SMB-2, 6/24/22											
	LR-SMB-3, 6/24/22											

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 7:30		8/15/22 0730
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
4024987l

Receipt Temp = 0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Preservation Receipt Form

Client Name: PRS Project # 40249871

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☒N/A Initial when completed: Date/ Time:

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted):

Pace Lab #	Glass								Plastic					Vials						Jars				General			VOA Vials (>6mm)	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN						
001																																2.5 / 5 / 10
002																																2.5 / 5 / 10
003																																2.5 / 5 / 10
004																																2.5 / 5 / 10
005																																2.5 / 5 / 10
006																																2.5 / 5 / 10
007																																2.5 / 5 / 10
008																																2.5 / 5 / 10
009																																2.5 / 5 / 10
010																																2.5 / 5 / 10
011																																2.5 / 5 / 10
012																																2.5 / 5 / 10
013																																2.5 / 5 / 10
014																																2.5 / 5 / 10
015																																2.5 / 5 / 10
016																																2.5 / 5 / 10
017																																2.5 / 5 / 10
018																																2.5 / 5 / 10
019																																2.5 / 5 / 10
020																																2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☒N/A ***If yes look in headspace column**

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN	

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO#: 40249871

40249871

Client Name: PRS

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☑ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used SR - 126 **Type of Ice:** Wet Blue Dry (None) ☐ Samples on ice

Cooler Temperature Uncorr: 0 /Corr: _____

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☑ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
Date: 8/15/22 /Initials: MH

Labeled By Initials: NK

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. NO mail or invoice info MH 8/15/22
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume:		8.
For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☐Yes ☑No ☐N/A	
-Pace IR Containers Used:	☐Yes ☑No ☐N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix:	B	
Trip Blank Present:	☐Yes ☐No ☑N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

September 28, 2022

Aaron Lammers
SME
3301 Tech Circle
Kalamazoo, MI 49008

RE: Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Dear Aaron Lammers:

Enclosed are the analytical results for sample(s) received by the laboratory on August 15, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tod Noltemeyer

Tod Noltemeyer
tod.noltemeyer@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Pace Analytical Services Green Bay
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40249872001	**IH-JWS-8, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872002	**LR-AC-1, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872003	**LR-AC-2, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872004	**LR-AC-3, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872005	**LR-AC-4, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872006	**LR-AC-5, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872007	**LR-AC-6, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872008	**LR-AC-7, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872009	**LR-AC-8, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872010	**LR-SMB-1, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872011	**LR-SMB-2, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872012	**LR-SMB-3, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872013	**LR-SMB-4, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872014	**LR-SMB-5, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872015	**LR-SMB-6, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872016	**LR-SMB-7, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872017	**LR-SMB-8, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872018	**LR-AWS-1, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872019	**LR-AWS-2, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249872020	**LR-AWS-3, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30

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SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40249872001	**IH-JWS-8, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872002	**LR-AC-1, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872003	**LR-AC-2, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872004	**LR-AC-3, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872005	**LR-AC-4, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872006	**LR-AC-5, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872007	**LR-AC-6, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872008	**LR-AC-7, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872009	**LR-AC-8, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872010	**LR-SMB-1, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872011	**LR-SMB-2, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872012	**LR-SMB-3, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872013	**LR-SMB-4, 6/24/22**	EPA 8082A	BLM	10

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872014	**LR-SMB-5, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872015	**LR-SMB-6, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872016	**LR-SMB-7, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872017	**LR-SMB-8, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872018	**LR-AWS-1, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872019	**LR-AWS-2, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249872020	**LR-AWS-3, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3

PASI-G = Pace Analytical Services - Green Bay

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: September 28, 2022

General Information:
20 samples were analyzed for EPA 8082A by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 425883

S0: Surrogate recovery outside laboratory control limits.

- LR-AC-1, 6/24/22 (Lab ID: 40249872002)
  - Decachlorobiphenyl (S)
- LR-AC-2, 6/24/22 (Lab ID: 40249872003)
  - Decachlorobiphenyl (S)
- LR-AC-7, 6/24/22 (Lab ID: 40249872008)
  - Decachlorobiphenyl (S)
- LR-AC-8, 6/24/22 (Lab ID: 40249872009)
  - Decachlorobiphenyl (S)
- MSD (Lab ID: 2452316)
  - Decachlorobiphenyl (S)

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- LR-AC-3, 6/24/22 (Lab ID: 40249872004)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- LR-AC-4, 6/24/22 (Lab ID: 40249872005)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- LR-AC-5, 6/24/22 (Lab ID: 40249872006)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: September 28, 2022

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Method: **Pace Gender Typing**
Description: Fish Gender Typing
Client: POLLUTION RISK SERVICES
Date: September 28, 2022

General Information:
20 samples were analyzed for Pace Gender Typing by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Method: **Pace Lipid**
Description: Lipid
Client: POLLUTION RISK SERVICES
Date: September 28, 2022

General Information:
20 samples were analyzed for Pace Lipid by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: IH-JWS-8, 6/24/22 **Lab ID: 40249872001** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.5**	ug/kg	50.1	16.5	2	09/14/22 10:40	09/23/22 18:13	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.5**	ug/kg	50.1	16.5	2	09/14/22 10:40	09/23/22 18:13	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.5**	ug/kg	50.1	16.5	2	09/14/22 10:40	09/23/22 18:13	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.5**	ug/kg	50.1	16.5	2	09/14/22 10:40	09/23/22 18:13	53469-21-9	
PCB-1248 (Aroclor 1248)	**508**	ug/kg	50.1	16.5	2	09/14/22 10:40	09/23/22 18:13	12672-29-6	
PCB-1254 (Aroclor 1254)	**389**	ug/kg	50.1	16.5	2	09/14/22 10:40	09/23/22 18:13	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.5**	ug/kg	50.1	16.5	2	09/14/22 10:40	09/23/22 18:13	11096-82-5	
PCB, Total	**897**	ug/kg	50.1	16.5	2	09/14/22 10:40	09/23/22 18:13	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	104	%	80-120		2	09/14/22 10:40	09/23/22 18:13	877-09-8	
Decachlorobiphenyl (S)	98	%	78-120		2	09/14/22 10:40	09/23/22 18:13	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:32		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:32		
Lipid	**0.96**	%			1		09/14/22 10:32		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-AC-1, 6/24/22 **Lab ID: 40249872002** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.0**	ug/kg	125	41.0	5	09/14/22 10:40	09/23/22 18:35	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.0**	ug/kg	125	41.0	5	09/14/22 10:40	09/23/22 18:35	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.0**	ug/kg	125	41.0	5	09/14/22 10:40	09/23/22 18:35	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.0**	ug/kg	125	41.0	5	09/14/22 10:40	09/23/22 18:35	53469-21-9	
PCB-1248 (Aroclor 1248)	**640**	ug/kg	125	41.0	5	09/14/22 10:40	09/23/22 18:35	12672-29-6	
PCB-1254 (Aroclor 1254)	**1270**	ug/kg	125	41.0	5	09/14/22 10:40	09/23/22 18:35	11097-69-1	
PCB-1260 (Aroclor 1260)	**445**	ug/kg	125	41.0	5	09/14/22 10:40	09/23/22 18:35	11096-82-5	
PCB, Total	**2360**	ug/kg	125	41.0	5	09/14/22 10:40	09/23/22 18:35	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	109	%	80-120		5	09/14/22 10:40	09/23/22 18:35	877-09-8	
Decachlorobiphenyl (S)	123	%	78-120		5	09/14/22 10:40	09/23/22 18:35	2051-24-3	S0
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:32		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:32		
Lipid	**4.3**	%			1		09/14/22 10:32		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-AC-2, 6/24/22 **Lab ID: 40249872003** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.1**	ug/kg	125	41.1	5	09/14/22 10:40	09/26/22 16:23	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.1**	ug/kg	125	41.1	5	09/14/22 10:40	09/26/22 16:23	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.1**	ug/kg	125	41.1	5	09/14/22 10:40	09/26/22 16:23	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.1**	ug/kg	125	41.1	5	09/14/22 10:40	09/26/22 16:23	53469-21-9	
PCB-1248 (Aroclor 1248)	**1350**	ug/kg	125	41.1	5	09/14/22 10:40	09/26/22 16:23	12672-29-6	
PCB-1254 (Aroclor 1254)	**1850**	ug/kg	125	41.1	5	09/14/22 10:40	09/26/22 16:23	11097-69-1	
PCB-1260 (Aroclor 1260)	**758**	ug/kg	125	41.1	5	09/14/22 10:40	09/26/22 16:23	11096-82-5	
PCB, Total	**3960**	ug/kg	125	41.1	5	09/14/22 10:40	09/26/22 16:23	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	113	%	80-120		5	09/14/22 10:40	09/26/22 16:23	877-09-8	
Decachlorobiphenyl (S)	130	%	78-120		5	09/14/22 10:40	09/26/22 16:23	2051-24-3	S0
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:33		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:33		
Lipid	**8.4**	%			1		09/14/22 10:33		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-AC-3, 6/24/22 **Lab ID: 40249872004** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<246**	ug/kg	750	246	30	09/14/22 10:40	09/23/22 19:19	12674-11-2	
PCB-1221 (Aroclor 1221)	**<246**	ug/kg	750	246	30	09/14/22 10:40	09/23/22 19:19	11104-28-2	
PCB-1232 (Aroclor 1232)	**<246**	ug/kg	750	246	30	09/14/22 10:40	09/23/22 19:19	11141-16-5	
PCB-1242 (Aroclor 1242)	**<246**	ug/kg	750	246	30	09/14/22 10:40	09/23/22 19:19	53469-21-9	
PCB-1248 (Aroclor 1248)	**4020**	ug/kg	750	246	30	09/14/22 10:40	09/23/22 19:19	12672-29-6	
PCB-1254 (Aroclor 1254)	**5900**	ug/kg	750	246	30	09/14/22 10:40	09/23/22 19:19	11097-69-1	
PCB-1260 (Aroclor 1260)	**686J**	ug/kg	750	246	30	09/14/22 10:40	09/23/22 19:19	11096-82-5	
PCB, Total	**10600**	ug/kg	750	246	30	09/14/22 10:40	09/23/22 19:19	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		30	09/14/22 10:40	09/23/22 19:19	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		30	09/14/22 10:40	09/23/22 19:19	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:33		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:33		
Lipid	**6.7**	%			1		09/14/22 10:33		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-AC-4, 6/24/22 **Lab ID: 40249872005** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<123**	ug/kg	376	123	15	09/14/22 10:40	09/23/22 19:41	12674-11-2	
PCB-1221 (Aroclor 1221)	**<123**	ug/kg	376	123	15	09/14/22 10:40	09/23/22 19:41	11104-28-2	
PCB-1232 (Aroclor 1232)	**<123**	ug/kg	376	123	15	09/14/22 10:40	09/23/22 19:41	11141-16-5	
PCB-1242 (Aroclor 1242)	**<123**	ug/kg	376	123	15	09/14/22 10:40	09/23/22 19:41	53469-21-9	
PCB-1248 (Aroclor 1248)	**2880**	ug/kg	376	123	15	09/14/22 10:40	09/23/22 19:41	12672-29-6	
PCB-1254 (Aroclor 1254)	**6170**	ug/kg	376	123	15	09/14/22 10:40	09/23/22 19:41	11097-69-1	
PCB-1260 (Aroclor 1260)	**741**	ug/kg	376	123	15	09/14/22 10:40	09/23/22 19:41	11096-82-5	
PCB, Total	**9800**	ug/kg	376	123	15	09/14/22 10:40	09/23/22 19:41	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		15	09/14/22 10:40	09/23/22 19:41	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		15	09/14/22 10:40	09/23/22 19:41	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:33		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:33		
Lipid	**6.4**	%			1		09/14/22 10:33		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-AC-5, 6/24/22 **Lab ID: 40249872006** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<411**	ug/kg	1250	411	50	09/14/22 10:40	09/23/22 20:03	12674-11-2	
PCB-1221 (Aroclor 1221)	**<411**	ug/kg	1250	411	50	09/14/22 10:40	09/23/22 20:03	11104-28-2	
PCB-1232 (Aroclor 1232)	**<411**	ug/kg	1250	411	50	09/14/22 10:40	09/23/22 20:03	11141-16-5	
PCB-1242 (Aroclor 1242)	**<411**	ug/kg	1250	411	50	09/14/22 10:40	09/23/22 20:03	53469-21-9	
PCB-1248 (Aroclor 1248)	**6730**	ug/kg	1250	411	50	09/14/22 10:40	09/23/22 20:03	12672-29-6	
PCB-1254 (Aroclor 1254)	**8620**	ug/kg	1250	411	50	09/14/22 10:40	09/23/22 20:03	11097-69-1	
PCB-1260 (Aroclor 1260)	**657J**	ug/kg	1250	411	50	09/14/22 10:40	09/23/22 20:03	11096-82-5	
PCB, Total	**16000**	ug/kg	1250	411	50	09/14/22 10:40	09/23/22 20:03	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		50	09/14/22 10:40	09/23/22 20:03	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		50	09/14/22 10:40	09/23/22 20:03	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:34		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:34		
Lipid	**13.3**	%			1		09/14/22 10:34		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-AC-6, 6/24/22 **Lab ID: 40249872007** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<32.8**	ug/kg	100	32.8	4	09/14/22 10:40	09/23/22 20:25	12674-11-2	
PCB-1221 (Aroclor 1221)	**<32.8**	ug/kg	100	32.8	4	09/14/22 10:40	09/23/22 20:25	11104-28-2	
PCB-1232 (Aroclor 1232)	**<32.8**	ug/kg	100	32.8	4	09/14/22 10:40	09/23/22 20:25	11141-16-5	
PCB-1242 (Aroclor 1242)	**<32.8**	ug/kg	100	32.8	4	09/14/22 10:40	09/23/22 20:25	53469-21-9	
PCB-1248 (Aroclor 1248)	**974**	ug/kg	100	32.8	4	09/14/22 10:40	09/23/22 20:25	12672-29-6	
PCB-1254 (Aroclor 1254)	**1130**	ug/kg	100	32.8	4	09/14/22 10:40	09/23/22 20:25	11097-69-1	
PCB-1260 (Aroclor 1260)	**105**	ug/kg	100	32.8	4	09/14/22 10:40	09/23/22 20:25	11096-82-5	
PCB, Total	**2210**	ug/kg	100	32.8	4	09/14/22 10:40	09/23/22 20:25	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	111	%	80-120		4	09/14/22 10:40	09/23/22 20:25	877-09-8	
Decachlorobiphenyl (S)	114	%	78-120		4	09/14/22 10:40	09/23/22 20:25	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:34		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:34		
Lipid	**6.5**	%			1		09/14/22 10:34		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-AC-7, 6/24/22 **Lab ID: 40249872008** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.1	16.4	2	09/14/22 10:40	09/23/22 20:46	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.1	16.4	2	09/14/22 10:40	09/23/22 20:46	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.1	16.4	2	09/14/22 10:40	09/23/22 20:46	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.1	16.4	2	09/14/22 10:40	09/23/22 20:46	53469-21-9	
PCB-1248 (Aroclor 1248)	**416**	ug/kg	50.1	16.4	2	09/14/22 10:40	09/23/22 20:46	12672-29-6	
PCB-1254 (Aroclor 1254)	**618**	ug/kg	50.1	16.4	2	09/14/22 10:40	09/23/22 20:46	11097-69-1	
PCB-1260 (Aroclor 1260)	**93.8**	ug/kg	50.1	16.4	2	09/14/22 10:40	09/23/22 20:46	11096-82-5	
PCB, Total	**1130**	ug/kg	50.1	16.4	2	09/14/22 10:40	09/23/22 20:46	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	114	%	80-120		2	09/14/22 10:40	09/23/22 20:46	877-09-8	
Decachlorobiphenyl (S)	123	%	78-120		2	09/14/22 10:40	09/23/22 20:46	2051-24-3	S0
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:34		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:34		
Lipid	**10.6**	%			1		09/14/22 10:34		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-AC-8, 6/24/22 **Lab ID: 40249872009** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.1**	ug/kg	125	41.1	5	09/14/22 10:40	09/23/22 21:52	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.1**	ug/kg	125	41.1	5	09/14/22 10:40	09/23/22 21:52	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.1**	ug/kg	125	41.1	5	09/14/22 10:40	09/23/22 21:52	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.1**	ug/kg	125	41.1	5	09/14/22 10:40	09/23/22 21:52	53469-21-9	
PCB-1248 (Aroclor 1248)	**1400**	ug/kg	125	41.1	5	09/14/22 10:40	09/23/22 21:52	12672-29-6	
PCB-1254 (Aroclor 1254)	**1190**	ug/kg	125	41.1	5	09/14/22 10:40	09/23/22 21:52	11097-69-1	
PCB-1260 (Aroclor 1260)	**<41.1**	ug/kg	125	41.1	5	09/14/22 10:40	09/23/22 21:52	11096-82-5	
PCB, Total	**2590**	ug/kg	125	41.1	5	09/14/22 10:40	09/23/22 21:52	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	111	%	80-120		5	09/14/22 10:40	09/23/22 21:52	877-09-8	
Decachlorobiphenyl (S)	121	%	78-120		5	09/14/22 10:40	09/23/22 21:52	2051-24-3	S0
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:34		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:34		
Lipid	**9.4**	%			1		09/14/22 10:34		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-SMB-1, 6/24/22 **Lab ID: 40249872010** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541								
	Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:14	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:14	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:14	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:14	53469-21-9	
PCB-1248 (Aroclor 1248)	**169**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:14	12672-29-6	
PCB-1254 (Aroclor 1254)	**212**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:14	11097-69-1	
PCB-1260 (Aroclor 1260)	**27.6**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:14	11096-82-5	
PCB, Total	**409**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:14	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	101	%	80-120		1	09/14/22 10:40	09/23/22 22:14	877-09-8	
Decachlorobiphenyl (S)	99	%	78-120		1	09/14/22 10:40	09/23/22 22:14	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
	Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid								
	Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:35		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:35		
Lipid	**1.2**	%			1		09/14/22 10:35		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-SMB-2, 6/24/22 **Lab ID: 40249872011** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:36	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:36	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:36	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:36	53469-21-9	
PCB-1248 (Aroclor 1248)	**305**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:36	12672-29-6	
PCB-1254 (Aroclor 1254)	**414**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:36	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:36	11096-82-5	
PCB, Total	**719**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:36	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	98	%	80-120		1	09/14/22 10:40	09/23/22 22:36	877-09-8	
Decachlorobiphenyl (S)	98	%	78-120		1	09/14/22 10:40	09/23/22 22:36	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:35		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:35		
Lipid	**0.94**	%			1		09/14/22 10:35		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-SMB-3, 6/24/22 **Lab ID: 40249872012** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:58	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:58	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:58	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:58	53469-21-9	
PCB-1248 (Aroclor 1248)	**235**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:58	12672-29-6	
PCB-1254 (Aroclor 1254)	**300**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:58	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:58	11096-82-5	
PCB, Total	**534**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/23/22 22:58	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	97	%	80-120		1	09/14/22 10:40	09/23/22 22:58	877-09-8	
Decachlorobiphenyl (S)	97	%	78-120		1	09/14/22 10:40	09/23/22 22:58	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:35		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:35		
Lipid	**1.1**	%			1		09/14/22 10:35		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-SMB-4, 6/24/22 **Lab ID: 40249872013** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541								
	Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<24.6**	ug/kg	75.0	24.6	3	09/14/22 10:40	09/23/22 23:20	12674-11-2	
PCB-1221 (Aroclor 1221)	**<24.6**	ug/kg	75.0	24.6	3	09/14/22 10:40	09/23/22 23:20	11104-28-2	
PCB-1232 (Aroclor 1232)	**<24.6**	ug/kg	75.0	24.6	3	09/14/22 10:40	09/23/22 23:20	11141-16-5	
PCB-1242 (Aroclor 1242)	**<24.6**	ug/kg	75.0	24.6	3	09/14/22 10:40	09/23/22 23:20	53469-21-9	
PCB-1248 (Aroclor 1248)	**537**	ug/kg	75.0	24.6	3	09/14/22 10:40	09/23/22 23:20	12672-29-6	
PCB-1254 (Aroclor 1254)	**808**	ug/kg	75.0	24.6	3	09/14/22 10:40	09/23/22 23:20	11097-69-1	
PCB-1260 (Aroclor 1260)	**88.3**	ug/kg	75.0	24.6	3	09/14/22 10:40	09/23/22 23:20	11096-82-5	
PCB, Total	**1430**	ug/kg	75.0	24.6	3	09/14/22 10:40	09/23/22 23:20	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	110	%	80-120		3	09/14/22 10:40	09/23/22 23:20	877-09-8	
Decachlorobiphenyl (S)	110	%	78-120		3	09/14/22 10:40	09/23/22 23:20	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
	Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid								
	Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:35		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:35		
Lipid	**1.3**	%			1		09/14/22 10:35		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-SMB-5, 6/24/22 **Lab ID: 40249872014** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.9	16.4	2	09/14/22 10:40	09/23/22 23:42	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.9	16.4	2	09/14/22 10:40	09/23/22 23:42	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.9	16.4	2	09/14/22 10:40	09/23/22 23:42	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.9	16.4	2	09/14/22 10:40	09/23/22 23:42	53469-21-9	
PCB-1248 (Aroclor 1248)	**329**	ug/kg	49.9	16.4	2	09/14/22 10:40	09/23/22 23:42	12672-29-6	
PCB-1254 (Aroclor 1254)	**430**	ug/kg	49.9	16.4	2	09/14/22 10:40	09/23/22 23:42	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	49.9	16.4	2	09/14/22 10:40	09/23/22 23:42	11096-82-5	
PCB, Total	**760**	ug/kg	49.9	16.4	2	09/14/22 10:40	09/23/22 23:42	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	112	%	80-120		2	09/14/22 10:40	09/23/22 23:42	877-09-8	
Decachlorobiphenyl (S)	111	%	78-120		2	09/14/22 10:40	09/23/22 23:42	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:36		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:36		
Lipid	**0.83**	%			1		09/14/22 10:36		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-SMB-6, 6/24/22 **Lab ID: 40249872015** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/24/22 00:04	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/24/22 00:04	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/24/22 00:04	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/24/22 00:04	53469-21-9	
PCB-1248 (Aroclor 1248)	**302**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/24/22 00:04	12672-29-6	
PCB-1254 (Aroclor 1254)	**370**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/24/22 00:04	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/24/22 00:04	11096-82-5	
PCB, Total	**672**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/24/22 00:04	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	100	%	80-120		1	09/14/22 10:40	09/24/22 00:04	877-09-8	
Decachlorobiphenyl (S)	99	%	78-120		1	09/14/22 10:40	09/24/22 00:04	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:36		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:36		
Lipid	**1.3**	%			1		09/14/22 10:36		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-SMB-7, 6/24/22 **Lab ID: 40249872016** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<32.8**	ug/kg	99.9	32.8	4	09/14/22 10:40	09/24/22 00:26	12674-11-2	
PCB-1221 (Aroclor 1221)	**<32.8**	ug/kg	99.9	32.8	4	09/14/22 10:40	09/24/22 00:26	11104-28-2	
PCB-1232 (Aroclor 1232)	**<32.8**	ug/kg	99.9	32.8	4	09/14/22 10:40	09/24/22 00:26	11141-16-5	
PCB-1242 (Aroclor 1242)	**<32.8**	ug/kg	99.9	32.8	4	09/14/22 10:40	09/24/22 00:26	53469-21-9	
PCB-1248 (Aroclor 1248)	**642**	ug/kg	99.9	32.8	4	09/14/22 10:40	09/24/22 00:26	12672-29-6	
PCB-1254 (Aroclor 1254)	**829**	ug/kg	99.9	32.8	4	09/14/22 10:40	09/24/22 00:26	11097-69-1	
PCB-1260 (Aroclor 1260)	**<32.8**	ug/kg	99.9	32.8	4	09/14/22 10:40	09/24/22 00:26	11096-82-5	
PCB, Total	**1470**	ug/kg	99.9	32.8	4	09/14/22 10:40	09/24/22 00:26	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	111	%	80-120		4	09/14/22 10:40	09/24/22 00:26	877-09-8	
Decachlorobiphenyl (S)	112	%	78-120		4	09/14/22 10:40	09/24/22 00:26	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:36		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:36		
Lipid	**1.3**	%			1		09/14/22 10:36		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-SMB-8, 6/24/22 **Lab ID: 40249872017** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	09/14/22 10:40	09/24/22 00:48	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	09/14/22 10:40	09/24/22 00:48	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	09/14/22 10:40	09/24/22 00:48	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	09/14/22 10:40	09/24/22 00:48	53469-21-9	
PCB-1248 (Aroclor 1248)	**396**	ug/kg	50.0	16.4	2	09/14/22 10:40	09/24/22 00:48	12672-29-6	
PCB-1254 (Aroclor 1254)	**582**	ug/kg	50.0	16.4	2	09/14/22 10:40	09/24/22 00:48	11097-69-1	
PCB-1260 (Aroclor 1260)	**61.7**	ug/kg	50.0	16.4	2	09/14/22 10:40	09/24/22 00:48	11096-82-5	
PCB, Total	**1040**	ug/kg	50.0	16.4	2	09/14/22 10:40	09/24/22 00:48	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	111	%	80-120		2	09/14/22 10:40	09/24/22 00:48	877-09-8	
Decachlorobiphenyl (S)	110	%	78-120		2	09/14/22 10:40	09/24/22 00:48	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:36		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:36		
Lipid	**1.1**	%			1		09/14/22 10:36		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-AWS-1, 6/24/22 **Lab ID: 40249872018** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/14/22 10:40	09/24/22 01:10	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/14/22 10:40	09/24/22 01:10	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/14/22 10:40	09/24/22 01:10	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/14/22 10:40	09/24/22 01:10	53469-21-9	
PCB-1248 (Aroclor 1248)	**96.1**	ug/kg	24.9	8.2	1	09/14/22 10:40	09/24/22 01:10	12672-29-6	
PCB-1254 (Aroclor 1254)	**115**	ug/kg	24.9	8.2	1	09/14/22 10:40	09/24/22 01:10	11097-69-1	
PCB-1260 (Aroclor 1260)	**24.9J**	ug/kg	24.9	8.2	1	09/14/22 10:40	09/24/22 01:10	11096-82-5	
PCB, Total	**236**	ug/kg	24.9	8.2	1	09/14/22 10:40	09/24/22 01:10	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	94	%	80-120		1	09/14/22 10:40	09/24/22 01:10	877-09-8	
Decachlorobiphenyl (S)	99	%	78-120		1	09/14/22 10:40	09/24/22 01:10	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:37		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:37		
Lipid	**0.87**	%			1		09/14/22 10:37		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-AWS-2, 6/24/22 **Lab ID: 40249872019** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/24/22 01:32	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/24/22 01:32	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/24/22 01:32	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/24/22 01:32	53469-21-9	
PCB-1248 (Aroclor 1248)	**278**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/24/22 01:32	12672-29-6	
PCB-1254 (Aroclor 1254)	**297**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/24/22 01:32	11097-69-1	
PCB-1260 (Aroclor 1260)	**31.8**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/24/22 01:32	11096-82-5	
PCB, Total	**608**	ug/kg	25.0	8.2	1	09/14/22 10:40	09/24/22 01:32	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	99	%	80-120		1	09/14/22 10:40	09/24/22 01:32	877-09-8	
Decachlorobiphenyl (S)	100	%	78-120		1	09/14/22 10:40	09/24/22 01:32	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:37		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:37		
Lipid	**1.5**	%			1		09/14/22 10:37		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Sample: LR-AWS-3, 6/24/22 **Lab ID: 40249872020** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<32.7**	ug/kg	99.7	32.7	4	09/14/22 10:40	09/24/22 01:54	12674-11-2	
PCB-1221 (Aroclor 1221)	**<32.7**	ug/kg	99.7	32.7	4	09/14/22 10:40	09/24/22 01:54	11104-28-2	
PCB-1232 (Aroclor 1232)	**<32.7**	ug/kg	99.7	32.7	4	09/14/22 10:40	09/24/22 01:54	11141-16-5	
PCB-1242 (Aroclor 1242)	**<32.7**	ug/kg	99.7	32.7	4	09/14/22 10:40	09/24/22 01:54	53469-21-9	
PCB-1248 (Aroclor 1248)	**915**	ug/kg	99.7	32.7	4	09/14/22 10:40	09/24/22 01:54	12672-29-6	
PCB-1254 (Aroclor 1254)	**1020**	ug/kg	99.7	32.7	4	09/14/22 10:40	09/24/22 01:54	11097-69-1	
PCB-1260 (Aroclor 1260)	**<32.7**	ug/kg	99.7	32.7	4	09/14/22 10:40	09/24/22 01:54	11096-82-5	
PCB, Total	**1930**	ug/kg	99.7	32.7	4	09/14/22 10:40	09/24/22 01:54	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	113	%	80-120		4	09/14/22 10:40	09/24/22 01:54	877-09-8	
Decachlorobiphenyl (S)	111	%	78-120		4	09/14/22 10:40	09/24/22 01:54	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/09/22 09:39		
Fillet Selected	**Both**				1		09/09/22 09:39		
Fillet Weight	**0.0**	g			1		09/09/22 09:39		
Homogenized Weight	**0.0**	g			1		09/09/22 09:39		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425883**				1		09/14/22 10:37		
Extraction Date/Time	**09/14/2022 10:40**				1		09/14/22 10:37		
Lipid	**3.0**	%			1		09/14/22 10:37		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

QC Batch: 425883
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249872001, 40249872002, 40249872003, 40249872004, 40249872005, 40249872006, 40249872007, 40249872008, 40249872009, 40249872010, 40249872011, 40249872012, 40249872013, 40249872014, 40249872015, 40249872016, 40249872017, 40249872018, 40249872019, 40249872020

METHOD BLANK: 2452313 Matrix: Tissue
Associated Lab Samples: 40249872001, 40249872002, 40249872003, 40249872004, 40249872005, 40249872006, 40249872007, 40249872008, 40249872009, 40249872010, 40249872011, 40249872012, 40249872013, 40249872014, 40249872015, 40249872016, 40249872017, 40249872018, 40249872019, 40249872020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<8.2	25.1	09/23/22 16:45	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2	25.1	09/23/22 16:45	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2	25.1	09/23/22 16:45	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2	25.1	09/23/22 16:45	
PCB-1248 (Aroclor 1248)	ug/kg	<8.2	25.1	09/23/22 16:45	
PCB-1254 (Aroclor 1254)	ug/kg	<8.2	25.1	09/23/22 16:45	
PCB-1260 (Aroclor 1260)	ug/kg	<8.2	25.1	09/23/22 16:45	
Decachlorobiphenyl (S)	%	90	78-120	09/23/22 16:45	
Tetrachloro-m-xylene (S)	%	94	80-120	09/23/22 16:45	

LABORATORY CONTROL SAMPLE: 2452314

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<8.2			
PCB-1221 (Aroclor 1221)	ug/kg		<8.2			
PCB-1232 (Aroclor 1232)	ug/kg		<8.2			
PCB-1242 (Aroclor 1242)	ug/kg		<8.2			
PCB-1248 (Aroclor 1248)	ug/kg		<8.2			
PCB-1254 (Aroclor 1254)	ug/kg	250	202	81	66-106	
PCB-1260 (Aroclor 1260)	ug/kg		<8.2			
Decachlorobiphenyl (S)	%			92	78-120	
Tetrachloro-m-xylene (S)	%			94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2452315 2452316

Parameter	Units	40249872002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<41.0			<49.4	<49.3					20	
PCB-1221 (Aroclor 1221)	ug/kg	<41.0			<49.4	<49.3					20	
PCB-1232 (Aroclor 1232)	ug/kg	<41.0			<49.4	<49.3					20	
PCB-1242 (Aroclor 1242)	ug/kg	<41.0			<49.4	<49.3					20	
PCB-1248 (Aroclor 1248)	ug/kg	640			757	764				1	20	
PCB-1254 (Aroclor 1254)	ug/kg	1270	1000	1000	2040	2110	77	84	60-110	4	20	
PCB-1260 (Aroclor 1260)	ug/kg	445			461	466				1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2452315 2452316

Parameter	Units	40249872002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Decachlorobiphenyl (S)	%						116	125	78-120			S0
Tetrachloro-m-xylene (S)	%						105	113	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

QC Batch: 425924
QC Batch Method: Pace Lipid
Analysis Method: Pace Lipid
Analysis Description: LIPID
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249872001, 40249872002, 40249872003, 40249872004, 40249872005, 40249872006, 40249872007, 40249872008, 40249872009, 40249872010, 40249872011, 40249872012, 40249872013, 40249872014, 40249872015, 40249872016, 40249872017, 40249872018, 40249872019, 40249872020

METHOD BLANK: 2452440 Matrix: Tissue
Associated Lab Samples: 40249872001, 40249872002, 40249872003, 40249872004, 40249872005, 40249872006, 40249872007, 40249872008, 40249872009, 40249872010, 40249872011, 40249872012, 40249872013, 40249872014, 40249872015, 40249872016, 40249872017, 40249872018, 40249872019, 40249872020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Extraction Batch Number		425883		09/14/22 10:32	
Extraction Date/Time		09/14/2022		09/14/22 10:32	
Lipid	%	0.53		09/14/22 10:32	

SAMPLE DUPLICATE: 2452441

Parameter	Units	40249872002 Result	Dup Result	RPD	Max RPD	Qualifiers
Extraction Batch Number		425883	425883			
Extraction Date/Time		09/14/2022 10:40	09/14/2022			
Lipid	%	4.3	4.9	13	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

S0	Surrogate recovery outside laboratory control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249872001	IH-JWS-8, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872002	LR-AC-1, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872003	LR-AC-2, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872004	LR-AC-3, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872005	LR-AC-4, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872006	LR-AC-5, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872007	LR-AC-6, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872008	LR-AC-7, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872009	LR-AC-8, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872010	LR-SMB-1, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872011	LR-SMB-2, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872012	LR-SMB-3, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872013	LR-SMB-4, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872014	LR-SMB-5, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872015	LR-SMB-6, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872016	LR-SMB-7, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872017	LR-SMB-8, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872018	LR-AWS-1, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872019	LR-AWS-2, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872020	LR-AWS-3, 6/24/22	EPA 3541	425883	EPA 8082A	426677
40249872001	IH-JWS-8, 6/24/22	Pace Gender Typing	425559		
40249872002	LR-AC-1, 6/24/22	Pace Gender Typing	425559		
40249872003	LR-AC-2, 6/24/22	Pace Gender Typing	425559		
40249872004	LR-AC-3, 6/24/22	Pace Gender Typing	425559		
40249872005	LR-AC-4, 6/24/22	Pace Gender Typing	425559		
40249872006	LR-AC-5, 6/24/22	Pace Gender Typing	425559		
40249872007	LR-AC-6, 6/24/22	Pace Gender Typing	425559		
40249872008	LR-AC-7, 6/24/22	Pace Gender Typing	425559		
40249872009	LR-AC-8, 6/24/22	Pace Gender Typing	425559		
40249872010	LR-SMB-1, 6/24/22	Pace Gender Typing	425559		
40249872011	LR-SMB-2, 6/24/22	Pace Gender Typing	425559		
40249872012	LR-SMB-3, 6/24/22	Pace Gender Typing	425559		
40249872013	LR-SMB-4, 6/24/22	Pace Gender Typing	425559		
40249872014	LR-SMB-5, 6/24/22	Pace Gender Typing	425559		
40249872015	LR-SMB-6, 6/24/22	Pace Gender Typing	425559		
40249872016	LR-SMB-7, 6/24/22	Pace Gender Typing	425559		
40249872017	LR-SMB-8, 6/24/22	Pace Gender Typing	425559		
40249872018	LR-AWS-1, 6/24/22	Pace Gender Typing	425559		
40249872019	LR-AWS-2, 6/24/22	Pace Gender Typing	425559		
40249872020	LR-AWS-3, 6/24/22	Pace Gender Typing	425559		
40249872001	IH-JWS-8, 6/24/22	Pace Lipid	425924		
40249872002	LR-AC-1, 6/24/22	Pace Lipid	425924		
40249872003	LR-AC-2, 6/24/22	Pace Lipid	425924		
40249872004	LR-AC-3, 6/24/22	Pace Lipid	425924		
40249872005	LR-AC-4, 6/24/22	Pace Lipid	425924		
40249872006	LR-AC-5, 6/24/22	Pace Lipid	425924		
40249872007	LR-AC-6, 6/24/22	Pace Lipid	425924		
40249872008	LR-AC-7, 6/24/22	Pace Lipid	425924		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249872

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249872009	**LR-AC-8, 6/24/22**	Pace Lipid	425924		
40249872010	**LR-SMB-1, 6/24/22**	Pace Lipid	425924		
40249872011	**LR-SMB-2, 6/24/22**	Pace Lipid	425924		
40249872012	**LR-SMB-3, 6/24/22**	Pace Lipid	425924		
40249872013	**LR-SMB-4, 6/24/22**	Pace Lipid	425924		
40249872014	**LR-SMB-5, 6/24/22**	Pace Lipid	425924		
40249872015	**LR-SMB-6, 6/24/22**	Pace Lipid	425924		
40249872016	**LR-SMB-7, 6/24/22**	Pace Lipid	425924		
40249872017	**LR-SMB-8, 6/24/22**	Pace Lipid	425924		
40249872018	**LR-AWS-1, 6/24/22**	Pace Lipid	425924		
40249872019	**LR-AWS-2, 6/24/22**	Pace Lipid	425924		
40249872020	**LR-AWS-3, 6/24/22**	Pace Lipid	425924		

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513-319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

Pace Analytical®
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of

4024987 2

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water
B = Biota, DW = Drinking Water
C = Charcoal, GW = Ground Water
O = Oil, SW = Surface Water
S = Soil, WW = Waste Water
SI = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Sender	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
~~000~~	IH-JWS-7, 6/24/22	6/24/22		TS		A	X	X	X			
001	IH-JWS-8, 6/24/22											
002	LR-AC-1, 6/24/22											
003	LR-AC-2, 6/24/22											
004	LR-AC-3, 6/24/22											
005	LR-AC-4, 6/24/22											
006	LR-AC-5, 6/24/22											
007	LR-AC-6, 6/24/22											
008	LR-AC-7, 6/24/22											
009	LR-AC-8, 6/24/22											
010	LR-SMB-1, 6/24/22											
011	LR-SMB-2, 6/24/22											
012	LR-SMB-3, 6/24/22											

mst 8/16/22

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 7:30		8/15/22 0730

PACE Project No.
4024987 2

Receipt Temp = 0 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Pace Analytical®
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CHAIN OF CUSTODY

4024 9872

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513-319-8918
Project Number:	SRI1-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	CW
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water, B = Biota, DW = Drinking Water, C = Charcoal, GW = Ground Water, O = Oil, SW = Surface Water, S = Soil, WW = Waste Water, SI = Sludge, WP = Wipe

FILTERED? (YES/NO) — Y / N
PRESERVATION (CODE)* — Pick Letter

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Analyses Requested: PCB	% Lipids	Gender
013	LR-SMB-4, 6/24/22	6/24/22		TS	A	X	X
014	LR-SMB-5, 6/24/22						
015	LR-SMB-6, 6/24/22						
016	LR-SMB-7, 6/24/22						
017	LR-SMB-8, 6/24/22						
018	LR-AWS-1, 6/24/22						
019	LR-AWS-2, 6/24/22						
020	LR-AWS-3, 6/24/22						
	LR-AWS-4, 6/24/22						
	LR-AWS-5, 6/24/22						
	LR-AWS-6, 6/24/22						
	LR-AWS-7, 6/24/22						
	LR-AWS-8, 6/24/22						

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
CW	8/15/22 7:30	[illegible]	8/15/22 0730

PACE Project No.: 4024 9872

Receipt Temp = 0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal: Present / Not Present; Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Preservation Receipt Form

Client Name: PRS Project # 40249872

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☐N/A Initial when completed: Date/ Time:

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted):

Pace Lab #	Glass								Plastic					Vials						Jars				General			VOA Vials (>6mm)	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN						
001																																2.5 / 5 / 10
002																																2.5 / 5 / 10
003																																2.5 / 5 / 10
004																																2.5 / 5 / 10
005																																2.5 / 5 / 10
006																																2.5 / 5 / 10
007																																2.5 / 5 / 10
008																																2.5 / 5 / 10
009																																2.5 / 5 / 10
010																																2.5 / 5 / 10
011																																2.5 / 5 / 10
012																																2.5 / 5 / 10
013																																2.5 / 5 / 10
014																																2.5 / 5 / 10
015																																2.5 / 5 / 10
016																																2.5 / 5 / 10
017																																2.5 / 5 / 10
018																																2.5 / 5 / 10
019																																2.5 / 5 / 10
020																																2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☑N/A ***If yes look in headspace column**

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN	

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40249872

40249872

Client Name: PRS

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☑ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used SR - 120 **Type of Ice:** Wet Blue Dry (None) ☐ Samples on ice

Cooler Temperature Uncorr: 0 /Corr: 0

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☑ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
Date: 8/15/22 /Initials: mH

Labeled By Initials: NK

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. NO mail or invoice info mH 8/15/22
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume:		8.
For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☐Yes ☑No ☐N/A	
-Pace IR Containers Used:	☐Yes ☑No ☐N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: B		
Trip Blank Present:	☐Yes ☐No ☑N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logir

Page 2 of 2

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

September 28, 2022

Aaron Lammers
SME
3301 Tech Circle
Kalamazoo, MI 49008

RE: Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Dear Aaron Lammers:

Enclosed are the analytical results for sample(s) received by the laboratory on August 15, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tod Noltemeyer

Tod Noltemeyer
tod.noltemeyer@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Pace Analytical Services Green Bay
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40249873001	**LR-AWS-4, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249873002	**LR-AWS-5, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249873003	**LR-AWS-6, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249873004	**LR-AWS-7, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249873005	**LR-AWS-8, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249873006	**LR-RB-1, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249873007	**LR-RB-2, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249873008	**LR-RB-3, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249873009	**LR-RB-4, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249873010	**LR-RB-5, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249873011	**LR-RB-6, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249873012	**LR-RB-7, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249873013	**LR-RB-8, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249873014	**LR-RB-9, 6/24/22**	Tissue	06/24/22 00:00	08/15/22 07:30
40249873015	**URI-AC-1, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249873016	**URI-AC-2, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249873017	**URI-AC-3, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249873018	**URI-AC-4, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249873019	**URI-AC-5, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249873020	**URI-AC-6, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30

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SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40249873001	**LR-AWS-4, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873002	**LR-AWS-5, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873003	**LR-AWS-6, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873004	**LR-AWS-7, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873005	**LR-AWS-8, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873006	**LR-RB-1, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873007	**LR-RB-2, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873008	**LR-RB-3, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873009	**LR-RB-4, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873010	**LR-RB-5, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873011	**LR-RB-6, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873012	**LR-RB-7, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873013	**LR-RB-8, 6/24/22**	EPA 8082A	BLM	10

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SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873014	**LR-RB-9, 6/24/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873015	**URI-AC-1, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873016	**URI-AC-2, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873017	**URI-AC-3, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873018	**URI-AC-4, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873019	**URI-AC-5, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249873020	**URI-AC-6, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: September 28, 2022

General Information:
20 samples were analyzed for EPA 8082A by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 426003

S0: Surrogate recovery outside laboratory control limits.

- URI-AC-3, 6/25/22 (Lab ID: 40249873017)
  - Decachlorobiphenyl (S)

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- URI-AC-5, 6/25/22 (Lab ID: 40249873019)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- URI-AC-6, 6/25/22 (Lab ID: 40249873020)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: September 28, 2022

QC Batch: 426003

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40249873015

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2452851)
  - PCB-1242 (Aroclor 1242)
- MSD (Lab ID: 2452852)
  - PCB-1242 (Aroclor 1242)

Additional Comments:

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Method: **Pace Gender Typing**
Description: Fish Gender Typing
Client: POLLUTION RISK SERVICES
Date: September 28, 2022

General Information:
20 samples were analyzed for Pace Gender Typing by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Method: **Pace Lipid**
Description: Lipid
Client: POLLUTION RISK SERVICES
Date: September 28, 2022

General Information:
20 samples were analyzed for Pace Lipid by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: LR-AWS-4, 6/24/22 **Lab ID: 40249873001** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<24.7**	ug/kg	75.2	24.7	3	09/15/22 07:37	09/27/22 01:07	12674-11-2	
PCB-1221 (Aroclor 1221)	**<24.7**	ug/kg	75.2	24.7	3	09/15/22 07:37	09/27/22 01:07	11104-28-2	
PCB-1232 (Aroclor 1232)	**<24.7**	ug/kg	75.2	24.7	3	09/15/22 07:37	09/27/22 01:07	11141-16-5	
PCB-1242 (Aroclor 1242)	**<24.7**	ug/kg	75.2	24.7	3	09/15/22 07:37	09/27/22 01:07	53469-21-9	
PCB-1248 (Aroclor 1248)	**760**	ug/kg	75.2	24.7	3	09/15/22 07:37	09/27/22 01:07	12672-29-6	
PCB-1254 (Aroclor 1254)	**813**	ug/kg	75.2	24.7	3	09/15/22 07:37	09/27/22 01:07	11097-69-1	
PCB-1260 (Aroclor 1260)	**71.4J**	ug/kg	75.2	24.7	3	09/15/22 07:37	09/27/22 01:07	11096-82-5	
PCB, Total	**1640**	ug/kg	75.2	24.7	3	09/15/22 07:37	09/27/22 01:07	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	112	%	80-120		3	09/15/22 07:37	09/27/22 01:07	877-09-8	
Decachlorobiphenyl (S)	113	%	78-120		3	09/15/22 07:37	09/27/22 01:07	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:10		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:10		
Lipid	**2.1**	%			1		09/15/22 16:10		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: LR-AWS-5, 6/24/22 **Lab ID: 40249873002** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<24.7**	ug/kg	75.1	24.7	3	09/15/22 07:37	09/27/22 01:29	12674-11-2	
PCB-1221 (Aroclor 1221)	**<24.7**	ug/kg	75.1	24.7	3	09/15/22 07:37	09/27/22 01:29	11104-28-2	
PCB-1232 (Aroclor 1232)	**<24.7**	ug/kg	75.1	24.7	3	09/15/22 07:37	09/27/22 01:29	11141-16-5	
PCB-1242 (Aroclor 1242)	**<24.7**	ug/kg	75.1	24.7	3	09/15/22 07:37	09/27/22 01:29	53469-21-9	
PCB-1248 (Aroclor 1248)	**476**	ug/kg	75.1	24.7	3	09/15/22 07:37	09/27/22 01:29	12672-29-6	
PCB-1254 (Aroclor 1254)	**615**	ug/kg	75.1	24.7	3	09/15/22 07:37	09/27/22 01:29	11097-69-1	
PCB-1260 (Aroclor 1260)	**55.4J**	ug/kg	75.1	24.7	3	09/15/22 07:37	09/27/22 01:29	11096-82-5	
PCB, Total	**1150**	ug/kg	75.1	24.7	3	09/15/22 07:37	09/27/22 01:29	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	107	%	80-120		3	09/15/22 07:37	09/27/22 01:29	877-09-8	
Decachlorobiphenyl (S)	108	%	78-120		3	09/15/22 07:37	09/27/22 01:29	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:10		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:10		
Lipid	**1.7**	%			1		09/15/22 16:10		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: LR-AWS-6, 6/24/22 **Lab ID: 40249873003** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	09/15/22 07:37	09/27/22 09:32	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	09/15/22 07:37	09/27/22 09:32	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	09/15/22 07:37	09/27/22 09:32	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	09/15/22 07:37	09/27/22 09:32	53469-21-9	
PCB-1248 (Aroclor 1248)	**329**	ug/kg	50.0	16.4	2	09/15/22 07:37	09/27/22 09:32	12672-29-6	
PCB-1254 (Aroclor 1254)	**442**	ug/kg	50.0	16.4	2	09/15/22 07:37	09/27/22 09:32	11097-69-1	
PCB-1260 (Aroclor 1260)	**41.1J**	ug/kg	50.0	16.4	2	09/15/22 07:37	09/27/22 09:32	11096-82-5	
PCB, Total	**812**	ug/kg	50.0	16.4	2	09/15/22 07:37	09/27/22 09:32	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	119	%	80-120		2	09/15/22 07:37	09/27/22 09:32	877-09-8	
Decachlorobiphenyl (S)	119	%	78-120		2	09/15/22 07:37	09/27/22 09:32	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:10		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:10		
Lipid	**0.97**	%			1		09/15/22 16:10		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: LR-AWS-7, 6/24/22 **Lab ID: 40249873004** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 02:13	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 02:13	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 02:13	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 02:13	53469-21-9	
PCB-1248 (Aroclor 1248)	**337**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 02:13	12672-29-6	
PCB-1254 (Aroclor 1254)	**275**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 02:13	11097-69-1	
PCB-1260 (Aroclor 1260)	**18.7J**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 02:13	11096-82-5	
PCB, Total	**630**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 02:13	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	106	%	80-120		1	09/15/22 07:37	09/27/22 02:13	877-09-8	
Decachlorobiphenyl (S)	107	%	78-120		1	09/15/22 07:37	09/27/22 02:13	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:10		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:10		
Lipid	**1.2**	%			1		09/15/22 16:10		

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: LR-AWS-8, 6/24/22 **Lab ID: 40249873005** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 02:35	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 02:35	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 02:35	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 02:35	53469-21-9	
PCB-1248 (Aroclor 1248)	**197**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 02:35	12672-29-6	
PCB-1254 (Aroclor 1254)	**178**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 02:35	11097-69-1	
PCB-1260 (Aroclor 1260)	**14.8J**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 02:35	11096-82-5	
PCB, Total	**390**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 02:35	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	108	%	80-120		1	09/15/22 07:37	09/27/22 02:35	877-09-8	
Decachlorobiphenyl (S)	107	%	78-120		1	09/15/22 07:37	09/27/22 02:35	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:11		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:11		
Lipid	**0.95**	%			1		09/15/22 16:11		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: LR-RB-1, 6/24/22 **Lab ID: 40249873006** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541								
	Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 02:57	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 02:57	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 02:57	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 02:57	53469-21-9	
PCB-1248 (Aroclor 1248)	**313**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 02:57	12672-29-6	
PCB-1254 (Aroclor 1254)	**385**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 02:57	11097-69-1	
PCB-1260 (Aroclor 1260)	**31.8**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 02:57	11096-82-5	
PCB, Total	**730**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 02:57	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	108	%	80-120		1	09/15/22 07:37	09/27/22 02:57	877-09-8	
Decachlorobiphenyl (S)	106	%	78-120		1	09/15/22 07:37	09/27/22 02:57	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
	Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid								
	Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:11		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:11		
Lipid	**1.0**	%			1		09/15/22 16:11		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: LR-RB-2, 6/24/22 **Lab ID: 40249873007** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.5**	ug/kg	50.1	16.5	2	09/15/22 07:37	09/27/22 09:54	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.5**	ug/kg	50.1	16.5	2	09/15/22 07:37	09/27/22 09:54	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.5**	ug/kg	50.1	16.5	2	09/15/22 07:37	09/27/22 09:54	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.5**	ug/kg	50.1	16.5	2	09/15/22 07:37	09/27/22 09:54	53469-21-9	
PCB-1248 (Aroclor 1248)	**438**	ug/kg	50.1	16.5	2	09/15/22 07:37	09/27/22 09:54	12672-29-6	
PCB-1254 (Aroclor 1254)	**553**	ug/kg	50.1	16.5	2	09/15/22 07:37	09/27/22 09:54	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.5**	ug/kg	50.1	16.5	2	09/15/22 07:37	09/27/22 09:54	11096-82-5	
PCB, Total	**990**	ug/kg	50.1	16.5	2	09/15/22 07:37	09/27/22 09:54	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	103	%	80-120		2	09/15/22 07:37	09/27/22 09:54	877-09-8	
Decachlorobiphenyl (S)	102	%	78-120		2	09/15/22 07:37	09/27/22 09:54	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:11		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:11		
Lipid	**1.2**	%			1		09/15/22 16:11		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: LR-RB-3, 6/24/22 **Lab ID: 40249873008** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.1	8.2	1	09/15/22 07:37	09/27/22 03:41	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.1	8.2	1	09/15/22 07:37	09/27/22 03:41	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.1	8.2	1	09/15/22 07:37	09/27/22 03:41	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.1	8.2	1	09/15/22 07:37	09/27/22 03:41	53469-21-9	
PCB-1248 (Aroclor 1248)	**221**	ug/kg	25.1	8.2	1	09/15/22 07:37	09/27/22 03:41	12672-29-6	
PCB-1254 (Aroclor 1254)	**269**	ug/kg	25.1	8.2	1	09/15/22 07:37	09/27/22 03:41	11097-69-1	
PCB-1260 (Aroclor 1260)	**24.5J**	ug/kg	25.1	8.2	1	09/15/22 07:37	09/27/22 03:41	11096-82-5	
PCB, Total	**514**	ug/kg	25.1	8.2	1	09/15/22 07:37	09/27/22 03:41	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	99	%	80-120		1	09/15/22 07:37	09/27/22 03:41	877-09-8	
Decachlorobiphenyl (S)	102	%	78-120		1	09/15/22 07:37	09/27/22 03:41	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:11		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:11		
Lipid	**0.55**	%			1		09/15/22 16:11		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: LR-RB-4, 6/24/22 **Lab ID: 40249873009** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 04:47	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 04:47	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 04:47	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 04:47	53469-21-9	
PCB-1248 (Aroclor 1248)	**269**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 04:47	12672-29-6	
PCB-1254 (Aroclor 1254)	**344**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 04:47	11097-69-1	
PCB-1260 (Aroclor 1260)	**35.6**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 04:47	11096-82-5	
PCB, Total	**648**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 04:47	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	100	%	80-120		1	09/15/22 07:37	09/27/22 04:47	877-09-8	
Decachlorobiphenyl (S)	102	%	78-120		1	09/15/22 07:37	09/27/22 04:47	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:12		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:12		
Lipid	**0.80**	%			1		09/15/22 16:12		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: LR-RB-5, 6/24/22 **Lab ID: 40249873010** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:09	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:09	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:09	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:09	53469-21-9	
PCB-1248 (Aroclor 1248)	**212**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:09	12672-29-6	
PCB-1254 (Aroclor 1254)	**277**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:09	11097-69-1	
PCB-1260 (Aroclor 1260)	**26.1**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:09	11096-82-5	
PCB, Total	**516**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:09	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	103	%	80-120		1	09/15/22 07:37	09/27/22 05:09	877-09-8	
Decachlorobiphenyl (S)	104	%	78-120		1	09/15/22 07:37	09/27/22 05:09	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:12		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:12		
Lipid	**0.83**	%			1		09/15/22 16:12		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: LR-RB-6, 6/24/22 **Lab ID: 40249873011** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:31	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:31	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:31	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:31	53469-21-9	
PCB-1248 (Aroclor 1248)	**280**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:31	12672-29-6	
PCB-1254 (Aroclor 1254)	**354**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:31	11097-69-1	
PCB-1260 (Aroclor 1260)	**28.8**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:31	11096-82-5	
PCB, Total	**663**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:31	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	104	%	80-120		1	09/15/22 07:37	09/27/22 05:31	877-09-8	
Decachlorobiphenyl (S)	107	%	78-120		1	09/15/22 07:37	09/27/22 05:31	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:12		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:12		
Lipid	**0.74**	%			1		09/15/22 16:12		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: LR-RB-7, 6/24/22 **Lab ID: 40249873012** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541								
	Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:53	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:53	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:53	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:53	53469-21-9	
PCB-1248 (Aroclor 1248)	**98.9**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:53	12672-29-6	
PCB-1254 (Aroclor 1254)	**108**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:53	11097-69-1	
PCB-1260 (Aroclor 1260)	**13.9J**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:53	11096-82-5	
PCB, Total	**221**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 05:53	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	101	%	80-120		1	09/15/22 07:37	09/27/22 05:53	877-09-8	
Decachlorobiphenyl (S)	97	%	78-120		1	09/15/22 07:37	09/27/22 05:53	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
	Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid								
	Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:12		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:12		
Lipid	**0.30**	%			1		09/15/22 16:12		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: LR-RB-8, 6/24/22 **Lab ID: 40249873013** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 06:15	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 06:15	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 06:15	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 06:15	53469-21-9	
PCB-1248 (Aroclor 1248)	**351**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 06:15	12672-29-6	
PCB-1254 (Aroclor 1254)	**448**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 06:15	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 06:15	11096-82-5	
PCB, Total	**799**	ug/kg	24.9	8.2	1	09/15/22 07:37	09/27/22 06:15	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	103	%	80-120		1	09/15/22 07:37	09/27/22 06:15	877-09-8	
Decachlorobiphenyl (S)	106	%	78-120		1	09/15/22 07:37	09/27/22 06:15	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:13		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:13		
Lipid	**0.88**	%			1		09/15/22 16:13		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: LR-RB-9, 6/24/22 **Lab ID: 40249873014** Collected: 06/24/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<11.0**	ug/kg	33.4	11.0	1	09/15/22 07:37	09/27/22 06:37	12674-11-2	
PCB-1221 (Aroclor 1221)	**<11.0**	ug/kg	33.4	11.0	1	09/15/22 07:37	09/27/22 06:37	11104-28-2	
PCB-1232 (Aroclor 1232)	**<11.0**	ug/kg	33.4	11.0	1	09/15/22 07:37	09/27/22 06:37	11141-16-5	
PCB-1242 (Aroclor 1242)	**<11.0**	ug/kg	33.4	11.0	1	09/15/22 07:37	09/27/22 06:37	53469-21-9	
PCB-1248 (Aroclor 1248)	**147**	ug/kg	33.4	11.0	1	09/15/22 07:37	09/27/22 06:37	12672-29-6	
PCB-1254 (Aroclor 1254)	**392**	ug/kg	33.4	11.0	1	09/15/22 07:37	09/27/22 06:37	11097-69-1	
PCB-1260 (Aroclor 1260)	**42.2**	ug/kg	33.4	11.0	1	09/15/22 07:37	09/27/22 06:37	11096-82-5	
PCB, Total	**581**	ug/kg	33.4	11.0	1	09/15/22 07:37	09/27/22 06:37	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	97	%	80-120		1	09/15/22 07:37	09/27/22 06:37	877-09-8	
Decachlorobiphenyl (S)	99	%	78-120		1	09/15/22 07:37	09/27/22 06:37	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:13		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:13		
Lipid	**0.31**	%			1		09/15/22 16:13		

REPORT OF LABORATORY ANALYSIS

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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: URI-AC-1, 6/25/22 **Lab ID: 40249873015** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<24.7**	ug/kg	75.2	24.7	3	09/15/22 07:37	09/27/22 06:59	12674-11-2	
PCB-1221 (Aroclor 1221)	**<24.7**	ug/kg	75.2	24.7	3	09/15/22 07:37	09/27/22 06:59	11104-28-2	
PCB-1232 (Aroclor 1232)	**<24.7**	ug/kg	75.2	24.7	3	09/15/22 07:37	09/27/22 06:59	11141-16-5	
PCB-1242 (Aroclor 1242)	**<24.7**	ug/kg	75.2	24.7	3	09/15/22 07:37	09/27/22 06:59	53469-21-9	M1
PCB-1248 (Aroclor 1248)	**1020**	ug/kg	75.2	24.7	3	09/15/22 07:37	09/27/22 06:59	12672-29-6	
PCB-1254 (Aroclor 1254)	**540**	ug/kg	75.2	24.7	3	09/15/22 07:37	09/27/22 06:59	11097-69-1	
PCB-1260 (Aroclor 1260)	**<24.7**	ug/kg	75.2	24.7	3	09/15/22 07:37	09/27/22 06:59	11096-82-5	
PCB, Total	**1560**	ug/kg	75.2	24.7	3	09/15/22 07:37	09/27/22 06:59	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	109	%	80-120		3	09/15/22 07:37	09/27/22 06:59	877-09-8	
Decachlorobiphenyl (S)	111	%	78-120		3	09/15/22 07:37	09/27/22 06:59	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:13		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:13		
Lipid	**2.8**	%			1		09/15/22 16:13		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: URI-AC-2, 6/25/22 **Lab ID: 40249873016** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541								
	Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<82.2**	ug/kg	250	82.2	10	09/15/22 07:37	09/27/22 07:21	12674-11-2	
PCB-1221 (Aroclor 1221)	**<82.2**	ug/kg	250	82.2	10	09/15/22 07:37	09/27/22 07:21	11104-28-2	
PCB-1232 (Aroclor 1232)	**<82.2**	ug/kg	250	82.2	10	09/15/22 07:37	09/27/22 07:21	11141-16-5	
PCB-1242 (Aroclor 1242)	**<82.2**	ug/kg	250	82.2	10	09/15/22 07:37	09/27/22 07:21	53469-21-9	
PCB-1248 (Aroclor 1248)	**2370**	ug/kg	250	82.2	10	09/15/22 07:37	09/27/22 07:21	12672-29-6	
PCB-1254 (Aroclor 1254)	**1950**	ug/kg	250	82.2	10	09/15/22 07:37	09/27/22 07:21	11097-69-1	
PCB-1260 (Aroclor 1260)	**102J**	ug/kg	250	82.2	10	09/15/22 07:37	09/27/22 07:21	11096-82-5	
PCB, Total	**4420**	ug/kg	250	82.2	10	09/15/22 07:37	09/27/22 07:21	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	103	%	80-120		10	09/15/22 07:37	09/27/22 07:21	877-09-8	
Decachlorobiphenyl (S)	109	%	78-120		10	09/15/22 07:37	09/27/22 07:21	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
	Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid								
	Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:13		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:13		
Lipid	**1.9**	%			1		09/15/22 16:13		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: URI-AC-3, 6/25/22 **Lab ID: 40249873017** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<82.4**	ug/kg	251	82.4	10	09/15/22 07:37	09/27/22 12:11	12674-11-2	
PCB-1221 (Aroclor 1221)	**<82.4**	ug/kg	251	82.4	10	09/15/22 07:37	09/27/22 12:11	11104-28-2	
PCB-1232 (Aroclor 1232)	**<82.4**	ug/kg	251	82.4	10	09/15/22 07:37	09/27/22 12:11	11141-16-5	
PCB-1242 (Aroclor 1242)	**<82.4**	ug/kg	251	82.4	10	09/15/22 07:37	09/27/22 12:11	53469-21-9	
PCB-1248 (Aroclor 1248)	**4040**	ug/kg	251	82.4	10	09/15/22 07:37	09/27/22 12:11	12672-29-6	
PCB-1254 (Aroclor 1254)	**1880**	ug/kg	251	82.4	10	09/15/22 07:37	09/27/22 12:11	11097-69-1	
PCB-1260 (Aroclor 1260)	**<82.4**	ug/kg	251	82.4	10	09/15/22 07:37	09/27/22 12:11	11096-82-5	
PCB, Total	**5910**	ug/kg	251	82.4	10	09/15/22 07:37	09/27/22 12:11	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	109	%	80-120		10	09/15/22 07:37	09/27/22 12:11	877-09-8	
Decachlorobiphenyl (S)	123	%	78-120		10	09/15/22 07:37	09/27/22 12:11	2051-24-3	S0
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:14		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:14		
Lipid	**7.8**	%			1		09/15/22 16:14		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: URI-AC-4, 6/25/22 **Lab ID: 40249873018** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 12:33	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 12:33	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 12:33	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 12:33	53469-21-9	
PCB-1248 (Aroclor 1248)	**164**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 12:33	12672-29-6	
PCB-1254 (Aroclor 1254)	**103**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 12:33	11097-69-1	
PCB-1260 (Aroclor 1260)	**15.1J**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 12:33	11096-82-5	
PCB, Total	**282**	ug/kg	25.0	8.2	1	09/15/22 07:37	09/27/22 12:33	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	116	%	80-120		1	09/15/22 07:37	09/27/22 12:33	877-09-8	
Decachlorobiphenyl (S)	120	%	78-120		1	09/15/22 07:37	09/27/22 12:33	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:14		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:14		
Lipid	**7.6**	%			1		09/15/22 16:14		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: URI-AC-5, 6/25/22 **Lab ID: 40249873019** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<164**	ug/kg	500	164	20	09/15/22 07:37	09/27/22 08:27	12674-11-2	
PCB-1221 (Aroclor 1221)	**<164**	ug/kg	500	164	20	09/15/22 07:37	09/27/22 08:27	11104-28-2	
PCB-1232 (Aroclor 1232)	**<164**	ug/kg	500	164	20	09/15/22 07:37	09/27/22 08:27	11141-16-5	
PCB-1242 (Aroclor 1242)	**<164**	ug/kg	500	164	20	09/15/22 07:37	09/27/22 08:27	53469-21-9	
PCB-1248 (Aroclor 1248)	**7380**	ug/kg	500	164	20	09/15/22 07:37	09/27/22 08:27	12672-29-6	
PCB-1254 (Aroclor 1254)	**5340**	ug/kg	500	164	20	09/15/22 07:37	09/27/22 08:27	11097-69-1	
PCB-1260 (Aroclor 1260)	**<164**	ug/kg	500	164	20	09/15/22 07:37	09/27/22 08:27	11096-82-5	
PCB, Total	**12700**	ug/kg	500	164	20	09/15/22 07:37	09/27/22 08:27	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		20	09/15/22 07:37	09/27/22 08:27	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		20	09/15/22 07:37	09/27/22 08:27	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:14		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:14		
Lipid	**5.7**	%			1		09/15/22 16:14		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Sample: URI-AC-6, 6/25/22 **Lab ID: 40249873020** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<247**	ug/kg	751	247	30	09/15/22 07:37	09/27/22 08:48	12674-11-2	
PCB-1221 (Aroclor 1221)	**<247**	ug/kg	751	247	30	09/15/22 07:37	09/27/22 08:48	11104-28-2	
PCB-1232 (Aroclor 1232)	**<247**	ug/kg	751	247	30	09/15/22 07:37	09/27/22 08:48	11141-16-5	
PCB-1242 (Aroclor 1242)	**<247**	ug/kg	751	247	30	09/15/22 07:37	09/27/22 08:48	53469-21-9	
PCB-1248 (Aroclor 1248)	**8720**	ug/kg	751	247	30	09/15/22 07:37	09/27/22 08:48	12672-29-6	
PCB-1254 (Aroclor 1254)	**4450**	ug/kg	751	247	30	09/15/22 07:37	09/27/22 08:48	11097-69-1	
PCB-1260 (Aroclor 1260)	**<247**	ug/kg	751	247	30	09/15/22 07:37	09/27/22 08:48	11096-82-5	
PCB, Total	**13200**	ug/kg	751	247	30	09/15/22 07:37	09/27/22 08:48	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		30	09/15/22 07:37	09/27/22 08:48	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		30	09/15/22 07:37	09/27/22 08:48	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/01/22 13:06		
Fillet Selected	**Both**				1		09/01/22 13:06		
Fillet Weight	**0.0**	g			1		09/01/22 13:06		
Homogenized Weight	**0.0**	g			1		09/01/22 13:06		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426003**				1		09/15/22 16:14		
Extraction Date/Time	**09/15/2022 07:37**				1		09/15/22 16:14		
Lipid	**12.0**	%			1		09/15/22 16:14		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

QC Batch: 426003
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249873001, 40249873002, 40249873003, 40249873004, 40249873005, 40249873006, 40249873007, 40249873008, 40249873009, 40249873010, 40249873011, 40249873012, 40249873013, 40249873014, 40249873015, 40249873016, 40249873017, 40249873018, 40249873019, 40249873020

METHOD BLANK: 2452849 Matrix: Tissue
Associated Lab Samples: 40249873001, 40249873002, 40249873003, 40249873004, 40249873005, 40249873006, 40249873007, 40249873008, 40249873009, 40249873010, 40249873011, 40249873012, 40249873013, 40249873014, 40249873015, 40249873016, 40249873017, 40249873018, 40249873019, 40249873020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<8.2	25.1	09/26/22 23:40	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2	25.1	09/26/22 23:40	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2	25.1	09/26/22 23:40	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2	25.1	09/26/22 23:40	
PCB-1248 (Aroclor 1248)	ug/kg	<8.2	25.1	09/26/22 23:40	
PCB-1254 (Aroclor 1254)	ug/kg	<8.2	25.1	09/26/22 23:40	
PCB-1260 (Aroclor 1260)	ug/kg	<8.2	25.1	09/26/22 23:40	
Decachlorobiphenyl (S)	%	99	78-120	09/26/22 23:40	
Tetrachloro-m-xylene (S)	%	97	80-120	09/26/22 23:40	

LABORATORY CONTROL SAMPLE: 2452850

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<8.2			
PCB-1221 (Aroclor 1221)	ug/kg		<8.2			
PCB-1232 (Aroclor 1232)	ug/kg		<8.2			
PCB-1242 (Aroclor 1242)	ug/kg	249	258	104	66-106	
PCB-1248 (Aroclor 1248)	ug/kg		<8.2			
PCB-1254 (Aroclor 1254)	ug/kg		<8.2			
PCB-1260 (Aroclor 1260)	ug/kg		<8.2			
Decachlorobiphenyl (S)	%			106	78-120	
Tetrachloro-m-xylene (S)	%			105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2452851 2452852

Parameter	Units	40249873015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<24.7			<41.1	<41.0					20	
PCB-1221 (Aroclor 1221)	ug/kg	<24.7			<41.1	<41.0					20	
PCB-1232 (Aroclor 1232)	ug/kg	<24.7			<41.1	<41.0					20	
PCB-1242 (Aroclor 1242)	ug/kg	<24.7	1000	999	1490	1480	149	148	60-110	1	20	M1
PCB-1248 (Aroclor 1248)	ug/kg	1020			1790	1700				5	20	
PCB-1254 (Aroclor 1254)	ug/kg	540			693	642				8	20	
PCB-1260 (Aroclor 1260)	ug/kg	<24.7			<41.1	<41.0					20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2452851 2452852

Parameter	Units	40249873015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Decachlorobiphenyl (S)	%						114	116	78-120			
Tetrachloro-m-xylene (S)	%						109	111	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

QC Batch: 426004
QC Batch Method: Pace Lipid
Analysis Method: Pace Lipid
Analysis Description: LIPID
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249873001, 40249873002, 40249873003, 40249873004, 40249873005, 40249873006, 40249873007, 40249873008, 40249873009, 40249873010, 40249873011, 40249873012, 40249873013, 40249873014, 40249873015, 40249873016, 40249873017, 40249873018, 40249873019, 40249873020

METHOD BLANK: 2452853 Matrix: Tissue
Associated Lab Samples: 40249873001, 40249873002, 40249873003, 40249873004, 40249873005, 40249873006, 40249873007, 40249873008, 40249873009, 40249873010, 40249873011, 40249873012, 40249873013, 40249873014, 40249873015, 40249873016, 40249873017, 40249873018, 40249873019, 40249873020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Extraction Batch Number		426003		09/15/22 16:10	
Extraction Date/Time		09/15/2022		09/15/22 16:10	
Lipid	%	0.59		09/15/22 16:10	

SAMPLE DUPLICATE: 2452854

Parameter	Units	40249873015 Result	Dup Result	RPD	Max RPD	Qualifiers
Extraction Batch Number		426003	426003			
Extraction Date/Time		09/15/2022 07:37	09/15/2022			
Lipid	%	2.8	3.1	8	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S0	Surrogate recovery outside laboratory control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249873001	LR-AWS-4, 6/24/22	EPA 3541	426003	EPA 8082A	426805
40249873002	LR-AWS-5, 6/24/22	EPA 3541	426003	EPA 8082A	426805
40249873003	LR-AWS-6, 6/24/22	EPA 3541	426003	EPA 8082A	426805
40249873004	LR-AWS-7, 6/24/22	EPA 3541	426003	EPA 8082A	426805
40249873005	LR-AWS-8, 6/24/22	EPA 3541	426003	EPA 8082A	426805
40249873006	LR-RB-1, 6/24/22	EPA 3541	426003	EPA 8082A	426805
40249873007	LR-RB-2, 6/24/22	EPA 3541	426003	EPA 8082A	426805
40249873008	LR-RB-3, 6/24/22	EPA 3541	426003	EPA 8082A	426805
40249873009	LR-RB-4, 6/24/22	EPA 3541	426003	EPA 8082A	426805
40249873010	LR-RB-5, 6/24/22	EPA 3541	426003	EPA 8082A	426805
40249873011	LR-RB-6, 6/24/22	EPA 3541	426003	EPA 8082A	426805
40249873012	LR-RB-7, 6/24/22	EPA 3541	426003	EPA 8082A	426805
40249873013	LR-RB-8, 6/24/22	EPA 3541	426003	EPA 8082A	426805
40249873014	LR-RB-9, 6/24/22	EPA 3541	426003	EPA 8082A	426805
40249873015	URI-AC-1, 6/25/22	EPA 3541	426003	EPA 8082A	426805
40249873016	URI-AC-2, 6/25/22	EPA 3541	426003	EPA 8082A	426805
40249873017	URI-AC-3, 6/25/22	EPA 3541	426003	EPA 8082A	426805
40249873018	URI-AC-4, 6/25/22	EPA 3541	426003	EPA 8082A	426805
40249873019	URI-AC-5, 6/25/22	EPA 3541	426003	EPA 8082A	426805
40249873020	URI-AC-6, 6/25/22	EPA 3541	426003	EPA 8082A	426805
40249873001	LR-AWS-4, 6/24/22	Pace Gender Typing	424986		
40249873002	LR-AWS-5, 6/24/22	Pace Gender Typing	424986		
40249873003	LR-AWS-6, 6/24/22	Pace Gender Typing	424986		
40249873004	LR-AWS-7, 6/24/22	Pace Gender Typing	424986		
40249873005	LR-AWS-8, 6/24/22	Pace Gender Typing	424986		
40249873006	LR-RB-1, 6/24/22	Pace Gender Typing	424986		
40249873007	LR-RB-2, 6/24/22	Pace Gender Typing	424986		
40249873008	LR-RB-3, 6/24/22	Pace Gender Typing	424986		
40249873009	LR-RB-4, 6/24/22	Pace Gender Typing	424986		
40249873010	LR-RB-5, 6/24/22	Pace Gender Typing	424986		
40249873011	LR-RB-6, 6/24/22	Pace Gender Typing	424986		
40249873012	LR-RB-7, 6/24/22	Pace Gender Typing	424986		
40249873013	LR-RB-8, 6/24/22	Pace Gender Typing	424986		
40249873014	LR-RB-9, 6/24/22	Pace Gender Typing	424986		
40249873015	URI-AC-1, 6/25/22	Pace Gender Typing	424986		
40249873016	URI-AC-2, 6/25/22	Pace Gender Typing	424986		
40249873017	URI-AC-3, 6/25/22	Pace Gender Typing	424986		
40249873018	URI-AC-4, 6/25/22	Pace Gender Typing	424986		
40249873019	URI-AC-5, 6/25/22	Pace Gender Typing	424986		
40249873020	URI-AC-6, 6/25/22	Pace Gender Typing	424986		
40249873001	LR-AWS-4, 6/24/22	Pace Lipid	426004		
40249873002	LR-AWS-5, 6/24/22	Pace Lipid	426004		
40249873003	LR-AWS-6, 6/24/22	Pace Lipid	426004		
40249873004	LR-AWS-7, 6/24/22	Pace Lipid	426004		
40249873005	LR-AWS-8, 6/24/22	Pace Lipid	426004		
40249873006	LR-RB-1, 6/24/22	Pace Lipid	426004		
40249873007	LR-RB-2, 6/24/22	Pace Lipid	426004		
40249873008	LR-RB-3, 6/24/22	Pace Lipid	426004		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249873

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249873009	**LR-RB-4, 6/24/22**	Pace Lipid	426004		
40249873010	**LR-RB-5, 6/24/22**	Pace Lipid	426004		
40249873011	**LR-RB-6, 6/24/22**	Pace Lipid	426004		
40249873012	**LR-RB-7, 6/24/22**	Pace Lipid	426004		
40249873013	**LR-RB-8, 6/24/22**	Pace Lipid	426004		
40249873014	**LR-RB-9, 6/24/22**	Pace Lipid	426004		
40249873015	**URI-AC-1, 6/25/22**	Pace Lipid	426004		
40249873016	**URI-AC-2, 6/25/22**	Pace Lipid	426004		
40249873017	**URI-AC-3, 6/25/22**	Pace Lipid	426004		
40249873018	**URI-AC-4, 6/25/22**	Pace Lipid	426004		
40249873019	**URI-AC-5, 6/25/22**	Pace Lipid	426004		
40249873020	**URI-AC-6, 6/25/22**	Pace Lipid	426004		

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

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www.pacelabs.com

CHAIN OF CUSTODY

4024987 3

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513-319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	CW
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water, B = Biota, DW = Drinking Water, C = Charcoal, GW = Ground Water, O = Oil, SW = Surface Water, S = Soil, WW = Waste Water, SI = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Gender	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
	LR-SMB-4, 6/24/22	6/24/22		TS		A	X	X	X			
	LR-SMB-5, 6/24/22											
	LR-SMB-6, 6/24/22											
	LR-SMB-7, 6/24/22											
	LR-SMB-8, 6/24/22											
	LR-AWS-1, 6/24/22											
	LR-AWS-2, 6/24/22											
	LR-AWS-3, 6/24/22											
001	LR-AWS-4, 6/24/22											
002	LR-AWS-5, 6/24/22											
003	LR-AWS-6, 6/24/22											
004	LR-AWS-7, 6/24/22											
005	LR-AWS-8, 6/24/22	↓		↓		↓	↓	↓	↓			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
CW	8/15/22 7:30	MAW	8/15/22 0730

PACE Project No.: 4024987 3

Receipt Temp = 0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal: Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

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CHAIN OF CUSTODY

40249873

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513-319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water, B = Biota, DW = Drinking Water, C = Charcoal, GW = Ground Water, O = Oil, SW = Surface Water, S = Soil, WW = Waste Water, SI = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Gender	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
006	LR-RB-1, 6/24/22	6/24/22		TS		A	X	X	X			
007	LR-RB-2, 6/24/22											
008	LR-RB-3, 6/24/22											
009	LR-RB-4, 6/24/22											
010	LR-RB-5, 6/24/22											
011	LR-RB-6, 6/24/22											
012	LR-RB-7, 6/24/22											
013	LR-RB-8, 6/24/22											
014	LR-RB-9, 6/24/22	6/24/22										
015	UR1-AC-1, 6/25/22	6/25/22										
016	UR1-AC-2, 6/25/22											
017	UR1-AC-3, 6/25/22											
018	UR1-AC-4, 6/25/22											

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 730		8/15/22 0730
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
40249873

Receipt Temp = ( ) °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

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UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

CHAIN OF CUSTODY

4024987 3

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Equa
Phone:	513-314-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weitenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

FILTERED? (YES/NO)
PRESERVATION (CODE)*

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Y/N	Pick Letter	PCB	% Lipid	Gender	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
019	URI-Ac-5, 6/25/22	6/25/22		TS		A	X	X	X			
020	URI-Ac-6, 6/25/22											
	URI-Ac-7, 6/25/22											
	URI-Ac-8, 6/25/22											
	URI-Ac-9, 6/25/22											
	URI-Ac-10, 6/25/22											
	URI-Ac-11, 6/25/22											
	URI-Ac-12, 6/25/22											
	URI-Aws-1, 6/25/22											
	URI-Aws-2, 6/25/22											
	URI-Aws-3, 6/25/22											
	URI-Aws-4, 6/25/22											
	URI-Aws-5, 6/25/22	↓		↓		↓	↓	↓	↓			

Analyses Requested

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 730		8/15/22 0730
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
4024987 3

Receipt Temp = 0 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/06

Sample Preservation Receipt Form

Client Name: PRS Project # 40249873

All containers needing preservation have been checked and noted below: ☐Yes ☐No ~~☐N/A~~

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted): Initial when completed: Date/ Time:

Pace Lab #	Glass								Plastic					Vials						Jars				General			VOA Vials (>6mm)	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN						
001																																2.5 / 5 / 10
002																																2.5 / 5 / 10
003																																2.5 / 5 / 10
004																																2.5 / 5 / 10
005																																2.5 / 5 / 10
006																																2.5 / 5 / 10
007																																2.5 / 5 / 10
008																																2.5 / 5 / 10
009																																2.5 / 5 / 10
010																																2.5 / 5 / 10
011																																2.5 / 5 / 10
012																																2.5 / 5 / 10
013																																2.5 / 5 / 10
014																																2.5 / 5 / 10
015																																2.5 / 5 / 10
016																																2.5 / 5 / 10
017																																2.5 / 5 / 10
018																																2.5 / 5 / 10
019																																2.5 / 5 / 10
020																																2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ~~☐N/A~~ ***If yes look in headspace column**

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN	

Page 1 of 2

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO#: 40249873

40249873

Client Name: PRS

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☑ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used SR - 120 **Type of Ice:** Wet Blue Dry (None) ☐ Samples on ice

Cooler Temperature Uncorr: 0 /Corr: 0

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☑ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
Date: 8/15/22 Initials: MH

Labeled By Initials: NR

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. NO mail or invoice mH 8/15/22
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume:		8.
For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☐Yes ☑No ☐N/A	
-Pace IR Containers Used:	☐Yes ☑No ☐N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix:	B	
Trip Blank Present:	☐Yes ☐No ☑N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi

Page 2 of 2

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

September 15, 2022

Aaron Lammers
SME
3301 Tech Circle
Kalamazoo, MI 49008

RE: Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Dear Aaron Lammers:

Enclosed are the analytical results for sample(s) received by the laboratory on August 15, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tod Noltemeyer

Tod Noltemeyer
tod.noltemeyer@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Pace Analytical Services Green Bay
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

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(920)469-2436

SAMPLE SUMMARY

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40249874001	**URI-AC-7, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874002	**URI-AC-8, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874003	**URI-AC-9, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874004	**URI-AC-10, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874005	**URI-AC-11, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874006	**URI-AC-12, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874007	**URI-AWS-1, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874008	**URI-AWS-2, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874009	**URI-AWS-3, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874010	**URI-AWS-4, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874011	**URI-AWS-5, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874012	**URI-AWS-6, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874013	**URI-AWS-7, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874014	**URI-AWS-8, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874015	**URI-AWS-9, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874016	**URI-AWS-10, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874017	**URI-AWS-11, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874018	**URI-AWS-12, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874019	**URI-SMB-1, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249874020	**URI-SMB-2, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30

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SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40249874001	URI-AC-7, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874002	URI-AC-8, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874003	URI-AC-9, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874004	URI-AC-10, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874005	URI-AC-11, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874006	URI-AC-12, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874007	URI-AWS-1, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874008	URI-AWS-2, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874009	URI-AWS-3, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874010	URI-AWS-4, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874011	URI-AWS-5, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874012	URI-AWS-6, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874013	URI-AWS-7, 6/25/22	EPA 8082A	BLM	10

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SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874014	**URI-AWS-8, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874015	**URI-AWS-9, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874016	**URI-AWS-10, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874017	**URI-AWS-11, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874018	**URI-AWS-12, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874019	**URI-SMB-1, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249874020	**URI-SMB-2, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3

PASI-G = Pace Analytical Services - Green Bay

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: September 15, 2022

General Information:
20 samples were analyzed for EPA 8082A by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 425297

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- URI-AC-10, 6/25/22 (Lab ID: 40249874004)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- URI-AC-12, 6/25/22 (Lab ID: 40249874006)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- URI-AC-8, 6/25/22 (Lab ID: 40249874002)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- URI-AWS-10, 6/25/22 (Lab ID: 40249874016)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- URI-AWS-3, 6/25/22 (Lab ID: 40249874009)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- URI-AWS-8, 6/25/22 (Lab ID: 40249874014)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: September 15, 2022

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
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Green Bay, WI 54302
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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Method: **Pace Gender Typing**
Description: Fish Gender Typing
Client: POLLUTION RISK SERVICES
Date: September 15, 2022

General Information:
20 samples were analyzed for Pace Gender Typing by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Method: **Pace Lipid**
Description: Lipid
Client: POLLUTION RISK SERVICES
Date: September 15, 2022

General Information:
20 samples were analyzed for Pace Lipid by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AC-7, 6/25/22 **Lab ID: 40249874001** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 10:37	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 10:37	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 10:37	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 10:37	53469-21-9	
PCB-1248 (Aroclor 1248)	**173**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 10:37	12672-29-6	
PCB-1254 (Aroclor 1254)	**120**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 10:37	11097-69-1	
PCB-1260 (Aroclor 1260)	**35.8**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 10:37	11096-82-5	
PCB, Total	**329**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 10:37	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	96	%	80-120		1	09/07/22 10:44	09/14/22 10:37	877-09-8	
Decachlorobiphenyl (S)	93	%	78-120		1	09/07/22 10:44	09/14/22 10:37	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:20		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:20		
Lipid	**0.86**	%			1		09/08/22 09:20		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AC-8, 6/25/22 **Lab ID: 40249874002** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<123**	ug/kg	375	123	15	09/07/22 10:44	09/14/22 11:01	12674-11-2	
PCB-1221 (Aroclor 1221)	**<123**	ug/kg	375	123	15	09/07/22 10:44	09/14/22 11:01	11104-28-2	
PCB-1232 (Aroclor 1232)	**<123**	ug/kg	375	123	15	09/07/22 10:44	09/14/22 11:01	11141-16-5	
PCB-1242 (Aroclor 1242)	**<123**	ug/kg	375	123	15	09/07/22 10:44	09/14/22 11:01	53469-21-9	
PCB-1248 (Aroclor 1248)	**4830**	ug/kg	375	123	15	09/07/22 10:44	09/14/22 11:01	12672-29-6	
PCB-1254 (Aroclor 1254)	**2800**	ug/kg	375	123	15	09/07/22 10:44	09/14/22 11:01	11097-69-1	
PCB-1260 (Aroclor 1260)	**<123**	ug/kg	375	123	15	09/07/22 10:44	09/14/22 11:01	11096-82-5	
PCB, Total	**7630**	ug/kg	375	123	15	09/07/22 10:44	09/14/22 11:01	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		15	09/07/22 10:44	09/14/22 11:01	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		15	09/07/22 10:44	09/14/22 11:01	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:20		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:20		
Lipid	**7.1**	%			1		09/08/22 09:20		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AC-9, 6/25/22 **Lab ID: 40249874003** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<65.6**	ug/kg	200	65.6	8	09/07/22 10:44	09/14/22 19:31	12674-11-2	
PCB-1221 (Aroclor 1221)	**<65.6**	ug/kg	200	65.6	8	09/07/22 10:44	09/14/22 19:31	11104-28-2	
PCB-1232 (Aroclor 1232)	**<65.6**	ug/kg	200	65.6	8	09/07/22 10:44	09/14/22 19:31	11141-16-5	
PCB-1242 (Aroclor 1242)	**<65.6**	ug/kg	200	65.6	8	09/07/22 10:44	09/14/22 19:31	53469-21-9	
PCB-1248 (Aroclor 1248)	**2700**	ug/kg	200	65.6	8	09/07/22 10:44	09/14/22 19:31	12672-29-6	
PCB-1254 (Aroclor 1254)	**1540**	ug/kg	200	65.6	8	09/07/22 10:44	09/14/22 19:31	11097-69-1	
PCB-1260 (Aroclor 1260)	**<65.6**	ug/kg	200	65.6	8	09/07/22 10:44	09/14/22 19:31	11096-82-5	
PCB, Total	**4230**	ug/kg	200	65.6	8	09/07/22 10:44	09/14/22 19:31	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	108	%	80-120		8	09/07/22 10:44	09/14/22 19:31	877-09-8	
Decachlorobiphenyl (S)	120	%	78-120		8	09/07/22 10:44	09/14/22 19:31	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:20		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:20		
Lipid	**4.1**	%			1		09/08/22 09:20		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AC-10, 6/25/22 **Lab ID: 40249874004** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<164**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 11:50	12674-11-2	
PCB-1221 (Aroclor 1221)	**<164**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 11:50	11104-28-2	
PCB-1232 (Aroclor 1232)	**<164**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 11:50	11141-16-5	
PCB-1242 (Aroclor 1242)	**<164**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 11:50	53469-21-9	
PCB-1248 (Aroclor 1248)	**8290**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 11:50	12672-29-6	
PCB-1254 (Aroclor 1254)	**6210**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 11:50	11097-69-1	
PCB-1260 (Aroclor 1260)	**<164**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 11:50	11096-82-5	
PCB, Total	**14500**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 11:50	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		20	09/07/22 10:44	09/14/22 11:50	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		20	09/07/22 10:44	09/14/22 11:50	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:21		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:21		
Lipid	**7.2**	%			1		09/08/22 09:21		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AC-11, 6/25/22 **Lab ID: 40249874005** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<81.9**	ug/kg	249	81.9	10	09/07/22 10:44	09/14/22 12:15	12674-11-2	
PCB-1221 (Aroclor 1221)	**<81.9**	ug/kg	249	81.9	10	09/07/22 10:44	09/14/22 12:15	11104-28-2	
PCB-1232 (Aroclor 1232)	**<81.9**	ug/kg	249	81.9	10	09/07/22 10:44	09/14/22 12:15	11141-16-5	
PCB-1242 (Aroclor 1242)	**<81.9**	ug/kg	249	81.9	10	09/07/22 10:44	09/14/22 12:15	53469-21-9	
PCB-1248 (Aroclor 1248)	**4290**	ug/kg	249	81.9	10	09/07/22 10:44	09/14/22 12:15	12672-29-6	
PCB-1254 (Aroclor 1254)	**3100**	ug/kg	249	81.9	10	09/07/22 10:44	09/14/22 12:15	11097-69-1	
PCB-1260 (Aroclor 1260)	**<81.9**	ug/kg	249	81.9	10	09/07/22 10:44	09/14/22 12:15	11096-82-5	
PCB, Total	**7390**	ug/kg	249	81.9	10	09/07/22 10:44	09/14/22 12:15	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	108	%	80-120		10	09/07/22 10:44	09/14/22 12:15	877-09-8	
Decachlorobiphenyl (S)	110	%	78-120		10	09/07/22 10:44	09/14/22 12:15	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:21		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:21		
Lipid	**3.0**	%			1		09/08/22 09:21		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AC-12, 6/25/22 **Lab ID: 40249874006** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<164**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 12:40	12674-11-2	
PCB-1221 (Aroclor 1221)	**<164**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 12:40	11104-28-2	
PCB-1232 (Aroclor 1232)	**<164**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 12:40	11141-16-5	
PCB-1242 (Aroclor 1242)	**<164**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 12:40	53469-21-9	
PCB-1248 (Aroclor 1248)	**5480**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 12:40	12672-29-6	
PCB-1254 (Aroclor 1254)	**3530**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 12:40	11097-69-1	
PCB-1260 (Aroclor 1260)	**<164**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 12:40	11096-82-5	
PCB, Total	**9020**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 12:40	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		20	09/07/22 10:44	09/14/22 12:40	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		20	09/07/22 10:44	09/14/22 12:40	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:21		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:21		
Lipid	**6.8**	%			1		09/08/22 09:21		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AWS-1, 6/25/22 **Lab ID: 40249874007** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.9	16.4	2	09/07/22 10:44	09/14/22 13:04	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.9	16.4	2	09/07/22 10:44	09/14/22 13:04	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.9	16.4	2	09/07/22 10:44	09/14/22 13:04	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.9	16.4	2	09/07/22 10:44	09/14/22 13:04	53469-21-9	
PCB-1248 (Aroclor 1248)	**709**	ug/kg	49.9	16.4	2	09/07/22 10:44	09/14/22 13:04	12672-29-6	
PCB-1254 (Aroclor 1254)	**681**	ug/kg	49.9	16.4	2	09/07/22 10:44	09/14/22 13:04	11097-69-1	
PCB-1260 (Aroclor 1260)	**54.7**	ug/kg	49.9	16.4	2	09/07/22 10:44	09/14/22 13:04	11096-82-5	
PCB, Total	**1440**	ug/kg	49.9	16.4	2	09/07/22 10:44	09/14/22 13:04	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	106	%	80-120		2	09/07/22 10:44	09/14/22 13:04	877-09-8	
Decachlorobiphenyl (S)	100	%	78-120		2	09/07/22 10:44	09/14/22 13:04	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:21		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:21		
Lipid	**1.8**	%			1		09/08/22 09:21		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AWS-2, 6/25/22 **Lab ID: 40249874008** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<32.9**	ug/kg	100	32.9	4	09/07/22 10:44	09/14/22 13:28	12674-11-2	
PCB-1221 (Aroclor 1221)	**<32.9**	ug/kg	100	32.9	4	09/07/22 10:44	09/14/22 13:28	11104-28-2	
PCB-1232 (Aroclor 1232)	**<32.9**	ug/kg	100	32.9	4	09/07/22 10:44	09/14/22 13:28	11141-16-5	
PCB-1242 (Aroclor 1242)	**<32.9**	ug/kg	100	32.9	4	09/07/22 10:44	09/14/22 13:28	53469-21-9	
PCB-1248 (Aroclor 1248)	**1050**	ug/kg	100	32.9	4	09/07/22 10:44	09/14/22 13:28	12672-29-6	
PCB-1254 (Aroclor 1254)	**849**	ug/kg	100	32.9	4	09/07/22 10:44	09/14/22 13:28	11097-69-1	
PCB-1260 (Aroclor 1260)	**<32.9**	ug/kg	100	32.9	4	09/07/22 10:44	09/14/22 13:28	11096-82-5	
PCB, Total	**1900**	ug/kg	100	32.9	4	09/07/22 10:44	09/14/22 13:28	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	105	%	80-120		4	09/07/22 10:44	09/14/22 13:28	877-09-8	
Decachlorobiphenyl (S)	104	%	78-120		4	09/07/22 10:44	09/14/22 13:28	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:22		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:22		
Lipid	**1.5**	%			1		09/08/22 09:22		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AWS-3, 6/25/22 **Lab ID: 40249874009** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<247**	ug/kg	751	247	30	09/07/22 10:44	09/15/22 09:41	12674-11-2	
PCB-1221 (Aroclor 1221)	**<247**	ug/kg	751	247	30	09/07/22 10:44	09/15/22 09:41	11104-28-2	
PCB-1232 (Aroclor 1232)	**<247**	ug/kg	751	247	30	09/07/22 10:44	09/15/22 09:41	11141-16-5	
PCB-1242 (Aroclor 1242)	**<247**	ug/kg	751	247	30	09/07/22 10:44	09/15/22 09:41	53469-21-9	
PCB-1248 (Aroclor 1248)	**11700**	ug/kg	751	247	30	09/07/22 10:44	09/15/22 09:41	12672-29-6	
PCB-1254 (Aroclor 1254)	**11400**	ug/kg	751	247	30	09/07/22 10:44	09/15/22 09:41	11097-69-1	
PCB-1260 (Aroclor 1260)	**<247**	ug/kg	751	247	30	09/07/22 10:44	09/15/22 09:41	11096-82-5	
PCB, Total	**23100**	ug/kg	751	247	30	09/07/22 10:44	09/15/22 09:41	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		30	09/07/22 10:44	09/15/22 09:41	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		30	09/07/22 10:44	09/15/22 09:41	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:22		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:22		
Lipid	**4.3**	%			1		09/08/22 09:22		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AWS-4, 6/25/22 **Lab ID: 40249874010** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<40.9**	ug/kg	125	40.9	5	09/07/22 10:44	09/14/22 15:06	12674-11-2	
PCB-1221 (Aroclor 1221)	**<40.9**	ug/kg	125	40.9	5	09/07/22 10:44	09/14/22 15:06	11104-28-2	
PCB-1232 (Aroclor 1232)	**<40.9**	ug/kg	125	40.9	5	09/07/22 10:44	09/14/22 15:06	11141-16-5	
PCB-1242 (Aroclor 1242)	**<40.9**	ug/kg	125	40.9	5	09/07/22 10:44	09/14/22 15:06	53469-21-9	
PCB-1248 (Aroclor 1248)	**1660**	ug/kg	125	40.9	5	09/07/22 10:44	09/14/22 15:06	12672-29-6	
PCB-1254 (Aroclor 1254)	**1530**	ug/kg	125	40.9	5	09/07/22 10:44	09/14/22 15:06	11097-69-1	
PCB-1260 (Aroclor 1260)	**<40.9**	ug/kg	125	40.9	5	09/07/22 10:44	09/14/22 15:06	11096-82-5	
PCB, Total	**3200**	ug/kg	125	40.9	5	09/07/22 10:44	09/14/22 15:06	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	106	%	80-120		5	09/07/22 10:44	09/14/22 15:06	877-09-8	
Decachlorobiphenyl (S)	108	%	78-120		5	09/07/22 10:44	09/14/22 15:06	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:22		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:22		
Lipid	**2.1**	%			1		09/08/22 09:22		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AWS-5, 6/25/22 **Lab ID: 40249874011** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.1**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 15:30	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.1**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 15:30	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.1**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 15:30	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.1**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 15:30	53469-21-9	
PCB-1248 (Aroclor 1248)	**2070**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 15:30	12672-29-6	
PCB-1254 (Aroclor 1254)	**1810**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 15:30	11097-69-1	
PCB-1260 (Aroclor 1260)	**<41.1**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 15:30	11096-82-5	
PCB, Total	**3880**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 15:30	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	107	%	80-120		5	09/07/22 10:44	09/14/22 15:30	877-09-8	
Decachlorobiphenyl (S)	110	%	78-120		5	09/07/22 10:44	09/14/22 15:30	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:23		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:23		
Lipid	**2.0**	%			1		09/08/22 09:23		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AWS-6, 6/25/22 **Lab ID: 40249874012** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.1**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 15:54	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.1**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 15:54	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.1**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 15:54	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.1**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 15:54	53469-21-9	
PCB-1248 (Aroclor 1248)	**1270**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 15:54	12672-29-6	
PCB-1254 (Aroclor 1254)	**1250**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 15:54	11097-69-1	
PCB-1260 (Aroclor 1260)	**97.8J**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 15:54	11096-82-5	
PCB, Total	**2610**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 15:54	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	106	%	80-120		5	09/07/22 10:44	09/14/22 15:54	877-09-8	
Decachlorobiphenyl (S)	107	%	78-120		5	09/07/22 10:44	09/14/22 15:54	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:23		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:23		
Lipid	**2.3**	%			1		09/08/22 09:23		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AWS-7, 6/25/22 **Lab ID: 40249874013** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.9	16.4	2	09/07/22 10:44	09/14/22 16:18	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.9	16.4	2	09/07/22 10:44	09/14/22 16:18	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.9	16.4	2	09/07/22 10:44	09/14/22 16:18	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.9	16.4	2	09/07/22 10:44	09/14/22 16:18	53469-21-9	
PCB-1248 (Aroclor 1248)	**764**	ug/kg	49.9	16.4	2	09/07/22 10:44	09/14/22 16:18	12672-29-6	
PCB-1254 (Aroclor 1254)	**541**	ug/kg	49.9	16.4	2	09/07/22 10:44	09/14/22 16:18	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	49.9	16.4	2	09/07/22 10:44	09/14/22 16:18	11096-82-5	
PCB, Total	**1310**	ug/kg	49.9	16.4	2	09/07/22 10:44	09/14/22 16:18	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	105	%	80-120		2	09/07/22 10:44	09/14/22 16:18	877-09-8	
Decachlorobiphenyl (S)	104	%	78-120		2	09/07/22 10:44	09/14/22 16:18	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:23		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:23		
Lipid	**2.0**	%			1		09/08/22 09:23		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AWS-8, 6/25/22 **Lab ID: 40249874014** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<123**	ug/kg	375	123	15	09/07/22 10:44	09/14/22 16:42	12674-11-2	
PCB-1221 (Aroclor 1221)	**<123**	ug/kg	375	123	15	09/07/22 10:44	09/14/22 16:42	11104-28-2	
PCB-1232 (Aroclor 1232)	**<123**	ug/kg	375	123	15	09/07/22 10:44	09/14/22 16:42	11141-16-5	
PCB-1242 (Aroclor 1242)	**<123**	ug/kg	375	123	15	09/07/22 10:44	09/14/22 16:42	53469-21-9	
PCB-1248 (Aroclor 1248)	**3880**	ug/kg	375	123	15	09/07/22 10:44	09/14/22 16:42	12672-29-6	
PCB-1254 (Aroclor 1254)	**4270**	ug/kg	375	123	15	09/07/22 10:44	09/14/22 16:42	11097-69-1	
PCB-1260 (Aroclor 1260)	**303J**	ug/kg	375	123	15	09/07/22 10:44	09/14/22 16:42	11096-82-5	
PCB, Total	**8460**	ug/kg	375	123	15	09/07/22 10:44	09/14/22 16:42	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		15	09/07/22 10:44	09/14/22 16:42	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		15	09/07/22 10:44	09/14/22 16:42	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:23		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:23		
Lipid	**1.3**	%			1		09/08/22 09:23		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AWS-9, 6/25/22 **Lab ID: 40249874015** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.1**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 17:06	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.1**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 17:06	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.1**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 17:06	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.1**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 17:06	53469-21-9	
PCB-1248 (Aroclor 1248)	**2410**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 17:06	12672-29-6	
PCB-1254 (Aroclor 1254)	**2300**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 17:06	11097-69-1	
PCB-1260 (Aroclor 1260)	**<41.1**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 17:06	11096-82-5	
PCB, Total	**4710**	ug/kg	125	41.1	5	09/07/22 10:44	09/14/22 17:06	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	107	%	80-120		5	09/07/22 10:44	09/14/22 17:06	877-09-8	
Decachlorobiphenyl (S)	111	%	78-120		5	09/07/22 10:44	09/14/22 17:06	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:24		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:24		
Lipid	**2.6**	%			1		09/08/22 09:24		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AWS-10, 6/25/22 **Lab ID: 40249874016** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<164**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 17:30	12674-11-2	
PCB-1221 (Aroclor 1221)	**<164**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 17:30	11104-28-2	
PCB-1232 (Aroclor 1232)	**<164**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 17:30	11141-16-5	
PCB-1242 (Aroclor 1242)	**<164**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 17:30	53469-21-9	
PCB-1248 (Aroclor 1248)	**3330**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 17:30	12672-29-6	
PCB-1254 (Aroclor 1254)	**4180**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 17:30	11097-69-1	
PCB-1260 (Aroclor 1260)	**<164**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 17:30	11096-82-5	
PCB, Total	**7500**	ug/kg	500	164	20	09/07/22 10:44	09/14/22 17:30	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		20	09/07/22 10:44	09/14/22 17:30	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		20	09/07/22 10:44	09/14/22 17:30	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:24		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:24		
Lipid	**3.3**	%			1		09/08/22 09:24		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AWS-11, 6/25/22 **Lab ID: 40249874017** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 17:54	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 17:54	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 17:54	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 17:54	53469-21-9	
PCB-1248 (Aroclor 1248)	**435**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 17:54	12672-29-6	
PCB-1254 (Aroclor 1254)	**429**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 17:54	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 17:54	11096-82-5	
PCB, Total	**864**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 17:54	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	102	%	80-120		1	09/07/22 10:44	09/14/22 17:54	877-09-8	
Decachlorobiphenyl (S)	100	%	78-120		1	09/07/22 10:44	09/14/22 17:54	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:24		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:24		
Lipid	**1.1**	%			1		09/08/22 09:24		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-AWS-12, 6/25/22 **Lab ID: 40249874018** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.5**	ug/kg	50.1	16.5	2	09/07/22 10:44	09/15/22 10:01	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.5**	ug/kg	50.1	16.5	2	09/07/22 10:44	09/15/22 10:01	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.5**	ug/kg	50.1	16.5	2	09/07/22 10:44	09/15/22 10:01	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.5**	ug/kg	50.1	16.5	2	09/07/22 10:44	09/15/22 10:01	53469-21-9	
PCB-1248 (Aroclor 1248)	**532**	ug/kg	50.1	16.5	2	09/07/22 10:44	09/15/22 10:01	12672-29-6	
PCB-1254 (Aroclor 1254)	**326**	ug/kg	50.1	16.5	2	09/07/22 10:44	09/15/22 10:01	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.5**	ug/kg	50.1	16.5	2	09/07/22 10:44	09/15/22 10:01	11096-82-5	
PCB, Total	**858**	ug/kg	50.1	16.5	2	09/07/22 10:44	09/15/22 10:01	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	102	%	80-120		2	09/07/22 10:44	09/15/22 10:01	877-09-8	
Decachlorobiphenyl (S)	100	%	78-120		2	09/07/22 10:44	09/15/22 10:01	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:24		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:24		
Lipid	**1.3**	%			1		09/08/22 09:24		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-SMB-1, 6/25/22 **Lab ID: 40249874019** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<24.6**	ug/kg	75.0	24.6	3	09/07/22 10:44	09/14/22 18:43	12674-11-2	
PCB-1221 (Aroclor 1221)	**<24.6**	ug/kg	75.0	24.6	3	09/07/22 10:44	09/14/22 18:43	11104-28-2	
PCB-1232 (Aroclor 1232)	**<24.6**	ug/kg	75.0	24.6	3	09/07/22 10:44	09/14/22 18:43	11141-16-5	
PCB-1242 (Aroclor 1242)	**<24.6**	ug/kg	75.0	24.6	3	09/07/22 10:44	09/14/22 18:43	53469-21-9	
PCB-1248 (Aroclor 1248)	**535**	ug/kg	75.0	24.6	3	09/07/22 10:44	09/14/22 18:43	12672-29-6	
PCB-1254 (Aroclor 1254)	**1350**	ug/kg	75.0	24.6	3	09/07/22 10:44	09/14/22 18:43	11097-69-1	
PCB-1260 (Aroclor 1260)	**136**	ug/kg	75.0	24.6	3	09/07/22 10:44	09/14/22 18:43	11096-82-5	
PCB, Total	**2020**	ug/kg	75.0	24.6	3	09/07/22 10:44	09/14/22 18:43	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	98	%	80-120		3	09/07/22 10:44	09/14/22 18:43	877-09-8	
Decachlorobiphenyl (S)	97	%	78-120		3	09/07/22 10:44	09/14/22 18:43	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:25		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:25		
Lipid	**0.28**	%			1		09/08/22 09:25		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Sample: URI-SMB-2, 6/25/22 **Lab ID: 40249874020** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 19:07	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 19:07	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 19:07	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 19:07	53469-21-9	
PCB-1248 (Aroclor 1248)	**280**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 19:07	12672-29-6	
PCB-1254 (Aroclor 1254)	**340**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 19:07	11097-69-1	
PCB-1260 (Aroclor 1260)	**30.1**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 19:07	11096-82-5	
PCB, Total	**650**	ug/kg	25.0	8.2	1	09/07/22 10:44	09/14/22 19:07	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	96	%	80-120		1	09/07/22 10:44	09/14/22 19:07	877-09-8	
Decachlorobiphenyl (S)	93	%	78-120		1	09/07/22 10:44	09/14/22 19:07	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/23/22 07:15		
Fillet Selected	**Both**				1		08/23/22 07:15		
Fillet Weight	**0.0**	g			1		08/23/22 07:15		
Homogenized Weight	**0.0**	g			1		08/23/22 07:15		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425297**				1		09/08/22 09:25		
Extraction Date/Time	**09/07/2022 10:14:21:944**				1		09/08/22 09:25		
Lipid	**0.35**	%			1		09/08/22 09:25		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

QC Batch: 425297
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249874001, 40249874002, 40249874003, 40249874004, 40249874005, 40249874006, 40249874007, 40249874008, 40249874009, 40249874010, 40249874011, 40249874012, 40249874013, 40249874014, 40249874015, 40249874016, 40249874017, 40249874018, 40249874019, 40249874020

METHOD BLANK: 2449089 Matrix: Tissue
Associated Lab Samples: 40249874001, 40249874002, 40249874003, 40249874004, 40249874005, 40249874006, 40249874007, 40249874008, 40249874009, 40249874010, 40249874011, 40249874012, 40249874013, 40249874014, 40249874015, 40249874016, 40249874017, 40249874018, 40249874019, 40249874020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<8.2	25.0	09/14/22 08:59	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2	25.0	09/14/22 08:59	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2	25.0	09/14/22 08:59	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2	25.0	09/14/22 08:59	
PCB-1248 (Aroclor 1248)	ug/kg	<8.2	25.0	09/14/22 08:59	
PCB-1254 (Aroclor 1254)	ug/kg	<8.2	25.0	09/14/22 08:59	
PCB-1260 (Aroclor 1260)	ug/kg	<8.2	25.0	09/14/22 08:59	
Decachlorobiphenyl (S)	%	85	78-120	09/14/22 08:59	
Tetrachloro-m-xylene (S)	%	93	80-120	09/14/22 08:59	

LABORATORY CONTROL SAMPLE: 2449090

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<8.2			
PCB-1221 (Aroclor 1221)	ug/kg		<8.2			
PCB-1232 (Aroclor 1232)	ug/kg		<8.2			
PCB-1242 (Aroclor 1242)	ug/kg		<8.2			
PCB-1248 (Aroclor 1248)	ug/kg		<8.2			
PCB-1254 (Aroclor 1254)	ug/kg	250	215	86	66-106	
PCB-1260 (Aroclor 1260)	ug/kg		<8.2			
Decachlorobiphenyl (S)	%			85	78-120	
Tetrachloro-m-xylene (S)	%			92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2449091 2449092

Parameter	Units	40249874001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<8.2			<32.8	<32.9					20	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2			<32.8	<32.9					20	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2			<32.8	<32.9					20	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2			<32.8	<32.9					20	
PCB-1248 (Aroclor 1248)	ug/kg	173			354	354				0	20	
PCB-1254 (Aroclor 1254)	ug/kg	120	999	1000	1140	1150	102	103	60-110	1	20	
PCB-1260 (Aroclor 1260)	ug/kg	35.8			<32.8	<32.9					20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2449091 2449092

Parameter	Units	40249874001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Decachlorobiphenyl (S)	%						102	104	78-120			
Tetrachloro-m-xylene (S)	%						103	104	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

QC Batch: 425433
QC Batch Method: Pace Lipid
Analysis Method: Pace Lipid
Analysis Description: LIPID
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249874001, 40249874002, 40249874003, 40249874004, 40249874005, 40249874006, 40249874007, 40249874008, 40249874009, 40249874010, 40249874011, 40249874012, 40249874013, 40249874014, 40249874015, 40249874016, 40249874017, 40249874018, 40249874019, 40249874020

METHOD BLANK: 2449653
Matrix: Tissue
Associated Lab Samples: 40249874001, 40249874002, 40249874003, 40249874004, 40249874005, 40249874006, 40249874007, 40249874008, 40249874009, 40249874010, 40249874011, 40249874012, 40249874013, 40249874014, 40249874015, 40249874016, 40249874017, 40249874018, 40249874019, 40249874020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Extraction Batch Number		425297		09/08/22 09:19	
Extraction Date/Time		09/07/2022		09/08/22 09:19	
Lipid	%	0.60		09/08/22 09:19	

SAMPLE DUPLICATE: 2449654

Parameter	Units	40249874001 Result	Dup Result	RPD	Max RPD	Qualifiers
Extraction Batch Number		425297	425297			
Extraction Date/Time		09/07/2022 10:14:21:944	09/07/2022			
Lipid	%	0.86	0.94	9	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

S4 Surrogate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249874001	URI-AC-7, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874002	URI-AC-8, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874003	URI-AC-9, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874004	URI-AC-10, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874005	URI-AC-11, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874006	URI-AC-12, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874007	URI-AWS-1, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874008	URI-AWS-2, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874009	URI-AWS-3, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874010	URI-AWS-4, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874011	URI-AWS-5, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874012	URI-AWS-6, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874013	URI-AWS-7, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874014	URI-AWS-8, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874015	URI-AWS-9, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874016	URI-AWS-10, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874017	URI-AWS-11, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874018	URI-AWS-12, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874019	URI-SMB-1, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874020	URI-SMB-2, 6/25/22	EPA 3541	425297	EPA 8082A	425825
40249874001	URI-AC-7, 6/25/22	Pace Gender Typing	424341		
40249874002	URI-AC-8, 6/25/22	Pace Gender Typing	424341		
40249874003	URI-AC-9, 6/25/22	Pace Gender Typing	424341		
40249874004	URI-AC-10, 6/25/22	Pace Gender Typing	424341		
40249874005	URI-AC-11, 6/25/22	Pace Gender Typing	424341		
40249874006	URI-AC-12, 6/25/22	Pace Gender Typing	424341		
40249874007	URI-AWS-1, 6/25/22	Pace Gender Typing	424341		
40249874008	URI-AWS-2, 6/25/22	Pace Gender Typing	424341		
40249874009	URI-AWS-3, 6/25/22	Pace Gender Typing	424341		
40249874010	URI-AWS-4, 6/25/22	Pace Gender Typing	424341		
40249874011	URI-AWS-5, 6/25/22	Pace Gender Typing	424341		
40249874012	URI-AWS-6, 6/25/22	Pace Gender Typing	424341		
40249874013	URI-AWS-7, 6/25/22	Pace Gender Typing	424341		
40249874014	URI-AWS-8, 6/25/22	Pace Gender Typing	424341		
40249874015	URI-AWS-9, 6/25/22	Pace Gender Typing	424341		
40249874016	URI-AWS-10, 6/25/22	Pace Gender Typing	424341		
40249874017	URI-AWS-11, 6/25/22	Pace Gender Typing	424341		
40249874018	URI-AWS-12, 6/25/22	Pace Gender Typing	424341		
40249874019	URI-SMB-1, 6/25/22	Pace Gender Typing	424341		
40249874020	URI-SMB-2, 6/25/22	Pace Gender Typing	424341		
40249874001	URI-AC-7, 6/25/22	Pace Lipid	425433		
40249874002	URI-AC-8, 6/25/22	Pace Lipid	425433		
40249874003	URI-AC-9, 6/25/22	Pace Lipid	425433		
40249874004	URI-AC-10, 6/25/22	Pace Lipid	425433		
40249874005	URI-AC-11, 6/25/22	Pace Lipid	425433		
40249874006	URI-AC-12, 6/25/22	Pace Lipid	425433		
40249874007	URI-AWS-1, 6/25/22	Pace Lipid	425433		
40249874008	URI-AWS-2, 6/25/22	Pace Lipid	425433		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249874

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249874009	**URI-AWS-3, 6/25/22**	Pace Lipid	425433		
40249874010	**URI-AWS-4, 6/25/22**	Pace Lipid	425433		
40249874011	**URI-AWS-5, 6/25/22**	Pace Lipid	425433		
40249874012	**URI-AWS-6, 6/25/22**	Pace Lipid	425433		
40249874013	**URI-AWS-7, 6/25/22**	Pace Lipid	425433		
40249874014	**URI-AWS-8, 6/25/22**	Pace Lipid	425433		
40249874015	**URI-AWS-9, 6/25/22**	Pace Lipid	425433		
40249874016	**URI-AWS-10, 6/25/22**	Pace Lipid	425433		
40249874017	**URI-AWS-11, 6/25/22**	Pace Lipid	425433		
40249874018	**URI-AWS-12, 6/25/22**	Pace Lipid	425433		
40249874019	**URI-SMB-1, 6/25/22**	Pace Lipid	425433		
40249874020	**URI-SMB-2, 6/25/22**	Pace Lipid	425433		

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www.pacelabs.com

CHAIN OF CUSTODY

4024874

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513-314-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Gender	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
	URI-Ac-5, 6/25/22	6/25/22		TS		A	X	X	X			
	URI-Ac-6, 6/25/22											
001	URI-Ac-7, 6/25/22											
002	URI-Ac-8, 6/25/22											
003	URI-Ac-9, 6/25/22											
004	URI-Ac-10, 6/25/22											
005	URI-Ac-11, 6/25/22											
006	URI-Ac-12, 6/25/22											
007	URI-AWS-1, 6/25/22											
008	URI-AWS-2, 6/25/22											
009	URI-AWS-3, 6/25/22											
010	URI-AWS-4, 6/25/22											
011	URI-AWS-5, 6/25/22	V		V			V	V	V			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 730		8/15/22 0730

PACE Project No.
4024874

Receipt Temp = 0 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

4024874

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CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513 319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water
B = Biota, DW = Drinking Water
C = Charcoal, GW = Ground Water
O = Oil, SW = Surface Water
S = Soil, WW = Waste Water
SI = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Gender	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
012	URI-AWS-6, 6/25/22	6/25/22		TS		A	X	X	X			
013	URI-AWS-7, 6/25/22											
014	URI-AWS-8, 6/25/22											
015	URI-AWS-9, 6/25/22											
016	URI-AWS-10, 6/25/22											
017	URI-AWS-11, 6/25/22											
018	URI-AWS-12, 6/25/22											
019	URI-SMB-1, 6/25/22											
020	URI-SMB-2, 6/25/22											
	URI-SMB-3, 6/25/22											
	URI-SMB-4, 6/25/22											
	URI-SMB-5, 6/25/22											
	URI-SMB-6, 6/25/22											

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 730		8/15/22 0730
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
4024874

Receipt Temp = 0 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

Sample Preservation Receipt Form

Client Name: PRS Project # 40240814

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☑N/A Initial when completed: Date/ Time:

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted):

Pace Lab #	Glass								Plastic					Vials						Jars				General			VOA Vials (>6mm)	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN							
001																																	2.5 / 5 / 10
002																																	2.5 / 5 / 10
003																																	2.5 / 5 / 10
004																																	2.5 / 5 / 10
005																																	2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
010																																	2.5 / 5 / 10
011																																	2.5 / 5 / 10
012																																	2.5 / 5 / 10
013																																	2.5 / 5 / 10
014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☑N/A ***If yes look in headspace column**

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN	

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40249874

40249874

Client Name: PRS

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☑ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used SR - 120 **Type of Ice:** Wet Blue Dry (None) ☐ Samples on ice

Cooler Temperature Uncorr: 0 /Corr: 0

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☑ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
Date: 8/15/22 /Initials: mH

Labeled By Initials: NK

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. No mail or invoice info mH 8/25/22
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume:		8.
For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☐Yes ☑No ☐N/A	
-Pace IR Containers Used:	☐Yes ☑No ☐N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: B		
Trip Blank Present:	☐Yes ☐No ☑N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi

Page 2 of 2

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

September 16, 2022

Aaron Lammers
SME
3301 Tech Circle
Kalamazoo, MI 49008

RE: Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Dear Aaron Lammers:

Enclosed are the analytical results for sample(s) received by the laboratory on August 15, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tod Noltemeyer

Tod Noltemeyer
tod.noltemeyer@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Pace Analytical Services Green Bay
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40249875001	**URI-SMB-3, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875002	**URI-SMB-4, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875003	**URI-SMB-5, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875004	**URI-SMB-6, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875005	**URI-SMB-7, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875006	**URI-SMB-8, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875007	**URI-SMB-9, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875008	**URI-SMB-10, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875009	**URI-SMB-11, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875010	**URI-SMB-12, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875011	**URI-RB-1, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875012	**URI-RB-2, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875013	**URI-RB-3, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875014	**URI-RB-4, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875015	**URI-RB-5, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875016	**URI-RB-6, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875017	**URI-RB-7, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875018	**URI-RB-8, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875019	**URI-RB-9, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249875020	**URI-RB-10, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30

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SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40249875001	URI-SMB-3, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875002	URI-SMB-4, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875003	URI-SMB-5, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875004	URI-SMB-6, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875005	URI-SMB-7, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875006	URI-SMB-8, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875007	URI-SMB-9, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875008	URI-SMB-10, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875009	URI-SMB-11, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875010	URI-SMB-12, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875011	URI-RB-1, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875012	URI-RB-2, 6/25/22	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875013	URI-RB-3, 6/25/22	EPA 8082A	BLM	10

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875014	**URI-RB-4, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875015	**URI-RB-5, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875016	**URI-RB-6, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875017	**URI-RB-7, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875018	**URI-RB-8, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875019	**URI-RB-9, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249875020	**URI-RB-10, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3

PASI-G = Pace Analytical Services - Green Bay

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: September 16, 2022

General Information:
20 samples were analyzed for EPA 8082A by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 425552

S0: Surrogate recovery outside laboratory control limits.

- BLANK (Lab ID: 2450550)
  - Tetrachloro-m-xylene (S)
- LCS (Lab ID: 2450551)
  - Tetrachloro-m-xylene (S)
- MS (Lab ID: 2450552)
  - Tetrachloro-m-xylene (S)
- MSD (Lab ID: 2450553)
  - Tetrachloro-m-xylene (S)
- URI-SMB-10, 6/25/22 (Lab ID: 40249875008)
  - Tetrachloro-m-xylene (S)
- URI-SMB-3, 6/25/22 (Lab ID: 40249875001)
  - Tetrachloro-m-xylene (S)
- URI-SMB-4, 6/25/22 (Lab ID: 40249875002)
  - Tetrachloro-m-xylene (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: September 16, 2022

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Method: **Pace Gender Typing**
Description: Fish Gender Typing
Client: POLLUTION RISK SERVICES
Date: September 16, 2022

General Information:
20 samples were analyzed for Pace Gender Typing by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Method: **Pace Lipid**
Description: Lipid
Client: POLLUTION RISK SERVICES
Date: September 16, 2022

General Information:
20 samples were analyzed for Pace Lipid by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-SMB-3, 6/25/22 **Lab ID: 40249875001** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.0**	ug/kg	125	41.0	5	09/09/22 11:08	09/14/22 21:36	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.0**	ug/kg	125	41.0	5	09/09/22 11:08	09/14/22 21:36	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.0**	ug/kg	125	41.0	5	09/09/22 11:08	09/14/22 21:36	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.0**	ug/kg	125	41.0	5	09/09/22 11:08	09/14/22 21:36	53469-21-9	
PCB-1248 (Aroclor 1248)	**709**	ug/kg	125	41.0	5	09/09/22 11:08	09/14/22 21:36	12672-29-6	
PCB-1254 (Aroclor 1254)	**1210**	ug/kg	125	41.0	5	09/09/22 11:08	09/14/22 21:36	11097-69-1	
PCB-1260 (Aroclor 1260)	**96.3J**	ug/kg	125	41.0	5	09/09/22 11:08	09/14/22 21:36	11096-82-5	
PCB, Total	**2010**	ug/kg	125	41.0	5	09/09/22 11:08	09/14/22 21:36	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	78	%	80-120		5	09/09/22 11:08	09/14/22 21:36	877-09-8	S0
Decachlorobiphenyl (S)	84	%	78-120		5	09/09/22 11:08	09/14/22 21:36	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:43		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:43		
Lipid	**0.53**	%			1		09/09/22 10:43		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-SMB-4, 6/25/22 **Lab ID: 40249875002** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/14/22 21:58	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/14/22 21:58	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/14/22 21:58	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/14/22 21:58	53469-21-9	
PCB-1248 (Aroclor 1248)	**228**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/14/22 21:58	12672-29-6	
PCB-1254 (Aroclor 1254)	**279**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/14/22 21:58	11097-69-1	
PCB-1260 (Aroclor 1260)	**25.4**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/14/22 21:58	11096-82-5	
PCB, Total	**532**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/14/22 21:58	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	76	%	80-120		1	09/09/22 11:08	09/14/22 21:58	877-09-8	S0
Decachlorobiphenyl (S)	79	%	78-120		1	09/09/22 11:08	09/14/22 21:58	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:44		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:44		
Lipid	**0.45**	%			1		09/09/22 10:44		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-SMB-5, 6/25/22 **Lab ID: 40249875003** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/14/22 22:20	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/14/22 22:20	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/14/22 22:20	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/14/22 22:20	53469-21-9	
PCB-1248 (Aroclor 1248)	**214**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/14/22 22:20	12672-29-6	
PCB-1254 (Aroclor 1254)	**348**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/14/22 22:20	11097-69-1	
PCB-1260 (Aroclor 1260)	**32.8**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/14/22 22:20	11096-82-5	
PCB, Total	**595**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/14/22 22:20	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	82	%	80-120		1	09/09/22 11:08	09/14/22 22:20	877-09-8	
Decachlorobiphenyl (S)	82	%	78-120		1	09/09/22 11:08	09/14/22 22:20	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:44		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:44		
Lipid	**0.31**	%			1		09/09/22 10:44		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-SMB-6, 6/25/22 **Lab ID: 40249875004** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.9	16.4	2	09/09/22 11:08	09/14/22 22:41	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.9	16.4	2	09/09/22 11:08	09/14/22 22:41	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.9	16.4	2	09/09/22 11:08	09/14/22 22:41	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.9	16.4	2	09/09/22 11:08	09/14/22 22:41	53469-21-9	
PCB-1248 (Aroclor 1248)	**284**	ug/kg	49.9	16.4	2	09/09/22 11:08	09/14/22 22:41	12672-29-6	
PCB-1254 (Aroclor 1254)	**446**	ug/kg	49.9	16.4	2	09/09/22 11:08	09/14/22 22:41	11097-69-1	
PCB-1260 (Aroclor 1260)	**49.0J**	ug/kg	49.9	16.4	2	09/09/22 11:08	09/14/22 22:41	11096-82-5	
PCB, Total	**779**	ug/kg	49.9	16.4	2	09/09/22 11:08	09/14/22 22:41	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	83	%	80-120		2	09/09/22 11:08	09/14/22 22:41	877-09-8	
Decachlorobiphenyl (S)	84	%	78-120		2	09/09/22 11:08	09/14/22 22:41	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:44		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:44		
Lipid	**0.26**	%			1		09/09/22 10:44		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-SMB-7, 6/25/22 **Lab ID: 40249875005** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/14/22 23:03	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/14/22 23:03	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/14/22 23:03	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/14/22 23:03	53469-21-9	
PCB-1248 (Aroclor 1248)	**310**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/14/22 23:03	12672-29-6	
PCB-1254 (Aroclor 1254)	**464**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/14/22 23:03	11097-69-1	
PCB-1260 (Aroclor 1260)	**40.8**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/14/22 23:03	11096-82-5	
PCB, Total	**815**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/14/22 23:03	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	83	%	80-120		1	09/09/22 11:08	09/14/22 23:03	877-09-8	
Decachlorobiphenyl (S)	88	%	78-120		1	09/09/22 11:08	09/14/22 23:03	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:45		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:45		
Lipid	**0.21**	%			1		09/09/22 10:45		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-SMB-8, 6/25/22 **Lab ID: 40249875006** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/14/22 23:25	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/14/22 23:25	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/14/22 23:25	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/14/22 23:25	53469-21-9	
PCB-1248 (Aroclor 1248)	**251**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/14/22 23:25	12672-29-6	
PCB-1254 (Aroclor 1254)	**352**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/14/22 23:25	11097-69-1	
PCB-1260 (Aroclor 1260)	**24.3J**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/14/22 23:25	11096-82-5	
PCB, Total	**627**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/14/22 23:25	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	86	%	80-120		1	09/09/22 11:08	09/14/22 23:25	877-09-8	
Decachlorobiphenyl (S)	89	%	78-120		1	09/09/22 11:08	09/14/22 23:25	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:45		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:45		
Lipid	**0.31**	%			1		09/09/22 10:45		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-SMB-9, 6/25/22 **Lab ID: 40249875007** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	09/09/22 11:08	09/14/22 23:47	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	09/09/22 11:08	09/14/22 23:47	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	09/09/22 11:08	09/14/22 23:47	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	09/09/22 11:08	09/14/22 23:47	53469-21-9	
PCB-1248 (Aroclor 1248)	**292**	ug/kg	50.0	16.4	2	09/09/22 11:08	09/14/22 23:47	12672-29-6	
PCB-1254 (Aroclor 1254)	**749**	ug/kg	50.0	16.4	2	09/09/22 11:08	09/14/22 23:47	11097-69-1	
PCB-1260 (Aroclor 1260)	**84.4**	ug/kg	50.0	16.4	2	09/09/22 11:08	09/14/22 23:47	11096-82-5	
PCB, Total	**1120**	ug/kg	50.0	16.4	2	09/09/22 11:08	09/14/22 23:47	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	91	%	80-120		2	09/09/22 11:08	09/14/22 23:47	877-09-8	
Decachlorobiphenyl (S)	96	%	78-120		2	09/09/22 11:08	09/14/22 23:47	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:45		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:45		
Lipid	**0.17**	%			1		09/09/22 10:45		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-SMB-10, 6/25/22 **Lab ID: 40249875008** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	09/09/22 11:08	09/15/22 00:09	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	09/09/22 11:08	09/15/22 00:09	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	09/09/22 11:08	09/15/22 00:09	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	09/09/22 11:08	09/15/22 00:09	53469-21-9	
PCB-1248 (Aroclor 1248)	**342**	ug/kg	50.0	16.4	2	09/09/22 11:08	09/15/22 00:09	12672-29-6	
PCB-1254 (Aroclor 1254)	**424**	ug/kg	50.0	16.4	2	09/09/22 11:08	09/15/22 00:09	11097-69-1	
PCB-1260 (Aroclor 1260)	**28.8J**	ug/kg	50.0	16.4	2	09/09/22 11:08	09/15/22 00:09	11096-82-5	
PCB, Total	**795**	ug/kg	50.0	16.4	2	09/09/22 11:08	09/15/22 00:09	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	79	%	80-120		2	09/09/22 11:08	09/15/22 00:09	877-09-8	S0
Decachlorobiphenyl (S)	83	%	78-120		2	09/09/22 11:08	09/15/22 00:09	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:45		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:45		
Lipid	**1.1**	%			1		09/09/22 10:45		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-SMB-11, 6/25/22 **Lab ID: 40249875009** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/15/22 12:16	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/15/22 12:16	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/15/22 12:16	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/15/22 12:16	53469-21-9	
PCB-1248 (Aroclor 1248)	**299**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/15/22 12:16	12672-29-6	
PCB-1254 (Aroclor 1254)	**340**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/15/22 12:16	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/15/22 12:16	11096-82-5	
PCB, Total	**640**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/15/22 12:16	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	102	%	80-120		1	09/09/22 11:08	09/15/22 12:16	877-09-8	
Decachlorobiphenyl (S)	100	%	78-120		1	09/09/22 11:08	09/15/22 12:16	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:45		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:45		
Lipid	**0.42**	%			1		09/09/22 10:45		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-SMB-12, 6/25/22 **Lab ID: 40249875010** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.0**	ug/kg	125	41.0	5	09/09/22 11:08	09/15/22 12:41	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.0**	ug/kg	125	41.0	5	09/09/22 11:08	09/15/22 12:41	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.0**	ug/kg	125	41.0	5	09/09/22 11:08	09/15/22 12:41	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.0**	ug/kg	125	41.0	5	09/09/22 11:08	09/15/22 12:41	53469-21-9	
PCB-1248 (Aroclor 1248)	**822**	ug/kg	125	41.0	5	09/09/22 11:08	09/15/22 12:41	12672-29-6	
PCB-1254 (Aroclor 1254)	**1430**	ug/kg	125	41.0	5	09/09/22 11:08	09/15/22 12:41	11097-69-1	
PCB-1260 (Aroclor 1260)	**<41.0**	ug/kg	125	41.0	5	09/09/22 11:08	09/15/22 12:41	11096-82-5	
PCB, Total	**2250**	ug/kg	125	41.0	5	09/09/22 11:08	09/15/22 12:41	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	113	%	80-120		5	09/09/22 11:08	09/15/22 12:41	877-09-8	
Decachlorobiphenyl (S)	114	%	78-120		5	09/09/22 11:08	09/15/22 12:41	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:46		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:46		
Lipid	**0.59**	%			1		09/09/22 10:46		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-RB-1, 6/25/22 **Lab ID: 40249875011** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541								
	Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 13:05	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 13:05	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 13:05	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 13:05	53469-21-9	
PCB-1248 (Aroclor 1248)	**107**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 13:05	12672-29-6	
PCB-1254 (Aroclor 1254)	**77.6**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 13:05	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 13:05	11096-82-5	
PCB, Total	**185**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 13:05	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	109	%	80-120		1	09/09/22 11:08	09/15/22 13:05	877-09-8	
Decachlorobiphenyl (S)	100	%	78-120		1	09/09/22 11:08	09/15/22 13:05	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
	Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid								
	Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:46		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:46		
Lipid	**0.21**	%			1		09/09/22 10:46		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-RB-2, 6/25/22 **Lab ID: 40249875012** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.2**	ug/kg	125	41.2	5	09/09/22 11:08	09/15/22 13:30	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.2**	ug/kg	125	41.2	5	09/09/22 11:08	09/15/22 13:30	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.2**	ug/kg	125	41.2	5	09/09/22 11:08	09/15/22 13:30	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.2**	ug/kg	125	41.2	5	09/09/22 11:08	09/15/22 13:30	53469-21-9	
PCB-1248 (Aroclor 1248)	**465**	ug/kg	125	41.2	5	09/09/22 11:08	09/15/22 13:30	12672-29-6	
PCB-1254 (Aroclor 1254)	**954**	ug/kg	125	41.2	5	09/09/22 11:08	09/15/22 13:30	11097-69-1	
PCB-1260 (Aroclor 1260)	**<41.2**	ug/kg	125	41.2	5	09/09/22 11:08	09/15/22 13:30	11096-82-5	
PCB, Total	**1420**	ug/kg	125	41.2	5	09/09/22 11:08	09/15/22 13:30	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	112	%	80-120		5	09/09/22 11:08	09/15/22 13:30	877-09-8	
Decachlorobiphenyl (S)	111	%	78-120		5	09/09/22 11:08	09/15/22 13:30	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:46		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:46		
Lipid	**0.32**	%			1		09/09/22 10:46		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-RB-3, 6/25/22 **Lab ID: 40249875013** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541								
	Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 13:55	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 13:55	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 13:55	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 13:55	53469-21-9	
PCB-1248 (Aroclor 1248)	**105**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 13:55	12672-29-6	
PCB-1254 (Aroclor 1254)	**70.6**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 13:55	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 13:55	11096-82-5	
PCB, Total	**176**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 13:55	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	111	%	80-120		1	09/09/22 11:08	09/15/22 13:55	877-09-8	
Decachlorobiphenyl (S)	112	%	78-120		1	09/09/22 11:08	09/15/22 13:55	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
	Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid								
	Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:46		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:46		
Lipid	**0.23**	%			1		09/09/22 10:46		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-RB-4, 6/25/22 **Lab ID: 40249875014** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/15/22 14:20	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/15/22 14:20	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/15/22 14:20	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/15/22 14:20	53469-21-9	
PCB-1248 (Aroclor 1248)	**180**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/15/22 14:20	12672-29-6	
PCB-1254 (Aroclor 1254)	**496**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/15/22 14:20	11097-69-1	
PCB-1260 (Aroclor 1260)	**56.6**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/15/22 14:20	11096-82-5	
PCB, Total	**733**	ug/kg	24.9	8.2	1	09/09/22 11:08	09/15/22 14:20	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	102	%	80-120		1	09/09/22 11:08	09/15/22 14:20	877-09-8	
Decachlorobiphenyl (S)	94	%	78-120		1	09/09/22 11:08	09/15/22 14:20	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:47		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:47		
Lipid	**0.19**	%			1		09/09/22 10:47		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-RB-5, 6/25/22 **Lab ID: 40249875015** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541								
	Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 14:44	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 14:44	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 14:44	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 14:44	53469-21-9	
PCB-1248 (Aroclor 1248)	**116**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 14:44	12672-29-6	
PCB-1254 (Aroclor 1254)	**79.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 14:44	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 14:44	11096-82-5	
PCB, Total	**195**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 14:44	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	97	%	80-120		1	09/09/22 11:08	09/15/22 14:44	877-09-8	
Decachlorobiphenyl (S)	98	%	78-120		1	09/09/22 11:08	09/15/22 14:44	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
	Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid								
	Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:47		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:47		
Lipid	**0.25**	%			1		09/09/22 10:47		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-RB-6, 6/25/22 **Lab ID: 40249875016** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541								
	Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 15:08	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 15:08	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 15:08	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 15:08	53469-21-9	
PCB-1248 (Aroclor 1248)	**226**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 15:08	12672-29-6	
PCB-1254 (Aroclor 1254)	**160**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 15:08	11097-69-1	
PCB-1260 (Aroclor 1260)	**13.2J**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 15:08	11096-82-5	
PCB, Total	**399**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 15:08	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	108	%	80-120		1	09/09/22 11:08	09/15/22 15:08	877-09-8	
Decachlorobiphenyl (S)	105	%	78-120		1	09/09/22 11:08	09/15/22 15:08	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
	Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid								
	Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:47		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:47		
Lipid	**0.15**	%			1		09/09/22 10:47		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-RB-7, 6/25/22 **Lab ID: 40249875017** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 15:33	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 15:33	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 15:33	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 15:33	53469-21-9	
PCB-1248 (Aroclor 1248)	**241**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 15:33	12672-29-6	
PCB-1254 (Aroclor 1254)	**489**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 15:33	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 15:33	11096-82-5	
PCB, Total	**730**	ug/kg	25.1	8.2	1	09/09/22 11:08	09/15/22 15:33	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	105	%	80-120		1	09/09/22 11:08	09/15/22 15:33	877-09-8	
Decachlorobiphenyl (S)	106	%	78-120		1	09/09/22 11:08	09/15/22 15:33	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:47		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:47		
Lipid	**0.14**	%			1		09/09/22 10:47		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-RB-8, 6/25/22 **Lab ID: 40249875018** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<32.9**	ug/kg	100	32.9	4	09/09/22 11:08	09/15/22 15:57	12674-11-2	
PCB-1221 (Aroclor 1221)	**<32.9**	ug/kg	100	32.9	4	09/09/22 11:08	09/15/22 15:57	11104-28-2	
PCB-1232 (Aroclor 1232)	**<32.9**	ug/kg	100	32.9	4	09/09/22 11:08	09/15/22 15:57	11141-16-5	
PCB-1242 (Aroclor 1242)	**<32.9**	ug/kg	100	32.9	4	09/09/22 11:08	09/15/22 15:57	53469-21-9	
PCB-1248 (Aroclor 1248)	**659**	ug/kg	100	32.9	4	09/09/22 11:08	09/15/22 15:57	12672-29-6	
PCB-1254 (Aroclor 1254)	**922**	ug/kg	100	32.9	4	09/09/22 11:08	09/15/22 15:57	11097-69-1	
PCB-1260 (Aroclor 1260)	**<32.9**	ug/kg	100	32.9	4	09/09/22 11:08	09/15/22 15:57	11096-82-5	
PCB, Total	**1580**	ug/kg	100	32.9	4	09/09/22 11:08	09/15/22 15:57	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	112	%	80-120		4	09/09/22 11:08	09/15/22 15:57	877-09-8	
Decachlorobiphenyl (S)	119	%	78-120		4	09/09/22 11:08	09/15/22 15:57	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:48		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:48		
Lipid	**0.35**	%			1		09/09/22 10:48		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-RB-9, 6/25/22 **Lab ID: 40249875019** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/15/22 16:21	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/15/22 16:21	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/15/22 16:21	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/15/22 16:21	53469-21-9	
PCB-1248 (Aroclor 1248)	**264**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/15/22 16:21	12672-29-6	
PCB-1254 (Aroclor 1254)	**344**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/15/22 16:21	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/15/22 16:21	11096-82-5	
PCB, Total	**607**	ug/kg	25.0	8.2	1	09/09/22 11:08	09/15/22 16:21	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	115	%	80-120		1	09/09/22 11:08	09/15/22 16:21	877-09-8	
Decachlorobiphenyl (S)	113	%	78-120		1	09/09/22 11:08	09/15/22 16:21	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:48		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:48		
Lipid	**0.20**	%			1		09/09/22 10:48		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Sample: URI-RB-10, 6/25/22 **Lab ID: 40249875020** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541								
	Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<32.9**	ug/kg	100	32.9	4	09/09/22 11:08	09/15/22 16:46	12674-11-2	
PCB-1221 (Aroclor 1221)	**<32.9**	ug/kg	100	32.9	4	09/09/22 11:08	09/15/22 16:46	11104-28-2	
PCB-1232 (Aroclor 1232)	**<32.9**	ug/kg	100	32.9	4	09/09/22 11:08	09/15/22 16:46	11141-16-5	
PCB-1242 (Aroclor 1242)	**<32.9**	ug/kg	100	32.9	4	09/09/22 11:08	09/15/22 16:46	53469-21-9	
PCB-1248 (Aroclor 1248)	**751**	ug/kg	100	32.9	4	09/09/22 11:08	09/15/22 16:46	12672-29-6	
PCB-1254 (Aroclor 1254)	**728**	ug/kg	100	32.9	4	09/09/22 11:08	09/15/22 16:46	11097-69-1	
PCB-1260 (Aroclor 1260)	**<32.9**	ug/kg	100	32.9	4	09/09/22 11:08	09/15/22 16:46	11096-82-5	
PCB, Total	**1480**	ug/kg	100	32.9	4	09/09/22 11:08	09/15/22 16:46	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	110	%	80-120		4	09/09/22 11:08	09/15/22 16:46	877-09-8	
Decachlorobiphenyl (S)	111	%	78-120		4	09/09/22 11:08	09/15/22 16:46	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
	Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 13:53		
Fillet Selected	**Both**				1		08/22/22 13:53		
Fillet Weight	**0.0**	g			1		08/22/22 13:53		
Homogenized Weight	**0.0**	g			1		08/22/22 13:53		
Lipid	Analytical Method: Pace Lipid								
	Pace Analytical Services - Green Bay								
Extraction Batch Number	**425552**				1		09/09/22 10:48		
Extraction Date/Time	**09/09/2022 11:08**				1		09/09/22 10:48		
Lipid	**0.49**	%			1		09/09/22 10:48		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

QC Batch: 425552
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249875001, 40249875002, 40249875003, 40249875004, 40249875005, 40249875006, 40249875007, 40249875008, 40249875009, 40249875010, 40249875011, 40249875012, 40249875013, 40249875014, 40249875015, 40249875016, 40249875017, 40249875018, 40249875019, 40249875020

METHOD BLANK: 2450550 Matrix: Tissue
Associated Lab Samples: 40249875001, 40249875002, 40249875003, 40249875004, 40249875005, 40249875006, 40249875007, 40249875008, 40249875009, 40249875010, 40249875011, 40249875012, 40249875013, 40249875014, 40249875015, 40249875016, 40249875017, 40249875018, 40249875019, 40249875020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<8.2	25.0	09/14/22 20:09	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2	25.0	09/14/22 20:09	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2	25.0	09/14/22 20:09	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2	25.0	09/14/22 20:09	
PCB-1248 (Aroclor 1248)	ug/kg	<8.2	25.0	09/14/22 20:09	
PCB-1254 (Aroclor 1254)	ug/kg	<8.2	25.0	09/14/22 20:09	
PCB-1260 (Aroclor 1260)	ug/kg	<8.2	25.0	09/14/22 20:09	
Decachlorobiphenyl (S)	%	79	78-120	09/14/22 20:09	
Tetrachloro-m-xylene (S)	%	78	80-120	09/14/22 20:09	S0

LABORATORY CONTROL SAMPLE: 2450551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<8.2			
PCB-1221 (Aroclor 1221)	ug/kg		<8.2			
PCB-1232 (Aroclor 1232)	ug/kg		<8.2			
PCB-1242 (Aroclor 1242)	ug/kg	250	193	77	66-106	
PCB-1248 (Aroclor 1248)	ug/kg		<8.2			
PCB-1254 (Aroclor 1254)	ug/kg		<8.2			
PCB-1260 (Aroclor 1260)	ug/kg		<8.2			
Decachlorobiphenyl (S)	%			78	78-120	
Tetrachloro-m-xylene (S)	%			77	80-120	S0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2450552 2450553

Parameter	Units	40249875001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<41.0			<41.1	<41.1					20	
PCB-1221 (Aroclor 1221)	ug/kg	<41.0			<41.1	<41.1					20	
PCB-1232 (Aroclor 1232)	ug/kg	<41.0			<41.1	<41.1					20	
PCB-1242 (Aroclor 1242)	ug/kg	<41.0	1000	1000	908	909	91	91	60-110	0	20	
PCB-1248 (Aroclor 1248)	ug/kg	709			1500	1540				3	20	
PCB-1254 (Aroclor 1254)	ug/kg	1210			1260	1310				4	20	
PCB-1260 (Aroclor 1260)	ug/kg	96.3J			94.1J	97.9J					20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2450552 2450553

Parameter	Units	40249875001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Decachlorobiphenyl (S)	%						86	85	78-120			
Tetrachloro-m-xylene (S)	%						79	78	80-120			S0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

QC Batch: 425570
QC Batch Method: Pace Lipid
Analysis Method: Pace Lipid
Analysis Description: LIPID
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249875001, 40249875002, 40249875003, 40249875004, 40249875005, 40249875006, 40249875007, 40249875008, 40249875009, 40249875010, 40249875011, 40249875012, 40249875013, 40249875014, 40249875015, 40249875016, 40249875017, 40249875018, 40249875019, 40249875020

METHOD BLANK: 2450627 Matrix: Tissue
Associated Lab Samples: 40249875001, 40249875002, 40249875003, 40249875004, 40249875005, 40249875006, 40249875007, 40249875008, 40249875009, 40249875010, 40249875011, 40249875012, 40249875013, 40249875014, 40249875015, 40249875016, 40249875017, 40249875018, 40249875019, 40249875020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Extraction Batch Number		425552		09/09/22 10:43	
Extraction Date/Time		09/09/2022		09/09/22 10:43	
Lipid	%	0.51		09/09/22 10:43	

SAMPLE DUPLICATE: 2450628

Parameter	Units	40249875001 Result	Dup Result	RPD	Max RPD	Qualifiers
Extraction Batch Number		425552	425552			
Extraction Date/Time		09/09/2022 11:08	09/09/2022			
Lipid	%	0.53	0.63	16	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

S0 Surrogate recovery outside laboratory control limits.

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249875001	URI-SMB-3, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875002	URI-SMB-4, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875003	URI-SMB-5, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875004	URI-SMB-6, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875005	URI-SMB-7, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875006	URI-SMB-8, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875007	URI-SMB-9, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875008	URI-SMB-10, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875009	URI-SMB-11, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875010	URI-SMB-12, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875011	URI-RB-1, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875012	URI-RB-2, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875013	URI-RB-3, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875014	URI-RB-4, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875015	URI-RB-5, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875016	URI-RB-6, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875017	URI-RB-7, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875018	URI-RB-8, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875019	URI-RB-9, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875020	URI-RB-10, 6/25/22	EPA 3541	425552	EPA 8082A	425838
40249875001	URI-SMB-3, 6/25/22	Pace Gender Typing	424107		
40249875002	URI-SMB-4, 6/25/22	Pace Gender Typing	424107		
40249875003	URI-SMB-5, 6/25/22	Pace Gender Typing	424107		
40249875004	URI-SMB-6, 6/25/22	Pace Gender Typing	424107		
40249875005	URI-SMB-7, 6/25/22	Pace Gender Typing	424107		
40249875006	URI-SMB-8, 6/25/22	Pace Gender Typing	424107		
40249875007	URI-SMB-9, 6/25/22	Pace Gender Typing	424107		
40249875008	URI-SMB-10, 6/25/22	Pace Gender Typing	424107		
40249875009	URI-SMB-11, 6/25/22	Pace Gender Typing	424107		
40249875010	URI-SMB-12, 6/25/22	Pace Gender Typing	424107		
40249875011	URI-RB-1, 6/25/22	Pace Gender Typing	424107		
40249875012	URI-RB-2, 6/25/22	Pace Gender Typing	424107		
40249875013	URI-RB-3, 6/25/22	Pace Gender Typing	424107		
40249875014	URI-RB-4, 6/25/22	Pace Gender Typing	424107		
40249875015	URI-RB-5, 6/25/22	Pace Gender Typing	424107		
40249875016	URI-RB-6, 6/25/22	Pace Gender Typing	424107		
40249875017	URI-RB-7, 6/25/22	Pace Gender Typing	424107		
40249875018	URI-RB-8, 6/25/22	Pace Gender Typing	424107		
40249875019	URI-RB-9, 6/25/22	Pace Gender Typing	424107		
40249875020	URI-RB-10, 6/25/22	Pace Gender Typing	424107		
40249875001	URI-SMB-3, 6/25/22	Pace Lipid	425570		
40249875002	URI-SMB-4, 6/25/22	Pace Lipid	425570		
40249875003	URI-SMB-5, 6/25/22	Pace Lipid	425570		
40249875004	URI-SMB-6, 6/25/22	Pace Lipid	425570		
40249875005	URI-SMB-7, 6/25/22	Pace Lipid	425570		
40249875006	URI-SMB-8, 6/25/22	Pace Lipid	425570		
40249875007	URI-SMB-9, 6/25/22	Pace Lipid	425570		
40249875008	URI-SMB-10, 6/25/22	Pace Lipid	425570		

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249875

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249875009	**URI-SMB-11, 6/25/22**	Pace Lipid	425570		
40249875010	**URI-SMB-12, 6/25/22**	Pace Lipid	425570		
40249875011	**URI-RB-1, 6/25/22**	Pace Lipid	425570		
40249875012	**URI-RB-2, 6/25/22**	Pace Lipid	425570		
40249875013	**URI-RB-3, 6/25/22**	Pace Lipid	425570		
40249875014	**URI-RB-4, 6/25/22**	Pace Lipid	425570		
40249875015	**URI-RB-5, 6/25/22**	Pace Lipid	425570		
40249875016	**URI-RB-6, 6/25/22**	Pace Lipid	425570		
40249875017	**URI-RB-7, 6/25/22**	Pace Lipid	425570		
40249875018	**URI-RB-8, 6/25/22**	Pace Lipid	425570		
40249875019	**URI-RB-9, 6/25/22**	Pace Lipid	425570		
40249875020	**URI-RB-10, 6/25/22**	Pace Lipid	425570		

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CHAIN OF CUSTODY

4024987 5

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513 319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Gender
	URI-AWS-6, 6/25/22	6/25/22		TS		A	X	X	X
	URI-AWS-7, 6/25/22								
	URI-AWS-8, 6/25/22								
	URI-AWS-9, 6/25/22								
	URI-AWS-10, 6/25/22								
	URI-AWS-11, 6/25/22								
	URI-AWS-12, 6/25/22								
	URI-SMB-1, 6/25/22								
	URI-SMB-2, 6/25/22								
001	URI-SMB-3, 6/25/22								
002	URI-SMB-4, 6/25/22								
003	URI-SMB-5, 6/25/22								
004	URI-SMB-6, 6/25/22								

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 730		8/15/22 0730
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
4024987 5

Receipt Temp = 0 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY

4024g875

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513-319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water, B = Biota, DW = Drinking Water, C = Charcoal, GW = Ground Water, O = Oil, SW = Surface Water, S = Soil, WW = Waste Water, SI = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Grinder	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
005	URI-SmB-7, 6/25/22	6/25/22		TS		A	X	X	X			
006	URI-SmB-8, 6/25/22											
007	URI-SmB-9, 6/25/22											
008	URI-SmB-10, 6/25/22											
009	URI-SmB-11, 6/25/22											
010	URI-SmB-12, 6/25/22											
011	URI-RB-1, 6/25/22											
012	URI-RB-2, 6/25/22											
013	URI-RB-3, 6/25/22											
014	URI-RB-4, 6/25/22											
015	URI-RB-5, 6/25/22											
016	URI-RB-6, 6/25/22											
017	URI-RB-7, 6/25/22											

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 7:30		8/15/22 0730

PACE Project No.
4024g875

Receipt Temp = 0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

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CHAIN OF CUSTODY

4024875

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	517-319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weitenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water, B = Biota, DW = Drinking Water, C = Charcoal, GW = Ground Water, O = Oil, SW = Surface Water, S = Soil, WW = Waste Water, SI = Sludge, WP = Wipe

FILTERED? (YES/NO)
PRESERVATION (CODE)*

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Y/N	Pick Letter	PCB	% Lipids	Genders	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
	Analyses Requested					A						
018	UR1-RB-8, 6/25/22	6/25/22		TS			X	X	X			
019	UR1-RB-9, 6/25/22	↓		↓								
020	UR1-RB-10, 6/25/22											
	UR1-RB-11, 6/25/22											
	UR1-RB-12, 6/25/22	6/25/22										
	UR2-Ac-1, 6/25/22											
	UR2-Ac-2, 6/25/22											
	UR2-Ac-3, 6/25/22											
	UR2-Ac-4, 6/25/22											
	UR2-Ac-5, 6/25/22											
	UR2-Ac-6, 6/25/22											
	UR2-Ac-7, 6/25/22											
	UR2-Ac-8, 6/25/22	↓		↓			↓	↓	↓			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 730		8/15/22 0730
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
4024875

Receipt Temp = 0 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/05

Sample Preservation Receipt Form

Client Name: PRS Project # 40249875

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☒N/A Initial when completed: Date/ Time:

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted):

Pace Lab #	Glass								Plastic					Vials						Jars				General			VOA Vials (>6mm)	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN						
001																																2.5 / 5 / 10
002																																2.5 / 5 / 10
003																																2.5 / 5 / 10
004																																2.5 / 5 / 10
005																																2.5 / 5 / 10
006																																2.5 / 5 / 10
007																																2.5 / 5 / 10
008																																2.5 / 5 / 10
009																																2.5 / 5 / 10
010																																2.5 / 5 / 10
011																																2.5 / 5 / 10
012																																2.5 / 5 / 10
013																																2.5 / 5 / 10
014																																2.5 / 5 / 10
015																																2.5 / 5 / 10
016																																2.5 / 5 / 10
017																																2.5 / 5 / 10
018																																2.5 / 5 / 10
019																																2.5 / 5 / 10
020																																2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☒N/A ***If yes look in headspace column**

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN	

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO#: 40249875

40249875

Client Name: PRS

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☑ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used SR - 120 **Type of Ice:** Wet Blue Dry (None) ☐ Samples on ice

Cooler Temperature Uncorr: 0 /Corr: 0

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☑ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
Date: 8/15/22 /Initials: MH

Labeled By Initials: NK

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. NO mail or Invoice info MH 8/15/22
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume:		8.
For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☐Yes ☑No ☐N/A	
-Pace IR Containers Used:	☐Yes ☑No ☐N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: B		
Trip Blank Present:	☐Yes ☐No ☑N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi

Page 2 of 2

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

September 28, 2022

Aaron Lammers
SME
3301 Tech Circle
Kalamazoo, MI 49008

RE: Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Dear Aaron Lammers:

Enclosed are the analytical results for sample(s) received by the laboratory on August 15, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tod Noltemeyer

Tod Noltemeyer
tod.noltemeyer@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Pace Analytical Services Green Bay
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40249876001	**URI-RB-11, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876002	**URI-RB-12, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876003	**UR2-AC-1, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876004	**UR2-AC-2, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876005	**UR2-AC-3, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876006	**UR2-AC-4, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876007	**UR2-AC-5, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876008	**UR2-AC-6, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876009	**UR2-AC-7, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876010	**UR2-AC-8, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876011	**UR2-AC-9, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876012	**UR2-AC-10, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876013	**UR2-AC-11, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876014	**UR2-AC-12, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876015	**UR2-AWS-1, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876016	**UR2-AWS-2, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876017	**UR2-AWS-3, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876018	**UR2-AWS-4, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876019	**UR2-AWS-5, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249876020	**UR2-AWS-6, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40249876001	**URI-RB-11, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876002	**URI-RB-12, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876003	**UR2-AC-1, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876004	**UR2-AC-2, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876005	**UR2-AC-3, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876006	**UR2-AC-4, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876007	**UR2-AC-5, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876008	**UR2-AC-6, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876009	**UR2-AC-7, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876010	**UR2-AC-8, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876011	**UR2-AC-9, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876012	**UR2-AC-10, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876013	**UR2-AC-11, 6/25/22**	EPA 8082A	BLM	10

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876014	**UR2-AC-12, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876015	**UR2-AWS-1, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876016	**UR2-AWS-2, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876017	**UR2-AWS-3, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876018	**UR2-AWS-4, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876019	**UR2-AWS-5, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249876020	**UR2-AWS-6, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3

PASI-G = Pace Analytical Services - Green Bay

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: September 28, 2022

General Information:
20 samples were analyzed for EPA 8082A by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 426124

S0: Surrogate recovery outside laboratory control limits.
- UR2-AC-11, 6/25/22 (Lab ID: 40249876013)
  - Decachlorobiphenyl (S)

S4: Surrogate recovery not evaluated against control limits due to sample dilution.
- MS (Lab ID: 2453860)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- MSD (Lab ID: 2453861)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- UR2-AC-1, 6/25/22 (Lab ID: 40249876003)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- UR2-AC-12, 6/25/22 (Lab ID: 40249876014)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- UR2-AC-2, 6/25/22 (Lab ID: 40249876004)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- UR2-AC-4, 6/25/22 (Lab ID: 40249876006)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- UR2-AC-5, 6/25/22 (Lab ID: 40249876007)
  - Decachlorobiphenyl (S)

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1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: September 28, 2022

QC Batch: 426124

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- Tetrachloro-m-xylene (S)

- UR2-AC-8, 6/25/22 (Lab ID: 40249876010)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- UR2-AWS-4, 6/25/22 (Lab ID: 40249876018)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- UR2-AWS-6, 6/25/22 (Lab ID: 40249876020)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 426124

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40249876003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2453860)
  - PCB-1254 (Aroclor 1254)
- MSD (Lab ID: 2453861)
  - PCB-1254 (Aroclor 1254)

Additional Comments:

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Method: **Pace Gender Typing**
Description: Fish Gender Typing
Client: POLLUTION RISK SERVICES
Date: September 28, 2022

General Information:
20 samples were analyzed for Pace Gender Typing by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Method: **Pace Lipid**
Description: Lipid
Client: POLLUTION RISK SERVICES
Date: September 28, 2022

General Information:
20 samples were analyzed for Pace Lipid by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: URI-RB-11, 6/25/22 **Lab ID: 40249876001** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.9	16.4	2	09/16/22 10:41	09/24/22 04:28	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.9	16.4	2	09/16/22 10:41	09/24/22 04:28	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.9	16.4	2	09/16/22 10:41	09/24/22 04:28	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.9	16.4	2	09/16/22 10:41	09/24/22 04:28	53469-21-9	
PCB-1248 (Aroclor 1248)	**563**	ug/kg	49.9	16.4	2	09/16/22 10:41	09/24/22 04:28	12672-29-6	
PCB-1254 (Aroclor 1254)	**601**	ug/kg	49.9	16.4	2	09/16/22 10:41	09/24/22 04:28	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	49.9	16.4	2	09/16/22 10:41	09/24/22 04:28	11096-82-5	
PCB, Total	**1160**	ug/kg	49.9	16.4	2	09/16/22 10:41	09/24/22 04:28	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	100	%	80-120		2	09/16/22 10:41	09/24/22 04:28	877-09-8	
Decachlorobiphenyl (S)	96	%	78-120		2	09/16/22 10:41	09/24/22 04:28	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:03		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:03		
Lipid	**0.59**	%			1		09/16/22 11:03		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: URI-RB-12, 6/25/22 **Lab ID: 40249876002** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.1	8.2	1	09/16/22 10:41	09/24/22 04:50	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.1	8.2	1	09/16/22 10:41	09/24/22 04:50	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.1	8.2	1	09/16/22 10:41	09/24/22 04:50	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.1	8.2	1	09/16/22 10:41	09/24/22 04:50	53469-21-9	
PCB-1248 (Aroclor 1248)	**308**	ug/kg	25.1	8.2	1	09/16/22 10:41	09/24/22 04:50	12672-29-6	
PCB-1254 (Aroclor 1254)	**302**	ug/kg	25.1	8.2	1	09/16/22 10:41	09/24/22 04:50	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.1	8.2	1	09/16/22 10:41	09/24/22 04:50	11096-82-5	
PCB, Total	**610**	ug/kg	25.1	8.2	1	09/16/22 10:41	09/24/22 04:50	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	100	%	80-120		1	09/16/22 10:41	09/24/22 04:50	877-09-8	
Decachlorobiphenyl (S)	97	%	78-120		1	09/16/22 10:41	09/24/22 04:50	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:03		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:03		
Lipid	**0.27**	%			1		09/16/22 11:03		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AC-1, 6/25/22 **Lab ID: 40249876003** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<246**	ug/kg	750	246	30	09/16/22 10:41	09/24/22 05:12	12674-11-2	
PCB-1221 (Aroclor 1221)	**<246**	ug/kg	750	246	30	09/16/22 10:41	09/24/22 05:12	11104-28-2	
PCB-1232 (Aroclor 1232)	**<246**	ug/kg	750	246	30	09/16/22 10:41	09/24/22 05:12	11141-16-5	
PCB-1242 (Aroclor 1242)	**<246**	ug/kg	750	246	30	09/16/22 10:41	09/24/22 05:12	53469-21-9	
PCB-1248 (Aroclor 1248)	**11200**	ug/kg	750	246	30	09/16/22 10:41	09/24/22 05:12	12672-29-6	
PCB-1254 (Aroclor 1254)	**7100**	ug/kg	750	246	30	09/16/22 10:41	09/24/22 05:12	11097-69-1	M1
PCB-1260 (Aroclor 1260)	**<246**	ug/kg	750	246	30	09/16/22 10:41	09/24/22 05:12	11096-82-5	
PCB, Total	**18300**	ug/kg	750	246	30	09/16/22 10:41	09/24/22 05:12	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		30	09/16/22 10:41	09/24/22 05:12	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		30	09/16/22 10:41	09/24/22 05:12	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:04		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:04		
Lipid	**3.4**	%			1		09/16/22 11:04		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AC-2, 6/25/22 **Lab ID: 40249876004** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<246**	ug/kg	749	246	30	09/16/22 10:41	09/24/22 05:33	12674-11-2	
PCB-1221 (Aroclor 1221)	**<246**	ug/kg	749	246	30	09/16/22 10:41	09/24/22 05:33	11104-28-2	
PCB-1232 (Aroclor 1232)	**<246**	ug/kg	749	246	30	09/16/22 10:41	09/24/22 05:33	11141-16-5	
PCB-1242 (Aroclor 1242)	**<246**	ug/kg	749	246	30	09/16/22 10:41	09/24/22 05:33	53469-21-9	
PCB-1248 (Aroclor 1248)	**9420**	ug/kg	749	246	30	09/16/22 10:41	09/24/22 05:33	12672-29-6	
PCB-1254 (Aroclor 1254)	**6010**	ug/kg	749	246	30	09/16/22 10:41	09/24/22 05:33	11097-69-1	
PCB-1260 (Aroclor 1260)	**<246**	ug/kg	749	246	30	09/16/22 10:41	09/24/22 05:33	11096-82-5	
PCB, Total	**15400**	ug/kg	749	246	30	09/16/22 10:41	09/24/22 05:33	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		30	09/16/22 10:41	09/24/22 05:33	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		30	09/16/22 10:41	09/24/22 05:33	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:05		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:05		
Lipid	**2.8**	%			1		09/16/22 11:05		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AC-3, 6/25/22 **Lab ID: 40249876005** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/24/22 05:55	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/24/22 05:55	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/24/22 05:55	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/24/22 05:55	53469-21-9	
PCB-1248 (Aroclor 1248)	**183**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/24/22 05:55	12672-29-6	
PCB-1254 (Aroclor 1254)	**117**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/24/22 05:55	11097-69-1	
PCB-1260 (Aroclor 1260)	**16.1J**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/24/22 05:55	11096-82-5	
PCB, Total	**315**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/24/22 05:55	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	102	%	80-120		1	09/16/22 10:41	09/24/22 05:55	877-09-8	
Decachlorobiphenyl (S)	105	%	78-120		1	09/16/22 10:41	09/24/22 05:55	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:05		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:05		
Lipid	**3.4**	%			1		09/16/22 11:05		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AC-4, 6/25/22 **Lab ID: 40249876006** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<246**	ug/kg	749	246	30	09/16/22 10:41	09/24/22 06:17	12674-11-2	
PCB-1221 (Aroclor 1221)	**<246**	ug/kg	749	246	30	09/16/22 10:41	09/24/22 06:17	11104-28-2	
PCB-1232 (Aroclor 1232)	**<246**	ug/kg	749	246	30	09/16/22 10:41	09/24/22 06:17	11141-16-5	
PCB-1242 (Aroclor 1242)	**<246**	ug/kg	749	246	30	09/16/22 10:41	09/24/22 06:17	53469-21-9	
PCB-1248 (Aroclor 1248)	**5270**	ug/kg	749	246	30	09/16/22 10:41	09/24/22 06:17	12672-29-6	
PCB-1254 (Aroclor 1254)	**3380**	ug/kg	749	246	30	09/16/22 10:41	09/24/22 06:17	11097-69-1	
PCB-1260 (Aroclor 1260)	**<246**	ug/kg	749	246	30	09/16/22 10:41	09/24/22 06:17	11096-82-5	
PCB, Total	**8650**	ug/kg	749	246	30	09/16/22 10:41	09/24/22 06:17	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		30	09/16/22 10:41	09/24/22 06:17	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		30	09/16/22 10:41	09/24/22 06:17	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:05		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:05		
Lipid	**2.7**	%			1		09/16/22 11:05		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AC-5, 6/25/22 **Lab ID: 40249876007** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<410**	ug/kg	1250	410	50	09/16/22 10:41	09/24/22 06:39	12674-11-2	
PCB-1221 (Aroclor 1221)	**<410**	ug/kg	1250	410	50	09/16/22 10:41	09/24/22 06:39	11104-28-2	
PCB-1232 (Aroclor 1232)	**<410**	ug/kg	1250	410	50	09/16/22 10:41	09/24/22 06:39	11141-16-5	
PCB-1242 (Aroclor 1242)	**<410**	ug/kg	1250	410	50	09/16/22 10:41	09/24/22 06:39	53469-21-9	
PCB-1248 (Aroclor 1248)	**9980**	ug/kg	1250	410	50	09/16/22 10:41	09/24/22 06:39	12672-29-6	
PCB-1254 (Aroclor 1254)	**11400**	ug/kg	1250	410	50	09/16/22 10:41	09/24/22 06:39	11097-69-1	
PCB-1260 (Aroclor 1260)	**871J**	ug/kg	1250	410	50	09/16/22 10:41	09/24/22 06:39	11096-82-5	
PCB, Total	**22300**	ug/kg	1250	410	50	09/16/22 10:41	09/24/22 06:39	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		50	09/16/22 10:41	09/24/22 06:39	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		50	09/16/22 10:41	09/24/22 06:39	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:05		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:05		
Lipid	**3.5**	%			1		09/16/22 11:05		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AC-6, 6/25/22 **Lab ID: 40249876008** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/24/22 07:01	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/24/22 07:01	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/24/22 07:01	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/24/22 07:01	53469-21-9	
PCB-1248 (Aroclor 1248)	**247**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/24/22 07:01	12672-29-6	
PCB-1254 (Aroclor 1254)	**139**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/24/22 07:01	11097-69-1	
PCB-1260 (Aroclor 1260)	**24.3J**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/24/22 07:01	11096-82-5	
PCB, Total	**410**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/24/22 07:01	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	112	%	80-120		1	09/16/22 10:41	09/24/22 07:01	877-09-8	
Decachlorobiphenyl (S)	112	%	78-120		1	09/16/22 10:41	09/24/22 07:01	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:05		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:05		
Lipid	**0.73**	%			1		09/16/22 11:05		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AC-7, 6/25/22 **Lab ID: 40249876009** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<57.4**	ug/kg	175	57.4	7	09/16/22 10:41	09/26/22 16:45	12674-11-2	
PCB-1221 (Aroclor 1221)	**<57.4**	ug/kg	175	57.4	7	09/16/22 10:41	09/26/22 16:45	11104-28-2	
PCB-1232 (Aroclor 1232)	**<57.4**	ug/kg	175	57.4	7	09/16/22 10:41	09/26/22 16:45	11141-16-5	
PCB-1242 (Aroclor 1242)	**<57.4**	ug/kg	175	57.4	7	09/16/22 10:41	09/26/22 16:45	53469-21-9	
PCB-1248 (Aroclor 1248)	**2580**	ug/kg	175	57.4	7	09/16/22 10:41	09/26/22 16:45	12672-29-6	
PCB-1254 (Aroclor 1254)	**2290**	ug/kg	175	57.4	7	09/16/22 10:41	09/26/22 16:45	11097-69-1	
PCB-1260 (Aroclor 1260)	**<57.4**	ug/kg	175	57.4	7	09/16/22 10:41	09/26/22 16:45	11096-82-5	
PCB, Total	**4860**	ug/kg	175	57.4	7	09/16/22 10:41	09/26/22 16:45	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	115	%	80-120		7	09/16/22 10:41	09/26/22 16:45	877-09-8	
Decachlorobiphenyl (S)	119	%	78-120		7	09/16/22 10:41	09/26/22 16:45	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:06		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:06		
Lipid	**2.2**	%			1		09/16/22 11:06		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AC-8, 6/25/22 **Lab ID: 40249876010** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<822**	ug/kg	2500	822	100	09/16/22 10:41	09/24/22 08:29	12674-11-2	
PCB-1221 (Aroclor 1221)	**<822**	ug/kg	2500	822	100	09/16/22 10:41	09/24/22 08:29	11104-28-2	
PCB-1232 (Aroclor 1232)	**<822**	ug/kg	2500	822	100	09/16/22 10:41	09/24/22 08:29	11141-16-5	
PCB-1242 (Aroclor 1242)	**<822**	ug/kg	2500	822	100	09/16/22 10:41	09/24/22 08:29	53469-21-9	
PCB-1248 (Aroclor 1248)	**19500**	ug/kg	2500	822	100	09/16/22 10:41	09/24/22 08:29	12672-29-6	
PCB-1254 (Aroclor 1254)	**18400**	ug/kg	2500	822	100	09/16/22 10:41	09/24/22 08:29	11097-69-1	
PCB-1260 (Aroclor 1260)	**<822**	ug/kg	2500	822	100	09/16/22 10:41	09/24/22 08:29	11096-82-5	
PCB, Total	**37900**	ug/kg	2500	822	100	09/16/22 10:41	09/24/22 08:29	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		100	09/16/22 10:41	09/24/22 08:29	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		100	09/16/22 10:41	09/24/22 08:29	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:06		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:06		
Lipid	**4.2**	%			1		09/16/22 11:06		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AC-9, 6/25/22 **Lab ID: 40249876011** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/26/22 17:07	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/26/22 17:07	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/26/22 17:07	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/26/22 17:07	53469-21-9	
PCB-1248 (Aroclor 1248)	**340**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/26/22 17:07	12672-29-6	
PCB-1254 (Aroclor 1254)	**217**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/26/22 17:07	11097-69-1	
PCB-1260 (Aroclor 1260)	**24.2J**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/26/22 17:07	11096-82-5	
PCB, Total	**582**	ug/kg	25.0	8.2	1	09/16/22 10:41	09/26/22 17:07	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	109	%	80-120		1	09/16/22 10:41	09/26/22 17:07	877-09-8	
Decachlorobiphenyl (S)	114	%	78-120		1	09/16/22 10:41	09/26/22 17:07	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:06		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:06		
Lipid	**2.9**	%			1		09/16/22 11:06		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AC-10, 6/25/22 **Lab ID: 40249876012** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<24.6**	ug/kg	75.0	24.6	3	09/16/22 10:41	09/24/22 09:13	12674-11-2	
PCB-1221 (Aroclor 1221)	**<24.6**	ug/kg	75.0	24.6	3	09/16/22 10:41	09/24/22 09:13	11104-28-2	
PCB-1232 (Aroclor 1232)	**<24.6**	ug/kg	75.0	24.6	3	09/16/22 10:41	09/24/22 09:13	11141-16-5	
PCB-1242 (Aroclor 1242)	**<24.6**	ug/kg	75.0	24.6	3	09/16/22 10:41	09/24/22 09:13	53469-21-9	
PCB-1248 (Aroclor 1248)	**677**	ug/kg	75.0	24.6	3	09/16/22 10:41	09/24/22 09:13	12672-29-6	
PCB-1254 (Aroclor 1254)	**452**	ug/kg	75.0	24.6	3	09/16/22 10:41	09/24/22 09:13	11097-69-1	
PCB-1260 (Aroclor 1260)	**<24.6**	ug/kg	75.0	24.6	3	09/16/22 10:41	09/24/22 09:13	11096-82-5	
PCB, Total	**1130**	ug/kg	75.0	24.6	3	09/16/22 10:41	09/24/22 09:13	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	115	%	80-120		3	09/16/22 10:41	09/24/22 09:13	877-09-8	
Decachlorobiphenyl (S)	117	%	78-120		3	09/16/22 10:41	09/24/22 09:13	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:06		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:06		
Lipid	**2.1**	%			1		09/16/22 11:06		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AC-11, 6/25/22 **Lab ID: 40249876013** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<82.1**	ug/kg	250	82.1	10	09/16/22 10:41	09/26/22 17:29	12674-11-2	
PCB-1221 (Aroclor 1221)	**<82.1**	ug/kg	250	82.1	10	09/16/22 10:41	09/26/22 17:29	11104-28-2	
PCB-1232 (Aroclor 1232)	**<82.1**	ug/kg	250	82.1	10	09/16/22 10:41	09/26/22 17:29	11141-16-5	
PCB-1242 (Aroclor 1242)	**<82.1**	ug/kg	250	82.1	10	09/16/22 10:41	09/26/22 17:29	53469-21-9	
PCB-1248 (Aroclor 1248)	**4480**	ug/kg	250	82.1	10	09/16/22 10:41	09/26/22 17:29	12672-29-6	
PCB-1254 (Aroclor 1254)	**3170**	ug/kg	250	82.1	10	09/16/22 10:41	09/26/22 17:29	11097-69-1	
PCB-1260 (Aroclor 1260)	**<82.1**	ug/kg	250	82.1	10	09/16/22 10:41	09/26/22 17:29	11096-82-5	
PCB, Total	**7650**	ug/kg	250	82.1	10	09/16/22 10:41	09/26/22 17:29	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	116	%	80-120		10	09/16/22 10:41	09/26/22 17:29	877-09-8	
Decachlorobiphenyl (S)	121	%	78-120		10	09/16/22 10:41	09/26/22 17:29	2051-24-3	S0
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:07		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:07		
Lipid	**5.3**	%			1		09/16/22 11:07		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AC-12, 6/25/22 **Lab ID: 40249876014** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<247**	ug/kg	751	247	30	09/16/22 10:41	09/24/22 09:57	12674-11-2	
PCB-1221 (Aroclor 1221)	**<247**	ug/kg	751	247	30	09/16/22 10:41	09/24/22 09:57	11104-28-2	
PCB-1232 (Aroclor 1232)	**<247**	ug/kg	751	247	30	09/16/22 10:41	09/24/22 09:57	11141-16-5	
PCB-1242 (Aroclor 1242)	**<247**	ug/kg	751	247	30	09/16/22 10:41	09/24/22 09:57	53469-21-9	
PCB-1248 (Aroclor 1248)	**6940**	ug/kg	751	247	30	09/16/22 10:41	09/24/22 09:57	12672-29-6	
PCB-1254 (Aroclor 1254)	**6220**	ug/kg	751	247	30	09/16/22 10:41	09/24/22 09:57	11097-69-1	
PCB-1260 (Aroclor 1260)	**<247**	ug/kg	751	247	30	09/16/22 10:41	09/24/22 09:57	11096-82-5	
PCB, Total	**13200**	ug/kg	751	247	30	09/16/22 10:41	09/24/22 09:57	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		30	09/16/22 10:41	09/24/22 09:57	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		30	09/16/22 10:41	09/24/22 09:57	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:07		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:07		
Lipid	**3.1**	%			1		09/16/22 11:07		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AWS-1, 6/25/22 **Lab ID: 40249876015** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<57.4**	ug/kg	175	57.4	7	09/16/22 10:41	09/26/22 17:51	12674-11-2	
PCB-1221 (Aroclor 1221)	**<57.4**	ug/kg	175	57.4	7	09/16/22 10:41	09/26/22 17:51	11104-28-2	
PCB-1232 (Aroclor 1232)	**<57.4**	ug/kg	175	57.4	7	09/16/22 10:41	09/26/22 17:51	11141-16-5	
PCB-1242 (Aroclor 1242)	**<57.4**	ug/kg	175	57.4	7	09/16/22 10:41	09/26/22 17:51	53469-21-9	
PCB-1248 (Aroclor 1248)	**2230**	ug/kg	175	57.4	7	09/16/22 10:41	09/26/22 17:51	12672-29-6	
PCB-1254 (Aroclor 1254)	**2500**	ug/kg	175	57.4	7	09/16/22 10:41	09/26/22 17:51	11097-69-1	
PCB-1260 (Aroclor 1260)	**160J**	ug/kg	175	57.4	7	09/16/22 10:41	09/26/22 17:51	11096-82-5	
PCB, Total	**4890**	ug/kg	175	57.4	7	09/16/22 10:41	09/26/22 17:51	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	118	%	80-120		7	09/16/22 10:41	09/26/22 17:51	877-09-8	
Decachlorobiphenyl (S)	118	%	78-120		7	09/16/22 10:41	09/26/22 17:51	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:07		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:07		
Lipid	**1.3**	%			1		09/16/22 11:07		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AWS-2, 6/25/22 **Lab ID: 40249876016** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<82.0**	ug/kg	250	82.0	10	09/16/22 10:41	09/24/22 10:40	12674-11-2	
PCB-1221 (Aroclor 1221)	**<82.0**	ug/kg	250	82.0	10	09/16/22 10:41	09/24/22 10:40	11104-28-2	
PCB-1232 (Aroclor 1232)	**<82.0**	ug/kg	250	82.0	10	09/16/22 10:41	09/24/22 10:40	11141-16-5	
PCB-1242 (Aroclor 1242)	**<82.0**	ug/kg	250	82.0	10	09/16/22 10:41	09/24/22 10:40	53469-21-9	
PCB-1248 (Aroclor 1248)	**1660**	ug/kg	250	82.0	10	09/16/22 10:41	09/24/22 10:40	12672-29-6	
PCB-1254 (Aroclor 1254)	**2310**	ug/kg	250	82.0	10	09/16/22 10:41	09/24/22 10:40	11097-69-1	
PCB-1260 (Aroclor 1260)	**229J**	ug/kg	250	82.0	10	09/16/22 10:41	09/24/22 10:40	11096-82-5	
PCB, Total	**4200**	ug/kg	250	82.0	10	09/16/22 10:41	09/24/22 10:40	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	117	%	80-120		10	09/16/22 10:41	09/24/22 10:40	877-09-8	
Decachlorobiphenyl (S)	117	%	78-120		10	09/16/22 10:41	09/24/22 10:40	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:07		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:07		
Lipid	**1.5**	%			1		09/16/22 11:07		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AWS-3, 6/25/22 **Lab ID: 40249876017** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.0**	ug/kg	125	41.0	5	09/16/22 10:41	09/24/22 11:02	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.0**	ug/kg	125	41.0	5	09/16/22 10:41	09/24/22 11:02	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.0**	ug/kg	125	41.0	5	09/16/22 10:41	09/24/22 11:02	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.0**	ug/kg	125	41.0	5	09/16/22 10:41	09/24/22 11:02	53469-21-9	
PCB-1248 (Aroclor 1248)	**1790**	ug/kg	125	41.0	5	09/16/22 10:41	09/24/22 11:02	12672-29-6	
PCB-1254 (Aroclor 1254)	**1540**	ug/kg	125	41.0	5	09/16/22 10:41	09/24/22 11:02	11097-69-1	
PCB-1260 (Aroclor 1260)	**<41.0**	ug/kg	125	41.0	5	09/16/22 10:41	09/24/22 11:02	11096-82-5	
PCB, Total	**3330**	ug/kg	125	41.0	5	09/16/22 10:41	09/24/22 11:02	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	118	%	80-120		5	09/16/22 10:41	09/24/22 11:02	877-09-8	
Decachlorobiphenyl (S)	115	%	78-120		5	09/16/22 10:41	09/24/22 11:02	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:07		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:07		
Lipid	**3.4**	%			1		09/16/22 11:07		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AWS-4, 6/25/22 **Lab ID: 40249876018** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<164**	ug/kg	500	164	20	09/16/22 10:41	09/24/22 11:24	12674-11-2	
PCB-1221 (Aroclor 1221)	**<164**	ug/kg	500	164	20	09/16/22 10:41	09/24/22 11:24	11104-28-2	
PCB-1232 (Aroclor 1232)	**<164**	ug/kg	500	164	20	09/16/22 10:41	09/24/22 11:24	11141-16-5	
PCB-1242 (Aroclor 1242)	**<164**	ug/kg	500	164	20	09/16/22 10:41	09/24/22 11:24	53469-21-9	
PCB-1248 (Aroclor 1248)	**2880**	ug/kg	500	164	20	09/16/22 10:41	09/24/22 11:24	12672-29-6	
PCB-1254 (Aroclor 1254)	**4380**	ug/kg	500	164	20	09/16/22 10:41	09/24/22 11:24	11097-69-1	
PCB-1260 (Aroclor 1260)	**325J**	ug/kg	500	164	20	09/16/22 10:41	09/24/22 11:24	11096-82-5	
PCB, Total	**7580**	ug/kg	500	164	20	09/16/22 10:41	09/24/22 11:24	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		20	09/16/22 10:41	09/24/22 11:24	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		20	09/16/22 10:41	09/24/22 11:24	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:08		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:08		
Lipid	**1.1**	%			1		09/16/22 11:08		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AWS-5, 6/25/22 **Lab ID: 40249876019** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<32.8**	ug/kg	99.8	32.8	4	09/16/22 10:41	09/24/22 11:46	12674-11-2	
PCB-1221 (Aroclor 1221)	**<32.8**	ug/kg	99.8	32.8	4	09/16/22 10:41	09/24/22 11:46	11104-28-2	
PCB-1232 (Aroclor 1232)	**<32.8**	ug/kg	99.8	32.8	4	09/16/22 10:41	09/24/22 11:46	11141-16-5	
PCB-1242 (Aroclor 1242)	**<32.8**	ug/kg	99.8	32.8	4	09/16/22 10:41	09/24/22 11:46	53469-21-9	
PCB-1248 (Aroclor 1248)	**920**	ug/kg	99.8	32.8	4	09/16/22 10:41	09/24/22 11:46	12672-29-6	
PCB-1254 (Aroclor 1254)	**1250**	ug/kg	99.8	32.8	4	09/16/22 10:41	09/24/22 11:46	11097-69-1	
PCB-1260 (Aroclor 1260)	**<32.8**	ug/kg	99.8	32.8	4	09/16/22 10:41	09/24/22 11:46	11096-82-5	
PCB, Total	**2170**	ug/kg	99.8	32.8	4	09/16/22 10:41	09/24/22 11:46	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	113	%	80-120		4	09/16/22 10:41	09/24/22 11:46	877-09-8	
Decachlorobiphenyl (S)	110	%	78-120		4	09/16/22 10:41	09/24/22 11:46	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:08		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:08		
Lipid	**0.88**	%			1		09/16/22 11:08		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Sample: UR2-AWS-6, 6/25/22 **Lab ID: 40249876020** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<123**	ug/kg	375	123	15	09/16/22 10:41	09/24/22 12:08	12674-11-2	
PCB-1221 (Aroclor 1221)	**<123**	ug/kg	375	123	15	09/16/22 10:41	09/24/22 12:08	11104-28-2	
PCB-1232 (Aroclor 1232)	**<123**	ug/kg	375	123	15	09/16/22 10:41	09/24/22 12:08	11141-16-5	
PCB-1242 (Aroclor 1242)	**<123**	ug/kg	375	123	15	09/16/22 10:41	09/24/22 12:08	53469-21-9	
PCB-1248 (Aroclor 1248)	**2680**	ug/kg	375	123	15	09/16/22 10:41	09/24/22 12:08	12672-29-6	
PCB-1254 (Aroclor 1254)	**3730**	ug/kg	375	123	15	09/16/22 10:41	09/24/22 12:08	11097-69-1	
PCB-1260 (Aroclor 1260)	**282J**	ug/kg	375	123	15	09/16/22 10:41	09/24/22 12:08	11096-82-5	
PCB, Total	**6700**	ug/kg	375	123	15	09/16/22 10:41	09/24/22 12:08	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		15	09/16/22 10:41	09/24/22 12:08	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		15	09/16/22 10:41	09/24/22 12:08	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/12/22 07:16		
Fillet Selected	**Both**				1		09/12/22 07:16		
Fillet Weight	**0.0**	g			1		09/12/22 07:16		
Homogenized Weight	**0.0**	g			1		09/12/22 07:16		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426124**				1		09/16/22 11:08		
Extraction Date/Time	**09/16/2022 10:24:58:737**				1		09/16/22 11:08		
Lipid	**1.5**	%			1		09/16/22 11:08		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

QC Batch: 426124
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249876001, 40249876002, 40249876003, 40249876004, 40249876005, 40249876006, 40249876007, 40249876008, 40249876009, 40249876010, 40249876011, 40249876012, 40249876013, 40249876014, 40249876015, 40249876016, 40249876017, 40249876018, 40249876019, 40249876020

METHOD BLANK: 2453858 Matrix: Tissue
Associated Lab Samples: 40249876001, 40249876002, 40249876003, 40249876004, 40249876005, 40249876006, 40249876007, 40249876008, 40249876009, 40249876010, 40249876011, 40249876012, 40249876013, 40249876014, 40249876015, 40249876016, 40249876017, 40249876018, 40249876019, 40249876020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<8.2	25.0	09/24/22 03:00	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2	25.0	09/24/22 03:00	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2	25.0	09/24/22 03:00	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2	25.0	09/24/22 03:00	
PCB-1248 (Aroclor 1248)	ug/kg	<8.2	25.0	09/24/22 03:00	
PCB-1254 (Aroclor 1254)	ug/kg	<8.2	25.0	09/24/22 03:00	
PCB-1260 (Aroclor 1260)	ug/kg	<8.2	25.0	09/24/22 03:00	
Decachlorobiphenyl (S)	%	94	78-120	09/24/22 03:00	
Tetrachloro-m-xylene (S)	%	98	80-120	09/24/22 03:00	

LABORATORY CONTROL SAMPLE: 2453859

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<8.2			
PCB-1221 (Aroclor 1221)	ug/kg		<8.2			
PCB-1232 (Aroclor 1232)	ug/kg		<8.2			
PCB-1242 (Aroclor 1242)	ug/kg		<8.2			
PCB-1248 (Aroclor 1248)	ug/kg		<8.2			
PCB-1254 (Aroclor 1254)	ug/kg	249	219	88	66-106	
PCB-1260 (Aroclor 1260)	ug/kg		<8.2			
Decachlorobiphenyl (S)	%			91	78-120	
Tetrachloro-m-xylene (S)	%			93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2453860 2453861

Parameter	Units	40249876003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<246			<246	<246					20	
PCB-1221 (Aroclor 1221)	ug/kg	<246			<246	<246					20	
PCB-1232 (Aroclor 1232)	ug/kg	<246			<246	<246					20	
PCB-1242 (Aroclor 1242)	ug/kg	<246			<246	<246					20	
PCB-1248 (Aroclor 1248)	ug/kg	11200			9700	8670				11	20	
PCB-1254 (Aroclor 1254)	ug/kg	7100	999	999	7270	6420	17	-68	60-110	12	20	M1
PCB-1260 (Aroclor 1260)	ug/kg	<246			<246	<246					20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2453860 2453861

Parameter	Units	40249876003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Decachlorobiphenyl (S)	%						0	0	78-120			S4
Tetrachloro-m-xylene (S)	%						0	0	80-120			S4

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

QC Batch: 426125
QC Batch Method: Pace Lipid
Analysis Method: Pace Lipid
Analysis Description: LIPID
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249876001, 40249876002, 40249876003, 40249876004, 40249876005, 40249876006, 40249876007, 40249876008, 40249876009, 40249876010, 40249876011, 40249876012, 40249876013, 40249876014, 40249876015, 40249876016, 40249876017, 40249876018, 40249876019, 40249876020

METHOD BLANK: 2453866 Matrix: Tissue
Associated Lab Samples: 40249876001, 40249876002, 40249876003, 40249876004, 40249876005, 40249876006, 40249876007, 40249876008, 40249876009, 40249876010, 40249876011, 40249876012, 40249876013, 40249876014, 40249876015, 40249876016, 40249876017, 40249876018, 40249876019, 40249876020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Extraction Batch Number		426124		09/16/22 11:03	
Extraction Date/Time		09/16/2022		09/16/22 11:03	
Lipid	%	0.34		09/16/22 11:03	

SAMPLE DUPLICATE: 2453867

Parameter	Units	40249876003 Result	Dup Result	RPD	Max RPD	Qualifiers
Extraction Batch Number		426124	426124			
Extraction Date/Time		09/16/2022 10:24:58:737	09/16/2022			
Lipid	%	3.4	3.7	8	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S0	Surrogate recovery outside laboratory control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249876001	URI-RB-11, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876002	URI-RB-12, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876003	UR2-AC-1, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876004	UR2-AC-2, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876005	UR2-AC-3, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876006	UR2-AC-4, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876007	UR2-AC-5, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876008	UR2-AC-6, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876009	UR2-AC-7, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876010	UR2-AC-8, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876011	UR2-AC-9, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876012	UR2-AC-10, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876013	UR2-AC-11, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876014	UR2-AC-12, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876015	UR2-AWS-1, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876016	UR2-AWS-2, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876017	UR2-AWS-3, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876018	UR2-AWS-4, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876019	UR2-AWS-5, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876020	UR2-AWS-6, 6/25/22	EPA 3541	426124	EPA 8082A	426730
40249876001	URI-RB-11, 6/25/22	Pace Gender Typing	426024		
40249876002	URI-RB-12, 6/25/22	Pace Gender Typing	426024		
40249876003	UR2-AC-1, 6/25/22	Pace Gender Typing	426024		
40249876004	UR2-AC-2, 6/25/22	Pace Gender Typing	426024		
40249876005	UR2-AC-3, 6/25/22	Pace Gender Typing	426024		
40249876006	UR2-AC-4, 6/25/22	Pace Gender Typing	426024		
40249876007	UR2-AC-5, 6/25/22	Pace Gender Typing	426024		
40249876008	UR2-AC-6, 6/25/22	Pace Gender Typing	426024		
40249876009	UR2-AC-7, 6/25/22	Pace Gender Typing	426024		
40249876010	UR2-AC-8, 6/25/22	Pace Gender Typing	426024		
40249876011	UR2-AC-9, 6/25/22	Pace Gender Typing	426024		
40249876012	UR2-AC-10, 6/25/22	Pace Gender Typing	426024		
40249876013	UR2-AC-11, 6/25/22	Pace Gender Typing	426024		
40249876014	UR2-AC-12, 6/25/22	Pace Gender Typing	426024		
40249876015	UR2-AWS-1, 6/25/22	Pace Gender Typing	426024		
40249876016	UR2-AWS-2, 6/25/22	Pace Gender Typing	426024		
40249876017	UR2-AWS-3, 6/25/22	Pace Gender Typing	426024		
40249876018	UR2-AWS-4, 6/25/22	Pace Gender Typing	426024		
40249876019	UR2-AWS-5, 6/25/22	Pace Gender Typing	426024		
40249876020	UR2-AWS-6, 6/25/22	Pace Gender Typing	426024		
40249876001	URI-RB-11, 6/25/22	Pace Lipid	426125		
40249876002	URI-RB-12, 6/25/22	Pace Lipid	426125		
40249876003	UR2-AC-1, 6/25/22	Pace Lipid	426125		
40249876004	UR2-AC-2, 6/25/22	Pace Lipid	426125		
40249876005	UR2-AC-3, 6/25/22	Pace Lipid	426125		
40249876006	UR2-AC-4, 6/25/22	Pace Lipid	426125		
40249876007	UR2-AC-5, 6/25/22	Pace Lipid	426125		
40249876008	UR2-AC-6, 6/25/22	Pace Lipid	426125		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249876

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249876009	**UR2-AC-7, 6/25/22**	Pace Lipid	426125		
40249876010	**UR2-AC-8, 6/25/22**	Pace Lipid	426125		
40249876011	**UR2-AC-9, 6/25/22**	Pace Lipid	426125		
40249876012	**UR2-AC-10, 6/25/22**	Pace Lipid	426125		
40249876013	**UR2-AC-11, 6/25/22**	Pace Lipid	426125		
40249876014	**UR2-AC-12, 6/25/22**	Pace Lipid	426125		
40249876015	**UR2-AWS-1, 6/25/22**	Pace Lipid	426125		
40249876016	**UR2-AWS-2, 6/25/22**	Pace Lipid	426125		
40249876017	**UR2-AWS-3, 6/25/22**	Pace Lipid	426125		
40249876018	**UR2-AWS-4, 6/25/22**	Pace Lipid	426125		
40249876019	**UR2-AWS-5, 6/25/22**	Pace Lipid	426125		
40249876020	**UR2-AWS-6, 6/25/22**	Pace Lipid	426125		

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

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www.pacelabs.com

CHAIN OF CUSTODY

4024987 6

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	517-319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weitenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water
B = Biota, DW = Drinking Water
C = Charcoal, GW = Ground Water
O = Oil, SW = Surface Water
S = Soil, WW = Waste Water
SI = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Genders	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
	UR1-RB-8, 6/25/22	6/25/22		TS		A	X	X	X			
	UR1-RB-9, 6/25/22	↓		↓		↓	↓	↓	↓			
	UR1-RB-10, 6/25/22											
001	UR1-RB-11, 6/25/22											
002	UR1-RB-12, 6/25/22	6/25/22										
003	UR2-Ac-1, 6/25/22											
004	UR2-Ac-2, 6/25/22											
005	UR2-Ac-3, 6/25/22											
006	UR2-Ac-4, 6/25/22											
007	UR2-Ac-5, 6/25/22											
008	UR2-Ac-6, 6/25/22											
009	UR2-Ac-7, 6/25/22											
010	UR2-Ac-8, 6/25/22	↓		↓		↓	↓	↓	↓			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 730		8/15/22 0730

PACE Project No.
4024987 6

Receipt Temp = 0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Pace Analytical®
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

CHAIN OF CUSTODY

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	517 319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCR	% Lipids	Grinder
011	UR2-AC-9, 6/25/22	6/25/22		TS		A	X	X	X
012	UR2-AC-10, 6/25/22								
013	UR2-AC-11, 6/25/22								
014	UR2-AC-12, 6/25/22								
015	UR2-AWS-1, 6/25/22								
016	UR2-AWS-2, 6/25/22								
017	UR2-AWS-3, 6/25/22								
018	UR2-AWS-4, 6/25/22								
019	UR2-AWS-5, 6/25/22								
020	UR2-AWS-6, 6/25/22								
	UR2-AWS-7, 6/25/22								
	UR2-AWS-8, 6/25/22								
	UR2-AWS-9, 6/25/22	↓		↓		↓	↓	↓	↓

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 730		8/15/22 0730
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
40249876

Receipt Temp = 0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present
Intact / Not Intact

C019a(27 Jun2006)

Sample Preservation Receipt Form

Client Name: PRS Project # Q0249876

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☑N/A Initial when completed: Date/ Time:

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted):

Pace Lab #	Glass								Plastic					Vials						Jars				General			VOA Vials (>6mm)	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN						
001																																2.5 / 5 / 10
002																																2.5 / 5 / 10
003																																2.5 / 5 / 10
004																																2.5 / 5 / 10
005																																2.5 / 5 / 10
006																																2.5 / 5 / 10
007																																2.5 / 5 / 10
008																																2.5 / 5 / 10
009																																2.5 / 5 / 10
010																																2.5 / 5 / 10
011																																2.5 / 5 / 10
012																																2.5 / 5 / 10
013																																2.5 / 5 / 10
014																																2.5 / 5 / 10
015																																2.5 / 5 / 10
016																																2.5 / 5 / 10
017																																2.5 / 5 / 10
018																																2.5 / 5 / 10
019																																2.5 / 5 / 10
020																																2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☑N/A ***If yes look in headspace column**

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN	

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40249876

40249876

Client Name: PRS

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☑ Client ☐ Pace Other: ✓

Tracking #:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used SR - 120 **Type of Ice:** Wet Blue Dry (None) ☐ Samples on ice

Cooler Temperature Uncorr: 0 /Corr: 0

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☑ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
Date: 8/15/22 /Initials: MH

Labeled By Initials: NK

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. NO mail or invoice info mt 8/15/22
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume:		8.
For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☐Yes ☑No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: B		
Trip Blank Present:	☐Yes ☐No ☑N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

September 27, 2022

Aaron Lammers
SME
3301 Tech Circle
Kalamazoo, MI 49008

RE: Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Dear Aaron Lammers:

Enclosed are the analytical results for sample(s) received by the laboratory on August 15, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tod Noltemeyer

Tod Noltemeyer
tod.noltemeyer@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Pace Analytical Services Green Bay
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40249877001	**UR2-AWS-7, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877002	**UR2-AWS-8, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877003	**UR2-AWS-9, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877004	**UR2-AWS-10, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877005	**UR2-AWS-11, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877006	**UR2-AWS-12, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877007	**UR2-SMB-1, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877008	**UR2-SMB-2, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877009	**UR2-SMB-3, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877010	**UR2-SMB-4, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877011	**UR2-SMB-5, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877012	**UR2-SMB-6, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877013	**UR2-SMB-7, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877014	**UR2-SMB-8, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877015	**UR2-SMB-9, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877016	**UR2-SMB-10, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877017	**UR2-SMB-11, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877018	**UR2-SMB-12, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877019	**UR2-RB-1, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249877020	**UR2-RB-2, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40249877001	**UR2-AWS-7, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877002	**UR2-AWS-8, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877003	**UR2-AWS-9, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877004	**UR2-AWS-10, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877005	**UR2-AWS-11, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877006	**UR2-AWS-12, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877007	**UR2-SMB-1, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877008	**UR2-SMB-2, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877009	**UR2-SMB-3, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877010	**UR2-SMB-4, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877011	**UR2-SMB-5, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877012	**UR2-SMB-6, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877013	**UR2-SMB-7, 6/25/22**	EPA 8082A	BLM	10

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877014	**UR2-SMB-8, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877015	**UR2-SMB-9, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877016	**UR2-SMB-10, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877017	**UR2-SMB-11, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877018	**UR2-SMB-12, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877019	**UR2-RB-1, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249877020	**UR2-RB-2, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3

PASI-G = Pace Analytical Services - Green Bay

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: September 27, 2022

General Information:
20 samples were analyzed for EPA 8082A by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Method: **Pace Gender Typing**
Description: Fish Gender Typing
Client: POLLUTION RISK SERVICES
Date: September 27, 2022

General Information:
20 samples were analyzed for Pace Gender Typing by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Method: **Pace Lipid**
Description: Lipid
Client: POLLUTION RISK SERVICES
Date: September 27, 2022

General Information:
20 samples were analyzed for Pace Lipid by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-AWS-7, 6/25/22 **Lab ID: 40249877001** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<57.5**	ug/kg	175	57.5	7	09/20/22 11:22	09/23/22 17:50	12674-11-2	
PCB-1221 (Aroclor 1221)	**<57.5**	ug/kg	175	57.5	7	09/20/22 11:22	09/23/22 17:50	11104-28-2	
PCB-1232 (Aroclor 1232)	**<57.5**	ug/kg	175	57.5	7	09/20/22 11:22	09/23/22 17:50	11141-16-5	
PCB-1242 (Aroclor 1242)	**<57.5**	ug/kg	175	57.5	7	09/20/22 11:22	09/23/22 17:50	53469-21-9	
PCB-1248 (Aroclor 1248)	**778**	ug/kg	175	57.5	7	09/20/22 11:22	09/23/22 17:50	12672-29-6	
PCB-1254 (Aroclor 1254)	**1880**	ug/kg	175	57.5	7	09/20/22 11:22	09/23/22 17:50	11097-69-1	
PCB-1260 (Aroclor 1260)	**170J**	ug/kg	175	57.5	7	09/20/22 11:22	09/23/22 17:50	11096-82-5	
PCB, Total	**2830**	ug/kg	175	57.5	7	09/20/22 11:22	09/23/22 17:50	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	91	%	80-120		7	09/20/22 11:22	09/23/22 17:50	877-09-8	
Decachlorobiphenyl (S)	96	%	78-120		7	09/20/22 11:22	09/23/22 17:50	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:43		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:43		
Lipid	**1.1**	%			1		09/20/22 10:43		

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-AWS-8, 6/25/22 **Lab ID: 40249877002** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	09/20/22 11:22	09/23/22 18:12	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	09/20/22 11:22	09/23/22 18:12	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	09/20/22 11:22	09/23/22 18:12	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	09/20/22 11:22	09/23/22 18:12	53469-21-9	
PCB-1248 (Aroclor 1248)	**460**	ug/kg	50.0	16.4	2	09/20/22 11:22	09/23/22 18:12	12672-29-6	
PCB-1254 (Aroclor 1254)	**351**	ug/kg	50.0	16.4	2	09/20/22 11:22	09/23/22 18:12	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	50.0	16.4	2	09/20/22 11:22	09/23/22 18:12	11096-82-5	
PCB, Total	**811**	ug/kg	50.0	16.4	2	09/20/22 11:22	09/23/22 18:12	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	101	%	80-120		2	09/20/22 11:22	09/23/22 18:12	877-09-8	
Decachlorobiphenyl (S)	103	%	78-120		2	09/20/22 11:22	09/23/22 18:12	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:44		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:44		
Lipid	**2.7**	%			1		09/20/22 10:44		

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-AWS-9, 6/25/22 **Lab ID: 40249877003** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.9	16.4	2	09/20/22 11:22	09/23/22 18:34	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.9	16.4	2	09/20/22 11:22	09/23/22 18:34	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.9	16.4	2	09/20/22 11:22	09/23/22 18:34	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.9	16.4	2	09/20/22 11:22	09/23/22 18:34	53469-21-9	
PCB-1248 (Aroclor 1248)	**878**	ug/kg	49.9	16.4	2	09/20/22 11:22	09/23/22 18:34	12672-29-6	
PCB-1254 (Aroclor 1254)	**662**	ug/kg	49.9	16.4	2	09/20/22 11:22	09/23/22 18:34	11097-69-1	
PCB-1260 (Aroclor 1260)	**36.8J**	ug/kg	49.9	16.4	2	09/20/22 11:22	09/23/22 18:34	11096-82-5	
PCB, Total	**1580**	ug/kg	49.9	16.4	2	09/20/22 11:22	09/23/22 18:34	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	111	%	80-120		2	09/20/22 11:22	09/23/22 18:34	877-09-8	
Decachlorobiphenyl (S)	112	%	78-120		2	09/20/22 11:22	09/23/22 18:34	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:44		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:44		
Lipid	**1.8**	%			1		09/20/22 10:44		

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-AWS-10, 6/25/22 **Lab ID: 40249877004** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	09/20/22 11:22	09/23/22 18:56	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	09/20/22 11:22	09/23/22 18:56	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	09/20/22 11:22	09/23/22 18:56	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	09/20/22 11:22	09/23/22 18:56	53469-21-9	
PCB-1248 (Aroclor 1248)	**585**	ug/kg	50.0	16.4	2	09/20/22 11:22	09/23/22 18:56	12672-29-6	
PCB-1254 (Aroclor 1254)	**443**	ug/kg	50.0	16.4	2	09/20/22 11:22	09/23/22 18:56	11097-69-1	
PCB-1260 (Aroclor 1260)	**25.6J**	ug/kg	50.0	16.4	2	09/20/22 11:22	09/23/22 18:56	11096-82-5	
PCB, Total	**1050**	ug/kg	50.0	16.4	2	09/20/22 11:22	09/23/22 18:56	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	109	%	80-120		2	09/20/22 11:22	09/23/22 18:56	877-09-8	
Decachlorobiphenyl (S)	111	%	78-120		2	09/20/22 11:22	09/23/22 18:56	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:44		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:44		
Lipid	**1.5**	%			1		09/20/22 10:44		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-AWS-11, 6/25/22 **Lab ID: 40249877005** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.0**	ug/kg	125	41.0	5	09/20/22 11:22	09/23/22 19:18	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.0**	ug/kg	125	41.0	5	09/20/22 11:22	09/23/22 19:18	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.0**	ug/kg	125	41.0	5	09/20/22 11:22	09/23/22 19:18	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.0**	ug/kg	125	41.0	5	09/20/22 11:22	09/23/22 19:18	53469-21-9	
PCB-1248 (Aroclor 1248)	**1480**	ug/kg	125	41.0	5	09/20/22 11:22	09/23/22 19:18	12672-29-6	
PCB-1254 (Aroclor 1254)	**1840**	ug/kg	125	41.0	5	09/20/22 11:22	09/23/22 19:18	11097-69-1	
PCB-1260 (Aroclor 1260)	**109J**	ug/kg	125	41.0	5	09/20/22 11:22	09/23/22 19:18	11096-82-5	
PCB, Total	**3430**	ug/kg	125	41.0	5	09/20/22 11:22	09/23/22 19:18	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	102	%	80-120		5	09/20/22 11:22	09/23/22 19:18	877-09-8	
Decachlorobiphenyl (S)	106	%	78-120		5	09/20/22 11:22	09/23/22 19:18	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:45		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:45		
Lipid	**0.88**	%			1		09/20/22 10:45		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-AWS-12, 6/25/22 **Lab ID: 40249877006** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.0**	ug/kg	125	41.0	5	09/20/22 11:22	09/23/22 19:40	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.0**	ug/kg	125	41.0	5	09/20/22 11:22	09/23/22 19:40	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.0**	ug/kg	125	41.0	5	09/20/22 11:22	09/23/22 19:40	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.0**	ug/kg	125	41.0	5	09/20/22 11:22	09/23/22 19:40	53469-21-9	
PCB-1248 (Aroclor 1248)	**1060**	ug/kg	125	41.0	5	09/20/22 11:22	09/23/22 19:40	12672-29-6	
PCB-1254 (Aroclor 1254)	**1460**	ug/kg	125	41.0	5	09/20/22 11:22	09/23/22 19:40	11097-69-1	
PCB-1260 (Aroclor 1260)	**119J**	ug/kg	125	41.0	5	09/20/22 11:22	09/23/22 19:40	11096-82-5	
PCB, Total	**2640**	ug/kg	125	41.0	5	09/20/22 11:22	09/23/22 19:40	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	103	%	80-120		5	09/20/22 11:22	09/23/22 19:40	877-09-8	
Decachlorobiphenyl (S)	108	%	78-120		5	09/20/22 11:22	09/23/22 19:40	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:45		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:45		
Lipid	**1.7**	%			1		09/20/22 10:45		

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-SMB-1, 6/25/22 **Lab ID: 40249877007** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/20/22 11:22	09/23/22 20:02	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/20/22 11:22	09/23/22 20:02	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/20/22 11:22	09/23/22 20:02	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/20/22 11:22	09/23/22 20:02	53469-21-9	
PCB-1248 (Aroclor 1248)	**271**	ug/kg	24.9	8.2	1	09/20/22 11:22	09/23/22 20:02	12672-29-6	
PCB-1254 (Aroclor 1254)	**406**	ug/kg	24.9	8.2	1	09/20/22 11:22	09/23/22 20:02	11097-69-1	
PCB-1260 (Aroclor 1260)	**35.7**	ug/kg	24.9	8.2	1	09/20/22 11:22	09/23/22 20:02	11096-82-5	
PCB, Total	**713**	ug/kg	24.9	8.2	1	09/20/22 11:22	09/23/22 20:02	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	108	%	80-120		1	09/20/22 11:22	09/23/22 20:02	877-09-8	
Decachlorobiphenyl (S)	108	%	78-120		1	09/20/22 11:22	09/23/22 20:02	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:45		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:45		
Lipid	**0.27**	%			1		09/20/22 10:45		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-SMB-2, 6/25/22 **Lab ID: 40249877008** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 20:24	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 20:24	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 20:24	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 20:24	53469-21-9	
PCB-1248 (Aroclor 1248)	**199**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 20:24	12672-29-6	
PCB-1254 (Aroclor 1254)	**246**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 20:24	11097-69-1	
PCB-1260 (Aroclor 1260)	**18.5J**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 20:24	11096-82-5	
PCB, Total	**464**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 20:24	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	92	%	80-120		1	09/20/22 11:22	09/23/22 20:24	877-09-8	
Decachlorobiphenyl (S)	94	%	78-120		1	09/20/22 11:22	09/23/22 20:24	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:45		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:45		
Lipid	**0.39**	%			1		09/20/22 10:45		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-SMB-3, 6/25/22 **Lab ID: 40249877009** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.5**	ug/kg	50.1	16.5	2	09/20/22 11:22	09/23/22 21:30	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.5**	ug/kg	50.1	16.5	2	09/20/22 11:22	09/23/22 21:30	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.5**	ug/kg	50.1	16.5	2	09/20/22 11:22	09/23/22 21:30	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.5**	ug/kg	50.1	16.5	2	09/20/22 11:22	09/23/22 21:30	53469-21-9	
PCB-1248 (Aroclor 1248)	**362**	ug/kg	50.1	16.5	2	09/20/22 11:22	09/23/22 21:30	12672-29-6	
PCB-1254 (Aroclor 1254)	**671**	ug/kg	50.1	16.5	2	09/20/22 11:22	09/23/22 21:30	11097-69-1	
PCB-1260 (Aroclor 1260)	**49.3J**	ug/kg	50.1	16.5	2	09/20/22 11:22	09/23/22 21:30	11096-82-5	
PCB, Total	**1080**	ug/kg	50.1	16.5	2	09/20/22 11:22	09/23/22 21:30	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	93	%	80-120		2	09/20/22 11:22	09/23/22 21:30	877-09-8	
Decachlorobiphenyl (S)	93	%	78-120		2	09/20/22 11:22	09/23/22 21:30	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:46		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:46		
Lipid	**0.32**	%			1		09/20/22 10:46		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-SMB-4, 6/25/22 **Lab ID: 40249877010** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.9	16.4	2	09/20/22 11:22	09/23/22 21:52	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.9	16.4	2	09/20/22 11:22	09/23/22 21:52	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.9	16.4	2	09/20/22 11:22	09/23/22 21:52	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.9	16.4	2	09/20/22 11:22	09/23/22 21:52	53469-21-9	
PCB-1248 (Aroclor 1248)	**237**	ug/kg	49.9	16.4	2	09/20/22 11:22	09/23/22 21:52	12672-29-6	
PCB-1254 (Aroclor 1254)	**640**	ug/kg	49.9	16.4	2	09/20/22 11:22	09/23/22 21:52	11097-69-1	
PCB-1260 (Aroclor 1260)	**82.0**	ug/kg	49.9	16.4	2	09/20/22 11:22	09/23/22 21:52	11096-82-5	
PCB, Total	**959**	ug/kg	49.9	16.4	2	09/20/22 11:22	09/23/22 21:52	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	103	%	80-120		2	09/20/22 11:22	09/23/22 21:52	877-09-8	
Decachlorobiphenyl (S)	106	%	78-120		2	09/20/22 11:22	09/23/22 21:52	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:46		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:46		
Lipid	**0.23**	%			1		09/20/22 10:46		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-SMB-5, 6/25/22 **Lab ID: 40249877011** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:14	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:14	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:14	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:14	53469-21-9	
PCB-1248 (Aroclor 1248)	**143**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:14	12672-29-6	
PCB-1254 (Aroclor 1254)	**162**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:14	11097-69-1	
PCB-1260 (Aroclor 1260)	**11.4J**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:14	11096-82-5	
PCB, Total	**316**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:14	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	96	%	80-120		1	09/20/22 11:22	09/23/22 22:14	877-09-8	
Decachlorobiphenyl (S)	97	%	78-120		1	09/20/22 11:22	09/23/22 22:14	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:46		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:46		
Lipid	**0.39**	%			1		09/20/22 10:46		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-SMB-6, 6/25/22 **Lab ID: 40249877012** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:36	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:36	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:36	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:36	53469-21-9	
PCB-1248 (Aroclor 1248)	**235**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:36	12672-29-6	
PCB-1254 (Aroclor 1254)	**299**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:36	11097-69-1	
PCB-1260 (Aroclor 1260)	**22.5J**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:36	11096-82-5	
PCB, Total	**557**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:36	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	103	%	80-120		1	09/20/22 11:22	09/23/22 22:36	877-09-8	
Decachlorobiphenyl (S)	103	%	78-120		1	09/20/22 11:22	09/23/22 22:36	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:46		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:46		
Lipid	**0.55**	%			1		09/20/22 10:46		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-SMB-7, 6/25/22 **Lab ID: 40249877013** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:58	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:58	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:58	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:58	53469-21-9	
PCB-1248 (Aroclor 1248)	**159**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:58	12672-29-6	
PCB-1254 (Aroclor 1254)	**194**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:58	11097-69-1	
PCB-1260 (Aroclor 1260)	**14.2J**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:58	11096-82-5	
PCB, Total	**367**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 22:58	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	94	%	80-120		1	09/20/22 11:22	09/23/22 22:58	877-09-8	
Decachlorobiphenyl (S)	95	%	78-120		1	09/20/22 11:22	09/23/22 22:58	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:47		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:47		
Lipid	**0.27**	%			1		09/20/22 10:47		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-SMB-8, 6/25/22 **Lab ID: 40249877014** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 23:20	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 23:20	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 23:20	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 23:20	53469-21-9	
PCB-1248 (Aroclor 1248)	**147**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 23:20	12672-29-6	
PCB-1254 (Aroclor 1254)	**274**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 23:20	11097-69-1	
PCB-1260 (Aroclor 1260)	**32.9**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 23:20	11096-82-5	
PCB, Total	**454**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/23/22 23:20	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	99	%	80-120		1	09/20/22 11:22	09/23/22 23:20	877-09-8	
Decachlorobiphenyl (S)	98	%	78-120		1	09/20/22 11:22	09/23/22 23:20	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:47		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:47		
Lipid	**0.49**	%			1		09/20/22 10:47		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-SMB-9, 6/25/22 **Lab ID: 40249877015** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/20/22 11:22	09/23/22 23:42	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/20/22 11:22	09/23/22 23:42	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/20/22 11:22	09/23/22 23:42	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/20/22 11:22	09/23/22 23:42	53469-21-9	
PCB-1248 (Aroclor 1248)	**109**	ug/kg	24.9	8.2	1	09/20/22 11:22	09/23/22 23:42	12672-29-6	
PCB-1254 (Aroclor 1254)	**84.0**	ug/kg	24.9	8.2	1	09/20/22 11:22	09/23/22 23:42	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	24.9	8.2	1	09/20/22 11:22	09/23/22 23:42	11096-82-5	
PCB, Total	**193**	ug/kg	24.9	8.2	1	09/20/22 11:22	09/23/22 23:42	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	97	%	80-120		1	09/20/22 11:22	09/23/22 23:42	877-09-8	
Decachlorobiphenyl (S)	98	%	78-120		1	09/20/22 11:22	09/23/22 23:42	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:47		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:47		
Lipid	**0.36**	%			1		09/20/22 10:47		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-SMB-10, 6/25/22 **Lab ID: 40249877016** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.1	8.2	1	09/20/22 11:22	09/24/22 00:04	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.1	8.2	1	09/20/22 11:22	09/24/22 00:04	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.1	8.2	1	09/20/22 11:22	09/24/22 00:04	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.1	8.2	1	09/20/22 11:22	09/24/22 00:04	53469-21-9	
PCB-1248 (Aroclor 1248)	**178**	ug/kg	25.1	8.2	1	09/20/22 11:22	09/24/22 00:04	12672-29-6	
PCB-1254 (Aroclor 1254)	**378**	ug/kg	25.1	8.2	1	09/20/22 11:22	09/24/22 00:04	11097-69-1	
PCB-1260 (Aroclor 1260)	**41.9**	ug/kg	25.1	8.2	1	09/20/22 11:22	09/24/22 00:04	11096-82-5	
PCB, Total	**597**	ug/kg	25.1	8.2	1	09/20/22 11:22	09/24/22 00:04	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	99	%	80-120		1	09/20/22 11:22	09/24/22 00:04	877-09-8	
Decachlorobiphenyl (S)	102	%	78-120		1	09/20/22 11:22	09/24/22 00:04	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:47		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:47		
Lipid	**0.35**	%			1		09/20/22 10:47		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-SMB-11, 6/25/22 **Lab ID: 40249877017** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/24/22 00:26	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/24/22 00:26	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/24/22 00:26	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/24/22 00:26	53469-21-9	
PCB-1248 (Aroclor 1248)	**169**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/24/22 00:26	12672-29-6	
PCB-1254 (Aroclor 1254)	**387**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/24/22 00:26	11097-69-1	
PCB-1260 (Aroclor 1260)	**36.3**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/24/22 00:26	11096-82-5	
PCB, Total	**592**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/24/22 00:26	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	96	%	80-120		1	09/20/22 11:22	09/24/22 00:26	877-09-8	
Decachlorobiphenyl (S)	98	%	78-120		1	09/20/22 11:22	09/24/22 00:26	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:48		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:48		
Lipid	**0.28**	%			1		09/20/22 10:48		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-SMB-12, 6/25/22 **Lab ID: 40249877018** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<24.7**	ug/kg	75.1	24.7	3	09/20/22 11:22	09/24/22 00:48	12674-11-2	
PCB-1221 (Aroclor 1221)	**<24.7**	ug/kg	75.1	24.7	3	09/20/22 11:22	09/24/22 00:48	11104-28-2	
PCB-1232 (Aroclor 1232)	**<24.7**	ug/kg	75.1	24.7	3	09/20/22 11:22	09/24/22 00:48	11141-16-5	
PCB-1242 (Aroclor 1242)	**<24.7**	ug/kg	75.1	24.7	3	09/20/22 11:22	09/24/22 00:48	53469-21-9	
PCB-1248 (Aroclor 1248)	**381**	ug/kg	75.1	24.7	3	09/20/22 11:22	09/24/22 00:48	12672-29-6	
PCB-1254 (Aroclor 1254)	**848**	ug/kg	75.1	24.7	3	09/20/22 11:22	09/24/22 00:48	11097-69-1	
PCB-1260 (Aroclor 1260)	**65.3J**	ug/kg	75.1	24.7	3	09/20/22 11:22	09/24/22 00:48	11096-82-5	
PCB, Total	**1290**	ug/kg	75.1	24.7	3	09/20/22 11:22	09/24/22 00:48	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	100	%	80-120		3	09/20/22 11:22	09/24/22 00:48	877-09-8	
Decachlorobiphenyl (S)	102	%	78-120		3	09/20/22 11:22	09/24/22 00:48	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:48		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:48		
Lipid	**0.32**	%			1		09/20/22 10:48		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-RB-1, 6/25/22 **Lab ID: 40249877019** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/24/22 01:09	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/24/22 01:09	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/24/22 01:09	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/24/22 01:09	53469-21-9	
PCB-1248 (Aroclor 1248)	**109**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/24/22 01:09	12672-29-6	
PCB-1254 (Aroclor 1254)	**164**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/24/22 01:09	11097-69-1	
PCB-1260 (Aroclor 1260)	**10.4J**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/24/22 01:09	11096-82-5	
PCB, Total	**283**	ug/kg	25.0	8.2	1	09/20/22 11:22	09/24/22 01:09	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	96	%	80-120		1	09/20/22 11:22	09/24/22 01:09	877-09-8	
Decachlorobiphenyl (S)	98	%	78-120		1	09/20/22 11:22	09/24/22 01:09	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:48		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:48		
Lipid	**0.34**	%			1		09/20/22 10:48		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Sample: UR2-RB-2, 6/25/22 **Lab ID: 40249877020** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.8	16.4	2	09/20/22 11:22	09/24/22 01:31	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.8	16.4	2	09/20/22 11:22	09/24/22 01:31	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.8	16.4	2	09/20/22 11:22	09/24/22 01:31	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.8	16.4	2	09/20/22 11:22	09/24/22 01:31	53469-21-9	
PCB-1248 (Aroclor 1248)	**292**	ug/kg	49.8	16.4	2	09/20/22 11:22	09/24/22 01:31	12672-29-6	
PCB-1254 (Aroclor 1254)	**455**	ug/kg	49.8	16.4	2	09/20/22 11:22	09/24/22 01:31	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	49.8	16.4	2	09/20/22 11:22	09/24/22 01:31	11096-82-5	
PCB, Total	**747**	ug/kg	49.8	16.4	2	09/20/22 11:22	09/24/22 01:31	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	91	%	80-120		2	09/20/22 11:22	09/24/22 01:31	877-09-8	
Decachlorobiphenyl (S)	95	%	78-120		2	09/20/22 11:22	09/24/22 01:31	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/22/22 07:03		
Fillet Selected	**Both**				1		08/22/22 07:03		
Fillet Weight	**0.0**	g			1		08/22/22 07:03		
Homogenized Weight	**0.0**	g			1		08/22/22 07:03		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426405**				1		09/20/22 10:48		
Extraction Date/Time	**09/20/2022 11:22**				1		09/20/22 10:48		
Lipid	**0.31**	%			1		09/20/22 10:48		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

QC Batch: 426405
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249877001, 40249877002, 40249877003, 40249877004, 40249877005, 40249877006, 40249877007, 40249877008, 40249877009, 40249877010, 40249877011, 40249877012, 40249877013, 40249877014, 40249877015, 40249877016, 40249877017, 40249877018, 40249877019, 40249877020

METHOD BLANK: 2455308 Matrix: Tissue
Associated Lab Samples: 40249877001, 40249877002, 40249877003, 40249877004, 40249877005, 40249877006, 40249877007, 40249877008, 40249877009, 40249877010, 40249877011, 40249877012, 40249877013, 40249877014, 40249877015, 40249877016, 40249877017, 40249877018, 40249877019, 40249877020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<8.2	25.0	09/23/22 16:22	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2	25.0	09/23/22 16:22	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2	25.0	09/23/22 16:22	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2	25.0	09/23/22 16:22	
PCB-1248 (Aroclor 1248)	ug/kg	<8.2	25.0	09/23/22 16:22	
PCB-1254 (Aroclor 1254)	ug/kg	<8.2	25.0	09/23/22 16:22	
PCB-1260 (Aroclor 1260)	ug/kg	<8.2	25.0	09/23/22 16:22	
Decachlorobiphenyl (S)	%	85	78-120	09/23/22 16:22	
Tetrachloro-m-xylene (S)	%	88	80-120	09/23/22 16:22	

LABORATORY CONTROL SAMPLE: 2455309

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<8.2			
PCB-1221 (Aroclor 1221)	ug/kg		<8.2			
PCB-1232 (Aroclor 1232)	ug/kg		<8.2			
PCB-1242 (Aroclor 1242)	ug/kg		<8.2			
PCB-1248 (Aroclor 1248)	ug/kg		<8.2			
PCB-1254 (Aroclor 1254)	ug/kg	250	230	92	66-106	
PCB-1260 (Aroclor 1260)	ug/kg		<8.2			
Decachlorobiphenyl (S)	%			96	78-120	
Tetrachloro-m-xylene (S)	%			97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2455310 2455311

Parameter	Units	40249877001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<57.5			<57.4	<57.4					20	
PCB-1221 (Aroclor 1221)	ug/kg	<57.5			<57.4	<57.4					20	
PCB-1232 (Aroclor 1232)	ug/kg	<57.5			<57.4	<57.4					20	
PCB-1242 (Aroclor 1242)	ug/kg	<57.5			<57.4	<57.4					20	
PCB-1248 (Aroclor 1248)	ug/kg	778			877	902				3	20	
PCB-1254 (Aroclor 1254)	ug/kg	1880	998	999	2640	2710	76	83	60-110	2	20	
PCB-1260 (Aroclor 1260)	ug/kg	170J			205	209				2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2455310 2455311

Parameter	Units	40249877001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Decachlorobiphenyl (S)	%						99	99	78-120			
Tetrachloro-m-xylene (S)	%						93	93	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

QC Batch: 426406
QC Batch Method: Pace Lipid
Analysis Method: Pace Lipid
Analysis Description: LIPID
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249877001, 40249877002, 40249877003, 40249877004, 40249877005, 40249877006, 40249877007, 40249877008, 40249877009, 40249877010, 40249877011, 40249877012, 40249877013, 40249877014, 40249877015, 40249877016, 40249877017, 40249877018, 40249877019, 40249877020

METHOD BLANK: 2455315 Matrix: Tissue
Associated Lab Samples: 40249877001, 40249877002, 40249877003, 40249877004, 40249877005, 40249877006, 40249877007, 40249877008, 40249877009, 40249877010, 40249877011, 40249877012, 40249877013, 40249877014, 40249877015, 40249877016, 40249877017, 40249877018, 40249877019, 40249877020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Extraction Batch Number		426405		09/20/22 10:43	
Extraction Date/Time		09/20/2022		09/20/22 10:43	
Lipid	%	0.31		09/20/22 10:43	

SAMPLE DUPLICATE: 2455316

Parameter	Units	40249877001 Result	Dup Result	RPD	Max RPD	Qualifiers
Extraction Batch Number		426405	426405			
Extraction Date/Time		09/20/2022 11:22	09/20/2022			
Lipid	%	1.1	1.0	5	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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(920)469-2436

QUALIFIERS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249877001	UR2-AWS-7, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877002	UR2-AWS-8, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877003	UR2-AWS-9, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877004	UR2-AWS-10, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877005	UR2-AWS-11, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877006	UR2-AWS-12, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877007	UR2-SMB-1, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877008	UR2-SMB-2, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877009	UR2-SMB-3, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877010	UR2-SMB-4, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877011	UR2-SMB-5, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877012	UR2-SMB-6, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877013	UR2-SMB-7, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877014	UR2-SMB-8, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877015	UR2-SMB-9, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877016	UR2-SMB-10, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877017	UR2-SMB-11, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877018	UR2-SMB-12, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877019	UR2-RB-1, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877020	UR2-RB-2, 6/25/22	EPA 3541	426405	EPA 8082A	426731
40249877001	UR2-AWS-7, 6/25/22	Pace Gender Typing	424189		
40249877002	UR2-AWS-8, 6/25/22	Pace Gender Typing	424189		
40249877003	UR2-AWS-9, 6/25/22	Pace Gender Typing	424189		
40249877004	UR2-AWS-10, 6/25/22	Pace Gender Typing	424189		
40249877005	UR2-AWS-11, 6/25/22	Pace Gender Typing	424189		
40249877006	UR2-AWS-12, 6/25/22	Pace Gender Typing	424189		
40249877007	UR2-SMB-1, 6/25/22	Pace Gender Typing	424189		
40249877008	UR2-SMB-2, 6/25/22	Pace Gender Typing	424189		
40249877009	UR2-SMB-3, 6/25/22	Pace Gender Typing	424189		
40249877010	UR2-SMB-4, 6/25/22	Pace Gender Typing	424189		
40249877011	UR2-SMB-5, 6/25/22	Pace Gender Typing	424189		
40249877012	UR2-SMB-6, 6/25/22	Pace Gender Typing	424189		
40249877013	UR2-SMB-7, 6/25/22	Pace Gender Typing	424189		
40249877014	UR2-SMB-8, 6/25/22	Pace Gender Typing	424189		
40249877015	UR2-SMB-9, 6/25/22	Pace Gender Typing	424189		
40249877016	UR2-SMB-10, 6/25/22	Pace Gender Typing	424189		
40249877017	UR2-SMB-11, 6/25/22	Pace Gender Typing	424189		
40249877018	UR2-SMB-12, 6/25/22	Pace Gender Typing	424189		
40249877019	UR2-RB-1, 6/25/22	Pace Gender Typing	424189		
40249877020	UR2-RB-2, 6/25/22	Pace Gender Typing	424189		
40249877001	UR2-AWS-7, 6/25/22	Pace Lipid	426406		
40249877002	UR2-AWS-8, 6/25/22	Pace Lipid	426406		
40249877003	UR2-AWS-9, 6/25/22	Pace Lipid	426406		
40249877004	UR2-AWS-10, 6/25/22	Pace Lipid	426406		
40249877005	UR2-AWS-11, 6/25/22	Pace Lipid	426406		
40249877006	UR2-AWS-12, 6/25/22	Pace Lipid	426406		
40249877007	UR2-SMB-1, 6/25/22	Pace Lipid	426406		
40249877008	UR2-SMB-2, 6/25/22	Pace Lipid	426406		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249877

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249877009	**UR2-SMB-3, 6/25/22**	Pace Lipid	426406		
40249877010	**UR2-SMB-4, 6/25/22**	Pace Lipid	426406		
40249877011	**UR2-SMB-5, 6/25/22**	Pace Lipid	426406		
40249877012	**UR2-SMB-6, 6/25/22**	Pace Lipid	426406		
40249877013	**UR2-SMB-7, 6/25/22**	Pace Lipid	426406		
40249877014	**UR2-SMB-8, 6/25/22**	Pace Lipid	426406		
40249877015	**UR2-SMB-9, 6/25/22**	Pace Lipid	426406		
40249877016	**UR2-SMB-10, 6/25/22**	Pace Lipid	426406		
40249877017	**UR2-SMB-11, 6/25/22**	Pace Lipid	426406		
40249877018	**UR2-SMB-12, 6/25/22**	Pace Lipid	426406		
40249877019	**UR2-RB-1, 6/25/22**	Pace Lipid	426406		
40249877020	**UR2-RB-2, 6/25/22**	Pace Lipid	426406		

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

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CHAIN OF CUSTODY

40249877

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513 319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCR	% Lipids	Grinder	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
	UR2-AC-9, 6/25/22	6/25/22		TS		A	X	X	X			
	UR2-AC-10, 6/25/22											
	UR2-AC-11, 6/25/22											
	UR2-AC-12, 6/25/22											
	UR2-AWS-1, 6/25/22											
	UR2-AWS-2, 6/25/22											
	UR2-AWS-3, 6/25/22											
	UR2-AWS-4, 6/25/22											
	UR2-AWS-5, 6/25/22											
	UR2-AWS-6, 6/25/22											
001	UR2-AWS-7, 6/25/22											
002	UR2-AWS-8, 6/25/22											
003	UR2-AWS-9, 6/25/22	↓		↓		↓	↓	↓	↓			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 730		8/15/22 0730

PACE Project No.: 40249877

Receipt Temp = 0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal: Present / Not Present; Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

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www.pacelabs.com

CHAIN OF CUSTODY

4024987 7

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	573-319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Gender
004	UR2-AWS-10, 6/25/22	6/25/22		TS		A	X	X	X
005	UR2-AWS-11, 6/25/22								
006	UR2-AWS-12, 6/25/22								
007	UR2-SMB-1, 6/25/22								
008	UR2-SMB-2, 6/25/22								
009	UR2-SMB-3, 6/25/22								
010	UR2-SMB-4, 6/25/22								
011	UR2-SMB-5, 6/25/22								
012	UR2-SMB-6, 6/25/22								
013	UR2-SMB-7, 6/25/22								
014	UR2-SMB-8, 6/25/22								
015	UR2-SMB-9, 6/25/22								
016	UR2-SMB-10, 6/25/22								

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 7:30		8/15/22 0730

PACE Project No.
4024987 7

Receipt Temp = 0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

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CHAIN OF CUSTODY

40249877

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513-319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weiferbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

FILTERED? (YES/NO)
PRESERVATION (CODE)*

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Y/N	Pick Letter	PCB	% Lipids	Grinder	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
	Analyses Requested					A						
017	UR2-SMB-11, 6/25/22	6/25/22		TS			X	X	X			
018	UR2-SMB-12, 6/25/22	6/25/22										
019	UR2-RB-1, 6/25/22											
020	UR2-RB-2, 6/25/22											
	UR2-RB-3, 6/25/22											
	UR2-RB-4, 6/25/22											
	UR2-RB-5, 6/25/22											
	UR2-RB-6, 6/25/22											
	UR2-RB-7, 6/25/22											
	UR2-RB-8, 6/25/22											
	UR2-RB-9, 6/25/22											
	UR2-RB-10, 6/25/22											
	UR2-RB-11, 6/25/22											

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 730		8/15/22 0730
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
40249877

Receipt Temp = 0 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

C019a(27-Jun2006)

Version 6.0 06/14/06

Sample Preservation Receipt Form

Client Name: PRS Project # 4044877

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☒N/A

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted): Initial when completed: Date/ Time:

Pace Lab #	Glass								Plastic					Vials						Jars				General			VOA Vials (>6mm)	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN						
001																																2.5 / 5 / 10
002																																2.5 / 5 / 10
003																																2.5 / 5 / 10
004																																2.5 / 5 / 10
005																																2.5 / 5 / 10
006																																2.5 / 5 / 10
007																																2.5 / 5 / 10
008																																2.5 / 5 / 10
009																																2.5 / 5 / 10
010																																2.5 / 5 / 10
011																																2.5 / 5 / 10
012																																2.5 / 5 / 10
013																																2.5 / 5 / 10
014																																2.5 / 5 / 10
015																																2.5 / 5 / 10
016																																2.5 / 5 / 10
017																																2.5 / 5 / 10
018																																2.5 / 5 / 10
019																																2.5 / 5 / 10
020																																2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☒N/A ***If yes look in headspace column**

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN	

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40249877

40249877

Client Name: PRS

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☑ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used SR - 120 **Type of Ice:** Wet Blue Dry (None) ☐ Samples on ice

Cooler Temperature Uncorr: 0 /Corr: 0

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☑ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
Date: 8/15/22 /Initials: mH

Labeled By Initials: NK

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. No mail or invoice info mH 8/15/22
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume:		8.
For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☐Yes ☑No ☐N/A	
-Pace IR Containers Used:	☐Yes ☑No ☐N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: B		
Trip Blank Present:	☐Yes ☐No ☑N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

September 28, 2022

Aaron Lammers
SME
3301 Tech Circle
Kalamazoo, MI 49008

RE: Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Dear Aaron Lammers:

Enclosed are the analytical results for sample(s) received by the laboratory on August 15, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tod Noltemeyer

Tod Noltemeyer
tod.noltemeyer@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Pace Analytical Services Green Bay
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40249878001	**UR2-RB-3, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249878002	**UR2-RB-4, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249878003	**UR2-RB-5, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249878004	**UR2-RB-6, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249878005	**UR2-RB-7, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249878006	**UR2-RB-8, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249878007	**UR2-RB-9, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249878008	**UR2-RB-10, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249878009	**UR2-RB-11, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249878010	**UR2-RB-12, 6/25/22**	Tissue	06/25/22 00:00	08/15/22 07:30
40249878011	**MR1-AC-1, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249878012	**MR1-AC-2, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249878013	**MR1-AC-3, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249878014	**MR1-AC-4, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249878015	**MR1-AC-5, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249878016	**MR1-AC-6, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249878017	**MR1-AC-7, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249878018	**MR1-AC-8, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249878019	**MR1-AWS-1, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249878020	**MR1-AWS-2, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30

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SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40249878001	**UR2-RB-3, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878002	**UR2-RB-4, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878003	**UR2-RB-5, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878004	**UR2-RB-6, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878005	**UR2-RB-7, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878006	**UR2-RB-8, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878007	**UR2-RB-9, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878008	**UR2-RB-10, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878009	**UR2-RB-11, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878010	**UR2-RB-12, 6/25/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878011	**MR1-AC-1, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878012	**MR1-AC-2, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878013	**MR1-AC-3, 6/26/22**	EPA 8082A	BLM	10

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SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878014	**MR1-AC-4, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878015	**MR1-AC-5, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878016	**MR1-AC-6, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878017	**MR1-AC-7, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878018	**MR1-AC-8, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878019	**MR1-AWS-1, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249878020	**MR1-AWS-2, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3

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REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: September 28, 2022

General Information:
20 samples were analyzed for EPA 8082A by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 426554

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- MR1-AC-1, 6/26/22 (Lab ID: 40249878011)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- MR1-AC-2, 6/26/22 (Lab ID: 40249878012)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- MR1-AC-3, 6/26/22 (Lab ID: 40249878013)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- MR1-AC-4, 6/26/22 (Lab ID: 40249878014)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- MR1-AC-5, 6/26/22 (Lab ID: 40249878015)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- MR1-AC-6, 6/26/22 (Lab ID: 40249878016)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- MR1-AC-8, 6/26/22 (Lab ID: 40249878018)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- MS (Lab ID: 2455890)
  - Decachlorobiphenyl (S)

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: September 28, 2022

QC Batch: 426554

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- Tetrachloro-m-xylene (S)
- MSD (Lab ID: 2455891)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 426554

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40249878011

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2455890)
  - PCB-1242 (Aroclor 1242)
- MSD (Lab ID: 2455891)
  - PCB-1242 (Aroclor 1242)

Additional Comments:

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Method: **Pace Gender Typing**
Description: Fish Gender Typing
Client: POLLUTION RISK SERVICES
Date: September 28, 2022

General Information:
20 samples were analyzed for Pace Gender Typing by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Method: **Pace Lipid**
Description: Lipid
Client: POLLUTION RISK SERVICES
Date: September 28, 2022

General Information:
20 samples were analyzed for Pace Lipid by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: UR2-RB-3, 6/25/22 **Lab ID: 40249878001** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 14:52	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 14:52	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 14:52	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 14:52	53469-21-9	
PCB-1248 (Aroclor 1248)	**174**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 14:52	12672-29-6	
PCB-1254 (Aroclor 1254)	**231**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 14:52	11097-69-1	
PCB-1260 (Aroclor 1260)	**17.5J**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 14:52	11096-82-5	
PCB, Total	**423**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 14:52	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	94	%	80-120		1	09/21/22 11:32	09/26/22 14:52	877-09-8	
Decachlorobiphenyl (S)	92	%	78-120		1	09/21/22 11:32	09/26/22 14:52	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:54		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:54		
Lipid	**0.32**	%			1		09/21/22 11:54		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: UR2-RB-4, 6/25/22 **Lab ID: 40249878002** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541								
	Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 15:14	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 15:14	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 15:14	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 15:14	53469-21-9	
PCB-1248 (Aroclor 1248)	**205**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 15:14	12672-29-6	
PCB-1254 (Aroclor 1254)	**217**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 15:14	11097-69-1	
PCB-1260 (Aroclor 1260)	**15.3J**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 15:14	11096-82-5	
PCB, Total	**437**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 15:14	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	93	%	80-120		1	09/21/22 11:32	09/26/22 15:14	877-09-8	
Decachlorobiphenyl (S)	90	%	78-120		1	09/21/22 11:32	09/26/22 15:14	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
	Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid								
	Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:54		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:54		
Lipid	**0.40**	%			1		09/21/22 11:54		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: UR2-RB-5, 6/25/22 **Lab ID: 40249878003** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 15:36	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 15:36	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 15:36	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 15:36	53469-21-9	
PCB-1248 (Aroclor 1248)	**259**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 15:36	12672-29-6	
PCB-1254 (Aroclor 1254)	**496**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 15:36	11097-69-1	
PCB-1260 (Aroclor 1260)	**34.3**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 15:36	11096-82-5	
PCB, Total	**790**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 15:36	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	99	%	80-120		1	09/21/22 11:32	09/26/22 15:36	877-09-8	
Decachlorobiphenyl (S)	96	%	78-120		1	09/21/22 11:32	09/26/22 15:36	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:55		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:55		
Lipid	**0.26**	%			1		09/21/22 11:55		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: UR2-RB-6, 6/25/22 **Lab ID: 40249878004** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 15:58	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 15:58	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 15:58	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 15:58	53469-21-9	
PCB-1248 (Aroclor 1248)	**136**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 15:58	12672-29-6	
PCB-1254 (Aroclor 1254)	**173**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 15:58	11097-69-1	
PCB-1260 (Aroclor 1260)	**12.6J**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 15:58	11096-82-5	
PCB, Total	**321**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 15:58	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	96	%	80-120		1	09/21/22 11:32	09/26/22 15:58	877-09-8	
Decachlorobiphenyl (S)	89	%	78-120		1	09/21/22 11:32	09/26/22 15:58	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:55		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:55		
Lipid	**0.25**	%			1		09/21/22 11:55		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: UR2-RB-7, 6/25/22 **Lab ID: 40249878005** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 16:20	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 16:20	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 16:20	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 16:20	53469-21-9	
PCB-1248 (Aroclor 1248)	**330**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 16:20	12672-29-6	
PCB-1254 (Aroclor 1254)	**489**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 16:20	11097-69-1	
PCB-1260 (Aroclor 1260)	**30.5**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 16:20	11096-82-5	
PCB, Total	**849**	ug/kg	24.9	8.2	1	09/21/22 11:32	09/26/22 16:20	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	106	%	80-120		1	09/21/22 11:32	09/26/22 16:20	877-09-8	
Decachlorobiphenyl (S)	104	%	78-120		1	09/21/22 11:32	09/26/22 16:20	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:55		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:55		
Lipid	**0.22**	%			1		09/21/22 11:55		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: UR2-RB-8, 6/25/22 **Lab ID: 40249878006** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.1	16.4	2	09/21/22 11:32	09/26/22 16:42	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.1	16.4	2	09/21/22 11:32	09/26/22 16:42	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.1	16.4	2	09/21/22 11:32	09/26/22 16:42	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.1	16.4	2	09/21/22 11:32	09/26/22 16:42	53469-21-9	
PCB-1248 (Aroclor 1248)	**457**	ug/kg	50.1	16.4	2	09/21/22 11:32	09/26/22 16:42	12672-29-6	
PCB-1254 (Aroclor 1254)	**561**	ug/kg	50.1	16.4	2	09/21/22 11:32	09/26/22 16:42	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	50.1	16.4	2	09/21/22 11:32	09/26/22 16:42	11096-82-5	
PCB, Total	**1020**	ug/kg	50.1	16.4	2	09/21/22 11:32	09/26/22 16:42	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	100	%	80-120		2	09/21/22 11:32	09/26/22 16:42	877-09-8	
Decachlorobiphenyl (S)	99	%	78-120		2	09/21/22 11:32	09/26/22 16:42	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:55		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:55		
Lipid	**0.61**	%			1		09/21/22 11:55		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: UR2-RB-9, 6/25/22 **Lab ID: 40249878007** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.1	16.4	2	09/21/22 11:32	09/26/22 17:04	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.1	16.4	2	09/21/22 11:32	09/26/22 17:04	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.1	16.4	2	09/21/22 11:32	09/26/22 17:04	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.1	16.4	2	09/21/22 11:32	09/26/22 17:04	53469-21-9	
PCB-1248 (Aroclor 1248)	**357**	ug/kg	50.1	16.4	2	09/21/22 11:32	09/26/22 17:04	12672-29-6	
PCB-1254 (Aroclor 1254)	**458**	ug/kg	50.1	16.4	2	09/21/22 11:32	09/26/22 17:04	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	50.1	16.4	2	09/21/22 11:32	09/26/22 17:04	11096-82-5	
PCB, Total	**815**	ug/kg	50.1	16.4	2	09/21/22 11:32	09/26/22 17:04	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	98	%	80-120		2	09/21/22 11:32	09/26/22 17:04	877-09-8	
Decachlorobiphenyl (S)	98	%	78-120		2	09/21/22 11:32	09/26/22 17:04	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:56		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:56		
Lipid	**0.52**	%			1		09/21/22 11:56		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: UR2-RB-10, 6/25/22 **Lab ID: 40249878008** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	09/21/22 11:32	09/26/22 17:26	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	09/21/22 11:32	09/26/22 17:26	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	09/21/22 11:32	09/26/22 17:26	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	09/21/22 11:32	09/26/22 17:26	53469-21-9	
PCB-1248 (Aroclor 1248)	**516**	ug/kg	50.0	16.4	2	09/21/22 11:32	09/26/22 17:26	12672-29-6	
PCB-1254 (Aroclor 1254)	**529**	ug/kg	50.0	16.4	2	09/21/22 11:32	09/26/22 17:26	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	50.0	16.4	2	09/21/22 11:32	09/26/22 17:26	11096-82-5	
PCB, Total	**1050**	ug/kg	50.0	16.4	2	09/21/22 11:32	09/26/22 17:26	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	101	%	80-120		2	09/21/22 11:32	09/26/22 17:26	877-09-8	
Decachlorobiphenyl (S)	99	%	78-120		2	09/21/22 11:32	09/26/22 17:26	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:56		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:56		
Lipid	**0.92**	%			1		09/21/22 11:56		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: UR2-RB-11, 6/25/22 **Lab ID: 40249878009** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 18:32	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 18:32	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 18:32	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 18:32	53469-21-9	
PCB-1248 (Aroclor 1248)	**193**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 18:32	12672-29-6	
PCB-1254 (Aroclor 1254)	**211**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 18:32	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 18:32	11096-82-5	
PCB, Total	**404**	ug/kg	25.0	8.2	1	09/21/22 11:32	09/26/22 18:32	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	97	%	80-120		1	09/21/22 11:32	09/26/22 18:32	877-09-8	
Decachlorobiphenyl (S)	96	%	78-120		1	09/21/22 11:32	09/26/22 18:32	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:56		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:56		
Lipid	**0.46**	%			1		09/21/22 11:56		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: UR2-RB-12, 6/25/22 **Lab ID: 40249878010** Collected: 06/25/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<24.6**	ug/kg	75.0	24.6	3	09/21/22 11:32	09/26/22 18:54	12674-11-2	
PCB-1221 (Aroclor 1221)	**<24.6**	ug/kg	75.0	24.6	3	09/21/22 11:32	09/26/22 18:54	11104-28-2	
PCB-1232 (Aroclor 1232)	**<24.6**	ug/kg	75.0	24.6	3	09/21/22 11:32	09/26/22 18:54	11141-16-5	
PCB-1242 (Aroclor 1242)	**<24.6**	ug/kg	75.0	24.6	3	09/21/22 11:32	09/26/22 18:54	53469-21-9	
PCB-1248 (Aroclor 1248)	**620**	ug/kg	75.0	24.6	3	09/21/22 11:32	09/26/22 18:54	12672-29-6	
PCB-1254 (Aroclor 1254)	**786**	ug/kg	75.0	24.6	3	09/21/22 11:32	09/26/22 18:54	11097-69-1	
PCB-1260 (Aroclor 1260)	**46.8J**	ug/kg	75.0	24.6	3	09/21/22 11:32	09/26/22 18:54	11096-82-5	
PCB, Total	**1450**	ug/kg	75.0	24.6	3	09/21/22 11:32	09/26/22 18:54	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	102	%	80-120		3	09/21/22 11:32	09/26/22 18:54	877-09-8	
Decachlorobiphenyl (S)	102	%	78-120		3	09/21/22 11:32	09/26/22 18:54	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:56		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:56		
Lipid	**1.1**	%			1		09/21/22 11:56		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: MR1-AC-1, 6/26/22 **Lab ID: 40249878011** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<246**	ug/kg	748	246	30	09/21/22 11:32	09/26/22 19:16	12674-11-2	
PCB-1221 (Aroclor 1221)	**<246**	ug/kg	748	246	30	09/21/22 11:32	09/26/22 19:16	11104-28-2	
PCB-1232 (Aroclor 1232)	**<246**	ug/kg	748	246	30	09/21/22 11:32	09/26/22 19:16	11141-16-5	
PCB-1242 (Aroclor 1242)	**<246**	ug/kg	748	246	30	09/21/22 11:32	09/26/22 19:16	53469-21-9	M1
PCB-1248 (Aroclor 1248)	**4880**	ug/kg	748	246	30	09/21/22 11:32	09/26/22 19:16	12672-29-6	
PCB-1254 (Aroclor 1254)	**7040**	ug/kg	748	246	30	09/21/22 11:32	09/26/22 19:16	11097-69-1	
PCB-1260 (Aroclor 1260)	**583J**	ug/kg	748	246	30	09/21/22 11:32	09/26/22 19:16	11096-82-5	
PCB, Total	**12500**	ug/kg	748	246	30	09/21/22 11:32	09/26/22 19:16	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		30	09/21/22 11:32	09/26/22 19:16	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		30	09/21/22 11:32	09/26/22 19:16	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:57		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:57		
Lipid	**7.2**	%			1		09/21/22 11:57		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: MR1-AC-2, 6/26/22 **Lab ID: 40249878012** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<409**	ug/kg	1250	409	50	09/21/22 11:32	09/26/22 19:38	12674-11-2	
PCB-1221 (Aroclor 1221)	**<409**	ug/kg	1250	409	50	09/21/22 11:32	09/26/22 19:38	11104-28-2	
PCB-1232 (Aroclor 1232)	**<409**	ug/kg	1250	409	50	09/21/22 11:32	09/26/22 19:38	11141-16-5	
PCB-1242 (Aroclor 1242)	**<409**	ug/kg	1250	409	50	09/21/22 11:32	09/26/22 19:38	53469-21-9	
PCB-1248 (Aroclor 1248)	**11000**	ug/kg	1250	409	50	09/21/22 11:32	09/26/22 19:38	12672-29-6	
PCB-1254 (Aroclor 1254)	**12200**	ug/kg	1250	409	50	09/21/22 11:32	09/26/22 19:38	11097-69-1	
PCB-1260 (Aroclor 1260)	**653J**	ug/kg	1250	409	50	09/21/22 11:32	09/26/22 19:38	11096-82-5	
PCB, Total	**23800**	ug/kg	1250	409	50	09/21/22 11:32	09/26/22 19:38	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		50	09/21/22 11:32	09/26/22 19:38	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		50	09/21/22 11:32	09/26/22 19:38	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:57		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:57		
Lipid	**5.5**	%			1		09/21/22 11:57		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: MR1-AC-3, 6/26/22 **Lab ID: 40249878013** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<246**	ug/kg	749	246	30	09/21/22 11:32	09/26/22 20:00	12674-11-2	
PCB-1221 (Aroclor 1221)	**<246**	ug/kg	749	246	30	09/21/22 11:32	09/26/22 20:00	11104-28-2	
PCB-1232 (Aroclor 1232)	**<246**	ug/kg	749	246	30	09/21/22 11:32	09/26/22 20:00	11141-16-5	
PCB-1242 (Aroclor 1242)	**<246**	ug/kg	749	246	30	09/21/22 11:32	09/26/22 20:00	53469-21-9	
PCB-1248 (Aroclor 1248)	**7390**	ug/kg	749	246	30	09/21/22 11:32	09/26/22 20:00	12672-29-6	
PCB-1254 (Aroclor 1254)	**9790**	ug/kg	749	246	30	09/21/22 11:32	09/26/22 20:00	11097-69-1	
PCB-1260 (Aroclor 1260)	**721J**	ug/kg	749	246	30	09/21/22 11:32	09/26/22 20:00	11096-82-5	
PCB, Total	**17900**	ug/kg	749	246	30	09/21/22 11:32	09/26/22 20:00	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		30	09/21/22 11:32	09/26/22 20:00	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		30	09/21/22 11:32	09/26/22 20:00	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:57		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:57		
Lipid	**10.2**	%			1		09/21/22 11:57		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: MR1-AC-4, 6/26/22 **Lab ID: 40249878014** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<410**	ug/kg	1250	410	50	09/21/22 11:32	09/26/22 20:22	12674-11-2	
PCB-1221 (Aroclor 1221)	**<410**	ug/kg	1250	410	50	09/21/22 11:32	09/26/22 20:22	11104-28-2	
PCB-1232 (Aroclor 1232)	**<410**	ug/kg	1250	410	50	09/21/22 11:32	09/26/22 20:22	11141-16-5	
PCB-1242 (Aroclor 1242)	**<410**	ug/kg	1250	410	50	09/21/22 11:32	09/26/22 20:22	53469-21-9	
PCB-1248 (Aroclor 1248)	**7600**	ug/kg	1250	410	50	09/21/22 11:32	09/26/22 20:22	12672-29-6	
PCB-1254 (Aroclor 1254)	**3140**	ug/kg	1250	410	50	09/21/22 11:32	09/26/22 20:22	11097-69-1	
PCB-1260 (Aroclor 1260)	**1030J**	ug/kg	1250	410	50	09/21/22 11:32	09/26/22 20:22	11096-82-5	
PCB, Total	**11800**	ug/kg	1250	410	50	09/21/22 11:32	09/26/22 20:22	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		50	09/21/22 11:32	09/26/22 20:22	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		50	09/21/22 11:32	09/26/22 20:22	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:58		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:58		
Lipid	**13.6**	%			1		09/21/22 11:58		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: MR1-AC-5, 6/26/22 **Lab ID: 40249878015** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<410**	ug/kg	1250	410	50	09/21/22 11:32	09/27/22 09:10	12674-11-2	
PCB-1221 (Aroclor 1221)	**<410**	ug/kg	1250	410	50	09/21/22 11:32	09/27/22 09:10	11104-28-2	
PCB-1232 (Aroclor 1232)	**<410**	ug/kg	1250	410	50	09/21/22 11:32	09/27/22 09:10	11141-16-5	
PCB-1242 (Aroclor 1242)	**<410**	ug/kg	1250	410	50	09/21/22 11:32	09/27/22 09:10	53469-21-9	
PCB-1248 (Aroclor 1248)	**12500**	ug/kg	1250	410	50	09/21/22 11:32	09/27/22 09:10	12672-29-6	
PCB-1254 (Aroclor 1254)	**18800**	ug/kg	1250	410	50	09/21/22 11:32	09/27/22 09:10	11097-69-1	
PCB-1260 (Aroclor 1260)	**1320**	ug/kg	1250	410	50	09/21/22 11:32	09/27/22 09:10	11096-82-5	
PCB, Total	**32700**	ug/kg	1250	410	50	09/21/22 11:32	09/27/22 09:10	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		50	09/21/22 11:32	09/27/22 09:10	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		50	09/21/22 11:32	09/27/22 09:10	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:58		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:58		
Lipid	**7.4**	%			1		09/21/22 11:58		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: MR1-AC-6, 6/26/22 **Lab ID: 40249878016** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<246**	ug/kg	750	246	30	09/21/22 11:32	09/26/22 21:06	12674-11-2	
PCB-1221 (Aroclor 1221)	**<246**	ug/kg	750	246	30	09/21/22 11:32	09/26/22 21:06	11104-28-2	
PCB-1232 (Aroclor 1232)	**<246**	ug/kg	750	246	30	09/21/22 11:32	09/26/22 21:06	11141-16-5	
PCB-1242 (Aroclor 1242)	**<246**	ug/kg	750	246	30	09/21/22 11:32	09/26/22 21:06	53469-21-9	
PCB-1248 (Aroclor 1248)	**2850**	ug/kg	750	246	30	09/21/22 11:32	09/26/22 21:06	12672-29-6	
PCB-1254 (Aroclor 1254)	**4920**	ug/kg	750	246	30	09/21/22 11:32	09/26/22 21:06	11097-69-1	
PCB-1260 (Aroclor 1260)	**296J**	ug/kg	750	246	30	09/21/22 11:32	09/26/22 21:06	11096-82-5	
PCB, Total	**8060**	ug/kg	750	246	30	09/21/22 11:32	09/26/22 21:06	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		30	09/21/22 11:32	09/26/22 21:06	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		30	09/21/22 11:32	09/26/22 21:06	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:58		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:58		
Lipid	**2.4**	%			1		09/21/22 11:58		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: MR1-AC-7, 6/26/22 **Lab ID: 40249878017** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<24.7**	ug/kg	75.2	24.7	3	09/21/22 11:32	09/26/22 21:28	12674-11-2	
PCB-1221 (Aroclor 1221)	**<24.7**	ug/kg	75.2	24.7	3	09/21/22 11:32	09/26/22 21:28	11104-28-2	
PCB-1232 (Aroclor 1232)	**<24.7**	ug/kg	75.2	24.7	3	09/21/22 11:32	09/26/22 21:28	11141-16-5	
PCB-1242 (Aroclor 1242)	**<24.7**	ug/kg	75.2	24.7	3	09/21/22 11:32	09/26/22 21:28	53469-21-9	
PCB-1248 (Aroclor 1248)	**691**	ug/kg	75.2	24.7	3	09/21/22 11:32	09/26/22 21:28	12672-29-6	
PCB-1254 (Aroclor 1254)	**634**	ug/kg	75.2	24.7	3	09/21/22 11:32	09/26/22 21:28	11097-69-1	
PCB-1260 (Aroclor 1260)	**55.5J**	ug/kg	75.2	24.7	3	09/21/22 11:32	09/26/22 21:28	11096-82-5	
PCB, Total	**1380**	ug/kg	75.2	24.7	3	09/21/22 11:32	09/26/22 21:28	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	101	%	80-120		3	09/21/22 11:32	09/26/22 21:28	877-09-8	
Decachlorobiphenyl (S)	103	%	78-120		3	09/21/22 11:32	09/26/22 21:28	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:58		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:58		
Lipid	**1.9**	%			1		09/21/22 11:58		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: MR1-AC-8, 6/26/22 **Lab ID: 40249878018** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<819**	ug/kg	2490	819	100	09/21/22 11:32	09/26/22 21:50	12674-11-2	
PCB-1221 (Aroclor 1221)	**<819**	ug/kg	2490	819	100	09/21/22 11:32	09/26/22 21:50	11104-28-2	
PCB-1232 (Aroclor 1232)	**<819**	ug/kg	2490	819	100	09/21/22 11:32	09/26/22 21:50	11141-16-5	
PCB-1242 (Aroclor 1242)	**<819**	ug/kg	2490	819	100	09/21/22 11:32	09/26/22 21:50	53469-21-9	
PCB-1248 (Aroclor 1248)	**19500**	ug/kg	2490	819	100	09/21/22 11:32	09/26/22 21:50	12672-29-6	
PCB-1254 (Aroclor 1254)	**25700**	ug/kg	2490	819	100	09/21/22 11:32	09/26/22 21:50	11097-69-1	
PCB-1260 (Aroclor 1260)	**1950J**	ug/kg	2490	819	100	09/21/22 11:32	09/26/22 21:50	11096-82-5	
PCB, Total	**47100**	ug/kg	2490	819	100	09/21/22 11:32	09/26/22 21:50	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		100	09/21/22 11:32	09/26/22 21:50	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		100	09/21/22 11:32	09/26/22 21:50	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:58		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:58		
Lipid	**11.1**	%			1		09/21/22 11:58		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: MR1-AWS-1, 6/26/22 **Lab ID: 40249878019** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<24.6**	ug/kg	74.8	24.6	3	09/21/22 11:32	09/26/22 22:12	12674-11-2	
PCB-1221 (Aroclor 1221)	**<24.6**	ug/kg	74.8	24.6	3	09/21/22 11:32	09/26/22 22:12	11104-28-2	
PCB-1232 (Aroclor 1232)	**<24.6**	ug/kg	74.8	24.6	3	09/21/22 11:32	09/26/22 22:12	11141-16-5	
PCB-1242 (Aroclor 1242)	**<24.6**	ug/kg	74.8	24.6	3	09/21/22 11:32	09/26/22 22:12	53469-21-9	
PCB-1248 (Aroclor 1248)	**758**	ug/kg	74.8	24.6	3	09/21/22 11:32	09/26/22 22:12	12672-29-6	
PCB-1254 (Aroclor 1254)	**784**	ug/kg	74.8	24.6	3	09/21/22 11:32	09/26/22 22:12	11097-69-1	
PCB-1260 (Aroclor 1260)	**62.2J**	ug/kg	74.8	24.6	3	09/21/22 11:32	09/26/22 22:12	11096-82-5	
PCB, Total	**1600**	ug/kg	74.8	24.6	3	09/21/22 11:32	09/26/22 22:12	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	112	%	80-120		3	09/21/22 11:32	09/26/22 22:12	877-09-8	
Decachlorobiphenyl (S)	114	%	78-120		3	09/21/22 11:32	09/26/22 22:12	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:59		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:59		
Lipid	**2.0**	%			1		09/21/22 11:59		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Sample: MR1-AWS-2, 6/26/22 **Lab ID: 40249878020** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<57.5**	ug/kg	175	57.5	7	09/21/22 11:32	09/26/22 22:34	12674-11-2	
PCB-1221 (Aroclor 1221)	**<57.5**	ug/kg	175	57.5	7	09/21/22 11:32	09/26/22 22:34	11104-28-2	
PCB-1232 (Aroclor 1232)	**<57.5**	ug/kg	175	57.5	7	09/21/22 11:32	09/26/22 22:34	11141-16-5	
PCB-1242 (Aroclor 1242)	**<57.5**	ug/kg	175	57.5	7	09/21/22 11:32	09/26/22 22:34	53469-21-9	
PCB-1248 (Aroclor 1248)	**1370**	ug/kg	175	57.5	7	09/21/22 11:32	09/26/22 22:34	12672-29-6	
PCB-1254 (Aroclor 1254)	**1940**	ug/kg	175	57.5	7	09/21/22 11:32	09/26/22 22:34	11097-69-1	
PCB-1260 (Aroclor 1260)	**237**	ug/kg	175	57.5	7	09/21/22 11:32	09/26/22 22:34	11096-82-5	
PCB, Total	**3550**	ug/kg	175	57.5	7	09/21/22 11:32	09/26/22 22:34	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	109	%	80-120		7	09/21/22 11:32	09/26/22 22:34	877-09-8	
Decachlorobiphenyl (S)	113	%	78-120		7	09/21/22 11:32	09/26/22 22:34	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/13/22 10:07		
Fillet Selected	**Both**				1		09/13/22 10:07		
Fillet Weight	**0.0**	g			1		09/13/22 10:07		
Homogenized Weight	**0.0**	g			1		09/13/22 10:07		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426554**				1		09/21/22 11:59		
Extraction Date/Time	**09/21/2022 11:32**				1		09/21/22 11:59		
Lipid	**2.7**	%			1		09/21/22 11:59		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

QC Batch: 426554
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249878001, 40249878002, 40249878003, 40249878004, 40249878005, 40249878006, 40249878007, 40249878008, 40249878009, 40249878010, 40249878011, 40249878012, 40249878013, 40249878014, 40249878015, 40249878016, 40249878017, 40249878018, 40249878019, 40249878020

METHOD BLANK: 2455888 Matrix: Tissue
Associated Lab Samples: 40249878001, 40249878002, 40249878003, 40249878004, 40249878005, 40249878006, 40249878007, 40249878008, 40249878009, 40249878010, 40249878011, 40249878012, 40249878013, 40249878014, 40249878015, 40249878016, 40249878017, 40249878018, 40249878019, 40249878020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<8.2	25.0	09/26/22 13:24	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2	25.0	09/26/22 13:24	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2	25.0	09/26/22 13:24	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2	25.0	09/26/22 13:24	
PCB-1248 (Aroclor 1248)	ug/kg	<8.2	25.0	09/26/22 13:24	
PCB-1254 (Aroclor 1254)	ug/kg	<8.2	25.0	09/26/22 13:24	
PCB-1260 (Aroclor 1260)	ug/kg	<8.2	25.0	09/26/22 13:24	
Decachlorobiphenyl (S)	%	91	78-120	09/26/22 13:24	
Tetrachloro-m-xylene (S)	%	89	80-120	09/26/22 13:24	

LABORATORY CONTROL SAMPLE: 2455889

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<8.2			
PCB-1221 (Aroclor 1221)	ug/kg		<8.2			
PCB-1232 (Aroclor 1232)	ug/kg		<8.2			
PCB-1242 (Aroclor 1242)	ug/kg	250	227	91	66-106	
PCB-1248 (Aroclor 1248)	ug/kg		<8.2			
PCB-1254 (Aroclor 1254)	ug/kg		<8.2			
PCB-1260 (Aroclor 1260)	ug/kg		<8.2			
Decachlorobiphenyl (S)	%			94	78-120	
Tetrachloro-m-xylene (S)	%			85	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2455890 2455891

Parameter	Units	40249878011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<246			<247	<246					20	
PCB-1221 (Aroclor 1221)	ug/kg	<246			<247	<246					20	
PCB-1232 (Aroclor 1232)	ug/kg	<246			<247	<246					20	
PCB-1242 (Aroclor 1242)	ug/kg	<246	1000	999	<247	<246	0	0	60-110		20	M1
PCB-1248 (Aroclor 1248)	ug/kg	4880			6410	5800				10	20	
PCB-1254 (Aroclor 1254)	ug/kg	7040			7430	6640				11	20	
PCB-1260 (Aroclor 1260)	ug/kg	583J			608J	551J					20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2455890 2455891

Parameter	Units	40249878011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Decachlorobiphenyl (S)	%						0	0	78-120			S4
Tetrachloro-m-xylene (S)	%						0	0	80-120			S4

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

QC Batch: 426557
QC Batch Method: Pace Lipid
Analysis Method: Pace Lipid
Analysis Description: LIPID
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249878001, 40249878002, 40249878003, 40249878004, 40249878005, 40249878006, 40249878007, 40249878008, 40249878009, 40249878010, 40249878011, 40249878012, 40249878013, 40249878014, 40249878015, 40249878016, 40249878017, 40249878018, 40249878019, 40249878020

METHOD BLANK: 2455892 Matrix: Tissue
Associated Lab Samples: 40249878001, 40249878002, 40249878003, 40249878004, 40249878005, 40249878006, 40249878007, 40249878008, 40249878009, 40249878010, 40249878011, 40249878012, 40249878013, 40249878014, 40249878015, 40249878016, 40249878017, 40249878018, 40249878019, 40249878020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Extraction Batch Number		426554		09/21/22 11:54	
Extraction Date/Time		09/21/2022		09/21/22 11:54	
Lipid	%	0.47		09/21/22 11:54	

SAMPLE DUPLICATE: 2455893

Parameter	Units	40249878011 Result	Dup Result	RPD	Max RPD	Qualifiers
Extraction Batch Number		426554	426554			
Extraction Date/Time		09/21/2022 11:32	09/21/2022			
Lipid	%	7.2	8.0	10	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249878001	UR2-RB-3, 6/25/22	EPA 3541	426554	EPA 8082A	426785
40249878002	UR2-RB-4, 6/25/22	EPA 3541	426554	EPA 8082A	426785
40249878003	UR2-RB-5, 6/25/22	EPA 3541	426554	EPA 8082A	426785
40249878004	UR2-RB-6, 6/25/22	EPA 3541	426554	EPA 8082A	426785
40249878005	UR2-RB-7, 6/25/22	EPA 3541	426554	EPA 8082A	426785
40249878006	UR2-RB-8, 6/25/22	EPA 3541	426554	EPA 8082A	426785
40249878007	UR2-RB-9, 6/25/22	EPA 3541	426554	EPA 8082A	426785
40249878008	UR2-RB-10, 6/25/22	EPA 3541	426554	EPA 8082A	426785
40249878009	UR2-RB-11, 6/25/22	EPA 3541	426554	EPA 8082A	426785
40249878010	UR2-RB-12, 6/25/22	EPA 3541	426554	EPA 8082A	426785
40249878011	MR1-AC-1, 6/26/22	EPA 3541	426554	EPA 8082A	426785
40249878012	MR1-AC-2, 6/26/22	EPA 3541	426554	EPA 8082A	426785
40249878013	MR1-AC-3, 6/26/22	EPA 3541	426554	EPA 8082A	426785
40249878014	MR1-AC-4, 6/26/22	EPA 3541	426554	EPA 8082A	426785
40249878015	MR1-AC-5, 6/26/22	EPA 3541	426554	EPA 8082A	426785
40249878016	MR1-AC-6, 6/26/22	EPA 3541	426554	EPA 8082A	426785
40249878017	MR1-AC-7, 6/26/22	EPA 3541	426554	EPA 8082A	426785
40249878018	MR1-AC-8, 6/26/22	EPA 3541	426554	EPA 8082A	426785
40249878019	MR1-AWS-1, 6/26/22	EPA 3541	426554	EPA 8082A	426785
40249878020	MR1-AWS-2, 6/26/22	EPA 3541	426554	EPA 8082A	426785
40249878001	UR2-RB-3, 6/25/22	Pace Gender Typing	425775		
40249878002	UR2-RB-4, 6/25/22	Pace Gender Typing	425775		
40249878003	UR2-RB-5, 6/25/22	Pace Gender Typing	425775		
40249878004	UR2-RB-6, 6/25/22	Pace Gender Typing	425775		
40249878005	UR2-RB-7, 6/25/22	Pace Gender Typing	425775		
40249878006	UR2-RB-8, 6/25/22	Pace Gender Typing	425775		
40249878007	UR2-RB-9, 6/25/22	Pace Gender Typing	425775		
40249878008	UR2-RB-10, 6/25/22	Pace Gender Typing	425775		
40249878009	UR2-RB-11, 6/25/22	Pace Gender Typing	425775		
40249878010	UR2-RB-12, 6/25/22	Pace Gender Typing	425775		
40249878011	MR1-AC-1, 6/26/22	Pace Gender Typing	425775		
40249878012	MR1-AC-2, 6/26/22	Pace Gender Typing	425775		
40249878013	MR1-AC-3, 6/26/22	Pace Gender Typing	425775		
40249878014	MR1-AC-4, 6/26/22	Pace Gender Typing	425775		
40249878015	MR1-AC-5, 6/26/22	Pace Gender Typing	425775		
40249878016	MR1-AC-6, 6/26/22	Pace Gender Typing	425775		
40249878017	MR1-AC-7, 6/26/22	Pace Gender Typing	425775		
40249878018	MR1-AC-8, 6/26/22	Pace Gender Typing	425775		
40249878019	MR1-AWS-1, 6/26/22	Pace Gender Typing	425775		
40249878020	MR1-AWS-2, 6/26/22	Pace Gender Typing	425775		
40249878001	UR2-RB-3, 6/25/22	Pace Lipid	426557		
40249878002	UR2-RB-4, 6/25/22	Pace Lipid	426557		
40249878003	UR2-RB-5, 6/25/22	Pace Lipid	426557		
40249878004	UR2-RB-6, 6/25/22	Pace Lipid	426557		
40249878005	UR2-RB-7, 6/25/22	Pace Lipid	426557		
40249878006	UR2-RB-8, 6/25/22	Pace Lipid	426557		
40249878007	UR2-RB-9, 6/25/22	Pace Lipid	426557		
40249878008	UR2-RB-10, 6/25/22	Pace Lipid	426557		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249878

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249878009	**UR2-RB-11, 6/25/22**	Pace Lipid	426557		
40249878010	**UR2-RB-12, 6/25/22**	Pace Lipid	426557		
40249878011	**MR1-AC-1, 6/26/22**	Pace Lipid	426557		
40249878012	**MR1-AC-2, 6/26/22**	Pace Lipid	426557		
40249878013	**MR1-AC-3, 6/26/22**	Pace Lipid	426557		
40249878014	**MR1-AC-4, 6/26/22**	Pace Lipid	426557		
40249878015	**MR1-AC-5, 6/26/22**	Pace Lipid	426557		
40249878016	**MR1-AC-6, 6/26/22**	Pace Lipid	426557		
40249878017	**MR1-AC-7, 6/26/22**	Pace Lipid	426557		
40249878018	**MR1-AC-8, 6/26/22**	Pace Lipid	426557		
40249878019	**MR1-AWS-1, 6/26/22**	Pace Lipid	426557		
40249878020	**MR1-AWS-2, 6/26/22**	Pace Lipid	426557		

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

4024878

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513-319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

FILTERED? (YES/NO) — Y/N
PRESERVATION (CODE)* — Pick Letter

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Analyses Requested: PCB	% Lipids	Tender	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
	UR2-SMB-11, 6/25/22	6/25/22		TS	A					
	UR2-SMB-12, 6/25/22	6/25/22								
	UR2-RB-1, 6/25/22									
	UR2-RB-2, 6/25/22									
001	UR2-RB-3, 6/25/22									
002	UR2-RB-4, 6/25/22									
003	UR2-RB-5, 6/25/22									
004	UR2-RB-6, 6/25/22									
005	UR2-RB-7, 6/25/22									
006	UR2-RB-8, 6/25/22									
007	UR2-RB-9, 6/25/22									
008	UR2-RB-10, 6/25/22									
009	UR2-RB-11, 6/25/22									

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 730		8/15/22 0730
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
4024878

Receipt Temp = 0 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

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UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of

CHAIN OF CUSTODY

402498 78

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513 319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	CW
PO #:	
Regulatory Program:	

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Gender	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
010	URZ-RB-12, 6/25/22	6/25/22		TS		A	X	X	X			
011	MRI-Ac-1, 6/26/22	6/26/22										
012	MRI-Ac-2, 6/26/22											
013	MRI-Ac-3, 6/26/22											
014	MRI-Ac-4, 6/26/22											
015	MRI-Ac-5, 6/26/22											
016	MRI-Ac-6, 6/26/22											
017	MRI-Ac-7, 6/26/22											
018	MRI-Ac-8, 6/26/22											
019	MRI-AWS-1, 6/26/22											
020	MRI-AWS-2, 6/26/22											
	MRI-AWS-3, 6/26/22											
	MRI-AWS-4, 6/26/22											

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
CW	8/15/22 730	[illegible]	8/15/22 0730

PACE Project No.
402498 78

Receipt Temp = 0 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

C019a(27Jun2006)

Sample Preservation Receipt Form

Client Name: PRS Project # 40149878

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☑N/A Initial when completed: Date/ Time:

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted):

Pace Lab #	Glass								Plastic					Vials						Jars				General			VOA Vials (>6mm)	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN						
001																																2.5 / 5 / 10
002																																2.5 / 5 / 10
003																																2.5 / 5 / 10
004																																2.5 / 5 / 10
005																																2.5 / 5 / 10
006																																2.5 / 5 / 10
007																																2.5 / 5 / 10
008																																2.5 / 5 / 10
009																																2.5 / 5 / 10
010																																2.5 / 5 / 10
011																																2.5 / 5 / 10
012																																2.5 / 5 / 10
013																																2.5 / 5 / 10
014																																2.5 / 5 / 10
015																																2.5 / 5 / 10
016																																2.5 / 5 / 10
017																																2.5 / 5 / 10
018																																2.5 / 5 / 10
019																																2.5 / 5 / 10
020																																2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☑N/A *If yes look in headspace column

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN	

Sample Condition Upon Receipt Form (SCUR)

Project #: WO# : 40249878

Client Name: PRS

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☑ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used SR - 120 **Type of Ice:** Wet Blue Dry (None) ☐ Samples on ice

Cooler Temperature Uncorr: 0 /Corr: 0

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
Date: 8/15/22 /Initials: mA

Labeled By Initials: NK

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. no mail or invoice info 8/16/22 NK
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume:		8.
For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☐Yes ☑No ☐N/A	
-Pace IR Containers Used:	☐Yes ☑No ☐N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: B		
Trip Blank Present:	☐Yes ☐No ☑N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi

Page 2 of 2

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

August 25, 2022

Aaron Lammers
SME
3301 Tech Circle
Kalamazoo, MI 49008

RE: Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Dear Aaron Lammers:

Enclosed are the analytical results for sample(s) received by the laboratory on August 15, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tod Noltemeyer

Tod Noltemeyer
tod.noltemeyer@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Pace Analytical Services Green Bay
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

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SAMPLE SUMMARY

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40249879001	**MR1-AWS-3, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879002	**MR1-AWS-4, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879003	**MR1-AWS-5, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879004	**MR1-AWS-6, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879005	**MR1-AWS-7, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879006	**MR1-AWS-8, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879007	**MR1-SMB-1, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879008	**MR1-SMB-2, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879009	**MR1-SMB-3, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879010	**MR1-SMB-4, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879011	**MR1-SMB-5, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879012	**MR1-SMB-6, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879013	**MR1-SMB-7, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879014	**MR1-SMB-8, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879015	**MR1-RB-1, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879016	**MR1-RB-2, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879017	**MR1-RB-3, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879018	**MR1-RB-4, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879019	**MR1-RB-5, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249879020	**MR1-RB-6, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30

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SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40249879001	**MR1-AWS-3, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879002	**MR1-AWS-4, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879003	**MR1-AWS-5, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879004	**MR1-AWS-6, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879005	**MR1-AWS-7, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879006	**MR1-AWS-8, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879007	**MR1-SMB-1, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879008	**MR1-SMB-2, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879009	**MR1-SMB-3, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879010	**MR1-SMB-4, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879011	**MR1-SMB-5, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879012	**MR1-SMB-6, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879013	**MR1-SMB-7, 6/26/22**	EPA 8082A	BLM	10

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SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879014	**MR1-SMB-8, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879015	**MR1-RB-1, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879016	**MR1-RB-2, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879017	**MR1-RB-3, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879018	**MR1-RB-4, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879019	**MR1-RB-5, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3
40249879020	**MR1-RB-6, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	EJS	4
		Pace Lipid	WJK	3

PASI-G = Pace Analytical Services - Green Bay

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: August 25, 2022

General Information:
20 samples were analyzed for EPA 8082A by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 423780

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40249879001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2440596)
  - PCB-1242 (Aroclor 1242)
- MSD (Lab ID: 2440597)
  - PCB-1242 (Aroclor 1242)

Additional Comments:

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Method: **Pace Gender Typing**
Description: Fish Gender Typing
Client: POLLUTION RISK SERVICES
Date: August 25, 2022

General Information:
20 samples were analyzed for Pace Gender Typing by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Method: **Pace Lipid**
Description: Lipid
Client: POLLUTION RISK SERVICES
Date: August 25, 2022

General Information:
20 samples were analyzed for Pace Lipid by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-AWS-3, 6/26/22 **Lab ID: 40249879001** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.0**	ug/kg	125	41.0	5	08/18/22 10:18	08/22/22 23:08	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.0**	ug/kg	125	41.0	5	08/18/22 10:18	08/22/22 23:08	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.0**	ug/kg	125	41.0	5	08/18/22 10:18	08/22/22 23:08	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.0**	ug/kg	125	41.0	5	08/18/22 10:18	08/22/22 23:08	53469-21-9	M1
PCB-1248 (Aroclor 1248)	**1830**	ug/kg	125	41.0	5	08/18/22 10:18	08/22/22 23:08	12672-29-6	
PCB-1254 (Aroclor 1254)	**2390**	ug/kg	125	41.0	5	08/18/22 10:18	08/22/22 23:08	11097-69-1	
PCB-1260 (Aroclor 1260)	**157**	ug/kg	125	41.0	5	08/18/22 10:18	08/22/22 23:08	11096-82-5	
PCB, Total	**4380**	ug/kg	125	41.0	5	08/18/22 10:18	08/22/22 23:08	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	107	%	80-120		5	08/18/22 10:18	08/22/22 23:08	877-09-8	
Decachlorobiphenyl (S)	107	%	78-120		5	08/18/22 10:18	08/22/22 23:08	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:53		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:53		
Lipid	**0.51**	%			1		08/19/22 08:53		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-AWS-4, 6/26/22 **Lab ID: 40249879002** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.1**	ug/kg	125	41.1	5	08/18/22 10:18	08/22/22 23:30	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.1**	ug/kg	125	41.1	5	08/18/22 10:18	08/22/22 23:30	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.1**	ug/kg	125	41.1	5	08/18/22 10:18	08/22/22 23:30	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.1**	ug/kg	125	41.1	5	08/18/22 10:18	08/22/22 23:30	53469-21-9	
PCB-1248 (Aroclor 1248)	**1060**	ug/kg	125	41.1	5	08/18/22 10:18	08/22/22 23:30	12672-29-6	
PCB-1254 (Aroclor 1254)	**1610**	ug/kg	125	41.1	5	08/18/22 10:18	08/22/22 23:30	11097-69-1	
PCB-1260 (Aroclor 1260)	**159**	ug/kg	125	41.1	5	08/18/22 10:18	08/22/22 23:30	11096-82-5	
PCB, Total	**2830**	ug/kg	125	41.1	5	08/18/22 10:18	08/22/22 23:30	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	100	%	80-120		5	08/18/22 10:18	08/22/22 23:30	877-09-8	
Decachlorobiphenyl (S)	101	%	78-120		5	08/18/22 10:18	08/22/22 23:30	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:54		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:54		
Lipid	**2.5**	%			1		08/19/22 08:54		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-AWS-5, 6/26/22 **Lab ID: 40249879003** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.9	16.4	2	08/18/22 10:18	08/22/22 23:51	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.9	16.4	2	08/18/22 10:18	08/22/22 23:51	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.9	16.4	2	08/18/22 10:18	08/22/22 23:51	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.9	16.4	2	08/18/22 10:18	08/22/22 23:51	53469-21-9	
PCB-1248 (Aroclor 1248)	**455**	ug/kg	49.9	16.4	2	08/18/22 10:18	08/22/22 23:51	12672-29-6	
PCB-1254 (Aroclor 1254)	**586**	ug/kg	49.9	16.4	2	08/18/22 10:18	08/22/22 23:51	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	49.9	16.4	2	08/18/22 10:18	08/22/22 23:51	11096-82-5	
PCB, Total	**1040**	ug/kg	49.9	16.4	2	08/18/22 10:18	08/22/22 23:51	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	95	%	80-120		2	08/18/22 10:18	08/22/22 23:51	877-09-8	
Decachlorobiphenyl (S)	96	%	78-120		2	08/18/22 10:18	08/22/22 23:51	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:54		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:54		
Lipid	**1.6**	%			1		08/19/22 08:54		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-AWS-6, 6/26/22 **Lab ID: 40249879004** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 00:13	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 00:13	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 00:13	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 00:13	53469-21-9	
PCB-1248 (Aroclor 1248)	**484**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 00:13	12672-29-6	
PCB-1254 (Aroclor 1254)	**422**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 00:13	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 00:13	11096-82-5	
PCB, Total	**907**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 00:13	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	106	%	80-120		2	08/18/22 10:18	08/23/22 00:13	877-09-8	
Decachlorobiphenyl (S)	108	%	78-120		2	08/18/22 10:18	08/23/22 00:13	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:54		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:54		
Lipid	**1.4**	%			1		08/19/22 08:54		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-AWS-7, 6/26/22 **Lab ID: 40249879005** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 00:35	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 00:35	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 00:35	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 00:35	53469-21-9	
PCB-1248 (Aroclor 1248)	**560**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 00:35	12672-29-6	
PCB-1254 (Aroclor 1254)	**561**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 00:35	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 00:35	11096-82-5	
PCB, Total	**1120**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 00:35	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	107	%	80-120		2	08/18/22 10:18	08/23/22 00:35	877-09-8	
Decachlorobiphenyl (S)	111	%	78-120		2	08/18/22 10:18	08/23/22 00:35	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:54		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:54		
Lipid	**0.73**	%			1		08/19/22 08:54		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-AWS-8, 6/26/22 **Lab ID: 40249879006** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.8	16.4	2	08/18/22 10:18	08/23/22 00:57	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.8	16.4	2	08/18/22 10:18	08/23/22 00:57	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.8	16.4	2	08/18/22 10:18	08/23/22 00:57	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.8	16.4	2	08/18/22 10:18	08/23/22 00:57	53469-21-9	
PCB-1248 (Aroclor 1248)	**622**	ug/kg	49.8	16.4	2	08/18/22 10:18	08/23/22 00:57	12672-29-6	
PCB-1254 (Aroclor 1254)	**695**	ug/kg	49.8	16.4	2	08/18/22 10:18	08/23/22 00:57	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	49.8	16.4	2	08/18/22 10:18	08/23/22 00:57	11096-82-5	
PCB, Total	**1320**	ug/kg	49.8	16.4	2	08/18/22 10:18	08/23/22 00:57	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	111	%	80-120		2	08/18/22 10:18	08/23/22 00:57	877-09-8	
Decachlorobiphenyl (S)	111	%	78-120		2	08/18/22 10:18	08/23/22 00:57	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:52		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:52		
Lipid	**0.75**	%			1		08/19/22 08:52		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-SMB-1, 6/26/22 **Lab ID: 40249879007** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.9	16.4	2	08/18/22 10:18	08/23/22 01:19	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.9	16.4	2	08/18/22 10:18	08/23/22 01:19	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.9	16.4	2	08/18/22 10:18	08/23/22 01:19	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.9	16.4	2	08/18/22 10:18	08/23/22 01:19	53469-21-9	
PCB-1248 (Aroclor 1248)	**244**	ug/kg	49.9	16.4	2	08/18/22 10:18	08/23/22 01:19	12672-29-6	
PCB-1254 (Aroclor 1254)	**534**	ug/kg	49.9	16.4	2	08/18/22 10:18	08/23/22 01:19	11097-69-1	
PCB-1260 (Aroclor 1260)	**54.7**	ug/kg	49.9	16.4	2	08/18/22 10:18	08/23/22 01:19	11096-82-5	
PCB, Total	**832**	ug/kg	49.9	16.4	2	08/18/22 10:18	08/23/22 01:19	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	96	%	80-120		2	08/18/22 10:18	08/23/22 01:19	877-09-8	
Decachlorobiphenyl (S)	100	%	78-120		2	08/18/22 10:18	08/23/22 01:19	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:52		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:52		
Lipid	**0.46**	%			1		08/19/22 08:52		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-SMB-2, 6/26/22 **Lab ID: 40249879008** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 01:42	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 01:42	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 01:42	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 01:42	53469-21-9	
PCB-1248 (Aroclor 1248)	**389**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 01:42	12672-29-6	
PCB-1254 (Aroclor 1254)	**535**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 01:42	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 01:42	11096-82-5	
PCB, Total	**923**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 01:42	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	100	%	80-120		2	08/18/22 10:18	08/23/22 01:42	877-09-8	
Decachlorobiphenyl (S)	101	%	78-120		2	08/18/22 10:18	08/23/22 01:42	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:52		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:52		
Lipid	**1.1**	%			1		08/19/22 08:52		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-SMB-3, 6/26/22 **Lab ID: 40249879009** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 02:48	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 02:48	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 02:48	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 02:48	53469-21-9	
PCB-1248 (Aroclor 1248)	**206**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 02:48	12672-29-6	
PCB-1254 (Aroclor 1254)	**306**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 02:48	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 02:48	11096-82-5	
PCB, Total	**513**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 02:48	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	95	%	80-120		1	08/18/22 10:18	08/23/22 02:48	877-09-8	
Decachlorobiphenyl (S)	97	%	78-120		1	08/18/22 10:18	08/23/22 02:48	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:52		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:52		
Lipid	**0.33**	%			1		08/19/22 08:52		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-SMB-4, 6/26/22 **Lab ID: 40249879010** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	08/18/22 10:18	08/23/22 03:10	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	08/18/22 10:18	08/23/22 03:10	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	08/18/22 10:18	08/23/22 03:10	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	08/18/22 10:18	08/23/22 03:10	53469-21-9	
PCB-1248 (Aroclor 1248)	**115**	ug/kg	24.9	8.2	1	08/18/22 10:18	08/23/22 03:10	12672-29-6	
PCB-1254 (Aroclor 1254)	**100**	ug/kg	24.9	8.2	1	08/18/22 10:18	08/23/22 03:10	11097-69-1	
PCB-1260 (Aroclor 1260)	**13.9J**	ug/kg	24.9	8.2	1	08/18/22 10:18	08/23/22 03:10	11096-82-5	
PCB, Total	**229**	ug/kg	24.9	8.2	1	08/18/22 10:18	08/23/22 03:10	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	104	%	80-120		1	08/18/22 10:18	08/23/22 03:10	877-09-8	
Decachlorobiphenyl (S)	108	%	78-120		1	08/18/22 10:18	08/23/22 03:10	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:52		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:52		
Lipid	**1.2**	%			1		08/19/22 08:52		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-SMB-5, 6/26/22 **Lab ID: 40249879011** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 03:32	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 03:32	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 03:32	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 03:32	53469-21-9	
PCB-1248 (Aroclor 1248)	**214**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 03:32	12672-29-6	
PCB-1254 (Aroclor 1254)	**277**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 03:32	11097-69-1	
PCB-1260 (Aroclor 1260)	**29.4**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 03:32	11096-82-5	
PCB, Total	**520**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 03:32	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	96	%	80-120		1	08/18/22 10:18	08/23/22 03:32	877-09-8	
Decachlorobiphenyl (S)	96	%	78-120		1	08/18/22 10:18	08/23/22 03:32	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:52		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:52		
Lipid	**0.45**	%			1		08/19/22 08:52		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-SMB-6, 6/26/22 **Lab ID: 40249879012** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 03:54	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 03:54	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 03:54	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 03:54	53469-21-9	
PCB-1248 (Aroclor 1248)	**331**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 03:54	12672-29-6	
PCB-1254 (Aroclor 1254)	**465**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 03:54	11097-69-1	
PCB-1260 (Aroclor 1260)	**49.6**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 03:54	11096-82-5	
PCB, Total	**846**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 03:54	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	104	%	80-120		1	08/18/22 10:18	08/23/22 03:54	877-09-8	
Decachlorobiphenyl (S)	113	%	78-120		1	08/18/22 10:18	08/23/22 03:54	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:52		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:52		
Lipid	**1.7**	%			1		08/19/22 08:52		

REPORT OF LABORATORY ANALYSIS

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Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-SMB-7, 6/26/22 **Lab ID: 40249879013** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 04:16	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 04:16	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 04:16	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 04:16	53469-21-9	
PCB-1248 (Aroclor 1248)	**240**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 04:16	12672-29-6	
PCB-1254 (Aroclor 1254)	**317**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 04:16	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 04:16	11096-82-5	
PCB, Total	**557**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 04:16	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	101	%	80-120		1	08/18/22 10:18	08/23/22 04:16	877-09-8	
Decachlorobiphenyl (S)	104	%	78-120		1	08/18/22 10:18	08/23/22 04:16	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:52		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:52		
Lipid	**0.21**	%			1		08/19/22 08:52		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-SMB-8, 6/26/22 **Lab ID: 40249879014** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 04:38	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 04:38	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 04:38	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 04:38	53469-21-9	
PCB-1248 (Aroclor 1248)	**222**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 04:38	12672-29-6	
PCB-1254 (Aroclor 1254)	**406**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 04:38	11097-69-1	
PCB-1260 (Aroclor 1260)	**39.7**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 04:38	11096-82-5	
PCB, Total	**667**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 04:38	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	100	%	80-120		1	08/18/22 10:18	08/23/22 04:38	877-09-8	
Decachlorobiphenyl (S)	96	%	78-120		1	08/18/22 10:18	08/23/22 04:38	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:52		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:52		
Lipid	**0.32**	%			1		08/19/22 08:52		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-RB-1, 6/26/22 **Lab ID: 40249879015** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 05:00	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 05:00	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 05:00	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 05:00	53469-21-9	
PCB-1248 (Aroclor 1248)	**119**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 05:00	12672-29-6	
PCB-1254 (Aroclor 1254)	**313**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 05:00	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 05:00	11096-82-5	
PCB, Total	**432**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 05:00	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	94	%	80-120		1	08/18/22 10:18	08/23/22 05:00	877-09-8	
Decachlorobiphenyl (S)	97	%	78-120		1	08/18/22 10:18	08/23/22 05:00	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:52		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:52		
Lipid	**0.32**	%			1		08/19/22 08:52		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-RB-2, 6/26/22 **Lab ID: 40249879016** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 05:22	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 05:22	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 05:22	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 05:22	53469-21-9	
PCB-1248 (Aroclor 1248)	**195**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 05:22	12672-29-6	
PCB-1254 (Aroclor 1254)	**479**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 05:22	11097-69-1	
PCB-1260 (Aroclor 1260)	**45.3J**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 05:22	11096-82-5	
PCB, Total	**720**	ug/kg	50.0	16.4	2	08/18/22 10:18	08/23/22 05:22	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	101	%	80-120		2	08/18/22 10:18	08/23/22 05:22	877-09-8	
Decachlorobiphenyl (S)	99	%	78-120		2	08/18/22 10:18	08/23/22 05:22	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:52		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:52		
Lipid	**0.29**	%			1		08/19/22 08:52		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-RB-3, 6/26/22 **Lab ID: 40249879017** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 05:44	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 05:44	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 05:44	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 05:44	53469-21-9	
PCB-1248 (Aroclor 1248)	**108**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 05:44	12672-29-6	
PCB-1254 (Aroclor 1254)	**311**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 05:44	11097-69-1	
PCB-1260 (Aroclor 1260)	**33.7**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 05:44	11096-82-5	
PCB, Total	**453**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 05:44	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	83	%	80-120		1	08/18/22 10:18	08/23/22 05:44	877-09-8	
Decachlorobiphenyl (S)	80	%	78-120		1	08/18/22 10:18	08/23/22 05:44	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:52		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:52		
Lipid	**0.10**	%			1		08/19/22 08:52		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-RB-4, 6/26/22 **Lab ID: 40249879018** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 06:06	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 06:06	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 06:06	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 06:06	53469-21-9	
PCB-1248 (Aroclor 1248)	**91.8**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 06:06	12672-29-6	
PCB-1254 (Aroclor 1254)	**133**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 06:06	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 06:06	11096-82-5	
PCB, Total	**224**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 06:06	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	90	%	80-120		1	08/18/22 10:18	08/23/22 06:06	877-09-8	
Decachlorobiphenyl (S)	93	%	78-120		1	08/18/22 10:18	08/23/22 06:06	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:52		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:52		
Lipid	**0.24**	%			1		08/19/22 08:52		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-RB-5, 6/26/22 **Lab ID: 40249879019** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 06:28	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 06:28	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 06:28	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 06:28	53469-21-9	
PCB-1248 (Aroclor 1248)	**81.3**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 06:28	12672-29-6	
PCB-1254 (Aroclor 1254)	**98.5**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 06:28	11097-69-1	
PCB-1260 (Aroclor 1260)	**9.4J**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 06:28	11096-82-5	
PCB, Total	**189**	ug/kg	25.0	8.2	1	08/18/22 10:18	08/23/22 06:28	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	90	%	80-120		1	08/18/22 10:18	08/23/22 06:28	877-09-8	
Decachlorobiphenyl (S)	87	%	78-120		1	08/18/22 10:18	08/23/22 06:28	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:53		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:53		
Lipid	**0.20**	%			1		08/19/22 08:53		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Sample: MR1-RB-6, 6/26/22 **Lab ID: 40249879020** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.1	16.4	2	08/18/22 10:18	08/23/22 06:50	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.1	16.4	2	08/18/22 10:18	08/23/22 06:50	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.1	16.4	2	08/18/22 10:18	08/23/22 06:50	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.1	16.4	2	08/18/22 10:18	08/23/22 06:50	53469-21-9	
PCB-1248 (Aroclor 1248)	**304**	ug/kg	50.1	16.4	2	08/18/22 10:18	08/23/22 06:50	12672-29-6	
PCB-1254 (Aroclor 1254)	**680**	ug/kg	50.1	16.4	2	08/18/22 10:18	08/23/22 06:50	11097-69-1	
PCB-1260 (Aroclor 1260)	**67.2**	ug/kg	50.1	16.4	2	08/18/22 10:18	08/23/22 06:50	11096-82-5	
PCB, Total	**1050**	ug/kg	50.1	16.4	2	08/18/22 10:18	08/23/22 06:50	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	95	%	80-120		2	08/18/22 10:18	08/23/22 06:50	877-09-8	
Decachlorobiphenyl (S)	97	%	78-120		2	08/18/22 10:18	08/23/22 06:50	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/17/22 07:41		
Fillet Selected	**Both**				1		08/17/22 07:41		
Fillet Weight	**0.0**	g			1		08/17/22 07:41		
Homogenized Weight	**0.0**	g			1		08/17/22 07:41		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**423780**				1		08/19/22 08:53		
Extraction Date/Time	**08/18/2022 10:48:35:752**				1		08/19/22 08:53		
Lipid	**0.35**	%			1		08/19/22 08:53		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

QC Batch: 423780
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249879001, 40249879002, 40249879003, 40249879004, 40249879005, 40249879006, 40249879007, 40249879008, 40249879009, 40249879010, 40249879011, 40249879012, 40249879013, 40249879014, 40249879015, 40249879016, 40249879017, 40249879018, 40249879019, 40249879020

METHOD BLANK: 2440594 Matrix: Tissue
Associated Lab Samples: 40249879001, 40249879002, 40249879003, 40249879004, 40249879005, 40249879006, 40249879007, 40249879008, 40249879009, 40249879010, 40249879011, 40249879012, 40249879013, 40249879014, 40249879015, 40249879016, 40249879017, 40249879018, 40249879019, 40249879020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<8.2	25.1	08/22/22 21:41	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2	25.1	08/22/22 21:41	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2	25.1	08/22/22 21:41	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2	25.1	08/22/22 21:41	
PCB-1248 (Aroclor 1248)	ug/kg	<8.2	25.1	08/22/22 21:41	
PCB-1254 (Aroclor 1254)	ug/kg	<8.2	25.1	08/22/22 21:41	
PCB-1260 (Aroclor 1260)	ug/kg	<8.2	25.1	08/22/22 21:41	
Decachlorobiphenyl (S)	%	90	78-120	08/22/22 21:41	
Tetrachloro-m-xylene (S)	%	91	80-120	08/22/22 21:41	

LABORATORY CONTROL SAMPLE: 2440595

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<8.2			
PCB-1221 (Aroclor 1221)	ug/kg		<8.2			
PCB-1232 (Aroclor 1232)	ug/kg		<8.2			
PCB-1242 (Aroclor 1242)	ug/kg	250	215	86	66-106	
PCB-1248 (Aroclor 1248)	ug/kg		<8.2			
PCB-1254 (Aroclor 1254)	ug/kg		<8.2			
PCB-1260 (Aroclor 1260)	ug/kg		<8.2			
Decachlorobiphenyl (S)	%			93	78-120	
Tetrachloro-m-xylene (S)	%			94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2440596 2440597

Parameter	Units	40249879001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<41.0			<82.2	<81.9					20	
PCB-1221 (Aroclor 1221)	ug/kg	<41.0			<82.2	<81.9					20	
PCB-1232 (Aroclor 1232)	ug/kg	<41.0			<82.2	<81.9					20	
PCB-1242 (Aroclor 1242)	ug/kg	<41.0	1000	998	<82.2	<81.9	0	0	60-110		20	M1
PCB-1248 (Aroclor 1248)	ug/kg	1830			3020	2950				2	20	
PCB-1254 (Aroclor 1254)	ug/kg	2390			2320	2350				1	20	
PCB-1260 (Aroclor 1260)	ug/kg	157			154J	157J					20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2440596 2440597

Parameter	Units	40249879001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Decachlorobiphenyl (S)	%						101	96	78-120			
Tetrachloro-m-xylene (S)	%						100	91	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

QC Batch: 423886
QC Batch Method: Pace Lipid
Analysis Method: Pace Lipid
Analysis Description: LIPID
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249879001, 40249879002, 40249879003, 40249879004, 40249879005, 40249879006, 40249879007, 40249879008, 40249879009, 40249879010, 40249879011, 40249879012, 40249879013, 40249879014, 40249879015, 40249879016, 40249879017, 40249879018, 40249879019, 40249879020

METHOD BLANK: 2441236 Matrix: Tissue
Associated Lab Samples: 40249879001, 40249879002, 40249879003, 40249879004, 40249879005, 40249879006, 40249879007, 40249879008, 40249879009, 40249879010, 40249879011, 40249879012, 40249879013, 40249879014, 40249879015, 40249879016, 40249879017, 40249879018, 40249879019, 40249879020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Extraction Batch Number		423780		08/19/22 08:53	
Extraction Date/Time		08/18/2022		08/19/22 08:53	
Lipid	%	0.55		08/19/22 08:53	

SAMPLE DUPLICATE: 2441237

Parameter	Units	40249879001 Result	Dup Result	RPD	Max RPD	Qualifiers
Extraction Batch Number		423780	423780			
Extraction Date/Time		08/18/2022 10:48:35:752	08/18/2022			
Lipid	%	0.51	0.59	15	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249879001	MR1-AWS-3, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879002	MR1-AWS-4, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879003	MR1-AWS-5, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879004	MR1-AWS-6, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879005	MR1-AWS-7, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879006	MR1-AWS-8, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879007	MR1-SMB-1, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879008	MR1-SMB-2, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879009	MR1-SMB-3, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879010	MR1-SMB-4, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879011	MR1-SMB-5, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879012	MR1-SMB-6, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879013	MR1-SMB-7, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879014	MR1-SMB-8, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879015	MR1-RB-1, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879016	MR1-RB-2, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879017	MR1-RB-3, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879018	MR1-RB-4, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879019	MR1-RB-5, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879020	MR1-RB-6, 6/26/22	EPA 3541	423780	EPA 8082A	423920
40249879001	MR1-AWS-3, 6/26/22	Pace Gender Typing	423709		
40249879002	MR1-AWS-4, 6/26/22	Pace Gender Typing	423709		
40249879003	MR1-AWS-5, 6/26/22	Pace Gender Typing	423709		
40249879004	MR1-AWS-6, 6/26/22	Pace Gender Typing	423709		
40249879005	MR1-AWS-7, 6/26/22	Pace Gender Typing	423709		
40249879006	MR1-AWS-8, 6/26/22	Pace Gender Typing	423709		
40249879007	MR1-SMB-1, 6/26/22	Pace Gender Typing	423709		
40249879008	MR1-SMB-2, 6/26/22	Pace Gender Typing	423709		
40249879009	MR1-SMB-3, 6/26/22	Pace Gender Typing	423709		
40249879010	MR1-SMB-4, 6/26/22	Pace Gender Typing	423709		
40249879011	MR1-SMB-5, 6/26/22	Pace Gender Typing	423709		
40249879012	MR1-SMB-6, 6/26/22	Pace Gender Typing	423709		
40249879013	MR1-SMB-7, 6/26/22	Pace Gender Typing	423709		
40249879014	MR1-SMB-8, 6/26/22	Pace Gender Typing	423709		
40249879015	MR1-RB-1, 6/26/22	Pace Gender Typing	423709		
40249879016	MR1-RB-2, 6/26/22	Pace Gender Typing	423709		
40249879017	MR1-RB-3, 6/26/22	Pace Gender Typing	423709		
40249879018	MR1-RB-4, 6/26/22	Pace Gender Typing	423709		
40249879019	MR1-RB-5, 6/26/22	Pace Gender Typing	423709		
40249879020	MR1-RB-6, 6/26/22	Pace Gender Typing	423709		
40249879001	MR1-AWS-3, 6/26/22	Pace Lipid	423886		
40249879002	MR1-AWS-4, 6/26/22	Pace Lipid	423886		
40249879003	MR1-AWS-5, 6/26/22	Pace Lipid	423886		
40249879004	MR1-AWS-6, 6/26/22	Pace Lipid	423886		
40249879005	MR1-AWS-7, 6/26/22	Pace Lipid	423886		
40249879006	MR1-AWS-8, 6/26/22	Pace Lipid	423886		
40249879007	MR1-SMB-1, 6/26/22	Pace Lipid	423886		
40249879008	MR1-SMB-2, 6/26/22	Pace Lipid	423886		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249879

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249879009	**MR1-SMB-3, 6/26/22**	Pace Lipid	423886		
40249879010	**MR1-SMB-4, 6/26/22**	Pace Lipid	423886		
40249879011	**MR1-SMB-5, 6/26/22**	Pace Lipid	423886		
40249879012	**MR1-SMB-6, 6/26/22**	Pace Lipid	423886		
40249879013	**MR1-SMB-7, 6/26/22**	Pace Lipid	423886		
40249879014	**MR1-SMB-8, 6/26/22**	Pace Lipid	423886		
40249879015	**MR1-RB-1, 6/26/22**	Pace Lipid	423886		
40249879016	**MR1-RB-2, 6/26/22**	Pace Lipid	423886		
40249879017	**MR1-RB-3, 6/26/22**	Pace Lipid	423886		
40249879018	**MR1-RB-4, 6/26/22**	Pace Lipid	423886		
40249879019	**MR1-RB-5, 6/26/22**	Pace Lipid	423886		
40249879020	**MR1-RB-6, 6/26/22**	Pace Lipid	423886		

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

4024 9879

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CHAIN OF CUSTODY

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513 319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Sander
	URZ-RB-12, 6/25/22	6/25/22		TS		A	X	X	X
	MRI-Ac-1, 6/26/22	6/26/22							
	MRI-Ac-2, 6/26/22								
	MRI-Ac-3, 6/26/22								
	MRI-Ac-4, 6/26/22								
	MRI-Ac-5, 6/26/22								
	MRI-Ac-6, 6/26/22								
	MRI-Ac-7, 6/26/22								
	MRI-Ac-8, 6/26/22								
	MRI-AWS-1, 6/26/22								
	MRI-AWS-2, 6/26/22								
001	MRI-AWS-3, 6/26/22								
002	MRI-AWS-4, 6/26/22								

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	8/15/22 730	[signature]	8/15/22 0730

PACE Project No. 4024 9879

Receipt Temp = 0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

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CHAIN OF CUSTODY

4024879

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513-319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Gender
003	MRI-AWS-5, 6/26/22	6/26/22		TS		A	X	X	X
004	MRI-AWS-6, 6/26/22								
005	MRI-AWS-7, 6/26/22								
006	MRI-AWS-8, 6/26/22								
007	MRI-BMB-1, 6/26/22								
008	MRI-SMB-2, 6/26/22								
009	MRI-SMB-3, 6/26/22								
010	MRI-SMB-4, 6/26/22								
011	MRI-SMB-5, 6/26/22								
012	MRI-SMB-6, 6/26/22								
013	MRI-SMB-7, 6/26/22								
014	MRI-SMB-8, 6/26/22								
015	MRI-RB-1, 6/26/22	✓		✓			✓	✓	✓

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 7:30		8/15/22 0730
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
4024879

Receipt Temp = 0 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

40249879

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CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513 319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water, B = Biota, DW = Drinking Water, C = Charcoal, GW = Ground Water, O = Oil, SW = Surface Water, S = Soil, WW = Waste Water, SI = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Gender	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
016	MRI-RB-2, 6/26/22	6/26/22		TS		A	X	X	X			
017	MRI-RB-3, 6/26/22											
018	MRI-RB-4, 6/26/22											
019	MRI-RB-5, 6/26/22											
020	MRI-RB-6, 6/26/22											
	MRI-RB-7, 6/26/22											
	MRI-RB-8, 6/26/22											
	MRI-WAL-1, 6/26/22											
	MRI-WAL-2, 6/26/22											
	MRI-WAL-3, 6/26/22											
	MR2-Ac-1, 6/26/22											
	MR2-Ac-2, 6/26/22											
	MR2-Ac-3, 6/26/22											

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 730		8/15/22 0730
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
40249879

Receipt Temp = 0 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

Sample Preservation Receipt Form

Client Name: PRS Project # 40249879

All containers needing preservation have been checked and noted below: ☐Yes ☐No ~~☐N/A~~

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted): Initial when completed: Date/ Time:

Pace Lab #	Glass								Plastic					Vials						Jars				General			VOA Vials (>6mm)	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN						
001																																2.5 / 5 / 10
002																																2.5 / 5 / 10
003																																2.5 / 5 / 10
004																																2.5 / 5 / 10
005																																2.5 / 5 / 10
006																																2.5 / 5 / 10
007																																2.5 / 5 / 10
008																																2.5 / 5 / 10
009																																2.5 / 5 / 10
010																																2.5 / 5 / 10
011																																2.5 / 5 / 10
012																																2.5 / 5 / 10
013																																2.5 / 5 / 10
014																																2.5 / 5 / 10
015																																2.5 / 5 / 10
016																																2.5 / 5 / 10
017																																2.5 / 5 / 10
018																																2.5 / 5 / 10
019																																2.5 / 5 / 10
020																																2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ~~☐N/A~~ ***If yes look in headspace column**

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN	

Page 1 of 2

Page 1 of 2

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40249879

40249879

Client Name: PRS

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☑ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used SR - 120 **Type of Ice:** Wet Blue Dry (None) ☐ Samples on ice

Cooler Temperature Uncorr: 0 /Corr: 0

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☑ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
Date: 8/15/22 /Initials: MH

Labeled By Initials: MK

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. No mail or invoice info mt 8/15/22
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume:		8.
For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☐Yes ☑No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: B		
Trip Blank Present:	☐Yes ☐No ☑N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi

Page 2 of 2

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

October 12, 2022

Aaron Lammers
SME
3301 Tech Circle
Kalamazoo, MI 49008

RE: Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Dear Aaron Lammers:

Enclosed are the analytical results for sample(s) received by the laboratory on August 15, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tod Noltemeyer

Tod Noltemeyer
tod.noltemeyer@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Pace Analytical Services Green Bay
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40249880001	**MR1-RB-7, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880002	**MR1-RB-8, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880003	**MR1-WAL-1, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880004	**MR1-WAL-2, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880005	**MR1-WAL-3, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880006	**MR2-AC-1, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880007	**MR2-AC-2, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880008	**MR2-AC-3, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880009	**MR2-AC-4, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880010	**MR2-AC-5, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880011	**MR2-AC-6, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880012	**MR2-AC-7, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880013	**MR2-AC-8, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880014	**MR2-AWS-1, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880015	**MR2-AWS-2, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880016	**MR2-AWS-3, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880017	**MR2-AWS-4, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880018	**MR2-AWS-5, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880019	**MR2-AWS-6, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249880020	**MR2-AWS-7, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30

Pace Analytical Services, LLC
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(920)469-2436

SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40249880001	**MR1-RB-7, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880002	**MR1-RB-8, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880003	**MR1-WAL-1, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880004	**MR1-WAL-2, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880005	**MR1-WAL-3, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880006	**MR2-AC-1, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880007	**MR2-AC-2, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880008	**MR2-AC-3, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880009	**MR2-AC-4, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880010	**MR2-AC-5, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880011	**MR2-AC-6, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880012	**MR2-AC-7, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880013	**MR2-AC-8, 6/26/22**	EPA 8082A	BLM	10

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880014	**MR2-AWS-1, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880015	**MR2-AWS-2, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880016	**MR2-AWS-3, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880017	**MR2-AWS-4, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880018	**MR2-AWS-5, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880019	**MR2-AWS-6, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3
40249880020	**MR2-AWS-7, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	ETB	3

PASI-G = Pace Analytical Services - Green Bay

Pace Analytical Services, LLC
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(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: October 12, 2022

General Information:
20 samples were analyzed for EPA 8082A by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 426259

S0: Surrogate recovery outside laboratory control limits.

- MR2-AC-8, 6/26/22 (Lab ID: 40249880013)
  - Tetrachloro-m-xylene (S)
- MR2-AWS-2, 6/26/22 (Lab ID: 40249880015)
  - Decachlorobiphenyl (S)
- MR2-AWS-3, 6/26/22 (Lab ID: 40249880016)
  - Tetrachloro-m-xylene (S)

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- MR2-AC-2, 6/26/22 (Lab ID: 40249880007)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- MR2-AC-3, 6/26/22 (Lab ID: 40249880008)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- MR2-AC-4, 6/26/22 (Lab ID: 40249880009)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- MR2-AC-5, 6/26/22 (Lab ID: 40249880010)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- MR2-AC-7, 6/26/22 (Lab ID: 40249880012)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)

Pace Analytical Services, LLC
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(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: October 12, 2022

QC Batch: 427430

S0: Surrogate recovery outside laboratory control limits.

- MR2-AC-1, 6/26/22 (Lab ID: 40249880006)
  - Decachlorobiphenyl (S)
- MS (Lab ID: 2461696)
  - Decachlorobiphenyl (S)
- MSD (Lab ID: 2461697)
  - Decachlorobiphenyl (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 426259

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40249880003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2454854)
  - PCB-1242 (Aroclor 1242)
- MSD (Lab ID: 2454855)
  - PCB-1242 (Aroclor 1242)

QC Batch: 427430

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40249880006

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 2461697)
  - PCB-1254 (Aroclor 1254)

Additional Comments:

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Method: **Pace Gender Typing**
Description: Fish Gender Typing
Client: POLLUTION RISK SERVICES
Date: October 12, 2022

General Information:
20 samples were analyzed for Pace Gender Typing by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Method: **Pace Lipid**
Description: Lipid
Client: POLLUTION RISK SERVICES
Date: October 12, 2022

General Information:
20 samples were analyzed for Pace Lipid by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR1-RB-7, 6/26/22 **Lab ID: 40249880001** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.8	16.4	2	09/19/22 08:10	09/21/22 11:27	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.8	16.4	2	09/19/22 08:10	09/21/22 11:27	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.8	16.4	2	09/19/22 08:10	09/21/22 11:27	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.8	16.4	2	09/19/22 08:10	09/21/22 11:27	53469-21-9	
PCB-1248 (Aroclor 1248)	**432**	ug/kg	49.8	16.4	2	09/19/22 08:10	09/21/22 11:27	12672-29-6	
PCB-1254 (Aroclor 1254)	**722**	ug/kg	49.8	16.4	2	09/19/22 08:10	09/21/22 11:27	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	49.8	16.4	2	09/19/22 08:10	09/21/22 11:27	11096-82-5	
PCB, Total	**1150**	ug/kg	49.8	16.4	2	09/19/22 08:10	09/21/22 11:27	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	111	%	80-120		2	09/19/22 08:10	09/21/22 11:27	877-09-8	
Decachlorobiphenyl (S)	106	%	78-120		2	09/19/22 08:10	09/21/22 11:27	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:52		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:52		
Lipid	**0.84**	%			1		09/19/22 14:52		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR1-RB-8, 6/26/22 **Lab ID: 40249880002** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	24.9	8.2	1	09/19/22 08:10	09/21/22 11:51	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	24.9	8.2	1	09/19/22 08:10	09/21/22 11:51	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	24.9	8.2	1	09/19/22 08:10	09/21/22 11:51	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	24.9	8.2	1	09/19/22 08:10	09/21/22 11:51	53469-21-9	
PCB-1248 (Aroclor 1248)	**212**	ug/kg	24.9	8.2	1	09/19/22 08:10	09/21/22 11:51	12672-29-6	
PCB-1254 (Aroclor 1254)	**387**	ug/kg	24.9	8.2	1	09/19/22 08:10	09/21/22 11:51	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	24.9	8.2	1	09/19/22 08:10	09/21/22 11:51	11096-82-5	
PCB, Total	**599**	ug/kg	24.9	8.2	1	09/19/22 08:10	09/21/22 11:51	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	102	%	80-120		1	09/19/22 08:10	09/21/22 11:51	877-09-8	
Decachlorobiphenyl (S)	98	%	78-120		1	09/19/22 08:10	09/21/22 11:51	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:52		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:52		
Lipid	**0.40**	%			1		09/19/22 14:52		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR1-WAL-1, 6/26/22 **Lab ID: 40249880003** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/19/22 08:10	09/21/22 12:15	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/19/22 08:10	09/21/22 12:15	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/19/22 08:10	09/21/22 12:15	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/19/22 08:10	09/21/22 12:15	53469-21-9	M1
PCB-1248 (Aroclor 1248)	**235**	ug/kg	25.0	8.2	1	09/19/22 08:10	09/21/22 12:15	12672-29-6	
PCB-1254 (Aroclor 1254)	**233**	ug/kg	25.0	8.2	1	09/19/22 08:10	09/21/22 12:15	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	09/19/22 08:10	09/21/22 12:15	11096-82-5	
PCB, Total	**467**	ug/kg	25.0	8.2	1	09/19/22 08:10	09/21/22 12:15	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	108	%	80-120		1	09/19/22 08:10	09/21/22 12:15	877-09-8	
Decachlorobiphenyl (S)	106	%	78-120		1	09/19/22 08:10	09/21/22 12:15	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:52		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:52		
Lipid	**1.7**	%			1		09/19/22 14:52		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR1-WAL-2, 6/26/22 **Lab ID: 40249880004** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.2**	ug/kg	125	41.2	5	09/19/22 08:10	09/21/22 12:40	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.2**	ug/kg	125	41.2	5	09/19/22 08:10	09/21/22 12:40	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.2**	ug/kg	125	41.2	5	09/19/22 08:10	09/21/22 12:40	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.2**	ug/kg	125	41.2	5	09/19/22 08:10	09/21/22 12:40	53469-21-9	
PCB-1248 (Aroclor 1248)	**1260**	ug/kg	125	41.2	5	09/19/22 08:10	09/21/22 12:40	12672-29-6	
PCB-1254 (Aroclor 1254)	**1580**	ug/kg	125	41.2	5	09/19/22 08:10	09/21/22 12:40	11097-69-1	
PCB-1260 (Aroclor 1260)	**193**	ug/kg	125	41.2	5	09/19/22 08:10	09/21/22 12:40	11096-82-5	
PCB, Total	**3030**	ug/kg	125	41.2	5	09/19/22 08:10	09/21/22 12:40	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	118	%	80-120		5	09/19/22 08:10	09/21/22 12:40	877-09-8	
Decachlorobiphenyl (S)	115	%	78-120		5	09/19/22 08:10	09/21/22 12:40	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:52		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:52		
Lipid	**3.6**	%			1		09/19/22 14:52		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR1-WAL-3, 6/26/22 **Lab ID: 40249880005** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<24.6**	ug/kg	74.9	24.6	3	09/19/22 08:10	09/21/22 13:04	12674-11-2	
PCB-1221 (Aroclor 1221)	**<24.6**	ug/kg	74.9	24.6	3	09/19/22 08:10	09/21/22 13:04	11104-28-2	
PCB-1232 (Aroclor 1232)	**<24.6**	ug/kg	74.9	24.6	3	09/19/22 08:10	09/21/22 13:04	11141-16-5	
PCB-1242 (Aroclor 1242)	**<24.6**	ug/kg	74.9	24.6	3	09/19/22 08:10	09/21/22 13:04	53469-21-9	
PCB-1248 (Aroclor 1248)	**730**	ug/kg	74.9	24.6	3	09/19/22 08:10	09/21/22 13:04	12672-29-6	
PCB-1254 (Aroclor 1254)	**914**	ug/kg	74.9	24.6	3	09/19/22 08:10	09/21/22 13:04	11097-69-1	
PCB-1260 (Aroclor 1260)	**118**	ug/kg	74.9	24.6	3	09/19/22 08:10	09/21/22 13:04	11096-82-5	
PCB, Total	**1760**	ug/kg	74.9	24.6	3	09/19/22 08:10	09/21/22 13:04	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	116	%	80-120		3	09/19/22 08:10	09/21/22 13:04	877-09-8	
Decachlorobiphenyl (S)	109	%	78-120		3	09/19/22 08:10	09/21/22 13:04	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:52		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:52		
Lipid	**2.6**	%			1		09/19/22 14:52		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR2-AC-1, 6/26/22 **Lab ID: 40249880006** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<32.9**	ug/kg	100	32.9	4	09/30/22 12:10	10/11/22 23:08	12674-11-2	
PCB-1221 (Aroclor 1221)	**<32.9**	ug/kg	100	32.9	4	09/30/22 12:10	10/11/22 23:08	11104-28-2	
PCB-1232 (Aroclor 1232)	**<32.9**	ug/kg	100	32.9	4	09/30/22 12:10	10/11/22 23:08	11141-16-5	
PCB-1242 (Aroclor 1242)	**<32.9**	ug/kg	100	32.9	4	09/30/22 12:10	10/11/22 23:08	53469-21-9	
PCB-1248 (Aroclor 1248)	**1800**	ug/kg	100	32.9	4	09/30/22 12:10	10/11/22 23:08	12672-29-6	
PCB-1254 (Aroclor 1254)	**1760**	ug/kg	100	32.9	4	09/30/22 12:10	10/11/22 23:08	11097-69-1	M1
PCB-1260 (Aroclor 1260)	**794**	ug/kg	100	32.9	4	09/30/22 12:10	10/11/22 23:08	11096-82-5	
PCB, Total	**4360**	ug/kg	100	32.9	4	09/30/22 12:10	10/11/22 23:08	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	118	%	80-120		4	09/30/22 12:10	10/11/22 23:08	877-09-8	
Decachlorobiphenyl (S)	141	%	78-120		4	09/30/22 12:10	10/11/22 23:08	2051-24-3	S0
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:53		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:53		
Lipid	**12.6**	%			1		09/19/22 14:53		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR2-AC-2, 6/26/22 **Lab ID: 40249880007** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<246**	ug/kg	749	246	30	09/19/22 08:10	09/22/22 13:11	12674-11-2	
PCB-1221 (Aroclor 1221)	**<246**	ug/kg	749	246	30	09/19/22 08:10	09/22/22 13:11	11104-28-2	
PCB-1232 (Aroclor 1232)	**<246**	ug/kg	749	246	30	09/19/22 08:10	09/22/22 13:11	11141-16-5	
PCB-1242 (Aroclor 1242)	**<246**	ug/kg	749	246	30	09/19/22 08:10	09/22/22 13:11	53469-21-9	
PCB-1248 (Aroclor 1248)	**8870**	ug/kg	749	246	30	09/19/22 08:10	09/22/22 13:11	12672-29-6	
PCB-1254 (Aroclor 1254)	**14100**	ug/kg	749	246	30	09/19/22 08:10	09/22/22 13:11	11097-69-1	
PCB-1260 (Aroclor 1260)	**<246**	ug/kg	749	246	30	09/19/22 08:10	09/22/22 13:11	11096-82-5	
PCB, Total	**22900**	ug/kg	749	246	30	09/19/22 08:10	09/22/22 13:11	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		30	09/19/22 08:10	09/22/22 13:11	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		30	09/19/22 08:10	09/22/22 13:11	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:53		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:53		
Lipid	**8.7**	%			1		09/19/22 14:53		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR2-AC-3, 6/26/22 **Lab ID: 40249880008** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<123**	ug/kg	376	123	15	09/19/22 08:10	09/21/22 14:16	12674-11-2	
PCB-1221 (Aroclor 1221)	**<123**	ug/kg	376	123	15	09/19/22 08:10	09/21/22 14:16	11104-28-2	
PCB-1232 (Aroclor 1232)	**<123**	ug/kg	376	123	15	09/19/22 08:10	09/21/22 14:16	11141-16-5	
PCB-1242 (Aroclor 1242)	**<123**	ug/kg	376	123	15	09/19/22 08:10	09/21/22 14:16	53469-21-9	
PCB-1248 (Aroclor 1248)	**4180**	ug/kg	376	123	15	09/19/22 08:10	09/21/22 14:16	12672-29-6	
PCB-1254 (Aroclor 1254)	**2030**	ug/kg	376	123	15	09/19/22 08:10	09/21/22 14:16	11097-69-1	
PCB-1260 (Aroclor 1260)	**552**	ug/kg	376	123	15	09/19/22 08:10	09/21/22 14:16	11096-82-5	
PCB, Total	**6770**	ug/kg	376	123	15	09/19/22 08:10	09/21/22 14:16	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		15	09/19/22 08:10	09/21/22 14:16	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		15	09/19/22 08:10	09/21/22 14:16	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:53		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:53		
Lipid	**13.1**	%			1		09/19/22 14:53		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR2-AC-4, 6/26/22 **Lab ID: 40249880009** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<328**	ug/kg	1000	328	40	09/19/22 08:10	09/22/22 13:35	12674-11-2	
PCB-1221 (Aroclor 1221)	**<328**	ug/kg	1000	328	40	09/19/22 08:10	09/22/22 13:35	11104-28-2	
PCB-1232 (Aroclor 1232)	**<328**	ug/kg	1000	328	40	09/19/22 08:10	09/22/22 13:35	11141-16-5	
PCB-1242 (Aroclor 1242)	**<328**	ug/kg	1000	328	40	09/19/22 08:10	09/22/22 13:35	53469-21-9	
PCB-1248 (Aroclor 1248)	**10800**	ug/kg	1000	328	40	09/19/22 08:10	09/22/22 13:35	12672-29-6	
PCB-1254 (Aroclor 1254)	**18400**	ug/kg	1000	328	40	09/19/22 08:10	09/22/22 13:35	11097-69-1	
PCB-1260 (Aroclor 1260)	**<328**	ug/kg	1000	328	40	09/19/22 08:10	09/22/22 13:35	11096-82-5	
PCB, Total	**29200**	ug/kg	1000	328	40	09/19/22 08:10	09/22/22 13:35	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		40	09/19/22 08:10	09/22/22 13:35	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		40	09/19/22 08:10	09/22/22 13:35	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:53		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:53		
Lipid	**7.0**	%			1		09/19/22 14:53		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR2-AC-5, 6/26/22 **Lab ID: 40249880010** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<164**	ug/kg	499	164	20	09/19/22 08:10	09/21/22 15:52	12674-11-2	
PCB-1221 (Aroclor 1221)	**<164**	ug/kg	499	164	20	09/19/22 08:10	09/21/22 15:52	11104-28-2	
PCB-1232 (Aroclor 1232)	**<164**	ug/kg	499	164	20	09/19/22 08:10	09/21/22 15:52	11141-16-5	
PCB-1242 (Aroclor 1242)	**<164**	ug/kg	499	164	20	09/19/22 08:10	09/21/22 15:52	53469-21-9	
PCB-1248 (Aroclor 1248)	**3690**	ug/kg	499	164	20	09/19/22 08:10	09/21/22 15:52	12672-29-6	
PCB-1254 (Aroclor 1254)	**4640**	ug/kg	499	164	20	09/19/22 08:10	09/21/22 15:52	11097-69-1	
PCB-1260 (Aroclor 1260)	**<164**	ug/kg	499	164	20	09/19/22 08:10	09/21/22 15:52	11096-82-5	
PCB, Total	**8320**	ug/kg	499	164	20	09/19/22 08:10	09/21/22 15:52	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		20	09/19/22 08:10	09/21/22 15:52	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		20	09/19/22 08:10	09/21/22 15:52	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:53		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:53		
Lipid	**4.4**	%			1		09/19/22 14:53		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR2-AC-6, 6/26/22 **Lab ID: 40249880011** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<57.7**	ug/kg	176	57.7	7	09/19/22 08:10	09/21/22 16:16	12674-11-2	
PCB-1221 (Aroclor 1221)	**<57.7**	ug/kg	176	57.7	7	09/19/22 08:10	09/21/22 16:16	11104-28-2	
PCB-1232 (Aroclor 1232)	**<57.7**	ug/kg	176	57.7	7	09/19/22 08:10	09/21/22 16:16	11141-16-5	
PCB-1242 (Aroclor 1242)	**<57.7**	ug/kg	176	57.7	7	09/19/22 08:10	09/21/22 16:16	53469-21-9	
PCB-1248 (Aroclor 1248)	**2120**	ug/kg	176	57.7	7	09/19/22 08:10	09/21/22 16:16	12672-29-6	
PCB-1254 (Aroclor 1254)	**2850**	ug/kg	176	57.7	7	09/19/22 08:10	09/21/22 16:16	11097-69-1	
PCB-1260 (Aroclor 1260)	**<57.7**	ug/kg	176	57.7	7	09/19/22 08:10	09/21/22 16:16	11096-82-5	
PCB, Total	**4970**	ug/kg	176	57.7	7	09/19/22 08:10	09/21/22 16:16	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	115	%	80-120		7	09/19/22 08:10	09/21/22 16:16	877-09-8	
Decachlorobiphenyl (S)	107	%	78-120		7	09/19/22 08:10	09/21/22 16:16	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:54		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:54		
Lipid	**3.3**	%			1		09/19/22 14:54		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR2-AC-7, 6/26/22 **Lab ID: 40249880012** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<246**	ug/kg	748	246	30	09/19/22 08:10	09/21/22 16:41	12674-11-2	
PCB-1221 (Aroclor 1221)	**<246**	ug/kg	748	246	30	09/19/22 08:10	09/21/22 16:41	11104-28-2	
PCB-1232 (Aroclor 1232)	**<246**	ug/kg	748	246	30	09/19/22 08:10	09/21/22 16:41	11141-16-5	
PCB-1242 (Aroclor 1242)	**<246**	ug/kg	748	246	30	09/19/22 08:10	09/21/22 16:41	53469-21-9	
PCB-1248 (Aroclor 1248)	**5850**	ug/kg	748	246	30	09/19/22 08:10	09/21/22 16:41	12672-29-6	
PCB-1254 (Aroclor 1254)	**6880**	ug/kg	748	246	30	09/19/22 08:10	09/21/22 16:41	11097-69-1	
PCB-1260 (Aroclor 1260)	**<246**	ug/kg	748	246	30	09/19/22 08:10	09/21/22 16:41	11096-82-5	
PCB, Total	**12700**	ug/kg	748	246	30	09/19/22 08:10	09/21/22 16:41	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	80-120		30	09/19/22 08:10	09/21/22 16:41	877-09-8	S4
Decachlorobiphenyl (S)	0	%	78-120		30	09/19/22 08:10	09/21/22 16:41	2051-24-3	S4
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:54		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:54		
Lipid	**6.9**	%			1		09/19/22 14:54		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR2-AC-8, 6/26/22 **Lab ID: 40249880013** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<82.2**	ug/kg	250	82.2	10	09/19/22 08:10	09/21/22 17:05	12674-11-2	
PCB-1221 (Aroclor 1221)	**<82.2**	ug/kg	250	82.2	10	09/19/22 08:10	09/21/22 17:05	11104-28-2	
PCB-1232 (Aroclor 1232)	**<82.2**	ug/kg	250	82.2	10	09/19/22 08:10	09/21/22 17:05	11141-16-5	
PCB-1242 (Aroclor 1242)	**<82.2**	ug/kg	250	82.2	10	09/19/22 08:10	09/21/22 17:05	53469-21-9	
PCB-1248 (Aroclor 1248)	**3500**	ug/kg	250	82.2	10	09/19/22 08:10	09/21/22 17:05	12672-29-6	
PCB-1254 (Aroclor 1254)	**5010**	ug/kg	250	82.2	10	09/19/22 08:10	09/21/22 17:05	11097-69-1	
PCB-1260 (Aroclor 1260)	**<82.2**	ug/kg	250	82.2	10	09/19/22 08:10	09/21/22 17:05	11096-82-5	
PCB, Total	**8510**	ug/kg	250	82.2	10	09/19/22 08:10	09/21/22 17:05	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	131	%	80-120		10	09/19/22 08:10	09/21/22 17:05	877-09-8	S0
Decachlorobiphenyl (S)	113	%	78-120		10	09/19/22 08:10	09/21/22 17:05	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:54		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:54		
Lipid	**4.6**	%			1		09/19/22 14:54		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR2-AWS-1, 6/26/22 **Lab ID: 40249880014** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.1	8.2	1	09/19/22 08:10	09/21/22 17:29	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.1	8.2	1	09/19/22 08:10	09/21/22 17:29	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.1	8.2	1	09/19/22 08:10	09/21/22 17:29	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.1	8.2	1	09/19/22 08:10	09/21/22 17:29	53469-21-9	
PCB-1248 (Aroclor 1248)	**414**	ug/kg	25.1	8.2	1	09/19/22 08:10	09/21/22 17:29	12672-29-6	
PCB-1254 (Aroclor 1254)	**281**	ug/kg	25.1	8.2	1	09/19/22 08:10	09/21/22 17:29	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.1	8.2	1	09/19/22 08:10	09/21/22 17:29	11096-82-5	
PCB, Total	**696**	ug/kg	25.1	8.2	1	09/19/22 08:10	09/21/22 17:29	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	107	%	80-120		1	09/19/22 08:10	09/21/22 17:29	877-09-8	
Decachlorobiphenyl (S)	110	%	78-120		1	09/19/22 08:10	09/21/22 17:29	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:54		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:54		
Lipid	**3.1**	%			1		09/19/22 14:54		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR2-AWS-2, 6/26/22 **Lab ID: 40249880015** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.1**	ug/kg	125	41.1	5	09/19/22 08:10	09/21/22 17:53	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.1**	ug/kg	125	41.1	5	09/19/22 08:10	09/21/22 17:53	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.1**	ug/kg	125	41.1	5	09/19/22 08:10	09/21/22 17:53	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.1**	ug/kg	125	41.1	5	09/19/22 08:10	09/21/22 17:53	53469-21-9	
PCB-1248 (Aroclor 1248)	**1320**	ug/kg	125	41.1	5	09/19/22 08:10	09/21/22 17:53	12672-29-6	
PCB-1254 (Aroclor 1254)	**1690**	ug/kg	125	41.1	5	09/19/22 08:10	09/21/22 17:53	11097-69-1	
PCB-1260 (Aroclor 1260)	**<41.1**	ug/kg	125	41.1	5	09/19/22 08:10	09/21/22 17:53	11096-82-5	
PCB, Total	**3010**	ug/kg	125	41.1	5	09/19/22 08:10	09/21/22 17:53	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	112	%	80-120		5	09/19/22 08:10	09/21/22 17:53	877-09-8	
Decachlorobiphenyl (S)	122	%	78-120		5	09/19/22 08:10	09/21/22 17:53	2051-24-3	S0
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:55		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:55		
Lipid	**2.8**	%			1		09/19/22 14:55		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR2-AWS-3, 6/26/22 **Lab ID: 40249880016** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<82.2**	ug/kg	250	82.2	10	09/19/22 08:10	09/21/22 18:17	12674-11-2	
PCB-1221 (Aroclor 1221)	**<82.2**	ug/kg	250	82.2	10	09/19/22 08:10	09/21/22 18:17	11104-28-2	
PCB-1232 (Aroclor 1232)	**<82.2**	ug/kg	250	82.2	10	09/19/22 08:10	09/21/22 18:17	11141-16-5	
PCB-1242 (Aroclor 1242)	**<82.2**	ug/kg	250	82.2	10	09/19/22 08:10	09/21/22 18:17	53469-21-9	
PCB-1248 (Aroclor 1248)	**1970**	ug/kg	250	82.2	10	09/19/22 08:10	09/21/22 18:17	12672-29-6	
PCB-1254 (Aroclor 1254)	**2980**	ug/kg	250	82.2	10	09/19/22 08:10	09/21/22 18:17	11097-69-1	
PCB-1260 (Aroclor 1260)	**<82.2**	ug/kg	250	82.2	10	09/19/22 08:10	09/21/22 18:17	11096-82-5	
PCB, Total	**4950**	ug/kg	250	82.2	10	09/19/22 08:10	09/21/22 18:17	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	126	%	80-120		10	09/19/22 08:10	09/21/22 18:17	877-09-8	S0
Decachlorobiphenyl (S)	110	%	78-120		10	09/19/22 08:10	09/21/22 18:17	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:55		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:55		
Lipid	**4.0**	%			1		09/19/22 14:55		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR2-AWS-4, 6/26/22 **Lab ID: 40249880017** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.8	16.4	2	09/19/22 08:10	09/22/22 13:59	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.8	16.4	2	09/19/22 08:10	09/22/22 13:59	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.8	16.4	2	09/19/22 08:10	09/22/22 13:59	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.8	16.4	2	09/19/22 08:10	09/22/22 13:59	53469-21-9	
PCB-1248 (Aroclor 1248)	**603**	ug/kg	49.8	16.4	2	09/19/22 08:10	09/22/22 13:59	12672-29-6	
PCB-1254 (Aroclor 1254)	**528**	ug/kg	49.8	16.4	2	09/19/22 08:10	09/22/22 13:59	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	49.8	16.4	2	09/19/22 08:10	09/22/22 13:59	11096-82-5	
PCB, Total	**1130**	ug/kg	49.8	16.4	2	09/19/22 08:10	09/22/22 13:59	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	109	%	80-120		2	09/19/22 08:10	09/22/22 13:59	877-09-8	
Decachlorobiphenyl (S)	106	%	78-120		2	09/19/22 08:10	09/22/22 13:59	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:55		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:55		
Lipid	**1.8**	%			1		09/19/22 14:55		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR2-AWS-5, 6/26/22 **Lab ID: 40249880018** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.9	16.4	2	09/19/22 08:10	09/21/22 19:05	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.9	16.4	2	09/19/22 08:10	09/21/22 19:05	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.9	16.4	2	09/19/22 08:10	09/21/22 19:05	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.9	16.4	2	09/19/22 08:10	09/21/22 19:05	53469-21-9	
PCB-1248 (Aroclor 1248)	**590**	ug/kg	49.9	16.4	2	09/19/22 08:10	09/21/22 19:05	12672-29-6	
PCB-1254 (Aroclor 1254)	**599**	ug/kg	49.9	16.4	2	09/19/22 08:10	09/21/22 19:05	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	49.9	16.4	2	09/19/22 08:10	09/21/22 19:05	11096-82-5	
PCB, Total	**1190**	ug/kg	49.9	16.4	2	09/19/22 08:10	09/21/22 19:05	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	120	%	80-120		2	09/19/22 08:10	09/21/22 19:05	877-09-8	
Decachlorobiphenyl (S)	114	%	78-120		2	09/19/22 08:10	09/21/22 19:05	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:55		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:55		
Lipid	**2.0**	%			1		09/19/22 14:55		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR2-AWS-6, 6/26/22 **Lab ID: 40249880019** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.9	16.4	2	09/19/22 08:10	09/21/22 19:29	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.9	16.4	2	09/19/22 08:10	09/21/22 19:29	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.9	16.4	2	09/19/22 08:10	09/21/22 19:29	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.9	16.4	2	09/19/22 08:10	09/21/22 19:29	53469-21-9	
PCB-1248 (Aroclor 1248)	**762**	ug/kg	49.9	16.4	2	09/19/22 08:10	09/21/22 19:29	12672-29-6	
PCB-1254 (Aroclor 1254)	**748**	ug/kg	49.9	16.4	2	09/19/22 08:10	09/21/22 19:29	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	49.9	16.4	2	09/19/22 08:10	09/21/22 19:29	11096-82-5	
PCB, Total	**1510**	ug/kg	49.9	16.4	2	09/19/22 08:10	09/21/22 19:29	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	116	%	80-120		2	09/19/22 08:10	09/21/22 19:29	877-09-8	
Decachlorobiphenyl (S)	113	%	78-120		2	09/19/22 08:10	09/21/22 19:29	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:55		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:55		
Lipid	**2.4**	%			1		09/19/22 14:55		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Sample: MR2-AWS-7, 6/26/22 **Lab ID: 40249880020** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.5**	ug/kg	50.1	16.5	2	09/19/22 08:10	09/21/22 19:54	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.5**	ug/kg	50.1	16.5	2	09/19/22 08:10	09/21/22 19:54	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.5**	ug/kg	50.1	16.5	2	09/19/22 08:10	09/21/22 19:54	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.5**	ug/kg	50.1	16.5	2	09/19/22 08:10	09/21/22 19:54	53469-21-9	
PCB-1248 (Aroclor 1248)	**457**	ug/kg	50.1	16.5	2	09/19/22 08:10	09/21/22 19:54	12672-29-6	
PCB-1254 (Aroclor 1254)	**447**	ug/kg	50.1	16.5	2	09/19/22 08:10	09/21/22 19:54	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.5**	ug/kg	50.1	16.5	2	09/19/22 08:10	09/21/22 19:54	11096-82-5	
PCB, Total	**905**	ug/kg	50.1	16.5	2	09/19/22 08:10	09/21/22 19:54	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	113	%	80-120		2	09/19/22 08:10	09/21/22 19:54	877-09-8	
Decachlorobiphenyl (S)	110	%	78-120		2	09/19/22 08:10	09/21/22 19:54	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		09/06/22 14:05		
Fillet Selected	**Both**				1		09/06/22 14:05		
Fillet Weight	**0.0**	g			1		09/06/22 14:05		
Homogenized Weight	**0.0**	g			1		09/06/22 14:05		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**426259**				1		09/19/22 14:55		
Extraction Date/Time	**09/19/2022 08:10**				1		09/19/22 14:55		
Lipid	**1.4**	%			1		09/19/22 14:55		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

QC Batch: 426259
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249880001, 40249880002, 40249880003, 40249880004, 40249880005, 40249880007, 40249880008, 40249880009, 40249880010, 40249880011, 40249880012, 40249880013, 40249880014, 40249880015, 40249880016, 40249880017, 40249880018, 40249880019, 40249880020

METHOD BLANK: 2454852 Matrix: Tissue
Associated Lab Samples: 40249880001, 40249880002, 40249880003, 40249880004, 40249880005, 40249880007, 40249880008, 40249880009, 40249880010, 40249880011, 40249880012, 40249880013, 40249880014, 40249880015, 40249880016, 40249880017, 40249880018, 40249880019, 40249880020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<8.2	24.9	09/21/22 09:50	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2	24.9	09/21/22 09:50	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2	24.9	09/21/22 09:50	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2	24.9	09/21/22 09:50	
PCB-1248 (Aroclor 1248)	ug/kg	<8.2	24.9	09/21/22 09:50	
PCB-1254 (Aroclor 1254)	ug/kg	<8.2	24.9	09/21/22 09:50	
PCB-1260 (Aroclor 1260)	ug/kg	<8.2	24.9	09/21/22 09:50	
Decachlorobiphenyl (S)	%	95	78-120	09/21/22 09:50	
Tetrachloro-m-xylene (S)	%	105	80-120	09/21/22 09:50	

LABORATORY CONTROL SAMPLE: 2454853

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<8.2			
PCB-1221 (Aroclor 1221)	ug/kg		<8.2			
PCB-1232 (Aroclor 1232)	ug/kg		<8.2			
PCB-1242 (Aroclor 1242)	ug/kg	251	257	103	66-106	
PCB-1248 (Aroclor 1248)	ug/kg		<8.2			
PCB-1254 (Aroclor 1254)	ug/kg		<8.2			
PCB-1260 (Aroclor 1260)	ug/kg		<8.2			
Decachlorobiphenyl (S)	%			96	78-120	
Tetrachloro-m-xylene (S)	%			103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2454854 2454855

Parameter	Units	40249880003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<8.2			<32.8	<32.9					20	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2			<32.8	<32.9					20	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2			<32.8	<32.9					20	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2	997	1000	1160	1210	117	121	60-110	4	20	M1
PCB-1248 (Aroclor 1248)	ug/kg	235			<32.8	<32.9					20	
PCB-1254 (Aroclor 1254)	ug/kg	233			320	337				5	20	
PCB-1260 (Aroclor 1260)	ug/kg	<8.2			<32.8	<32.9					20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2454854 2454855

Parameter	Units	40249880003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Decachlorobiphenyl (S)	%						111	114	78-120			
Tetrachloro-m-xylene (S)	%						113	114	80-120			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

QC Batch: 427430
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249880006

METHOD BLANK: 2461694 Matrix: Tissue
Associated Lab Samples: 40249880006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<8.2	25.0	10/11/22 21:41	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2	25.0	10/11/22 21:41	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2	25.0	10/11/22 21:41	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2	25.0	10/11/22 21:41	
PCB-1248 (Aroclor 1248)	ug/kg	<8.2	25.0	10/11/22 21:41	
PCB-1254 (Aroclor 1254)	ug/kg	<8.2	25.0	10/11/22 21:41	
PCB-1260 (Aroclor 1260)	ug/kg	<8.2	25.0	10/11/22 21:41	
Decachlorobiphenyl (S)	%	99	78-120	10/11/22 21:41	
Tetrachloro-m-xylene (S)	%	101	80-120	10/11/22 21:41	

LABORATORY CONTROL SAMPLE: 2461695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<8.2			
PCB-1221 (Aroclor 1221)	ug/kg		<8.2			
PCB-1232 (Aroclor 1232)	ug/kg		<8.2			
PCB-1242 (Aroclor 1242)	ug/kg		<8.2			
PCB-1248 (Aroclor 1248)	ug/kg		<8.2			
PCB-1254 (Aroclor 1254)	ug/kg	250	216	86	66-106	
PCB-1260 (Aroclor 1260)	ug/kg		<8.2			
Decachlorobiphenyl (S)	%			91	78-120	
Tetrachloro-m-xylene (S)	%			95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2461696 2461697

Parameter	Units	40249880006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<32.9			<49.3	<82.0					20	
PCB-1221 (Aroclor 1221)	ug/kg	<32.9			<49.3	<82.0					20	
PCB-1232 (Aroclor 1232)	ug/kg	<32.9			<49.3	<82.0					20	
PCB-1242 (Aroclor 1242)	ug/kg	<32.9			<49.3	<82.0					20	
PCB-1248 (Aroclor 1248)	ug/kg	1800			1920	2030				5	20	
PCB-1254 (Aroclor 1254)	ug/kg	1760	1000	998	2730	2870	97	111	60-110	5	20	M1
PCB-1260 (Aroclor 1260)	ug/kg	794			823	890				8	20	
Decachlorobiphenyl (S)	%						140	149	78-120			S0
Tetrachloro-m-xylene (S)	%						117	120	80-120			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

QC Batch: 426260
QC Batch Method: Pace Lipid
Analysis Method: Pace Lipid
Analysis Description: LIPID
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249880001, 40249880002, 40249880003, 40249880004, 40249880005, 40249880006, 40249880007, 40249880008, 40249880009, 40249880010, 40249880011, 40249880012, 40249880013, 40249880014, 40249880015, 40249880016, 40249880017, 40249880018, 40249880019, 40249880020

METHOD BLANK: 2454856 Matrix: Tissue
Associated Lab Samples: 40249880001, 40249880002, 40249880003, 40249880004, 40249880005, 40249880006, 40249880007, 40249880008, 40249880009, 40249880010, 40249880011, 40249880012, 40249880013, 40249880014, 40249880015, 40249880016, 40249880017, 40249880018, 40249880019, 40249880020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Extraction Batch Number		426259		09/19/22 14:51	
Extraction Date/Time		09/19/2022		09/19/22 14:51	
Lipid	%	0.59		09/19/22 14:51	

SAMPLE DUPLICATE: 2454857

Parameter	Units	40249880003 Result	Dup Result	RPD	Max RPD	Qualifiers
Extraction Batch Number		426259	426259			
Extraction Date/Time		09/19/2022 08:10	09/19/2022			
Lipid	%	1.7	1.8	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S0	Surrogate recovery outside laboratory control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249880001	MR1-RB-7, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880002	MR1-RB-8, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880003	MR1-WAL-1, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880004	MR1-WAL-2, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880005	MR1-WAL-3, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880006	MR2-AC-1, 6/26/22	EPA 3541	427430	EPA 8082A	428337
40249880007	MR2-AC-2, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880008	MR2-AC-3, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880009	MR2-AC-4, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880010	MR2-AC-5, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880011	MR2-AC-6, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880012	MR2-AC-7, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880013	MR2-AC-8, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880014	MR2-AWS-1, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880015	MR2-AWS-2, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880016	MR2-AWS-3, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880017	MR2-AWS-4, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880018	MR2-AWS-5, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880019	MR2-AWS-6, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880020	MR2-AWS-7, 6/26/22	EPA 3541	426259	EPA 8082A	426466
40249880001	MR1-RB-7, 6/26/22	Pace Gender Typing	425214		
40249880002	MR1-RB-8, 6/26/22	Pace Gender Typing	425214		
40249880003	MR1-WAL-1, 6/26/22	Pace Gender Typing	425214		
40249880004	MR1-WAL-2, 6/26/22	Pace Gender Typing	425214		
40249880005	MR1-WAL-3, 6/26/22	Pace Gender Typing	425214		
40249880006	MR2-AC-1, 6/26/22	Pace Gender Typing	425214		
40249880007	MR2-AC-2, 6/26/22	Pace Gender Typing	425214		
40249880008	MR2-AC-3, 6/26/22	Pace Gender Typing	425214		
40249880009	MR2-AC-4, 6/26/22	Pace Gender Typing	425214		
40249880010	MR2-AC-5, 6/26/22	Pace Gender Typing	425214		
40249880011	MR2-AC-6, 6/26/22	Pace Gender Typing	425214		
40249880012	MR2-AC-7, 6/26/22	Pace Gender Typing	425214		
40249880013	MR2-AC-8, 6/26/22	Pace Gender Typing	425214		
40249880014	MR2-AWS-1, 6/26/22	Pace Gender Typing	425214		
40249880015	MR2-AWS-2, 6/26/22	Pace Gender Typing	425214		
40249880016	MR2-AWS-3, 6/26/22	Pace Gender Typing	425214		
40249880017	MR2-AWS-4, 6/26/22	Pace Gender Typing	425214		
40249880018	MR2-AWS-5, 6/26/22	Pace Gender Typing	425214		
40249880019	MR2-AWS-6, 6/26/22	Pace Gender Typing	425214		
40249880020	MR2-AWS-7, 6/26/22	Pace Gender Typing	425214		
40249880001	MR1-RB-7, 6/26/22	Pace Lipid	426260		
40249880002	MR1-RB-8, 6/26/22	Pace Lipid	426260		
40249880003	MR1-WAL-1, 6/26/22	Pace Lipid	426260		
40249880004	MR1-WAL-2, 6/26/22	Pace Lipid	426260		
40249880005	MR1-WAL-3, 6/26/22	Pace Lipid	426260		
40249880006	MR2-AC-1, 6/26/22	Pace Lipid	426260		
40249880007	MR2-AC-2, 6/26/22	Pace Lipid	426260		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249880

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249880008	**MR2-AC-3, 6/26/22**	Pace Lipid	426260		
40249880009	**MR2-AC-4, 6/26/22**	Pace Lipid	426260		
40249880010	**MR2-AC-5, 6/26/22**	Pace Lipid	426260		
40249880011	**MR2-AC-6, 6/26/22**	Pace Lipid	426260		
40249880012	**MR2-AC-7, 6/26/22**	Pace Lipid	426260		
40249880013	**MR2-AC-8, 6/26/22**	Pace Lipid	426260		
40249880014	**MR2-AWS-1, 6/26/22**	Pace Lipid	426260		
40249880015	**MR2-AWS-2, 6/26/22**	Pace Lipid	426260		
40249880016	**MR2-AWS-3, 6/26/22**	Pace Lipid	426260		
40249880017	**MR2-AWS-4, 6/26/22**	Pace Lipid	426260		
40249880018	**MR2-AWS-5, 6/26/22**	Pace Lipid	426260		
40249880019	**MR2-AWS-6, 6/26/22**	Pace Lipid	426260		
40249880020	**MR2-AWS-7, 6/26/22**	Pace Lipid	426260		

(Please Print Clearly)

Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513 319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

Pace Analytical®
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

4024 9880

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Gender	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
	MR1-RB-2, 6/26/22	6/26/22		TS		A	X	X	X			
	MR1-RB-3, 6/26/22											
	MR1-RB-4, 6/26/22											
	MR1-RB-5, 6/26/22											
	MR1-RB-6, 6/26/22											
001	MR1-RB-7, 6/26/22											
002	MR1-RB-8, 6/26/22											
003	MR1-WAL-1, 6/26/22											
004	MR1-WAL-2, 6/26/22											
005	MR1-WAL-3, 6/26/22											
006	MR2-AC-1, 6/26/22											
007	MR2-AC-2, 6/26/22											
008	MR2-AC-3, 6/26/22											

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
CE	8/15/22 730		8/15/22 0730

PACE Project No.
4024 9880

Receipt Temp = 0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Pace Analytical®
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

40249880

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513 314 5918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

FILTERED? (YES/NO)
PRESERVATION (CODE)*

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Y/N	Pick Letter	Analyses Requested: PCB	% Lipids	Gender	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
009	MR2-Ac-4, 6/26/22	6/26/22		TS		A	X	X	X			
010	MR2-Ac-5, 6/26/22											
011	MR2-Ac-6, 6/26/22											
012	MR2-Ac-7, 6/26/22											
013	MR2-Ac-8, 6/26/22											
014	MR2-AWS-1, 6/26/22											
015	MR2-AWS-2, 6/26/22											
016	MR2-AWS-3, 6/26/22											
017	MR2-AWS-4, 6/26/22											
018	MR2-AWS-5, 6/26/22											
019	MR2-AWS-6, 6/26/22											
020	MR2-AWS-7, 6/26/22											
	MR2-AWS-8, 6/26/22											

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 730		8/15/22 0730
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
40249880

Receipt Temp = 0 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/06

Sample Preservation Receipt Form

Client Name: PRS Project # Q0249880

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☑N/A Initial when completed: Date/ Time:

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted):

Pace Lab #	Glass								Plastic					Vials						Jars				General			VOA Vials (>6mm)	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN						
001																																2.5 / 5 / 10
002																																2.5 / 5 / 10
003																																2.5 / 5 / 10
004																																2.5 / 5 / 10
005																																2.5 / 5 / 10
006																																2.5 / 5 / 10
007																																2.5 / 5 / 10
008																																2.5 / 5 / 10
009																																2.5 / 5 / 10
010																																2.5 / 5 / 10
011																																2.5 / 5 / 10
012																																2.5 / 5 / 10
013																																2.5 / 5 / 10
014																																2.5 / 5 / 10
015																																2.5 / 5 / 10
016																																2.5 / 5 / 10
017																																2.5 / 5 / 10
018																																2.5 / 5 / 10
019																																2.5 / 5 / 10
020																																2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☑N/A ***If yes look in headspace column**

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN	

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40249880

40249880

Client Name: PRS

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☑ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used SR - 120 **Type of Ice:** Wet Blue Dry (None) ☐ Samples on ice

Cooler Temperature Uncorr: 0 /Corr: 0

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☑ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
Date: 8/15/22 /Initials: MH

Labeled By Initials: MK

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. NO mail or invoice info mA 8/15/22
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume:		8.
For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☐Yes ☑No ☐N/A	
-Pace IR Containers Used:	☐Yes ☑No ☐N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: B		
Trip Blank Present:	☐Yes ☐No ☑N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi

Page 2 of 2

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

October 12, 2022

Aaron Lammers
SME
3301 Tech Circle
Kalamazoo, MI 49008

RE: Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Dear Aaron Lammers:

Enclosed are the analytical results for sample(s) received by the laboratory on August 15, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tod Noltemeyer

Tod Noltemeyer
tod.noltemeyer@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Pace Analytical Services Green Bay
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40249881001	**MR2-AWS-8, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881002	**MR2-SMB-1, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881003	**MR2-SMB-2, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881004	**MR2-SMB-3, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881005	**MR2-SMB-4, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881006	**MR2-SMB-5, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881007	**MR2-SMB-6, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881008	**MR2-SMB-7, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881009	**MR2-SMB-8, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881010	**MR2-RB-1, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881011	**MR2-RB-2, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881012	**MR2-RB-3, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881013	**MR2-RB-4, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881014	**MR2-RB-5, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881015	**MR2-RB-6, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881016	**MR2-RB-7, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881017	**MR2-RB-8, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881018	**MR2-CC-1, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30
40249881019	**MR2-CC-2, 6/26/22**	Tissue	06/26/22 00:00	08/15/22 07:30

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Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40249881001	**MR2-AWS-8, 6/26/22**	EPA 8082A	ASD	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881002	**MR2-SMB-1, 6/26/22**	EPA 8082A	ASD	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881003	**MR2-SMB-2, 6/26/22**	EPA 8082A	ASD	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881004	**MR2-SMB-3, 6/26/22**	EPA 8082A	ASD	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881005	**MR2-SMB-4, 6/26/22**	EPA 8082A	ASD	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881006	**MR2-SMB-5, 6/26/22**	EPA 8082A	ASD	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881007	**MR2-SMB-6, 6/26/22**	EPA 8082A	ASD	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881008	**MR2-SMB-7, 6/26/22**	EPA 8082A	ASD	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881009	**MR2-SMB-8, 6/26/22**	EPA 8082A	ASD	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881010	**MR2-RB-1, 6/26/22**	EPA 8082A	ASD	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881011	**MR2-RB-2, 6/26/22**	EPA 8082A	ASD	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881012	**MR2-RB-3, 6/26/22**	EPA 8082A	ASD	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881013	**MR2-RB-4, 6/26/22**	EPA 8082A	ASD	10

Pace Analytical Services, LLC
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Green Bay, WI 54302
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SAMPLE ANALYTE COUNT

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881014	**MR2-RB-5, 6/26/22**	EPA 8082A	ASD	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881015	**MR2-RB-6, 6/26/22**	EPA 8082A	ASD	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881016	**MR2-RB-7, 6/26/22**	EPA 8082A	ASD	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881017	**MR2-RB-8, 6/26/22**	EPA 8082A	ASD	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881018	**MR2-CC-1, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3
40249881019	**MR2-CC-2, 6/26/22**	EPA 8082A	BLM	10
		Pace Gender Typing	CWN	4
		Pace Lipid	WJK	3

PASI-G = Pace Analytical Services - Green Bay

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: October 12, 2022

General Information:
19 samples were analyzed for EPA 8082A by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 425755

S0: Surrogate recovery outside laboratory control limits.

- MR2-SMB-3, 6/26/22 (Lab ID: 40249881004)
  - Tetrachloro-m-xylene (S)

QC Batch: 427430

S0: Surrogate recovery outside laboratory control limits.

- MS (Lab ID: 2461696)
  - Decachlorobiphenyl (S)
- MSD (Lab ID: 2461697)
  - Decachlorobiphenyl (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

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Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: POLLUTION RISK SERVICES
Date: October 12, 2022

QC Batch: 425755

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40249881006

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2451845)
  - PCB-1242 (Aroclor 1242)
- MSD (Lab ID: 2451846)
  - PCB-1242 (Aroclor 1242)

QC Batch: 427430

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40249880006

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 2461697)
  - PCB-1254 (Aroclor 1254)

Additional Comments:

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Method: **Pace Gender Typing**
Description: Fish Gender Typing
Client: POLLUTION RISK SERVICES
Date: October 12, 2022

General Information:
19 samples were analyzed for Pace Gender Typing by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Method: **Pace Lipid**
Description: Lipid
Client: POLLUTION RISK SERVICES
Date: October 12, 2022

General Information:
19 samples were analyzed for Pace Lipid by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-AWS-8, 6/26/22 **Lab ID: 40249881001** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.9	16.4	2	09/13/22 07:53	09/20/22 14:02	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.9	16.4	2	09/13/22 07:53	09/20/22 14:02	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.9	16.4	2	09/13/22 07:53	09/20/22 14:02	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.9	16.4	2	09/13/22 07:53	09/20/22 14:02	53469-21-9	
PCB-1248 (Aroclor 1248)	**621**	ug/kg	49.9	16.4	2	09/13/22 07:53	09/20/22 14:02	12672-29-6	
PCB-1254 (Aroclor 1254)	**613**	ug/kg	49.9	16.4	2	09/13/22 07:53	09/20/22 14:02	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	49.9	16.4	2	09/13/22 07:53	09/20/22 14:02	11096-82-5	
PCB, Total	**1230**	ug/kg	49.9	16.4	2	09/13/22 07:53	09/20/22 14:02	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	119	%	80-120		2	09/13/22 07:53	09/20/22 14:02	877-09-8	
Decachlorobiphenyl (S)	115	%	78-120		2	09/13/22 07:53	09/20/22 14:02	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:20		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:20		
Lipid	**1.5**	%			1		09/13/22 10:20		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-SMB-1, 6/26/22 **Lab ID: 40249881002** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<32.8**	ug/kg	100	32.8	4	09/13/22 07:53	09/20/22 14:27	12674-11-2	
PCB-1221 (Aroclor 1221)	**<32.8**	ug/kg	100	32.8	4	09/13/22 07:53	09/20/22 14:27	11104-28-2	
PCB-1232 (Aroclor 1232)	**<32.8**	ug/kg	100	32.8	4	09/13/22 07:53	09/20/22 14:27	11141-16-5	
PCB-1242 (Aroclor 1242)	**<32.8**	ug/kg	100	32.8	4	09/13/22 07:53	09/20/22 14:27	53469-21-9	
PCB-1248 (Aroclor 1248)	**680**	ug/kg	100	32.8	4	09/13/22 07:53	09/20/22 14:27	12672-29-6	
PCB-1254 (Aroclor 1254)	**1320**	ug/kg	100	32.8	4	09/13/22 07:53	09/20/22 14:27	11097-69-1	
PCB-1260 (Aroclor 1260)	**174**	ug/kg	100	32.8	4	09/13/22 07:53	09/20/22 14:27	11096-82-5	
PCB, Total	**2170**	ug/kg	100	32.8	4	09/13/22 07:53	09/20/22 14:27	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	113	%	80-120		4	09/13/22 07:53	09/20/22 14:27	877-09-8	
Decachlorobiphenyl (S)	105	%	78-120		4	09/13/22 07:53	09/20/22 14:27	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:20		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:20		
Lipid	**0.84**	%			1		09/13/22 10:20		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-SMB-2, 6/26/22 **Lab ID: 40249881003** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<41.1**	ug/kg	125	41.1	5	09/13/22 07:53	09/20/22 14:51	12674-11-2	
PCB-1221 (Aroclor 1221)	**<41.1**	ug/kg	125	41.1	5	09/13/22 07:53	09/20/22 14:51	11104-28-2	
PCB-1232 (Aroclor 1232)	**<41.1**	ug/kg	125	41.1	5	09/13/22 07:53	09/20/22 14:51	11141-16-5	
PCB-1242 (Aroclor 1242)	**<41.1**	ug/kg	125	41.1	5	09/13/22 07:53	09/20/22 14:51	53469-21-9	
PCB-1248 (Aroclor 1248)	**790**	ug/kg	125	41.1	5	09/13/22 07:53	09/20/22 14:51	12672-29-6	
PCB-1254 (Aroclor 1254)	**1820**	ug/kg	125	41.1	5	09/13/22 07:53	09/20/22 14:51	11097-69-1	
PCB-1260 (Aroclor 1260)	**159**	ug/kg	125	41.1	5	09/13/22 07:53	09/20/22 14:51	11096-82-5	
PCB, Total	**2770**	ug/kg	125	41.1	5	09/13/22 07:53	09/20/22 14:51	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	107	%	80-120		5	09/13/22 07:53	09/20/22 14:51	877-09-8	
Decachlorobiphenyl (S)	105	%	78-120		5	09/13/22 07:53	09/20/22 14:51	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:20		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:20		
Lipid	**0.85**	%			1		09/13/22 10:20		

REPORT OF LABORATORY ANALYSIS

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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-SMB-3, 6/26/22 **Lab ID: 40249881004** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.8	16.4	2	09/13/22 07:53	09/20/22 15:16	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.8	16.4	2	09/13/22 07:53	09/20/22 15:16	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.8	16.4	2	09/13/22 07:53	09/20/22 15:16	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.8	16.4	2	09/13/22 07:53	09/20/22 15:16	53469-21-9	
PCB-1248 (Aroclor 1248)	**502**	ug/kg	49.8	16.4	2	09/13/22 07:53	09/20/22 15:16	12672-29-6	
PCB-1254 (Aroclor 1254)	**755**	ug/kg	49.8	16.4	2	09/13/22 07:53	09/20/22 15:16	11097-69-1	
PCB-1260 (Aroclor 1260)	**70.1**	ug/kg	49.8	16.4	2	09/13/22 07:53	09/20/22 15:16	11096-82-5	
PCB, Total	**1330**	ug/kg	49.8	16.4	2	09/13/22 07:53	09/20/22 15:16	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	121	%	80-120		2	09/13/22 07:53	09/20/22 15:16	877-09-8	S0
Decachlorobiphenyl (S)	117	%	78-120		2	09/13/22 07:53	09/20/22 15:16	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:21		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:21		
Lipid	**0.80**	%			1		09/13/22 10:21		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-SMB-4, 6/26/22 **Lab ID: 40249881005** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 15:40	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 15:40	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 15:40	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 15:40	53469-21-9	
PCB-1248 (Aroclor 1248)	**326**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 15:40	12672-29-6	
PCB-1254 (Aroclor 1254)	**473**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 15:40	11097-69-1	
PCB-1260 (Aroclor 1260)	**40.9J**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 15:40	11096-82-5	
PCB, Total	**840**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 15:40	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	114	%	80-120		2	09/13/22 07:53	09/20/22 15:40	877-09-8	
Decachlorobiphenyl (S)	111	%	78-120		2	09/13/22 07:53	09/20/22 15:40	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:21		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:21		
Lipid	**0.57**	%			1		09/13/22 10:21		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-SMB-5, 6/26/22 **Lab ID: 40249881006** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<24.6**	ug/kg	74.8	24.6	3	09/13/22 07:53	09/20/22 16:04	12674-11-2	
PCB-1221 (Aroclor 1221)	**<24.6**	ug/kg	74.8	24.6	3	09/13/22 07:53	09/20/22 16:04	11104-28-2	
PCB-1232 (Aroclor 1232)	**<24.6**	ug/kg	74.8	24.6	3	09/13/22 07:53	09/20/22 16:04	11141-16-5	
PCB-1242 (Aroclor 1242)	**<24.6**	ug/kg	74.8	24.6	3	09/13/22 07:53	09/20/22 16:04	53469-21-9	M1
PCB-1248 (Aroclor 1248)	**612**	ug/kg	74.8	24.6	3	09/13/22 07:53	09/20/22 16:04	12672-29-6	
PCB-1254 (Aroclor 1254)	**972**	ug/kg	74.8	24.6	3	09/13/22 07:53	09/20/22 16:04	11097-69-1	
PCB-1260 (Aroclor 1260)	**<24.6**	ug/kg	74.8	24.6	3	09/13/22 07:53	09/20/22 16:04	11096-82-5	
PCB, Total	**1580**	ug/kg	74.8	24.6	3	09/13/22 07:53	09/20/22 16:04	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	114	%	80-120		3	09/13/22 07:53	09/20/22 16:04	877-09-8	
Decachlorobiphenyl (S)	111	%	78-120		3	09/13/22 07:53	09/20/22 16:04	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:21		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:21		
Lipid	**0.96**	%			1		09/13/22 10:21		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-SMB-6, 6/26/22 **Lab ID: 40249881007** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.5**	ug/kg	50.2	16.5	2	09/13/22 07:53	09/20/22 16:29	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.5**	ug/kg	50.2	16.5	2	09/13/22 07:53	09/20/22 16:29	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.5**	ug/kg	50.2	16.5	2	09/13/22 07:53	09/20/22 16:29	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.5**	ug/kg	50.2	16.5	2	09/13/22 07:53	09/20/22 16:29	53469-21-9	
PCB-1248 (Aroclor 1248)	**485**	ug/kg	50.2	16.5	2	09/13/22 07:53	09/20/22 16:29	12672-29-6	
PCB-1254 (Aroclor 1254)	**522**	ug/kg	50.2	16.5	2	09/13/22 07:53	09/20/22 16:29	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.5**	ug/kg	50.2	16.5	2	09/13/22 07:53	09/20/22 16:29	11096-82-5	
PCB, Total	**1010**	ug/kg	50.2	16.5	2	09/13/22 07:53	09/20/22 16:29	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	107	%	80-120		2	09/13/22 07:53	09/20/22 16:29	877-09-8	
Decachlorobiphenyl (S)	101	%	78-120		2	09/13/22 07:53	09/20/22 16:29	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:22		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:22		
Lipid	**0.61**	%			1		09/13/22 10:22		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-SMB-7, 6/26/22 **Lab ID: 40249881008** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.9	16.4	2	09/13/22 07:53	09/20/22 17:42	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.9	16.4	2	09/13/22 07:53	09/20/22 17:42	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.9	16.4	2	09/13/22 07:53	09/20/22 17:42	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	49.9	16.4	2	09/13/22 07:53	09/20/22 17:42	53469-21-9	
PCB-1248 (Aroclor 1248)	**568**	ug/kg	49.9	16.4	2	09/13/22 07:53	09/20/22 17:42	12672-29-6	
PCB-1254 (Aroclor 1254)	**825**	ug/kg	49.9	16.4	2	09/13/22 07:53	09/20/22 17:42	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	49.9	16.4	2	09/13/22 07:53	09/20/22 17:42	11096-82-5	
PCB, Total	**1390**	ug/kg	49.9	16.4	2	09/13/22 07:53	09/20/22 17:42	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	117	%	80-120		2	09/13/22 07:53	09/20/22 17:42	877-09-8	
Decachlorobiphenyl (S)	109	%	78-120		2	09/13/22 07:53	09/20/22 17:42	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:22		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:22		
Lipid	**1.0**	%			1		09/13/22 10:22		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-SMB-8, 6/26/22 **Lab ID: 40249881009** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 18:06	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 18:06	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 18:06	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 18:06	53469-21-9	
PCB-1248 (Aroclor 1248)	**350**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 18:06	12672-29-6	
PCB-1254 (Aroclor 1254)	**508**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 18:06	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 18:06	11096-82-5	
PCB, Total	**858**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 18:06	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	118	%	80-120		2	09/13/22 07:53	09/20/22 18:06	877-09-8	
Decachlorobiphenyl (S)	113	%	78-120		2	09/13/22 07:53	09/20/22 18:06	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:22		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:22		
Lipid	**0.67**	%			1		09/13/22 10:22		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-RB-1, 6/26/22 **Lab ID: 40249881010** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 18:30	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 18:30	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 18:30	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 18:30	53469-21-9	
PCB-1248 (Aroclor 1248)	**216**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 18:30	12672-29-6	
PCB-1254 (Aroclor 1254)	**478**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 18:30	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 18:30	11096-82-5	
PCB, Total	**695**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 18:30	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	108	%	80-120		1	09/13/22 07:53	09/20/22 18:30	877-09-8	
Decachlorobiphenyl (S)	101	%	78-120		1	09/13/22 07:53	09/20/22 18:30	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:22		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:22		
Lipid	**0.21**	%			1		09/13/22 10:22		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-RB-2, 6/26/22 **Lab ID: 40249881011** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 18:54	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 18:54	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 18:54	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 18:54	53469-21-9	
PCB-1248 (Aroclor 1248)	**392**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 18:54	12672-29-6	
PCB-1254 (Aroclor 1254)	**601**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 18:54	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 18:54	11096-82-5	
PCB, Total	**992**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/20/22 18:54	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	109	%	80-120		2	09/13/22 07:53	09/20/22 18:54	877-09-8	
Decachlorobiphenyl (S)	104	%	78-120		2	09/13/22 07:53	09/20/22 18:54	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:22		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:22		
Lipid	**0.57**	%			1		09/13/22 10:22		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-RB-3, 6/26/22 **Lab ID: 40249881012** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/21/22 07:27	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/21/22 07:27	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/21/22 07:27	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/21/22 07:27	53469-21-9	
PCB-1248 (Aroclor 1248)	**300**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/21/22 07:27	12672-29-6	
PCB-1254 (Aroclor 1254)	**565**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/21/22 07:27	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.4**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/21/22 07:27	11096-82-5	
PCB, Total	**865**	ug/kg	50.0	16.4	2	09/13/22 07:53	09/21/22 07:27	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	109	%	80-120		2	09/13/22 07:53	09/21/22 07:27	877-09-8	
Decachlorobiphenyl (S)	110	%	78-120		2	09/13/22 07:53	09/21/22 07:27	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:23		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:23		
Lipid	**0.14**	%			1		09/13/22 10:23		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-RB-4, 6/26/22 **Lab ID: 40249881013** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 19:42	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 19:42	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 19:42	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 19:42	53469-21-9	
PCB-1248 (Aroclor 1248)	**100**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 19:42	12672-29-6	
PCB-1254 (Aroclor 1254)	**125**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 19:42	11097-69-1	
PCB-1260 (Aroclor 1260)	**10.6J**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 19:42	11096-82-5	
PCB, Total	**235**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 19:42	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	106	%	80-120		1	09/13/22 07:53	09/20/22 19:42	877-09-8	
Decachlorobiphenyl (S)	101	%	78-120		1	09/13/22 07:53	09/20/22 19:42	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:23		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:23		
Lipid	**0.22**	%			1		09/13/22 10:23		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-RB-5, 6/26/22 **Lab ID: 40249881014** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.1	8.2	1	09/13/22 07:53	09/20/22 20:06	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.1	8.2	1	09/13/22 07:53	09/20/22 20:06	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.1	8.2	1	09/13/22 07:53	09/20/22 20:06	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.1	8.2	1	09/13/22 07:53	09/20/22 20:06	53469-21-9	
PCB-1248 (Aroclor 1248)	**102**	ug/kg	25.1	8.2	1	09/13/22 07:53	09/20/22 20:06	12672-29-6	
PCB-1254 (Aroclor 1254)	**111**	ug/kg	25.1	8.2	1	09/13/22 07:53	09/20/22 20:06	11097-69-1	
PCB-1260 (Aroclor 1260)	**8.6J**	ug/kg	25.1	8.2	1	09/13/22 07:53	09/20/22 20:06	11096-82-5	
PCB, Total	**221**	ug/kg	25.1	8.2	1	09/13/22 07:53	09/20/22 20:06	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	115	%	80-120		1	09/13/22 07:53	09/20/22 20:06	877-09-8	
Decachlorobiphenyl (S)	113	%	78-120		1	09/13/22 07:53	09/20/22 20:06	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Female**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:23		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:23		
Lipid	**0.24**	%			1		09/13/22 10:23		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-RB-6, 6/26/22 **Lab ID: 40249881015** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 20:30	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 20:30	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 20:30	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 20:30	53469-21-9	
PCB-1248 (Aroclor 1248)	**301**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 20:30	12672-29-6	
PCB-1254 (Aroclor 1254)	**371**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 20:30	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 20:30	11096-82-5	
PCB, Total	**672**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 20:30	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	108	%	80-120		1	09/13/22 07:53	09/20/22 20:30	877-09-8	
Decachlorobiphenyl (S)	107	%	78-120		1	09/13/22 07:53	09/20/22 20:30	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:23		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:23		
Lipid	**0.53**	%			1		09/13/22 10:23		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-RB-7, 6/26/22 **Lab ID: 40249881016** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<24.6**	ug/kg	74.8	24.6	3	09/13/22 07:53	09/20/22 20:54	12674-11-2	
PCB-1221 (Aroclor 1221)	**<24.6**	ug/kg	74.8	24.6	3	09/13/22 07:53	09/20/22 20:54	11104-28-2	
PCB-1232 (Aroclor 1232)	**<24.6**	ug/kg	74.8	24.6	3	09/13/22 07:53	09/20/22 20:54	11141-16-5	
PCB-1242 (Aroclor 1242)	**<24.6**	ug/kg	74.8	24.6	3	09/13/22 07:53	09/20/22 20:54	53469-21-9	
PCB-1248 (Aroclor 1248)	**606**	ug/kg	74.8	24.6	3	09/13/22 07:53	09/20/22 20:54	12672-29-6	
PCB-1254 (Aroclor 1254)	**1220**	ug/kg	74.8	24.6	3	09/13/22 07:53	09/20/22 20:54	11097-69-1	
PCB-1260 (Aroclor 1260)	**<24.6**	ug/kg	74.8	24.6	3	09/13/22 07:53	09/20/22 20:54	11096-82-5	
PCB, Total	**1830**	ug/kg	74.8	24.6	3	09/13/22 07:53	09/20/22 20:54	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	111	%	80-120		3	09/13/22 07:53	09/20/22 20:54	877-09-8	
Decachlorobiphenyl (S)	109	%	78-120		3	09/13/22 07:53	09/20/22 20:54	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Unknown**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:24		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:24		
Lipid	**0.38**	%			1		09/13/22 10:24		

REPORT OF LABORATORY ANALYSIS

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(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-RB-8, 6/26/22 **Lab ID: 40249881017** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 21:18	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 21:18	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 21:18	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 21:18	53469-21-9	
PCB-1248 (Aroclor 1248)	**324**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 21:18	12672-29-6	
PCB-1254 (Aroclor 1254)	**429**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 21:18	11097-69-1	
PCB-1260 (Aroclor 1260)	**<8.2**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 21:18	11096-82-5	
PCB, Total	**753**	ug/kg	25.0	8.2	1	09/13/22 07:53	09/20/22 21:18	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	103	%	80-120		1	09/13/22 07:53	09/20/22 21:18	877-09-8	
Decachlorobiphenyl (S)	106	%	78-120		1	09/13/22 07:53	09/20/22 21:18	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:24		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:24		
Lipid	**0.50**	%			1		09/13/22 10:24		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-CC-1, 6/26/22 **Lab ID: 40249881018** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<8.2**	ug/kg	25.0	8.2	1	09/30/22 12:10	10/11/22 23:30	12674-11-2	
PCB-1221 (Aroclor 1221)	**<8.2**	ug/kg	25.0	8.2	1	09/30/22 12:10	10/11/22 23:30	11104-28-2	
PCB-1232 (Aroclor 1232)	**<8.2**	ug/kg	25.0	8.2	1	09/30/22 12:10	10/11/22 23:30	11141-16-5	
PCB-1242 (Aroclor 1242)	**<8.2**	ug/kg	25.0	8.2	1	09/30/22 12:10	10/11/22 23:30	53469-21-9	
PCB-1248 (Aroclor 1248)	**135**	ug/kg	25.0	8.2	1	09/30/22 12:10	10/11/22 23:30	12672-29-6	
PCB-1254 (Aroclor 1254)	**293**	ug/kg	25.0	8.2	1	09/30/22 12:10	10/11/22 23:30	11097-69-1	
PCB-1260 (Aroclor 1260)	**121**	ug/kg	25.0	8.2	1	09/30/22 12:10	10/11/22 23:30	11096-82-5	
PCB, Total	**549**	ug/kg	25.0	8.2	1	09/30/22 12:10	10/11/22 23:30	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	112	%	80-120		1	09/30/22 12:10	10/11/22 23:30	877-09-8	
Decachlorobiphenyl (S)	113	%	78-120		1	09/30/22 12:10	10/11/22 23:30	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:24		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:24		
Lipid	**3.5**	%			1		09/13/22 10:24		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Sample: MR2-CC-2, 6/26/22 **Lab ID: 40249881019** Collected: 06/26/22 00:00 Received: 08/15/22 07:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.4**	ug/kg	49.9	16.4	2	09/30/22 12:10	10/11/22 23:52	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.4**	ug/kg	49.9	16.4	2	09/30/22 12:10	10/11/22 23:52	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.4**	ug/kg	49.9	16.4	2	09/30/22 12:10	10/11/22 23:52	11141-16-5	
PCB-1242 (Aroclor 1242)	**457**	ug/kg	49.9	16.4	2	09/30/22 12:10	10/11/22 23:52	53469-21-9	
PCB-1248 (Aroclor 1248)	**<16.4**	ug/kg	49.9	16.4	2	09/30/22 12:10	10/11/22 23:52	12672-29-6	
PCB-1254 (Aroclor 1254)	**514**	ug/kg	49.9	16.4	2	09/30/22 12:10	10/11/22 23:52	11097-69-1	
PCB-1260 (Aroclor 1260)	**194**	ug/kg	49.9	16.4	2	09/30/22 12:10	10/11/22 23:52	11096-82-5	
PCB, Total	**1170**	ug/kg	49.9	16.4	2	09/30/22 12:10	10/11/22 23:52	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	119	%	80-120		2	09/30/22 12:10	10/11/22 23:52	877-09-8	
Decachlorobiphenyl (S)	117	%	78-120		2	09/30/22 12:10	10/11/22 23:52	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing Pace Analytical Services - Green Bay								
Gender	**Male**				1		08/25/22 13:19		
Fillet Selected	**Both**				1		08/25/22 13:19		
Fillet Weight	**0.0**	g			1		08/25/22 13:19		
Homogenized Weight	**0.0**	g			1		08/25/22 13:19		
Lipid	Analytical Method: Pace Lipid Pace Analytical Services - Green Bay								
Extraction Batch Number	**425755**				1		09/13/22 10:24		
Extraction Date/Time	**09/13/2022 10:19:08:388**				1		09/13/22 10:24		
Lipid	**6.1**	%			1		09/13/22 10:24		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

QC Batch: 425755
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249881001, 40249881002, 40249881003, 40249881004, 40249881005, 40249881006, 40249881007, 40249881008, 40249881009, 40249881010, 40249881011, 40249881012, 40249881013, 40249881014, 40249881015, 40249881016, 40249881017

METHOD BLANK: 2451843 Matrix: Tissue
Associated Lab Samples: 40249881001, 40249881002, 40249881003, 40249881004, 40249881005, 40249881006, 40249881007, 40249881008, 40249881009, 40249881010, 40249881011, 40249881012, 40249881013, 40249881014, 40249881015, 40249881016, 40249881017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<8.2	25.0	09/20/22 11:58	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2	25.0	09/20/22 11:58	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2	25.0	09/20/22 11:58	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2	25.0	09/20/22 11:58	
PCB-1248 (Aroclor 1248)	ug/kg	<8.2	25.0	09/20/22 11:58	
PCB-1254 (Aroclor 1254)	ug/kg	<8.2	25.0	09/20/22 11:58	
PCB-1260 (Aroclor 1260)	ug/kg	<8.2	25.0	09/20/22 11:58	
Decachlorobiphenyl (S)	%	99	78-120	09/20/22 11:58	
Tetrachloro-m-xylene (S)	%	103	80-120	09/20/22 11:58	

LABORATORY CONTROL SAMPLE: 2451844

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<8.2			
PCB-1221 (Aroclor 1221)	ug/kg		<8.2			
PCB-1232 (Aroclor 1232)	ug/kg		<8.2			
PCB-1242 (Aroclor 1242)	ug/kg	250	234	94	66-106	
PCB-1248 (Aroclor 1248)	ug/kg		<8.2			
PCB-1254 (Aroclor 1254)	ug/kg		<8.2			
PCB-1260 (Aroclor 1260)	ug/kg		<8.2			
Decachlorobiphenyl (S)	%			97	78-120	
Tetrachloro-m-xylene (S)	%			98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2451845 2451846

Parameter	Units	40249881006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<24.6			<41.0	<41.1					20	
PCB-1221 (Aroclor 1221)	ug/kg	<24.6			<41.0	<41.1					20	
PCB-1232 (Aroclor 1232)	ug/kg	<24.6			<41.0	<41.1					20	
PCB-1242 (Aroclor 1242)	ug/kg	<24.6	999	1000	1190	1200	119	120	60-110	1	20	M1
PCB-1248 (Aroclor 1248)	ug/kg	612			1730	1730				0	20	
PCB-1254 (Aroclor 1254)	ug/kg	972			1020	1000				2	20	
PCB-1260 (Aroclor 1260)	ug/kg	<24.6			<41.0	<41.1					20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2451845 2451846

Parameter	Units	40249881006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Decachlorobiphenyl (S)	%						113	113	78-120			
Tetrachloro-m-xylene (S)	%						107	109	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

QC Batch: 427430
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249881018, 40249881019

METHOD BLANK: 2461694 Matrix: Tissue
Associated Lab Samples: 40249881018, 40249881019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<8.2	25.0	10/11/22 21:41	
PCB-1221 (Aroclor 1221)	ug/kg	<8.2	25.0	10/11/22 21:41	
PCB-1232 (Aroclor 1232)	ug/kg	<8.2	25.0	10/11/22 21:41	
PCB-1242 (Aroclor 1242)	ug/kg	<8.2	25.0	10/11/22 21:41	
PCB-1248 (Aroclor 1248)	ug/kg	<8.2	25.0	10/11/22 21:41	
PCB-1254 (Aroclor 1254)	ug/kg	<8.2	25.0	10/11/22 21:41	
PCB-1260 (Aroclor 1260)	ug/kg	<8.2	25.0	10/11/22 21:41	
Decachlorobiphenyl (S)	%	99	78-120	10/11/22 21:41	
Tetrachloro-m-xylene (S)	%	101	80-120	10/11/22 21:41	

LABORATORY CONTROL SAMPLE: 2461695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<8.2			
PCB-1221 (Aroclor 1221)	ug/kg		<8.2			
PCB-1232 (Aroclor 1232)	ug/kg		<8.2			
PCB-1242 (Aroclor 1242)	ug/kg		<8.2			
PCB-1248 (Aroclor 1248)	ug/kg		<8.2			
PCB-1254 (Aroclor 1254)	ug/kg	250	216	86	66-106	
PCB-1260 (Aroclor 1260)	ug/kg		<8.2			
Decachlorobiphenyl (S)	%			91	78-120	
Tetrachloro-m-xylene (S)	%			95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2461696 2461697

Parameter	Units	40249880006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<32.9			<49.3	<82.0					20	
PCB-1221 (Aroclor 1221)	ug/kg	<32.9			<49.3	<82.0					20	
PCB-1232 (Aroclor 1232)	ug/kg	<32.9			<49.3	<82.0					20	
PCB-1242 (Aroclor 1242)	ug/kg	<32.9			<49.3	<82.0					20	
PCB-1248 (Aroclor 1248)	ug/kg	1800			1920	2030				5	20	
PCB-1254 (Aroclor 1254)	ug/kg	1760	1000	998	2730	2870	97	111	60-110	5	20	M1
PCB-1260 (Aroclor 1260)	ug/kg	794			823	890				8	20	
Decachlorobiphenyl (S)	%						140	149	78-120			S0
Tetrachloro-m-xylene (S)	%						117	120	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

QC Batch: 425756
QC Batch Method: Pace Lipid
Analysis Method: Pace Lipid
Analysis Description: LIPID
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249881001, 40249881002, 40249881003, 40249881004, 40249881005, 40249881006, 40249881007, 40249881008, 40249881009, 40249881010, 40249881011, 40249881012, 40249881013, 40249881014, 40249881015, 40249881016, 40249881017, 40249881018, 40249881019

METHOD BLANK: 2451847 Matrix: Tissue
Associated Lab Samples: 40249881001, 40249881002, 40249881003, 40249881004, 40249881005, 40249881006, 40249881007, 40249881008, 40249881009, 40249881010, 40249881011, 40249881012, 40249881013, 40249881014, 40249881015, 40249881016, 40249881017, 40249881018, 40249881019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Extraction Batch Number		425755		09/13/22 10:20	
Extraction Date/Time		09/13/2022		09/13/22 10:20	
Lipid	%	0.32		09/13/22 10:20	

SAMPLE DUPLICATE: 2451848

Parameter	Units	40249881006 Result	Dup Result	RPD	Max RPD	Qualifiers
Extraction Batch Number		425755	425755			
Extraction Date/Time		09/13/2022 10:19:08:388	09/13/2022			
Lipid	%	0.96	1.0	9	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S0	Surrogate recovery outside laboratory control limits.

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249881001	**MR2-AWS-8, 6/26/22**	EPA 3541	425755	EPA 8082A	426343
40249881002	**MR2-SMB-1, 6/26/22**	EPA 3541	425755	EPA 8082A	426343
40249881003	**MR2-SMB-2, 6/26/22**	EPA 3541	425755	EPA 8082A	426343
40249881004	**MR2-SMB-3, 6/26/22**	EPA 3541	425755	EPA 8082A	426343
40249881005	**MR2-SMB-4, 6/26/22**	EPA 3541	425755	EPA 8082A	426343
40249881006	**MR2-SMB-5, 6/26/22**	EPA 3541	425755	EPA 8082A	426343
40249881007	**MR2-SMB-6, 6/26/22**	EPA 3541	425755	EPA 8082A	426343
40249881008	**MR2-SMB-7, 6/26/22**	EPA 3541	425755	EPA 8082A	426343
40249881009	**MR2-SMB-8, 6/26/22**	EPA 3541	425755	EPA 8082A	426343
40249881010	**MR2-RB-1, 6/26/22**	EPA 3541	425755	EPA 8082A	426343
40249881011	**MR2-RB-2, 6/26/22**	EPA 3541	425755	EPA 8082A	426343
40249881012	**MR2-RB-3, 6/26/22**	EPA 3541	425755	EPA 8082A	426343
40249881013	**MR2-RB-4, 6/26/22**	EPA 3541	425755	EPA 8082A	426343
40249881014	**MR2-RB-5, 6/26/22**	EPA 3541	425755	EPA 8082A	426343
40249881015	**MR2-RB-6, 6/26/22**	EPA 3541	425755	EPA 8082A	426343
40249881016	**MR2-RB-7, 6/26/22**	EPA 3541	425755	EPA 8082A	426343
40249881017	**MR2-RB-8, 6/26/22**	EPA 3541	425755	EPA 8082A	426343
40249881018	**MR2-CC-1, 6/26/22**	EPA 3541	427430	EPA 8082A	428337
40249881019	**MR2-CC-2, 6/26/22**	EPA 3541	427430	EPA 8082A	428337
40249881001	**MR2-AWS-8, 6/26/22**	Pace Gender Typing	424434		
40249881002	**MR2-SMB-1, 6/26/22**	Pace Gender Typing	424434		
40249881003	**MR2-SMB-2, 6/26/22**	Pace Gender Typing	424434		
40249881004	**MR2-SMB-3, 6/26/22**	Pace Gender Typing	424434		
40249881005	**MR2-SMB-4, 6/26/22**	Pace Gender Typing	424434		
40249881006	**MR2-SMB-5, 6/26/22**	Pace Gender Typing	424434		
40249881007	**MR2-SMB-6, 6/26/22**	Pace Gender Typing	424434		
40249881008	**MR2-SMB-7, 6/26/22**	Pace Gender Typing	424434		
40249881009	**MR2-SMB-8, 6/26/22**	Pace Gender Typing	424434		
40249881010	**MR2-RB-1, 6/26/22**	Pace Gender Typing	424434		
40249881011	**MR2-RB-2, 6/26/22**	Pace Gender Typing	424434		
40249881012	**MR2-RB-3, 6/26/22**	Pace Gender Typing	424434		
40249881013	**MR2-RB-4, 6/26/22**	Pace Gender Typing	424434		
40249881014	**MR2-RB-5, 6/26/22**	Pace Gender Typing	424434		
40249881015	**MR2-RB-6, 6/26/22**	Pace Gender Typing	424434		
40249881016	**MR2-RB-7, 6/26/22**	Pace Gender Typing	424434		
40249881017	**MR2-RB-8, 6/26/22**	Pace Gender Typing	424434		
40249881018	**MR2-CC-1, 6/26/22**	Pace Gender Typing	424434		
40249881019	**MR2-CC-2, 6/26/22**	Pace Gender Typing	424434		
40249881001	**MR2-AWS-8, 6/26/22**	Pace Lipid	425756		
40249881002	**MR2-SMB-1, 6/26/22**	Pace Lipid	425756		
40249881003	**MR2-SMB-2, 6/26/22**	Pace Lipid	425756		
40249881004	**MR2-SMB-3, 6/26/22**	Pace Lipid	425756		
40249881005	**MR2-SMB-4, 6/26/22**	Pace Lipid	425756		
40249881006	**MR2-SMB-5, 6/26/22**	Pace Lipid	425756		
40249881007	**MR2-SMB-6, 6/26/22**	Pace Lipid	425756		
40249881008	**MR2-SMB-7, 6/26/22**	Pace Lipid	425756		
40249881009	**MR2-SMB-8, 6/26/22**	Pace Lipid	425756		

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SR11-001 SHEBOYGAN FISH
Pace Project No.: 40249881

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249881010	**MR2-RB-1, 6/26/22**	Pace Lipid	425756		
40249881011	**MR2-RB-2, 6/26/22**	Pace Lipid	425756		
40249881012	**MR2-RB-3, 6/26/22**	Pace Lipid	425756		
40249881013	**MR2-RB-4, 6/26/22**	Pace Lipid	425756		
40249881014	**MR2-RB-5, 6/26/22**	Pace Lipid	425756		
40249881015	**MR2-RB-6, 6/26/22**	Pace Lipid	425756		
40249881016	**MR2-RB-7, 6/26/22**	Pace Lipid	425756		
40249881017	**MR2-RB-8, 6/26/22**	Pace Lipid	425756		
40249881018	**MR2-CC-1, 6/26/22**	Pace Lipid	425756		
40249881019	**MR2-CC-2, 6/26/22**	Pace Lipid	425756		

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

4024988 1

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CHAIN OF CUSTODY

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513 319 5918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

FILTERED? (YES/NO) — Y/N
PRESERVATION (CODE)* — Pick Letter: A

Analyses Requested: PCB; % Lipids; Genders

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
	MR2-Ac-4, 6/26/22	6/26/22		TS			
	MR2-Ac-5, 6/26/22						
	MR2-Ac-6, 6/26/22						
	MR2-Ac-7, 6/26/22						
	MR2-Ac-8, 6/26/22						
	MR2-AWS-1, 6/26/22						
	MR2-AWS-2, 6/26/22						
	MR2-AWS-3, 6/26/22						
	MR2-AWS-4, 6/26/22						
	MR2-AWS-5, 6/26/22						
	MR2-AWS-6, 6/26/22						
	MR2-AWS-7, 6/26/22						
001	MR2-AWS-8, 6/26/22						

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 730		8/15/22 0730
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
4024988 1

Receipt Temp = 0 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

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CHAIN OF CUSTODY

4024988l

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513-319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
Sampled By (Print):	Chris Weifenbach
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Gender	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
002	MR2-SMB-1, 6/26/22	6/26/22		TS		A	X	X	X			
003	MR2-SMB-2, 6/26/22											
004	MR2-SMB-3, 6/26/22											
005	MR2-SMB-4, 6/26/22											
006	MR2-SMB-5, 6/26/22											
007	MR2-SMB-6, 6/26/22											
008	MR2-SMB-7, 6/26/22											
009	MR2-SMB-8, 6/26/22											
010	MR2-RB-1, 6/26/22											
011	MR2-RB-2, 6/26/22											
012	MR2-RB-3, 6/26/22											
013	MR2-RB-4, 6/26/22											
014	MR2-RB-5, 6/26/22	↓		↓		↓	↓	↓	↓			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/15/22 730		8/15/22 0750

PACE Project No.
4024988l

Receipt Temp = 0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

4024988 1

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CHAIN OF CUSTODY

(Please Print Clearly)	
Company Name:	PRS
Branch/Location:	Sheboygan River
Project Contact:	Keith Egan
Phone:	513-319-8918
Project Number:	SR11-001
Project Name:	Sheboygan Fish
Project State:	Wisconsin
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Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
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Matrix Codes
A = Air, W = Water
B = Biota, DW = Drinking Water
C = Charcoal, GW = Ground Water
O = Oil, SW = Surface Water
S = Soil, WW = Waste Water
SI = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PCB	% Lipids	Gender	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
015	MR2-RB-6, 6/26/22	6/26/22		TS		A	X	X	X			
016	MR2-RB-7, 6/26/22	↓		↓			↓	↓	↓			
017	MR2-RB-8, 6/26/22	↓		↓			↓	↓	↓			
018	MR2-CC-1, 6/26/22											
019	MR2-CC-2, 6/26/22											
1) Received in Shipment, added to COC by lab mH 8/15/22												

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	8/15/22 730	[signature]	8/15/22 0730

PACE Project No.
4024988 1

Receipt Temp = 0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

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Sample Preservation Receipt Form

Client Name: PRS Project # 40249881

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☑N/A Initial when completed: Date/ Time:

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted):

Pace Lab #	Glass								Plastic					Vials						Jars				General			VOA Vials (>6mm)	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN							
001																																	2.5 / 5 / 10
002																																	2.5 / 5 / 10
003																																	2.5 / 5 / 10
004																																	2.5 / 5 / 10
005																																	2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
010																																	2.5 / 5 / 10
011																																	2.5 / 5 / 10
012																																	2.5 / 5 / 10
013																																	2.5 / 5 / 10
014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019			3# 8/18/22																														2.5 / 5 / 10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☑N/A ***If yes look in headspace column**

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN	

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40249881

40249881

Client Name: PRS

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☑ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used SR - 120 **Type of Ice:** Wet Blue Dry (None) ☐ Samples on ice

Cooler Temperature Uncorr: 0 /Corr: 0

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☑ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
Date: 8/15/22 /Initials: mH

Labeled By Initials: NK

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. NO mail or invoice info mH 8/15/22
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume:		8.
For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☐Yes ☑No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: B		
Trip Blank Present:	☐Yes ☐No ☑N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

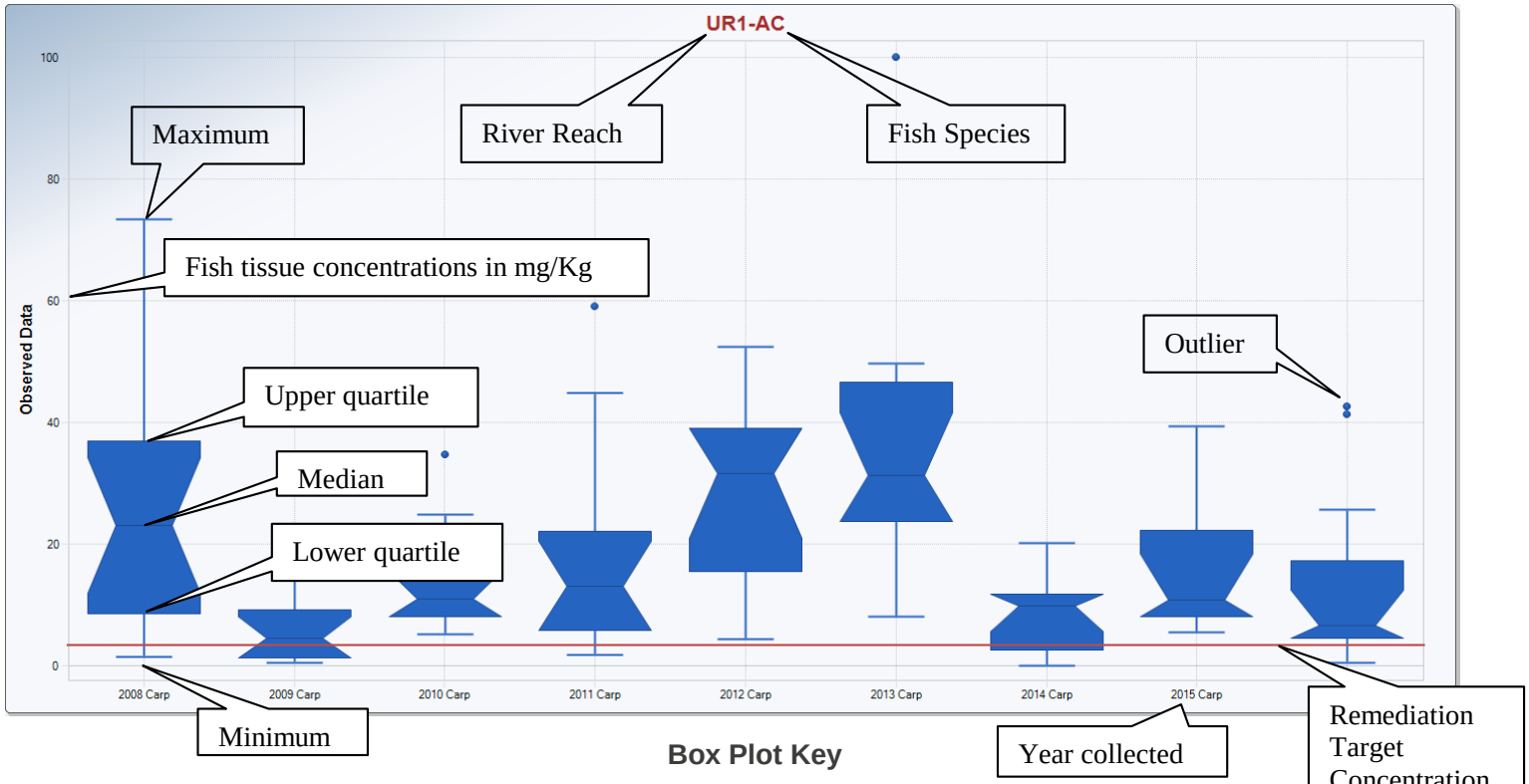
Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi

Page 2 of 2

APPENDIX 3
BOX PLOTS

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



River Reach

UR1 – Upper River from former Tecumseh Site to Riverbend Dam
UR2 – Upper River from Riverbend Dam to Waelderhaus Dam
MR1 - Middle River from Waelderhaus Dam to Kohler Landfill
MR2 - Middle River from Kohler Landfill to C&NW Railroad Bridge
LR - Lower River from C&NW Railroad Bridge to Pennsylvania Avenue Bridge
IH - Inner Harbor from Pennsylvania Avenue Bridge to Sheboygan River outlet

Fish Species

AC - Adult carp
AWS - Adult white sucker
JWS - Juvenile white sucker
SMB - Smallmouth bass
RB - Rock Bass
CC - Channel Catfish
W - Walleye
LD - Longnose Dace

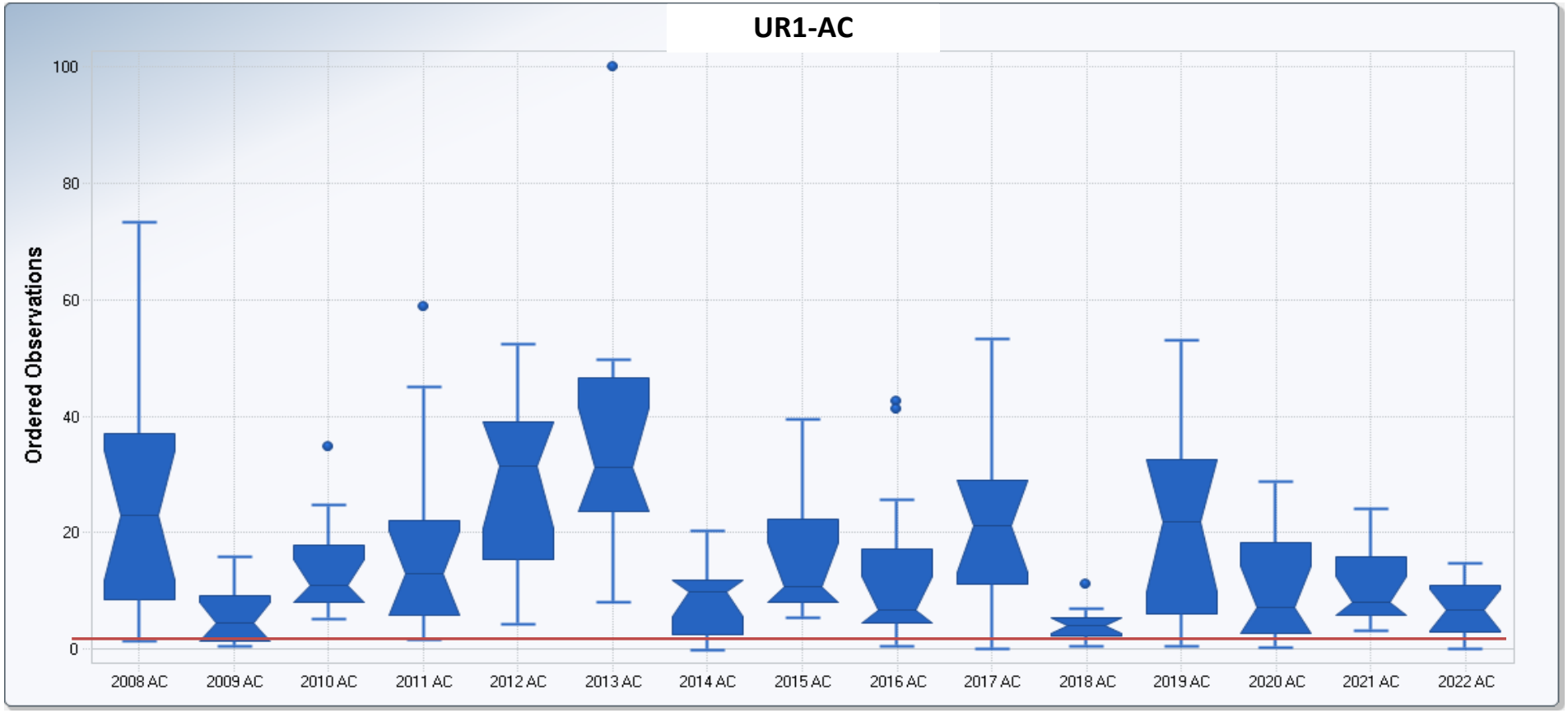
APPENDIX 3

BOX PLOTS

SHEBOYGAN RIVER AND HARBOR

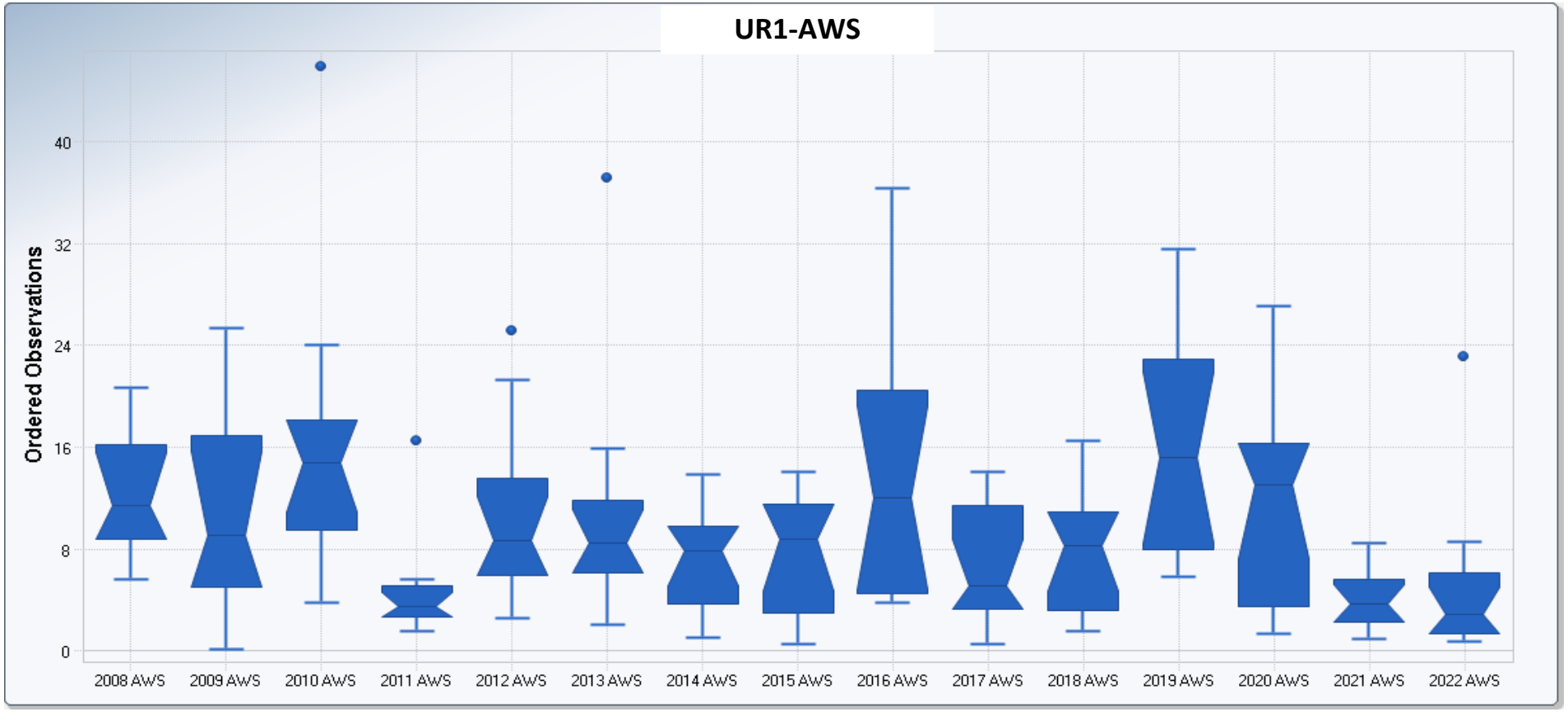
SUPERFUND SITE, WISCONSIN

SME PROJECT NO. 069638.00.072



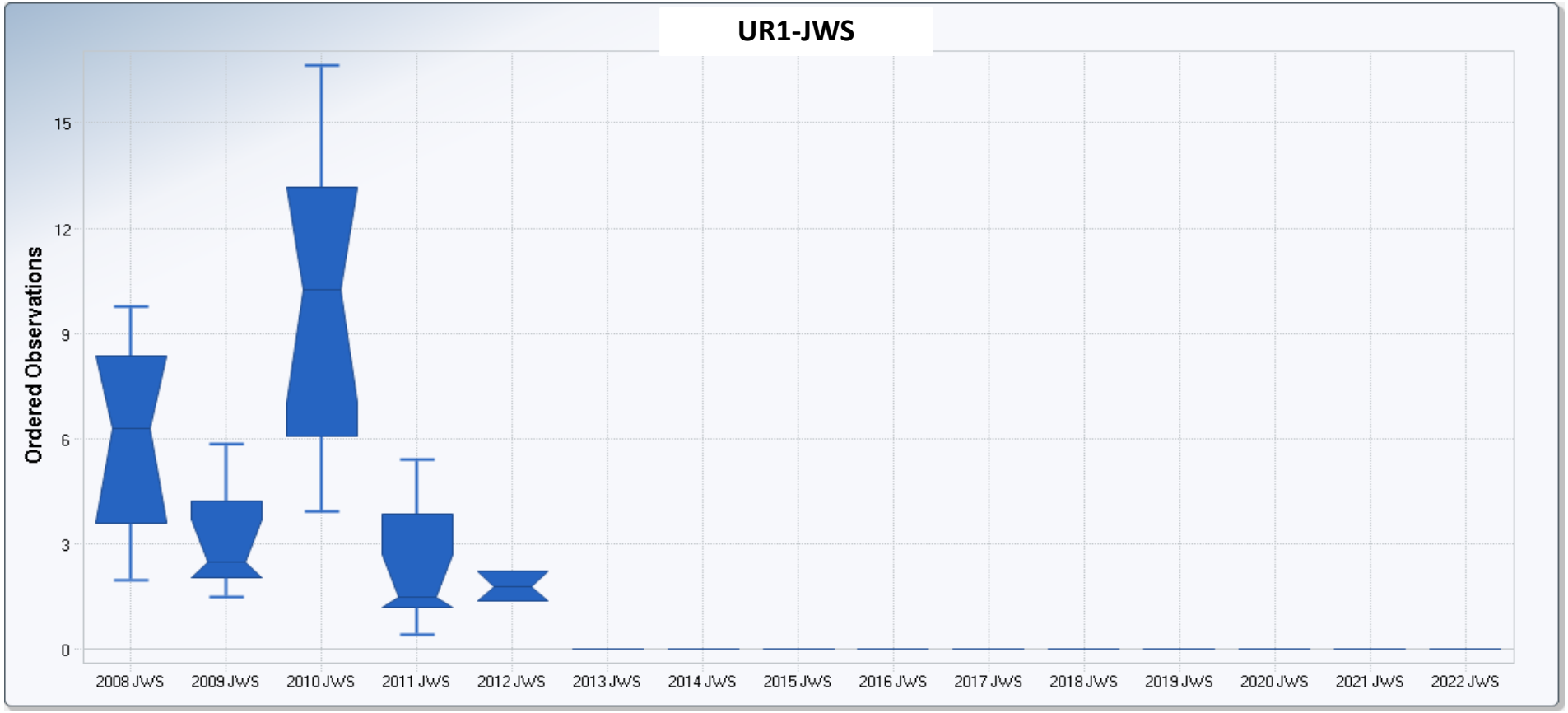
Adult carp remediation target concentration- 2.58ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



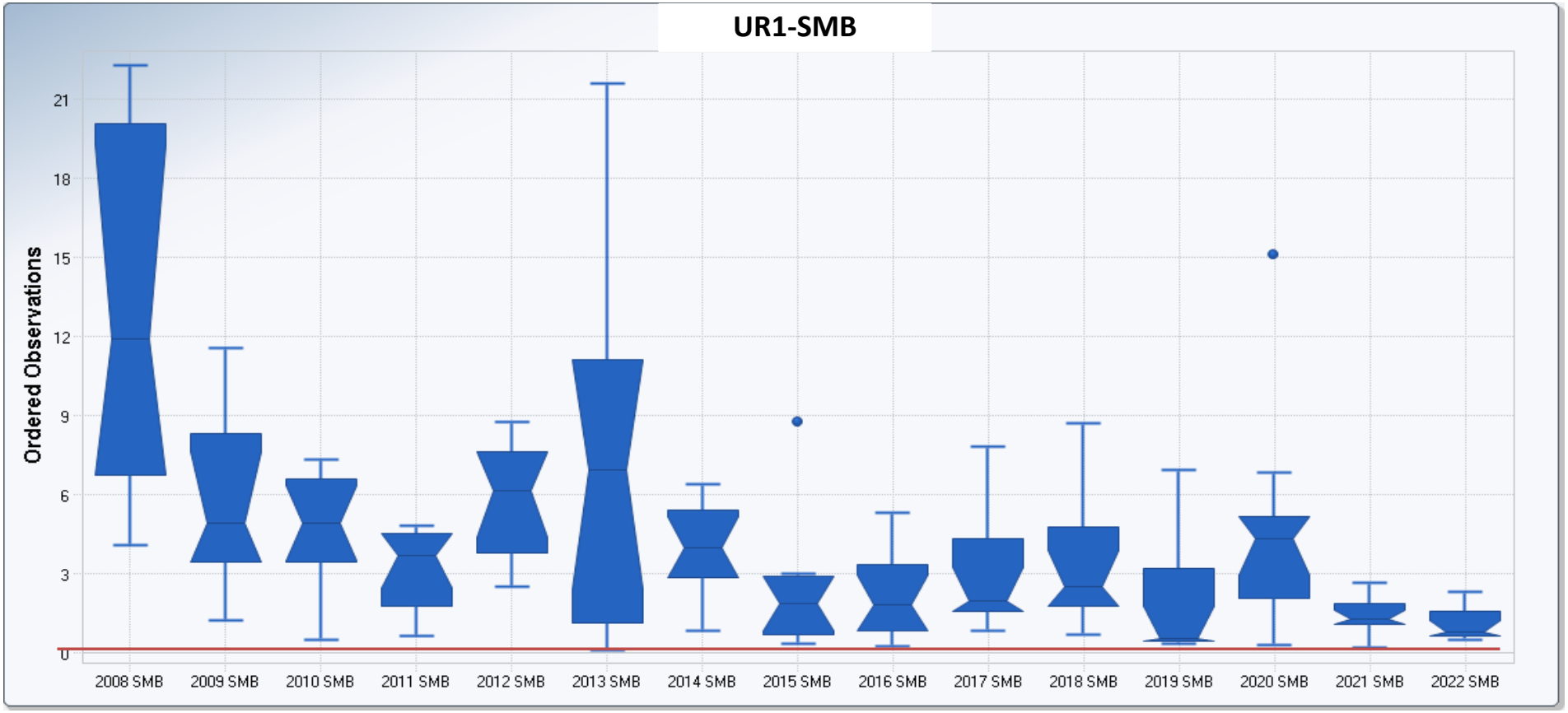
There is no remediation target for Adult White Suckers

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



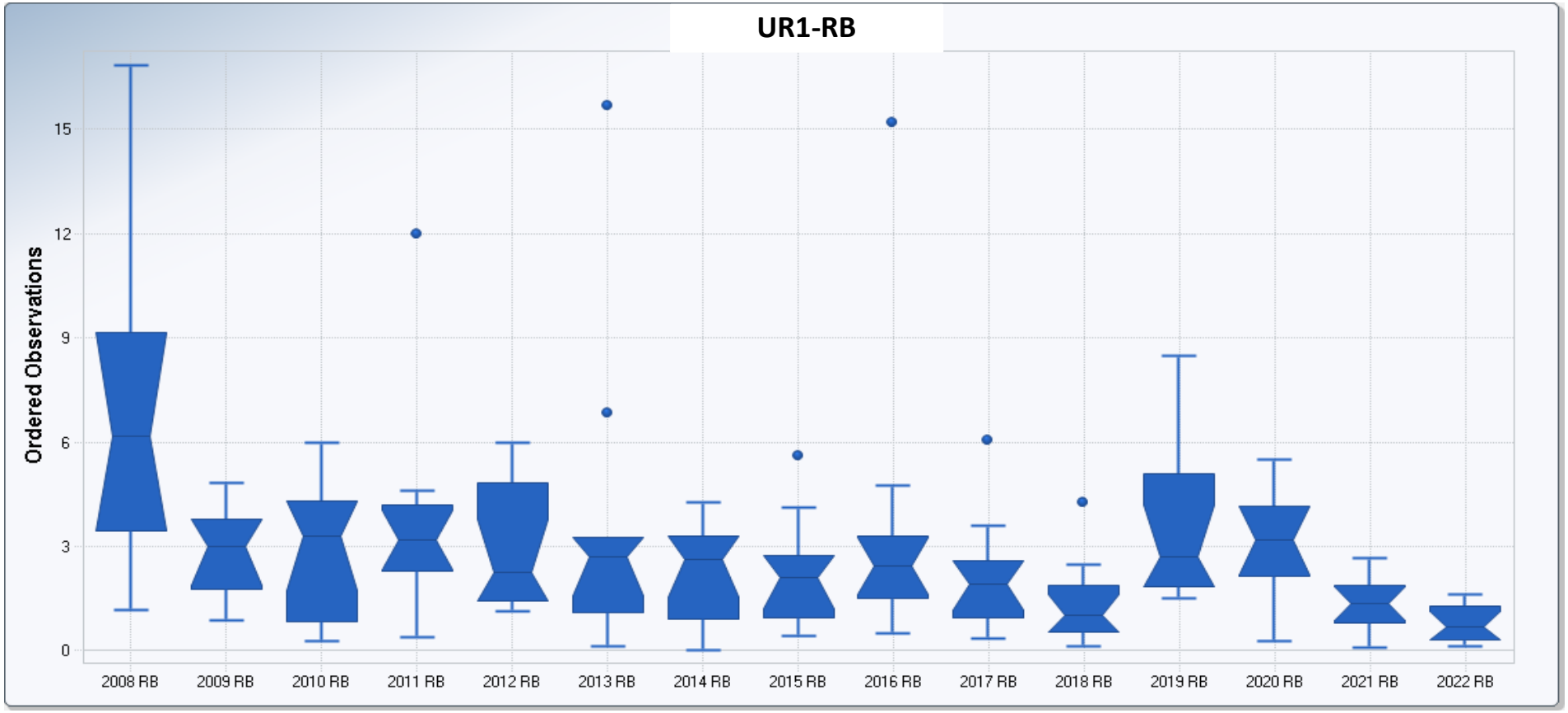
No juvenile white suckers were obtained from this reach from 2013 to 2022
There is no remediation target for Juvenile White Suckers

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



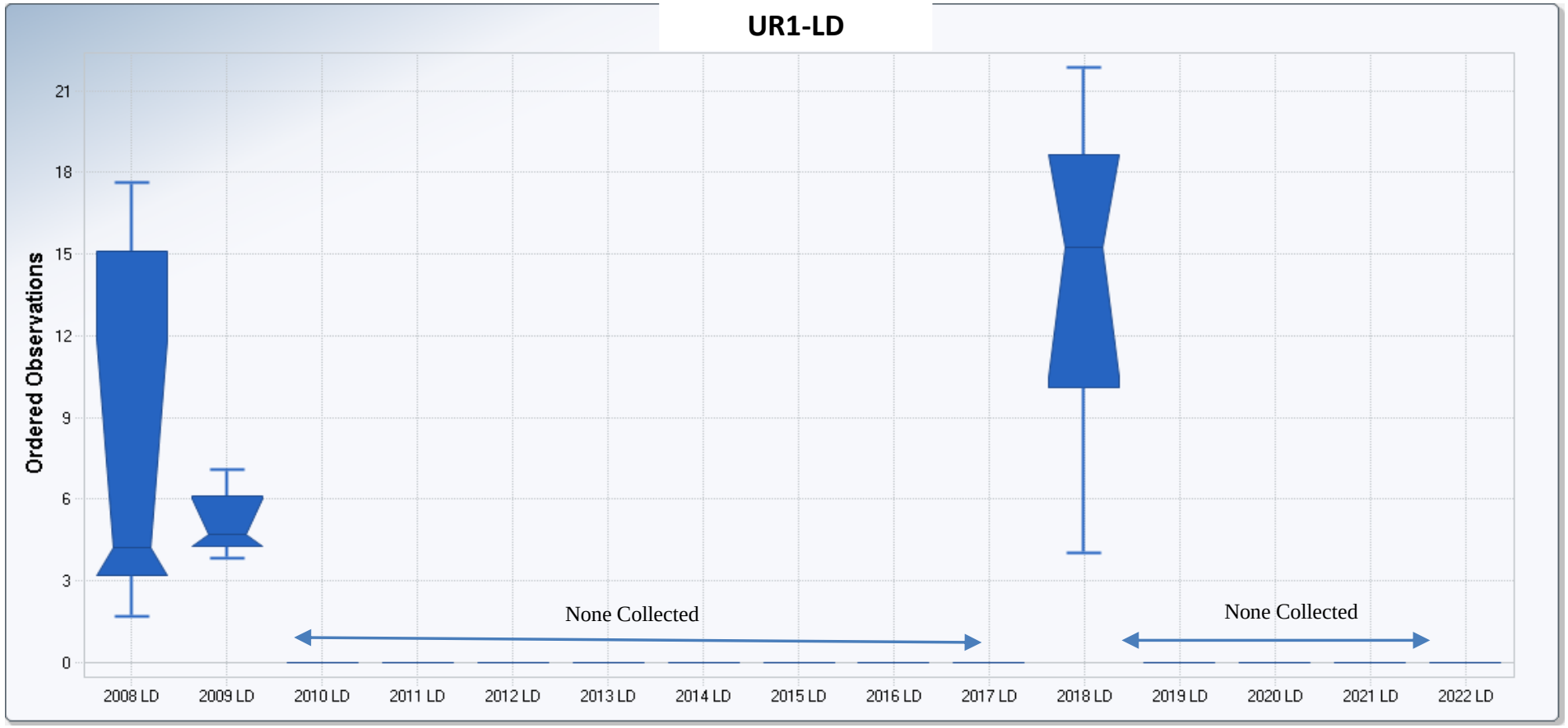
Smallmouth bass remediation target concentration- 0.31 ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



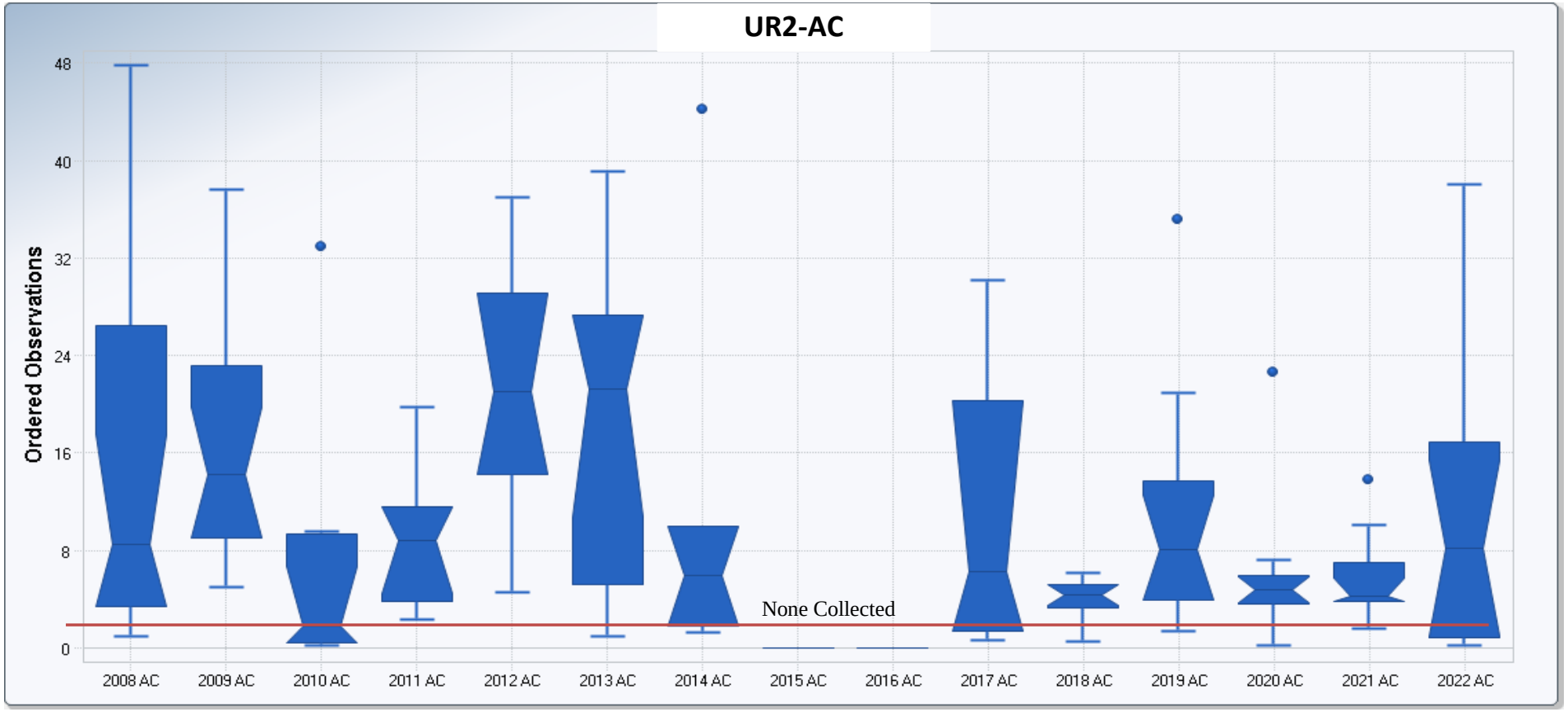
There is no remediation target for Rock Bass

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



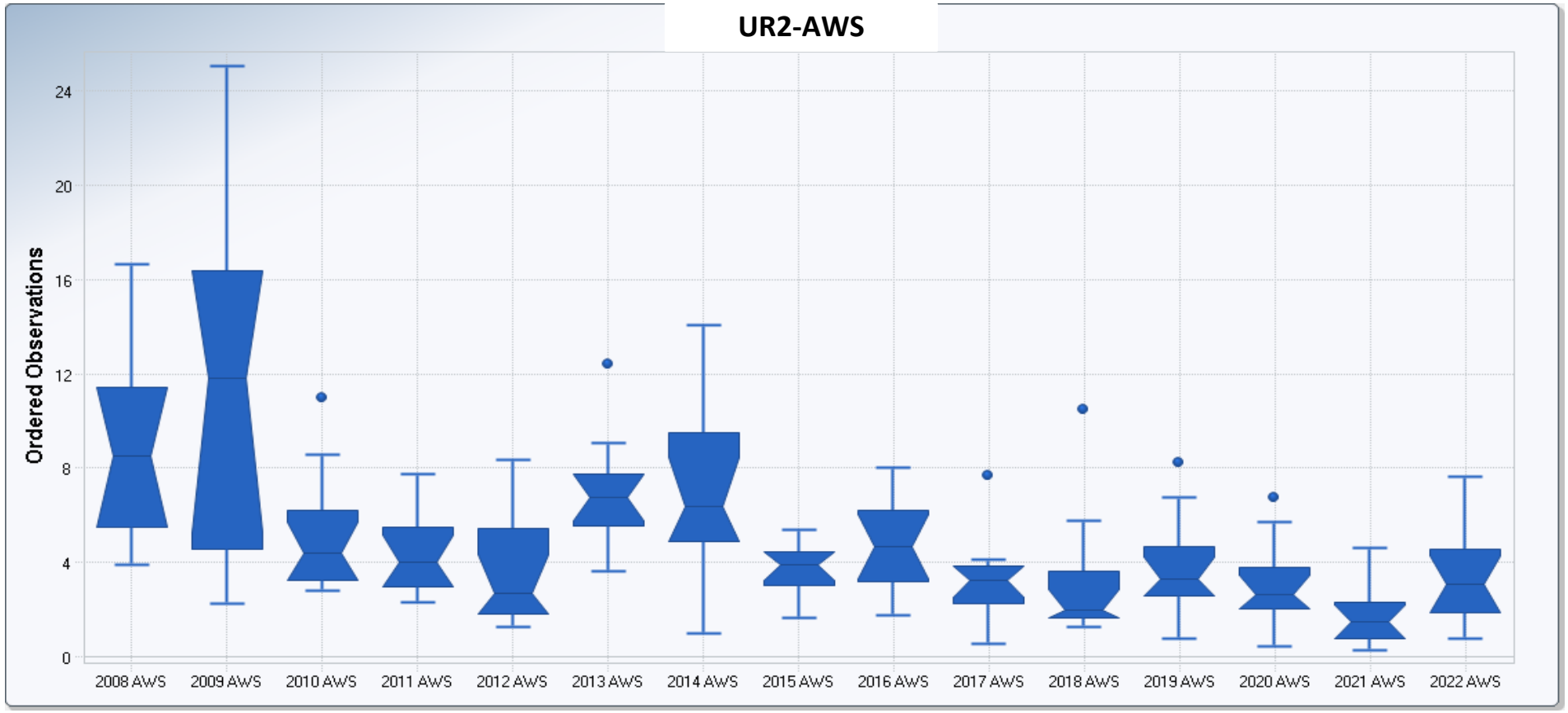
No Longnose Dace were obtained from this reach from 2010 to 2017 or in 2019 to 2022.
There is no remediation target for Longnose Dace

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



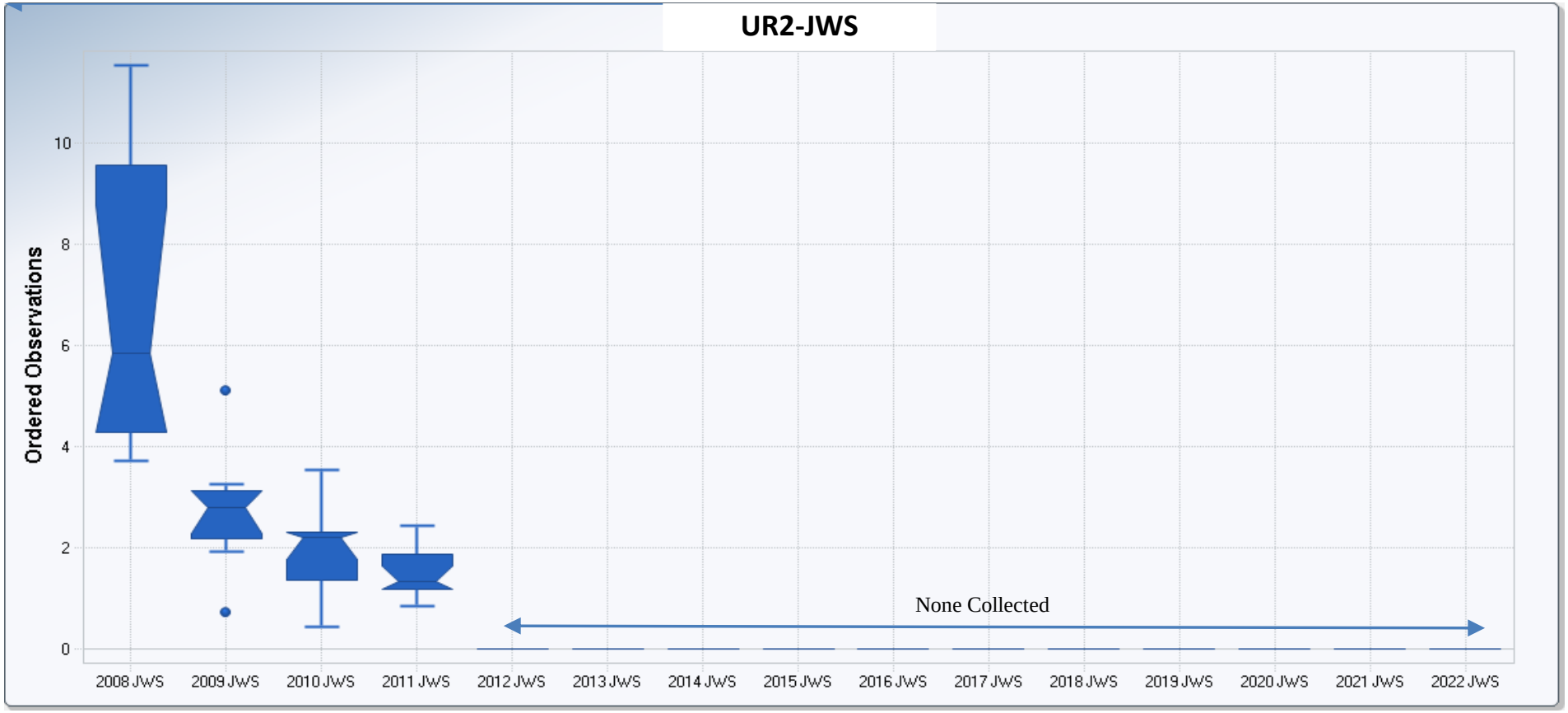
No adult carp were obtained from this reach in 2015 or 2016
Adult carp remediation target concentration- 2.58ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



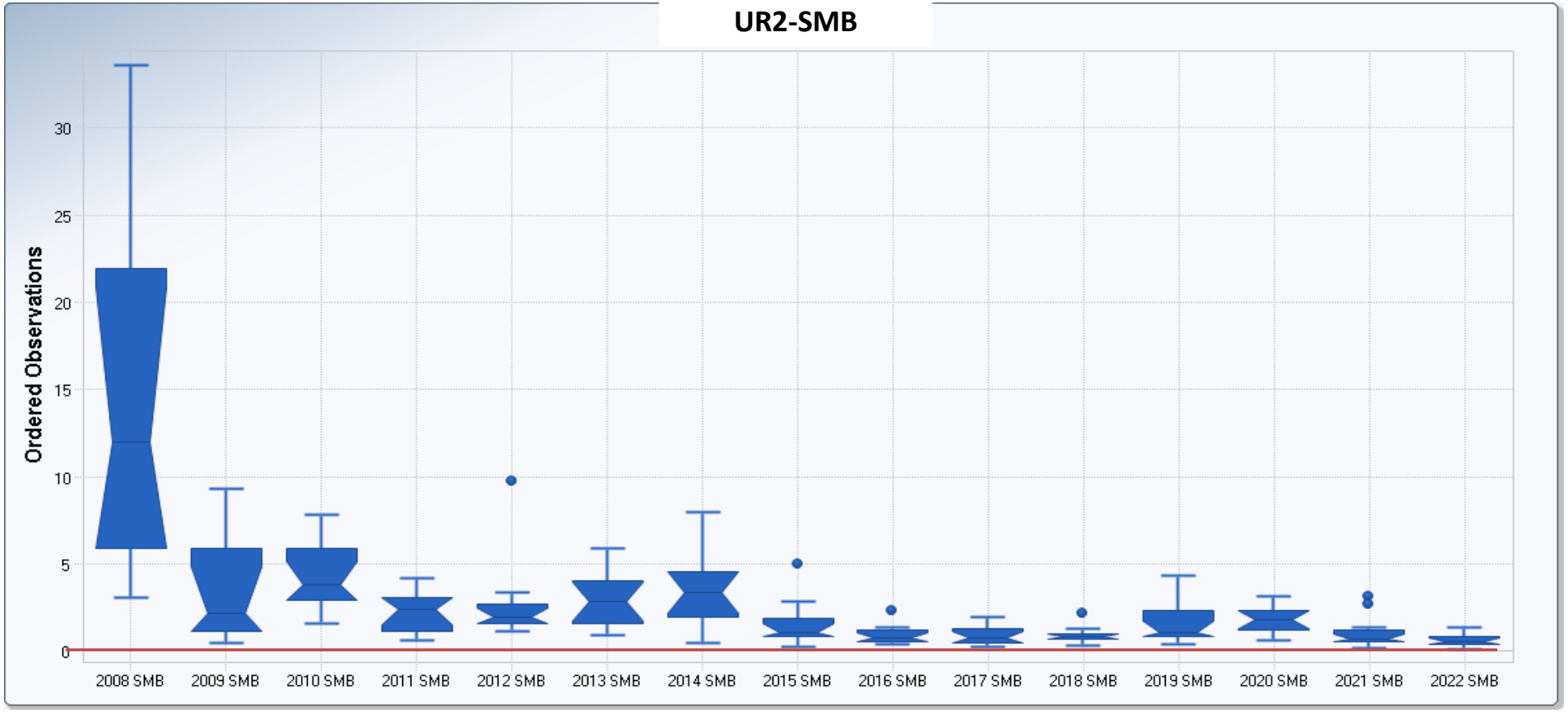
There is no remediation target for Adult White Suckers

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



No juvenile white suckers were obtained from this reach from 2012 to 2021
There is no remediation target for Juvenile White Suckers

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



Smallmouth bass remediation target concentration- 0.31 ppm

APPENDIX 3
BOX PLOTS
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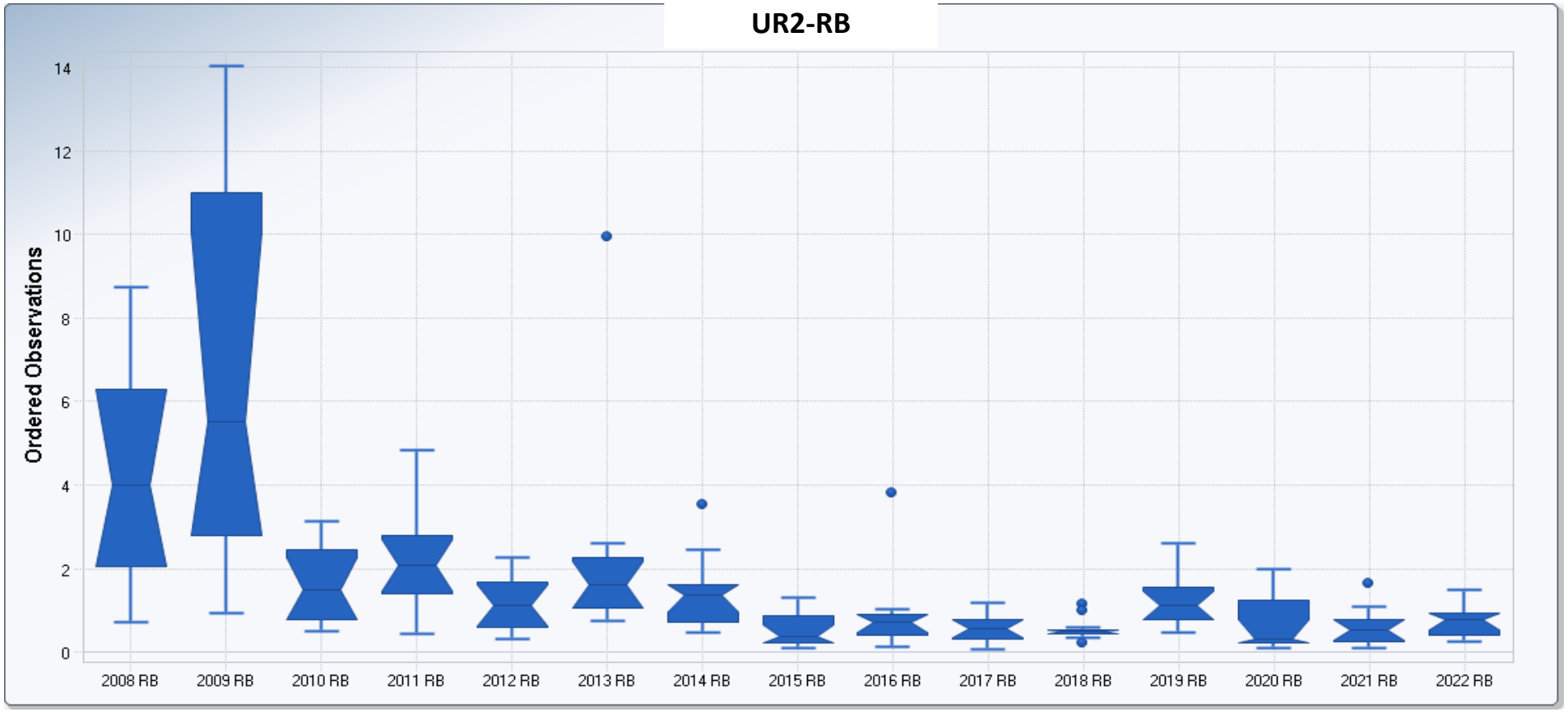
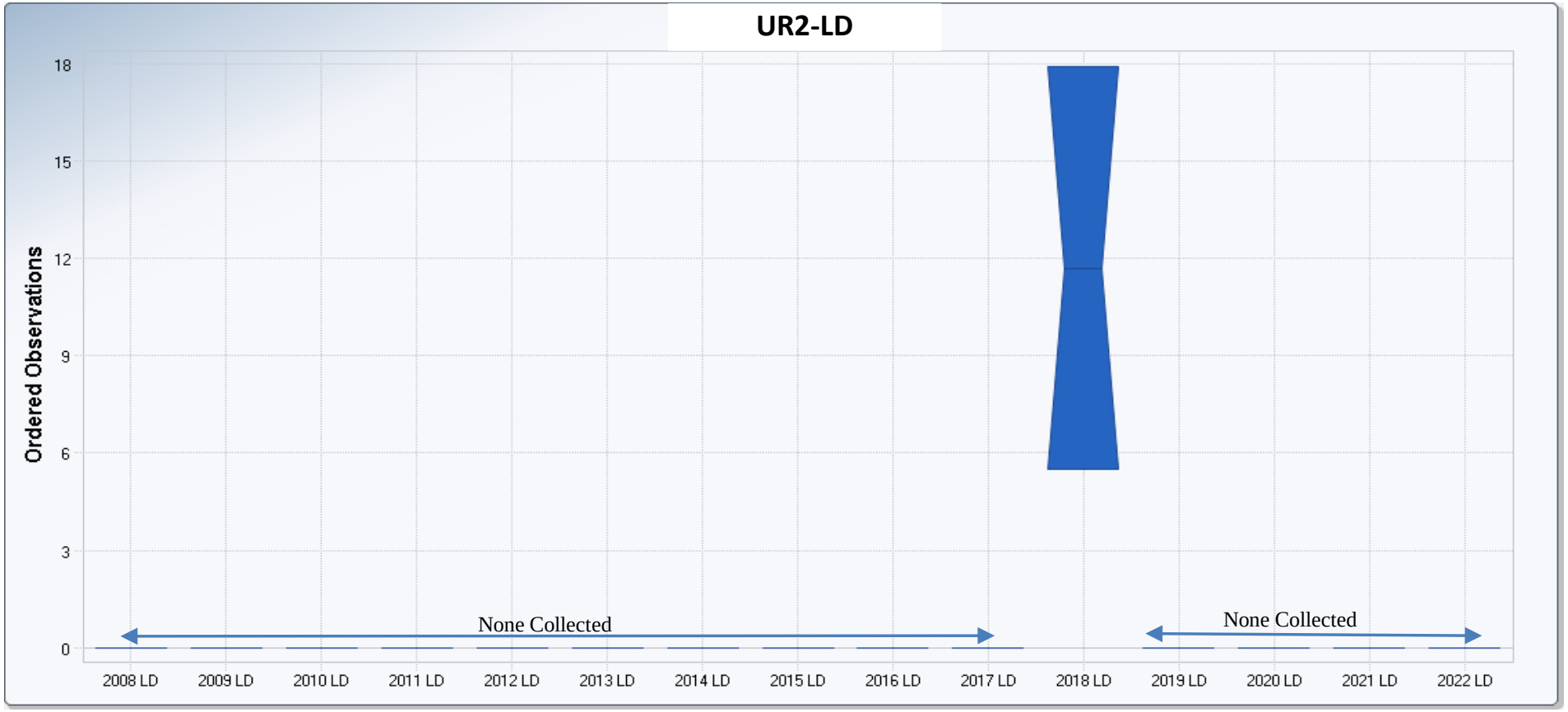
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



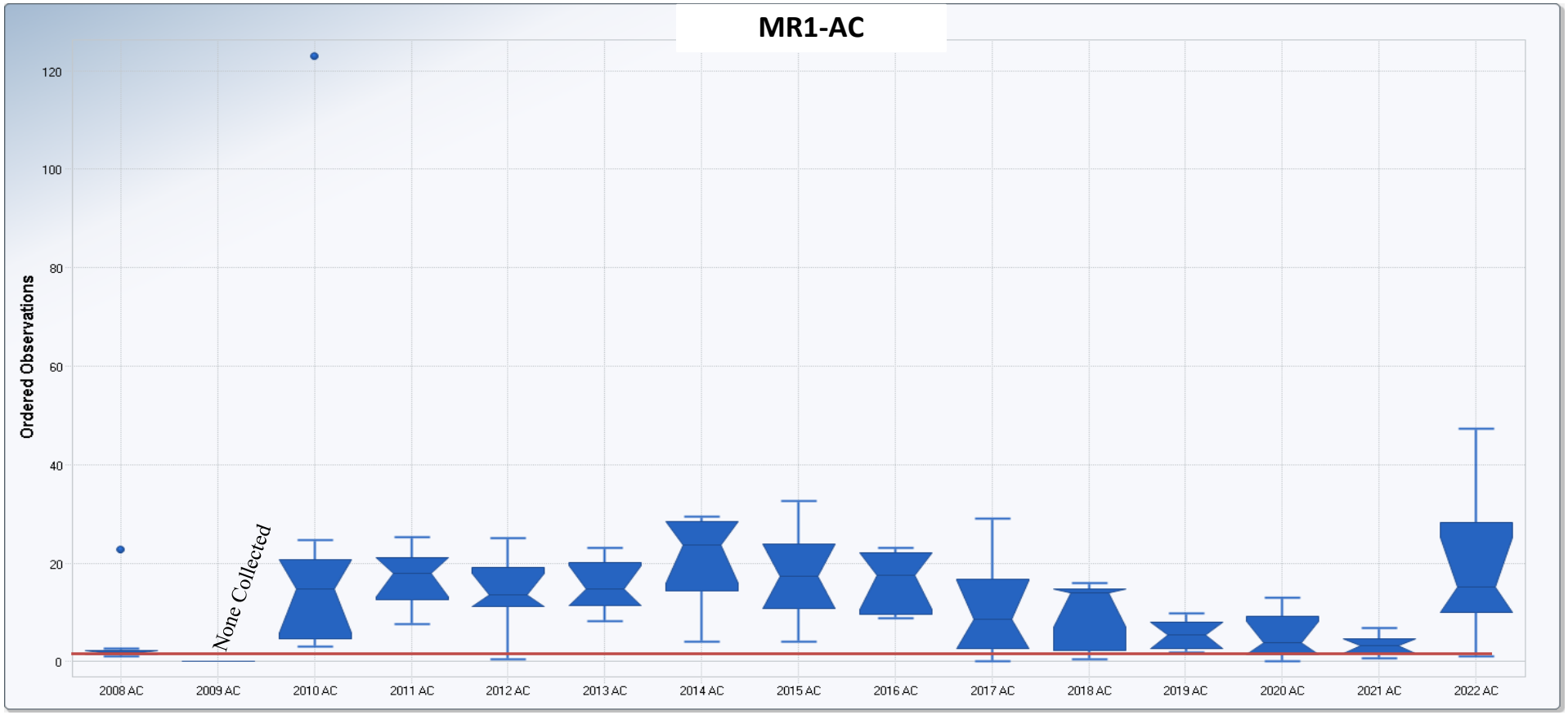
There is no remediation target for Rock Bass

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



No Longnose Dace were obtained from this reach from 2008 to 2017 or from 2019 to 2022.
There is no remediation target for Longnose Dace

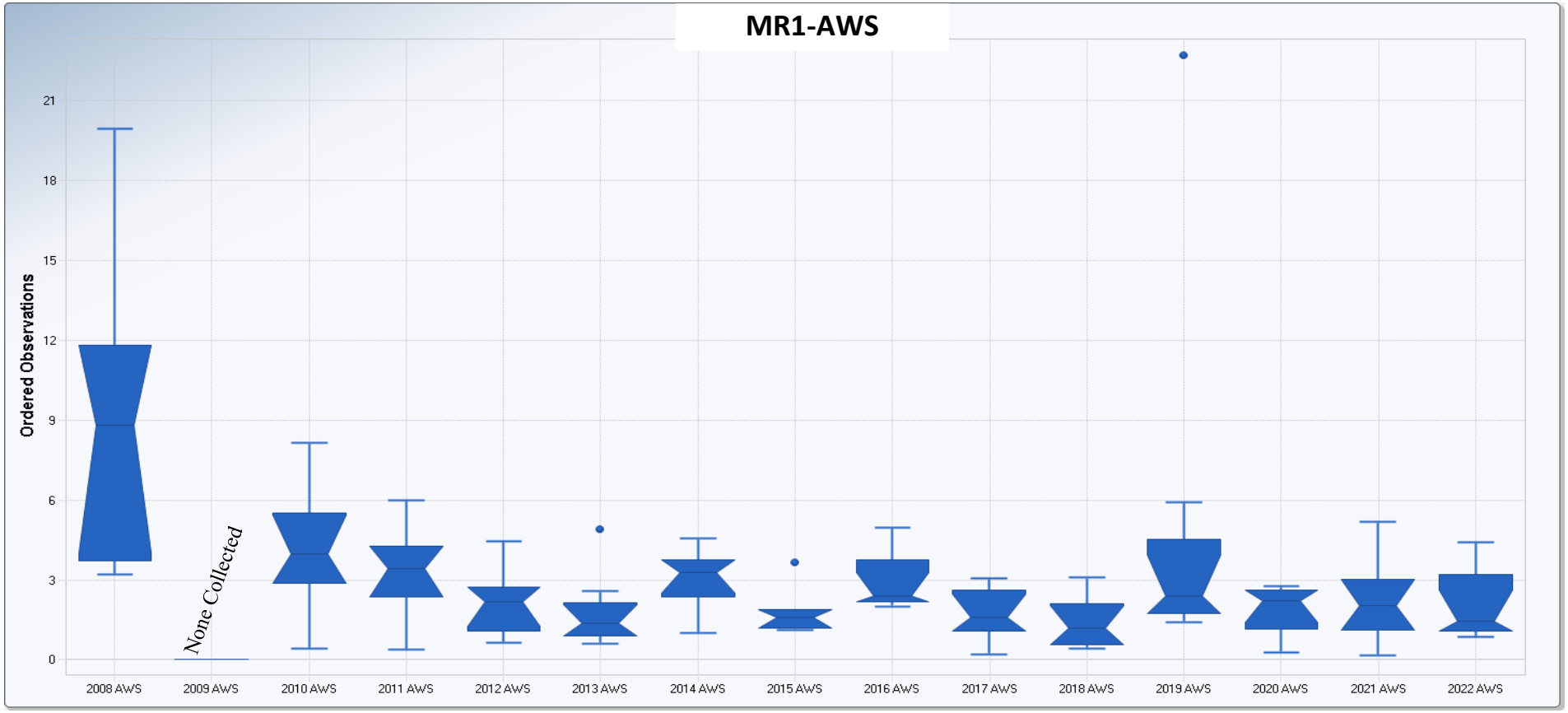
APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



Adult carp remediation target concentration- 2.58ppm

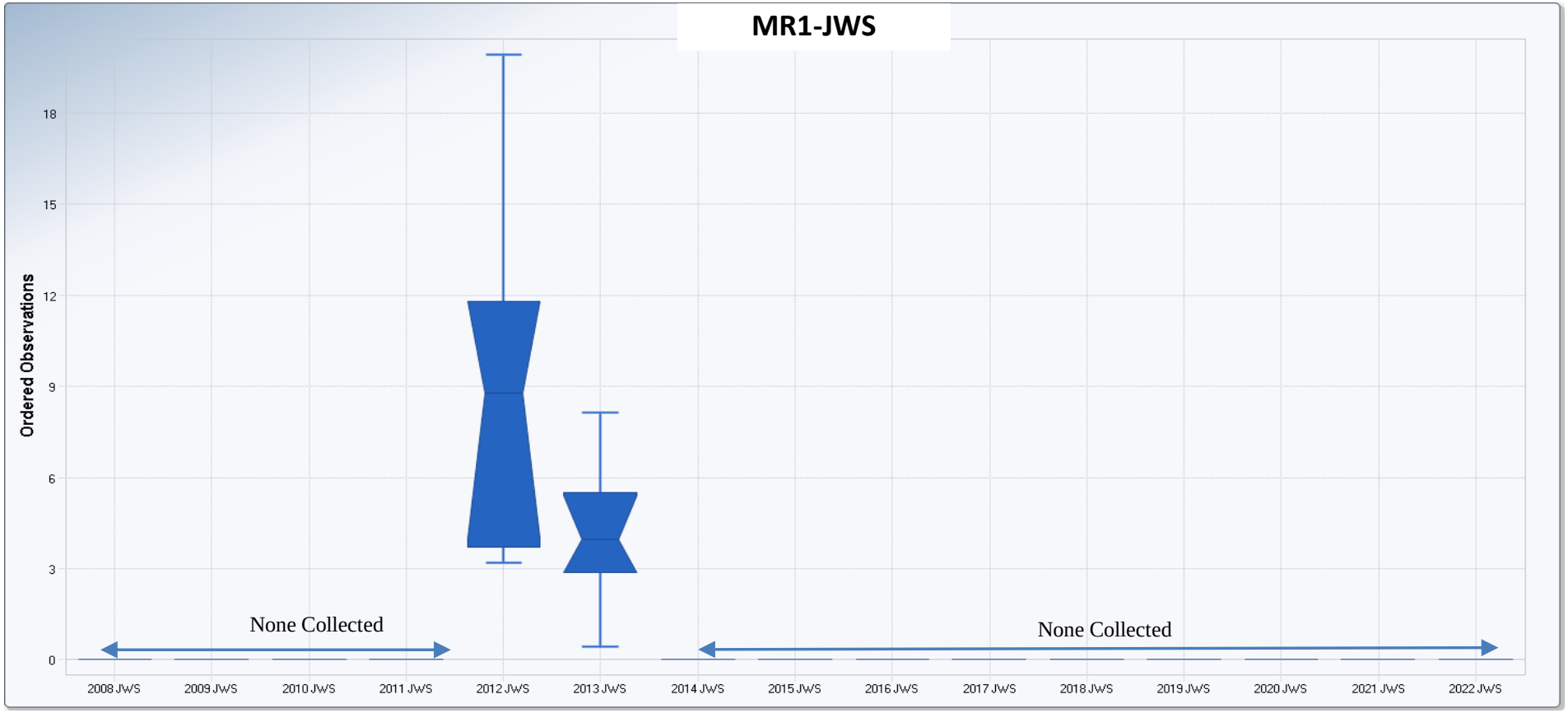
Sample variability in 2008 was very low and as such the box plot depicted is compressed as compared to later years

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



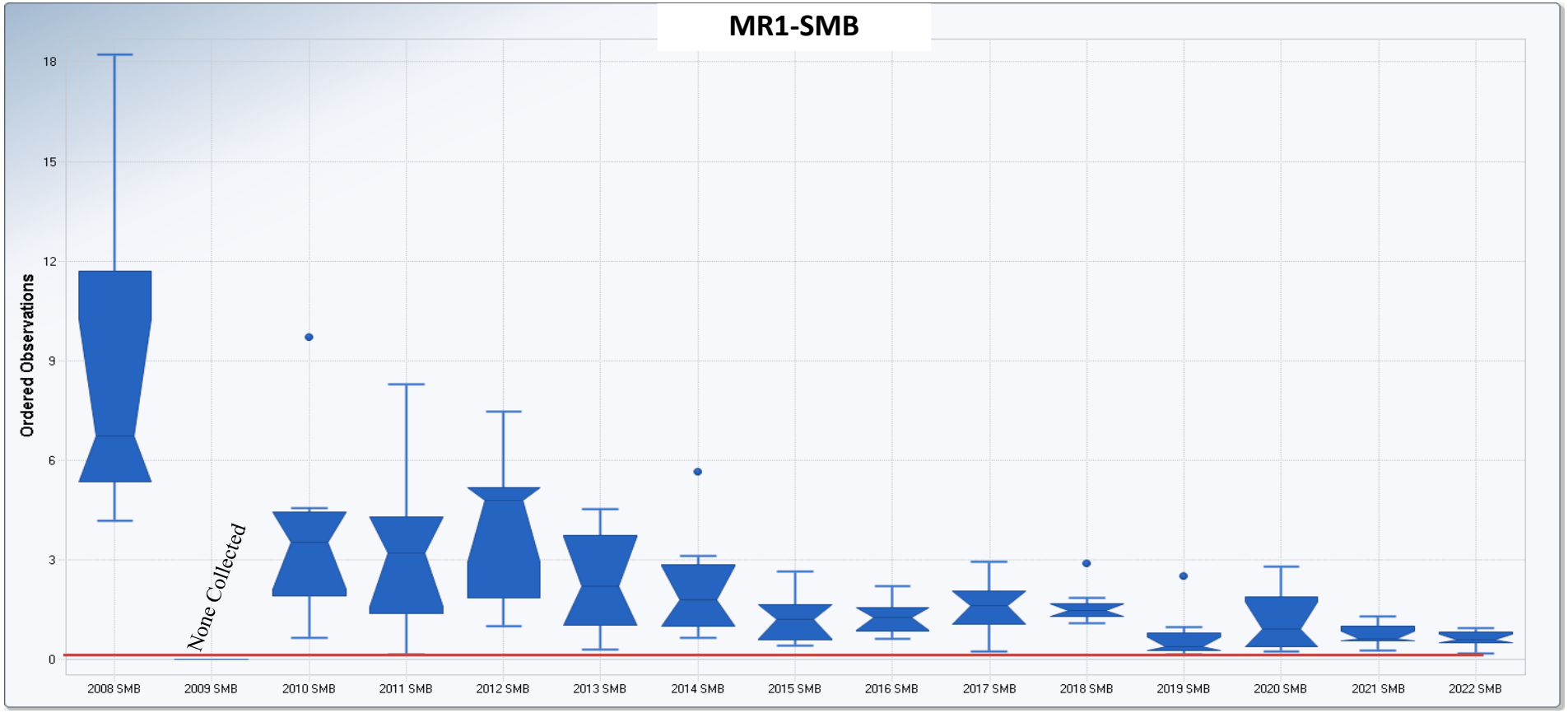
There is no remediation target for Adult White Suckers

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



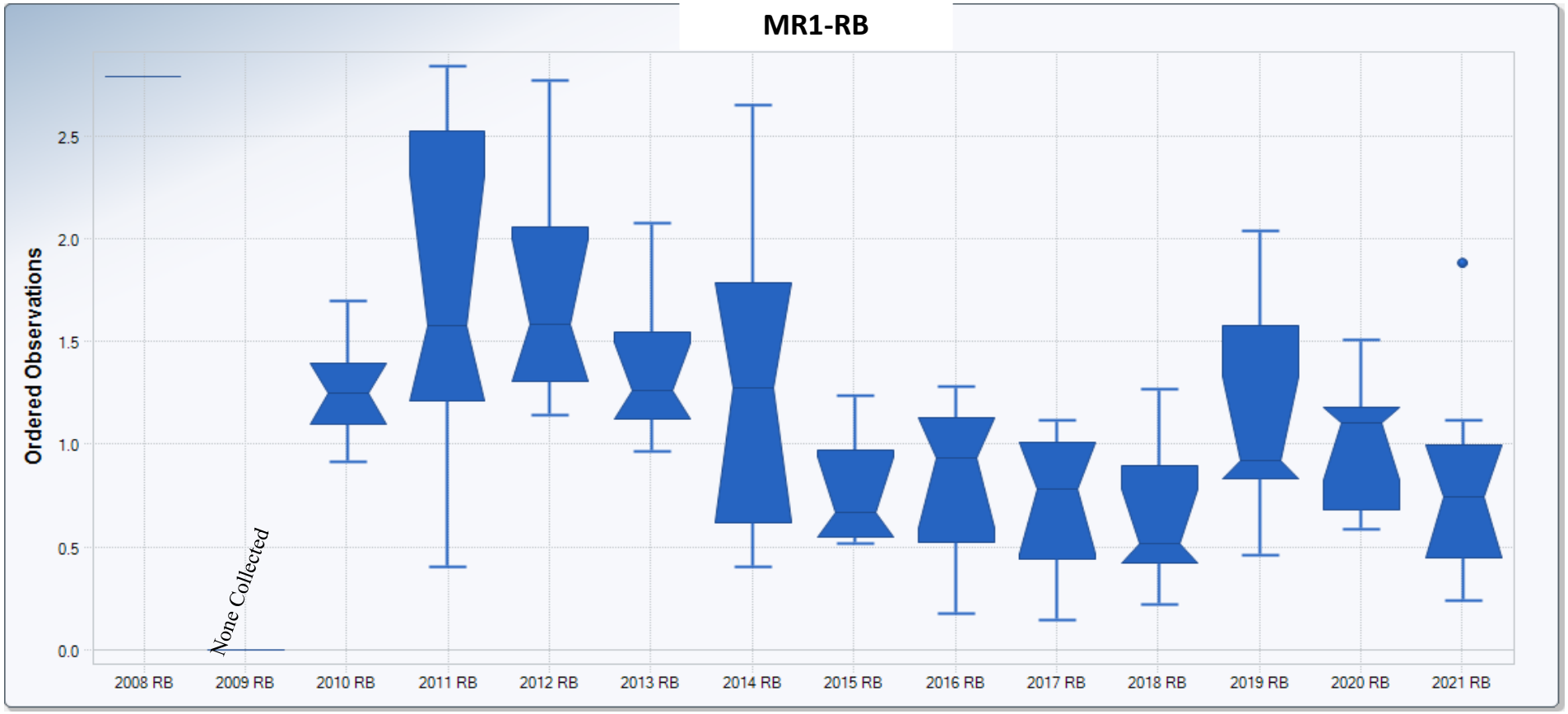
No juvenile white suckers were obtained from this reach from 2008 to 2011 and from 2013 to 2022
There is no remediation target for Juvenile White Suckers

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



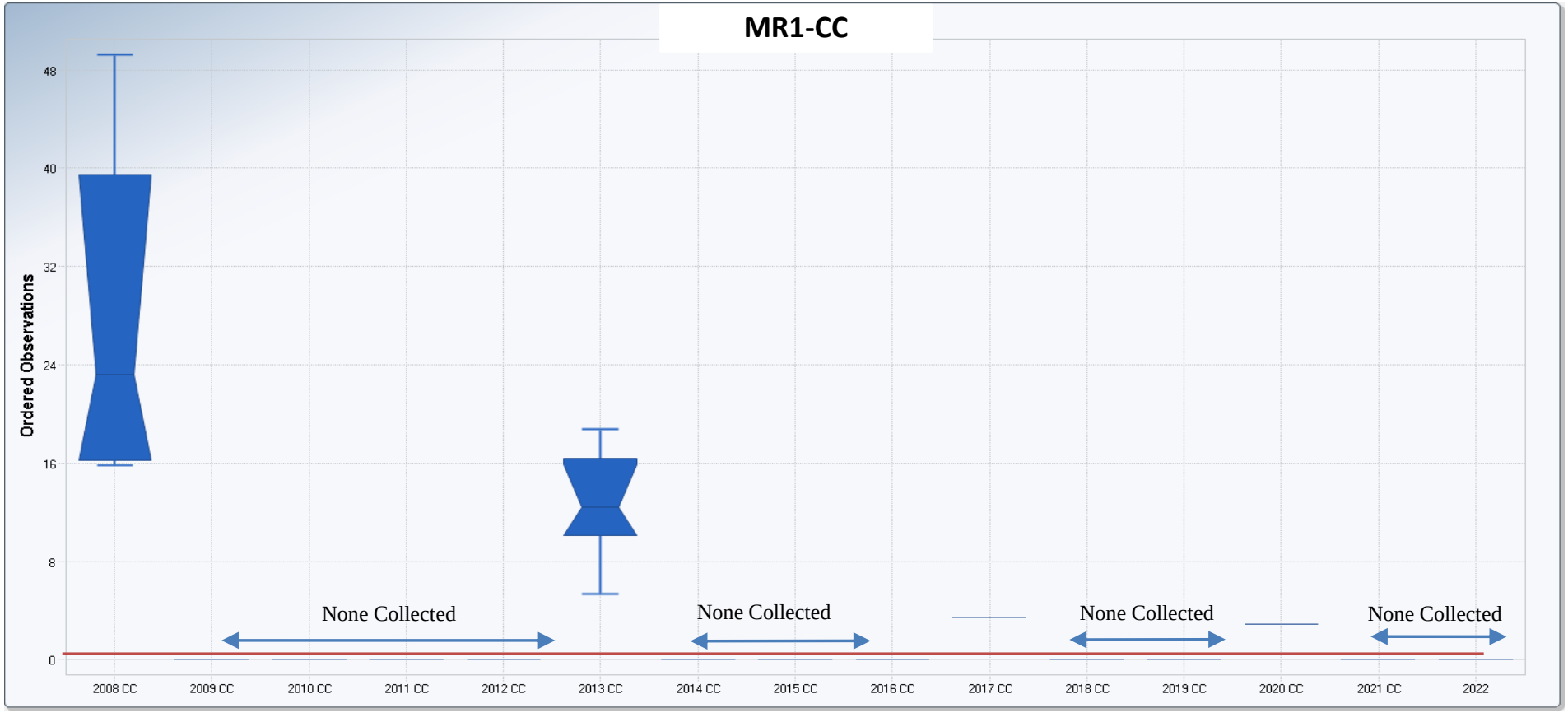
Smallmouth bass remediation target concentration- 0.31 ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



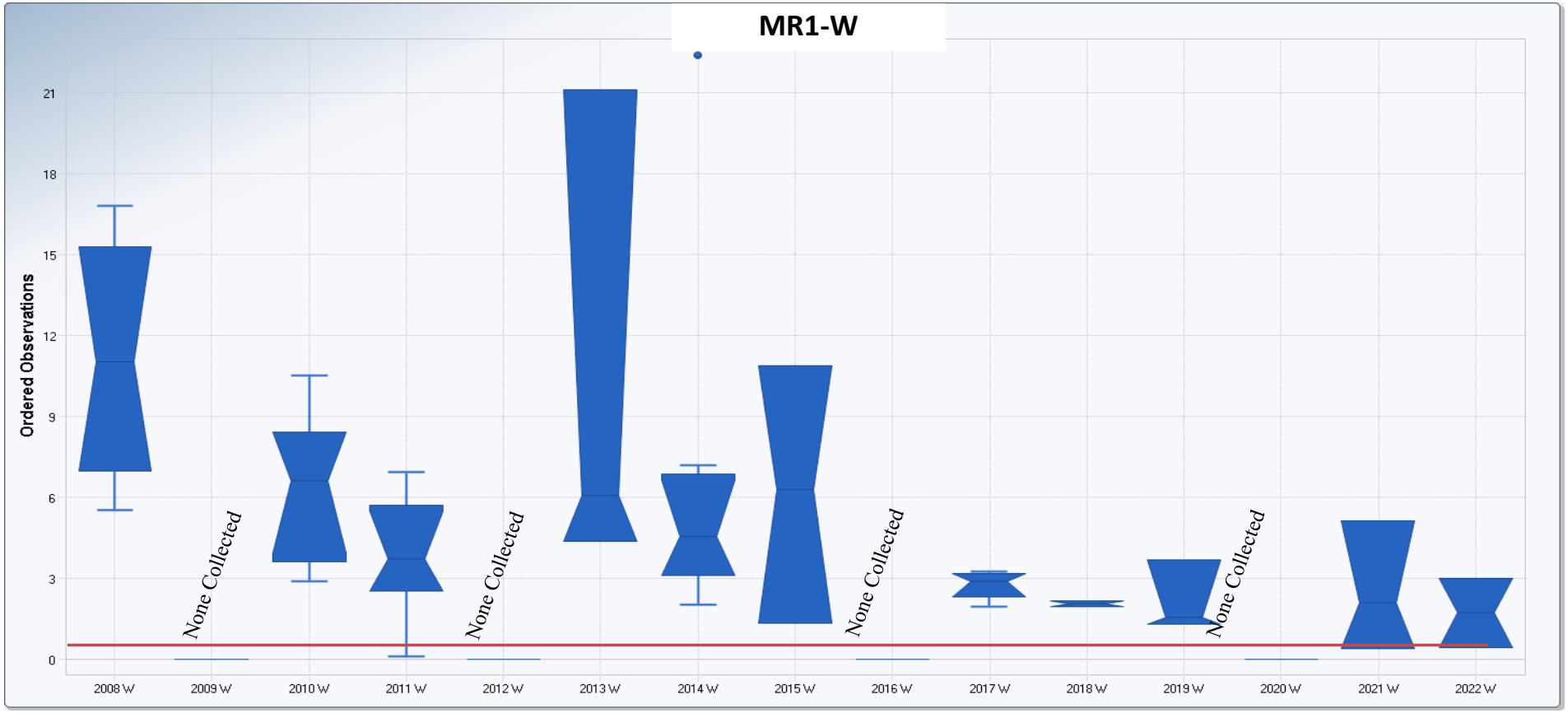
Only the median is provided for 2008 as only one rock bass was collected
There is no remediation target for Rock Bass.

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



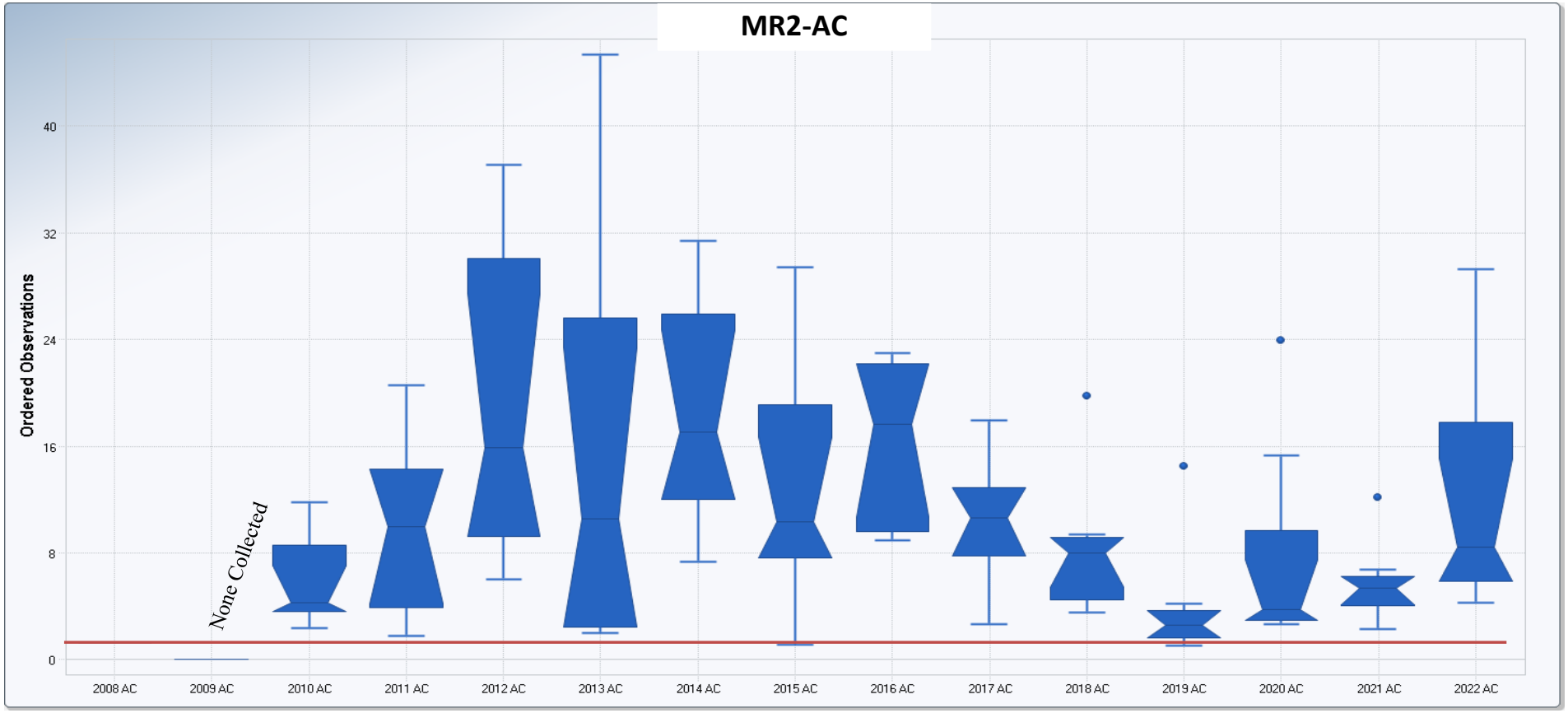
No channel catfish were obtained from this reach from 2009 to 2012, 2014, or from 2016 or 2022
Only the median is provided for 2017 and 2020 as only one channel catfish was collected
Channel catfish remediation target concentration- 2.53 ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



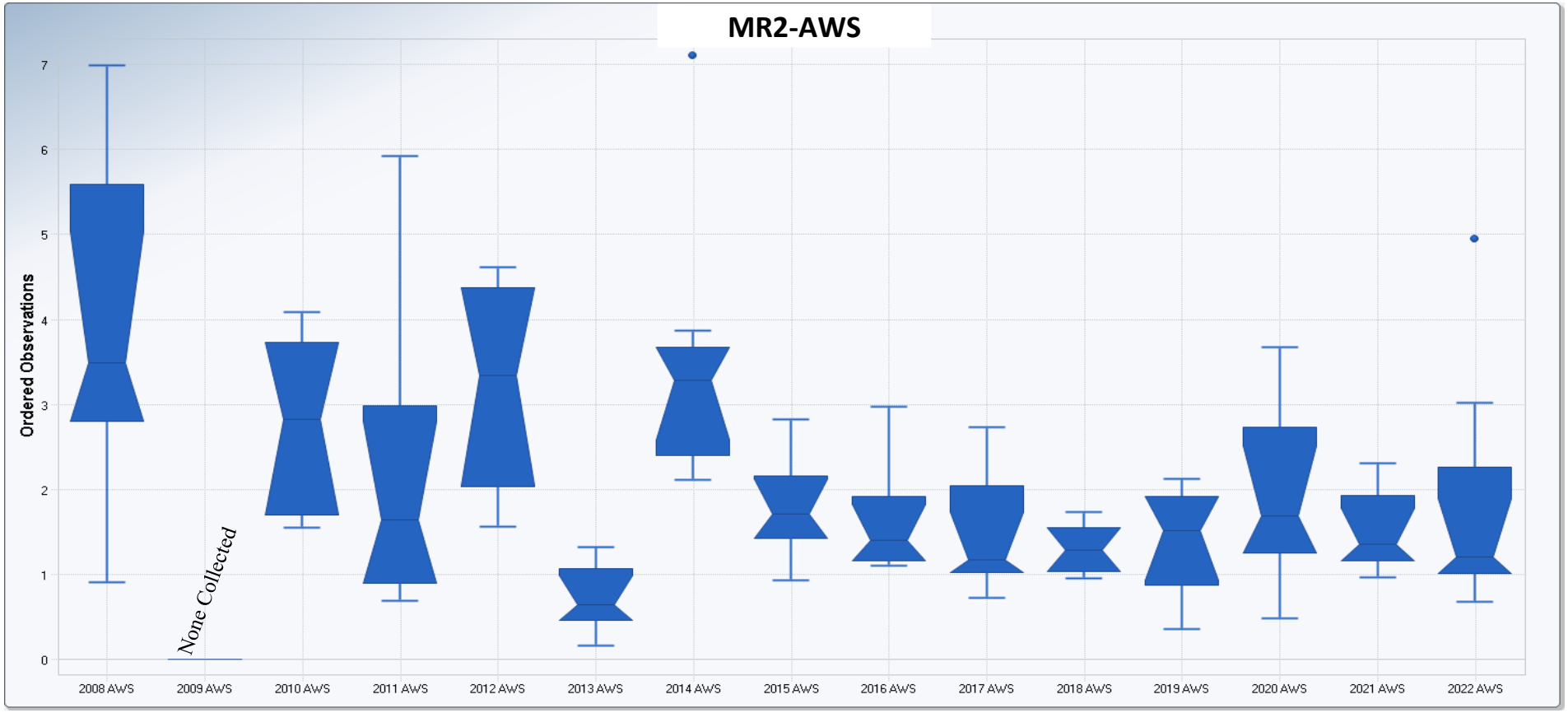
No walleye were obtained from this reach in 2009, 2012, 2016 or 2020.
Walleye remediation target concentration- 0.63 ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



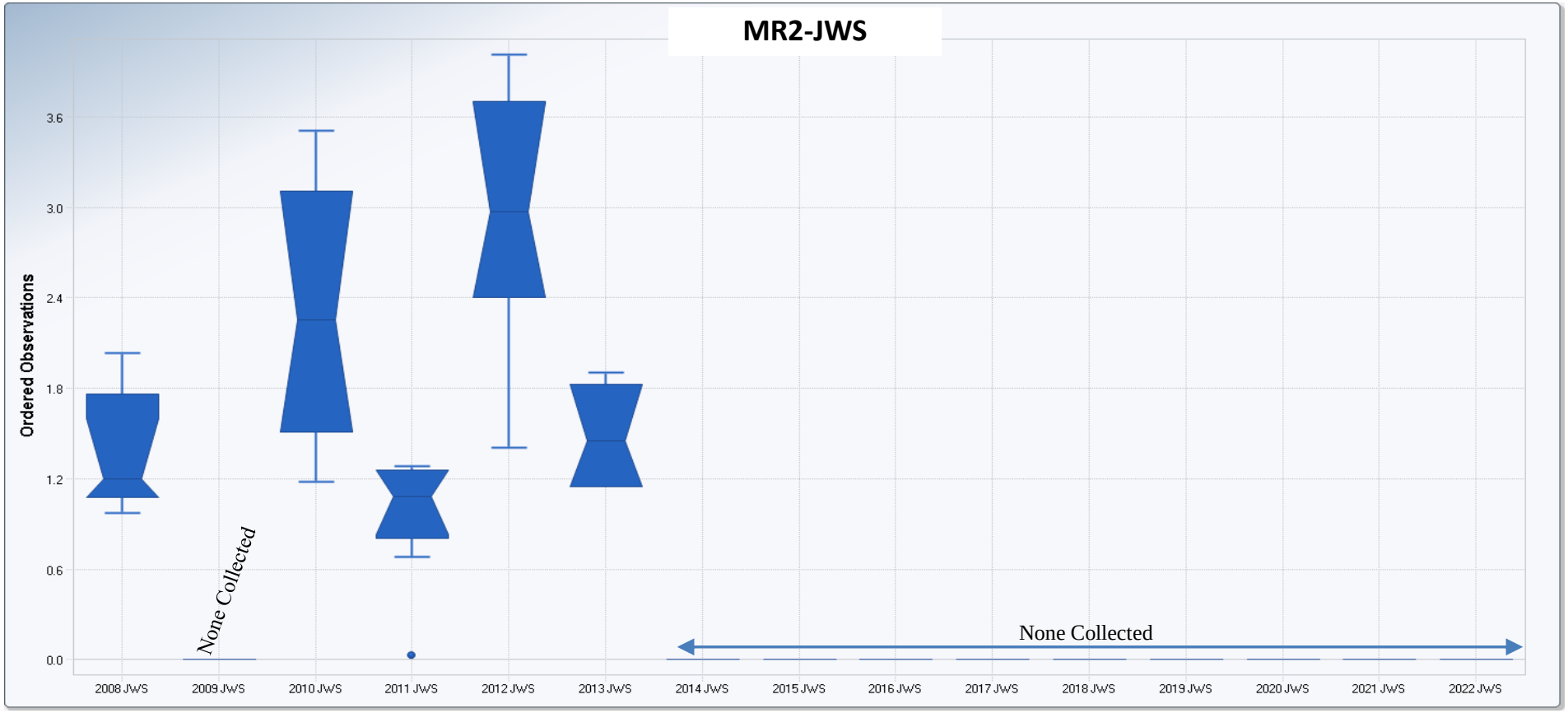
Only the median is provided for 2008 as only one carp was collected.
Adult carp remediation target concentration- 2.58ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



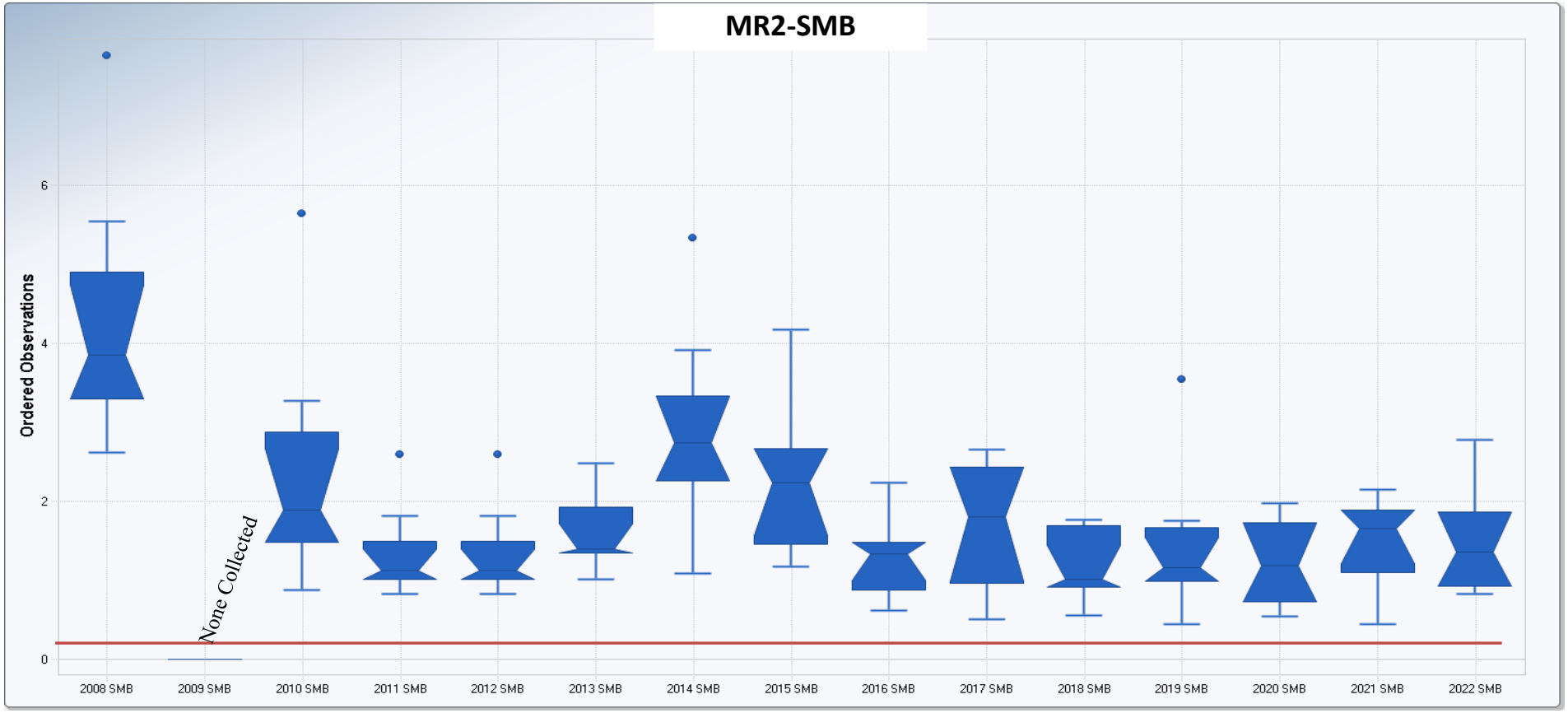
No Adult White Suckers were obtained from this reach in 2009
There is no remediation target for Adult White Suckers

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



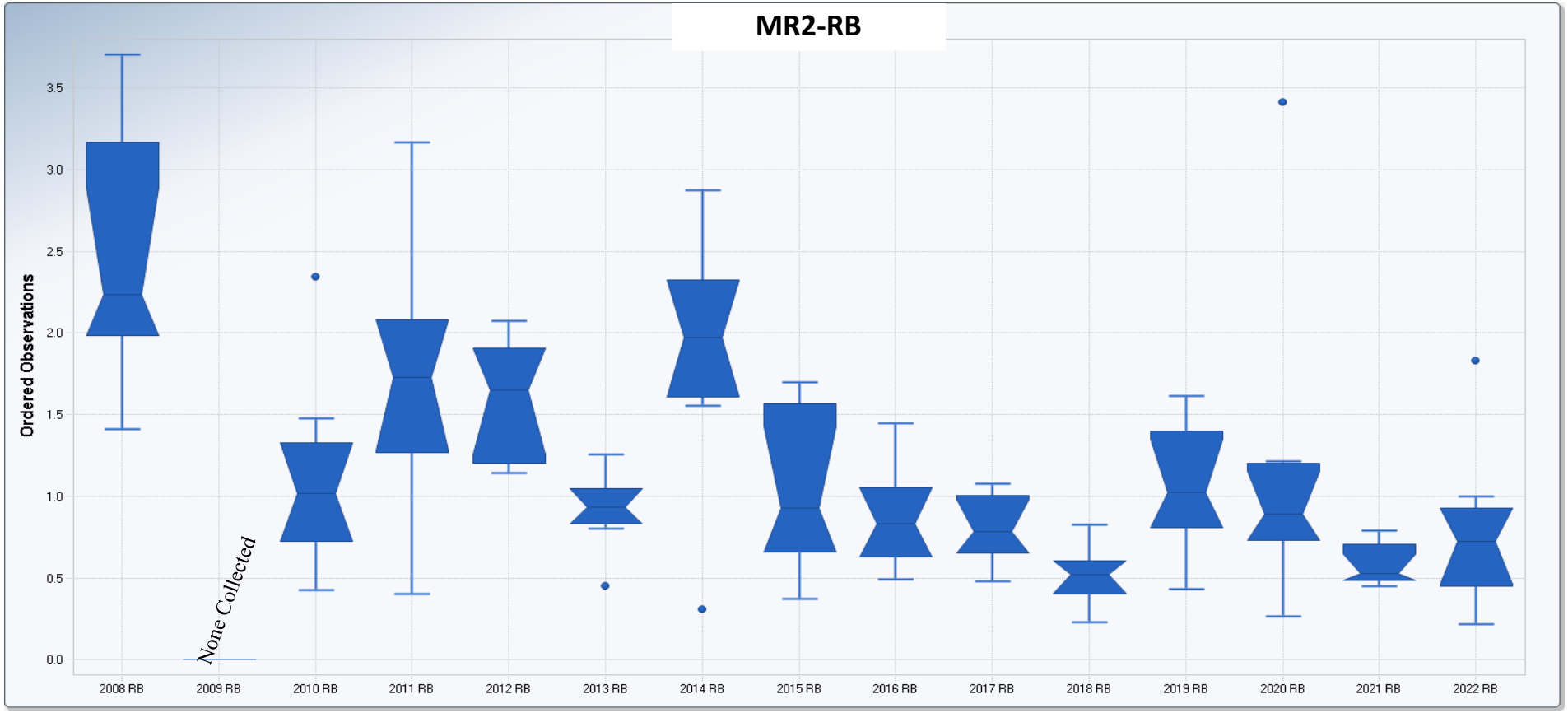
No juvenile white suckers were obtained from this reach from 2014 to 2022
There is no remediation target for Juvenile White Suckers

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



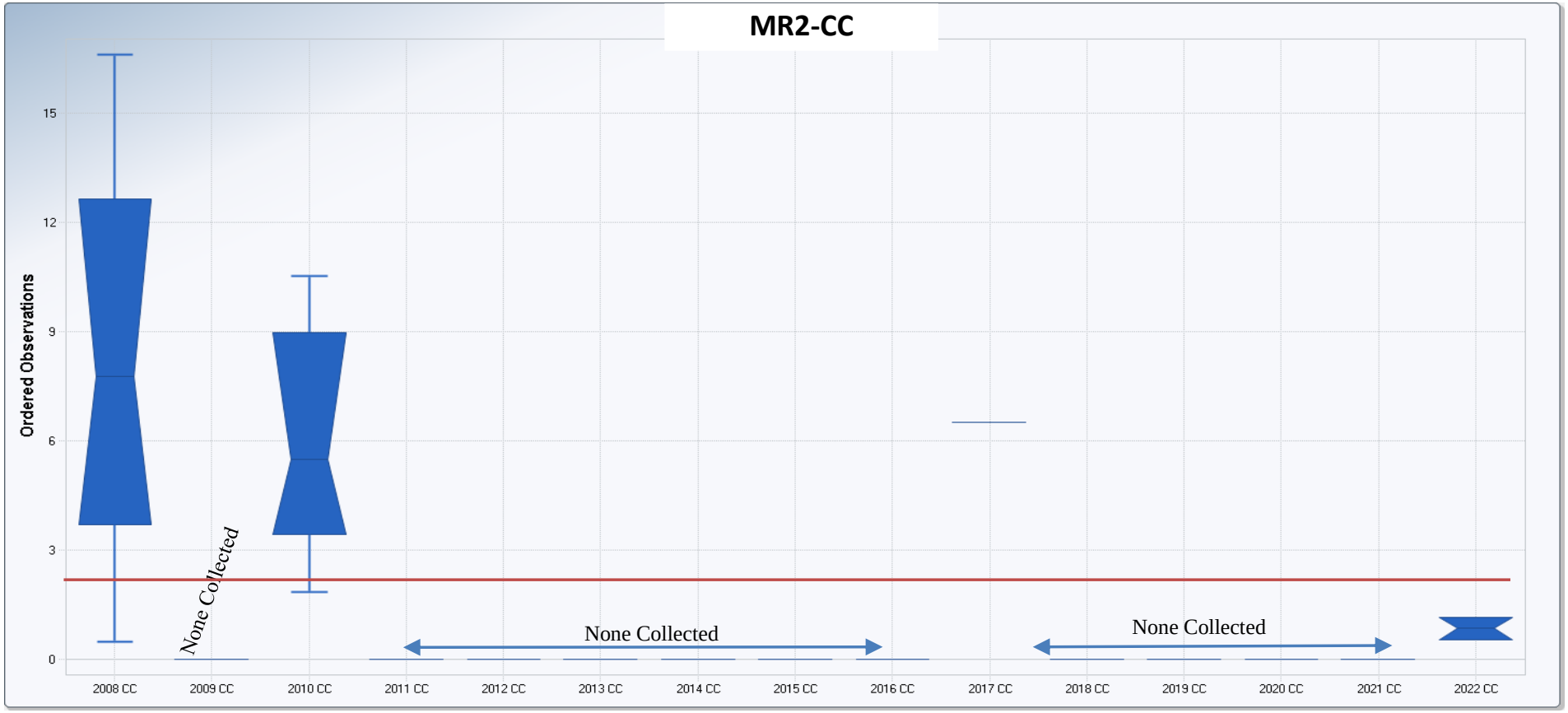
Smallmouth bass remediation target concentration- 0.31 ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



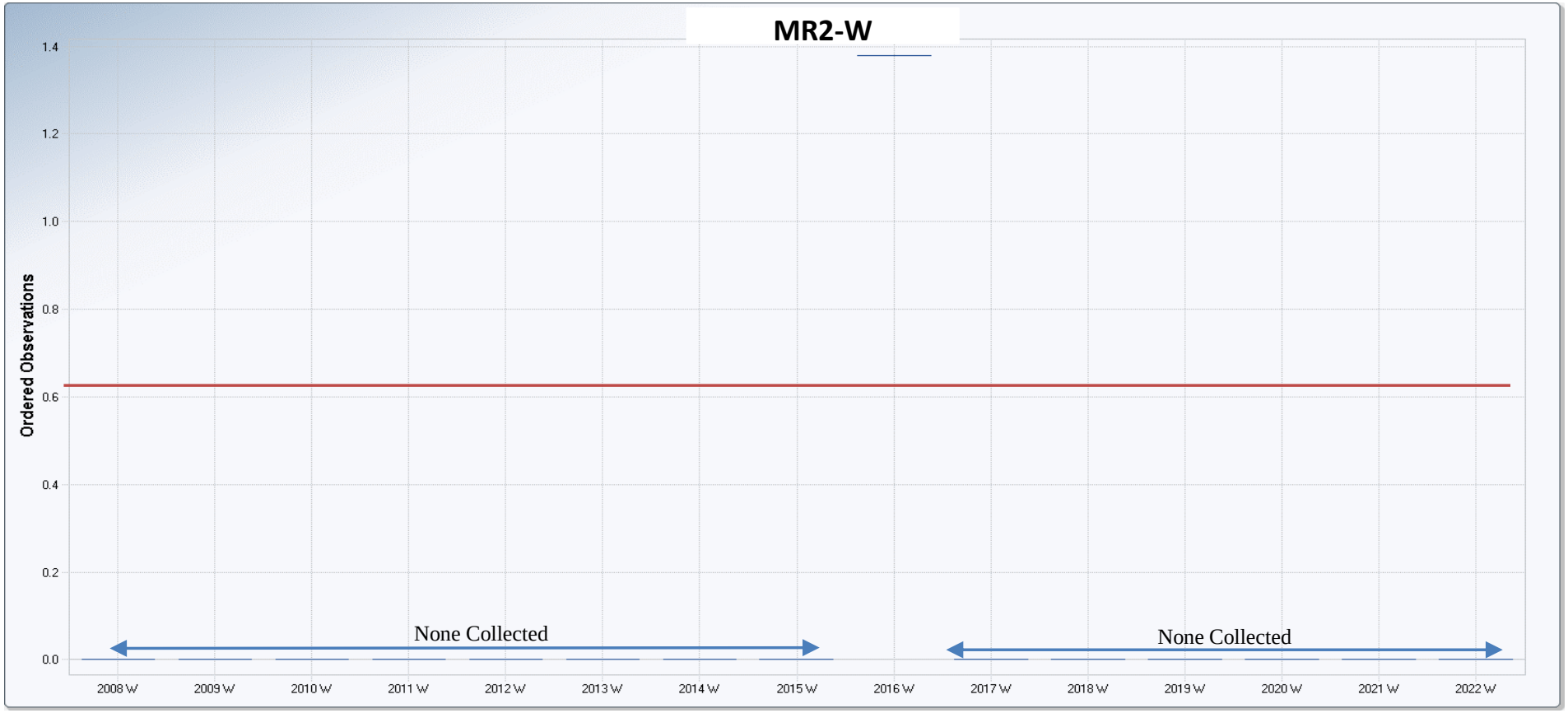
There is no remediation target for Rock Bass

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



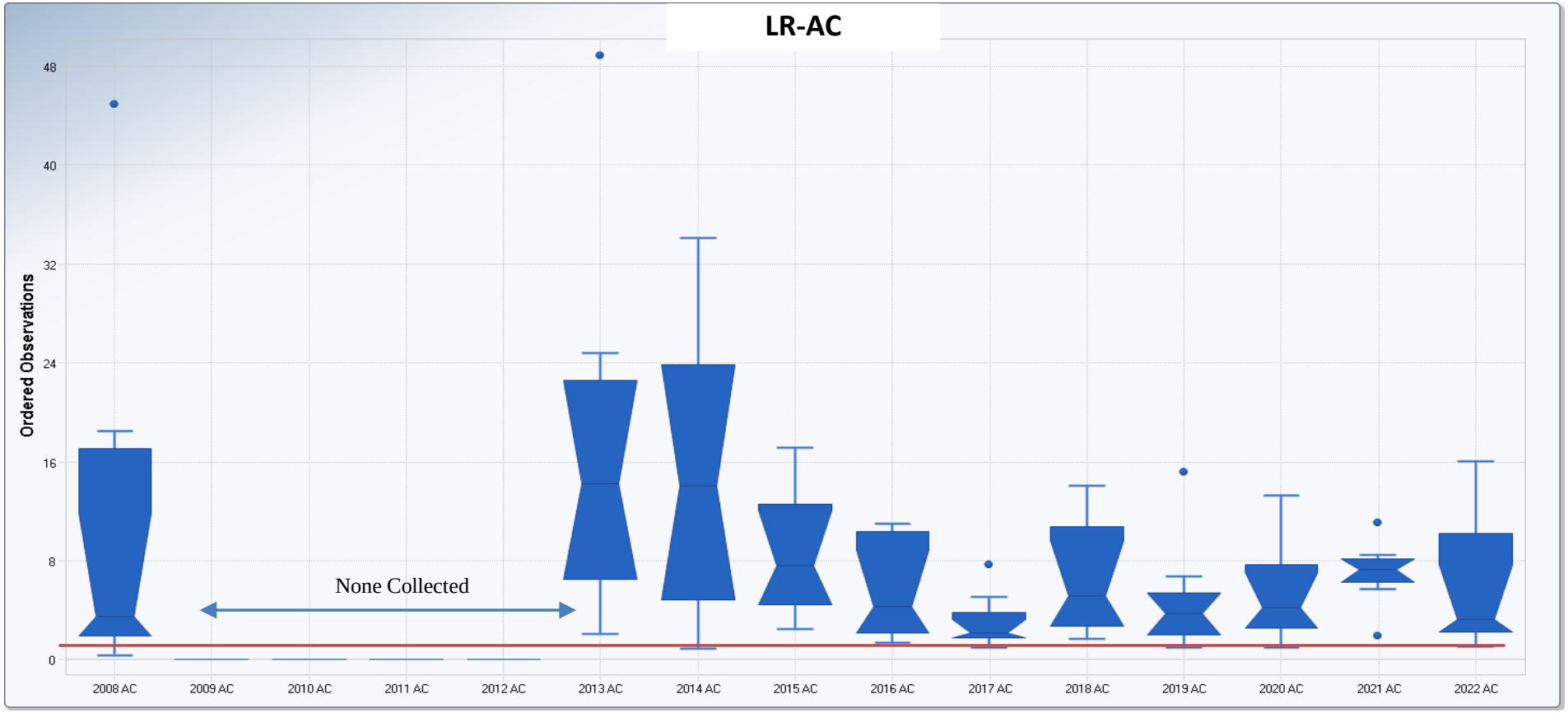
No channel catfish were obtained from this reach in 2009 and from 2011 to 2016 or from 2018 to 2021.
Only the median is provided for 2017 as only one channel catfish was collected
Channel catfish remediation target concentration- 2.53 ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



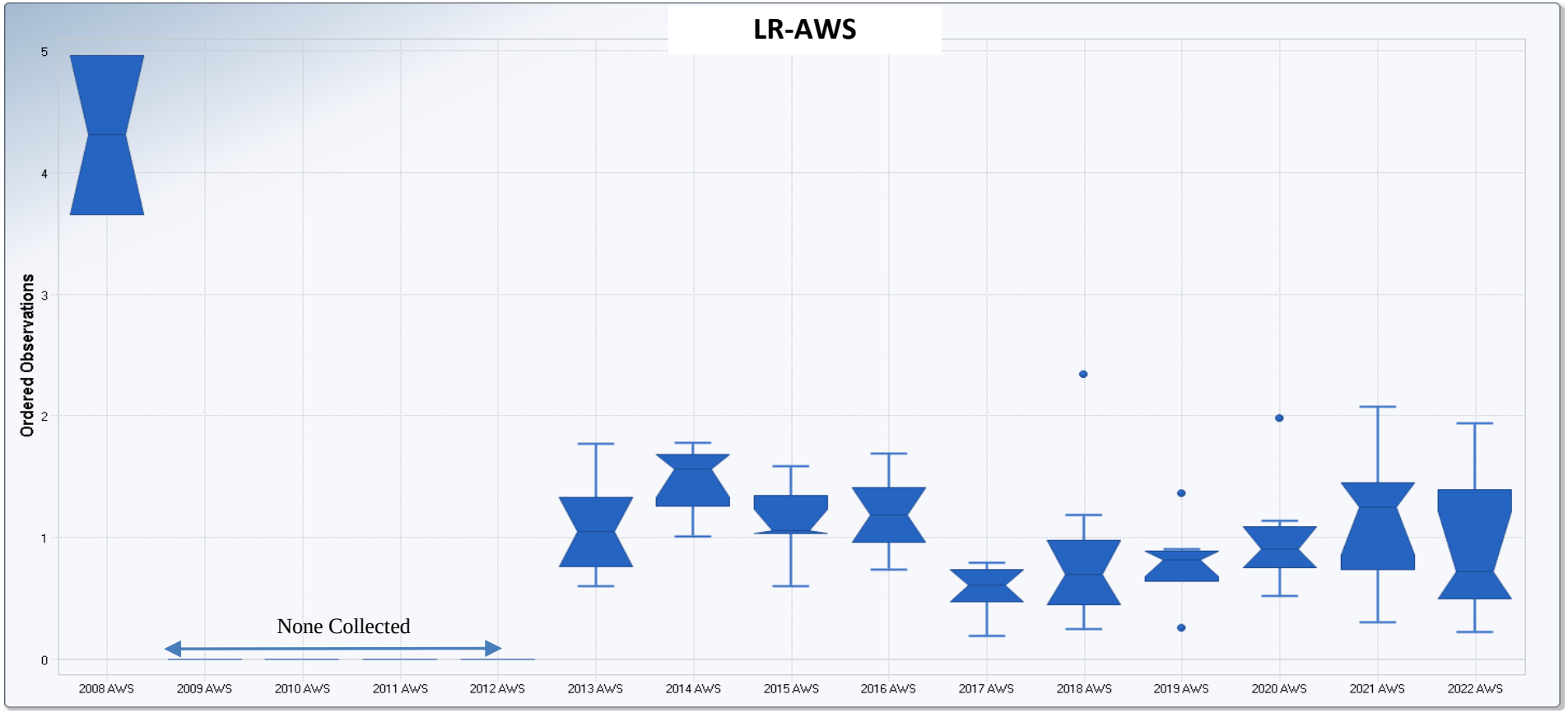
No walleye were obtained from this reach from 2008 to 2015 or from 2017 to 2022.
Only the median is provided for 2016 as only one walleye was collected
Walleye remediation target concentration- 0.63 ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



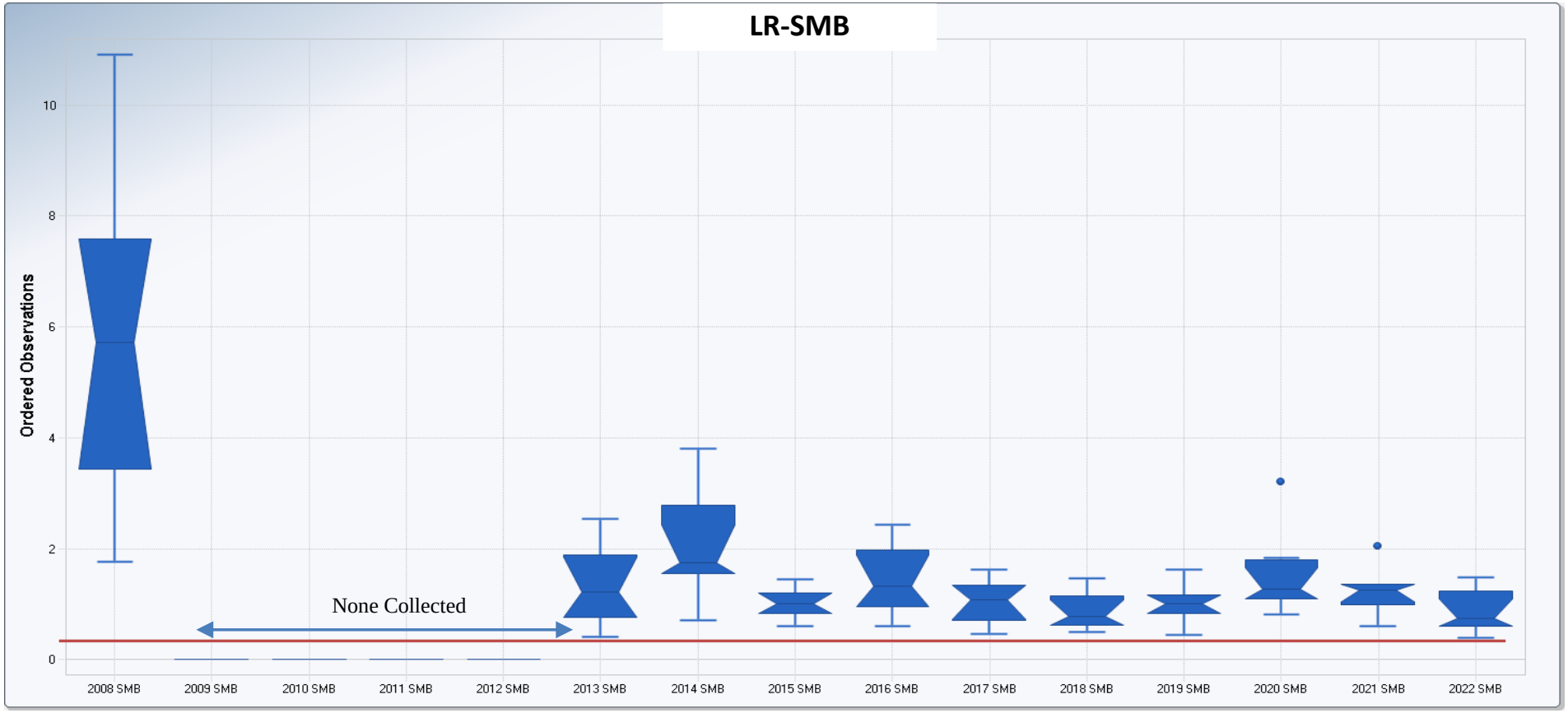
Fish were not collected from the Lower River from 2009 and 2012
Adult carp remediation target concentration- 2.58ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



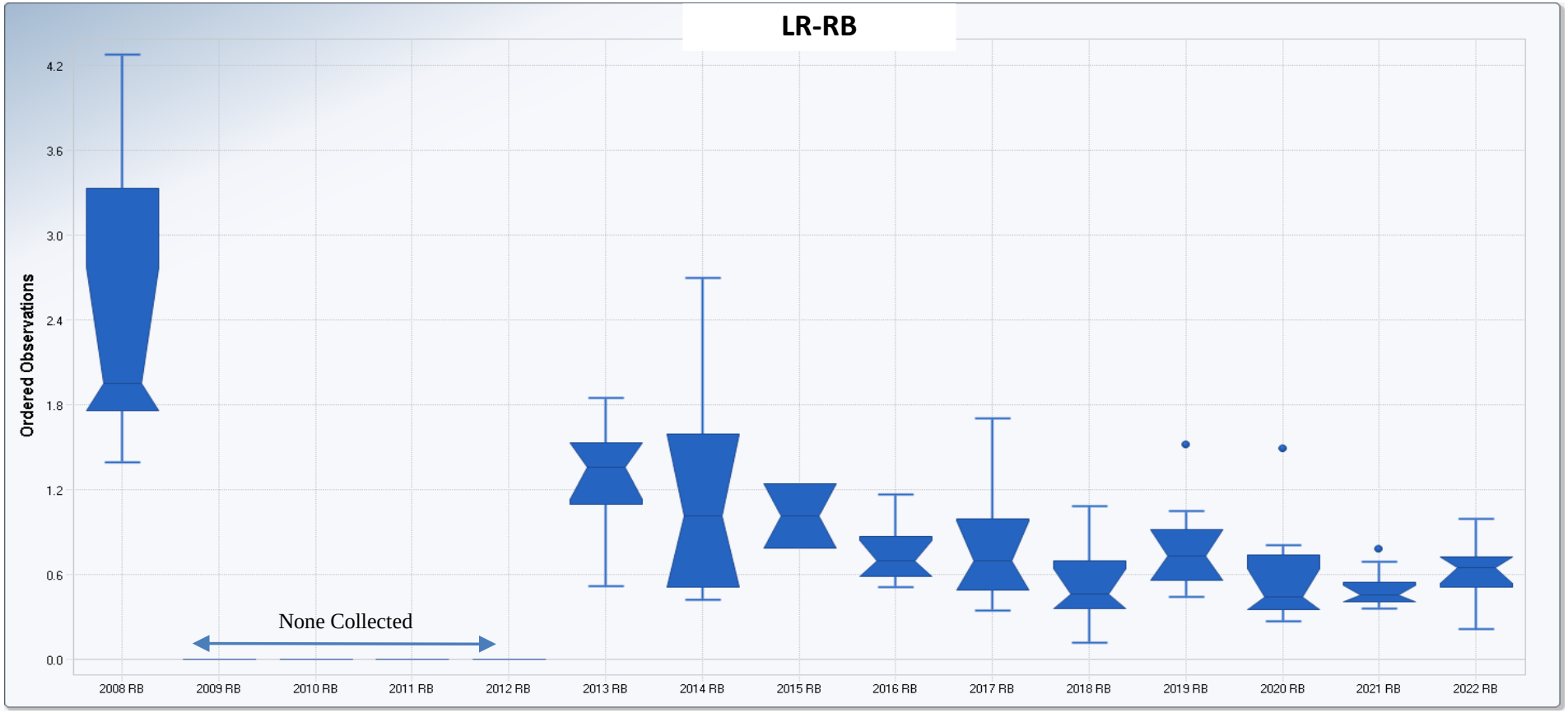
Fish were not collected from the Lower River from 2009 and 2012
There is no remediation target for Adult White Suckers

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



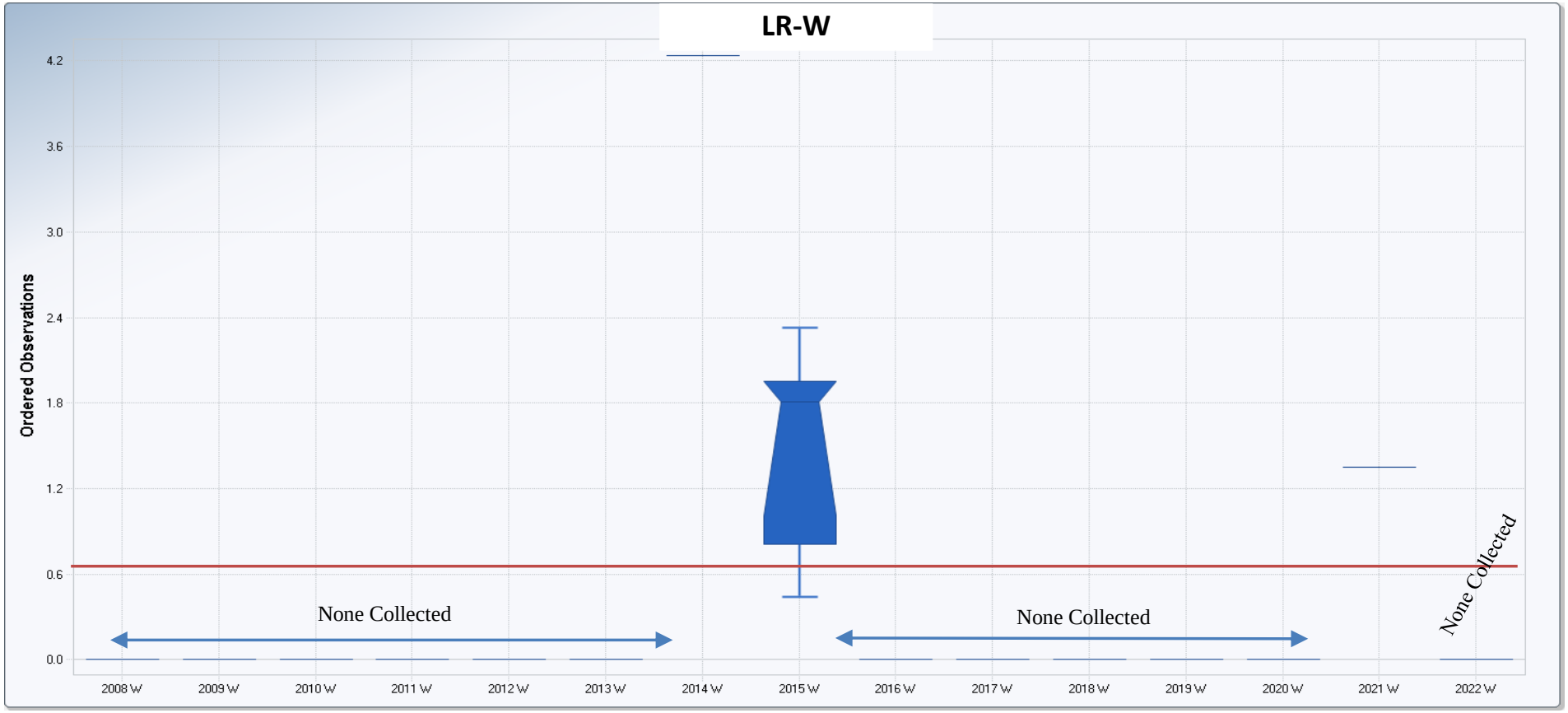
Fish were not collected from the Lower River from 2009 and 2012
Smallmouth bass remediation target concentration- 0.31 ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



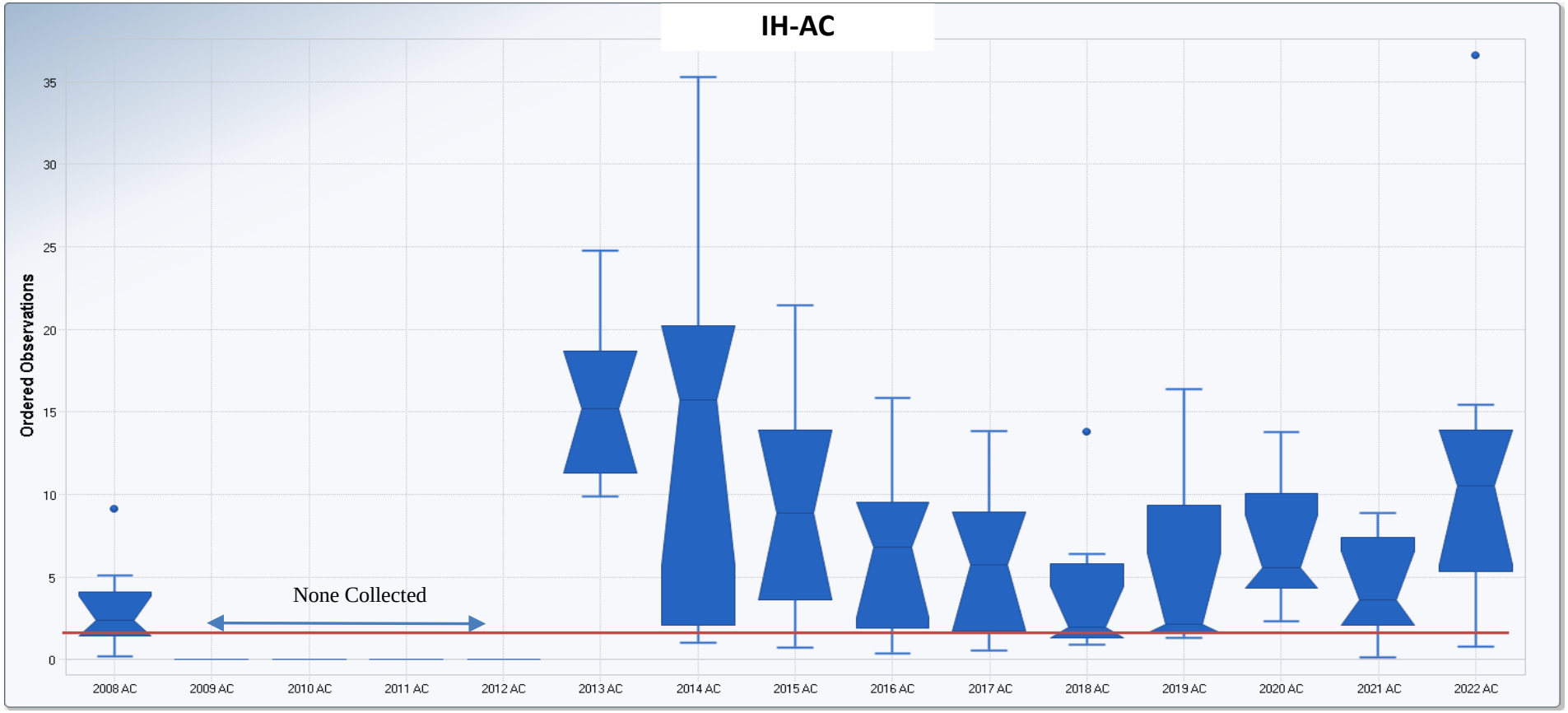
Fish were not collected from the Lower River from 2009 and 2012
There is no remediation target for Rock Bass.

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



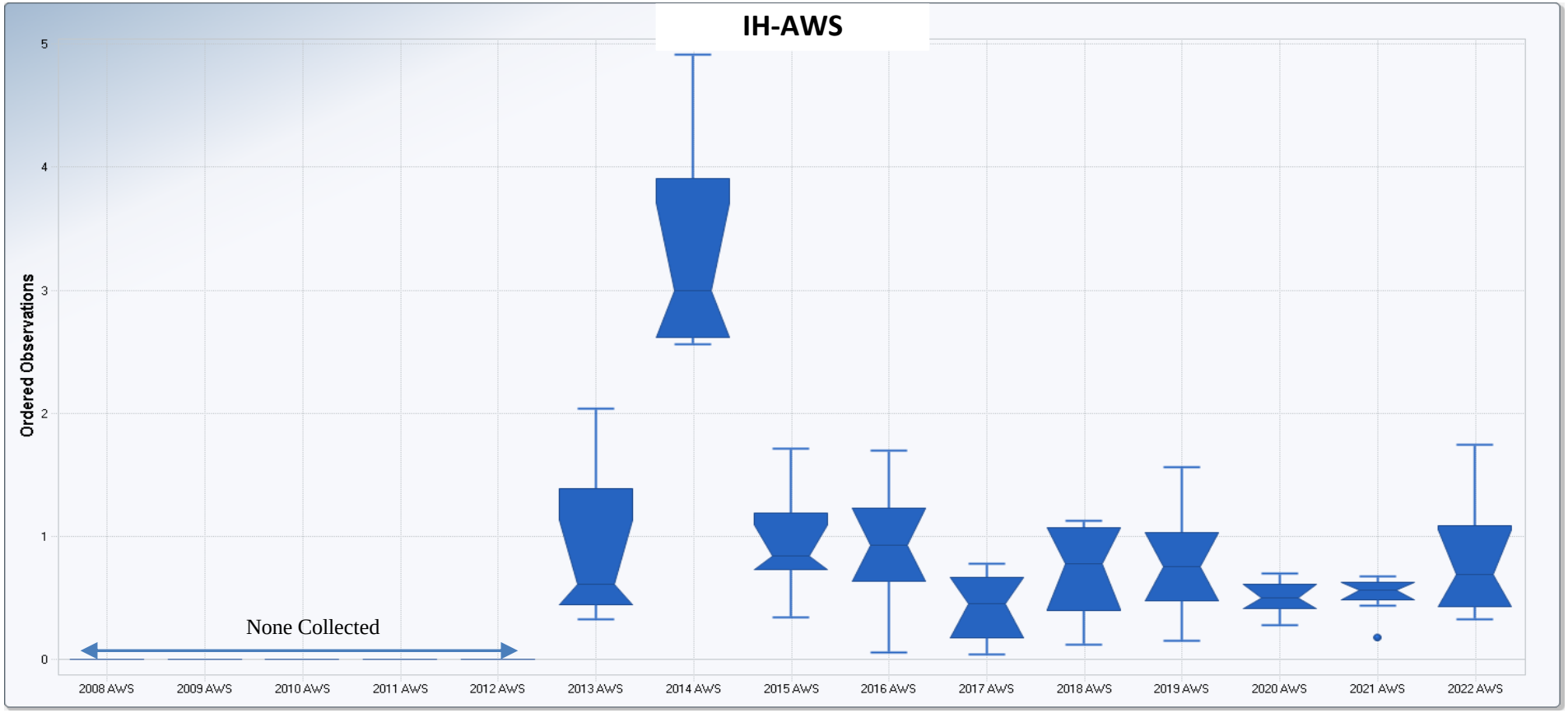
Fish were not collected from the Lower River from 2009 and 2012.
No walleye were obtained from this reach in 2008, 2013, 2016 to 2020, or 2022.
Only the median is provided for 2014 and 2021 as only one walleye was collected
Walleye remediation target concentration- 0.63 ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



Fish were not collected from the Inner Harbor from 2009 and 2012
Adult carp remediation target concentration- 2.58ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



Fish were not collected from the Inner Harbor from 2009 and 2012
No adult white suckers were obtained from this reach in 2008
There is no remediation target for Adult White Suckers

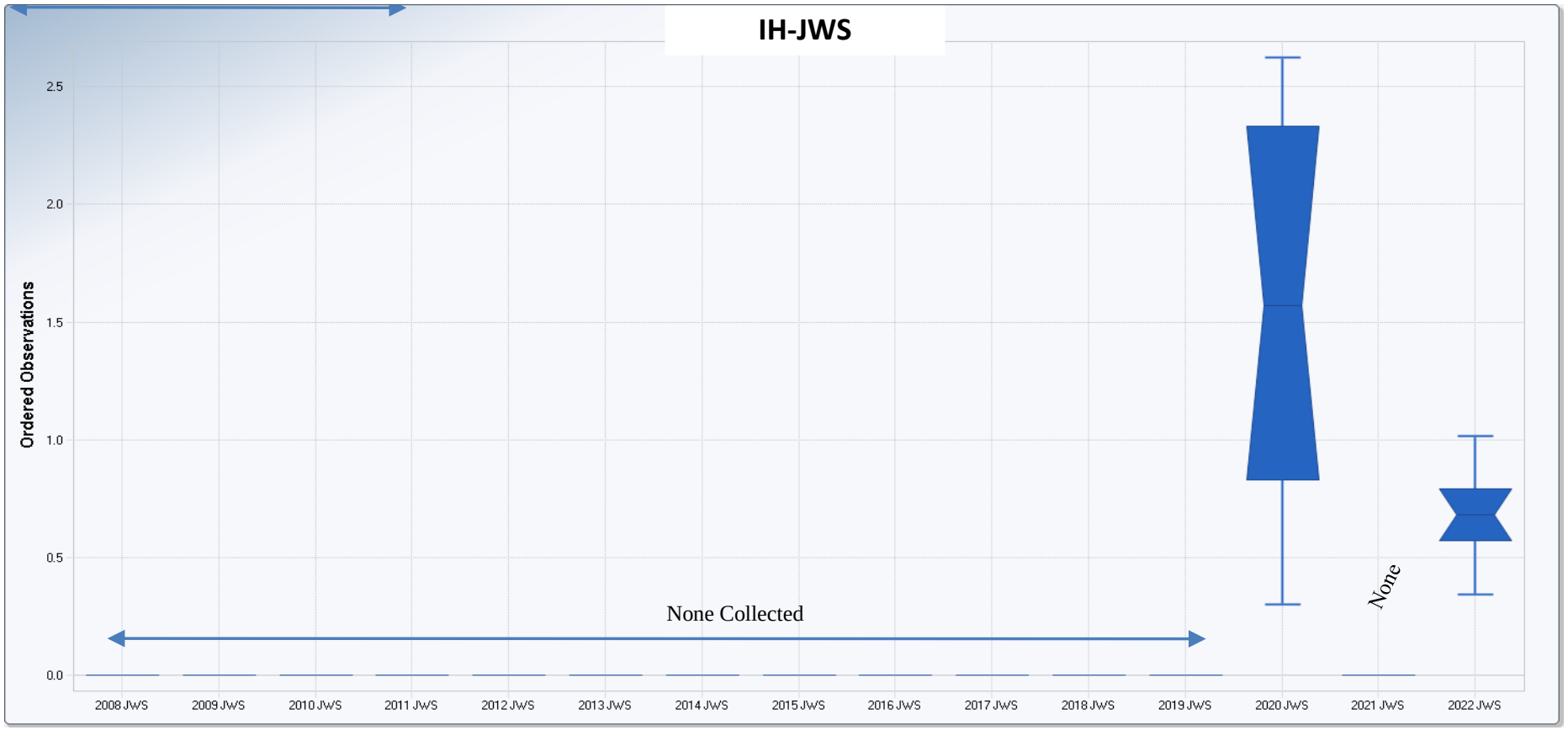
APPENDIX 3

BOX PLOTS

SHEBOYGAN RIVER AND HARBOR

SUPERFUND SITE, WISCONSIN

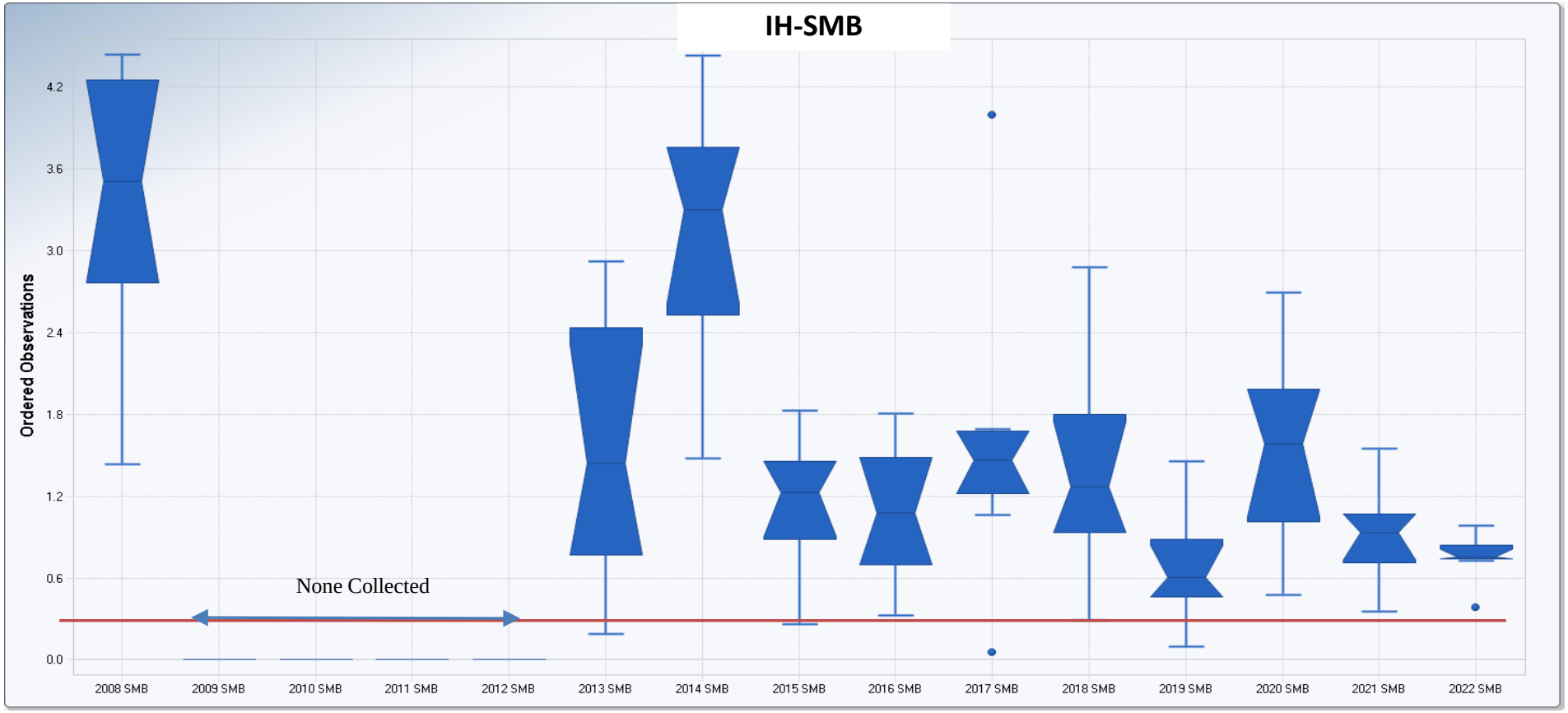
SME PROJECT NO. 069638.00.072



No juvenile white suckers were obtained from this reach from 2008 to 2019 or 2021.

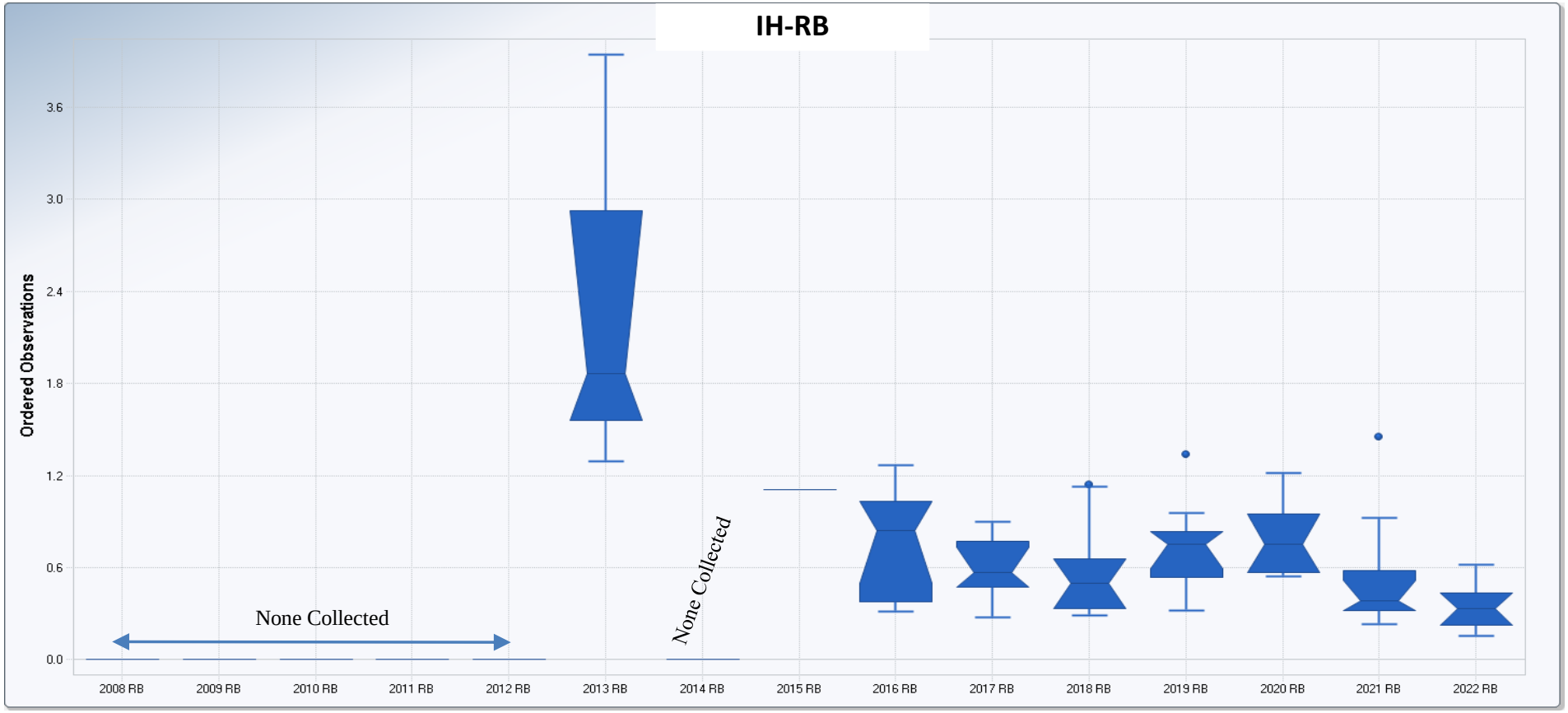
There is no remediation target for Juvenile White Suckers.

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



Fish were not collected from the Inner Harbor from 2009 and 2012
Smallmouth Bass remediation target concentration- 0.31 ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

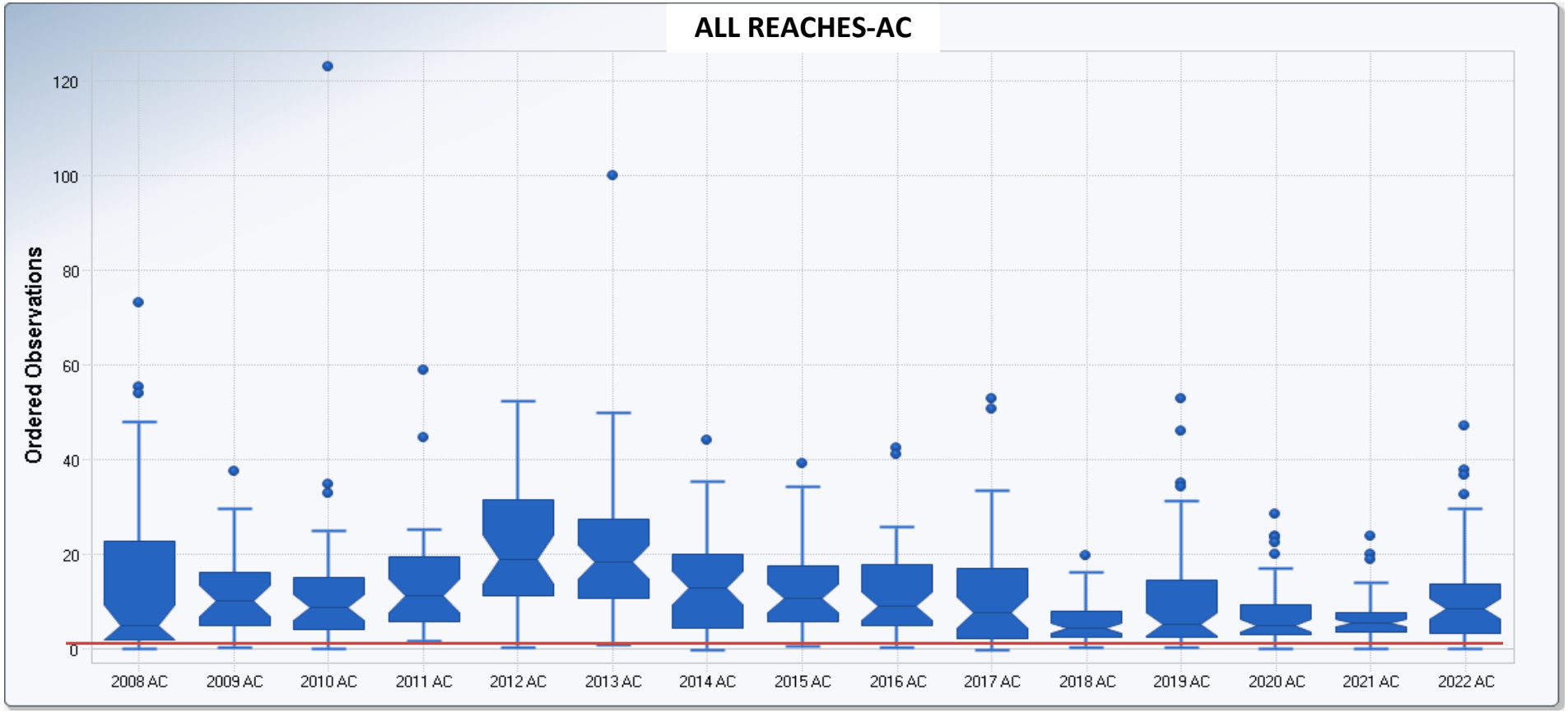


Fish were not collected from the Inner Harbor from 2009 and 2012
No rock bass were obtained from this reach in 2008 or 2014
Only the median is provided for 2015 as only one rock bass was collected
There is no remediation target for Rock Bass.

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

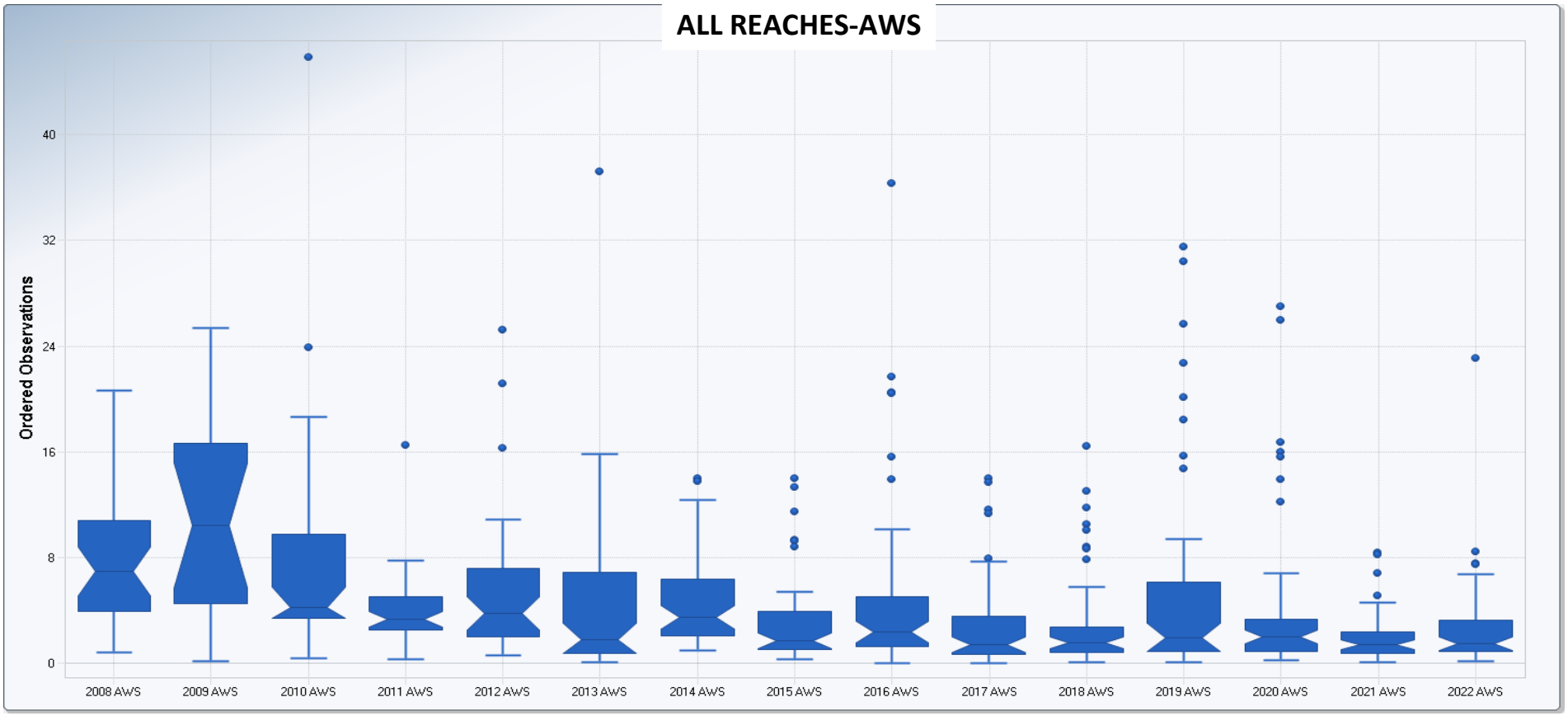
Fish were not collected from the Inner Harbor from 2009 and 2012
No walleye were obtained from this reach in 2008, from 2015 to 2020, or in 2021.
No median provided for 2014 as only two walleye were collected
Walleye remediation target concentration- 0.63 ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



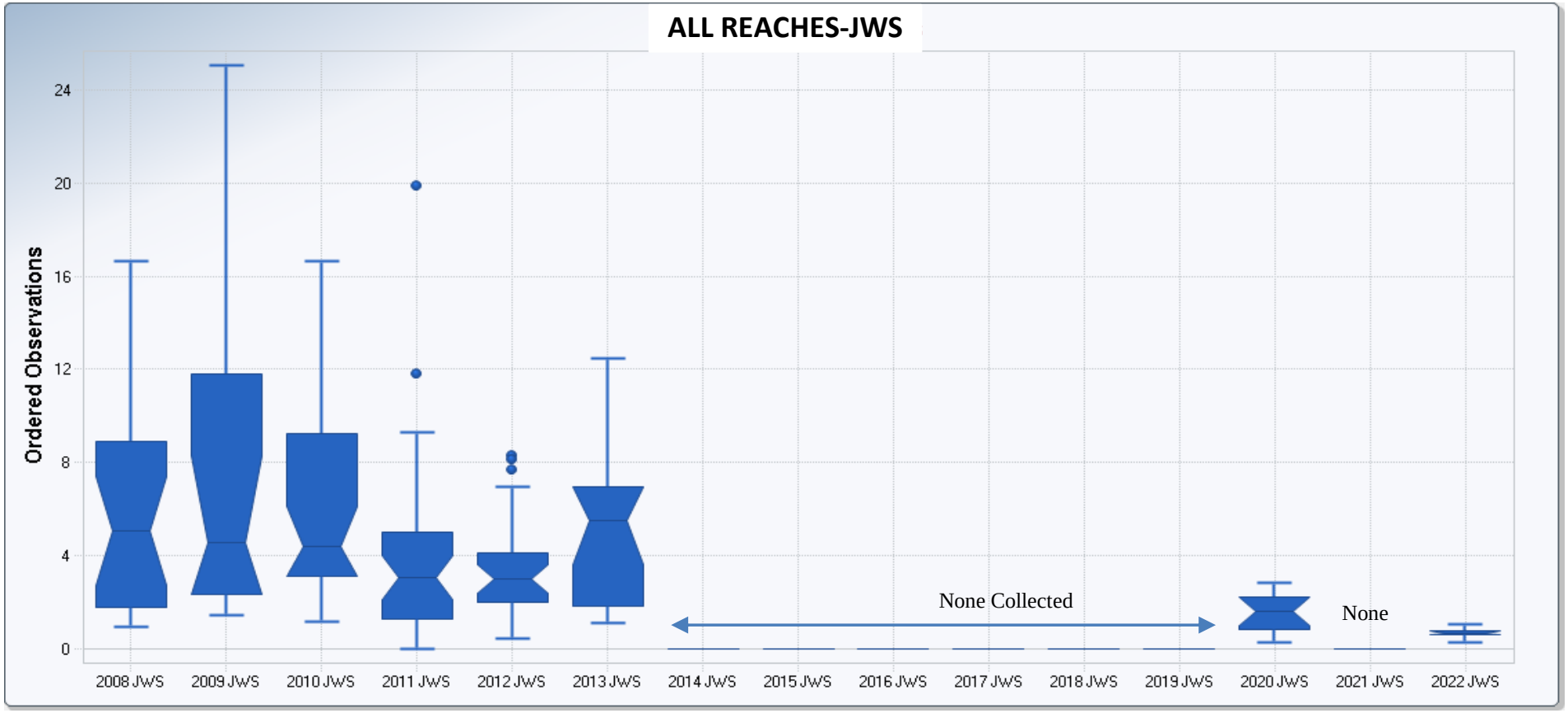
Adult carp remediation target concentration- 2.58ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



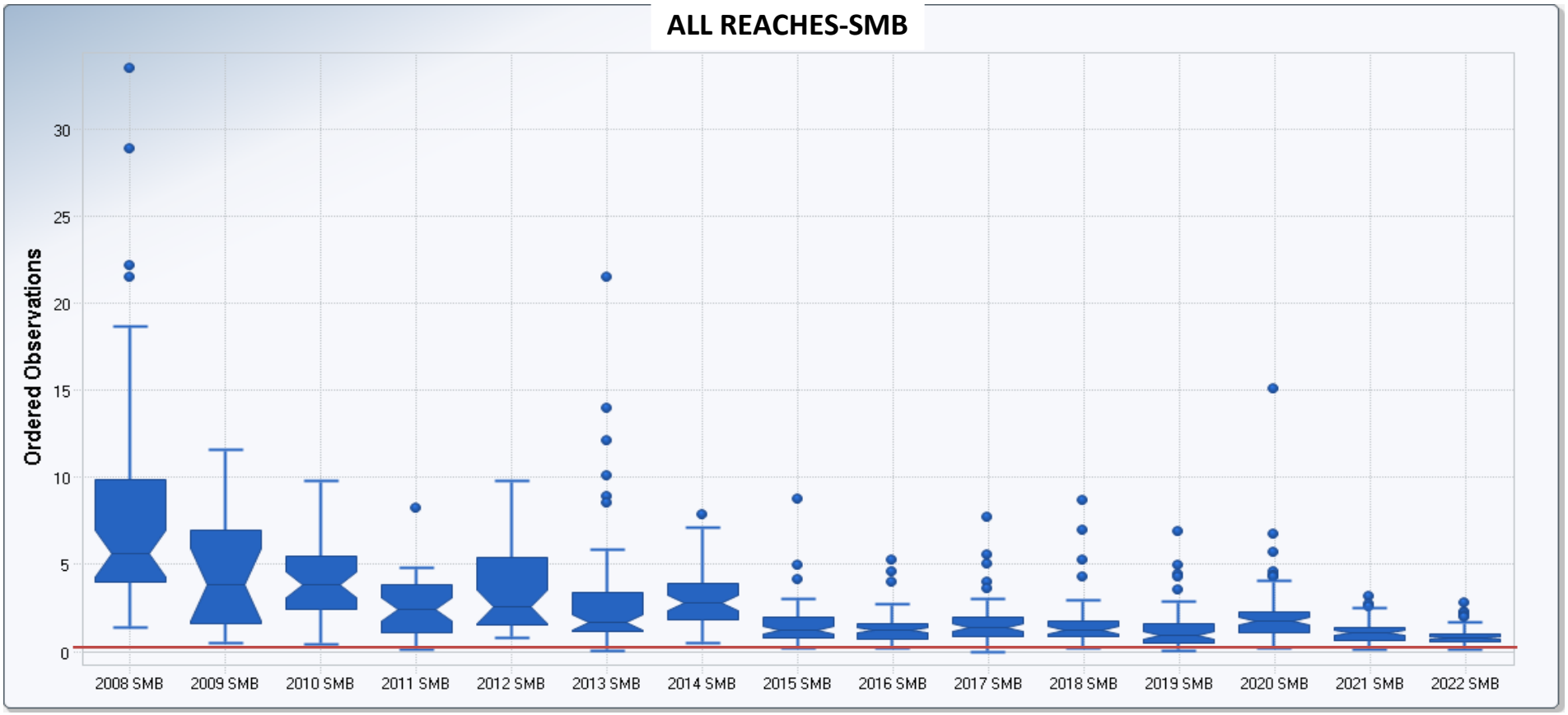
There is no remediation target for Adult White Suckers

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



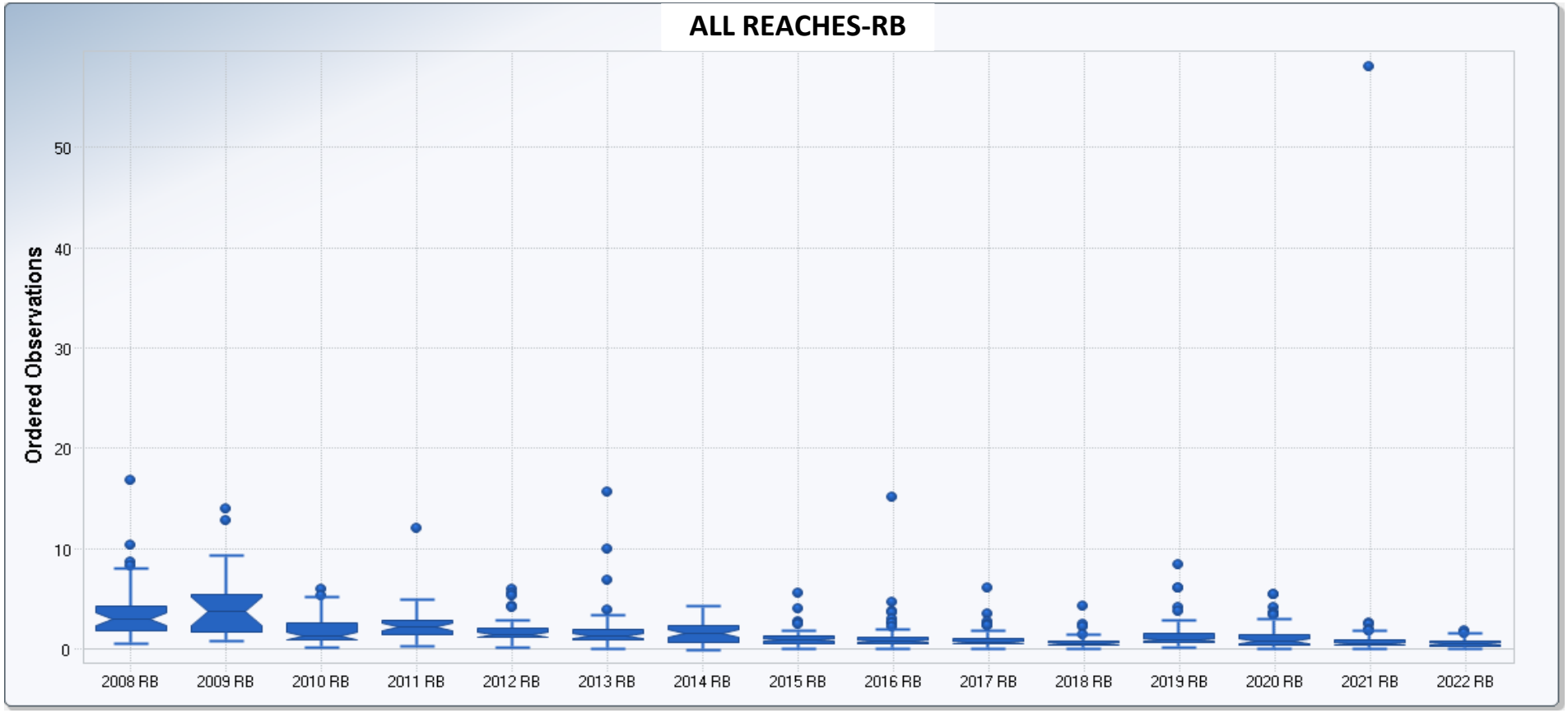
There is no remediation target for Juvenile White Suckers

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



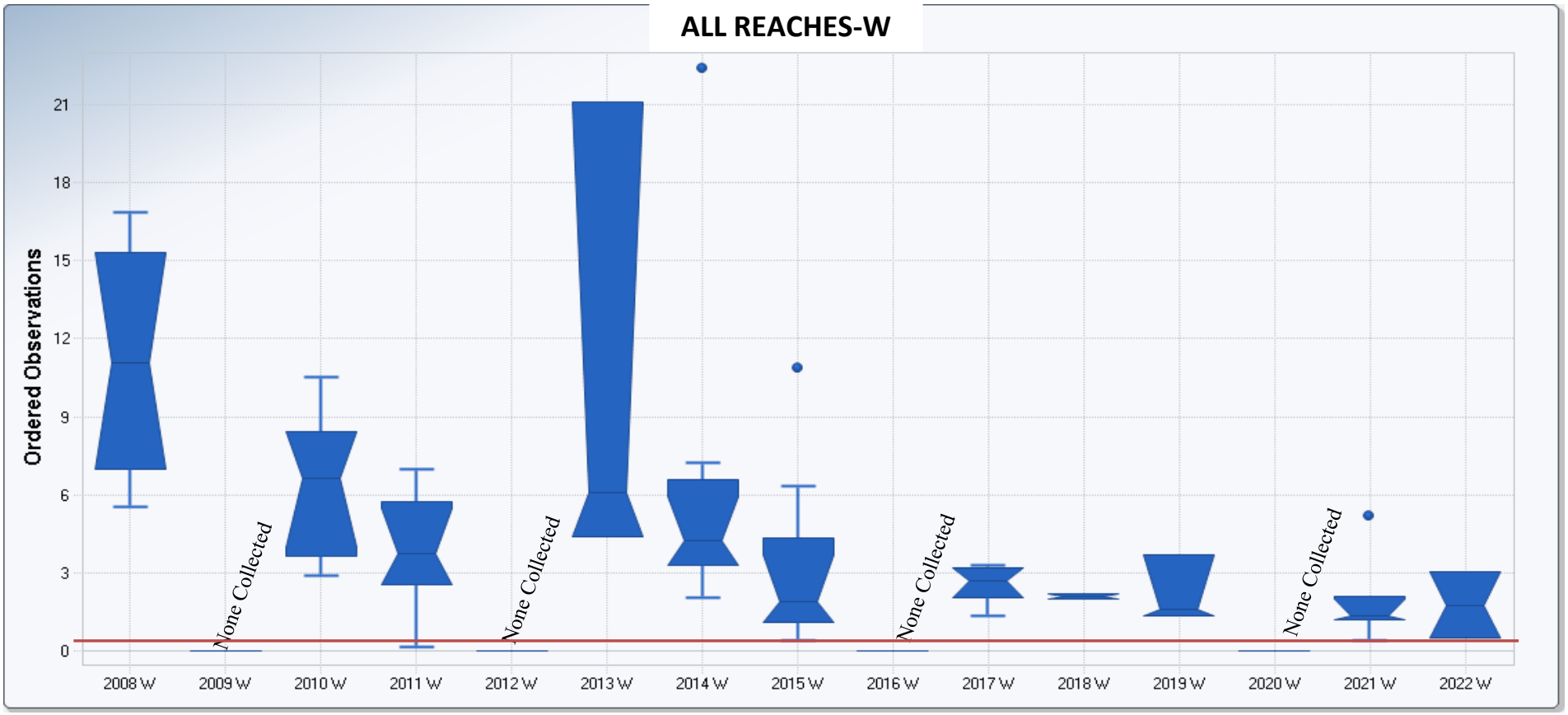
Smallmouth bass remediation target concentration- 0.31 ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



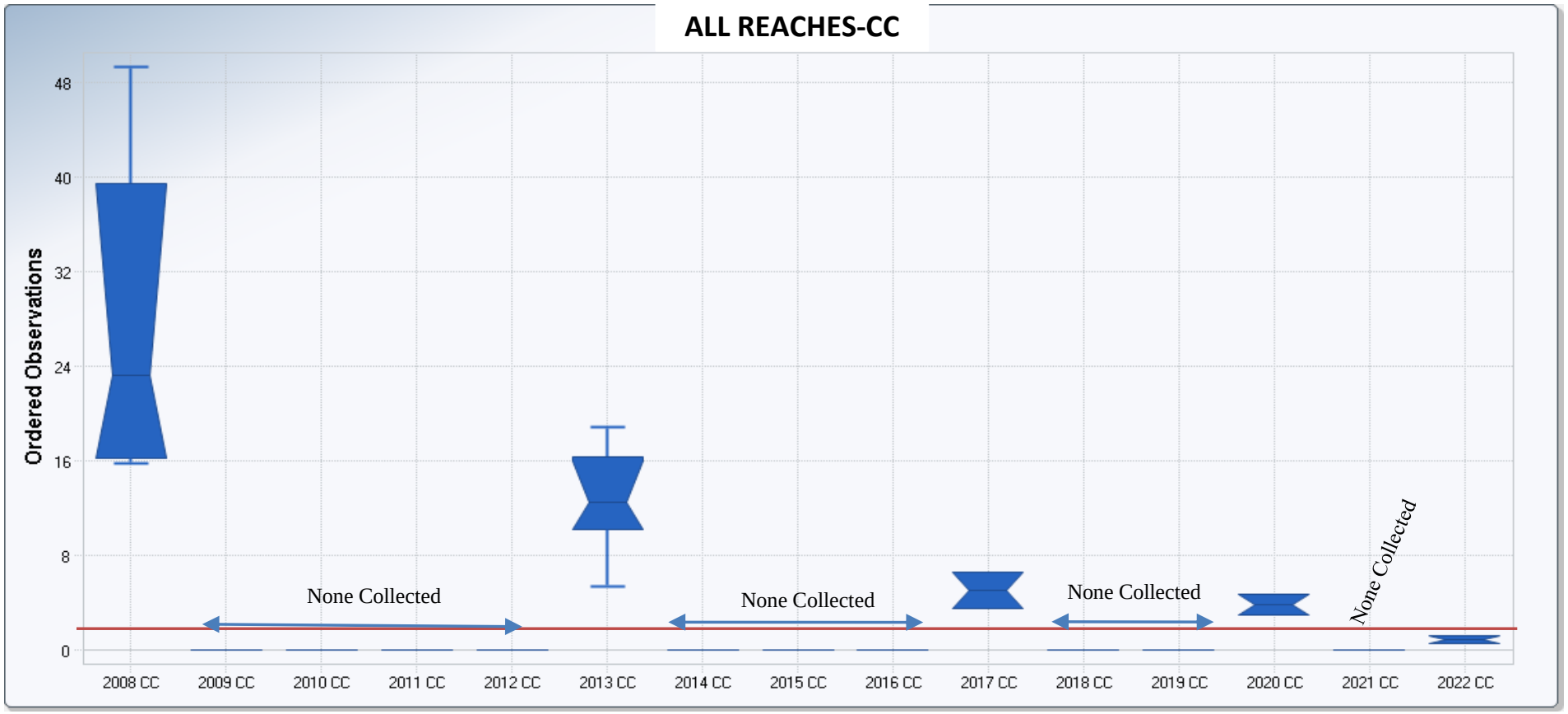
There is no remediation target for Rock Bass.

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



Walleye remediation target concentration- 0.63 ppm

APPENDIX 3
BOX PLOTS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072



Channel Catfish remediation target concentration- 2.53 ppm

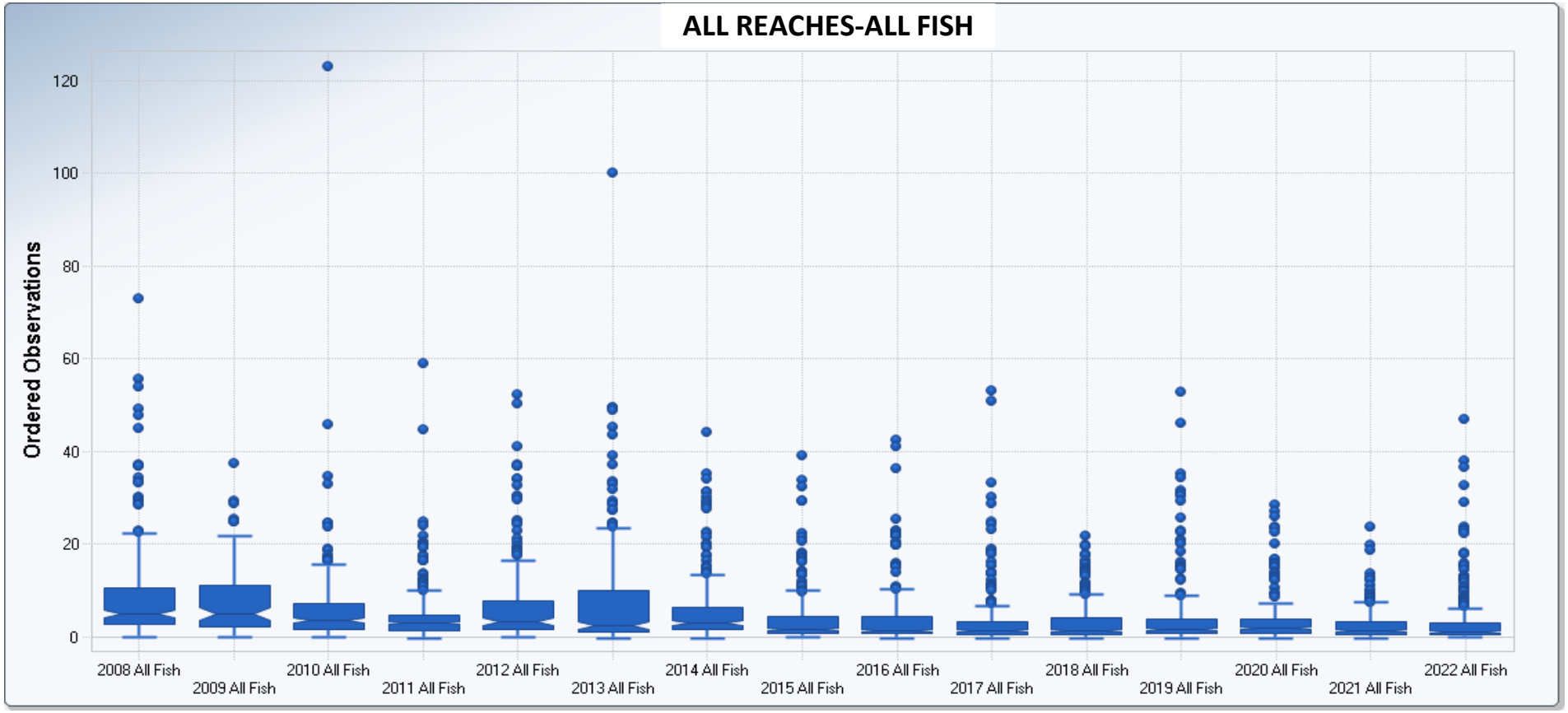
APPENDIX 3

BOX PLOTS

SHEBOYGAN RIVER AND HARBOR

SUPERFUND SITE, WISCONSIN

SME PROJECT NO. 069638.00.072



APPENDIX 4
PROUCL DOCUMENTATION

APPENDIX 4
PROUCL DOCUMENTATION
SHEBOYGAN RIVER AND HARBOR SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	ProUCL 5.112/14/2022 11:14:41 AM
From File	for ProUCL.xls
Full Precision	OFF
Confidence Coefficient	95%
umber of Bootstrap Operations	2000

UR1 AC

General Statistics

Total Number of Observations	12	Number of Distinct Observations	12
		Number of Missing Observations	0
Minimum	0.282	Mean	6.764
Maximum	14.5	Median	6.65
SD	4.916	Std. Error of Mean	1.419
Coefficient of Variation	0.727	Skewness	0.222

Normal GOF Test

Shapiro Wilk Test Statistic	0.936	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.859	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.136	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.243	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	9.313	95% Adjusted-CLT UCL (Chen-1995)	9.196
		95% Modified-t UCL (Johnson-1978)	9.328

Gamma GOF Test

A-D Test Statistic	0.568	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.754	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.198	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.252	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.114	k star (bias corrected MLE)	0.891
Theta hat (MLE)	6.07	Theta star (bias corrected MLE)	7.589
nu hat (MLE)	26.74	nu star (bias corrected)	21.39
MLE Mean (bias corrected)	6.764	MLE Sd (bias corrected)	7.165
		Approximate Chi Square Value (0.05)	11.88
Adjusted Level of Significance	0.029	Adjusted Chi Square Value	10.82

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	12.18	95% Adjusted Gamma UCL (use when n<50)	13.38

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.814	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.262	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.243	Data Not Lognormal at 5% Significance Level	

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.266	Mean of logged Data	1.4
Maximum of Logged Data	2.674	SD of logged Data	1.355

Assuming Lognormal Distribution

95% H-UCL	44.17	90% Chebyshev (MVUE) UCL	20.46
95% Chebyshev (MVUE) UCL	25.66	97.5% Chebyshev (MVUE) UCL	32.89
99% Chebyshev (MVUE) UCL	47.08		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	9.099	95% Jackknife UCL	9.313
95% Standard Bootstrap UCL	9.02	95% Bootstrap-t UCL	9.451
95% Hall's Bootstrap UCL	9.204	95% Percentile Bootstrap UCL	8.973
95% BCA Bootstrap UCL	9.02		
90% Chebyshev(Mean, Sd) UCL	11.02	95% Chebyshev(Mean, Sd) UCL	12.95
97.5% Chebyshev(Mean, Sd) UCL	15.63	99% Chebyshev(Mean, Sd) UCL	20.89

Suggested UCL to Use

95% Student's-t UCL 9.313

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

UR1 AWS

General Statistics

Total Number of Observations	12	Number of Distinct Observations	12
		Number of Missing Observations	0
Minimum	0.858	Mean	4.986
Maximum	23.1	Median	2.905
SD	6.225	Std. Error of Mean	1.797
Coefficient of Variation	1.249	Skewness	2.585

Normal GOF Test

Shapiro Wilk Test Statistic	0.668	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.859	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.268	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.243	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	8.213	95% Adjusted-CLT UCL (Chen-1995)	9.375
		95% Modified-t UCL (Johnson-1978)	8.437

Gamma GOF Test

A-D Test Statistic	0.467	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.754	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.149	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.252	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.14	k star (bias corrected MLE)	0.911
Theta hat (MLE)	4.372	Theta star (bias corrected MLE)	5.474
nu hat (MLE)	27.37	nu star (bias corrected)	21.86
MLE Mean (bias corrected)	4.986	MLE Sd (bias corrected)	5.224
		Approximate Chi Square Value (0.05)	12.23
Adjusted Level of Significance	0.029	Adjusted Chi Square Value	11.15

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	8.909	95% Adjusted Gamma UCL (use when n<50)	9.777

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.956	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.105	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.243	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-0.153	Mean of logged Data	1.108
Maximum of Logged Data	3.14	SD of logged Data	0.997

Assuming Lognormal Distribution

95% H-UCL	11.92	90% Chebyshev (MVUE) UCL	9.043
95% Chebyshev (MVUE) UCL	11.01	97.5% Chebyshev (MVUE) UCL	13.74
99% Chebyshev (MVUE) UCL	19.1		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	7.942	95% Jackknife UCL	8.213
95% Standard Bootstrap UCL	7.82	95% Bootstrap-t UCL	12.5
95% Hall's Bootstrap UCL	18.74	95% Percentile Bootstrap UCL	8.214
95% BCA Bootstrap UCL	9.712		
90% Chebyshev(Mean, Sd) UCL	10.38	95% Chebyshev(Mean, Sd) UCL	12.82
97.5% Chebyshev(Mean, Sd) UCL	16.21	99% Chebyshev(Mean, Sd) UCL	22.87

Suggested UCL to Use

95% Adjusted Gamma UCL 9.777

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

UR1 SMB

General Statistics

Total Number of Observations	12	Number of Distinct Observations	12
		Number of Missing Observations	0
Minimum	0.532	Mean	1.069
Maximum	2.25	Median	0.787
SD	0.638	Std. Error of Mean	0.184
Coefficient of Variation	0.597	Skewness	1.165

Normal GOF Test

Shapiro Wilk Test Statistic	0.748	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.859	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.322	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.243	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	1.4	95% Adjusted-CLT UCL (Chen-1995)	1.439
		95% Modified-t UCL (Johnson-1978)	1.411

Gamma GOF Test

A-D Test Statistic	1.146	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.737	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.296	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.247	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	3.778	k star (bias corrected MLE)	2.889
Theta hat (MLE)	0.283	Theta star (bias corrected MLE)	0.37
nu hat (MLE)	90.67	nu star (bias corrected)	69.34
MLE Mean (bias corrected)	1.069	MLE Sd (bias corrected)	0.629
		Approximate Chi Square Value (0.05)	51.17
Adjusted Level of Significance	0.029	Adjusted Chi Square Value	48.79

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	1.449	95% Adjusted Gamma UCL (use when n<50)	1.52

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.826	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.267	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.243	Data Not Lognormal at 5% Significance Level	

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-0.631	Mean of logged Data	-0.071
Maximum of Logged Data	0.811	SD of logged Data	0.524

Assuming Lognormal Distribution

95% H-UCL	1.505	90% Chebyshev (MVUE) UCL	1.546
95% Chebyshev (MVUE) UCL	1.768	97.5% Chebyshev (MVUE) UCL	2.077
99% Chebyshev (MVUE) UCL	2.683		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	1.372	95% Jackknife UCL	1.4
95% Standard Bootstrap UCL	1.364	95% Bootstrap-t UCL	1.496
95% Hall's Bootstrap UCL	1.308	95% Percentile Bootstrap UCL	1.373
95% BCA Bootstrap UCL	1.399		
90% Chebyshev(Mean, Sd) UCL	1.622	95% Chebyshev(Mean, Sd) UCL	1.872
97.5% Chebyshev(Mean, Sd) UCL	2.22	99% Chebyshev(Mean, Sd) UCL	2.902

Suggested UCL to Use

95% Chebyshev (Mean, Sd) UCL 1.872

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

UR1 RB

General Statistics

Total Number of Observations	12	Number of Distinct Observations	12
		Number of Missing Observations	0
Minimum	0.176	Mean	0.773
Maximum	1.58	Median	0.67
SD	0.518	Std. Error of Mean	0.15
Coefficient of Variation	0.67	Skewness	0.422

Normal GOF Test

Shapiro Wilk Test Statistic	0.892	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.197	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.243	Data appear Normal at 5% Significance Level	

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	1.042	95% Adjusted-CLT UCL (Chen-1995)	1.038
		95% Modified-t UCL (Johnson-1978)	1.045

Gamma GOF Test

A-D Test Statistic	0.445	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.741	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.162	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.248	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	2.051	k star (bias corrected MLE)	1.594
Theta hat (MLE)	0.377	Theta star (bias corrected MLE)	0.485
nu hat (MLE)	49.23	nu star (bias corrected)	38.26
MLE Mean (bias corrected)	0.773	MLE Sd (bias corrected)	0.612
		Approximate Chi Square Value (0.05)	25.09
Adjusted Level of Significance	0.029	Adjusted Chi Square Value	23.48

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	1.178	95% Adjusted Gamma UCL (use when n<50)	1.26

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.888	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.177	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.243	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.737	Mean of logged Data	-0.521
Maximum of Logged Data	0.457	SD of logged Data	0.816

Assuming Lognormal Distribution

95% H-UCL	1.57	90% Chebyshev (MVUE) UCL	1.397
95% Chebyshev (MVUE) UCL	1.666	97.5% Chebyshev (MVUE) UCL	2.041
99% Chebyshev (MVUE) UCL	2.777		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	1.019	95% Jackknife UCL	1.042
95% Standard Bootstrap UCL	1.008	95% Bootstrap-t UCL	1.067
95% Hall's Bootstrap UCL	1.005	95% Percentile Bootstrap UCL	1.005
95% BCA Bootstrap UCL	1.023		
90% Chebyshev(Mean, Sd) UCL	1.222	95% Chebyshev(Mean, Sd) UCL	1.425
97.5% Chebyshev(Mean, Sd) UCL	1.707	99% Chebyshev(Mean, Sd) UCL	2.261

Suggested UCL to Use

95% Student's-t UCL 1.042

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

UR2 AC

General Statistics

Total Number of Observations	12	Number of Distinct Observations	12
		Number of Missing Observations	0
Minimum	0.315	Mean	10.89
Maximum	37.9	Median	8.15
SD	11.34	Std. Error of Mean	3.275
Coefficient of Variation	1.041	Skewness	1.276

Normal GOF Test

Shapiro Wilk Test Statistic	0.869	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.176	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.243	Data appear Normal at 5% Significance Level	

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	16.77	95% Adjusted-CLT UCL (Chen-1995)	17.57
		95% Modified-t UCL (Johnson-1978)	16.97

Gamma GOF Test

A-D Test Statistic	0.383	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.77	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.162	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.256	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.698	k star (bias corrected MLE)	0.579
Theta hat (MLE)	15.59	Theta star (bias corrected MLE)	18.8
nu hat (MLE)	16.76	nu star (bias corrected)	13.9
MLE Mean (bias corrected)	10.89	MLE Sd (bias corrected)	14.31
		Approximate Chi Square Value (0.05)	6.506
Adjusted Level of Significance	0.029	Adjusted Chi Square Value	5.751

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	23.28	95% Adjusted Gamma UCL (use when n<50)	26.33

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.886	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.203	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.243	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.155	Mean of logged Data	1.522
Maximum of Logged Data	3.635	SD of logged Data	1.688

Assuming Lognormal Distribution

95% H-UCL	169.3	90% Chebyshev (MVUE) UCL	39.54
95% Chebyshev (MVUE) UCL	50.57	97.5% Chebyshev (MVUE) UCL	65.87
99% Chebyshev (MVUE) UCL	95.93		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	16.28	95% Jackknife UCL	16.77
95% Standard Bootstrap UCL	16.08	95% Bootstrap-t UCL	19.24
95% Hall's Bootstrap UCL	20.23	95% Percentile Bootstrap UCL	16.07
95% BCA Bootstrap UCL	17.18		
90% Chebyshev(Mean, Sd) UCL	20.71	95% Chebyshev(Mean, Sd) UCL	25.16
97.5% Chebyshev(Mean, Sd) UCL	31.34	99% Chebyshev(Mean, Sd) UCL	43.47

Suggested UCL to Use

95% Student's-t UCL 16.77

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

UR2 AWS

General Statistics

Total Number of Observations	12	Number of Distinct Observations	12
		Number of Missing Observations	0
Minimum	0.811	Mean	3.434
Maximum	7.58	Median	3.08
SD	2.114	Std. Error of Mean	0.61
Coefficient of Variation	0.616	Skewness	0.795

Normal GOF Test

Shapiro Wilk Test Statistic	0.933	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.167	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.243	Data appear Normal at 5% Significance Level	

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	4.53	95% Adjusted-CLT UCL (Chen-1995)	4.588
		95% Modified-t UCL (Johnson-1978)	4.554

Gamma GOF Test

A-D Test Statistic	0.147	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.74	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.0905	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.248	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	2.722	k star (bias corrected MLE)	2.097
Theta hat (MLE)	1.262	Theta star (bias corrected MLE)	1.638
nu hat (MLE)	65.32	nu star (bias corrected)	50.33
MLE Mean (bias corrected)	3.434	MLE Sd (bias corrected)	2.372
		Approximate Chi Square Value (0.05)	35.04
Adjusted Level of Significance	0.029	Adjusted Chi Square Value	33.1

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	4.933	95% Adjusted Gamma UCL (use when n<50)	5.222

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.965	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.127	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.243	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-0.209	Mean of logged Data	1.039
Maximum of Logged Data	2.026	SD of logged Data	0.687

Assuming Lognormal Distribution

95% H-UCL	5.877	90% Chebyshev (MVUE) UCL	5.662
95% Chebyshev (MVUE) UCL	6.643	97.5% Chebyshev (MVUE) UCL	8.004
99% Chebyshev (MVUE) UCL	10.68		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	4.438	95% Jackknife UCL	4.53
95% Standard Bootstrap UCL	4.388	95% Bootstrap-t UCL	4.865
95% Hall's Bootstrap UCL	4.957	95% Percentile Bootstrap UCL	4.452
95% BCA Bootstrap UCL	4.606		
90% Chebyshev(Mean, Sd) UCL	5.265	95% Chebyshev(Mean, Sd) UCL	6.095
97.5% Chebyshev(Mean, Sd) UCL	7.246	99% Chebyshev(Mean, Sd) UCL	9.507

Suggested UCL to Use

95% Student's-t UCL 4.53

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

UR2 SMB

General Statistics

Total Number of Observations	12	Number of Distinct Observations	12
		Number of Missing Observations	0
Minimum	0.193	Mean	0.632
Maximum	1.29	Median	0.575
SD	0.327	Std. Error of Mean	0.0945
Coefficient of Variation	0.518	Skewness	0.825

Normal GOF Test

Shapiro Wilk Test Statistic	0.932	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.209	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.243	Data appear Normal at 5% Significance Level	

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	0.802	95% Adjusted-CLT UCL (Chen-1995)	0.811
		95% Modified-t UCL (Johnson-1978)	0.805

Gamma GOF Test

A-D Test Statistic	0.186	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.735	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.146	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.246	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	4.103	k star (bias corrected MLE)	3.133
Theta hat (MLE)	0.154	Theta star (bias corrected MLE)	0.202
nu hat (MLE)	98.48	nu star (bias corrected)	75.19
MLE Mean (bias corrected)	0.632	MLE Sd (bias corrected)	0.357
		Approximate Chi Square Value (0.05)	56.22
Adjusted Level of Significance	0.029	Adjusted Chi Square Value	53.72

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	0.845	95% Adjusted Gamma UCL (use when n<50)	0.884

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.979	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.115	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.243	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.645	Mean of logged Data	-0.586
Maximum of Logged Data	0.255	SD of logged Data	0.54

Assuming Lognormal Distribution

95% H-UCL	0.919	90% Chebyshev (MVUE) UCL	0.94
95% Chebyshev (MVUE) UCL	1.078	97.5% Chebyshev (MVUE) UCL	1.27
99% Chebyshev (MVUE) UCL	1.646		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	0.787	95% Jackknife UCL	0.802
95% Standard Bootstrap UCL	0.782	95% Bootstrap-t UCL	0.862
95% Hall's Bootstrap UCL	0.83	95% Percentile Bootstrap UCL	0.792
95% BCA Bootstrap UCL	0.815		
90% Chebyshev(Mean, Sd) UCL	0.915	95% Chebyshev(Mean, Sd) UCL	1.044
97.5% Chebyshev(Mean, Sd) UCL	1.222	99% Chebyshev(Mean, Sd) UCL	1.572

Suggested UCL to Use

95% Student's-t UCL 0.802

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

UR2 RB

General Statistics

Total Number of Observations	12	Number of Distinct Observations	12
		Number of Missing Observations	0
Minimum	0.283	Mean	0.716
Maximum	1.45	Median	0.769
SD	0.354	Std. Error of Mean	0.102
Coefficient of Variation	0.495	Skewness	0.602

Normal GOF Test

Shapiro Wilk Test Statistic	0.924	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.201	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.243	Data appear Normal at 5% Significance Level	

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	0.899	95% Adjusted-CLT UCL (Chen-1995)	0.903
		95% Modified-t UCL (Johnson-1978)	0.902

Gamma GOF Test

A-D Test Statistic	0.419	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.735	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.2	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.246	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	4.339	k star (bias corrected MLE)	3.31
Theta hat (MLE)	0.165	Theta star (bias corrected MLE)	0.216
nu hat (MLE)	104.1	nu star (bias corrected)	79.44
MLE Mean (bias corrected)	0.716	MLE Sd (bias corrected)	0.393
		Approximate Chi Square Value (0.05)	59.9
Adjusted Level of Significance	0.029	Adjusted Chi Square Value	57.32

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	0.949	95% Adjusted Gamma UCL (use when n<50)	0.992

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.933	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.205	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.243	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.262	Mean of logged Data	-0.454
Maximum of Logged Data	0.372	SD of logged Data	0.523

Assuming Lognormal Distribution

95% H-UCL	1.025	90% Chebyshev (MVUE) UCL	1.053
95% Chebyshev (MVUE) UCL	1.204	97.5% Chebyshev (MVUE) UCL	1.414
99% Chebyshev (MVUE) UCL	1.827		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	0.884	95% Jackknife UCL	0.899
95% Standard Bootstrap UCL	0.879	95% Bootstrap-t UCL	0.913
95% Hall's Bootstrap UCL	0.915	95% Percentile Bootstrap UCL	0.88
95% BCA Bootstrap UCL	0.886		
90% Chebyshev(Mean, Sd) UCL	1.023	95% Chebyshev(Mean, Sd) UCL	1.162
97.5% Chebyshev(Mean, Sd) UCL	1.355	99% Chebyshev(Mean, Sd) UCL	1.734

Suggested UCL to Use

95% Student's-t UCL 0.899

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

MR1 AC

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	0
Minimum	1.38	Mean	19.41
Maximum	47.1	Median	15.2
SD	14.76	Std. Error of Mean	5.218
Coefficient of Variation	0.76	Skewness	0.924

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.94	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.18	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	29.29	95% Adjusted-CLT UCL (Chen-1995)	29.81
		95% Modified-t UCL (Johnson-1978)	29.57

Gamma GOF Test

A-D Test Statistic	0.194	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.728	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.139	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.299	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.512	k star (bias corrected MLE)	1.028
Theta hat (MLE)	12.84	Theta star (bias corrected MLE)	18.88
nu hat (MLE)	24.18	nu star (bias corrected)	16.45
MLE Mean (bias corrected)	19.41	MLE Sd (bias corrected)	19.14
		Approximate Chi Square Value (0.05)	8.28
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	6.866

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	38.55	95% Adjusted Gamma UCL (use when n<50)	46.49

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.9	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.202	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	0.322	Mean of logged Data	2.6
Maximum of Logged Data	3.852	SD of logged Data	1.085

Assuming Lognormal Distribution

95% H-UCL	107.7	90% Chebyshev (MVUE) UCL	47.7
95% Chebyshev (MVUE) UCL	59.37	97.5% Chebyshev (MVUE) UCL	75.57
99% Chebyshev (MVUE) UCL	107.4		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	27.99	95% Jackknife UCL	29.29
95% Standard Bootstrap UCL	27.61	95% Bootstrap-t UCL	33.63
95% Hall's Bootstrap UCL	37.07	95% Percentile Bootstrap UCL	27.94
95% BCA Bootstrap UCL	28.98		
90% Chebyshev(Mean, Sd) UCL	35.06	95% Chebyshev(Mean, Sd) UCL	42.15
97.5% Chebyshev(Mean, Sd) UCL	51.99	99% Chebyshev(Mean, Sd) UCL	71.32

Suggested UCL to Use

95% Student's-t UCL 29.29

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

MR1 AWS

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	0
Minimum	0.907	Mean	2.093
Maximum	4.38	Median	1.46
SD	1.32	Std. Error of Mean	0.467
Coefficient of Variation	0.631	Skewness	0.919

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.845	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.271	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	2.978	95% Adjusted-CLT UCL (Chen-1995)	3.023
		95% Modified-t UCL (Johnson-1978)	3.003

Gamma GOF Test

A-D Test Statistic	0.516	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.721	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.23	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.296	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	3.18	k star (bias corrected MLE)	2.071
Theta hat (MLE)	0.658	Theta star (bias corrected MLE)	1.011
nu hat (MLE)	50.87	nu star (bias corrected)	33.13
MLE Mean (bias corrected)	2.093	MLE Sd (bias corrected)	1.455
		Approximate Chi Square Value (0.05)	20.97
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	18.56

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	3.307	95% Adjusted Gamma UCL (use when n<50)	3.736

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.895	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.193	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-0.0976	Mean of logged Data	0.573
Maximum of Logged Data	1.477	SD of logged Data	0.605

Assuming Lognormal Distribution

95% H-UCL	3.81	90% Chebyshev (MVUE) UCL	3.426
95% Chebyshev (MVUE) UCL	4.038	97.5% Chebyshev (MVUE) UCL	4.887
99% Chebyshev (MVUE) UCL	6.554		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	2.861	95% Jackknife UCL	2.978
95% Standard Bootstrap UCL	2.816	95% Bootstrap-t UCL	3.547
95% Hall's Bootstrap UCL	2.836	95% Percentile Bootstrap UCL	2.866
95% BCA Bootstrap UCL	2.97		
90% Chebyshev(Mean, Sd) UCL	3.494	95% Chebyshev(Mean, Sd) UCL	4.128
97.5% Chebyshev(Mean, Sd) UCL	5.008	99% Chebyshev(Mean, Sd) UCL	6.737

Suggested UCL to Use

95% Student's-t UCL 2.978

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

MR1 SMB

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	0
Minimum	0.229	Mean	0.636
Maximum	0.923	Median	0.612
SD	0.229	Std. Error of Mean	0.0809
Coefficient of Variation	0.36	Skewness	-0.489

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest. For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012). Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.937	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.179	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	0.789	95% Adjusted-CLT UCL (Chen-1995)	0.754
		95% Modified-t UCL (Johnson-1978)	0.787

Gamma GOF Test

A-D Test Statistic	0.42	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.718	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.214	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.295	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	6.887	k star (bias corrected MLE)	4.388
Theta hat (MLE)	0.0923	Theta star (bias corrected MLE)	0.145
nu hat (MLE)	110.2	nu star (bias corrected)	70.2
MLE Mean (bias corrected)	0.636	MLE Sd (bias corrected)	0.304
		Approximate Chi Square Value (0.05)	51.91
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	47.96

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	0.86	95% Adjusted Gamma UCL (use when n<50)	0.931

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.856	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.252	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.474	Mean of logged Data	-0.527
Maximum of Logged Data	-0.0801	SD of logged Data	0.447

Assuming Lognormal Distribution

95% H-UCL	0.957	90% Chebyshev (MVUE) UCL	0.951
95% Chebyshev (MVUE) UCL	1.091	97.5% Chebyshev (MVUE) UCL	1.284
99% Chebyshev (MVUE) UCL	1.664		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	0.769	95% Jackknife UCL	0.789
95% Standard Bootstrap UCL	0.76	95% Bootstrap-t UCL	0.772
95% Hall's Bootstrap UCL	0.754	95% Percentile Bootstrap UCL	0.757
95% BCA Bootstrap UCL	0.756		
90% Chebyshev(Mean, Sd) UCL	0.879	95% Chebyshev(Mean, Sd) UCL	0.988
97.5% Chebyshev(Mean, Sd) UCL	1.141	99% Chebyshev(Mean, Sd) UCL	1.441

Suggested UCL to Use

95% Student's-t UCL 0.789

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.

MR1 RB

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	0
Minimum	0.189	Mean	0.602
Maximum	1.15	Median	0.526
SD	0.354	Std. Error of Mean	0.125
Coefficient of Variation	0.589	Skewness	0.527

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.924	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.163	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	0.84	95% Adjusted-CLT UCL (Chen-1995)	0.833
		95% Modified-t UCL (Johnson-1978)	0.843

Gamma GOF Test

A-D Test Statistic	0.242	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.721	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.149	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.296	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	3.039	k star (bias corrected MLE)	1.983
Theta hat (MLE)	0.198	Theta star (bias corrected MLE)	0.304
nu hat (MLE)	48.63	nu star (bias corrected)	31.73
MLE Mean (bias corrected)	0.602	MLE Sd (bias corrected)	0.428
		Approximate Chi Square Value (0.05)	19.86
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	17.52

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	0.962	95% Adjusted Gamma UCL (use when n<50)	1.09

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.938	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.155	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.666	Mean of logged Data	-0.681
Maximum of Logged Data	0.14	SD of logged Data	0.658

Assuming Lognormal Distribution

95% H-UCL	1.215	90% Chebyshev (MVUE) UCL	1.041
95% Chebyshev (MVUE) UCL	1.237	97.5% Chebyshev (MVUE) UCL	1.508
99% Chebyshev (MVUE) UCL	2.042		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	0.808	95% Jackknife UCL	0.84
95% Standard Bootstrap UCL	0.798	95% Bootstrap-t UCL	0.901
95% Hall's Bootstrap UCL	0.951	95% Percentile Bootstrap UCL	0.808
95% BCA Bootstrap UCL	0.813		
90% Chebyshev(Mean, Sd) UCL	0.978	95% Chebyshev(Mean, Sd) UCL	1.148
97.5% Chebyshev(Mean, Sd) UCL	1.385	99% Chebyshev(Mean, Sd) UCL	1.849

Suggested UCL to Use

95% Student's-t UCL	0.84

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

MR1 WAL

General Statistics

Total Number of Observations	3	Number of Distinct Observations	3
		Number of Missing Observations	0
Minimum	0.467	Mean	1.752
Maximum	3.03	Median	1.76
SD	1.282	Std. Error of Mean	0.74
Coefficient of Variation	0.731	Skewness	-0.0269

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	1	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.767	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.175	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.425	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	3.913	95% Adjusted-CLT UCL (Chen-1995)	2.957
		95% Modified-t UCL (Johnson-1978)	3.911

Gamma GOF Test

Not Enough Data to Perform GOF Test

Gamma Statistics

k hat (MLE)	2.098	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.835	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	12.59	nu star (bias corrected)	N/A
MLE Mean (bias corrected)	N/A	MLE Sd (bias corrected)	N/A
		Approximate Chi Square Value (0.05)	N/A
Adjusted Level of Significance	N/A	Adjusted Chi Square Value	N/A

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	N/A	95% Adjusted Gamma UCL (use when n<50)	N/A

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.945	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.767	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.274	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.425	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-0.761	Mean of logged Data	0.304
Maximum of Logged Data	1.109	SD of logged Data	0.962

Assuming Lognormal Distribution

95% H-UCL	10989	90% Chebyshev (MVUE) UCL	4.517
95% Chebyshev (MVUE) UCL	5.744	97.5% Chebyshev (MVUE) UCL	7.447
99% Chebyshev (MVUE) UCL	10.79		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	2.969	95% Jackknife UCL	3.913
95% Standard Bootstrap UCL	N/A	95% Bootstrap-t UCL	N/A
95% Hall's Bootstrap UCL	N/A	95% Percentile Bootstrap UCL	N/A
95% BCA Bootstrap UCL	N/A		
90% Chebyshev(Mean, Sd) UCL	3.972	95% Chebyshev(Mean, Sd) UCL	4.977
97.5% Chebyshev(Mean, Sd) UCL	6.373	99% Chebyshev(Mean, Sd) UCL	9.114

Suggested UCL to Use

95% Student's-t UCL 3.913

Recommended UCL exceeds the maximum observation

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.

MR2 AC

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	0
Minimum	4.36	Mean	12.22
Maximum	29.2	Median	8.415
SD	9.068	Std. Error of Mean	3.206
Coefficient of Variation	0.742	Skewness	1.272

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.822	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.284	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data Not Normal at 5% Significance Level

Data appear Approximate Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	18.29	95% Adjusted-CLT UCL (Chen-1995)	19.03
		95% Modified-t UCL (Johnson-1978)	18.53

Gamma GOF Test

A-D Test Statistic	0.436	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.723	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.249	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.297	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	2.47	k star (bias corrected MLE)	1.627
Theta hat (MLE)	4.946	Theta star (bias corrected MLE)	7.508
nu hat (MLE)	39.52	nu star (bias corrected)	26.03
MLE Mean (bias corrected)	12.22	MLE Sd (bias corrected)	9.577
		Approximate Chi Square Value (0.05)	15.41
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	13.38

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	20.64	95% Adjusted Gamma UCL (use when n<50)	23.77

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.929	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.209	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	1.472	Mean of logged Data	2.287
Maximum of Logged Data	3.374	SD of logged Data	0.685

Assuming Lognormal Distribution

95% H-UCL	25.04	90% Chebyshev (MVUE) UCL	20.9
95% Chebyshev (MVUE) UCL	24.92	97.5% Chebyshev (MVUE) UCL	30.5
99% Chebyshev (MVUE) UCL	41.46		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	17.49	95% Jackknife UCL	18.29
95% Standard Bootstrap UCL	17.23	95% Bootstrap-t UCL	28.33
95% Hall's Bootstrap UCL	47.62	95% Percentile Bootstrap UCL	17.53
95% BCA Bootstrap UCL	18.62		
90% Chebyshev(Mean, Sd) UCL	21.83	95% Chebyshev(Mean, Sd) UCL	26.19
97.5% Chebyshev(Mean, Sd) UCL	32.24	99% Chebyshev(Mean, Sd) UCL	44.12

Suggested UCL to Use

95% Student's-t UCL 18.29

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test
When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

MR2 AWS

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	0
Minimum	0.696	Mean	1.828
Maximum	4.95	Median	1.21
SD	1.446	Std. Error of Mean	0.511
Coefficient of Variation	0.791	Skewness	1.829

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.748	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.337	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	2.796	95% Adjusted-CLT UCL (Chen-1995)	3.022
		95% Modified-t UCL (Johnson-1978)	2.851

Gamma GOF Test

A-D Test Statistic	0.657	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.723	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.283	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.297	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	2.55	k star (bias corrected MLE)	1.677
Theta hat (MLE)	0.717	Theta star (bias corrected MLE)	1.09
nu hat (MLE)	40.8	nu star (bias corrected)	26.83
MLE Mean (bias corrected)	1.828	MLE Sd (bias corrected)	1.411
		Approximate Chi Square Value (0.05)	16.02
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	13.95

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	3.061	95% Adjusted Gamma UCL (use when n<50)	3.515

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.896	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.239	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-0.362	Mean of logged Data	0.394
Maximum of Logged Data	1.599	SD of logged Data	0.647

Assuming Lognormal Distribution

95% H-UCL	3.473	90% Chebyshev (MVUE) UCL	3.01
95% Chebyshev (MVUE) UCL	3.57	97.5% Chebyshev (MVUE) UCL	4.346
99% Chebyshev (MVUE) UCL	5.872		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	2.668	95% Jackknife UCL	2.796
95% Standard Bootstrap UCL	2.608	95% Bootstrap-t UCL	5.889
95% Hall's Bootstrap UCL	8.037	95% Percentile Bootstrap UCL	2.68
95% BCA Bootstrap UCL	3.006		
90% Chebyshev(Mean, Sd) UCL	3.361	95% Chebyshev(Mean, Sd) UCL	4.056
97.5% Chebyshev(Mean, Sd) UCL	5.02	99% Chebyshev(Mean, Sd) UCL	6.913

Suggested UCL to Use

95% Adjusted Gamma UCL 3.515

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

MR2 SMB

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	0
Minimum	0.84	Mean	1.494
Maximum	2.77	Median	1.36
SD	0.676	Std. Error of Mean	0.239
Coefficient of Variation	0.452	Skewness	1.071

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.889	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.199	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	1.946	95% Adjusted-CLT UCL (Chen-1995)	1.983
		95% Modified-t UCL (Johnson-1978)	1.961

Gamma GOF Test

A-D Test Statistic	0.303	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.718	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.156	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.295	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	6.213	k star (bias corrected MLE)	3.966
Theta hat (MLE)	0.24	Theta star (bias corrected MLE)	0.377
nu hat (MLE)	99.41	nu star (bias corrected)	63.46
MLE Mean (bias corrected)	1.494	MLE Sd (bias corrected)	0.75
		Approximate Chi Square Value (0.05)	46.14
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	42.42

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	2.054	95% Adjusted Gamma UCL (use when n<50)	2.234

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.939	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.14	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-0.174	Mean of logged Data	0.318
Maximum of Logged Data	1.019	SD of logged Data	0.428

Assuming Lognormal Distribution

95% H-UCL	2.163	90% Chebyshev (MVUE) UCL	2.169
95% Chebyshev (MVUE) UCL	2.477	97.5% Chebyshev (MVUE) UCL	2.905
99% Chebyshev (MVUE) UCL	3.745		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	1.886	95% Jackknife UCL	1.946
95% Standard Bootstrap UCL	1.859	95% Bootstrap-t UCL	2.259
95% Hall's Bootstrap UCL	4.018	95% Percentile Bootstrap UCL	1.875
95% BCA Bootstrap UCL	1.955		
90% Chebyshev(Mean, Sd) UCL	2.21	95% Chebyshev(Mean, Sd) UCL	2.535
97.5% Chebyshev(Mean, Sd) UCL	2.986	99% Chebyshev(Mean, Sd) UCL	3.871

Suggested UCL to Use

95% Student's-t UCL 1.946

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

MR2 RB

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	0
Minimum	0.221	Mean	0.783
Maximum	1.83	Median	0.724
SD	0.505	Std. Error of Mean	0.178
Coefficient of Variation	0.645	Skewness	1.205

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.876	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.214	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	1.121	95% Adjusted-CLT UCL (Chen-1995)	1.158
		95% Modified-t UCL (Johnson-1978)	1.134

Gamma GOF Test

A-D Test Statistic	0.423	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.722	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.236	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.297	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	2.665	k star (bias corrected MLE)	1.749
Theta hat (MLE)	0.294	Theta star (bias corrected MLE)	0.448
nu hat (MLE)	42.65	nu star (bias corrected)	27.99
MLE Mean (bias corrected)	0.783	MLE Sd (bias corrected)	0.592
		Approximate Chi Square Value (0.05)	16.92
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	14.78

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	1.295	95% Adjusted Gamma UCL (use when n<50)	1.482

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.894	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.276	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.51	Mean of logged Data	-0.444
Maximum of Logged Data	0.604	SD of logged Data	0.713

Assuming Lognormal Distribution

95% H-UCL	1.741	90% Chebyshev (MVUE) UCL	1.41
95% Chebyshev (MVUE) UCL	1.687	97.5% Chebyshev (MVUE) UCL	2.072
99% Chebyshev (MVUE) UCL	2.829		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	1.076	95% Jackknife UCL	1.121
95% Standard Bootstrap UCL	1.061	95% Bootstrap-t UCL	1.227
95% Hall's Bootstrap UCL	2.743	95% Percentile Bootstrap UCL	1.073
95% BCA Bootstrap UCL	1.124		
90% Chebyshev(Mean, Sd) UCL	1.318	95% Chebyshev(Mean, Sd) UCL	1.561
97.5% Chebyshev(Mean, Sd) UCL	1.897	99% Chebyshev(Mean, Sd) UCL	2.559

Suggested UCL to Use

95% Student's-t UCL 1.121

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

MR2 CC

General Statistics

Total Number of Observations	2	Number of Distinct Observations	2
		Number of Missing Observations	0
Minimum	0.549	Mean	0.86
Maximum	1.17	Median	0.86

Warning: This data set only has 2 observations!
Data set is too small to compute reliable and meaningful statistics and estimates!
The data set for variable MR2 CC was not processed!

It is suggested to collect at least 8 to 10 observations before using these statistical methods!
If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.

LR AC

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	0
Minimum	1.13	Mean	6.081
Maximum	16	Median	3.275
SD	5.381	Std. Error of Mean	1.902
Coefficient of Variation	0.885	Skewness	1.023

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.837	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.278	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	9.685	95% Adjusted-CLT UCL (Chen-1995)	9.945
		95% Modified-t UCL (Johnson-1978)	9.8

Gamma GOF Test

A-D Test Statistic	0.472	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.728	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.236	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.299	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.513	k star (bias corrected MLE)	1.029
Theta hat (MLE)	4.019	Theta star (bias corrected MLE)	5.91
nu hat (MLE)	24.21	nu star (bias corrected)	16.46
MLE Mean (bias corrected)	6.081	MLE Sd (bias corrected)	5.995
		Approximate Chi Square Value (0.05)	8.29
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	6.875

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	12.08	95% Adjusted Gamma UCL (use when n<50)	14.56

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.927	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.2	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	0.122	Mean of logged Data	1.44
Maximum of Logged Data	2.773	SD of logged Data	0.931

Assuming Lognormal Distribution

95% H-UCL	20.49	90% Chebyshev (MVUE) UCL	12.2
95% Chebyshev (MVUE) UCL	14.98	97.5% Chebyshev (MVUE) UCL	18.83
99% Chebyshev (MVUE) UCL	26.39		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	9.21	95% Jackknife UCL	9.685
95% Standard Bootstrap UCL	8.972	95% Bootstrap-t UCL	11.31
95% Hall's Bootstrap UCL	8.722	95% Percentile Bootstrap UCL	9.51
95% BCA Bootstrap UCL	9.445		
90% Chebyshev(Mean, Sd) UCL	11.79	95% Chebyshev(Mean, Sd) UCL	14.37
97.5% Chebyshev(Mean, Sd) UCL	17.96	99% Chebyshev(Mean, Sd) UCL	25.01

Suggested UCL to Use

95% Student's-t UCL 9.685

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

LR AWS

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	0
Minimum	0.236	Mean	0.925
Maximum	1.93	Median	0.721
SD	0.602	Std. Error of Mean	0.213
Coefficient of Variation	0.651	Skewness	0.75

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.919	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.199	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	1.327	95% Adjusted-CLT UCL (Chen-1995)	1.335
		95% Modified-t UCL (Johnson-1978)	1.337

Gamma GOF Test

A-D Test Statistic	0.197	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.722	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.143	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.297	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	2.603	k star (bias corrected MLE)	1.711
Theta hat (MLE)	0.355	Theta star (bias corrected MLE)	0.54
nu hat (MLE)	41.66	nu star (bias corrected)	27.37
MLE Mean (bias corrected)	0.925	MLE Sd (bias corrected)	0.707
		Approximate Chi Square Value (0.05)	16.44
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	14.34

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	1.539	95% Adjusted Gamma UCL (use when n<50)	1.765

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.97	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.131	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.444	Mean of logged Data	-0.283
Maximum of Logged Data	0.658	SD of logged Data	0.71

Assuming Lognormal Distribution

95% H-UCL	2.034	90% Chebyshev (MVUE) UCL	1.652
95% Chebyshev (MVUE) UCL	1.976	97.5% Chebyshev (MVUE) UCL	2.426
99% Chebyshev (MVUE) UCL	3.311		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	1.274	95% Jackknife UCL	1.327
95% Standard Bootstrap UCL	1.239	95% Bootstrap-t UCL	1.523
95% Hall's Bootstrap UCL	1.444	95% Percentile Bootstrap UCL	1.285
95% BCA Bootstrap UCL	1.3		
90% Chebyshev(Mean, Sd) UCL	1.563	95% Chebyshev(Mean, Sd) UCL	1.852
97.5% Chebyshev(Mean, Sd) UCL	2.253	99% Chebyshev(Mean, Sd) UCL	3.041

Suggested UCL to Use

95% Student's-t UCL 1.327

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

LR SMB

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	0
Minimum	0.409	Mean	0.879
Maximum	1.47	Median	0.74
SD	0.397	Std. Error of Mean	0.14
Coefficient of Variation	0.451	Skewness	0.664

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest. For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012). Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.894	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.243	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	1.145	95% Adjusted-CLT UCL (Chen-1995)	1.145
		95% Modified-t UCL (Johnson-1978)	1.15

Gamma GOF Test

A-D Test Statistic	0.315	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.718	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.205	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.295	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	5.783	k star (bias corrected MLE)	3.698
Theta hat (MLE)	0.152	Theta star (bias corrected MLE)	0.238
nu hat (MLE)	92.53	nu star (bias corrected)	59.16
MLE Mean (bias corrected)	0.879	MLE Sd (bias corrected)	0.457
		Approximate Chi Square Value (0.05)	42.48
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	38.93

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	1.225	95% Adjusted Gamma UCL (use when n<50)	1.336

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.947	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.175	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-0.894	Mean of logged Data	-0.218
Maximum of Logged Data	0.385	SD of logged Data	0.453

Assuming Lognormal Distribution

95% H-UCL	1.315	90% Chebyshev (MVUE) UCL	1.305
95% Chebyshev (MVUE) UCL	1.497	97.5% Chebyshev (MVUE) UCL	1.765
99% Chebyshev (MVUE) UCL	2.291		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	1.11	95% Jackknife UCL	1.145
95% Standard Bootstrap UCL	1.092	95% Bootstrap-t UCL	1.285
95% Hall's Bootstrap UCL	1.215	95% Percentile Bootstrap UCL	1.091
95% BCA Bootstrap UCL	1.131		
90% Chebyshev(Mean, Sd) UCL	1.3	95% Chebyshev(Mean, Sd) UCL	1.491
97.5% Chebyshev(Mean, Sd) UCL	1.755	99% Chebyshev(Mean, Sd) UCL	2.275

Suggested UCL to Use

95% Student's-t UCL 1.145

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

LR RB

General Statistics

Total Number of Observations	9	Number of Distinct Observations	9
		Number of Missing Observations	0
Minimum	0.221	Mean	0.629
Maximum	0.99	Median	0.648
SD	0.214	Std. Error of Mean	0.0713
Coefficient of Variation	0.34	Skewness	-0.297

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest. For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012). Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.969	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.829	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.184	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.274	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	0.762	95% Adjusted-CLT UCL (Chen-1995)	0.739
		95% Modified-t UCL (Johnson-1978)	0.76

Gamma GOF Test

A-D Test Statistic	0.419	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.722	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.227	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.28	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	7.629	k star (bias corrected MLE)	5.16
Theta hat (MLE)	0.0825	Theta star (bias corrected MLE)	0.122
nu hat (MLE)	137.3	nu star (bias corrected)	92.88
MLE Mean (bias corrected)	0.629	MLE Sd (bias corrected)	0.277
		Approximate Chi Square Value (0.05)	71.65
Adjusted Level of Significance	0.0231	Adjusted Chi Square Value	67.73

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	0.815	95% Adjusted Gamma UCL (use when n<50)	0.863

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.858	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.829	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.263	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.274	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.51	Mean of logged Data	-0.53
Maximum of Logged Data	-0.0101	SD of logged Data	0.423

Assuming Lognormal Distribution

95% H-UCL	0.888	90% Chebyshev (MVUE) UCL	0.908
95% Chebyshev (MVUE) UCL	1.032	97.5% Chebyshev (MVUE) UCL	1.203
99% Chebyshev (MVUE) UCL	1.538		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	0.746	95% Jackknife UCL	0.762
95% Standard Bootstrap UCL	0.74	95% Bootstrap-t UCL	0.75
95% Hall's Bootstrap UCL	0.771	95% Percentile Bootstrap UCL	0.737
95% BCA Bootstrap UCL	0.733		
90% Chebyshev(Mean, Sd) UCL	0.843	95% Chebyshev(Mean, Sd) UCL	0.94
97.5% Chebyshev(Mean, Sd) UCL	1.074	99% Chebyshev(Mean, Sd) UCL	1.338

Suggested UCL to Use

95% Student's-t UCL 0.762

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.

IH AC

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	0
Minimum	0.869	Mean	12.13
Maximum	36.6	Median	10.55
SD	10.99	Std. Error of Mean	3.887
Coefficient of Variation	0.907	Skewness	1.775

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.826	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.258	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	19.49	95% Adjusted-CLT UCL (Chen-1995)	21.13
		95% Modified-t UCL (Johnson-1978)	19.9

Gamma GOF Test

A-D Test Statistic	0.299	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.731	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.182	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.3	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.307	k star (bias corrected MLE)	0.9
Theta hat (MLE)	9.277	Theta star (bias corrected MLE)	13.47
nu hat (MLE)	20.92	nu star (bias corrected)	14.41
MLE Mean (bias corrected)	12.13	MLE Sd (bias corrected)	12.78
		Approximate Chi Square Value (0.05)	6.85
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	5.587

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	25.5	95% Adjusted Gamma UCL (use when n<50)	31.27

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.916	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.244	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-0.14	Mean of logged Data	2.067
Maximum of Logged Data	3.6	SD of logged Data	1.137

Assuming Lognormal Distribution

95% H-UCL	76.28	90% Chebyshev (MVUE) UCL	30.06
95% Chebyshev (MVUE) UCL	37.58	97.5% Chebyshev (MVUE) UCL	48
99% Chebyshev (MVUE) UCL	68.49		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	18.52	95% Jackknife UCL	19.49
95% Standard Bootstrap UCL	18.12	95% Bootstrap-t UCL	24.06
95% Hall's Bootstrap UCL	50.12	95% Percentile Bootstrap UCL	18.64
95% BCA Bootstrap UCL	20.09		
90% Chebyshev(Mean, Sd) UCL	23.79	95% Chebyshev(Mean, Sd) UCL	29.07
97.5% Chebyshev(Mean, Sd) UCL	36.4	99% Chebyshev(Mean, Sd) UCL	50.81

Suggested UCL to Use

95% Student's-t UCL 19.49

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

IH AWS

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	0
Minimum	0.335	Mean	0.813
Maximum	1.74	Median	0.69
SD	0.474	Std. Error of Mean	0.167
Coefficient of Variation	0.583	Skewness	1.111

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.901	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.203	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	1.13	95% Adjusted-CLT UCL (Chen-1995)	1.159
		95% Modified-t UCL (Johnson-1978)	1.141

Gamma GOF Test

A-D Test Statistic	0.227	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.719	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.151	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.296	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	3.686	k star (bias corrected MLE)	2.387
Theta hat (MLE)	0.221	Theta star (bias corrected MLE)	0.341
nu hat (MLE)	58.97	nu star (bias corrected)	38.19
MLE Mean (bias corrected)	0.813	MLE Sd (bias corrected)	0.526
		Approximate Chi Square Value (0.05)	25.04
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	22.38

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	1.24	95% Adjusted Gamma UCL (use when n<50)	1.387

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.967	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.13	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.094	Mean of logged Data	-0.349
Maximum of Logged Data	0.554	SD of logged Data	0.567

Assuming Lognormal Distribution

95% H-UCL	1.408	90% Chebyshev (MVUE) UCL	1.304
95% Chebyshev (MVUE) UCL	1.528	97.5% Chebyshev (MVUE) UCL	1.838
99% Chebyshev (MVUE) UCL	2.447		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	1.088	95% Jackknife UCL	1.13
95% Standard Bootstrap UCL	1.073	95% Bootstrap-t UCL	1.278
95% Hall's Bootstrap UCL	1.242	95% Percentile Bootstrap UCL	1.091
95% BCA Bootstrap UCL	1.124		
90% Chebyshev(Mean, Sd) UCL	1.315	95% Chebyshev(Mean, Sd) UCL	1.543
97.5% Chebyshev(Mean, Sd) UCL	1.859	99% Chebyshev(Mean, Sd) UCL	2.479

Suggested UCL to Use

95% Student's-t UCL 1.13

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

IH SMB

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	0
Minimum	0.382	Mean	0.752
Maximum	0.972	Median	0.754
SD	0.171	Std. Error of Mean	0.0605
Coefficient of Variation	0.228	Skewness	-1.427

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest. For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012). Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.842	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.336	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data Not Normal at 5% Significance Level

Data appear Approximate Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	0.867	95% Adjusted-CLT UCL (Chen-1995)	0.819
		95% Modified-t UCL (Johnson-1978)	0.861

Gamma GOF Test

A-D Test Statistic	0.878	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.716	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.37	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.294	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	17.02	k star (bias corrected MLE)	10.72
Theta hat (MLE)	0.0442	Theta star (bias corrected MLE)	0.0701
nu hat (MLE)	272.3	nu star (bias corrected)	171.5
MLE Mean (bias corrected)	0.752	MLE Sd (bias corrected)	0.23
		Approximate Chi Square Value (0.05)	142.3
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	135.5

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	0.907	95% Adjusted Gamma UCL (use when n<50)	0.952

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.745	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.385	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data Not Lognormal at 5% Significance Level	

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-0.962	Mean of logged Data	-0.315
Maximum of Logged Data	-0.0284	SD of logged Data	0.28

Assuming Lognormal Distribution

95% H-UCL	0.941	90% Chebyshev (MVUE) UCL	0.98
95% Chebyshev (MVUE) UCL	1.082	97.5% Chebyshev (MVUE) UCL	1.224
99% Chebyshev (MVUE) UCL	1.501		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	0.851	95% Jackknife UCL	0.867
95% Standard Bootstrap UCL	0.846	95% Bootstrap-t UCL	0.841
95% Hall's Bootstrap UCL	0.832	95% Percentile Bootstrap UCL	0.837
95% BCA Bootstrap UCL	0.822		
90% Chebyshev(Mean, Sd) UCL	0.934	95% Chebyshev(Mean, Sd) UCL	1.016
97.5% Chebyshev(Mean, Sd) UCL	1.13	99% Chebyshev(Mean, Sd) UCL	1.354

Suggested UCL to Use

95% Student's-t UCL 0.867

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test
When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.

IH RB

General Statistics

Total Number of Observations	9	Number of Distinct Observations	9
		Number of Missing Observations	0
Minimum	0.159	Mean	0.348
Maximum	0.614	Median	0.335
SD	0.142	Std. Error of Mean	0.0473
Coefficient of Variation	0.407	Skewness	0.48

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest. For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012). Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.955	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.829	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.148	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.274	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	0.436	95% Adjusted-CLT UCL (Chen-1995)	0.434
		95% Modified-t UCL (Johnson-1978)	0.438

Gamma GOF Test

A-D Test Statistic	0.25	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.722	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.17	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.28	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	6.534	k star (bias corrected MLE)	4.43
Theta hat (MLE)	0.0533	Theta star (bias corrected MLE)	0.0787
nu hat (MLE)	117.6	nu star (bias corrected)	79.74
MLE Mean (bias corrected)	0.348	MLE Sd (bias corrected)	0.166
		Approximate Chi Square Value (0.05)	60.16
Adjusted Level of Significance	0.0231	Adjusted Chi Square Value	56.59

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	0.462	95% Adjusted Gamma UCL (use when n<50)	0.491

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.958	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.829	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.195	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.274	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.839	Mean of logged Data	-1.133
Maximum of Logged Data	-0.488	SD of logged Data	0.43

Assuming Lognormal Distribution

95% H-UCL	0.491	90% Chebyshev (MVUE) UCL	0.502
95% Chebyshev (MVUE) UCL	0.571	97.5% Chebyshev (MVUE) UCL	0.666
99% Chebyshev (MVUE) UCL	0.854		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	0.426	95% Jackknife UCL	0.436
95% Standard Bootstrap UCL	0.422	95% Bootstrap-t UCL	0.441
95% Hall's Bootstrap UCL	0.447	95% Percentile Bootstrap UCL	0.422
95% BCA Bootstrap UCL	0.435		
90% Chebyshev(Mean, Sd) UCL	0.49	95% Chebyshev(Mean, Sd) UCL	0.554
97.5% Chebyshev(Mean, Sd) UCL	0.644	99% Chebyshev(Mean, Sd) UCL	0.819

Suggested UCL to Use

95% Student's-t UCL 0.436

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

IH JWS

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	0
Minimum	0.348	Mean	0.681
Maximum	1.01	Median	0.681
SD	0.204	Std. Error of Mean	0.072
Coefficient of Variation	0.299	Skewness	0.128

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest. For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012). Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.954	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.243	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	0.818	95% Adjusted-CLT UCL (Chen-1995)	0.803
		95% Modified-t UCL (Johnson-1978)	0.818

Gamma GOF Test

A-D Test Statistic	0.327	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.715	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.204	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.294	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	11.84	k star (bias corrected MLE)	7.48
Theta hat (MLE)	0.0576	Theta star (bias corrected MLE)	0.0911
nu hat (MLE)	189.4	nu star (bias corrected)	119.7
MLE Mean (bias corrected)	0.681	MLE Sd (bias corrected)	0.249
		Approximate Chi Square Value (0.05)	95.43
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	89.95

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	0.854	95% Adjusted Gamma UCL (use when n<50)	0.906

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.929	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.191	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.056	Mean of logged Data	-0.427
Maximum of Logged Data	0.00995	SD of logged Data	0.323

Assuming Lognormal Distribution

95% H-UCL	0.887	90% Chebyshev (MVUE) UCL	0.918
95% Chebyshev (MVUE) UCL	1.025	97.5% Chebyshev (MVUE) UCL	1.173
99% Chebyshev (MVUE) UCL	1.463		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	0.8	95% Jackknife UCL	0.818
95% Standard Bootstrap UCL	0.793	95% Bootstrap-t UCL	0.841
95% Hall's Bootstrap UCL	0.89	95% Percentile Bootstrap UCL	0.796
95% BCA Bootstrap UCL	0.797		
90% Chebyshev(Mean, Sd) UCL	0.897	95% Chebyshev(Mean, Sd) UCL	0.995
97.5% Chebyshev(Mean, Sd) UCL	1.131	99% Chebyshev(Mean, Sd) UCL	1.397

Suggested UCL to Use

95% Student's-t UCL	0.818

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

ALL AC

General Statistics

Total Number of Observations	56	Number of Distinct Observations	52
		Number of Missing Observations	0
Minimum	0.282	Mean	10.9
Maximum	47.1	Median	8.415
SD	10.29	Std. Error of Mean	1.375
Coefficient of Variation	0.944	Skewness	1.596

Normal GOF Test

Shapiro Wilk Test Statistic	0.842	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	8.1976E-8	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.162	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.118	Data Not Normal at 5% Significance Level	

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	13.2	95% Adjusted-CLT UCL (Chen-1995)	13.48
		95% Modified-t UCL (Johnson-1978)	13.25

Gamma GOF Test

A-D Test Statistic	0.376	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.779	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.0965	**Kolmogorov-Smirnov Gamma GOF Test**	
5% K-S Critical Value	0.122	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.021	k star (bias corrected MLE)	0.979
Theta hat (MLE)	10.67	Theta star (bias corrected MLE)	11.14
nu hat (MLE)	114.4	nu star (bias corrected)	109.6
MLE Mean (bias corrected)	10.9	MLE Sd (bias corrected)	11.02
		Approximate Chi Square Value (0.05)	86.43
Adjusted Level of Significance	0.0457	Adjusted Chi Square Value	85.89

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	13.82	95% Adjusted Gamma UCL (use when n<50)	13.91

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.914	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk P Value	4.8128E-4	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.162	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.118	Data Not Lognormal at 5% Significance Level	

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.266	Mean of logged Data	1.825
Maximum of Logged Data	3.852	SD of logged Data	1.277

Assuming Lognormal Distribution

95% H-UCL	22.57	90% Chebyshev (MVUE) UCL	22.52
95% Chebyshev (MVUE) UCL	26.54	97.5% Chebyshev (MVUE) UCL	32.11
99% Chebyshev (MVUE) UCL	43.06		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	13.16	95% Jackknife UCL	13.2
95% Standard Bootstrap UCL	13.15	95% Bootstrap-t UCL	13.64
95% Hall's Bootstrap UCL	13.63	95% Percentile Bootstrap UCL	13.38
95% BCA Bootstrap UCL	13.69		
90% Chebyshev(Mean, Sd) UCL	15.03	95% Chebyshev(Mean, Sd) UCL	16.9
97.5% Chebyshev(Mean, Sd) UCL	19.49	99% Chebyshev(Mean, Sd) UCL	24.59

Suggested UCL to Use

95% Approximate Gamma UCL 13.82

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

ALL AWS

General Statistics

Total Number of Observations	56	Number of Distinct Observations	54
		Number of Missing Observations	0
Minimum	0.236	Mean	2.613
Maximum	23.1	Median	1.475
SD	3.406	Std. Error of Mean	0.455
Coefficient of Variation	1.303	Skewness	4.29

Normal GOF Test

Shapiro Wilk Test Statistic	0.591	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.243	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.118	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	3.374	95% Adjusted-CLT UCL (Chen-1995)	3.64
		95% Modified-t UCL (Johnson-1978)	3.418

Gamma GOF Test

A-D Test Statistic	1.286	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.774	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.139	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.122	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.246	k star (bias corrected MLE)	1.191
Theta hat (MLE)	2.097	Theta star (bias corrected MLE)	2.194
nu hat (MLE)	139.5	nu star (bias corrected)	133.4
MLE Mean (bias corrected)	2.613	MLE Sd (bias corrected)	2.394
		Approximate Chi Square Value (0.05)	107.7
Adjusted Level of Significance	0.0457	Adjusted Chi Square Value	107.1

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	3.236	95% Adjusted Gamma UCL (use when n<50)	3.254

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.984	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk P Value	0.834	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.0815	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.118	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.444	Mean of logged Data	0.508
Maximum of Logged Data	3.14	SD of logged Data	0.916

Assuming Lognormal Distribution

95% H-UCL	3.331	90% Chebyshev (MVUE) UCL	3.562
95% Chebyshev (MVUE) UCL	4.043	97.5% Chebyshev (MVUE) UCL	4.71
99% Chebyshev (MVUE) UCL	6.02		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	3.361	95% Jackknife UCL	3.374
95% Standard Bootstrap UCL	3.368	95% Bootstrap-t UCL	3.992
95% Hall's Bootstrap UCL	6.622	95% Percentile Bootstrap UCL	3.46
95% BCA Bootstrap UCL	3.793		
90% Chebyshev(Mean, Sd) UCL	3.978	95% Chebyshev(Mean, Sd) UCL	4.596
97.5% Chebyshev(Mean, Sd) UCL	5.455	99% Chebyshev(Mean, Sd) UCL	7.141

Suggested UCL to Use

95% H-UCL 3.331

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.

ALL SMB

General Statistics

Total Number of Observations	56	Number of Distinct Observations	55
		Number of Missing Observations	0
Minimum	0.193	Mean	0.902
Maximum	2.77	Median	0.763
SD	0.527	Std. Error of Mean	0.0705
Coefficient of Variation	0.585	Skewness	1.639

Normal GOF Test

Shapiro Wilk Test Statistic	0.844	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	1.0227E-7	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.194	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.118	Data Not Normal at 5% Significance Level	

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	1.02	95% Adjusted-CLT UCL (Chen-1995)	1.034
		95% Modified-t UCL (Johnson-1978)	1.022

Gamma GOF Test

A-D Test Statistic	0.919	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.755	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.128	**Kolmogorov-Smirnov Gamma GOF Test**	
5% K-S Critical Value	0.12	Data Not Gamma Distributed at 5% Significance Level	

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	3.649	k star (bias corrected MLE)	3.465
Theta hat (MLE)	0.247	Theta star (bias corrected MLE)	0.26
nu hat (MLE)	408.7	nu star (bias corrected)	388.1
MLE Mean (bias corrected)	0.902	MLE Sd (bias corrected)	0.484
		Approximate Chi Square Value (0.05)	343.4
Adjusted Level of Significance	0.0457	Adjusted Chi Square Value	342.3

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	1.019	95% Adjusted Gamma UCL (use when n<50)	1.022

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.978	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk P Value	0.613	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.0916	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.118	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.645	Mean of logged Data	-0.247
Maximum of Logged Data	1.019	SD of logged Data	0.537

Assuming Lognormal Distribution

95% H-UCL	1.036	90% Chebyshev (MVUE) UCL	1.105
95% Chebyshev (MVUE) UCL	1.198	97.5% Chebyshev (MVUE) UCL	1.327
99% Chebyshev (MVUE) UCL	1.58		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	1.018	95% Jackknife UCL	1.02
95% Standard Bootstrap UCL	1.02	95% Bootstrap-t UCL	1.039
95% Hall's Bootstrap UCL	1.039	95% Percentile Bootstrap UCL	1.017
95% BCA Bootstrap UCL	1.029		
90% Chebyshev(Mean, Sd) UCL	1.113	95% Chebyshev(Mean, Sd) UCL	1.209
97.5% Chebyshev(Mean, Sd) UCL	1.342	99% Chebyshev(Mean, Sd) UCL	1.603

Suggested UCL to Use

95% H-UCL 1.036

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.

ALL RB

General Statistics

Total Number of Observations	58	Number of Distinct Observations	55
		Number of Missing Observations	0
Minimum	0.159	Mean	0.651
Maximum	1.83	Median	0.609
SD	0.392	Std. Error of Mean	0.0514
Coefficient of Variation	0.602	Skewness	0.989

Normal GOF Test

Shapiro Wilk Test Statistic	0.911	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	2.3468E-4	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.107	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.116	Data appear Normal at 5% Significance Level	

Data appear Approximate Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	0.737	95% Adjusted-CLT UCL (Chen-1995)	0.742
		95% Modified-t UCL (Johnson-1978)	0.738

Gamma GOF Test

A-D Test Statistic	0.413	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.759	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.086	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.118	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	2.855	k star (bias corrected MLE)	2.719
Theta hat (MLE)	0.228	Theta star (bias corrected MLE)	0.239
nu hat (MLE)	331.2	nu star (bias corrected)	315.4
MLE Mean (bias corrected)	0.651	MLE Sd (bias corrected)	0.395
		Approximate Chi Square Value (0.05)	275.3
Adjusted Level of Significance	0.0459	Adjusted Chi Square Value	274.3

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	0.746	95% Adjusted Gamma UCL (use when n<50)	0.748

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.953	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk P Value	0.0513	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.0985	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.116	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.839	Mean of logged Data	-0.615
Maximum of Logged Data	0.604	SD of logged Data	0.635

Assuming Lognormal Distribution

95% H-UCL	0.782	90% Chebyshev (MVUE) UCL	0.837
95% Chebyshev (MVUE) UCL	0.918	97.5% Chebyshev (MVUE) UCL	1.03
99% Chebyshev (MVUE) UCL	1.25		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	0.735	95% Jackknife UCL	0.737
95% Standard Bootstrap UCL	0.732	95% Bootstrap-t UCL	0.753
95% Hall's Bootstrap UCL	0.744	95% Percentile Bootstrap UCL	0.741
95% BCA Bootstrap UCL	0.741		
90% Chebyshev(Mean, Sd) UCL	0.805	95% Chebyshev(Mean, Sd) UCL	0.875
97.5% Chebyshev(Mean, Sd) UCL	0.972	99% Chebyshev(Mean, Sd) UCL	1.162

Suggested UCL to Use

95% Student's-t UCL 0.737

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test
When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

ALL WAL

General Statistics

Total Number of Observations	3	Number of Distinct Observations	3
		Number of Missing Observations	0
Minimum	0.467	Mean	1.752
Maximum	3.03	Median	1.76
SD	1.282	Std. Error of Mean	0.74
Coefficient of Variation	0.731	Skewness	-0.0269

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	1	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.767	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.175	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.425	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	3.913	95% Adjusted-CLT UCL (Chen-1995)	2.957
		95% Modified-t UCL (Johnson-1978)	3.911

Gamma GOF Test

Not Enough Data to Perform GOF Test

Gamma Statistics

k hat (MLE)	2.098	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.835	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	12.59	nu star (bias corrected)	N/A
MLE Mean (bias corrected)	N/A	MLE Sd (bias corrected)	N/A
		Approximate Chi Square Value (0.05)	N/A
Adjusted Level of Significance	N/A	Adjusted Chi Square Value	N/A

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	N/A	95% Adjusted Gamma UCL (use when n<50)	N/A

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.945	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.767	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.274	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.425	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-0.761	Mean of logged Data	0.304
Maximum of Logged Data	1.109	SD of logged Data	0.962

Assuming Lognormal Distribution

95% H-UCL	10989	90% Chebyshev (MVUE) UCL	4.517
95% Chebyshev (MVUE) UCL	5.744	97.5% Chebyshev (MVUE) UCL	7.447
99% Chebyshev (MVUE) UCL	10.79		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	2.969	95% Jackknife UCL	3.913
95% Standard Bootstrap UCL	N/A	95% Bootstrap-t UCL	N/A
95% Hall's Bootstrap UCL	N/A	95% Percentile Bootstrap UCL	N/A
95% BCA Bootstrap UCL	N/A		
90% Chebyshev(Mean, Sd) UCL	3.972	95% Chebyshev(Mean, Sd) UCL	4.977
97.5% Chebyshev(Mean, Sd) UCL	6.373	99% Chebyshev(Mean, Sd) UCL	9.114

Suggested UCL to Use

95% Student's-t UCL 3.913

Recommended UCL exceeds the maximum observation

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.

ALL CC

General Statistics

Total Number of Observations	2	Number of Distinct Observations	2
		Number of Missing Observations	0
Minimum	0.549	Mean	0.86
Maximum	1.17	Median	0.86

Warning: This data set only has 2 observations!
Data set is too small to compute reliable and meaningful statistics and estimates!
The data set for variable ALL CC was not processed!

It is suggested to collect at least 8 to 10 observations before using these statistical methods!
If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.

ALL-FISH

General Statistics

Total Number of Observations	231	Number of Distinct Observations	208
		Number of Missing Observations	0
Minimum	0.159	Mean	3.688
Maximum	47.1	Median	1.03
SD	6.746	Std. Error of Mean	0.444
Coefficient of Variation	1.829	Skewness	3.473

Normal GOF Test

Shapiro Wilk Test Statistic	0.547	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.3	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0587	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	4.422	95% Adjusted-CLT UCL (Chen-1995)	4.527
		95% Modified-t UCL (Johnson-1978)	4.438

Gamma GOF Test

A-D Test Statistic	14.9	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.807	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.218	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.0629	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.643	k star (bias corrected MLE)	0.637
Theta hat (MLE)	5.739	Theta star (bias corrected MLE)	5.788
nu hat (MLE)	296.9	nu star (bias corrected)	294.4
MLE Mean (bias corrected)	3.688	MLE Sd (bias corrected)	4.62
		Approximate Chi Square Value (0.05)	255.7
Adjusted Level of Significance	0.049	Adjusted Chi Square Value	255.5

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	4.247	95% Adjusted Gamma UCL (use when n<50)	4.251

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.922	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk P Value	0	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.133	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.0587	Data Not Lognormal at 5% Significance Level	

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.839	Mean of logged Data	0.353
Maximum of Logged Data	3.852	SD of logged Data	1.276

Assuming Lognormal Distribution

95% H-UCL	3.935	90% Chebyshev (MVUE) UCL	4.261
95% Chebyshev (MVUE) UCL	4.745	97.5% Chebyshev (MVUE) UCL	5.415
99% Chebyshev (MVUE) UCL	6.733		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	4.419	95% Jackknife UCL	4.422
95% Standard Bootstrap UCL	4.418	95% Bootstrap-t UCL	4.538
95% Hall's Bootstrap UCL	4.541	95% Percentile Bootstrap UCL	4.443
95% BCA Bootstrap UCL	4.552		
90% Chebyshev(Mean, Sd) UCL	5.02	95% Chebyshev(Mean, Sd) UCL	5.623
97.5% Chebyshev(Mean, Sd) UCL	6.46	99% Chebyshev(Mean, Sd) UCL	8.105

Suggested UCL to Use

95% Chebyshev (Mean, Sd) UCL 5.623

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

APPENDIX 5
FISH TISSUE STATISTICAL ANALYSIS

APPENDIX 5
FISH TISSUE STATISTICAL ANALYSIS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN

		Adult Carp		Adult Sucker		Juvenile Sucker		Smallmouth Bass		Rock Bass		Walleye		Channel Catfish		Longnose Dace	
		2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022
Upper River 1	Mean	25.90	6.76	12.40	4.99	6.01	NC	13.00	1.07	6.94	0.77	Not Collected		Not Collected		10.10	NC
	Standard Deviation	21.40	4.92	5.00	6.23	2.85	NC	7.28	0.64	5.01	0.52					7.06	NC
	Count	16	12	8	12	8	NC	8	12	8	12					6	NC
	t	**3.46**		**2.94**		NA		**4.62**		**3.47**						NA	
	Critcal Value at $t_{0.1/2}$	1.71		1.73		NA		1.73		1.73						NA	
	Significant Difference	**Yes**		**Yes**		NA		**Yes**		**Yes**						NA	

		Adult Carp		Adult Sucker		Juvenile Sucker		Smallmouth Bass		Rock Bass		Walleye		Channel Catfish		Longnose Dace	
		2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022
Upper River 2	Mean	14.70	10.89	8.92	3.43	6.82	NC	14.50	0.63	4.27	0.72	Not Collected		Not Collected		Not Collected	
	Standard Deviation	15.00	11.34	4.19	2.11	2.96	NC	11.10	0.33	2.94	0.35						
	Count	16	12	8	12	8	NC	8	12	8	12						
	t	0.77		**3.43**		NA		**3.53**		**3.40**							
	Critcal Value at $t_{0.1/2}$	1.71		1.73		NA		1.73		1.73							
	Significant Difference	No		**Yes**		NA		**Yes**		**Yes**							

		Adult Carp		Adult Sucker		Juvenile Sucker		Smallmouth Bass		Rock Bass		Walleye		Channel Catfish		Longnose Dace	
		2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022
Middle River 1	Mean	14.19	19.41	2.14	2.09	Not Collected		4.02	0.64	1.73	0.60	11.10	1.75	27.90	NA	7.80	NC
	Standard Deviation	7.27	14.76	1.22	1.32			2.21	0.23	0.55	0.35	4.63	1.28	15.60	NA	0.81	NC
	Count	8	8	8	8			8	8	8	8	8	3	4	NA	6	NC
	t	0.90		0.07				**4.30**		**4.86**		**5.21**		NA		NA	
	Critcal Value at $t_{0.1/2}$	1.76		1.76				1.76		1.76		1.83		NA		NA	
	Significant Difference	No		No				**Yes**		**Yes**		**Yes**		NA		NA	

Notes:
Mean and Standard Deviation values are PCB concentrations in mg/Kg
Highlighted values exceed the Critical Value and the means for the data sets are significantly different.
ROD tissue PCB concentrations for target fish species are as follows: Smallmouth Bass- 0.31 ppm; Walleye- 0.63 ppm; Trout- 0.09 ppm; Carp- 2.58 ppm, Catfish- 2.53 ppm.
NC = Fish not collected, NA = Not applicable

APPENDIX 5
FISH TISSUE STATISTICAL ANALYSIS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN

		Adult Carp		Adult Sucker		Juvenile Sucker		Smallmouth Bass		Rock Bass		Walleye		Channel Catfish		Longnose Dace	
		2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022
Middle River 2	Mean	5.88	12.22	3.21	1.83	2.95	NC	2.74	1.49	1.59	0.78			8.18	0.86	8.51	NC
	Standard Deviation	6.67	9.07	1.22	1.45	0.87	NC	0.63	0.68	0.38	0.50			6.62	0.44	2.25	NC
	Count	8	8	8	8	8	NC	8	8	8	8	Not Collected		4	2	8	NC
	t	1.59		**2.06**		NA		**3.82**		**3.64**				**2.20**		NA	
	Critcal Value at $t_{0.1/2}$	1.76		1.76		NA		1.76		1.76				2.13		NA	
	Significant Difference	No		**Yes**		NA		**Yes**		**Yes**				**Yes**		NA	

		Adult Carp		Adult Sucker		Juvenile Sucker		Smallmouth Bass		Rock Bass		Walleye		Channel Catfish		Longnose Dace	
		2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022
Lower River	Mean	11.30	6.08	4.31	0.92	1.04	NC	5.77	0.88	2.60	0.63			13.70	NC		
	Standard Deviation	15.20	5.38	0.93	0.60	0.43	NC	3.05	0.40	1.11	0.21			10.00	NC		
	Count	9	8	2	8	5	NC	8	8	9	9	Not Collected		5	NC	Not Collected	
	t	0.96		**4.91**		NA		**4.50**		**5.23**				NA			
	Critcal Value at $t_{0.1/2}$	1.75		1.86		NA		1.76		1.75				NA			
	Significant Difference	No		**Yes**		NA		**Yes**		**Yes**				NA			

		Adult Carp		Adult Sucker		Juvenile Sucker		Smallmouth Bass		Rock Bass		Walleye		Channel Catfish		Longnose Dace	
		2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022
Inner Harbor	Mean	3.16	12.13	0.91	0.81	NC	0.68	3.36	0.75	2.24	0.35			19.40	NC		
	Standard Deviation	2.81	10.99	0.66	0.47	NC	0.20	1.04	0.17	1.16	0.14			0.00	NC		
	Count	9	8	8	8	NC	8	8	8	4	9	Not Collected		1	NC	Not Collected	
	t	**2.24**		0.35		NA		**7.01**		**3.25**				NA			
	Critcal Value at $t_{0.1/2}$	1.75		1.76		NA		1.76		1.80				NA			
	Significant Difference	**Yes**		No		NA		**Yes**		**Yes**				NA			

Notes:
Mean and Standard Deviation values are PCB concentrations in mg/Kg
Highlighted values exceed the Critical Value and the means for the data sets are significantly different.
ROD tissue PCB concentrations for target fish species are as follows: Smallmouth Bass- 0.31 ppm; Walleye- 0.63 ppm; Trout- 0.09 ppm; Carp- 2.58 ppm, Catfish- 2.53 ppm.
NC = Fish not collected, NA = Not applicable

APPENDIX 5
FISH TISSUE STATISTICAL ANALYSIS
SHEBOYGAN RIVER AND HARBOR
SUPERFUND SITE, WISCONSIN

All River Reaches	Adult Carp		Adult Sucker		Juvenile Sucker		Smallmouth Bass		Rock Bass		Walleye		Channel Catfish		Longnose Dace	
	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022	2008	2022
Mean	14.07	10.90	8.25	2.61	5.60	0.68	8.27	0.90	3.99	0.65	11.13	1.75	27.88	0.86	8.06	NC
Standard Deviation	17.17	10.29	5.17	3.41	4.24	0.20	7.08	0.53	3.29	0.34	4.63	1.28	15.59	0.44	3.91	NC
Count	57	56	33	56	23	8.00	48	56	34	58	8	3	4	2.00	19	NC
t	1.19		**5.59**		**5.55**		**7.19**		**5.90**		**5.22**		**3.46**		NA	
Critcal Value at $t_{0.1/2}$	1.66		1.66		1.70		1.66		1.66		1.83		2.13		NA	
Significant Difference	**No**		**Yes**		**Yes**		**Yes**		**Yes**		**Yes**		**Yes**		NA	

All River Reaches	All Fish	
	2008	2022
Mean	9.14	3.59
Standard Deviation	11.07	6.69
Count	210	239
t	**6.32**	
Critcal Value at $t_{0.1/2}$	1.65	
Significant Difference	**Yes**	

Notes:
Mean and Standard Deviation values are PCB concentrations in mg/Kg
Highlighted values exceed the Critical Value and the means for the data sets are significantly different.
ROD tissue PCB concentrations for target fish species are as follows: Smallmouth Bass- 0.31 ppm; Walleye- 0.63 ppm; Trout- 0.09 ppm; Carp- 2.58 ppm, Catfish- 2.53 ppm.
NC = Fish not collected, NA = Not applicable

APPENDIX 6
MANN-KENDALL SUMMARY ANALYSIS

APPENDIX 6
MANN-KENDALL ANALYSIS DOCUMENTATION
SHEBOYGAN RIVER AND HARBOR SUPERFUND SITE, WISCONSIN
SME PROJECT NO. 069638.00.072

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/21/2022 11:40:27 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

UR1 - AC

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	15
Number Values Reported (n)	15
Minimum	4.28
Maximum	37.02
Mean	16.35
Geometric Mean	13.84
Median	13.89
Standard Deviation	9.369
Coefficient of Variation	0.573

Mann-Kendall Test	
M-K Test Value (S)	-25
Tabulated p-value	0.12
Standard Deviation of S	20.21
Standardized Value of S	-1.188
Approximate p-value	0.117

Insufficient evidence to identify a significant trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/21/2022 11:43:44 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

UR1 - AWS

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	15
Number Values Reported (n)	15
Minimum	4.144
Maximum	16.23
Mean	9.697
Geometric Mean	8.915
Median	10.63
Standard Deviation	3.922
Coefficient of Variation	0.405

Mann-Kendall Test	
M-K Test Value (S)	-27
Tabulated p-value	0.101
Standard Deviation of S	20.21
Standardized Value of S	-1.287
Approximate p-value	0.0991

Insufficient evidence to identify a significant trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/21/2022 11:46:53 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

UR1 - SMB

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	15
Number Values Reported (n)	15
Minimum	1.07
Maximum	12.96
Mean	4.207
Geometric Mean	3.446
Median	3.44
Standard Deviation	2.982
Coefficient of Variation	0.709

Mann-Kendall Test	
M-K Test Value (S)	-63
Tabulated p-value	0.001
Standard Deviation of S	20.21
Standardized Value of S	-3.068
Approximate p-value	0.00108

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/21/2022 11:47:12 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

UR1 - JWS

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	5
Number Values Reported (n)	5
Minimum	1.79
Maximum	9.868
Mean	4.618
Geometric Mean	3.773
Median	3.095
Standard Deviation	3.357
Coefficient of Variation	0.727

Mann-Kendall Test	
M-K Test Value (S)	-6
Tabulated p-value	0.117
Standard Deviation of S	4.082
Standardized Value of S	-1.225
Approximate p-value	0.11

Insufficient evidence to identify a significant trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/21/2022 11:47:48 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

UR1 - RB

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	15
Number Values Reported (n)	15
Minimum	0.77
Maximum	6.944
Mean	2.901
Geometric Mean	2.571
Median	2.854
Standard Deviation	1.459
Coefficient of Variation	0.503

Mann-Kendall Test	
M-K Test Value (S)	-47
Tabulated p-value	0.01
Standard Deviation of S	20.21
Standardized Value of S	-2.276
Approximate p-value	0.0114

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/21/2022 11:48:11 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

UR2 - AC

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	13
Number Values Reported (n)	15
Number Values Missing	2
Number Values Used	13
Minimum	4.03
Maximum	21.29
Mean	11.34
Geometric Mean	10.15
Median	10.83
Standard Deviation	5.367
Coefficient of Variation	0.473

Mann-Kendall Test	
M-K Test Value (S)	-26
Tabulated p-value	0.064
Standard Deviation of S	16.39
Standardized Value of S	-1.525
Approximate p-value	0.0636

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/21/2022 11:48:55 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

UR2 - AWS

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	15
Number Values Reported (n)	15
Minimum	1.743
Maximum	11.58
Mean	4.944
Geometric Mean	4.42
Median	3.748
Standard Deviation	2.606
Coefficient of Variation	0.527

Mann-Kendall Test	
M-K Test Value (S)	-65
Tabulated p-value	0
Standard Deviation of S	20.21
Standardized Value of S	-3.167
Approximate p-value	7.70E-04

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/21/2022 11:49:21 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

UR2 - JWS

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	4
Number Values Reported (n)	4
Minimum	1.499
Maximum	6.82
Mean	3.26
Geometric Mean	2.728
Median	2.36
Standard Deviation	2.429
Coefficient of Variation	0.745

Mann-Kendall Test	
M-K Test Value (S)	-6
Tabulated p-value	0.042
Standard Deviation of S	2.944
Standardized Value of S	-1.698
Approximate p-value	0.0447

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/21/2022 11:49:42 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

UR2 - SMB

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	15
Number Values Reported (n)	15
Minimum	0.63
Maximum	14.52
Mean	2.893
Geometric Mean	2.015
Median	1.805
Standard Deviation	3.413
Coefficient of Variation	1.18

Mann-Kendall Test	
M-K Test Value (S)	-63
Tabulated p-value	0.001
Standard Deviation of S	20.21
Standardized Value of S	-3.068
Approximate p-value	0.00108

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/21/2022 11:50:04 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

UR2 - RB

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	15
Number Values Reported (n)	15
Minimum	0.557
Maximum	6.7
Mean	1.7
Geometric Mean	1.232
Median	1.184
Standard Deviation	1.7
Coefficient of Variation	1

Mann-Kendall Test	
M-K Test Value (S)	-56
Tabulated p-value	0.002
Standard Deviation of S	20.18
Standardized Value of S	-2.725
Approximate p-value	0.00321

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/21/2022 11:50:32 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

MR1 - AC

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	14
Number Values Reported (n)	15
Number Values Missing	1
Number Values Used	14
Minimum	3.329
Maximum	25.81
Mean	13.28
Geometric Mean	11.24
Median	14.86
Standard Deviation	6.908
Coefficient of Variation	0.52

Mann-Kendall Test	
M-K Test Value (S)	-29
Tabulated p-value	0.063
Standard Deviation of S	18.27
Standardized Value of S	-1.533
Approximate p-value	0.0627

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/21/2022 11:50:57 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

MR1 - AWS

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	14
Number Values Reported (n)	15
Number Values Missing	1
Number Values Used	14
Minimum	1.4
Maximum	8.766
Mean	3.034
Geometric Mean	2.647
Median	2.177
Standard Deviation	1.959
Coefficient of Variation	0.646

Mann-Kendall Test	
M-K Test Value (S)	-31
Tabulated p-value	0.05
Standard Deviation of S	18.27
Standardized Value of S	-1.642
Approximate p-value	0.0503

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options		
Date/Time of Computation	ProUCL 5.112/22/2022 7:44:14 AM	
From File	2022 All Fish Sheet.xls	
Full Precision	OFF	
Confidence Coefficient	0.9	
Level of Significance	0.1	

MR1 - SMB

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	14
Number Values Reported (n)	15
Number Values Missing	1
Number Values Used	14
Minimum	0.64
Maximum	8.754
Mean	2.388
Geometric Mean	1.801
Median	1.604
Standard Deviation	2.143
Coefficient of Variation	0.898

Mann-Kendall Test	
M-K Test Value (S)	-71
Tabulated p-value	0
Standard Deviation of S	18.27
Standardized Value of S	-3.832
Approximate p-value	6.35E-05

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:44:59 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

MR1- RB

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	14
Number Values Reported (n)	15
Number Values Missing	1
Number Values Used	14
Minimum	0.6
Maximum	2.79
Mean	1.196
Geometric Mean	1.088
Median	1.073
Standard Deviation	0.589
Coefficient of Variation	0.492

Mann-Kendall Test	
M-K Test Value (S)	-63
Tabulated p-value	0
Standard Deviation of S	18.27
Standardized Value of S	-3.394
Approximate p-value	3.44E-04

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:45:41 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

MR1- W

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	11
Number Values Reported (n)	15
Number Values Missing	4
Number Values Used	11
Minimum	1.75
Maximum	10.53
Mean	4.347
Geometric Mean	3.687
Median	2.79
Standard Deviation	2.756
Coefficient of Variation	0.634

Mann-Kendall Test	
M-K Test Value (S)	-29
Tabulated p-value	0.013
Standard Deviation of S	12.85
Standardized Value of S	-2.18
Approximate p-value	0.0146

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:46:32 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

MR2 - AC

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	14
Number Values Reported (n)	15
Number Values Missing	1
Number Values Used	14
Minimum	1.27
Maximum	19.21
Mean	10.57
Geometric Mean	8.76
Median	10.12
Standard Deviation	5.529
Coefficient of Variation	0.523

Mann-Kendall Test	
M-K Test Value (S)	-11
Tabulated p-value	0.295
Standard Deviation of S	18.27
Standardized Value of S	-0.547
Approximate p-value	0.292

Insufficient evidence to identify a significant trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:46:59 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

MR2 - AWS

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	14
Number Values Reported (n)	15
Number Values Missing	1
Number Values Used	14
Minimum	0.73
Maximum	3.96
Mean	2.093
Geometric Mean	1.91
Median	1.815
Standard Deviation	0.929
Coefficient of Variation	0.444

Mann-Kendall Test	
M-K Test Value (S)	-33
Tabulated p-value	0.04
Standard Deviation of S	18.27
Standardized Value of S	-1.752
Approximate p-value	0.0399

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:47:33 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

MR2 - JWS

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	5
Number Values Reported (n)	13
Number Values Missing	8
Number Values Used	5
Minimum	0.951
Maximum	2.948
Mean	1.812
Geometric Mean	1.675
Median	1.49
Standard Deviation	0.802
Coefficient of Variation	0.443

Mann-Kendall Test	
M-K Test Value (S)	2
Tabulated p-value	0.408
Standard Deviation of S	4.082
Standardized Value of S	0.245
Approximate p-value	0.403

Insufficient evidence to identify a significant trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:47:55 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

MR2 - SMB

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	14
Number Values Reported (n)	15
Number Values Missing	1
Number Values Used	14
Minimum	1.2
Maximum	4.302
Mean	1.956
Geometric Mean	1.813
Median	1.548
Standard Deviation	0.88
Coefficient of Variation	0.45

Mann-Kendall Test	
M-K Test Value (S)	-37
Tabulated p-value	0.024
Standard Deviation of S	18.27
Standardized Value of S	-1.971
Approximate p-value	0.0244

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:50:15 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

MR2 - CC

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	5
Number Values Reported (n)	15
Number Values Missing	10
Number Values Used	5
Minimum	0.86
Maximum	18.03
Mean	7.91
Geometric Mean	5.477
Median	6.51
Standard Deviation	6.283
Coefficient of Variation	0.794

Mann-Kendall Test	
M-K Test Value (S)	-6
Tabulated p-value	0.117
Standard Deviation of S	4.082
Standardized Value of S	-1.225
Approximate p-value	0.11

Insufficient evidence to identify a significant trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:48:20 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

MR2 - RB

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	14
Number Values Reported (n)	15
Number Values Missing	1
Number Values Used	14
Minimum	0.51
Maximum	2.486
Mean	1.181
Geometric Mean	1.075
Median	1.057
Standard Deviation	0.551
Coefficient of Variation	0.467

Mann-Kendall Test	
M-K Test Value (S)	-47
Tabulated p-value	0.005
Standard Deviation of S	18.27
Standardized Value of S	-2.518
Approximate p-value	0.0059

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:52:53 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

LR - AC

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	11
Number Values Reported (n)	15
Number Values Missing	4
Number Values Used	11
Minimum	3.044
Maximum	17.22
Mean	8.275
Geometric Mean	7.334
Median	6.65
Standard Deviation	4.449
Coefficient of Variation	0.538

Mann-Kendall Test	
M-K Test Value (S)	-23
Tabulated p-value	0.043
Standard Deviation of S	12.85
Standardized Value of S	-1.713
Approximate p-value	0.0434

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:53:29 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

LR - AWS

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	11
Number Values Reported (n)	15
Number Values Missing	4
Number Values Used	11
Minimum	0.58
Maximum	4.31
Mean	1.319
Geometric Mean	1.133
Median	1.082
Standard Deviation	1.02
Coefficient of Variation	0.773

Mann-Kendall Test	
M-K Test Value (S)	-19
Tabulated p-value	0.082
Standard Deviation of S	12.85
Standardized Value of S	-1.401
Approximate p-value	0.0806

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:53:54 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

LR - SMB

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	11
Number Values Reported (n)	15
Number Values Missing	4
Number Values Used	11
Minimum	0.88
Maximum	5.77
Mean	1.66
Geometric Mean	1.389
Median	1.238
Standard Deviation	1.409
Coefficient of Variation	0.849

Mann-Kendall Test	
M-K Test Value (S)	-24
Tabulated p-value	0.03
Standard Deviation of S	12.81
Standardized Value of S	-1.796
Approximate p-value	0.0362

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:54:25 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

LR - RB

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	11
Number Values Reported (n)	15
Number Values Missing	4
Number Values Used	11
Minimum	0.49
Maximum	2.6
Mean	0.97
Geometric Mean	0.857
Median	0.803
Standard Deviation	0.6
Coefficient of Variation	0.619

Mann-Kendall Test	
M-K Test Value (S)	-37
Tabulated p-value	0.002
Standard Deviation of S	12.85
Standardized Value of S	-2.803
Approximate p-value	0.00253

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:55:02 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

IH - AC

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	11
Number Values Reported (n)	15
Number Values Missing	4
Number Values Used	11
Minimum	3.16
Maximum	15.77
Mean	8.003
Geometric Mean	7.061
Median	6.585
Standard Deviation	4.252
Coefficient of Variation	0.531

Mann-Kendall Test	
M-K Test Value (S)	-9
Tabulated p-value	0.271
Standard Deviation of S	12.85
Standardized Value of S	-0.623
Approximate p-value	0.267

Insufficient evidence to identify a significant trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:55:25 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

IH - AWS

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	10
Number Values Reported (n)	15
Number Values Missing	5
Number Values Used	10
Minimum	0.429
Maximum	3.316
Mean	0.987
Geometric Mean	0.82
Median	0.797
Standard Deviation	0.839
Coefficient of Variation	0.85

Mann-Kendall Test	
M-K Test Value (S)	-17
Tabulated p-value	0.078
Standard Deviation of S	11.18
Standardized Value of S	-1.431
Approximate p-value	0.0762

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:56:11 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

IH - SMB

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	11
Number Values Reported (n)	15
Number Values Missing	4
Number Values Used	11
Minimum	0.683
Maximum	3.36
Mean	1.564
Geometric Mean	1.377
Median	1.4
Standard Deviation	0.893
Coefficient of Variation	0.571

Mann-Kendall Test	
M-K Test Value (S)	-33
Tabulated p-value	0.005
Standard Deviation of S	12.85
Standardized Value of S	-2.491
Approximate p-value	0.00637

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:57:09 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

IH - JWS

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	1
Number Values Reported (n)	15
Number Values Missing	14
Number Values Used	1
Minimum	0.68
Maximum	0.68
Mean	0.68
Geometric Mean	0.68
Median	0.68
Standard Deviation	N/A
Coefficient of Variation	N/A

Not enough reported values (n) to provide Mann-Kendall Statistics!

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:56:33 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

IH - RB

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	9
Number Values Reported (n)	15
Number Values Missing	6
Number Values Used	9
Minimum	0.35
Maximum	2.243
Mean	0.862
Geometric Mean	0.754
Median	0.734
Standard Deviation	0.557
Coefficient of Variation	0.647

Mann-Kendall Test	
M-K Test Value (S)	-22
Tabulated p-value	0.012
Standard Deviation of S	9.592
Standardized Value of S	-2.189
Approximate p-value	0.0143

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:58:17 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

ALL - AC

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	15
Number Values Reported (n)	15
Minimum	5.9
Maximum	21.64
Mean	12.51
Geometric Mean	11.74
Median	12.2
Standard Deviation	4.543
Coefficient of Variation	0.363

Mann-Kendall Test	
M-K Test Value (S)	-59
Tabulated p-value	0.001
Standard Deviation of S	20.21
Standardized Value of S	-2.87
Approximate p-value	0.00205

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:58:41 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

ALL - AWS

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	15
Number Values Reported (n)	15
Minimum	2.037
Maximum	11.26
Mean	4.883
Geometric Mean	4.385
Median	4.423
Standard Deviation	2.507
Coefficient of Variation	0.513

Mann-Kendall Test	
M-K Test Value (S)	-59
Tabulated p-value	0.001
Standard Deviation of S	20.21
Standardized Value of S	-2.87
Approximate p-value	0.00205

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:59:16 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

ALL - JWS

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	8
Number Values Reported (n)	15
Number Values Missing	7
Number Values Used	8
Minimum	0.68
Maximum	7.339
Mean	4.214
Geometric Mean	3.396
Median	4.442
Standard Deviation	2.295
Coefficient of Variation	0.545

Mann-Kendall Test	
M-K Test Value (S)	-20
Tabulated p-value	0.007
Standard Deviation of S	8.083
Standardized Value of S	-2.351
Approximate p-value	0.00937

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 7:59:40 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

ALL - SMB

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	15
Number Values Reported (n)	15
Minimum	0.9
Maximum	8.278
Mean	2.743
Geometric Mean	2.291
Median	2.161
Standard Deviation	1.898
Coefficient of Variation	0.692

Mann-Kendall Test	
M-K Test Value (S)	-81
Tabulated p-value	0
Standard Deviation of S	20.21
Standardized Value of S	-3.959
Approximate p-value	3.76E-05

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 8:00:12 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

ALL - RB

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	15
Number Values Reported (n)	15
Minimum	0.65
Maximum	4.776
Mean	1.807
Geometric Mean	1.532
Median	1.539
Standard Deviation	1.176
Coefficient of Variation	0.651

Mann-Kendall Test	
M-K Test Value (S)	-77
Tabulated p-value	0
Standard Deviation of S	20.21
Standardized Value of S	-3.761
Approximate p-value	8.46E-05

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.112/22/2022 8:00:36 AM
From File	2022 All Fish Sheet.xls
Full Precision	OFF
Confidence Coefficient	0.9
Level of Significance	0.1

ALL - ALL

General Statistics	
Number or Reported Events Not Used	0
Number of Generated Events	15
Number Values Reported (n)	15
Minimum	2.563
Maximum	9.276
Mean	5.299
Geometric Mean	4.969
Median	4.511
Standard Deviation	1.981
Coefficient of Variation	0.374

Mann-Kendall Test	
M-K Test Value (S)	-79
Tabulated p-value	0
Standard Deviation of S	20.21
Standardized Value of S	-3.86
Approximate p-value	5.67E-05

Statistically significant evidence of a decreasing trend at the specified level of significance.

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