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May 30, 2025

Mr. Michael Belveg, Assistant Engineer  
New York State Department of Environmental Conservation  
Division of Environmental Remediation, Region 7  
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Syracuse, NY 13214-1867

**Subject: Carrier Corporation Thompson Road Facility  
Onondaga County, Syracuse, New York  
Corrective Action Order – Index CO 7-20051118-4  
Site Registry No. 734043**

**Biota Monitoring Report, March 2025  
Response to NYSDEC Comment Letter Dated May 8, 2025**

Dear Mr. Belveg:

On behalf of Carrier Corporation (Carrier), AECOM Technical Services, Inc. (AECOM), is submitting this response to the New York State Department of Environmental Conservation (NYSDEC) letter dated May 8, 2025 regarding the *Biota Monitoring Report (BMR; Gradient, 2025)*. Responses to NYSDEC comments are provided below and the revised BMR is attached.

*NYSDEC Comment #1:*

*Section 2.2 Future Sampling Recommendations and Section 4 Conclusion:*

- a. *Regarding the low collection volume of crayfish, before abandoning these collections, different sampling methods should be attempted.*
  - i. *Utilizing baited minnow traps and electrofishing were mentioned in a past comment to increase variety of methods and then focus on the most successful in the future. The original plan was to utilize kicknetting as the primary collection method for crayfish. Was kicknetting attempted in this sampling event? If not, consider trying this method, as well as hand picking, in the next sampling event. Please update the report to specify if kicknetting was utilized and what methods will be utilized in future sampling events.*
  - ii. *The Standard Operating Procedure: Biological Monitoring of Surface Waters in New York State, 2021, <https://dec.ny.gov/environmental-protection/water/water-quality/monitoring/biomonitoring>, recommends conducting macroinvertebrate sampling between July and September. There may be more success if sampled at least a few weeks earlier to be within this window. Please update the report to reflect that the next round of sampling will take place between July and September.*

- b. *In the future, when the target number of fish is not met in a reach, additional samples collected from other sites to reach the target should not be collected from R0 (the background/upgradient reach), they should be collected from a reach where the results should be comparable. Please update the report to note that this collection method will be done in future events.*

**Response to Comment #1.a.i.:** Kick nets were not used during this event due to the lack of observed crayfish at the time of sampling collection. The use of kick nets along with hand-picking techniques will be considered alternative methods for sample collection in the next sampling event. The text has been revised in Sections 2.1, 2.2, and 4.

**Response to Comment #1.a.ii.:** The report has been revised to acknowledge the targeted sampling timeframe will be between July and September.

**Response to Comment #1.b.:** The report has been revised to specify that additional samples will not be collected from Reach 0 (background/upgradient reach).

Should you have any questions, please contact me at 919 461-1194.

Yours sincerely,



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## References

Gradient, 2025. *Biota Monitoring Report*. Gradient, March 2025.

## Attachments

Biota Monitoring Report

cc: Gary Priscott, NYSDEC  
Josh Cook, NYSDEC  
Leah Gorman, NYSDEC  
Mark Sergott, NYSDOH  
Don Sorbello, Carrier Corporation



# Biota Monitoring Report

## Sanders Creek Site Thompson Road, Syracuse, NY

Prepared for  
Carrier Corporation  
Thompson Road  
Syracuse, NY 13206

May 29, 2025



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# Abbreviations

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BMP	Biota Monitoring Plan
BMR	Biota Monitoring Report
DC	Direct Current
DER	Division of Environmental Remediation
FSAP	Field Sampling and Analysis Plan
g	Grams
GLEC	Great Lakes Environmental Center, Inc
HASP	Health and Safety Plan
ICM	Interim Corrective Measures
mg/kg	Milligrams per Kilogram
mm	Millimeters
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NYSDEC	New York State Department of Environmental Conservation
ORP	Oxidation and Reduction Potential
PCB	Polychlorinated Biphenyl
ppm	Parts per Million
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RA	Remedial Action
RG	Remedial Goal
SGS	SGS North America Inc.
SOP	Standard Operating Procedure
US EPA	United States Environmental Protection Agency
WP	Work Plan
%lipid	Percentage Lipid Concentration for a Given Composite Tissue Sample

# 1 Introduction

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Gradient has prepared this Biota Monitoring Report (BMR) to describe pre-remediation polychlorinated biphenyl (PCB) concentrations in fish and shellfish tissues collected from a section of Sanders Creek that is subject to a planned Remedial Action (RA). The results from the biota monitoring event described in this report will be used as a baseline measurement to evaluate future PCB concentrations after completion of the planned RA and to provide recommendations for future biota tissue sampling.

Sanders Creek is located in the town of DeWitt, Onondaga County, New York. The portion of Sanders Creek beginning north of Carrier's Thompson Road facility (Carrier facility) and continuing downstream to the confluence with the South Branch of Ley Creek is considered the Site (Figure 1).

An Interim Corrective Measures (ICM) Work Plan (WP) was prepared by Carrier Corporation (Carrier) in response to the New York State Department of Environmental Conservation (NYSDEC) Corrective Action Order – Index Number CO 7-20051118-4 dated January 4, 2006 (AECOM, 2021). The ICM WP outlines the RA that will be implemented to achieve the remedial criteria for PCBs in the Sanders Creek sediments and immediate floodplains, agreed to by NYSDEC, which includes PCB objectives of: 1 milligram per kilogram (mg/kg) for sediments; 1 mg/kg for floodplain soils at properties not owned by Carrier; 1 mg/kg for floodplain soils at depths up to 2 feet (ft) for Carrier-owned properties; and 10 mg/kg for floodplain soils at depths below 2 ft for Carrier-owned properties (including New York State Department of Transportation property that adjoins Carrier property). These actions support the Remedial Goal (RG), as specified by the Corrective Action Order, which requires that monitoring of resident aquatic biota demonstrates PCB concentrations at or below 0.1 parts per million (ppm) in the relevant portions of the creek (AECOM, 2021).

Gradient prepared a Biota Monitoring Plan (BMP) (see Appendix B) in December 2023, which described the scope and procedures of a baseline biota monitoring event. In response to comments provided by NYSDEC, Gradient revised the BMP, and the final BMP was approved by NYSDEC on August 5, 2025 (Appendix B). Gradient also developed a Field Sampling and Analysis Plan (FSAP) in support of the BMP to outline procedures for the baseline sampling event that occurred from October 8 through October 10, 2024 (Appendix B).

This BMR was prepared consistent with the data analysis and reporting methodologies described in Section 3 of the approved BMP (see Appendix B).

## 1.1 Purpose and Objective

The purpose of the BMR is to report the results of the implementation of the BMP, specifically results from the baseline sampling event that occurred from October 8 through October 10, 2024. The objective of this BMR is to establish baseline conditions and inform future biota tissue sampling events at the Site, as shown in Table 1.1. Specifically, this BMR documents baseline PCB concentrations in crayfish and finfish tissues, which will be used to evaluate changes in tissue concentrations following implementation of the RA.

**Table 1.1 Sampling Events and Objectives**

Sampling Event	Schedule	Objective
Event 1 (described in this report)	Prior to remediation	Establish baseline conditions
Event 2	1 year post remedy	Interim sampling
Event 3	3 years post remedy	Interim sampling
Event 4	5 years post remedy	Interim/final sampling

## 1.2 Site Description

Sanders Creek is classified as a Class C, Standard C water under the NYSDEC Protection of Waters Regulatory Program (AECOM, 2021). Class C is defined as: "The best usage of Class C waters is fishing. These waters will be suitable for fish, shellfish, and wildlife propagation and survival. The water quality will be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes." The Site consists of the portion of Sanders Creek beginning north of the Carrier facility and continuing downstream to the confluence with the South Branch of Ley Creek. Sanders Creek flows toward the west through wooded and developed areas and is connected through a series of culverts. The Site was divided into the following seven reaches based on the presence of culverts and property boundaries (see BMP in Appendix B). In addition, an upgradient reach of Sanders Creek was used to define background conditions.

- Reach 0 (background/upgradient reach): From Kinne Street to the culvert under Telergy Parkway.
- Reach 1: Between culvert under Telergy Parkway to the next downstream culvert (Culvert 1).
- Reach 2: Between Culvert 1 to the culvert under Thompson Road.
- Reach 3: Between culvert under Thompson Road to the next downstream culvert (Culvert 2).
- Reach 4: Between Culvert 2 to the Carrier property boundary.
- Reach 5: Between the Carrier property boundary to the culvert under Old Court Street Road.
- Reach 6: Between culvert under Old Court Street Road to the next downstream culvert at a private road (Culvert 3).
- Reach 7: Between the culvert at Deere Road to the confluence of South Branch of Ley Creek.

## 1.3 Report Organization

The remainder of this BMR is organized into three sections:

- Section 2 (Finfish and Crayfish Baseline Sampling) describes the implementation of the FSAP and BMP and provides recommendations for future biomonitoring events.
- Section 3 (Data Evaluation) describes the data analyses and results of the baseline monitoring event.

- Section 4 (Conclusion). This section provides conclusions for the baseline monitoring event.
- References provides a list of references used cited in the BMP.



## 2 Finfish and Crayfish Baseline Sampling

Fish tissue sampling was conducted by Great Lakes Environmental Center, Inc. (GLEC), with supervision by Gradient and AECOM staff, under the provisions of the Scientific License to Collect or Possess Number 3310 issued by the NYSDEC on October 4, 2024 (Appendix C). Finfish and crayfish sampling at the Site was conducted from October 8 through October 10, 2024, following the procedures described in the BMP and FSAP (Appendix B). The sections below describe the implementation of the BMP and FSAP (Section 2.1) and recommendations for future post-remediation biota monitoring based on the results of the baseline sampling event (Section 2.2).

### 2.1 FSAP and BMP Implementation

The sampling objectives, sampling summary, and analytes/parameters by sample type for the pre-remediation (baseline) sampling event, as outlined in the FSAP (see Appendix B), are shown in Tables 2.1 through 2.3, respectively.

**Table 2.1 Pre-Remediation Sampling Scope and Objectives**

Media	Sampling and Analysis Objective	Characterization
Finfish and crayfish tissue	Evaluate tissue concentrations of PCBs	Compare tissue PCB concentrations between target species, between the Site and background, and against the remedial goal of 0.1 mg/kg wet-weight

**Table 2.2 Pre-Remediation Sampling Summary**

Location	Number of Composite Tissue Samples <sup>a</sup>		Total
	Finfish	Crayfish	
Reach 0	≥5	≤5	≥10
Reach 1	≥5	≤5	≥10
Reach 2	≥5	≤5	≥10
Reach 3	≥5	≤5	≥10
Reach 4	≥5	≤5	≥10
Reach 5	≥5	≤5	≥10
Reach 6	≥5	≤5	≥10
Reach 7	≥5	≤5	≥10
QA/QC Samples <sup>b</sup>	≥2	≤2	≥4
<b>Total</b>	<b>≥42</b>	<b>≤42</b>	<b>≥84</b>

Notes:

MS/MSD = Matrix Spike/Matrix Spike Duplicate; QA/QC = Quality Assurance/Quality Control; PCBs = Polychlorinated Biphenyls; mg/kg = Milligram per Kilogram.

(a) Finfish - a minimum of five composite samples will be collected from each reach. Crayfish - up to five composite samples will be collected from each reach.

(b) 1 MS/MSD for every 20 samples.

**Table 2.3 Pre-Remediation Sampling Analytes/Parameters by Sample Type**

Analyte/Parameter	Tissue	Surface Water
PCBs <sup>a</sup>	X	
Lipids <sup>b</sup>	X	
Moisture Content <sup>c</sup>	X	
pH <sup>d</sup>		X
Specific Conductance <sup>d</sup>		X
Dissolved Oxygen <sup>d</sup>		X
Oxidation and Reduction Potential (ORP) <sup>d</sup>		X
Temperature <sup>d</sup>		X
Turbidity <sup>d</sup>		X

Notes:

(a) Whole body tissue samples will be analyzed for individual PCB aroclors (Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260) using US EPA Method 8082 and a minimum reporting limit of 0.09 microgram per gram (µg/g).

(b) Whole body tissue samples will be analyzed for lipids, as described in the SGS North America Inc. (SGS) standard operating procedure (SOP) "Lipids in Tissue" included in Attachment A of the BMP (see Appendix B).

(c) Moisture content will be analyzed using Method SM18 2540G.

(d) Water quality parameters will be recorded using a water quality meter, YSI PRO DSS Sonde.

Finfish were collected from all reaches using a pulsed, direct current (DC) electrofishing backpack system. Pulsed DC electrofishing, and overnight baited minnow traps were used to collect crayfish. Kick nets were not used during this event to collect crayfish due to the lack of observed crayfish at the time of sampling collection. Based on the variety and abundance of finfish collected in R0 and R1,<sup>1</sup> it was decided to use creek chub (*Semotilus atromaculatus*) and green sunfish (*Lepomis cyanellus*) as the target species for the remaining reaches. Other finfish species, including pumpkinseed (*Lepomis gibbosus*) and white sucker (*Catostomus commersonii*), were collected in some reaches based on lack of target finfish availability (*i.e.*, R3 and R4) or to provide additional baseline information (*i.e.*, R6). Crayfish, identified as calico crayfish (*Faxonius immunis*), were collected from R0 and R7 using a combination of electrofishing and minnow traps.

Details regarding sampling procedures and biota collections at the Site are provided in GLEC's Field Sampling Report (see Appendix C).

Whole finfish and crayfish composites were submitted for laboratory testing using United States Environmental Protection Agency (US EPA) Method 8082A for analysis of individual PCB aroclors (Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260), SGS North America Inc. (SGS) standard operating procedure (SOP) "Lipids in Tissue" for lipid analysis, and Method SM18-2540G for moisture content analysis. For quality assurance/quality control (QA/QC) purposes, four Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples were also submitted for PCB analysis. Details regarding sample processing and analysis are described in AECOM's "Data Usability Summary Report" (see Appendix C).

Overall, the sample objectives outlined in Table 2.2 were met during the baseline sampling event from October 8 through October 10, 2024:

- PCBs were analyzed in tissues collected from all reaches in accordance with US EPA Method 8082A. The applicable minimum reporting limit of 0.09 microgram per gram (µg/g), as stated in the BMP (Appendix B), were met for the analysis of PCBs.<sup>2</sup> One sample, 24-GS-R7-COMPG,

<sup>1</sup> The following finfish were collected from Reaches 0 and 1: creek chub (n = 5 and 6, respectively) and green sunfish (n = 6 and 5, respectively).

<sup>2</sup> Reporting limits of 0.018, 0.019, or 0.02 µg/g were used for PCB analysis (see Appendix C).

was incorrectly labeled as 24-CC-R7-COMPG (see Appendix C), as confirmed by the Chain of Custody and lab sample ID in the percent lipid determination electronic deliverable. The PCB data for this sample was analyzed as 24-GS-R7-COMPG.

- Percent lipids and moisture content were successfully analyzed in tissues collected from all reaches in accordance with SGS SOP "Lipids in Tissue" and Method SM18-2540G, respectively. An additional QC sample, not recorded within the Chain of Custody, was analyzed for crayfish (24-CR-R0-COMPA-DUP). This additional QC sample did not result in any changes within our final analyses.
- Water quality information (*i.e.*, pH, specific conductance, dissolved oxygen, oxidation and reduction potential [ORP], temperature, and turbidity) was successfully obtained from all reaches.
- All samples were successfully received by the laboratory and no issues were noted related to holding times or temperature requirements.

A few modifications, consistent with allowances in the BMP, and one deviation from the BMP were made, based on field conditions:

- Crayfish were not consistently caught and were not present in sufficient amounts to allow for a minimum of five crayfish composite samples in each reach. In reaches where fewer than five crayfish composite samples were collected, the remaining composites were modified to include creek chub (*Semotilus atromaculatus*) and green sunfish (*Lepomis cyanellus*), consistent with recommendations in the BMP.
- The target finfish species that were identified based on collections in R0 and R1 (*i.e.*, creek chub and green sunfish) were not collected in adequate amounts in some reaches to achieve the target number of composite samples (*i.e.*, R3, R4, and R6). Consistent with recommendations outlined in the BMP, the next most common finfish species (*i.e.*, pumpkinseed and white sucker) was used to fill the remaining composite samples in these reaches.
- Despite significant field efforts, the 10-composite target could not be met in R3 and R4 where seven and five composite samples were collected, respectively. In response, the field team decided to submit additional composite samples from R0, R5, and R6 ( $n = 12, 11,$  and  $11$  composites, respectively) which resulted in a total number of composite samples collected during this event of 81 samples and 4 QC samples.

## 2.2 Future Sampling Recommendations

Based on the baseline sampling event, Gradient recommends:

- Targeting creek chub and green sunfish in future sampling events, given their consistent presence, and to ensure comparability between baseline and future sampling datasets.
- Targeting crayfish for one additional future sampling event to assess whether continued sampling of crayfish is warranted and feasible in subsequent monitoring efforts, given their limited availability at the Site and their relatively low PCB body burdens as compared to finfish (See Section 3).
- Sampling around the same time period (*i.e.*, no later than October but ideally between July and September) to ensure comparability between baseline and future sampling datasets.
- Continued use of a combination of electrofishing and minnow traps for sample collection, along with attempting the use of kick nets and hand-picking techniques in the next sampling event for crayfish.

- Continued use of a target of 10 composites per reach. If this composite target cannot be met within a Reach despite repeated field effort, then we recommend submitting additional composite samples (beyond the 10 composite target) from other reaches (*i.e.*, R1 – R7), if available, with the objective of achieving a total composite count of 84 (including 4 QA/QC samples) for the overall sampling event.
- Continued use of the same water quality parameters and analytes, as shown in Table 2.3, in future sampling events.

## 3 Data Evaluation

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The results of a validation and usability assessment of the data collected as part of the baseline monitoring event are described in Section 3.1. An evaluation and interpretation of the data collected as part of the baseline monitoring event is presented in Section 3.2.

### 3.1 Data Validation and Usability

Summaries for QC data and associated raw data generated in support of the reported results (including instrument calibration) are included as Appendix C. Field notes are included in Appendix C.

The analytical data underwent a data validation and usability assessment with additional details provided in AECOM's "Data Usability Summary Report" (see Appendix C), following the guidelines provided by NYSDEC Division of Environmental Remediation "DER-10 Technical Guidance for Site Investigation and Remediation, Appendix 2B – Guidance for Data Deliverables and the Development of Data Usability Summary Reports, May 2010.

As part of the data validation, the following data qualification flags were applied to some sample results:

U	The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample

As stated in the "Data Usability Report", all sample results were determined to be usable, except for results qualified as "J" which were determined "conditionally usable." Samples qualified as "J" were deemed usable for the stated objectives of the BMP (Section 1.1) and were included in the data analyses presented in Section 3.2. All sample analyses were observed to be compliant with the US EPA Method 8082A for PCB analysis and the validation criteria, according to the "Standard Operating Procedure for Validation of Polychlorinated Biphenyl (PCB) Aroclor Data."

### 3.2 Data Analyses

A total of 81<sup>3</sup> finfish and crayfish composite tissue samples and 4 matrix spike/matrix spike duplicate pairs (MS/MSD) were collected at the Site. Two finfish composite samples (24-WS-R6-CompA and 24-WS-R6-CompB) were excluded from the dataset because the 10-composite minimum in R6 was already achieved and white sucker was not a target finfish species. As a result, no additional laboratory analyses were performed on these samples. The resulting 79 composite tissue samples and 4 MS/MSD were used and submitted for chemical analysis. These 79 composite samples consisted of 3 crayfish composites, 32 creek chub composites, 40 green sunfish composites, 1 pumpkinseed composite, and 3 white sucker composites (Appendix A, Table 2). In addition, 17 water samples were collected from the locations shown on Figure 1 and analyzed for the parameters listed in Table 2.3.

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<sup>3</sup> One sample (24-GS-R1-COMP-E) was not initially added to the Chain of Custody by GLEC; however, this sample was submitted to the laboratory for analysis who added it to the Chain of Custody upon receipt. As a result, a total count of 81 composite samples and 4 MS/MSD tissue samples were collected at the Site, including 24-GS-R1-COMPE (see Appendix C).

### 3.2.1 Water Quality

Table 3.1 presents a summary of average water quality conditions in each of the sampled Reaches during the baseline monitoring event.

**Table 3.1 Average Water Quality Parameters During the Baseline Monitoring Event<sup>a</sup>**

Reach	Temp. (°C)	DO (mg/L)	SPC (mS/cm)	pH	ORP (mV)	Turbidity (NTU)
Reach 0	14	9.6	1.9	8.0	81	1.4
Reach 1	16	11	2.0	8.4	83	3.5
Reach 2	14	9.9	1.9	8.3	112	3.2
Reach 3	14	9.6	2.1	7.9	152	1.1
Reach 4	11	9.2	1.8	6.9	147	0.47
Reach 5	13	9.3	2.0	8.1	119	1.1
Reach 6	12	9.2	1.9	8.2	122	8.6
Reach 7	12	10	1.2	7.1	147	0.23

Notes:

°C = Celsius; DO = Dissolved Oxygen; mg/L = Milligrams per Liter; mS/cm = MilliSiemens per Centimeter; mV = Millivolts; NTU = Nephelometric Turbidity Unit; ORP = Oxidation and Reduction Potential; SPC = Specific Conductance; Temp. = Temperature.

(a) Values in this table represent the averages for 17 water samples collected at the Site, as shown on Figure 1. Detailed values are presented in (Appendix A, Table 5).

All reaches had high levels of dissolved oxygen (9.2 – 11 mg/L) and pH values were neutral to slightly alkaline. The oxygen reduction potential in all Reaches indicated oxidizing conditions. Specific conductance was highest in Reach 3 (2.1 mS/cm) and lowest in Reach 7 (1.2 mS/cm). Turbidity levels in Reach 6 (8.6 NTU) were more than twice as high as in the next most turbid sample (Reach 1 at 3.5 NTU). According to NYSDEC surface water quality criteria for waterbodies classified as Class C, the water quality parameters meet the standards for temperature (<32°C), pH (>6.5 - <8.5) and dissolved oxygen (>4.0 mg/L), and turbidity (*i.e.*, does not cause substantial visible contrast to natural conditions) (NYSDEC, 1991;US EPA, 1986,2024 ). Overall, the results of the baseline water monitoring results do not indicate water quality concerns.

### 3.2.2 Length and Weight

Summary statistics of weight and length, by species, by reach, and for the Site are provided in Table 3.2. Across all finfish composites, average lengths ranged from 83 – 136 millimeters (mm), and average weights ranged from 9.9 – 31 grams (g). The highest finfish average lengths and weights were observed in R1 and R2, with average lengths of 129 and 136 mm, respectively, and average weights of 30 g, respectively (Table 3.2). Among the three individual crayfish composites, the highest average lengths and weights were observed in R2, with an average length of 84 mm and an average weight of 19 g (Appendix A, Table 4).

Additional details regarding composite lengths and weights are provided in Appendix A, Table 4. In addition, information on individual finfish and crayfish and photographic documentation are provided in Appendix C.

**Table 3.2 Length and Weight Summary Statistics**

Reach	Species	# of Composites	Min. Length (mm)	Max. Length (mm)	Avg. Length (mm)	Min. Weight (g)	Max. Weight (g)	Avg. Weight (g)
Reach 0	Creek Chub	5	59	177	85	2.1	56	8.4
	Green Sunfish	6	50	152	81	2.1	71	12
	Crayfish	1	55	71	63	3.8	8.2	5.6
	<b>All Finfish</b>	11	50	177	83	2.1	71	9.9
	<b>All Crayfish</b>	1	55	71	63	3.8	8.2	5.6
	<b>All Species</b>	12	50	177	80	2.1	71	9.2
Reach 1	Creek Chub	6	78	221	143	4.0	97	32
	Green Sunfish	5	90	140	113	12	48	26
	<b>All Finfish</b>	11	78	221	129	4.0	97	30
	<b>All Crayfish</b>	NA	NA	NA	NA	NA	NA	NA
	<b>All Species</b>	11	78	221	129	4.0	97	30
Reach 2	Creek Chub	7	112	199	148	11	76	32
	Green Sunfish	3	77	167	103	8.0	90	25
	Crayfish	1	76	92	84	15	22	19
	<b>All Finfish</b>	10	77	199	136	8.0	90	30
	<b>All Crayfish</b>	1	76	92	84	15	22	19
	<b>All Species</b>	11	76	199	134	8.0	90	29
Reach 3	Creek Chub	2	113	183	150	13	55	33
	Green Sunfish	4	72	143	93	6.6	54	16
	Pumpkinseed	1	72	106	85	6.9	25	12
	<b>All Finfish</b>	7	72	183	106	6.6	55	20
	<b>All Crayfish</b>	NA	NA	NA	NA	NA	NA	NA
	<b>All Species</b>	7	72	183	106	6.6	55	20
Reach 4	Creek Chub	2	117	168	132	15	47	23
	Green Sunfish	2	71	172	109	6.3	119	34
	White Sucker	1	132	193	153	24	70	39
	<b>All Finfish</b>	5	71	193	127	6.3	119	29
	<b>All Crayfish</b>	NA	NA	NA	NA	NA	NA	NA
	<b>All Species</b>	5	71	193	127	6.3	119	29
Reach 5	Creek Chub	4	104	213	146	11	102	34
	Green Sunfish	7	65	168	95	4.8	88	19
	<b>All Finfish</b>	11	65	213	106	4.8	102	23
	<b>All Crayfish</b>	NA	NA	NA	NA	NA	NA	NA
	<b>All Species</b>	11	65	213	106	4.8	102	23



Reach	Species	# of Composites	Min. Length (mm)	Max. Length (mm)	Avg. Length (mm)	Min. Weight (g)	Max. Weight (g)	Avg. Weight (g)
Reach 6	Creek Chub	3	112	187	134	13	60	28
	Green Sunfish	6	63	147	90	4.8	58	14
	White Sucker	4	94	197	130	7.9	67	24
	<b>All Finfish</b>	13	63	197	108	4.8	67	19
	<b>All Crayfish</b>	NA	NA	NA	NA	NA	NA	NA
	<b>All Species</b>	13	63	197	108	4.8	67	19
Reach 7	Creek Chub	3	72	213	121	3.2	101	21
	Green Sunfish	7	77	152	102	7.2	68	21
	Crayfish	1	34	75	53	1.2	9.1	4.0
	<b>All Finfish</b>	10	72	213	108	3.2	101	21
	<b>All Crayfish</b>	1	34	75	53	1.2	9.1	4.0
	<b>All Species</b>	11	34	213	100	1.2	101	19
<b>All Reaches:</b>								
	<b>All Finfish</b>	78			109			21
	<b>All Crayfish</b>	3			61			6.2
	<b>All Species</b>	81			106			20

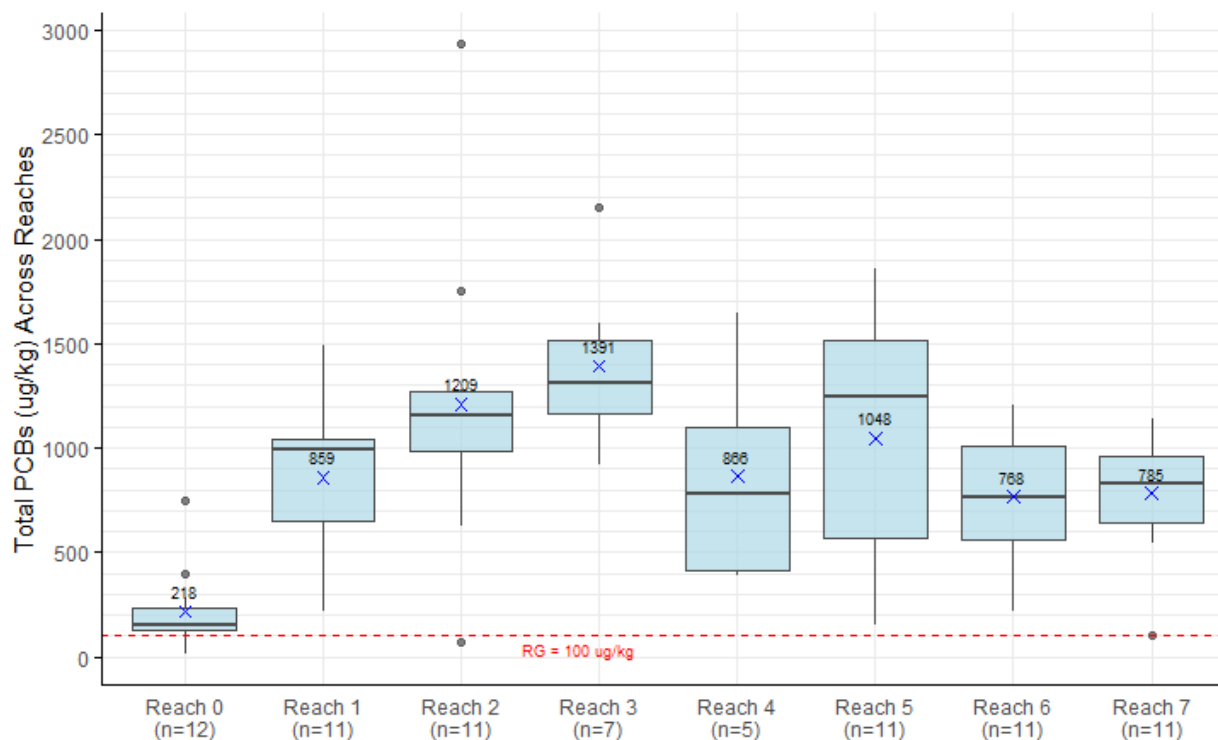
Notes:

Avg. = Average; g = Grams; Min. = Minimum; Max. = Maximum; mm = Millimeter; NA = Not Available; PCBs = Polychlorinated Biphenyls.

# = Number.

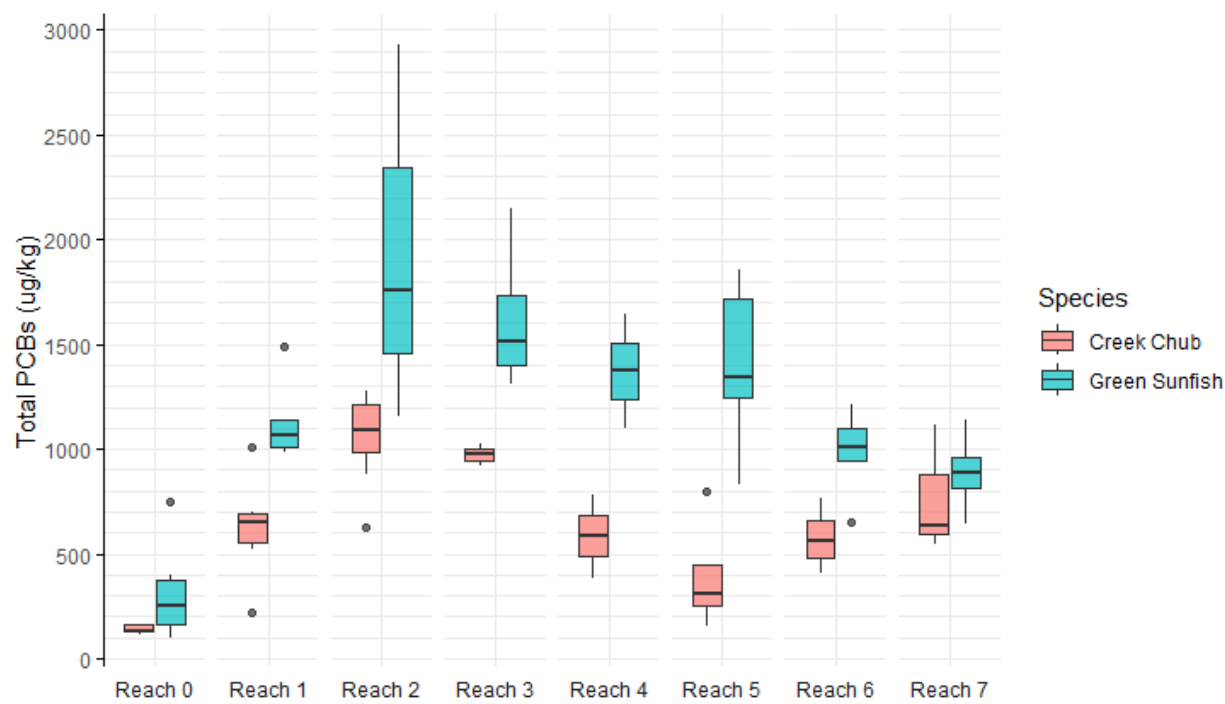
### 3.2.3 Total PCB and Lipid-Normalized Total PCB Concentrations

The range of Total PCBs detected in composite samples collected during this event is 12.1-2,934  $\mu\text{g}/\text{kg}$ ,<sup>4</sup> with the lowest concentration detected in a crayfish composite from Reach 0 (24-CR-R0-COMPA) and the highest concentration detected in a finfish composite from Reach 2 (24-GS-R2-COMPC) (Appendix A, Table 2). Two crayfish composite samples (24-CR-R0-COMPA and 24-CR-R2-COMPA) had Total PCB concentrations below the RG of 100  $\mu\text{g}/\text{kg}$  and 77 composite samples (including the one other crayfish composite sample) had Total PCB concentrations exceeding the RG (Appendix A, Table 2).



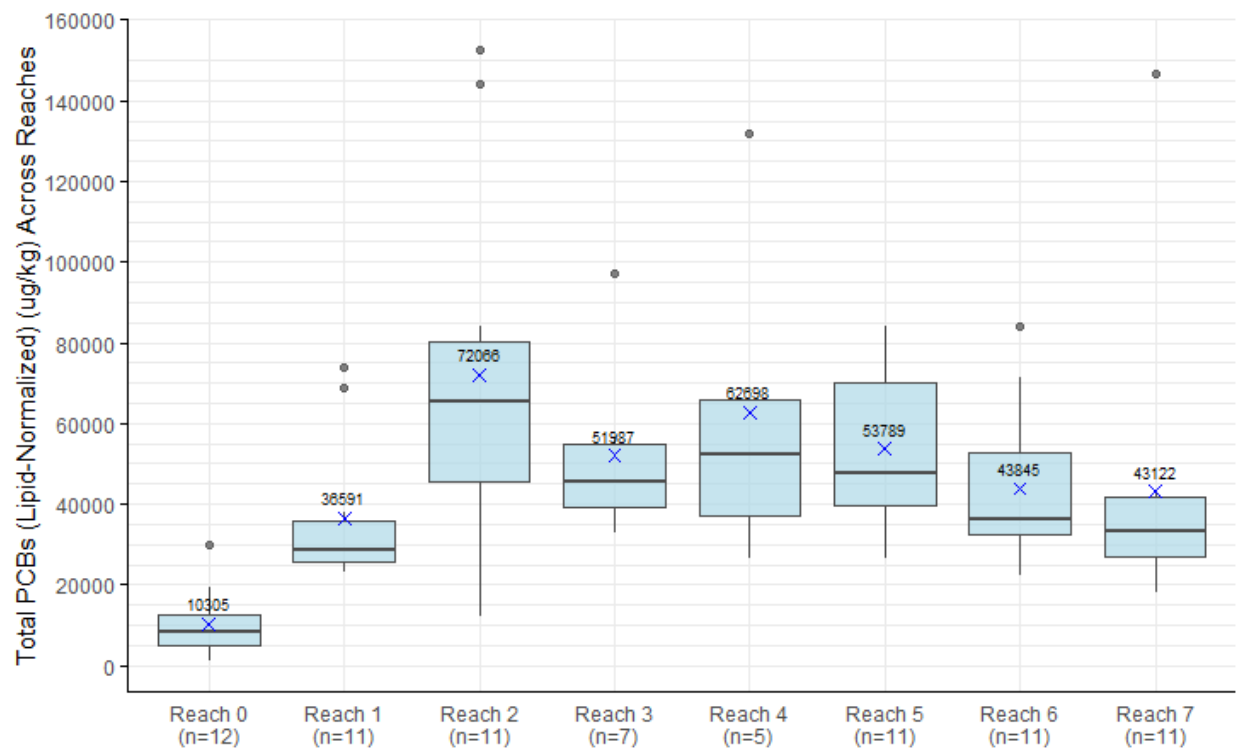
**Figure 3.1 Total PCBs in Finfish and Crayfish Across Reaches.** PCBs = Polychlorinated Biphenyls; RG = Remedial Goal;  $\mu\text{g}/\text{kg}$  = Micrograms per Kilogram. Boxplots represent Total PCB concentrations ( $\mu\text{g}/\text{kg}$ ) in R0 – R7. Lower and upper bounds of the boxes represent 25<sup>th</sup> and 75<sup>th</sup> percentiles, and the median is represented by the solid horizontal line in the center of each box. The whiskers represent 1.5 times above or below the interquartile range. Data outliers are represented by solid dots. Crosses and associated values within boxplots denote average Total PCB concentrations within each Reach. Red dashed line indicates the RG of 100  $\mu\text{g}/\text{kg}$ .

<sup>4</sup> Consistent with previous investigations at the Site and the BMP, non-detected individual Aroclor results were treated as zeroes in the calculation of Total PCBs.

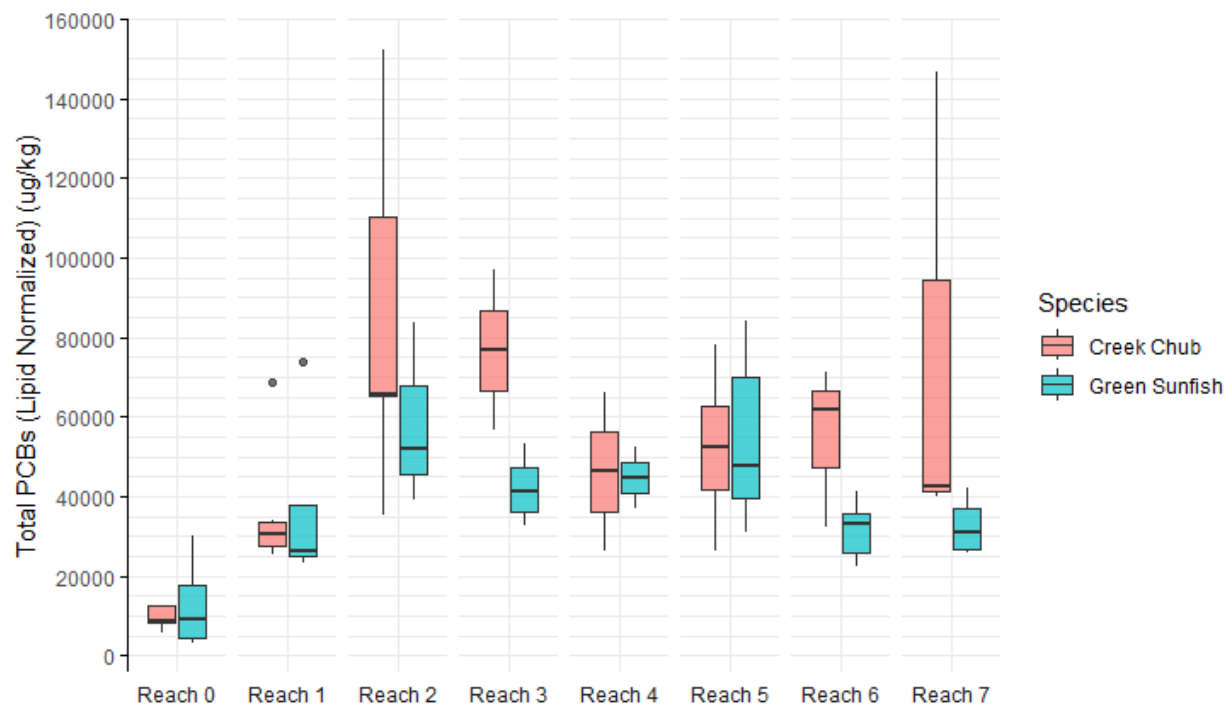


**Figure 3.2 Total PCBs in Finfish Species Across Reaches.** PCBs = Polychlorinated Biphenyls;  $\mu\text{g/kg}$  = Micrograms per Kilogram. Boxplots represent Total PCB concentrations ( $\mu\text{g/kg}$ ) of creek chub and green sunfish in R0 – R7. Lower and upper bounds of the boxes represent 25<sup>th</sup> and 75<sup>th</sup> percentiles, and the median is represented by the solid horizontal line in the center of each box. The whiskers represent 1.5 times above or below the interquartile range. Data outliers are represented by solid dots.

Total PCB concentrations exceeded the RG ( $100 \mu\text{g/kg}$ ) in composites collected from all reaches, including composites collected from R0 (average concentration =  $218 \mu\text{g/kg}$ ), which represents background conditions (Figure 3.1; Appendix A, Table 3). The highest average Total PCB concentrations were observed in R2 ( $1,209 \mu\text{g/kg}$ ) and R3 ( $1,391 \mu\text{g/kg}$ ), whereas average Total PCB concentrations were comparable for R1, R4, R6, and R7 (*i.e.*, between  $768 \mu\text{g/kg}$  and  $866 \mu\text{g/kg}$ ) (Figure 3.1; Appendix A, Table 3). Average Total PCB concentrations increase from R0 through R3, but are similar from R4 through R7 (Figure 3.1; Appendix A, Table 3). A trend of increasing Total PCB concentrations is observed for creek chub and green sunfish collected from R0 through R2 (Figure 3.2). Total PCB concentrations for green sunfish show a decreasing trend from R3 to R7, whereas average creek chub Total PCB concentrations show a decreasing trend from R3 through R5 and an increasing trend from R5 through R7. In general, Total PCB concentrations and within-reach variability are greater for green sunfish as compared to creek chub (Figure 3.2).



**Figure 3.3 Total PCBs (Lipid-Normalized) in Finfish and Crayfish Across Reaches.** PCBs = Polychlorinated Biphenyls; µg/kg = Micrograms per Kilogram. Boxplots represent Total PCB concentrations (µg/kg) in R0 – R7. Lower and upper bounds of the boxes represent 25<sup>th</sup> and 75<sup>th</sup> percentiles, and the median is represented by the solid horizontal line in the center of each box. The whiskers represent 1.5 times above or below the interquartile range. Data outliers are represented by solid dots. Crosses and associated values within boxplots denote average lipid-normalized Total PCB concentrations within each Reach.



**Figure 3.4 Total PCBs (Lipid-Normalized) in Finfish Across Reaches.** PCBs = Polychlorinated Biphenyls; µg/kg = Micrograms per Kilogram. Boxplots represent lipid-normalized Total PCB concentrations (µg/kg) of creek chub and green sunfish in R0 – R7. Lower and upper bounds of the boxes represent 25<sup>th</sup> and 75<sup>th</sup> percentiles, and the median is represented by the solid horizontal line in the center of each box. The whiskers represent 1.5 times above or below the interquartile range. Data outliers are represented by solid dots.

Lipid-normalized Total PCB concentrations across reaches are shown in Figure 3.3. The highest average lipid-normalized Total PCB concentration was observed in R2 (72,066 µg/kg), whereas the lowest average lipid-normalized Total PCB concentration was observed in R0 (10,305 µg/kg) (Figure 3.3; Appendix A, Table 3). A general increasing average lipid-normalized Total PCB trend was observed between R0 – R2 (*i.e.*, between 10,305 and 72,066 µg/kg), then a decreasing trend was observed from R4 – R7 (*i.e.*, between 62,698 and 43,122 µg/kg) (Figure 3.3; Appendix A, Table 3). The same general trend in average lipid-normalized Total PCB concentrations by Reach is observed when evaluated separately for creek chub and green sunfish, with greater overall lipid-normalized Total PCB concentrations and within-reach variability in creek chub (Figure 3.4).

### 3.2.4 Aroclor Distribution

Appendix A, Table 2 demonstrates the percent contribution of different Aroclors to the Total PCB concentrations. Across all composite samples, Aroclor 1248, 1254, and 1260 were the only detected Aroclors (Figure 2; Appendix A, Table 1). Overall, across all composites, Aroclor 1260 had higher percent contribution (41-69%) compared to Aroclor 1254 (31-59%) and Aroclor 1248 (0-14%) (Appendix A, Table 3). Creek chub and green sunfish had a comparable percent contribution of Aroclor 1254 (34 – 57% *vs* 30 – 61%, respectively) and 1260 (43 – 66% *vs* 36 – 70%, respectively); however, Aroclor 1248 was not detected in any creek chub composite (Appendix A, Table 3). Within the three crayfish composites, two composites had 100% contribution of Aroclor 1260, while one composite had a higher contribution of

Aroclor 1260 (79%) compared to Aroclor 1254 (21%) (Appendix A, Table 2). Overall, Aroclor 1254 and 1260 are the primary components of Total PCBs detected at the Site.

### 3.2.5 Species Differences

Crayfish were not consistently collected across the Site. As a result, a much more limited number of crayfish composites were submitted for analysis as compared to the number of finfish composites. Only three crayfish composites were collected from R0, R2, and R7 with an average Total PCB concentration of 63 µg/kg and an average lipid-normalized total PCB concentration of 10,402 µg/kg (Appendix A, Table 3). In comparison, finfish composites (n = 76) had an average Total PCB concentration of 893 µg/kg and an average lipid-normalized total PCB concentration of 46,229 µg/kg (Appendix A, Table 3). Based on the data collected in the baseline sampling event, finfish had substantially higher PCB tissue concentrations as compared to crayfish. The observed higher PCB tissue concentrations in finfish as compared to crayfish may be attributable to species-specific differences in exposure and toxicokinetics. Further, finfish have a larger home range than crayfish, resulting in a greater potential for finfish tissue concentrations to be influenced by PCB exposures unrelated to the Site.

With regards to finfish composites, an approximately similar number of composites were submitted for chemical analysis for creek chub (n = 32) and green sunfish (n = 40). Across all reaches, average Total PCB concentrations for creek chub were lower than green sunfish, with the highest average Total PCB concentration for a creek chub composite in R2 (1,055 µg/kg) approximately 46% lower than the highest concentration for a green sunfish composite in R2 (1,949 µg/kg) (Appendix A, Table 3). However, the opposite is generally observed when evaluating the lipid-normalized Total PCB concentrations. The average lipid-normalized Total PCB concentrations for creek chub exceeds that of green sunfish in all Reaches, except for R0, R1, and R5 (Appendix A, Table 3). The highest average lipid-normalized Total PCB concentration for a creek chub composite in R2 (86,473 µg/kg) exceeds the highest concentration for a green sunfish composite in R2 (58,374 µg/kg) by approximately 48% (Appendix A, Table 3).

### 3.2.6 Comparison of Baseline Data Against Historical Data

Previous sampling events at the Site were conducted in November 2006,<sup>5</sup> October 2009,<sup>6</sup> and June 2013<sup>7</sup> to determine sediment PCB concentrations (Ensafé, 2007, 2009, 2013). The primary presence of Aroclor 1254 and 1260 at the Site as observed during this baseline sampling event is generally consistent with historical sediment sampling conducted at the Site. The sediment sampling event conducted in November 2006 (Ensafé, 2007) at the Site determined that Aroclor 1260 had relatively higher contributions to Total PCBs compared to Aroclor 1254 (Ensafé, 2007). Downgradient sediment sampling in October 2009 showed similar relative Aroclor contributions (Ensafé, 2009). In contrast, sediment sampling conducted in June 2013 event showed that Aroclor 1254 were largely undetected (Ensafé, 2013).

The 2006 event also included fish sampling and determined the percent abundances of fish species as follows: creek chub (53.5%), longnose dace (28.9%), white sucker (8.7%), pumpkinseed sunfish (6.8%), fathead minnow (1.3%), largemouth bass (0.4%), and bullhead catfish (0.4%) (Ensafé, 2007). The baseline sampling event confirms the presence of creek chub as one of the most abundant species at the Site, whereas

<sup>5</sup> Station 1 of the 2006 sampling was the area between Court Street and 300 ft downstream west of Court Street, which corresponds to a portion of Reach 6. Station 2 was the area between Thompson Road to Court Street, which corresponds to Reaches 3 - 5. Station 3 is the area between Thompson Road and 800 ft upstream of the road, which corresponds to Reach 2.

<sup>6</sup> A portion of the upgradient sampling locations for the 2009 sampling locations approximately correspond to Reach 0, while downgradient sampling locations approximately correspond to Reaches 6 and 7.

<sup>7</sup> Areas 02 for the 2013 sampling locations approximately correspond to Reaches 0 - 2, and Areas 03 approximately correspond to Reaches 3 - 7.

green sunfish were not present at the Site in 2006, and longnose dace was not observed in significant amounts in the baseline sampling event.

Based on the 2006 fish sampling event, only creek chub composites<sup>8</sup> were used to determine Total PCB concentrations and lipid-normalized Total PCB concentrations in fish tissue. Total PCB concentrations within composite samples exceeded the RG (100 µg/kg), ranging from 1,400 – 8,800 µg/kg (Ensafe, 2007). Specifically, all samples from Station 3 (corresponds to R2), had Total PCB concentrations ranging from 2,000 – 4,700 µg/kg, which is higher than concentrations in the creek chub composite samples collected from R2 during the baseline sampling event (628 – 1,280 µg/kg). All samples from Station 2 (corresponds to R3-R5) and 1 (corresponds to R6) had Total PCB concentrations exceeding those observed during baseline sampling in the same Reaches (*i.e.*, 2,800 – 6,100 µg/kg *vs.* 156 – 1,029 µg/kg in Reaches 3 – 5; and 1,400 – 8,800 µg/kg *vs.* 405 – 764 µg/kg in Reach 6). Lipid-normalized Total PCBs in all samples generally exceeded concentrations observed in the baseline sampling in R2 (*i.e.*, 93,300 -243,900 µg/kg *vs.* 35,330 – 152,551 µg/kg), R3-5 (*i.e.*, 109,200 – 357,100 µg/kg *vs.* 26,360 – 97,076 µg/kg), and R6 (*i.e.*, 141,400 – 294,600 µg/kg *vs.* 32,413 – 71,198 µg/kg) (Ensafe, 2007).

Overall, Aroclors 1254 and 1260 have remained the most significant contributors to Total PCB fish tissue concentrations at the Site when compared to the 2006 sediment and fish sampling event. A comparison to the tissue concentrations observed in 2006 indicates an overall decrease in Total PCB and lipid-normalized Total PCB concentrations.

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<sup>8</sup> In the 2006 sampling event, creek chub composites in Stations 1 – 3 were each labeled Sample 1 – 5.



## 4 Conclusion

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A baseline tissue sampling event was successfully implemented in Sanders Creek from October 8 through October 10, 2024, in accordance with a NYSDEC-approved Biota Monitoring Plan. Two of 79 composite samples, both crayfish composites, had total PCB concentrations below the RG of 100 µg/kg and average Total PCB concentrations in tissues collected during this baseline event ranged from 12.1 to 2,934 µg/kg. Aroclor 1254 and 1260 were the primary components of Total PCBs detected in tissues collected from the Site. Baseline PCB tissue concentrations, as reported here, will serve as a basis against which to evaluate tissue concentrations in future sampling events, following completion of the RA at the Site.

Based on this baseline sampling event, a number of recommendations are made for future, post-RA biota tissue sampling events:

- Target creek chub and green sunfish;
- Target crayfish for at least one additional future sampling period;
- Target no later than an October sampling period (but ideally between July and September);
- Continue the use of electrofishing and minnow traps as biota sampling collection methods, along with attempting the use of kick nets and hand-picking techniques in the next sampling event for crayfish;
- Continue to analyze for the same water quality parameters and tissue analytes; and
- Continue to use a target of 10 composites per reach. If this composite target cannot be met within a Reach despite repeated field effort, then we recommend submitting additional composite samples (beyond the 10 composite target) from other reaches (*i.e.*, R1 – R7), if available, with the objective of trying to achieve a total composite count of 84 (including 4 QA/QC samples) for the overall sampling event.

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# Appendix A

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## Data Tables

Table A.1 Individual Aroclor Concentrations<sup>a</sup>

Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 0	Creek Chub	CompA	24-CC-R0-COMPA	Fish	JE1472-1	11097-69-1	Aroclor 1254	DT	=	88.6	2.1	20
Reach 0	Creek Chub	CompA	24-CC-R0-COMPA	Fish	JE1472-1	11096-82-5	Aroclor 1260	DT	=	74.9	6.8	20
Reach 0	Creek Chub	CompB	24-CC-R0-COMPB	Fish	JE1472-2	11097-69-1	Aroclor 1254	DT	=	76.9	2.1	19
Reach 0	Creek Chub	CompB	24-CC-R0-COMPB	Fish	JE1472-2	11096-82-5	Aroclor 1260	DT	=	55.2	6.6	19
Reach 0	Creek Chub	CompC	24-CC-R0-COMPC	Fish	JE1472-3	11096-82-5	Aroclor 1260	DT	=	85.7	6.8	20
Reach 0	Creek Chub	CompC	24-CC-R0-COMPC	Fish	JE1472-3	11097-69-1	Aroclor 1254	DT	=	74.4	2.1	20
Reach 0	Creek Chub	CompD	24-CC-R0-COMPD	Fish	JE1472-4	11097-69-1	Aroclor 1254	DT	=	68.2	2.1	19
Reach 0	Creek Chub	CompD	24-CC-R0-COMPD	Fish	JE1472-4	11096-82-5	Aroclor 1260	DT	=	49.9	6.6	19
Reach 0	Creek Chub	CompE	24-CC-R0-COMPE	Fish	JE1472-5	11097-69-1	Aroclor 1254	DT	=	68.1	2	19
Reach 0	Creek Chub	CompE	24-CC-R0-COMPE	Fish	JE1472-5	11096-82-5	Aroclor 1260	DT	=	63.4	6.5	19
Reach 1	Creek Chub	CompA	24-CC-R1-COMPA	Fish	JE1472-11	11097-69-1	Aroclor 1254	DT	=	652	2.1	19
Reach 1	Creek Chub	CompB	24-CC-R1-COMPB	Fish	JE1472-12	11097-69-1	Aroclor 1254	DT	=	91.7	2	19
Reach 1	Creek Chub	CompB	24-CC-R1-COMPB	Fish	JE1472-12	11096-82-5	Aroclor 1260	DT	=	125	6.5	19
Reach 1	Creek Chub	CompC	24-CC-R1-COMPC	Fish	JE1472-13	11097-69-1	Aroclor 1254	DT	=	414	2.1	20
Reach 1	Creek Chub	CompC	24-CC-R1-COMPC	Fish	JE1472-13	11096-82-5	Aroclor 1260	DT	=	288	6.8	20
Reach 1	Creek Chub	CompD	24-CC-R1-COMPD	Fish	JE1472-14	11097-69-1	Aroclor 1254	DT	=	398	2.1	20
Reach 1	Creek Chub	CompD	24-CC-R1-COMPD	Fish	JE1472-14	11096-82-5	Aroclor 1260	DT	=	250	6.8	20
Reach 1	Creek Chub	CompE	24-CC-R1-COMPE	Fish	JE1472-15	11097-69-1	Aroclor 1254	DT	=	334	2.2	20
Reach 1	Creek Chub	CompE	24-CC-R1-COMPE	Fish	JE1472-15	11096-82-5	Aroclor 1260	DT	=	187	6.9	20
Reach 1	Creek Chub	CompF	24-CC-R1-COMPF	Fish	JE1472-16	11097-69-1	Aroclor 1254	DT	=	344	2.1	20
Reach 1	Creek Chub	CompF	24-CC-R1-COMPF	Fish	JE1472-16	11096-82-5	Aroclor 1260	DT	=	304	6.8	20
Reach 2	Creek Chub	CompB	24-CC-R2-COMPB	Fish	JE1115-4	11097-69-1	Aroclor 1254	DT	=	442	2.2	20
Reach 2	Creek Chub	CompC	24-CC-R2-COMPC	Fish	JE1115-5	11097-69-1	Aroclor 1254	DT	=	545	2.2	20
Reach 2	Creek Chub	CompD	24-CC-R2-COMPD	Fish	JE1115-6	11097-69-1	Aroclor 1254	DT	=	602	2.2	20
Reach 2	Creek Chub	CompE	24-CC-R2-COMPE	Fish	JE1115-7	11097-69-1	Aroclor 1254	DT	=	413	2.2	20
Reach 2	Creek Chub	CompF	24-CC-R2-COMPF	Fish	JE1115-8	11097-69-1	Aroclor 1254	DT	=	397	2.2	20
Reach 2	Creek Chub	CompG	24-CC-R2-COMPG	Fish	JE1115-9	11097-69-1	Aroclor 1254	DT	=	465	2.2	20
Reach 0	Green Sunfish	CompA	24-GS-R0-COMPA	Fish	JE1472-6	11097-69-1	Aroclor 1254	DT	=	66	2	19
Reach 0	Green Sunfish	CompA	24-GS-R0-COMPA	Fish	JE1472-6	11096-82-5	Aroclor 1260	DT	=	34.2	6.5	19
Reach 0	Green Sunfish	CompB	24-GS-R0-COMPB	Fish	JE1472-7	11096-82-5	Aroclor 1260	DT	=	435	6.3	18
Reach 0	Green Sunfish	CompB	24-GS-R0-COMPB	Fish	JE1472-7	11097-69-1	Aroclor 1254	DT	=	314	2	18
Reach 0	Green Sunfish	CompC	24-GS-R0-COMPC	Fish	JE1472-8	12672-29-6	Aroclor 1248	DT	=	91.2	4.2	20
Reach 0	Green Sunfish	CompC	24-GS-R0-COMPC	Fish	JE1472-8	11096-82-5	Aroclor 1260	DT	=	65.9	6.8	20
Reach 0	Green Sunfish	CompC	24-GS-R0-COMPC	Fish	JE1472-8	11097-69-1	Aroclor 1254	DT	=	124	2.1	20
Reach 0	Green Sunfish	CompD	24-GS-R0-COMPD	Fish	JE1472-9	11096-82-5	Aroclor 1260	DT	=	91.2	6.8	20
Reach 0	Green Sunfish	CompD	24-GS-R0-COMPD	Fish	JE1472-9	12672-29-6	Aroclor 1248	DT	=	159	4.2	20
Reach 0	Green Sunfish	CompD	24-GS-R0-COMPD	Fish	JE1472-9	11097-69-1	Aroclor 1254	DT	=	151	2.1	20
Reach 0	Green Sunfish	CompE	24-GS-R0-COMPE	Fish	JE1472-10	11096-82-5	Aroclor 1260	DT	=	74.8	6.9	20
Reach 0	Green Sunfish	CompE	24-GS-R0-COMPE	Fish	JE1472-10	12672-29-6	Aroclor 1248	DT	=	29.5	4.3	20
Reach 0	Green Sunfish	CompE	24-GS-R0-COMPE	Fish	JE1472-10	11097-69-1	Aroclor 1254	DT	=	113	2.2	20

Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 0	Green Sunfish	CompF	24-GS-R0-COMPF	Fish	JE1473-1	11097-69-1	Aroclor 1254	DT	=	88.8	2.1	19
Reach 1	Green Sunfish	CompA	24-GS-R1-COMPA	Fish	JE1472-17	11097-69-1	Aroclor 1254	DT	=	710	2.2	20
Reach 1	Green Sunfish	CompA	24-GS-R1-COMPA	Fish	JE1472-17	11096-82-5	Aroclor 1260	DT	=	353	6.9	20
Reach 1	Green Sunfish	CompB	24-GS-R1-COMP B	Fish	JE1472-18	11097-69-1	Aroclor 1254	DT	=	609	2.1	20
Reach 1	Green Sunfish	CompB	24-GS-R1-COMP B	Fish	JE1472-18	11096-82-5	Aroclor 1260	DT	=	531	6.8	20
Reach 1	Green Sunfish	CompC	24-GS-R1-COMPC	Fish	JE1472-19	11097-69-1	Aroclor 1254	DT	=	971	2.2	20
Reach 1	Green Sunfish	CompC	24-GS-R1-COMPC	Fish	JE1472-19	11096-82-5	Aroclor 1260	DT	=	522	6.9	20
Reach 1	Green Sunfish	CompD	24-GS-R1-COMPD	Fish	JE1472-20	11097-69-1	Aroclor 1254	DT	=	522	2.1	19
Reach 1	Green Sunfish	CompD	24-GS-R1-COMPD	Fish	JE1472-20	11096-82-5	Aroclor 1260	DT	=	490	6.6	19
Reach 1	Green Sunfish	CompE	24-GS-R1-COMPE	Fish	JE1473-3	11097-69-1	Aroclor 1254	DT	=	674	2.2	20
Reach 1	Green Sunfish	CompE	24-GS-R1-COMPE	Fish	JE1473-3	11096-82-5	Aroclor 1260	DT	=	315	6.9	20
Reach 2	Green Sunfish	CompA	24-GS-R2-COMPA	Fish	JE1115-10	11097-69-1	Aroclor 1254	DT	=	759	2.2	20
Reach 2	Green Sunfish	CompB	24-GS-R2-COMP B	Fish	JE1115-11	11097-69-1	Aroclor 1254	DT	=	512	2.2	20
Reach 2	Green Sunfish	CompC	24-GS-R2-COMPC	Fish	JE1115-12	11097-69-1	Aroclor 1254	DT	=	764	2.2	20
Reach 5	Creek Chub	CompA	24-CC-R5-COMPA	Fish	JE582-14	11097-69-1	Aroclor 1254	DT	=	88.7	2	18
Reach 5	Creek Chub	CompA	24-CC-R5-COMPA	Fish	JE582-14	11096-82-5	Aroclor 1260	DT	=	244	6.3	18
Reach 5	Creek Chub	CompB	24-CC-R5-COMP B	Fish	JE582-15	11096-82-5	Aroclor 1260	DT	=	174	6.6	19
Reach 5	Creek Chub	CompB	24-CC-R5-COMP B	Fish	JE582-15	11097-69-1	Aroclor 1254	DT	=	111	2.1	19
Reach 5	Creek Chub	CompC	24-CC-R5-COMPC	Fish	JE582-16	11096-82-5	Aroclor 1260	DT	=	99.5	6.4	19
Reach 5	Creek Chub	CompC	24-CC-R5-COMPC	Fish	JE582-16	11097-69-1	Aroclor 1254	DT	=	56.1	2	19
Reach 5	Creek Chub	CompD	24-CC-R5-COMPD	Fish	JE582-6	11096-82-5	Aroclor 1260	DT	=	508	6.8	20
Reach 5	Creek Chub	CompD	24-CC-R5-COMPD	Fish	JE582-6	11097-69-1	Aroclor 1254	DT	=	294	2.1	20
Reach 6	Creek Chub	CompA	24-CC-R6-COMPA	Fish	JE936-7	11097-69-1	Aroclor 1254	DT	=	166	2	19
Reach 6	Creek Chub	CompB	24-CC-R6-COMP B	Fish	JE936-8	11097-69-1	Aroclor 1254	DT	=	333	2.1	20
Reach 6	Creek Chub	CompC	24-CC-R6-COMPC	Fish	JE936-9	11097-69-1	Aroclor 1254	DT	=	229	2	18
Reach 5	Green Sunfish	CompA	24-GS-R5-COMPA	Fish	JE582-7	11096-82-5	Aroclor 1260	DT	=	556	6.6	19
Reach 5	Green Sunfish	CompA	24-GS-R5-COMPA	Fish	JE582-7	11097-69-1	Aroclor 1254	DT	=	275	2.1	19
Reach 5	Green Sunfish	CompC	24-GS-R5-COMPC	Fish	JE582-9	11097-69-1	Aroclor 1254	DT	=	606	2.1	20
Reach 5	Green Sunfish	CompC	24-GS-R5-COMPC	Fish	JE582-9	11096-82-5	Aroclor 1260	DT	=	1080	6.8	20
Reach 5	Green Sunfish	CompD	24-GS-R5-COMPD	Fish	JE582-10	11097-69-1	Aroclor 1254	DT	=	694	2.1	20
Reach 5	Green Sunfish	CompD	24-GS-R5-COMPD	Fish	JE582-10	11096-82-5	Aroclor 1260	DT	=	1160	6.8	20
Reach 5	Green Sunfish	CompE	24-GS-R5-COMPE	Fish	JE582-11	11096-82-5	Aroclor 1260	DT	=	715	6.8	20
Reach 5	Green Sunfish	CompE	24-GS-R5-COMPE	Fish	JE582-11	11097-69-1	Aroclor 1254	DT	=	439	2.1	20
Reach 5	Green Sunfish	CompE	24-GS-R5-COMPE	Fish	JE582-11	12672-29-6	Aroclor 1248	DT	=	189	4.2	20
Reach 5	Green Sunfish	CompF	24-GS-R5-COMPF	Fish	JE582-12	11096-82-5	Aroclor 1260	DT	=	803	6.9	20
Reach 5	Green Sunfish	CompF	24-GS-R5-COMPF	Fish	JE582-12	11097-69-1	Aroclor 1254	DT	=	444	2.2	20
Reach 5	Green Sunfish	CompG	24-GS-R5-COMPG	Fish	JE582-13	11097-69-1	Aroclor 1254	DT	=	603	2.1	19
Reach 5	Green Sunfish	CompG	24-GS-R5-COMPG	Fish	JE582-13	11096-82-5	Aroclor 1260	DT	=	1140	6.6	19
Reach 6	Green Sunfish	CompA	24-GS-R6-COMPA	Fish	JE936-1	11097-69-1	Aroclor 1254	DT	=	491	2.1	19
Reach 6	Green Sunfish	CompB	24-GS-R6-COMP B	Fish	JE936-2	12672-29-6	Aroclor 1248	DT	=	532	4.2	19
Reach 6	Green Sunfish	CompB	24-GS-R6-COMP B	Fish	JE936-2	11097-69-1	Aroclor 1254	DT	=	310	2.1	19

Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 6	Green Sunfish	CompC	24-GS-R6-COMPC	Fish	JE936-3	12672-29-6	Aroclor 1248	DT	=	365	4.2	19
Reach 6	Green Sunfish	CompC	24-GS-R6-COMPC	Fish	JE936-3	11097-69-1	Aroclor 1254	DT	=	213	2.1	19
Reach 6	Green Sunfish	CompD	24-GS-R6-COMPD	Fish	JE936-4	11097-69-1	Aroclor 1254	DT	=	400	2.1	19
Reach 6	Green Sunfish	CompD	24-GS-R6-COMPD	Fish	JE936-4	12672-29-6	Aroclor 1248	DT	=	165	4.2	19
Reach 6	Green Sunfish	CompE	24-GS-R6-COMPE	Fish	JE936-5	11097-69-1	Aroclor 1254	DT	=	391	2.1	19
Reach 6	Green Sunfish	CompF	24-GS-R6-COMPF	Fish	JE936-6	11097-69-1	Aroclor 1254	DT	=	465	2	19
Reach 6	Green Sunfish	CompF	24-GS-R6-COMPF	Fish	JE936-6	12672-29-6	Aroclor 1248	DT	=	233	4.1	19
Reach 6	White Sucker	CompC	24-WS-R6-COMPC	Fish	JE936-10	12672-29-6	Aroclor 1248	DT	=	58.6	4	19
Reach 6	White Sucker	CompC	24-WS-R6-COMPC	Fish	JE936-10	11097-69-1	Aroclor 1254	DT	=	151	2	19
Reach 6	White Sucker	CompD	24-WS-R6-COMPD	Fish	JE1115-1	11097-69-1	Aroclor 1254	DT	=	95.3	2.2	20
Reach 3	Creek Chub	CompA	24-CC-R3-COMPA	Fish	JE1115-13	11097-69-1	Aroclor 1254	DT	=	342	2.2	20
Reach 3	Creek Chub	CompB	24-CC-R3-COMPB	Fish	JE1115-14	11097-69-1	Aroclor 1254	DT	=	324	2.2	20
Reach 4	Creek Chub	CompA	24-CC-R4-COMPA	Fish	JE582-3	11096-82-5	Aroclor 1260	DT	=	499	6.5	19
Reach 4	Creek Chub	CompA	24-CC-R4-COMPA	Fish	JE582-3	11097-69-1	Aroclor 1254	DT	=	284	2	19
Reach 4	Creek Chub	CompB	24-CC-R4-COMPB	Fish	JE582-4	11096-82-5	Aroclor 1260	DT	=	219	6.8	20
Reach 4	Creek Chub	CompB	24-CC-R4-COMPB	Fish	JE582-4	11097-69-1	Aroclor 1254	DT	=	167	2.1	20
Reach 7	Creek Chub	CompA	24-CC-R7-COMPA	Fish	JE936-18	11097-69-1	Aroclor 1254	DT	=	452	2.1	19
Reach 7	Creek Chub	CompB	24-CC-R7-COMPB	Fish	JE936-19	11097-69-1	Aroclor 1254	DT	=	241	2	19
Reach 7	Creek Chub	CompC	24-CC-R7-COMPC	Fish	JE936-20	11097-69-1	Aroclor 1254	DT	=	269	2.1	19
Reach 7	Creek Chub	CompG	24-GS-R7-COMPG	Fish	JE936-17	11097-69-1	Aroclor 1254	DT	=	393	2	19
Reach 7	Creek Chub	CompG	24-GS-R7-COMPG	Fish	JE936-17	12672-29-6	Aroclor 1248	DT	=	264	4.1	19
Reach 7	Crayfish	CompA	24-CR-R7-COMPA	Crayfish	JE1115-2	11097-69-1	Aroclor 1254	DT	=	22.4	2.2	20
Reach 3	Green Sunfish	CompA	24-GS-R3-COMPA	Fish	JE1115-15	11097-69-1	Aroclor 1254	DT	=	468	2.2	20
Reach 3	Green Sunfish	CompB	24-GS-R3-COMPB	Fish	JE1115-16	11097-69-1	Aroclor 1254	DT	=	437	2.2	20
Reach 3	Green Sunfish	CompC	24-GS-R3-COMPC	Fish	JE1115-17	11097-69-1	Aroclor 1254	DT	=	437	2.2	20
Reach 3	Green Sunfish	CompD	24-GS-R3-COMPD	Fish	JE1115-18	11097-69-1	Aroclor 1254	DT	=	601	2.2	20
Reach 4	Green Sunfish	CompA	24-GS-R4-COMPA	Fish	JE582-1	11096-82-5	Aroclor 1260	DT	=	631	6.8	20
Reach 4	Green Sunfish	CompA	24-GS-R4-COMPA	Fish	JE582-1	11097-69-1	Aroclor 1254	DT	=	470	2.1	20
Reach 4	Green Sunfish	CompB	24-GS-R4-COMPB	Fish	JE582-2	11096-82-5	Aroclor 1260	DT	=	993	6.6	19
Reach 4	Green Sunfish	CompB	24-GS-R4-COMPB	Fish	JE582-2	11097-69-1	Aroclor 1254	DT	=	652	2.1	19
Reach 7	Green Sunfish	CompA	24-GS-R7-COMPA	Fish	JE936-11	12672-29-6	Aroclor 1248	DT	=	53.6	4	19
Reach 7	Green Sunfish	CompA	24-GS-R7-COMPA	Fish	JE936-11	11097-69-1	Aroclor 1254	DT	=	254	2	19
Reach 7	Green Sunfish	CompB	24-GS-R7-COMPB	Fish	JE936-12	11097-69-1	Aroclor 1254	DT	=	335	2.2	20
Reach 7	Green Sunfish	CompB	24-GS-R7-COMPB	Fish	JE936-12	12672-29-6	Aroclor 1248	DT	=	125	4.3	20
Reach 7	Green Sunfish	CompC	24-GS-R7-COMPC	Fish	JE936-13	11097-69-1	Aroclor 1254	DT	=	464	2.1	19
Reach 7	Green Sunfish	CompC	24-GS-R7-COMPC	Fish	JE936-13	12672-29-6	Aroclor 1248	DT	=	125	4.2	19
Reach 7	Green Sunfish	CompD	24-GS-R7-COMPD	Fish	JE936-14	11097-69-1	Aroclor 1254	DT	=	453	2.1	19
Reach 7	Green Sunfish	CompD	24-GS-R7-COMPD	Fish	JE936-14	12672-29-6	Aroclor 1248	DT	=	113	4.2	19
Reach 7	Green Sunfish	CompE	24-GS-R7-COMPE	Fish	JE936-15	12672-29-6	Aroclor 1248	DT	=	383	4.1	19
Reach 7	Green Sunfish	CompE	24-GS-R7-COMPE	Fish	JE936-15	11097-69-1	Aroclor 1254	DT	=	263	2	19
Reach 7	Green Sunfish	CompF	24-GS-R7-COMPF	Fish	JE936-16	11097-69-1	Aroclor 1254	DT	=	413	2	19



Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 3	Pumpkinseed	CompA	24-PS-R3-COMPA	Fish	JE1115-19	11097-69-1	Aroclor 1254	DT	=	401	2.2	20
Reach 4	White Sucker	CompA	24-WS-R4-COMPA	Fish	JE582-5	11096-82-5	Aroclor 1260	DT	=	313	6.9	20
Reach 4	White Sucker	CompA	24-WS-R4-COMPA	Fish	JE582-5	11097-69-1	Aroclor 1254	DT	=	103	2.2	20
Reach 1	Creek Chub	CompA	24-CC-R1-COMPA	Fish	JE1472-11	11096-82-5	Aroclor 1260	DT	=	361	6.6	19
Reach 2	Creek Chub	CompA	24-CC-R2-COMPA	Fish	JE1115-3	11096-82-5	Aroclor 1260	DT	=	362	6.9	20
Reach 2	Creek Chub	CompA	24-CC-R2-COMPA	Fish	JE1115-3	11097-69-1	Aroclor 1254	DT	=	266	2.2	20
Reach 2	Creek Chub	CompB	24-CC-R2-COMP B	Fish	JE1115-4	11096-82-5	Aroclor 1260	DT	=	647	6.9	20
Reach 2	Creek Chub	CompC	24-CC-R2-COMPC	Fish	JE1115-5	11096-82-5	Aroclor 1260	DT	=	735	6.9	20
Reach 2	Creek Chub	CompD	24-CC-R2-COMPD	Fish	JE1115-6	11096-82-5	Aroclor 1260	DT	=	661	6.9	20
Reach 2	Creek Chub	CompE	24-CC-R2-COMPE	Fish	JE1115-7	11096-82-5	Aroclor 1260	DT	=	679	6.9	20
Reach 2	Creek Chub	CompF	24-CC-R2-COMPF	Fish	JE1115-8	11096-82-5	Aroclor 1260	DT	=	481	6.9	20
Reach 2	Creek Chub	CompG	24-CC-R2-COMPG	Fish	JE1115-9	11096-82-5	Aroclor 1260	DT	=	690	6.9	20
Reach 0	Green Sunfish	CompF	24-GS-R0-COMPF	Fish	JE1473-1	11096-82-5	Aroclor 1260	DT	=	60.4	6.6	19
Reach 2	Green Sunfish	CompA	24-GS-R2-COMPA	Fish	JE1115-10	11096-82-5	Aroclor 1260	DT	=	996	6.9	20
Reach 2	Green Sunfish	CompB	24-GS-R2-COMP B	Fish	JE1115-11	11096-82-5	Aroclor 1260	DT	=	646	6.9	20
Reach 2	Green Sunfish	CompC	24-GS-R2-COMPC	Fish	JE1115-12	11096-82-5	Aroclor 1260	DT	=	2170	6.9	20
Reach 6	Creek Chub	CompA	24-CC-R6-COMPA	Fish	JE936-7	11096-82-5	Aroclor 1260	DT	=	239	6.4	19
Reach 6	Creek Chub	CompB	24-CC-R6-COMP B	Fish	JE936-8	11096-82-5	Aroclor 1260	DT	=	431	6.8	20
Reach 6	Creek Chub	CompC	24-CC-R6-COMPC	Fish	JE936-9	11096-82-5	Aroclor 1260	DT	=	331	6.3	18
Reach 5	Green Sunfish	CompB	24-GS-R5-COMP B	Fish	JE582-8	11096-82-5	Aroclor 1260	DT	=	584	6.5	19
Reach 5	Green Sunfish	CompB	24-GS-R5-COMP B	Fish	JE582-8	11097-69-1	Aroclor 1254	DT	=	357	2	19
Reach 5	Green Sunfish	CompB	24-GS-R5-COMP B	Fish	JE582-8	12672-29-6	Aroclor 1248	DT	=	305	4.1	19
Reach 6	Green Sunfish	CompA	24-GS-R6-COMPA	Fish	JE936-1	11096-82-5	Aroclor 1260	DT	=	621	6.6	19
Reach 6	Green Sunfish	CompB	24-GS-R6-COMP B	Fish	JE936-2	11096-82-5	Aroclor 1260	DT	=	230	6.6	19
Reach 6	Green Sunfish	CompC	24-GS-R6-COMPC	Fish	JE936-3	11096-82-5	Aroclor 1260	DT	=	77.5	6.6	19
Reach 6	Green Sunfish	CompD	24-GS-R6-COMPD	Fish	JE936-4	11096-82-5	Aroclor 1260	DT	=	381	6.6	19
Reach 6	Green Sunfish	CompE	24-GS-R6-COMPE	Fish	JE936-5	11096-82-5	Aroclor 1260	DT	=	562	6.6	19
Reach 6	Green Sunfish	CompF	24-GS-R6-COMPF	Fish	JE936-6	11096-82-5	Aroclor 1260	DT	=	511	6.5	19
Reach 6	White Sucker	CompC	24-WS-R6-COMPC	Fish	JE936-10	11096-82-5	Aroclor 1260	DT	=	350	6.4	19
Reach 6	White Sucker	CompD	24-WS-R6-COMPD	Fish	JE1115-1	11096-82-5	Aroclor 1260	DT	=	122	6.9	20
Reach 3	Creek Chub	CompA	24-CC-R3-COMPA	Fish	JE1115-13	11096-82-5	Aroclor 1260	DT	=	687	6.9	20
Reach 3	Creek Chub	CompB	24-CC-R3-COMP B	Fish	JE1115-14	11096-82-5	Aroclor 1260	DT	=	596	6.9	20
Reach 7	Creek Chub	CompA	24-CC-R7-COMPA	Fish	JE936-18	11096-82-5	Aroclor 1260	DT	=	666	6.6	19
Reach 7	Creek Chub	CompB	24-CC-R7-COMP B	Fish	JE936-19	11096-82-5	Aroclor 1260	DT	=	307	6.4	19
Reach 7	Creek Chub	CompC	24-CC-R7-COMPC	Fish	JE936-20	11096-82-5	Aroclor 1260	DT	=	365	6.6	19
Reach 7	Creek Chub	CompG	24-GS-R7-COMPG	Fish	JE936-17	11096-82-5	Aroclor 1260	DT	=	291	6.5	19
Reach 0	Crayfish	CompA	24-CR-R0-COMPA	Crayfish	JE1473-2	11096-82-5	Aroclor 1260	DT	=	12.1	6.4	19
Reach 2	Crayfish	CompA	24-CR-R2-COMPA	Crayfish	JE1115-20	11096-82-5	Aroclor 1260	DT	=	68.5	6.9	20
Reach 7	Crayfish	CompA	24-CR-R7-COMPA	Crayfish	JE1115-2	11096-82-5	Aroclor 1260	DT	=	85.5	6.9	20
Reach 3	Green Sunfish	CompA	24-GS-R3-COMPA	Fish	JE1115-15	11096-82-5	Aroclor 1260	DT	=	1130	6.9	20
Reach 3	Green Sunfish	CompB	24-GS-R3-COMP B	Fish	JE1115-16	11096-82-5	Aroclor 1260	DT	=	998	6.9	20



Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 3	Green Sunfish	CompC	24-GS-R3-COMPC	Fish	JE1115-17	11096-82-5	Aroclor 1260	DT	=	872	6.9	20
Reach 3	Green Sunfish	CompD	24-GS-R3-COMPD	Fish	JE1115-18	11096-82-5	Aroclor 1260	DT	=	1550	6.9	20
Reach 7	Green Sunfish	CompA	24-GS-R7-COMPA	Fish	JE936-11	11096-82-5	Aroclor 1260	DT	=	337	6.4	19
Reach 7	Green Sunfish	CompB	24-GS-R7-COMP B	Fish	JE936-12	11096-82-5	Aroclor 1260	DT	=	340	6.9	20
Reach 7	Green Sunfish	CompC	24-GS-R7-COMPC	Fish	JE936-13	11096-82-5	Aroclor 1260	DT	=	384	6.6	19
Reach 7	Green Sunfish	CompD	24-GS-R7-COMPD	Fish	JE936-14	11096-82-5	Aroclor 1260	DT	=	573	6.6	19
Reach 7	Green Sunfish	CompE	24-GS-R7-COMPE	Fish	JE936-15	11096-82-5	Aroclor 1260	DT	=	185	6.5	19
Reach 7	Green Sunfish	CompF	24-GS-R7-COMPF	Fish	JE936-16	11096-82-5	Aroclor 1260	DT	=	478	6.4	19
Reach 3	Pumpkinseed	CompA	24-PS-R3-COMPA	Fish	JE1115-19	11096-82-5	Aroclor 1260	DT	=	897	6.9	20
Reach 0	Creek Chub	CompA	24-CC-R0-COMPA	Fish	JE1472-1	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 0	Creek Chub	CompA	24-CC-R0-COMPA	Fish	JE1472-1	37324-23-5	Aroclor 1262	ND	ND	0	1.6	20
Reach 0	Creek Chub	CompA	24-CC-R0-COMPA	Fish	JE1472-1	12674-11-2	Aroclor 1016	ND	ND	0	8.3	20
Reach 0	Creek Chub	CompA	24-CC-R0-COMPA	Fish	JE1472-1	12672-29-6	Aroclor 1248	ND	ND	0	4.2	20
Reach 0	Creek Chub	CompA	24-CC-R0-COMPA	Fish	JE1472-1	11141-16-5	Aroclor 1232	ND	ND	0	16	20
Reach 0	Creek Chub	CompA	24-CC-R0-COMPA	Fish	JE1472-1	11104-28-2	Aroclor 1221	ND	ND	0	6.6	20
Reach 0	Creek Chub	CompA	24-CC-R0-COMPA	Fish	JE1472-1	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 0	Creek Chub	CompB	24-CC-R0-COMP B	Fish	JE1472-2	12672-29-6	Aroclor 1248	ND	ND	0	4.2	19
Reach 0	Creek Chub	CompB	24-CC-R0-COMP B	Fish	JE1472-2	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 0	Creek Chub	CompB	24-CC-R0-COMP B	Fish	JE1472-2	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 0	Creek Chub	CompB	24-CC-R0-COMP B	Fish	JE1472-2	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 0	Creek Chub	CompB	24-CC-R0-COMP B	Fish	JE1472-2	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 0	Creek Chub	CompB	24-CC-R0-COMP B	Fish	JE1472-2	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 0	Creek Chub	CompB	24-CC-R0-COMP B	Fish	JE1472-2	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 0	Creek Chub	CompC	24-CC-R0-COMPC	Fish	JE1472-3	12674-11-2	Aroclor 1016	ND	ND	0	8.3	20
Reach 0	Creek Chub	CompC	24-CC-R0-COMPC	Fish	JE1472-3	11141-16-5	Aroclor 1232	ND	ND	0	16	20
Reach 0	Creek Chub	CompC	24-CC-R0-COMPC	Fish	JE1472-3	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 0	Creek Chub	CompC	24-CC-R0-COMPC	Fish	JE1472-3	37324-23-5	Aroclor 1262	ND	ND	0	1.6	20
Reach 0	Creek Chub	CompC	24-CC-R0-COMPC	Fish	JE1472-3	12672-29-6	Aroclor 1248	ND	ND	0	4.2	20
Reach 0	Creek Chub	CompC	24-CC-R0-COMPC	Fish	JE1472-3	11104-28-2	Aroclor 1221	ND	ND	0	6.6	20
Reach 0	Creek Chub	CompC	24-CC-R0-COMPC	Fish	JE1472-3	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 0	Creek Chub	CompD	24-CC-R0-COMPD	Fish	JE1472-4	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 0	Creek Chub	CompD	24-CC-R0-COMPD	Fish	JE1472-4	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 0	Creek Chub	CompD	24-CC-R0-COMPD	Fish	JE1472-4	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 0	Creek Chub	CompD	24-CC-R0-COMPD	Fish	JE1472-4	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 0	Creek Chub	CompD	24-CC-R0-COMPD	Fish	JE1472-4	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 0	Creek Chub	CompD	24-CC-R0-COMPD	Fish	JE1472-4	12672-29-6	Aroclor 1248	ND	ND	0	4.2	19
Reach 0	Creek Chub	CompD	24-CC-R0-COMPD	Fish	JE1472-4	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 0	Creek Chub	CompE	24-CC-R0-COMPE	Fish	JE1472-5	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 0	Creek Chub	CompE	24-CC-R0-COMPE	Fish	JE1472-5	11104-28-2	Aroclor 1221	ND	ND	0	6.3	19
Reach 0	Creek Chub	CompE	24-CC-R0-COMPE	Fish	JE1472-5	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 0	Creek Chub	CompE	24-CC-R0-COMPE	Fish	JE1472-5	12674-11-2	Aroclor 1016	ND	ND	0	8	19

Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 0	Creek Chub	CompE	24-CC-R0-COMPE	Fish	JE1472-5	53469-21-9	Aroclor 1242	ND	ND	0	11	19
Reach 0	Creek Chub	CompE	24-CC-R0-COMPE	Fish	JE1472-5	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 0	Creek Chub	CompE	24-CC-R0-COMPE	Fish	JE1472-5	12672-29-6	Aroclor 1248	ND	ND	0	4.1	19
Reach 1	Creek Chub	CompA	24-CC-R1-COMPA	Fish	JE1472-11	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 1	Creek Chub	CompA	24-CC-R1-COMPA	Fish	JE1472-11	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 1	Creek Chub	CompA	24-CC-R1-COMPA	Fish	JE1472-11	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 1	Creek Chub	CompA	24-CC-R1-COMPA	Fish	JE1472-11	12672-29-6	Aroclor 1248	ND	ND	0	4.2	19
Reach 1	Creek Chub	CompA	24-CC-R1-COMPA	Fish	JE1472-11	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 1	Creek Chub	CompA	24-CC-R1-COMPA	Fish	JE1472-11	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 1	Creek Chub	CompA	24-CC-R1-COMPA	Fish	JE1472-11	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 1	Creek Chub	CompB	24-CC-R1-COMP B	Fish	JE1472-12	11104-28-2	Aroclor 1221	ND	ND	0	6.3	19
Reach 1	Creek Chub	CompB	24-CC-R1-COMP B	Fish	JE1472-12	53469-21-9	Aroclor 1242	ND	ND	0	11	19
Reach 1	Creek Chub	CompB	24-CC-R1-COMP B	Fish	JE1472-12	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 1	Creek Chub	CompB	24-CC-R1-COMP B	Fish	JE1472-12	12674-11-2	Aroclor 1016	ND	ND	0	8	19
Reach 1	Creek Chub	CompB	24-CC-R1-COMP B	Fish	JE1472-12	12672-29-6	Aroclor 1248	ND	ND	0	4.1	19
Reach 1	Creek Chub	CompB	24-CC-R1-COMP B	Fish	JE1472-12	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 1	Creek Chub	CompB	24-CC-R1-COMP B	Fish	JE1472-12	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 1	Creek Chub	CompC	24-CC-R1-COMPC	Fish	JE1472-13	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 1	Creek Chub	CompC	24-CC-R1-COMPC	Fish	JE1472-13	11141-16-5	Aroclor 1232	ND	ND	0	16	20
Reach 1	Creek Chub	CompC	24-CC-R1-COMPC	Fish	JE1472-13	11104-28-2	Aroclor 1221	ND	ND	0	6.6	20
Reach 1	Creek Chub	CompC	24-CC-R1-COMPC	Fish	JE1472-13	12672-29-6	Aroclor 1248	ND	ND	0	4.2	20
Reach 1	Creek Chub	CompC	24-CC-R1-COMPC	Fish	JE1472-13	37324-23-5	Aroclor 1262	ND	ND	0	1.6	20
Reach 1	Creek Chub	CompC	24-CC-R1-COMPC	Fish	JE1472-13	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 1	Creek Chub	CompC	24-CC-R1-COMPC	Fish	JE1472-13	12674-11-2	Aroclor 1016	ND	ND	0	8.3	20
Reach 1	Creek Chub	CompD	24-CC-R1-COMPD	Fish	JE1472-14	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 1	Creek Chub	CompD	24-CC-R1-COMPD	Fish	JE1472-14	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 1	Creek Chub	CompD	24-CC-R1-COMPD	Fish	JE1472-14	37324-23-5	Aroclor 1262	ND	ND	0	1.6	20
Reach 1	Creek Chub	CompD	24-CC-R1-COMPD	Fish	JE1472-14	12672-29-6	Aroclor 1248	ND	ND	0	4.2	20
Reach 1	Creek Chub	CompD	24-CC-R1-COMPD	Fish	JE1472-14	12674-11-2	Aroclor 1016	ND	ND	0	8.3	20
Reach 1	Creek Chub	CompD	24-CC-R1-COMPD	Fish	JE1472-14	11104-28-2	Aroclor 1221	ND	ND	0	6.6	20
Reach 1	Creek Chub	CompD	24-CC-R1-COMPD	Fish	JE1472-14	11141-16-5	Aroclor 1232	ND	ND	0	16	20
Reach 1	Creek Chub	CompE	24-CC-R1-COMPE	Fish	JE1472-15	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 1	Creek Chub	CompE	24-CC-R1-COMPE	Fish	JE1472-15	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 1	Creek Chub	CompE	24-CC-R1-COMPE	Fish	JE1472-15	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 1	Creek Chub	CompE	24-CC-R1-COMPE	Fish	JE1472-15	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 1	Creek Chub	CompE	24-CC-R1-COMPE	Fish	JE1472-15	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 1	Creek Chub	CompE	24-CC-R1-COMPE	Fish	JE1472-15	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 1	Creek Chub	CompE	24-CC-R1-COMPE	Fish	JE1472-15	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 1	Creek Chub	CompF	24-CC-R1-COMP F	Fish	JE1472-16	37324-23-5	Aroclor 1262	ND	ND	0	1.6	20
Reach 1	Creek Chub	CompF	24-CC-R1-COMP F	Fish	JE1472-16	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 1	Creek Chub	CompF	24-CC-R1-COMP F	Fish	JE1472-16	53469-21-9	Aroclor 1242	ND	ND	0	12	20

Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 1	Creek Chub	CompF	24-CC-R1-COMPF	Fish	JE1472-16	11104-28-2	Aroclor 1221	ND	ND	0	6.6	20
Reach 1	Creek Chub	CompF	24-CC-R1-COMPF	Fish	JE1472-16	11141-16-5	Aroclor 1232	ND	ND	0	16	20
Reach 1	Creek Chub	CompF	24-CC-R1-COMPF	Fish	JE1472-16	12674-11-2	Aroclor 1016	ND	ND	0	8.3	20
Reach 1	Creek Chub	CompF	24-CC-R1-COMPF	Fish	JE1472-16	12672-29-6	Aroclor 1248	ND	ND	0	4.2	20
Reach 2	Creek Chub	CompA	24-CC-R2-COMPA	Fish	JE1115-3	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 2	Creek Chub	CompA	24-CC-R2-COMPA	Fish	JE1115-3	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 2	Creek Chub	CompA	24-CC-R2-COMPA	Fish	JE1115-3	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 2	Creek Chub	CompA	24-CC-R2-COMPA	Fish	JE1115-3	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 2	Creek Chub	CompA	24-CC-R2-COMPA	Fish	JE1115-3	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 2	Creek Chub	CompA	24-CC-R2-COMPA	Fish	JE1115-3	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 2	Creek Chub	CompA	24-CC-R2-COMPA	Fish	JE1115-3	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 2	Creek Chub	CompB	24-CC-R2-COMPB	Fish	JE1115-4	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 2	Creek Chub	CompB	24-CC-R2-COMPB	Fish	JE1115-4	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 2	Creek Chub	CompB	24-CC-R2-COMPB	Fish	JE1115-4	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 2	Creek Chub	CompB	24-CC-R2-COMPB	Fish	JE1115-4	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 2	Creek Chub	CompB	24-CC-R2-COMPB	Fish	JE1115-4	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 2	Creek Chub	CompB	24-CC-R2-COMPB	Fish	JE1115-4	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 2	Creek Chub	CompB	24-CC-R2-COMPB	Fish	JE1115-4	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 2	Creek Chub	CompC	24-CC-R2-COMPC	Fish	JE1115-5	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 2	Creek Chub	CompC	24-CC-R2-COMPC	Fish	JE1115-5	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 2	Creek Chub	CompC	24-CC-R2-COMPC	Fish	JE1115-5	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 2	Creek Chub	CompC	24-CC-R2-COMPC	Fish	JE1115-5	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 2	Creek Chub	CompC	24-CC-R2-COMPC	Fish	JE1115-5	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 2	Creek Chub	CompC	24-CC-R2-COMPC	Fish	JE1115-5	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 2	Creek Chub	CompC	24-CC-R2-COMPC	Fish	JE1115-5	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 2	Creek Chub	CompD	24-CC-R2-COMPD	Fish	JE1115-6	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 2	Creek Chub	CompD	24-CC-R2-COMPD	Fish	JE1115-6	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 2	Creek Chub	CompD	24-CC-R2-COMPD	Fish	JE1115-6	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 2	Creek Chub	CompD	24-CC-R2-COMPD	Fish	JE1115-6	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 2	Creek Chub	CompD	24-CC-R2-COMPD	Fish	JE1115-6	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 2	Creek Chub	CompD	24-CC-R2-COMPD	Fish	JE1115-6	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 2	Creek Chub	CompD	24-CC-R2-COMPD	Fish	JE1115-6	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 2	Creek Chub	CompE	24-CC-R2-COMPE	Fish	JE1115-7	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 2	Creek Chub	CompE	24-CC-R2-COMPE	Fish	JE1115-7	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 2	Creek Chub	CompE	24-CC-R2-COMPE	Fish	JE1115-7	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 2	Creek Chub	CompE	24-CC-R2-COMPE	Fish	JE1115-7	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 2	Creek Chub	CompE	24-CC-R2-COMPE	Fish	JE1115-7	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 2	Creek Chub	CompE	24-CC-R2-COMPE	Fish	JE1115-7	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 2	Creek Chub	CompE	24-CC-R2-COMPE	Fish	JE1115-7	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 2	Creek Chub	CompF	24-CC-R2-COMPF	Fish	JE1115-8	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 2	Creek Chub	CompF	24-CC-R2-COMPF	Fish	JE1115-8	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20

Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 2	Creek Chub	CompF	24-CC-R2-COMPF	Fish	JE1115-8	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 2	Creek Chub	CompF	24-CC-R2-COMPF	Fish	JE1115-8	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 2	Creek Chub	CompF	24-CC-R2-COMPF	Fish	JE1115-8	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 2	Creek Chub	CompF	24-CC-R2-COMPF	Fish	JE1115-8	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 2	Creek Chub	CompF	24-CC-R2-COMPF	Fish	JE1115-8	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 2	Creek Chub	CompG	24-CC-R2-COMPG	Fish	JE1115-9	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 2	Creek Chub	CompG	24-CC-R2-COMPG	Fish	JE1115-9	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 2	Creek Chub	CompG	24-CC-R2-COMPG	Fish	JE1115-9	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 2	Creek Chub	CompG	24-CC-R2-COMPG	Fish	JE1115-9	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 2	Creek Chub	CompG	24-CC-R2-COMPG	Fish	JE1115-9	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 2	Creek Chub	CompG	24-CC-R2-COMPG	Fish	JE1115-9	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 2	Creek Chub	CompG	24-CC-R2-COMPG	Fish	JE1115-9	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 0	Green Sunfish	CompA	24-GS-R0-COMPA	Fish	JE1472-6	12674-11-2	Aroclor 1016	ND	ND	0	8	19
Reach 0	Green Sunfish	CompA	24-GS-R0-COMPA	Fish	JE1472-6	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 0	Green Sunfish	CompA	24-GS-R0-COMPA	Fish	JE1472-6	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 0	Green Sunfish	CompA	24-GS-R0-COMPA	Fish	JE1472-6	53469-21-9	Aroclor 1242	ND	ND	0	11	19
Reach 0	Green Sunfish	CompA	24-GS-R0-COMPA	Fish	JE1472-6	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 0	Green Sunfish	CompA	24-GS-R0-COMPA	Fish	JE1472-6	11104-28-2	Aroclor 1221	ND	ND	0	6.3	19
Reach 0	Green Sunfish	CompA	24-GS-R0-COMPA	Fish	JE1472-6	12672-29-6	Aroclor 1248	ND	ND	0	4.1	19
Reach 0	Green Sunfish	CompB	24-GS-R0-COMP B	Fish	JE1472-7	37324-23-5	Aroclor 1262	ND	ND	0	1.5	18
Reach 0	Green Sunfish	CompB	24-GS-R0-COMP B	Fish	JE1472-7	12672-29-6	Aroclor 1248	ND	ND	0	3.9	18
Reach 0	Green Sunfish	CompB	24-GS-R0-COMP B	Fish	JE1472-7	53469-21-9	Aroclor 1242	ND	ND	0	11	18
Reach 0	Green Sunfish	CompB	24-GS-R0-COMP B	Fish	JE1472-7	12674-11-2	Aroclor 1016	ND	ND	0	7.7	18
Reach 0	Green Sunfish	CompB	24-GS-R0-COMP B	Fish	JE1472-7	11141-16-5	Aroclor 1232	ND	ND	0	15	18
Reach 0	Green Sunfish	CompB	24-GS-R0-COMP B	Fish	JE1472-7	11104-28-2	Aroclor 1221	ND	ND	0	6.1	18
Reach 0	Green Sunfish	CompB	24-GS-R0-COMP B	Fish	JE1472-7	11100-14-4	Aroclor 1268	ND	ND	0	1.8	18
Reach 0	Green Sunfish	CompC	24-GS-R0-COMPC	Fish	JE1472-8	11104-28-2	Aroclor 1221	ND	ND	0	6.6	20
Reach 0	Green Sunfish	CompC	24-GS-R0-COMPC	Fish	JE1472-8	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 0	Green Sunfish	CompC	24-GS-R0-COMPC	Fish	JE1472-8	37324-23-5	Aroclor 1262	ND	ND	0	1.6	20
Reach 0	Green Sunfish	CompC	24-GS-R0-COMPC	Fish	JE1472-8	11141-16-5	Aroclor 1232	ND	ND	0	16	20
Reach 0	Green Sunfish	CompC	24-GS-R0-COMPC	Fish	JE1472-8	12674-11-2	Aroclor 1016	ND	ND	0	8.3	20
Reach 0	Green Sunfish	CompC	24-GS-R0-COMPC	Fish	JE1472-8	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 0	Green Sunfish	CompD	24-GS-R0-COMPD	Fish	JE1472-9	11141-16-5	Aroclor 1232	ND	ND	0	16	20
Reach 0	Green Sunfish	CompD	24-GS-R0-COMPD	Fish	JE1472-9	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 0	Green Sunfish	CompD	24-GS-R0-COMPD	Fish	JE1472-9	12674-11-2	Aroclor 1016	ND	ND	0	8.3	20
Reach 0	Green Sunfish	CompD	24-GS-R0-COMPD	Fish	JE1472-9	37324-23-5	Aroclor 1262	ND	ND	0	1.6	20
Reach 0	Green Sunfish	CompD	24-GS-R0-COMPD	Fish	JE1472-9	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 0	Green Sunfish	CompD	24-GS-R0-COMPD	Fish	JE1472-9	11104-28-2	Aroclor 1221	ND	ND	0	6.6	20
Reach 0	Green Sunfish	CompE	24-GS-R0-COMPE	Fish	JE1472-10	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 0	Green Sunfish	CompE	24-GS-R0-COMPE	Fish	JE1472-10	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 0	Green Sunfish	CompE	24-GS-R0-COMPE	Fish	JE1472-10	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20



Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 0	Green Sunfish	CompE	24-GS-R0-COMPE	Fish	JE1472-10	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 0	Green Sunfish	CompE	24-GS-R0-COMPE	Fish	JE1472-10	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 0	Green Sunfish	CompE	24-GS-R0-COMPE	Fish	JE1472-10	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 0	Green Sunfish	CompF	24-GS-R0-COMPF	Fish	JE1473-1	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 0	Green Sunfish	CompF	24-GS-R0-COMPF	Fish	JE1473-1	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 0	Green Sunfish	CompF	24-GS-R0-COMPF	Fish	JE1473-1	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 0	Green Sunfish	CompF	24-GS-R0-COMPF	Fish	JE1473-1	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 0	Green Sunfish	CompF	24-GS-R0-COMPF	Fish	JE1473-1	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 0	Green Sunfish	CompF	24-GS-R0-COMPF	Fish	JE1473-1	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 0	Green Sunfish	CompF	24-GS-R0-COMPF	Fish	JE1473-1	12672-29-6	Aroclor 1248	ND	ND	0	4.2	19
Reach 1	Green Sunfish	CompA	24-GS-R1-COMPA	Fish	JE1472-17	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 1	Green Sunfish	CompA	24-GS-R1-COMPA	Fish	JE1472-17	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 1	Green Sunfish	CompA	24-GS-R1-COMPA	Fish	JE1472-17	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 1	Green Sunfish	CompA	24-GS-R1-COMPA	Fish	JE1472-17	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 1	Green Sunfish	CompA	24-GS-R1-COMPA	Fish	JE1472-17	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 1	Green Sunfish	CompA	24-GS-R1-COMPA	Fish	JE1472-17	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 1	Green Sunfish	CompA	24-GS-R1-COMPA	Fish	JE1472-17	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 1	Green Sunfish	CompB	24-GS-R1-COMPB	Fish	JE1472-18	11104-28-2	Aroclor 1221	ND	ND	0	6.6	20
Reach 1	Green Sunfish	CompB	24-GS-R1-COMPB	Fish	JE1472-18	11141-16-5	Aroclor 1232	ND	ND	0	16	20
Reach 1	Green Sunfish	CompB	24-GS-R1-COMPB	Fish	JE1472-18	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 1	Green Sunfish	CompB	24-GS-R1-COMPB	Fish	JE1472-18	37324-23-5	Aroclor 1262	ND	ND	0	1.6	20
Reach 1	Green Sunfish	CompB	24-GS-R1-COMPB	Fish	JE1472-18	12672-29-6	Aroclor 1248	ND	ND	0	4.2	20
Reach 1	Green Sunfish	CompB	24-GS-R1-COMPB	Fish	JE1472-18	12674-11-2	Aroclor 1016	ND	ND	0	8.3	20
Reach 1	Green Sunfish	CompB	24-GS-R1-COMPB	Fish	JE1472-18	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 1	Green Sunfish	CompC	24-GS-R1-COMPC	Fish	JE1472-19	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 1	Green Sunfish	CompC	24-GS-R1-COMPC	Fish	JE1472-19	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 1	Green Sunfish	CompC	24-GS-R1-COMPC	Fish	JE1472-19	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 1	Green Sunfish	CompC	24-GS-R1-COMPC	Fish	JE1472-19	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 1	Green Sunfish	CompC	24-GS-R1-COMPC	Fish	JE1472-19	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 1	Green Sunfish	CompC	24-GS-R1-COMPC	Fish	JE1472-19	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 1	Green Sunfish	CompC	24-GS-R1-COMPC	Fish	JE1472-19	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 1	Green Sunfish	CompD	24-GS-R1-COMPD	Fish	JE1472-20	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 1	Green Sunfish	CompD	24-GS-R1-COMPD	Fish	JE1472-20	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 1	Green Sunfish	CompD	24-GS-R1-COMPD	Fish	JE1472-20	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 1	Green Sunfish	CompD	24-GS-R1-COMPD	Fish	JE1472-20	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 1	Green Sunfish	CompD	24-GS-R1-COMPD	Fish	JE1472-20	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 1	Green Sunfish	CompD	24-GS-R1-COMPD	Fish	JE1472-20	12672-29-6	Aroclor 1248	ND	ND	0	4.2	19
Reach 1	Green Sunfish	CompD	24-GS-R1-COMPD	Fish	JE1472-20	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 1	Green Sunfish	CompE	24-GS-R1-COMPE	Fish	JE1473-3	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 1	Green Sunfish	CompE	24-GS-R1-COMPE	Fish	JE1473-3	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 1	Green Sunfish	CompE	24-GS-R1-COMPE	Fish	JE1473-3	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20

Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 1	Green Sunfish	CompE	24-GS-R1-COMPE	Fish	JE1473-3	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 1	Green Sunfish	CompE	24-GS-R1-COMPE	Fish	JE1473-3	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 1	Green Sunfish	CompE	24-GS-R1-COMPE	Fish	JE1473-3	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 1	Green Sunfish	CompE	24-GS-R1-COMPE	Fish	JE1473-3	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 2	Green Sunfish	CompA	24-GS-R2-COMPA	Fish	JE1115-10	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 2	Green Sunfish	CompA	24-GS-R2-COMPA	Fish	JE1115-10	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 2	Green Sunfish	CompA	24-GS-R2-COMPA	Fish	JE1115-10	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 2	Green Sunfish	CompA	24-GS-R2-COMPA	Fish	JE1115-10	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 2	Green Sunfish	CompA	24-GS-R2-COMPA	Fish	JE1115-10	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 2	Green Sunfish	CompA	24-GS-R2-COMPA	Fish	JE1115-10	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 2	Green Sunfish	CompA	24-GS-R2-COMPA	Fish	JE1115-10	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 2	Green Sunfish	CompB	24-GS-R2-COMP B	Fish	JE1115-11	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 2	Green Sunfish	CompB	24-GS-R2-COMP B	Fish	JE1115-11	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 2	Green Sunfish	CompB	24-GS-R2-COMP B	Fish	JE1115-11	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 2	Green Sunfish	CompB	24-GS-R2-COMP B	Fish	JE1115-11	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 2	Green Sunfish	CompB	24-GS-R2-COMP B	Fish	JE1115-11	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 2	Green Sunfish	CompB	24-GS-R2-COMP B	Fish	JE1115-11	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 2	Green Sunfish	CompB	24-GS-R2-COMP B	Fish	JE1115-11	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 2	Green Sunfish	CompC	24-GS-R2-COMPC	Fish	JE1115-12	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 2	Green Sunfish	CompC	24-GS-R2-COMPC	Fish	JE1115-12	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 2	Green Sunfish	CompC	24-GS-R2-COMPC	Fish	JE1115-12	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 2	Green Sunfish	CompC	24-GS-R2-COMPC	Fish	JE1115-12	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 2	Green Sunfish	CompC	24-GS-R2-COMPC	Fish	JE1115-12	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 2	Green Sunfish	CompC	24-GS-R2-COMPC	Fish	JE1115-12	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 2	Green Sunfish	CompC	24-GS-R2-COMPC	Fish	JE1115-12	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 5	Creek Chub	CompA	24-CC-R5-COMPA	Fish	JE582-14	11104-28-2	Aroclor 1221	ND	ND	0	6.1	18
Reach 5	Creek Chub	CompA	24-CC-R5-COMPA	Fish	JE582-14	11100-14-4	Aroclor 1268	ND	ND	0	1.8	18
Reach 5	Creek Chub	CompA	24-CC-R5-COMPA	Fish	JE582-14	12672-29-6	Aroclor 1248	ND	ND	0	3.9	18
Reach 5	Creek Chub	CompA	24-CC-R5-COMPA	Fish	JE582-14	12674-11-2	Aroclor 1016	ND	ND	0	7.7	18
Reach 5	Creek Chub	CompA	24-CC-R5-COMPA	Fish	JE582-14	37324-23-5	Aroclor 1262	ND	ND	0	1.5	18
Reach 5	Creek Chub	CompA	24-CC-R5-COMPA	Fish	JE582-14	53469-21-9	Aroclor 1242	ND	ND	0	11	18
Reach 5	Creek Chub	CompA	24-CC-R5-COMPA	Fish	JE582-14	11141-16-5	Aroclor 1232	ND	ND	0	15	18
Reach 5	Creek Chub	CompB	24-CC-R5-COMP B	Fish	JE582-15	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 5	Creek Chub	CompB	24-CC-R5-COMP B	Fish	JE582-15	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 5	Creek Chub	CompB	24-CC-R5-COMP B	Fish	JE582-15	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 5	Creek Chub	CompB	24-CC-R5-COMP B	Fish	JE582-15	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 5	Creek Chub	CompB	24-CC-R5-COMP B	Fish	JE582-15	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 5	Creek Chub	CompB	24-CC-R5-COMP B	Fish	JE582-15	12672-29-6	Aroclor 1248	ND	ND	0	4.2	19
Reach 5	Creek Chub	CompB	24-CC-R5-COMP B	Fish	JE582-15	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 5	Creek Chub	CompC	24-CC-R5-COMPC	Fish	JE582-16	53469-21-9	Aroclor 1242	ND	ND	0	11	19
Reach 5	Creek Chub	CompC	24-CC-R5-COMPC	Fish	JE582-16	12672-29-6	Aroclor 1248	ND	ND	0	4	19

Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 5	Creek Chub	CompC	24-CC-R5-COMPC	Fish	JE582-16	11141-16-5	Aroclor 1232	ND	ND	0	15	19
Reach 5	Creek Chub	CompC	24-CC-R5-COMPC	Fish	JE582-16	37324-23-5	Aroclor 1262	ND	ND	0	1.5	19
Reach 5	Creek Chub	CompC	24-CC-R5-COMPC	Fish	JE582-16	11104-28-2	Aroclor 1221	ND	ND	0	6.2	19
Reach 5	Creek Chub	CompC	24-CC-R5-COMPC	Fish	JE582-16	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 5	Creek Chub	CompC	24-CC-R5-COMPC	Fish	JE582-16	12674-11-2	Aroclor 1016	ND	ND	0	7.9	19
Reach 5	Creek Chub	CompD	24-CC-R5-COMPD	Fish	JE582-6	11104-28-2	Aroclor 1221	ND	ND	0	6.6	20
Reach 5	Creek Chub	CompD	24-CC-R5-COMPD	Fish	JE582-6	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 5	Creek Chub	CompD	24-CC-R5-COMPD	Fish	JE582-6	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 5	Creek Chub	CompD	24-CC-R5-COMPD	Fish	JE582-6	37324-23-5	Aroclor 1262	ND	ND	0	1.6	20
Reach 5	Creek Chub	CompD	24-CC-R5-COMPD	Fish	JE582-6	12674-11-2	Aroclor 1016	ND	ND	0	8.3	20
Reach 5	Creek Chub	CompD	24-CC-R5-COMPD	Fish	JE582-6	11141-16-5	Aroclor 1232	ND	ND	0	16	20
Reach 5	Creek Chub	CompD	24-CC-R5-COMPD	Fish	JE582-6	12672-29-6	Aroclor 1248	ND	ND	0	4.2	20
Reach 6	Creek Chub	CompA	24-CC-R6-COMPA	Fish	JE936-7	12674-11-2	Aroclor 1016	ND	ND	0	7.9	19
Reach 6	Creek Chub	CompA	24-CC-R6-COMPA	Fish	JE936-7	53469-21-9	Aroclor 1242	ND	ND	0	11	19
Reach 6	Creek Chub	CompA	24-CC-R6-COMPA	Fish	JE936-7	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 6	Creek Chub	CompA	24-CC-R6-COMPA	Fish	JE936-7	11104-28-2	Aroclor 1221	ND	ND	0	6.2	19
Reach 6	Creek Chub	CompA	24-CC-R6-COMPA	Fish	JE936-7	11141-16-5	Aroclor 1232	ND	ND	0	15	19
Reach 6	Creek Chub	CompA	24-CC-R6-COMPA	Fish	JE936-7	37324-23-5	Aroclor 1262	ND	ND	0	1.5	19
Reach 6	Creek Chub	CompA	24-CC-R6-COMPA	Fish	JE936-7	12672-29-6	Aroclor 1248	ND	ND	0	4	19
Reach 6	Creek Chub	CompB	24-CC-R6-COMP B	Fish	JE936-8	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 6	Creek Chub	CompB	24-CC-R6-COMP B	Fish	JE936-8	12674-11-2	Aroclor 1016	ND	ND	0	8.3	20
Reach 6	Creek Chub	CompB	24-CC-R6-COMP B	Fish	JE936-8	37324-23-5	Aroclor 1262	ND	ND	0	1.6	20
Reach 6	Creek Chub	CompB	24-CC-R6-COMP B	Fish	JE936-8	11104-28-2	Aroclor 1221	ND	ND	0	6.6	20
Reach 6	Creek Chub	CompB	24-CC-R6-COMP B	Fish	JE936-8	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 6	Creek Chub	CompB	24-CC-R6-COMP B	Fish	JE936-8	11141-16-5	Aroclor 1232	ND	ND	0	16	20
Reach 6	Creek Chub	CompB	24-CC-R6-COMP B	Fish	JE936-8	12672-29-6	Aroclor 1248	ND	ND	0	4.2	20
Reach 6	Creek Chub	CompC	24-CC-R6-COMPC	Fish	JE936-9	12674-11-2	Aroclor 1016	ND	ND	0	7.7	18
Reach 6	Creek Chub	CompC	24-CC-R6-COMPC	Fish	JE936-9	11141-16-5	Aroclor 1232	ND	ND	0	15	18
Reach 6	Creek Chub	CompC	24-CC-R6-COMPC	Fish	JE936-9	12672-29-6	Aroclor 1248	ND	ND	0	3.9	18
Reach 6	Creek Chub	CompC	24-CC-R6-COMPC	Fish	JE936-9	11100-14-4	Aroclor 1268	ND	ND	0	1.8	18
Reach 6	Creek Chub	CompC	24-CC-R6-COMPC	Fish	JE936-9	11104-28-2	Aroclor 1221	ND	ND	0	6.1	18
Reach 6	Creek Chub	CompC	24-CC-R6-COMPC	Fish	JE936-9	53469-21-9	Aroclor 1242	ND	ND	0	11	18
Reach 6	Creek Chub	CompC	24-CC-R6-COMPC	Fish	JE936-9	37324-23-5	Aroclor 1262	ND	ND	0	1.5	18
Reach 5	Green Sunfish	CompA	24-GS-R5-COMPA	Fish	JE582-7	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 5	Green Sunfish	CompA	24-GS-R5-COMPA	Fish	JE582-7	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 5	Green Sunfish	CompA	24-GS-R5-COMPA	Fish	JE582-7	12672-29-6	Aroclor 1248	ND	ND	0	4.2	19
Reach 5	Green Sunfish	CompA	24-GS-R5-COMPA	Fish	JE582-7	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 5	Green Sunfish	CompA	24-GS-R5-COMPA	Fish	JE582-7	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 5	Green Sunfish	CompA	24-GS-R5-COMPA	Fish	JE582-7	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 5	Green Sunfish	CompA	24-GS-R5-COMPA	Fish	JE582-7	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 5	Green Sunfish	CompB	24-GS-R5-COMP B	Fish	JE582-8	53469-21-9	Aroclor 1242	ND	ND	0	11	19

Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 5	Green Sunfish	CompB	24-GS-R5-COMP B	Fish	JE582-8	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 5	Green Sunfish	CompB	24-GS-R5-COMP B	Fish	JE582-8	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 5	Green Sunfish	CompB	24-GS-R5-COMP B	Fish	JE582-8	11104-28-2	Aroclor 1221	ND	ND	0	6.3	19
Reach 5	Green Sunfish	CompB	24-GS-R5-COMP B	Fish	JE582-8	12674-11-2	Aroclor 1016	ND	ND	0	8	19
Reach 5	Green Sunfish	CompB	24-GS-R5-COMP B	Fish	JE582-8	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 5	Green Sunfish	CompC	24-GS-R5-COMP C	Fish	JE582-9	12672-29-6	Aroclor 1248	ND	ND	0	4.2	20
Reach 5	Green Sunfish	CompC	24-GS-R5-COMP C	Fish	JE582-9	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 5	Green Sunfish	CompC	24-GS-R5-COMP C	Fish	JE582-9	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 5	Green Sunfish	CompC	24-GS-R5-COMP C	Fish	JE582-9	37324-23-5	Aroclor 1262	ND	ND	0	1.6	20
Reach 5	Green Sunfish	CompC	24-GS-R5-COMP C	Fish	JE582-9	11141-16-5	Aroclor 1232	ND	ND	0	16	20
Reach 5	Green Sunfish	CompC	24-GS-R5-COMP C	Fish	JE582-9	12674-11-2	Aroclor 1016	ND	ND	0	8.3	20
Reach 5	Green Sunfish	CompC	24-GS-R5-COMP C	Fish	JE582-9	11104-28-2	Aroclor 1221	ND	ND	0	6.6	20
Reach 5	Green Sunfish	CompD	24-GS-R5-COMP D	Fish	JE582-10	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 5	Green Sunfish	CompD	24-GS-R5-COMP D	Fish	JE582-10	12674-11-2	Aroclor 1016	ND	ND	0	8.3	20
Reach 5	Green Sunfish	CompD	24-GS-R5-COMP D	Fish	JE582-10	37324-23-5	Aroclor 1262	ND	ND	0	1.6	20
Reach 5	Green Sunfish	CompD	24-GS-R5-COMP D	Fish	JE582-10	11104-28-2	Aroclor 1221	ND	ND	0	6.6	20
Reach 5	Green Sunfish	CompD	24-GS-R5-COMP D	Fish	JE582-10	11141-16-5	Aroclor 1232	ND	ND	0	16	20
Reach 5	Green Sunfish	CompD	24-GS-R5-COMP D	Fish	JE582-10	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 5	Green Sunfish	CompD	24-GS-R5-COMP D	Fish	JE582-10	12672-29-6	Aroclor 1248	ND	ND	0	4.2	20
Reach 5	Green Sunfish	CompE	24-GS-R5-COMP E	Fish	JE582-11	11141-16-5	Aroclor 1232	ND	ND	0	16	20
Reach 5	Green Sunfish	CompE	24-GS-R5-COMP E	Fish	JE582-11	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 5	Green Sunfish	CompE	24-GS-R5-COMP E	Fish	JE582-11	37324-23-5	Aroclor 1262	ND	ND	0	1.6	20
Reach 5	Green Sunfish	CompE	24-GS-R5-COMP E	Fish	JE582-11	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 5	Green Sunfish	CompE	24-GS-R5-COMP E	Fish	JE582-11	11104-28-2	Aroclor 1221	ND	ND	0	6.6	20
Reach 5	Green Sunfish	CompE	24-GS-R5-COMP E	Fish	JE582-11	12674-11-2	Aroclor 1016	ND	ND	0	8.3	20
Reach 5	Green Sunfish	CompF	24-GS-R5-COMP F	Fish	JE582-12	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 5	Green Sunfish	CompF	24-GS-R5-COMP F	Fish	JE582-12	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 5	Green Sunfish	CompF	24-GS-R5-COMP F	Fish	JE582-12	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 5	Green Sunfish	CompF	24-GS-R5-COMP F	Fish	JE582-12	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 5	Green Sunfish	CompF	24-GS-R5-COMP F	Fish	JE582-12	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 5	Green Sunfish	CompF	24-GS-R5-COMP F	Fish	JE582-12	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 5	Green Sunfish	CompF	24-GS-R5-COMP F	Fish	JE582-12	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 5	Green Sunfish	CompG	24-GS-R5-COMP G	Fish	JE582-13	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 5	Green Sunfish	CompG	24-GS-R5-COMP G	Fish	JE582-13	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 5	Green Sunfish	CompG	24-GS-R5-COMP G	Fish	JE582-13	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 5	Green Sunfish	CompG	24-GS-R5-COMP G	Fish	JE582-13	12672-29-6	Aroclor 1248	ND	ND	0	4.2	19
Reach 5	Green Sunfish	CompG	24-GS-R5-COMP G	Fish	JE582-13	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 5	Green Sunfish	CompG	24-GS-R5-COMP G	Fish	JE582-13	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 5	Green Sunfish	CompG	24-GS-R5-COMP G	Fish	JE582-13	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 6	Green Sunfish	CompA	24-GS-R6-COMP A	Fish	JE936-1	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 6	Green Sunfish	CompA	24-GS-R6-COMP A	Fish	JE936-1	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19



Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 6	Green Sunfish	CompA	24-GS-R6-COMPA	Fish	JE936-1	12672-29-6	Aroclor 1248	ND	ND	0	4.2	19
Reach 6	Green Sunfish	CompA	24-GS-R6-COMPA	Fish	JE936-1	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 6	Green Sunfish	CompA	24-GS-R6-COMPA	Fish	JE936-1	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 6	Green Sunfish	CompA	24-GS-R6-COMPA	Fish	JE936-1	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 6	Green Sunfish	CompA	24-GS-R6-COMPA	Fish	JE936-1	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 6	Green Sunfish	CompB	24-GS-R6-COMP B	Fish	JE936-2	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 6	Green Sunfish	CompB	24-GS-R6-COMP B	Fish	JE936-2	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 6	Green Sunfish	CompB	24-GS-R6-COMP B	Fish	JE936-2	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 6	Green Sunfish	CompB	24-GS-R6-COMP B	Fish	JE936-2	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 6	Green Sunfish	CompB	24-GS-R6-COMP B	Fish	JE936-2	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 6	Green Sunfish	CompB	24-GS-R6-COMP B	Fish	JE936-2	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 6	Green Sunfish	CompC	24-GS-R6-COMPC	Fish	JE936-3	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 6	Green Sunfish	CompC	24-GS-R6-COMPC	Fish	JE936-3	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 6	Green Sunfish	CompC	24-GS-R6-COMPC	Fish	JE936-3	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 6	Green Sunfish	CompC	24-GS-R6-COMPC	Fish	JE936-3	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 6	Green Sunfish	CompC	24-GS-R6-COMPC	Fish	JE936-3	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 6	Green Sunfish	CompC	24-GS-R6-COMPC	Fish	JE936-3	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 6	Green Sunfish	CompD	24-GS-R6-COMPD	Fish	JE936-4	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 6	Green Sunfish	CompD	24-GS-R6-COMPD	Fish	JE936-4	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 6	Green Sunfish	CompD	24-GS-R6-COMPD	Fish	JE936-4	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 6	Green Sunfish	CompD	24-GS-R6-COMPD	Fish	JE936-4	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 6	Green Sunfish	CompD	24-GS-R6-COMPD	Fish	JE936-4	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 6	Green Sunfish	CompD	24-GS-R6-COMPD	Fish	JE936-4	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 6	Green Sunfish	CompE	24-GS-R6-COMPE	Fish	JE936-5	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 6	Green Sunfish	CompE	24-GS-R6-COMPE	Fish	JE936-5	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 6	Green Sunfish	CompE	24-GS-R6-COMPE	Fish	JE936-5	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 6	Green Sunfish	CompE	24-GS-R6-COMPE	Fish	JE936-5	12672-29-6	Aroclor 1248	ND	ND	0	4.2	19
Reach 6	Green Sunfish	CompE	24-GS-R6-COMPE	Fish	JE936-5	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 6	Green Sunfish	CompE	24-GS-R6-COMPE	Fish	JE936-5	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 6	Green Sunfish	CompE	24-GS-R6-COMPE	Fish	JE936-5	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 6	Green Sunfish	CompF	24-GS-R6-COMPF	Fish	JE936-6	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 6	Green Sunfish	CompF	24-GS-R6-COMPF	Fish	JE936-6	53469-21-9	Aroclor 1242	ND	ND	0	11	19
Reach 6	Green Sunfish	CompF	24-GS-R6-COMPF	Fish	JE936-6	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 6	Green Sunfish	CompF	24-GS-R6-COMPF	Fish	JE936-6	11104-28-2	Aroclor 1221	ND	ND	0	6.3	19
Reach 6	Green Sunfish	CompF	24-GS-R6-COMPF	Fish	JE936-6	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 6	Green Sunfish	CompF	24-GS-R6-COMPF	Fish	JE936-6	12674-11-2	Aroclor 1016	ND	ND	0	8	19
Reach 6	White Sucker	CompC	24-WS-R6-COMPC	Fish	JE936-10	12674-11-2	Aroclor 1016	ND	ND	0	7.9	19
Reach 6	White Sucker	CompC	24-WS-R6-COMPC	Fish	JE936-10	37324-23-5	Aroclor 1262	ND	ND	0	1.5	19
Reach 6	White Sucker	CompC	24-WS-R6-COMPC	Fish	JE936-10	53469-21-9	Aroclor 1242	ND	ND	0	11	19
Reach 6	White Sucker	CompC	24-WS-R6-COMPC	Fish	JE936-10	11141-16-5	Aroclor 1232	ND	ND	0	15	19
Reach 6	White Sucker	CompC	24-WS-R6-COMPC	Fish	JE936-10	11104-28-2	Aroclor 1221	ND	ND	0	6.2	19

Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 6	White Sucker	CompC	24-WS-R6-COMPC	Fish	JE936-10	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 6	White Sucker	CompD	24-WS-R6-COMPD	Fish	JE1115-1	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 6	White Sucker	CompD	24-WS-R6-COMPD	Fish	JE1115-1	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 6	White Sucker	CompD	24-WS-R6-COMPD	Fish	JE1115-1	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 6	White Sucker	CompD	24-WS-R6-COMPD	Fish	JE1115-1	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 6	White Sucker	CompD	24-WS-R6-COMPD	Fish	JE1115-1	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 6	White Sucker	CompD	24-WS-R6-COMPD	Fish	JE1115-1	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 6	White Sucker	CompD	24-WS-R6-COMPD	Fish	JE1115-1	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 3	Creek Chub	CompA	24-CC-R3-COMPA	Fish	JE1115-13	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 3	Creek Chub	CompA	24-CC-R3-COMPA	Fish	JE1115-13	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 3	Creek Chub	CompA	24-CC-R3-COMPA	Fish	JE1115-13	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 3	Creek Chub	CompA	24-CC-R3-COMPA	Fish	JE1115-13	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 3	Creek Chub	CompA	24-CC-R3-COMPA	Fish	JE1115-13	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 3	Creek Chub	CompA	24-CC-R3-COMPA	Fish	JE1115-13	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 3	Creek Chub	CompA	24-CC-R3-COMPA	Fish	JE1115-13	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 3	Creek Chub	CompB	24-CC-R3-COMP B	Fish	JE1115-14	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 3	Creek Chub	CompB	24-CC-R3-COMP B	Fish	JE1115-14	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 3	Creek Chub	CompB	24-CC-R3-COMP B	Fish	JE1115-14	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 3	Creek Chub	CompB	24-CC-R3-COMP B	Fish	JE1115-14	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 3	Creek Chub	CompB	24-CC-R3-COMP B	Fish	JE1115-14	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 3	Creek Chub	CompB	24-CC-R3-COMP B	Fish	JE1115-14	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 3	Creek Chub	CompB	24-CC-R3-COMP B	Fish	JE1115-14	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 4	Creek Chub	CompA	24-CC-R4-COMPA	Fish	JE582-3	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 4	Creek Chub	CompA	24-CC-R4-COMPA	Fish	JE582-3	12674-11-2	Aroclor 1016	ND	ND	0	8	19
Reach 4	Creek Chub	CompA	24-CC-R4-COMPA	Fish	JE582-3	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 4	Creek Chub	CompA	24-CC-R4-COMPA	Fish	JE582-3	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 4	Creek Chub	CompA	24-CC-R4-COMPA	Fish	JE582-3	53469-21-9	Aroclor 1242	ND	ND	0	11	19
Reach 4	Creek Chub	CompA	24-CC-R4-COMPA	Fish	JE582-3	12672-29-6	Aroclor 1248	ND	ND	0	4.1	19
Reach 4	Creek Chub	CompA	24-CC-R4-COMPA	Fish	JE582-3	11104-28-2	Aroclor 1221	ND	ND	0	6.3	19
Reach 4	Creek Chub	CompB	24-CC-R4-COMP B	Fish	JE582-4	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 4	Creek Chub	CompB	24-CC-R4-COMP B	Fish	JE582-4	37324-23-5	Aroclor 1262	ND	ND	0	1.6	20
Reach 4	Creek Chub	CompB	24-CC-R4-COMP B	Fish	JE582-4	12674-11-2	Aroclor 1016	ND	ND	0	8.3	20
Reach 4	Creek Chub	CompB	24-CC-R4-COMP B	Fish	JE582-4	12672-29-6	Aroclor 1248	ND	ND	0	4.2	20
Reach 4	Creek Chub	CompB	24-CC-R4-COMP B	Fish	JE582-4	11141-16-5	Aroclor 1232	ND	ND	0	16	20
Reach 4	Creek Chub	CompB	24-CC-R4-COMP B	Fish	JE582-4	11104-28-2	Aroclor 1221	ND	ND	0	6.6	20
Reach 4	Creek Chub	CompB	24-CC-R4-COMP B	Fish	JE582-4	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 7	Creek Chub	CompA	24-CC-R7-COMPA	Fish	JE936-18	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 7	Creek Chub	CompA	24-CC-R7-COMPA	Fish	JE936-18	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 7	Creek Chub	CompA	24-CC-R7-COMPA	Fish	JE936-18	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 7	Creek Chub	CompA	24-CC-R7-COMPA	Fish	JE936-18	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 7	Creek Chub	CompA	24-CC-R7-COMPA	Fish	JE936-18	12672-29-6	Aroclor 1248	ND	ND	0	4.2	19

Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 7	Creek Chub	CompA	24-CC-R7-COMPA	Fish	JE936-18	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 7	Creek Chub	CompA	24-CC-R7-COMPA	Fish	JE936-18	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 7	Creek Chub	CompB	24-CC-R7-COMP B	Fish	JE936-19	37324-23-5	Aroclor 1262	ND	ND	0	1.5	19
Reach 7	Creek Chub	CompB	24-CC-R7-COMP B	Fish	JE936-19	12674-11-2	Aroclor 1016	ND	ND	0	7.9	19
Reach 7	Creek Chub	CompB	24-CC-R7-COMP B	Fish	JE936-19	12672-29-6	Aroclor 1248	ND	ND	0	4	19
Reach 7	Creek Chub	CompB	24-CC-R7-COMP B	Fish	JE936-19	11141-16-5	Aroclor 1232	ND	ND	0	15	19
Reach 7	Creek Chub	CompB	24-CC-R7-COMP B	Fish	JE936-19	11104-28-2	Aroclor 1221	ND	ND	0	6.2	19
Reach 7	Creek Chub	CompB	24-CC-R7-COMP B	Fish	JE936-19	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 7	Creek Chub	CompB	24-CC-R7-COMP B	Fish	JE936-19	53469-21-9	Aroclor 1242	ND	ND	0	11	19
Reach 7	Creek Chub	CompC	24-CC-R7-COMPC	Fish	JE936-20	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 7	Creek Chub	CompC	24-CC-R7-COMPC	Fish	JE936-20	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 7	Creek Chub	CompC	24-CC-R7-COMPC	Fish	JE936-20	12672-29-6	Aroclor 1248	ND	ND	0	4.2	19
Reach 7	Creek Chub	CompC	24-CC-R7-COMPC	Fish	JE936-20	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 7	Creek Chub	CompC	24-CC-R7-COMPC	Fish	JE936-20	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 7	Creek Chub	CompC	24-CC-R7-COMPC	Fish	JE936-20	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 7	Creek Chub	CompC	24-CC-R7-COMPC	Fish	JE936-20	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 7	Creek Chub	CompG	24-GS-R7-COMPG	Fish	JE936-17	53469-21-9	Aroclor 1242	ND	ND	0	11	19
Reach 7	Creek Chub	CompG	24-GS-R7-COMPG	Fish	JE936-17	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 7	Creek Chub	CompG	24-GS-R7-COMPG	Fish	JE936-17	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 7	Creek Chub	CompG	24-GS-R7-COMPG	Fish	JE936-17	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 7	Creek Chub	CompG	24-GS-R7-COMPG	Fish	JE936-17	12674-11-2	Aroclor 1016	ND	ND	0	8	19
Reach 7	Creek Chub	CompG	24-GS-R7-COMPG	Fish	JE936-17	11104-28-2	Aroclor 1221	ND	ND	0	6.3	19
Reach 0	Crayfish	CompA	24-CR-R0-COMPA	Crayfish	JE1473-2	11104-28-2	Aroclor 1221	ND	ND	0	6.2	19
Reach 0	Crayfish	CompA	24-CR-R0-COMPA	Crayfish	JE1473-2	11141-16-5	Aroclor 1232	ND	ND	0	15	19
Reach 0	Crayfish	CompA	24-CR-R0-COMPA	Crayfish	JE1473-2	12672-29-6	Aroclor 1248	ND	ND	0	4	19
Reach 0	Crayfish	CompA	24-CR-R0-COMPA	Crayfish	JE1473-2	12674-11-2	Aroclor 1016	ND	ND	0	7.9	19
Reach 0	Crayfish	CompA	24-CR-R0-COMPA	Crayfish	JE1473-2	11097-69-1	Aroclor 1254	ND	ND	0	2	19
Reach 0	Crayfish	CompA	24-CR-R0-COMPA	Crayfish	JE1473-2	37324-23-5	Aroclor 1262	ND	ND	0	1.5	19
Reach 0	Crayfish	CompA	24-CR-R0-COMPA	Crayfish	JE1473-2	53469-21-9	Aroclor 1242	ND	ND	0	11	19
Reach 0	Crayfish	CompA	24-CR-R0-COMPA	Crayfish	JE1473-2	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 2	Crayfish	CompA	24-CR-R2-COMPA	Crayfish	JE1115-20	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 2	Crayfish	CompA	24-CR-R2-COMPA	Crayfish	JE1115-20	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 2	Crayfish	CompA	24-CR-R2-COMPA	Crayfish	JE1115-20	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 2	Crayfish	CompA	24-CR-R2-COMPA	Crayfish	JE1115-20	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 2	Crayfish	CompA	24-CR-R2-COMPA	Crayfish	JE1115-20	11097-69-1	Aroclor 1254	ND	ND	0	2.2	20
Reach 2	Crayfish	CompA	24-CR-R2-COMPA	Crayfish	JE1115-20	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 2	Crayfish	CompA	24-CR-R2-COMPA	Crayfish	JE1115-20	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 2	Crayfish	CompA	24-CR-R2-COMPA	Crayfish	JE1115-20	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 7	Crayfish	CompA	24-CR-R7-COMPA	Crayfish	JE1115-2	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 7	Crayfish	CompA	24-CR-R7-COMPA	Crayfish	JE1115-2	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 7	Crayfish	CompA	24-CR-R7-COMPA	Crayfish	JE1115-2	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20

Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 7	Crayfish	CompA	24-CR-R7-COMPA	Crayfish	JE1115-2	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 7	Crayfish	CompA	24-CR-R7-COMPA	Crayfish	JE1115-2	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 7	Crayfish	CompA	24-CR-R7-COMPA	Crayfish	JE1115-2	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 7	Crayfish	CompA	24-CR-R7-COMPA	Crayfish	JE1115-2	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 3	Green Sunfish	CompA	24-GS-R3-COMPA	Fish	JE1115-15	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 3	Green Sunfish	CompA	24-GS-R3-COMPA	Fish	JE1115-15	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 3	Green Sunfish	CompA	24-GS-R3-COMPA	Fish	JE1115-15	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 3	Green Sunfish	CompA	24-GS-R3-COMPA	Fish	JE1115-15	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 3	Green Sunfish	CompA	24-GS-R3-COMPA	Fish	JE1115-15	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 3	Green Sunfish	CompA	24-GS-R3-COMPA	Fish	JE1115-15	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 3	Green Sunfish	CompA	24-GS-R3-COMPA	Fish	JE1115-15	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 3	Green Sunfish	CompB	24-GS-R3-COMP B	Fish	JE1115-16	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 3	Green Sunfish	CompB	24-GS-R3-COMP B	Fish	JE1115-16	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 3	Green Sunfish	CompB	24-GS-R3-COMP B	Fish	JE1115-16	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 3	Green Sunfish	CompB	24-GS-R3-COMP B	Fish	JE1115-16	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 3	Green Sunfish	CompB	24-GS-R3-COMP B	Fish	JE1115-16	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 3	Green Sunfish	CompB	24-GS-R3-COMP B	Fish	JE1115-16	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 3	Green Sunfish	CompB	24-GS-R3-COMP B	Fish	JE1115-16	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 3	Green Sunfish	CompC	24-GS-R3-COMPC	Fish	JE1115-17	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 3	Green Sunfish	CompC	24-GS-R3-COMPC	Fish	JE1115-17	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 3	Green Sunfish	CompC	24-GS-R3-COMPC	Fish	JE1115-17	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 3	Green Sunfish	CompC	24-GS-R3-COMPC	Fish	JE1115-17	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 3	Green Sunfish	CompC	24-GS-R3-COMPC	Fish	JE1115-17	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 3	Green Sunfish	CompC	24-GS-R3-COMPC	Fish	JE1115-17	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 3	Green Sunfish	CompC	24-GS-R3-COMPC	Fish	JE1115-17	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 3	Green Sunfish	CompD	24-GS-R3-COMPD	Fish	JE1115-18	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 3	Green Sunfish	CompD	24-GS-R3-COMPD	Fish	JE1115-18	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 3	Green Sunfish	CompD	24-GS-R3-COMPD	Fish	JE1115-18	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 3	Green Sunfish	CompD	24-GS-R3-COMPD	Fish	JE1115-18	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 3	Green Sunfish	CompD	24-GS-R3-COMPD	Fish	JE1115-18	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 3	Green Sunfish	CompD	24-GS-R3-COMPD	Fish	JE1115-18	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 3	Green Sunfish	CompD	24-GS-R3-COMPD	Fish	JE1115-18	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 4	Green Sunfish	CompA	24-GS-R4-COMPA	Fish	JE582-1	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 4	Green Sunfish	CompA	24-GS-R4-COMPA	Fish	JE582-1	11104-28-2	Aroclor 1221	ND	ND	0	6.6	20
Reach 4	Green Sunfish	CompA	24-GS-R4-COMPA	Fish	JE582-1	11141-16-5	Aroclor 1232	ND	ND	0	16	20
Reach 4	Green Sunfish	CompA	24-GS-R4-COMPA	Fish	JE582-1	37324-23-5	Aroclor 1262	ND	ND	0	1.6	20
Reach 4	Green Sunfish	CompA	24-GS-R4-COMPA	Fish	JE582-1	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 4	Green Sunfish	CompA	24-GS-R4-COMPA	Fish	JE582-1	12672-29-6	Aroclor 1248	ND	ND	0	4.2	20
Reach 4	Green Sunfish	CompA	24-GS-R4-COMPA	Fish	JE582-1	12674-11-2	Aroclor 1016	ND	ND	0	8.3	20
Reach 4	Green Sunfish	CompB	24-GS-R4-COMP B	Fish	JE582-2	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 4	Green Sunfish	CompB	24-GS-R4-COMP B	Fish	JE582-2	11141-16-5	Aroclor 1232	ND	ND	0	16	19



Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 4	Green Sunfish	CompB	24-GS-R4-COMP B	Fish	JE582-2	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 4	Green Sunfish	CompB	24-GS-R4-COMP B	Fish	JE582-2	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 4	Green Sunfish	CompB	24-GS-R4-COMP B	Fish	JE582-2	12672-29-6	Aroclor 1248	ND	ND	0	4.2	19
Reach 4	Green Sunfish	CompB	24-GS-R4-COMP B	Fish	JE582-2	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 4	Green Sunfish	CompB	24-GS-R4-COMP B	Fish	JE582-2	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 7	Green Sunfish	CompA	24-GS-R7-COMP A	Fish	JE936-11	11141-16-5	Aroclor 1232	ND	ND	0	15	19
Reach 7	Green Sunfish	CompA	24-GS-R7-COMP A	Fish	JE936-11	53469-21-9	Aroclor 1242	ND	ND	0	11	19
Reach 7	Green Sunfish	CompA	24-GS-R7-COMP A	Fish	JE936-11	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 7	Green Sunfish	CompA	24-GS-R7-COMP A	Fish	JE936-11	11104-28-2	Aroclor 1221	ND	ND	0	6.2	19
Reach 7	Green Sunfish	CompA	24-GS-R7-COMP A	Fish	JE936-11	37324-23-5	Aroclor 1262	ND	ND	0	1.5	19
Reach 7	Green Sunfish	CompA	24-GS-R7-COMP A	Fish	JE936-11	12674-11-2	Aroclor 1016	ND	ND	0	7.9	19
Reach 7	Green Sunfish	CompB	24-GS-R7-COMP B	Fish	JE936-12	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 7	Green Sunfish	CompB	24-GS-R7-COMP B	Fish	JE936-12	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 7	Green Sunfish	CompB	24-GS-R7-COMP B	Fish	JE936-12	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 7	Green Sunfish	CompB	24-GS-R7-COMP B	Fish	JE936-12	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 7	Green Sunfish	CompB	24-GS-R7-COMP B	Fish	JE936-12	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 7	Green Sunfish	CompB	24-GS-R7-COMP B	Fish	JE936-12	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 7	Green Sunfish	CompC	24-GS-R7-COMP C	Fish	JE936-13	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 7	Green Sunfish	CompC	24-GS-R7-COMP C	Fish	JE936-13	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 7	Green Sunfish	CompC	24-GS-R7-COMP C	Fish	JE936-13	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 7	Green Sunfish	CompC	24-GS-R7-COMP C	Fish	JE936-13	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 7	Green Sunfish	CompC	24-GS-R7-COMP C	Fish	JE936-13	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 7	Green Sunfish	CompC	24-GS-R7-COMP C	Fish	JE936-13	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 7	Green Sunfish	CompD	24-GS-R7-COMP D	Fish	JE936-14	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 7	Green Sunfish	CompD	24-GS-R7-COMP D	Fish	JE936-14	11104-28-2	Aroclor 1221	ND	ND	0	6.5	19
Reach 7	Green Sunfish	CompD	24-GS-R7-COMP D	Fish	JE936-14	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 7	Green Sunfish	CompD	24-GS-R7-COMP D	Fish	JE936-14	12674-11-2	Aroclor 1016	ND	ND	0	8.2	19
Reach 7	Green Sunfish	CompD	24-GS-R7-COMP D	Fish	JE936-14	53469-21-9	Aroclor 1242	ND	ND	0	12	19
Reach 7	Green Sunfish	CompD	24-GS-R7-COMP D	Fish	JE936-14	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 7	Green Sunfish	CompE	24-GS-R7-COMP E	Fish	JE936-15	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 7	Green Sunfish	CompE	24-GS-R7-COMP E	Fish	JE936-15	53469-21-9	Aroclor 1242	ND	ND	0	11	19
Reach 7	Green Sunfish	CompE	24-GS-R7-COMP E	Fish	JE936-15	11104-28-2	Aroclor 1221	ND	ND	0	6.3	19
Reach 7	Green Sunfish	CompE	24-GS-R7-COMP E	Fish	JE936-15	37324-23-5	Aroclor 1262	ND	ND	0	1.6	19
Reach 7	Green Sunfish	CompE	24-GS-R7-COMP E	Fish	JE936-15	11141-16-5	Aroclor 1232	ND	ND	0	16	19
Reach 7	Green Sunfish	CompE	24-GS-R7-COMP E	Fish	JE936-15	12674-11-2	Aroclor 1016	ND	ND	0	8	19
Reach 7	Green Sunfish	CompF	24-GS-R7-COMP F	Fish	JE936-16	12674-11-2	Aroclor 1016	ND	ND	0	7.9	19
Reach 7	Green Sunfish	CompF	24-GS-R7-COMP F	Fish	JE936-16	11104-28-2	Aroclor 1221	ND	ND	0	6.2	19
Reach 7	Green Sunfish	CompF	24-GS-R7-COMP F	Fish	JE936-16	11100-14-4	Aroclor 1268	ND	ND	0	1.9	19
Reach 7	Green Sunfish	CompF	24-GS-R7-COMP F	Fish	JE936-16	12672-29-6	Aroclor 1248	ND	ND	0	4	19
Reach 7	Green Sunfish	CompF	24-GS-R7-COMP F	Fish	JE936-16	37324-23-5	Aroclor 1262	ND	ND	0	1.5	19
Reach 7	Green Sunfish	CompF	24-GS-R7-COMP F	Fish	JE936-16	53469-21-9	Aroclor 1242	ND	ND	0	11	19

Reach	Species	Composite	Sample ID	Group	Lab Sample ID	CAS No.	Parameter	Sample Flags	Qualifier	Concentration <sup>b</sup> (ug/kg)	MDL (ug/kg)	PQL (ug/kg)
Reach 7	Green Sunfish	CompF	24-GS-R7-COMPF	Fish	JE936-16	11141-16-5	Aroclor 1232	ND	ND	0	15	19
Reach 3	Pumpkinseed	CompA	24-PS-R3-COMPA	Fish	JE1115-19	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 3	Pumpkinseed	CompA	24-PS-R3-COMPA	Fish	JE1115-19	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 3	Pumpkinseed	CompA	24-PS-R3-COMPA	Fish	JE1115-19	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 3	Pumpkinseed	CompA	24-PS-R3-COMPA	Fish	JE1115-19	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 3	Pumpkinseed	CompA	24-PS-R3-COMPA	Fish	JE1115-19	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 3	Pumpkinseed	CompA	24-PS-R3-COMPA	Fish	JE1115-19	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 3	Pumpkinseed	CompA	24-PS-R3-COMPA	Fish	JE1115-19	11100-14-4	Aroclor 1268	ND	ND	0	2	20
Reach 4	White Sucker	CompA	24-WS-R4-COMPA	Fish	JE582-5	12672-29-6	Aroclor 1248	ND	ND	0	4.3	20
Reach 4	White Sucker	CompA	24-WS-R4-COMPA	Fish	JE582-5	12674-11-2	Aroclor 1016	ND	ND	0	8.5	20
Reach 4	White Sucker	CompA	24-WS-R4-COMPA	Fish	JE582-5	11141-16-5	Aroclor 1232	ND	ND	0	17	20
Reach 4	White Sucker	CompA	24-WS-R4-COMPA	Fish	JE582-5	11104-28-2	Aroclor 1221	ND	ND	0	6.7	20
Reach 4	White Sucker	CompA	24-WS-R4-COMPA	Fish	JE582-5	37324-23-5	Aroclor 1262	ND	ND	0	1.7	20
Reach 4	White Sucker	CompA	24-WS-R4-COMPA	Fish	JE582-5	53469-21-9	Aroclor 1242	ND	ND	0	12	20
Reach 4	White Sucker	CompA	24-WS-R4-COMPA	Fish	JE582-5	11100-14-4	Aroclor 1268	ND	ND	0	2	20

Notes:

DT = Detected; g = Grams; ND = Non-Detected; MDL = Method Detection Limit; No. = Number; PCBs = Polychlorinated Biphenyls; PQL = Practical Quantitation Limit; ug/kg = Micrograms per Kilogram.

(a) Composite finfish and crayfish tissue samples were submitted for laboratory testing using US EPA Method 8082A for analysis of individual PCB aroclors (Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260).

(b) Laboratory samples with J flags were considered detected and used for further PCB analyses. Laboratory samples with U flags were assumed to have concentrations of zero, consistent with the data handling procedures outlined in the Biota Monitoring Plan (see Appendix B) and previous sampling reports at the Site.

Table A.2 PCB Summary Statistics by Composite

Reach	Species	Composite	Sample ID	Total PCBs Non-DT	Total PCBs DT	Total PCBs (ug/kg) <sup>1</sup>	% Lipid	Total Weight (g) <sup>2</sup>	Total PCBs (Lipid- Normalized) <sup>3</sup>	Individual Aroclor 1248 Value	Individual Aroclor 1254 Value	Individual Aroclor 1260 Value	% Contribution of Aroclor 1248	% Contribution of Aroclor 1254	% Contribution of Aroclor 1260	
Reach 0	Creek Chub	CompA	24-CC-R0-COMPA	0	1	164	1.3%	51	12448	0	ND	89	75	0%	54%	46%
Reach 0	Creek Chub	CompB	24-CC-R0-COMP8	0	1	132	1.6%	49	8346	0	ND	77	55	0%	58%	42%
Reach 0	Creek Chub	CompC	24-CC-R0-COMPC	0	1	160	1.3%	46	12593	0	ND	74	86	0%	46%	54%
Reach 0	Creek Chub	CompD	24-CC-R0-COMPD	0	1	118	2.1%	43	5610	0	ND	68	50	0%	58%	42%
Reach 0	Creek Chub	CompE	24-CC-R0-COMPE	0	1	132	1.5%	61	8570	0	ND	68	63	0%	52%	48%
Reach 0	Green Sunfish	CompA	24-GS-R0-COMPA	0	1	100	3.1%	60	3257	0	ND	66	34	0%	66%	34%
Reach 0	Green Sunfish	CompB	24-GS-R0-COMP8	0	1	749	2.5%	50	30072	0	ND	314	435	0%	42%	58%
Reach 0	Green Sunfish	CompC	24-GS-R0-COMPC	0	1	281	1.4%	47	19388	91		124	66	32%	44%	23%
Reach 0	Green Sunfish	CompD	24-GS-R0-COMPD	0	1	401	3.1%	47	12766	159		151	91	40%	38%	23%
Reach 0	Green Sunfish	CompE	24-GS-R0-COMPE	0	1	217	3.7%	44	5921	30		113	75	14%	52%	34%
Reach 0	Green Sunfish	CompF	24-GS-R0-COMPF	0	1	149	4.1%	59	3653	0	ND	89	60	0%	60%	40%
Reach 0	Crayfish	CompA	24-CR-R0-COMPA	0	1	12	1.2%	59	1032	0	ND	0	ND	0%	0%	100%
Reach 1	Creek Chub	CompA	24-CC-R1-COMPA	0	1	1013	1.5%	161	68755	0	ND	652	361	0%	64%	36%
Reach 1	Creek Chub	CompB	24-CC-R1-COMP8	0	1	217	0.7%	95	32610	0	ND	92	125	0%	42%	58%
Reach 1	Creek Chub	CompC	24-CC-R1-COMPC	0	1	702	2.1%	47	33901	0	ND	414	288	0%	59%	41%
Reach 1	Creek Chub	CompD	24-CC-R1-COMPD	0	1	648	2.3%	53	28720	0	ND	398	250	0%	61%	39%
Reach 1	Creek Chub	CompE	24-CC-R1-COMPE	0	1	521	1.9%	46	27344	0	ND	334	187	0%	64%	36%
Reach 1	Creek Chub	CompF	24-CC-R1-COMPF	0	1	648	2.5%	48	25472	0	ND	344	304	0%	53%	47%
Reach 1	Green Sunfish	CompA	24-GS-R1-COMPA	0	1	1063	4.1%	79	26245	0	ND	710	353	0%	67%	33%
Reach 1	Green Sunfish	CompB	24-GS-R1-COMP8	0	1	1140	3.0%	71	37760	0	ND	609	531	0%	53%	47%
Reach 1	Green Sunfish	CompC	24-GS-R1-COMPC	0	1	1493	2.0%	44	73703	0	ND	971	522	0%	65%	35%
Reach 1	Green Sunfish	CompD	24-GS-R1-COMPD	0	1	1012	4.4%	54	23148	0	ND	522	490	0%	52%	48%
Reach 1	Green Sunfish	CompE	24-GS-R1-COMPE	0	1	989	4.0%	48	24843	0	ND	674	315	0%	68%	32%
Reach 2	Creek Chub	CompB	24-CC-R2-COMP8	0	1	1089	1.7%	182	65593	0	ND	442	647	0%	41%	59%
Reach 2	Creek Chub	CompC	24-CC-R2-COMPC	0	1	1280	0.8%	199	152551	0	ND	545	735	0%	43%	57%
Reach 2	Creek Chub	CompD	24-CC-R2-COMPD	0	1	1263	1.6%	113	76669	0	ND	602	661	0%	48%	52%
Reach 2	Creek Chub	CompE	24-CC-R2-COMPE	0	1	1092	1.7%	99	65857	0	ND	413	679	0%	38%	62%
Reach 2	Creek Chub	CompF	24-CC-R2-COMPF	0	1	878	2.5%	78	35330	0	ND	397	481	0%	45%	55%
Reach 2	Creek Chub	CompG	24-CC-R2-COMPG	0	1	1155	1.8%	63	65128	0	ND	465	690	0%	40%	60%
Reach 2	Green Sunfish	CompA	24-GS-R2-COMPA	0	1	1755	3.4%	153	51950	0	ND	759	996	0%	43%	57%
Reach 2	Green Sunfish	CompB	24-GS-R2-COMP8	0	1	1158	2.9%	86	39304	0	ND	512	646	0%	44%	56%
Reach 2	Green Sunfish	CompC	24-GS-R2-COMPC	0	1	2934	3.5%	58	83867	0	ND	764	2170	0%	26%	74%
Reach 2	Creek Chub	CompA	24-CC-R2-COMPA	0	1	628	0.4%	271	144181	0	ND	266	362	0%	42%	58%
Reach 2	Crayfish	CompA	24-CR-R2-COMPA	0	1	69	0.6%	32	12294	0	ND	0	ND	0%	0%	100%
Reach 3	Creek Chub	CompA	24-CC-R3-COMPA	0	1	1029	1.1%	174	97076	0	ND	342	687	0%	33%	67%
Reach 3	Creek Chub	CompB	24-CC-R3-COMP8	0	1	920	1.6%	103	56534	0	ND	324	596	0%	35%	65%
Reach 3	Green Sunfish	CompA	24-GS-R3-COMPA	0	1	1598	3.5%	132	45553	0	ND	468	1130	0%	29%	71%
Reach 3	Green Sunfish	CompB	24-GS-R3-COMP8	0	1	1435	3.9%	70	37134	0	ND	437	998	0%	30%	70%
Reach 3	Green Sunfish	CompC	24-GS-R3-COMPC	0	1	1309	4.0%	58	32733	0	ND	437	872	0%	33%	67%
Reach 3	Green Sunfish	CompD	24-GS-R3-COMPD	0	1	2151	4.0%	53	53276	0	ND	601	1550	0%	28%	72%
Reach 3	Pumpkinseed	CompA	24-PS-R3-COMPA	0	1	1298	3.1%	57	41604	0	ND	401	897	0%	31%	69%
Reach 4	Creek Chub	CompA	24-CC-R4-COMPA	0	1	783	1.2%	135	66029	0	ND	284	499	0%	36%	64%
Reach 4	Creek Chub	CompB	24-CC-R4-COMP8	0	1	386	1.5%	73	26483	0	ND	167	219	0%	43%	57%
Reach 4	Green Sunfish	CompA	24-GS-R4-COMPA	0	1	1101	3.0%	157	36926	0	ND	470	631	0%	43%	57%
Reach 4	Green Sunfish	CompB	24-GS-R4-COMP8	0	1	1645	3.1%	62	52247	0	ND	652	993	0%	40%	60%
Reach 4	White Sucker	CompA	24-WS-R4-COMPA	0	1	416	0.3%	98	131804	0	ND	103	313	0%	25%	75%
Reach 5	Creek Chub	CompA	24-CC-R5-COMPA	0	1	333	0.4%	146	78143	0	ND	89	244	0%	27%	73%
Reach 5	Creek Chub	CompB	24-CC-R5-COMP8	0	1	285	0.6%	97	47027	0	ND	111	174	0%	39%	61%
Reach 5	Creek Chub	CompC	24-CC-R5-COMPC	0	1	156	0.6%	72	26360	0	ND	56	100	0%	36%	64%
Reach 5	Creek Chub	CompD	24-CC-R5-COMPD	0	1	802	1.4%	62	57552	0	ND	294	508	0%	37%	63%
Reach 5	Green Sunfish	CompA	24-GS-R5-COMPA	0	1	831	2.4%	222	35089	0	ND	275	556	0%	33%	67%
Reach 5	Green Sunfish	CompC	24-GS-R5-COMPC	0	1	1686	2.3%	106	74091	0	ND	606	1080	0%	36%	64%
Reach 5	Green Sunfish	CompD	24-GS-R5-COMPD	0	1	1854	2.2%	68	84181	0	ND	694	1160	0%	37%	63%
Reach 5	Green Sunfish	CompE	24-GS-R5-COMPE	0	1	1343	3.0%	53	44280	189		439	715	14%	33%	53%
Reach 5	Green Sunfish	CompF	24-GS-R5-COMPF	0	1	1247	4.0%	50	31139	0	ND	444	803	0%	36%	64%
Reach 5	Green Sunfish	CompG	24-GS-R5-COMPG	0	1	1743	3.6%	62	47846	0	ND	603	1140	0%	35%	65%
Reach 5	Green Sunfish	CompB	24-GS-R5-COMP8	0	1	1246	1.9%	211	65974	305		357	584	24%	29%	47%
Reach 6	Creek Chub	CompA	24-CC-R6-COMPA	0	1	405	0.6%	172	71198	0	ND	166	239	0%	41%	59%
Reach 6	Creek Chub	CompB	24-CC-R6-COMP8	0	1	764	1.2%	69	62068	0	ND	333	431	0%	44%	56%
Reach 6	Creek Chub	CompC	24-CC-R6-COMPC	0	1	560	1.7%	60	32413	0	ND	229	331	0%	41%	59%
Reach 6	Green Sunfish	CompA	24-GS-R6-COMPA	0	1	1112	3.3%	140	33917	0	ND	491	621	0%	44%	56%
Reach 6	Green Sunfish	CompB	24-GS-R6-COMP8	0	1	1072	3.3%	79	32388	532		310	230	50%	29%	21%
Reach 6	Green Sunfish	CompC	24-GS-R6-COMPC	0	1	656	2.8%	86	23544	365		213	78	56%	32%	12%
Reach 6	Green Sunfish	CompD	24-GS-R6-COMPD	0	1	946	2.3%	68	41301	165		400	381	17%	42%	40%
Reach 6	Green Sunfish	CompE	24-GS-R6-COMPE	0	1	953	4.3%	58	22266	0	ND	391	562	0%	41%	59%
Reach 6	Green Sunfish	CompF	24-GS-R6-COMPF	0	1	1209	3.3%	64	36197	233		465	511	19%	38%	42%
Reach 6	White Sucker	CompC	24-WS-R6-COMPC	0	1	560	0.7%	68	83891	59		151	350	10%	27%	63%
Reach 6	White Sucker	CompD	24-WS-R6-COMPD	0	1	217	0.5%	49	43107	0	ND	95	122	0%	44%	56%
Reach 7	Creek Chub	CompA	24-CC-R7-COMPA	0	1	1118	0.8%	151	146733	0	ND	452	666	0%	40%	60%
Reach 7	Creek Chub	CompB	24-CC-R7-COMP8	0	1	548	1.3%	71	42548	0	ND	241	307	0%	44%	56%
Reach 7	Creek Chub	CompC	24-CC-R7-COMPC	0	1	634	1.6%	49	40031	0	ND	269	365	0%	42%	58%
Reach 7	Green Sunfish	CompG	24-GS-R7-COMPG	0	1	948	3.5%	57	26820	264		393	291	28%	41%	31%
Reach 7	Crayfish	CompA	24-CR-R7-COMPA	0	1	108	0.6%	27	17879	0	ND	22	86	0%	21%	79%
Reach 7	Green Sunfish	CompA	24-GS-R7-COMPA	0	1	645	1.9%	211	33435	54		254	337	8%	39%	52%
Reach 7	Green Sunfish	CompB	24-GS-R7-COMP8	0	1	800	3.0%	156	27046	125		335	340	16%	42%	43%
Reach 7	Green Sunfish	CompC	24-GS-R7-COMPC	0	1	973	2.3%	85	42268	125		464	384	13%	48%	39%
Reach 7	Green Sunfish	CompD	24-GS-R7-COMPD	0	1	1139	2.8%	70	40849	113		453	573	10%	40%	50%
Reach 7	Green Sunfish	CompE	24-GS-R7-COMPE	0	1	831	2.7%	61	30846	383		263	185	46%	32%	22%
Reach 7	Green Sunfish	CompF	24-GS-R7-COMPF	0	1	891	3.4%	52	25894	0	ND	413	478	0%	46%	54%

Notes:

DT = Detected; ND = Non-Detected; g = Grams; PCBs = Polychlorinated Biphenyls; ug/kg = Micrograms per Kilogram.

(a) Total PCBs were calculated by using zeroes for ND samples.

(b) Total weight (g) is based on the total weight after homogenization

(c) Total PCBs (lipid-normalized) were calculated using the following equation:

$$C_{lipid-normalized} = \frac{C_{tissue}}{\%lipid}$$

where:

C<sub>lipid-normalized</sub> = Lipid-normalized total PCB concentration (ug/g-lipid);

C<sub>tissue</sub> = Total body PCB concentration for a given sample (ug/g); and

%lipid = Percentage lipid concentration for a given composite tissue sample.



Table A.3 PCB Summary Statistics by Reach and Species

			Total PCBs (ug/kg)			% Lipid			Total PCBs (Lipid-Normalized) <sup>b</sup> (ug/kg)			% Aroclor Contribution <sup>c</sup>			RG Exceedances <sup>d</sup>	
Reach	Species	# of Composite Samples	Min.	Max.	Avg. <sup>a</sup>	Min.	Max.	Avg.	Min.	Max.	Avg.	Aroclor 1248	Aroclor 1254	Aroclor 1260	# of Composites	% of Composites
Reach 0	Creek Chub	5	118	164	141	1.3%	2.1%	1.6%	5610	12593	9513	0%	54%	46%	5	100%
Reach 0	Green Sunfish	6	100	749	316	1.4%	4.1%	3.0%	3257	30072	12509	14%	50%	36%	6	100%
Reach 0	Crayfish	1	12	12	12	1.2%	1.2%	1.2%	1032	1032	1032	0%	0%	100%	0	0%
Reach 0	All Finfish	11	100	749	237	1.3%	4.1%	2.3%	3257	30072	11148	8%	52%	40%	11	100%
Reach 0	All Crayfish	1	12	12	12	1.2%	1.2%	1.2%	1032	1032	1032	0%	0%	100%	0	0%
Reach 0	All Species	12	12	749	218	1.2%	4.1%	2.2%	1032	30072	10305	7%	47%	45%	11	92%
Reach 1	Creek Chub	6	217	1013	625	0.7%	2.5%	1.8%	25472	68755	36134	0%	57%	43%	6	100%
Reach 1	Green Sunfish	5	989	1493	1139	2.0%	4.4%	3.5%	23148	73703	37140	0%	61%	39%	5	100%
Reach 1	All Finfish	11	217	1493	859	0.7%	4.4%	2.6%	23148	73703	36591	0%	59%	41%	11	100%
Reach 1	All Crayfish	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reach 1	All Species	11	217	1493	859	0.7%	4.4%	2.6%	23148	73703	36591	0%	59%	41%	11	100%
Reach 2	Creek Chub	7	628	1280	1055	0.4%	2.5%	1.5%	35330	152551	86473	0%	42%	58%	7	100%
Reach 2	Green Sunfish	3	1158	2934	1949	2.9%	3.5%	3.3%	39304	83867	58374	0%	38%	62%	3	100%
Reach 2	Crayfish	1	69	69	69	0.6%	0.6%	0.6%	12294	12294	12294	0%	0%	100%	0	0%
Reach 2	All Finfish	10	628	2934	1323	0.4%	3.5%	2.0%	35330	152551	78043	0%	41%	59%	10	100%
Reach 2	All Crayfish	1	69	69	69	0.6%	0.6%	0.6%	12294	12294	12294	0%	0%	100%	0	0%
Reach 2	All Species	11	69	2934	1209	0.4%	3.5%	1.9%	12294	152551	72066	0%	37%	63%	10	91%
Reach 3	Creek Chub	2	920	1029	975	1.1%	1.6%	1.3%	56534	97076	76805	0%	34%	66%	2	100%
Reach 3	Green Sunfish	4	1309	2151	1623	3.5%	4.0%	3.9%	32733	53276	42174	0%	30%	70%	4	100%
Reach 3	Pumpkinseed	1	1298	1298	1298	3.1%	3.1%	3.1%	41604	41604	41604	0%	31%	69%	1	100%
Reach 3	All Finfish	7	920	2151	1391	1.1%	4.0%	3.0%	32733	97076	51987	0%	31%	69%	7	100%
Reach 3	All Crayfish	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reach 3	All Species	7	920	2151	1391	1.1%	4.0%	3.0%	32733	97076	51987	0%	31%	69%	7	100%
Reach 4	Creek Chub	2	386	783	585	1.2%	1.5%	1.3%	26483	66029	46256	0%	40%	60%	2	100%
Reach 4	Green Sunfish	2	1101	1645	1373	3.0%	3.1%	3.1%	36926	52247	44587	0%	41%	59%	2	100%
Reach 4	White Sucker	1	416	416	416	0.3%	0.3%	0.3%	131804	131804	131804	0%	25%	75%	1	100%
Reach 4	All Finfish	5	386	1645	866	0.3%	3.1%	1.8%	26483	131804	62698	0%	37%	63%	5	100%
Reach 4	All Crayfish	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reach 4	All Species	5	386	1645	866	0.3%	3.1%	1.8%	26483	131804	62698	0%	37%	63%	5	100%
Reach 5	Creek Chub	4	156	802	394	0.4%	1.4%	0.8%	26360	78143	52271	0%	35%	65%	4	100%
Reach 5	Green Sunfish	7	831	1854	1421	1.9%	4.0%	2.8%	31139	84181	54657	6%	34%	60%	7	100%
Reach 5	All Finfish	11	156	1854	1048	0.4%	4.0%	2.0%	26360	84181	53789	4%	34%	62%	11	100%
Reach 5	All Crayfish	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reach 5	All Species	11	156	1854	1048	0.4%	4.0%	2.0%	26360	84181	53789	4%	34%	62%	11	100%
Reach 6	Creek Chub	3	405	764	576	0.6%	1.7%	1.2%	32413	71198	55226	0%	42%	58%	3	100%
Reach 6	Green Sunfish	6	656	1209	991	2.3%	4.3%	3.2%	22266	41301	31602	24%	38%	38%	6	100%
Reach 6	White Sucker	2	217	560	388	0.5%	0.7%	0.6%	43107	83891	63499	5%	35%	59%	2	100%
Reach 6	All Finfish	11	217	1209	768	0.5%	4.3%	2.2%	22266	83891	43845	14%	39%	48%	11	100%
Reach 6	All Crayfish	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Reach 6	All Species	11	217	1209	768	0.5%	4.3%	2.2%	22266	83891	43845	14%	39%	48%	11	100%
Reach 7	Creek Chub	3	548	1118	767	0.8%	1.6%	1.2%	40031	146733	76437	0%	42%	58%	3	100%
Reach 7	Green Sunfish	7	645	1139	890	1.9%	3.5%	2.8%	25894	42268	32451	17%	41%	42%	7	100%
Reach 7	Crayfish	1	108	108	108	0.6%	0.6%	0.6%	17879	17879	17879	0%	21%	79%	1	100%
Reach 7	All Finfish	10	548	1139	853	0.8%	3.5%	2.3%	25894	146733	45647	12%	42%	46%	10	100%
Reach 7	All Crayfish	1	108	108	108	0.6%	0.6%	0.6%	17879	17879	17879	0%	21%	79%	1	100%
Reach 7	All Species	11	108	1139	785	0.6%	3.5%	2.2%	17879	146733	43122	11%	40%	49%	11	100%
All Reaches																
	All Finfish	76	100	2934	893	0.3%	4.4%	2.3%	3257	152551	46229	5%	43%	52%	76	100%
	All Crayfish	3	12	108	63	0.6%	1.2%	0.8%	1032	17879	10402	0%	7%	93%	1	33%
	All Species	79	12	2934	861	0.3%	4.4%	2.2%	1032	152551	44868	5%	41%	54%	77	97%

Notes:

DT = Detected; Min. = Minimum; Max. = Maximum; NA = Not Available; ND = Non-Detected; PCBs = Polychlorinated Biphenyls; RG = Remedial Goal.

(a) Total PCB averages were calculated by using zeroes for ND samples.

(b) Total PCBs (lipid-normalized) were calculated using the following equation:

$$C_{lipid-normalized} = \frac{C_{tissue}}{\%lipid}$$

where:

C<sub>lipid-normalized</sub> = Lipid-normalized total PCB concentration (µg/g-lipid);

C<sub>tissue</sub> = Total body PCB concentration for a given sample (µg/g); and

%lipid = Percentage lipid concentration for a given composite tissue sample.

(c) Aroclor 1248, Aroclor 1254, and Aroclor 1260 were the only detected individual Aroclors across all composite samples throughout the Site.

(d) Number of composites exceeding the RG of 100 ug/kg in resident aquatic biota at the Site.



Table A.4 Table Length and Weight Summary Statistics of Composite Samples

Reach	Species	Composite	Sample ID	# of Fish Per Composite	Min. Length (mm)	Max. Length (mm)	Avg. Length (mm)	Min. Weight (g)	Max. Weight (g)	Avg. Weight (g)
Reach 0	Creek Chub	CompA	24-CC-R0-CompA	1	177	177	177	56	56	56
Reach 0	Creek Chub	CompB	24-CC-R0-CompB	2	131	152	142	22	35	29
Reach 0	Creek Chub	CompC	24-CC-R0-CompC	2	136	152	144	23	32	28
Reach 0	Creek Chub	CompD	24-CC-R0-CompD	8	76	100	87	4.3	8.8	6.5
Reach 0	Creek Chub	CompE	24-CC-R0-CompE	22	59	82	70	2.1	5.3	3.4
Reach 0	Green Sunfish	CompA	24-GS-R0-CompA	1	152	152	152	71	71	71
Reach 0	Green Sunfish	CompB	24-GS-R0-CompB	2	108	127	118	24	38	31
Reach 0	Green Sunfish	CompC	24-GS-R0-CompC	2	114	124	119	25	33	29
Reach 0	Green Sunfish	CompD	24-GS-R0-CompD	5	78	93	88	7.7	14	11
Reach 0	Green Sunfish	CompE	24-GS-R0-CompE	8	71	82	75	5.6	9.3	6.9
Reach 0	Green Sunfish	CompF	24-GS-R0-CompF	14	50	78	65	2.1	8.2	4.9
Reach 0	Crayfish	CompA	24-CR-R0-CompA	13	55	71	63	3.8	8.2	5.6
Reach 1	Creek Chub	CompA	24-CC-R1-CompA	2	202	221	212	82	97	89
Reach 1	Creek Chub	CompB	24-CC-R1-CompB	2	181	187	184	51	60	56
Reach 1	Creek Chub	CompC	24-CC-R1-CompC	2	138	157	148	24	34	29
Reach 1	Creek Chub	CompD	24-CC-R1-CompD	2	147	148	148	29	31	30
Reach 1	Creek Chub	CompE	24-CC-R1-CompE	3	119	136	125	14	20	17
Reach 1	Creek Chub	CompF	24-CC-R1-CompF	5	78	122	105	4.0	16	11
Reach 1	Green Sunfish	CompA	24-GS-R1-CompA	2	132	137	135	43	47	45
Reach 1	Green Sunfish	CompB	24-GS-R1-CompB	2	124	140	132	33	48	40
Reach 1	Green Sunfish	CompC	24-GS-R1-CompC	2	114	119	117	24	29	26
Reach 1	Green Sunfish	CompD	24-GS-R1-CompD	4	107	108	107	20	20	20
Reach 2	Creek Chub	CompA	24-CC-R2-CompA	5	90	99	96	12	16	15
Reach 2	Creek Chub	CompB	24-CC-R2-CompB	5	173	199	184	45	76	58
Reach 2	Creek Chub	CompC	24-CC-R2-CompC	5	159	180	165	34	50	39
Reach 2	Creek Chub	CompD	24-CC-R2-CompD	5	151	184	167	31	57	43
Reach 2	Creek Chub	CompE	24-CC-R2-CompE	5	129	141	137	18	30	24
Reach 2	Creek Chub	CompF	24-CC-R2-CompF	5	129	133	132	18	24	21
Reach 2	Creek Chub	CompG	24-CC-R2-CompG	4	119	126	124	14	18	17
Reach 2	Green Sunfish	CompA	24-GS-R2-CompA	2	112	135	124	11	22	16
Reach 2	Green Sunfish	CompB	24-GS-R2-CompB	5	158	167	163	77	90	84
Reach 2	Green Sunfish	CompC	24-GS-R2-CompC	6	84	114	100	12	28	18
Reach 2	Crayfish	CompA	24-CR-R2-CompA	2	77	96	85	8.0	14	10
Reach 3	Creek Chub	CompA	24-CC-R3-CompA	4	76	92	84	15	22	19
Reach 3	Creek Chub	CompB	24-CC-R3-CompB	5	167	183	175	38	55	47
Reach 3	Green Sunfish	CompA	24-GS-R3-CompA	5	113	147	131	13	33	22
Reach 3	Green Sunfish	CompB	24-GS-R3-CompB	5	106	143	116	18	54	29
Reach 3	Green Sunfish	CompC	24-GS-R3-CompC	5	94	99	96	14	19	16
Reach 3	Green Sunfish	CompD	24-GS-R3-CompD	7	85	98	89	12	16	13
Reach 3	Pumpkinseed	CompA	24-PS-R3-CompA	5	72	83	77	6.6	11	8.1
Reach 4	Creek Chub	CompA	24-CC-R4-CompA	5	72	106	85	6.9	25	12
Reach 4	Creek Chub	CompB	24-CC-R4-CompB	5	127	168	142	20	47	30
Reach 4	Green Sunfish	CompA	24-GS-R4-CompA	2	117	127	122	15	19	17
Reach 4	Green Sunfish	CompB	24-GS-R4-CompB	5	142	172	157	51	119	85
Reach 4	White Sucker	CompA	24-WS-R4-CompA	3	71	115	89	6.3	28	14
Reach 5	Creek Chub	CompA	24-CC-R5-CompA	2	132	193	153	24	70	39
Reach 5	Creek Chub	CompB	24-CC-R5-CompB	3	193	213	203	67	102	85
Reach 5	Creek Chub	CompC	24-CC-R5-CompC	3	148	172	163	31	42	38
Reach 5	Creek Chub	CompD	24-CC-R5-CompD	5	134	153	143	24	36	29
Reach 5	Green Sunfish	CompA	24-GS-R5-CompA	3	104	126	115	11	18	15
Reach 5	Green Sunfish	CompB	24-GS-R5-CompB	5	157	168	164	71	88	82
Reach 5	Green Sunfish	CompC	24-GS-R5-CompC	5	127	147	138	34	57	46
Reach 5	Green Sunfish	CompD	24-GS-R5-CompD	6	105	117	111	21	28	24
Reach 5	Green Sunfish	CompE	24-GS-R5-CompE	7	91	106	95	11	19	14
Reach 5	Green Sunfish	CompF	24-GS-R5-CompF	8	81	89	84	9.1	11	9.7
Reach 5	Green Sunfish	CompG	24-GS-R5-CompG	12	72	83	78	6.7	9.1	7.9
Reach 6	Creek Chub	CompA	24-CC-R6-CompA	4	65	77	73	4.8	7.6	6.1
Reach 6	Creek Chub	CompB	24-CC-R6-CompB	4	117	187	155	31	60	48
Reach 6	Creek Chub	CompC	24-CC-R6-CompC	4	122	137	128	16	26	20
Reach 6	Green Sunfish	CompA	24-GS-R6-CompA	4	112	127	120	13	18	16
Reach 6	Green Sunfish	CompB	24-GS-R6-CompB	4	120	147	127	29	58	38
Reach 6	Green Sunfish	CompC	24-GS-R6-CompC	6	103	112	109	19	27	22
Reach 6	Green Sunfish	CompD	24-GS-R6-CompD	6	93	102	97	13	17	15
Reach 6	Green Sunfish	CompE	24-GS-R6-CompE	7	85	97	90	9.8	15	12
Reach 6	Green Sunfish	CompF	24-GS-R6-CompF	11	77	88	82	7.8	10	8.9
Reach 6	White Sucker	CompA	24-WS-R6-CompA	3	63	79	72	4.8	8.6	6.2
Reach 6	White Sucker	CompB	24-WS-R6-CompB	3	172	197	181	47	67	54
Reach 6	White Sucker	CompC	24-WS-R6-CompC	5	160	167	162	38	44	41
Reach 6	White Sucker	CompD	24-WS-R6-CompD	6	110	127	119	13	18	15
Reach 7	Creek Chub	CompA	24-CC-R7-CompA	3	94	106	99	7.9	11	8.9
Reach 7	Creek Chub	CompB	24-CC-R7-CompB	5	135	213	168	24	101	54
Reach 7	Creek Chub	CompC	24-CC-R7-CompC	6	106	141	121	10	23	15
Reach 7	Green Sunfish	CompA	24-GS-R7-CompA	4	72	115	98	3.2	14	9.0
Reach 7	Green Sunfish	CompB	24-GS-R7-CompB	5	142	152	147	55	68	61
Reach 7	Green Sunfish	CompC	24-GS-R7-CompC	5	110	135	122	23	48	34
Reach 7	Green Sunfish	CompD	24-GS-R7-CompD	5	99	108	104	16	21	19
Reach 7	Green Sunfish	CompE	24-GS-R7-CompE	5	93	105	96	13	22	15
Reach 7	Green Sunfish	CompF	24-GS-R7-CompF	5	93	96	95	13	15	14
Reach 7	Green Sunfish	CompG	24-GS-R7-CompG	7	83	95	87	9.3	15	11
Reach 7	Crayfish	CompA	24-CR-R7-CompA	8	77	87	82	7.2	10	8.8

Notes:

Avg. = Average; g = Grams; Max. = Maximum; Min. = Minimum; mm = Millimeter; NA = Not Available; PCBs = Polychlorinated Biphenyls.

# = Number.

Shaded cells are samples that were removed during baseline sampling because the 10-composite minimum in R6 was already achieved and white sucker was not a target finfish species. As a result, no additional laboratory analyses were performed on these samples.

**Table A.5 Measured Water Quality Parameters**

Reach	Sample ID	Time:	Temp (C)	DO (mg/L)	SPC (ms/cm)	pH	ORP (mV)	Turbidity (NTU)
Reach 0	R0 <sub>1</sub>	9:35	14	9.0	2.0	7.8	75	1.4
Reach 0	R0 <sub>MID</sub>	10:30	15	10	1.8	8.2	87	1.4
Reach 1	R1 <sub>1</sub>	13:47	16	12	1.9	8.4	73	1.2
Reach 1	R1 <sub>2</sub>	14:45	16	11	2.1	8.5	94	5.7
Reach 2	R2 <sub>1</sub>	17:00	15	11	2.2	8.4	107	0.41
Reach 2	R2 <sub>2</sub>	17:40	15	11	1.6	8.6	107	9.3
Reach 2	R2 <sub>3</sub>	9:15	13	8.7	1.9	8.2	112	1.6
Reach 2	R2 <sub>4</sub>	9:27	13	9.0	1.9	8.2	122	1.3
Reach 3	R3 <sub>1</sub>	11:30	14	9.5	2.1	7.8	158	1.0
Reach 3	R3 <sub>2</sub>	11:40	13	9.7	2.1	8.0	145	1.1
Reach 5	R5 <sub>1</sub>	13:42	13	9.0	2.0	8.1	113	1.2
Reach 5	R5 <sub>2</sub>	14:23	13	9.5	2.0	8.1	124	1.1
Reach 6	R6 <sub>1</sub>	17:20	12	8.7	2.0	8.1	136	0.83
Reach 6	R6 <sub>2</sub>	17:40	11	9.7	1.9	8.3	108	16
Reach 4	R4 <sub>1</sub>	9:35	11	9.2	1.8	6.9	147	0.47
Reach 7	R7 <sub>1</sub>	10:35	12	9.9	1.2	6.7	161	0.23
Reach 7	R7 <sub>2</sub>	10:45	12	10	1.1	7.4	132	0.22

Notes:

C = Celsius, DO = Dissolved Oxygen; mg/L = Milligrams per Liter; ms/cm = MilliSiemens per Centimeter; mV = Millivolts; NTU = Nephelometric Turbidity Unit; ORP = Oxidation and Reduction Potential; SPC = Specific Conductance; Temp. = Temperature.

## **Appendix B.1**

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### **Biota Monitoring Plan (BMP)**

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 7  
5786 Widewaters Parkway, Syracuse, NY 13214-1867  
P: (315) 426-7519, (315) 426-7551  
[www.dec.ny.gov](http://www.dec.ny.gov)

August 5, 2024

Don Sorbello  
Senior Manager, Remediation  
Carrier  
6304 Thomson Rd.  
Syracuse, NY 13057

**RE: Carrier, DeWitt, NY  
NYSDEC Site# 734043  
Biota Monitoring Plan & July 2024 Response to Comment Letter – Sanders  
Creek Site**

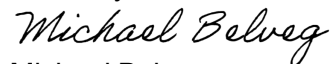
Dear Don Sorbello:

Thank you for providing the above referenced Biota Monitoring Plan (BMP) dated December 2023 and the Response to Comment (RTC) Letter dated July 2024 for the Carrier Corporation site in Dewitt, New York.

The New York State Department of Environmental Conservation has reviewed the BMP and RTC Letter and determined that the BMP and the RTC Letter are satisfactory.

Should you have any questions, please contact me at (315) 426-7446 and thanks again for your efforts in continuing to move this project forward.

Sincerely,



Michael Belveg  
Assistant Engineer (Environmental), Division of Environmental Remediation

Ec: Gary Priscott, DEC  
Jason Pelton, DEC  
Peter Hollatz, AECOM



Department of  
Environmental  
Conservation

December 18, 2023

Mr. Michael Belveg, Assistant Engineer  
New York State Department of Environmental Conservation  
Division of Environmental Remediation, Region 7  
5786 Widewaters Parkway  
Syracuse, NY 13214-1867

**Subject: Carrier Corporation Thompson Road Facility  
Onondaga County, Syracuse, New York  
Corrective Action Order – Index CO 7-20051118-4  
Site Registry No. 734043**

**Biota Monitoring Plan – Sanders Creek Site  
Response to NYSDEC Comment Letter Dated October 17, 2023**

Dear Mr. Belveg:

On behalf of Carrier Corporation (Carrier), AECOM Technical Services, Inc. (AECOM), is submitting this response to the New York State Department of Environmental Conservation (NYSDEC) comment letter dated October 17, 2023, regarding the *Biota Monitoring Plan – Sanders Creek Site* (BMP; Gradient, 2023). Responses to NYSDEC comments are provided below and the revised BMP is attached.

1. NYSDEC Comment #1: *Please provide a Quality Assurance Project Plan including laboratory standard operating procedures, method quantification limits, number and type of quality control samples, performance metrics, acceptance criteria, etc. Any chosen lab will need to demonstrate the ability to analyze targets in tissue samples and include reference material in every sample delivery group. The Soxhlet extraction method is preferred over automated methodologies.*

**Response to Comment #1:** As requested, a quality assurance project plan has been included as an attachment to the revised BMP.

2. NYSDEC Comment #2: *Please specify that field collection data will be provided to DEC by December 15th of the same year as collection.*

**Response to Comment #2:** As requested, the date has been included under section 3.2 of the revised BMP.

3. NYSDEC Comment #3: *1.2 Site Description - Section identifies Reach 0 as an upgradient/background reach. As depicted, Reach 0 is on Carrier property and receives drainage from a previously remediated area. It is unqualified to be a background location. Relocate the background reach upstream of the Carrier property or propose an alternative background sampling location.*

**Response to Comment #3:** The NYSDEC-approved Interim Corrective Measures Work Plan (ICM WP; AECOM, 2021) specifies Reach 0 as the background sampling location.

4. NYSDEC Comment #4: *Sampling Frequency - Table 2.1 Please remove the fifth row of this table as the text in this row can be misinterpreted and is not needed.*

**Response to Comment #4:** As requested, the row has been removed in the revised BMP.

5. NYSDEC Comment #5: *2.2 Target Species –*

a. *Section states biota monitoring will center on collection of Cambaridae. The typical adult Cambaridae from a stream size similar to Sanders Creek is approximately 2.5-3 inches. The report suggests needing 50-150 grams crayfish for the laboratory analysis and suggests needing a minimum of 25 adult Cambaridae sp. per sample reach for 50 grams of sample. The crayfish sampling using the parameters as stated are unlikely to be met based on comparison with other regional crayfish studies in similar streams.*

- i. *Please modify the text here and throughout the BMP to state that monitoring will include crayfish sampling but will not primarily center on crayfish sampling.*
- ii. *Please modify the report to indicate that forage fish will be the primary target of the monitoring plan.*
- iii. *Please provide how Cambaridae crayfish ID will be QA/QC'd in the field.*
- iv. *Please consider collecting all crayfish species and processing different species similar to how fish are handled.*
- v. *Please clarify how the crayfish will be processed by the laboratory.*

b. *For the purpose of monitoring, the sampling should target a minimum of 10 samples per location and a minimum of 5 of those samples should be*

*forage fish. If enough crayfish cannot be collected to make up 5 samples, forage fish should be used to make up the difference in sample number. Please emphasize in this section and throughout the report that the priority of the field effort is to meet ten samples per sampling reach.*

- c. If insufficient target forage fish sp. (whatever species that is common at every sampling reach) cannot be collected to meet the sample number, then the next most common species should be utilized to fill the sample number. The priority is to collect a minimum of 5 forage fish samples within each reach. The sample number should be completed even if it is necessary to use composites of a species that is not collected at all of the other sample reaches.*
- d. All forage fish for the entire field effort should be retained until collections of all reaches are completed to be able to identify the common species among all the sample reach locations and process samples for the laboratory.*

**Response to Comment #5a i and #5a ii:** Per the NYSDEC-approved ICM WP, biota monitoring will include finfish, but will focus on crayfish. The content of the BMP reflects this approval and details that both crayfish and finfish will be collected, as available to be collected.

**Response to Comment #5a iii:** As requested, the text has been revised section 2.2.2 under bullet #6 of the revised BMP to include how the crayfish will be field identified.

**Response to Comment #5a iv:** As requested, the text has been revised section 2.2.2 under bullet #6 of the revised BMP.

**Response to Comment #5a v:** As requested, the text has been revised section 2.2.2 under bullet #6 of the revised BMP to include how the crayfish will be processed by the laboratory.

**Response to Comment #5b and #5c:** As requested, the text and Table 2.2 has been revised in section 2.2.1 of the revised BMP.

**Response to Comment #5d:** As requested, the text has been revised section 2.2.2 under bullet #6 of the revised BMP.

- 6. NYSDEC Comment #6: *Section 2.2 Sampling Time, Location, and Method - Please list and specify that DEC guidance "Procedures of Collection and Preparation of Aquatic Biota for Contaminant Analysis will be adhered to.*

**Response to Comment #6:** As requested, the reference to the NYSDEC guidance has been included in sections 1 and 2 of the revised BMP.

7. NYSDEC Comment #7: *Section 2.2.2 Sampling Method - Please consider hand collection and baited traps for the collection of crayfish as the increased variety of collection methods are likely to increase the chances of successfully meeting the required sample numbers. In the years that follow this initial sampling event, the field effort can focus on the most successful collection method(s).*

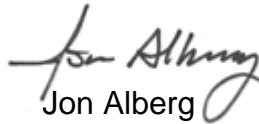
**Response to Comment #7:** As requested, the text has been revised in section 2.2.2 under bullet #1 of the revised BMP.

Should you have any questions, please contact me at 919 461-1194.

Yours sincerely,



Peter Hollatz  
Senior Principal  
peter.hollatz@aecom.com



Jon Alberg  
Senior Principal  
jon.alberg@aecom.com

## References

AECOM 2021. *Interim Corrective Measure Work Plan*. AECOM, April 2021.

Gradient 2023. *Biota Monitoring Plan – Sanders Creek Site*. Gradient, July 2023.

## Attachments

Biota Monitoring Plan (Revision 01)

cc: Gary Priscott, NYSDEC  
Don Sorbello, Carrier Corporation



# **Biota Monitoring Plan (Revision 01)**

## **Sanders Creek Site Thompson Road, Syracuse, NY**

Prepared for  
Carrier Corporation  
Thompson Road  
Syracuse, NY 13206

December 18, 2023



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# Abbreviations

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BMP	Biota Monitoring Plan
C <sub>lipid-normalized</sub>	Lipid-normalized Total PCB Concentration (µg/g-lipid)
C <sub>tissue</sub>	Total Body PCB Concentration for a Given Sample (µg/g)
DER	Division of Environmental Remediation
FSAP	Field Sampling and Analysis Plan
HASP	Health and Safety Plan
ICM	Interim Corrective Measures
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NYSDEC	New York State Department of Environmental Conservation
ORP	Oxidation and Reduction Potential
PCB	Polychlorinated Biphenyl
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RG	Remedial Goal
SAP	Sampling and Analysis Plan
SOP	Standard Operating Procedure
US EPA	United States Environmental Protection Agency
WP	Work Plan
%lipid	Percentage Lipid Concentration for a Given Composite Tissue Sample

# 1 Introduction

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Gradient has prepared this Biota Monitoring Plan (BMP) to monitor the performance and effectiveness of a planned Remedial Action in a section of Sanders Creek. Sanders Creek is located in the town of DeWitt, Onondaga County, New York (Figure 1.1). The portion of Sanders Creek beginning north of Carrier's Thompson Road facility (Carrier facility) and continuing downstream to the confluence with the South Branch of Ley Creek is considered the Site.

An Interim Corrective Measures (ICM) Work Plan (WP) was prepared by Carrier Corporation (Carrier) in response to the New York State Department of Environmental Conservation (NYSDEC) Corrective Action Order – Index Number CO 7-20051118-4 dated January 4, 2006 (AECOM, 2021). The ICM WP outlines the Remedial Action that will be implemented to achieve the remedial criteria agreed to by NYSDEC for polychlorinated biphenyls (PCBs) in the Sanders Creek sediments and immediate floodplains which support achieving the Remedial Goal (RG) as specified by the Corrective Action Order:

The remedial goal/criteria for Sanders Creek is that monitoring of resident aquatic biota assures that PCB concentrations are 0.1 parts per million (ppm) or less in the relevant portions of the creek. (AECOM, 2021).

This BMP was prepared considering the following state and federal technical guidance documents:

- NYSDEC, 2002. "Procedures for Collection and Preparation of Aquatic Biota for Contaminant Analysis (Draft)."
- NYSDEC, 2010. "Division of Environmental Remediation (DER)-10: Technical Guidance for Site Investigation and Remediation."
- NYSDEC, 2013. "Freshwater Fisheries Management."
- NYSDEC, 2020. "Quality Assurance Project Plan: Rapid Assessment Surveys."
- NYSDEC, 2021. "Standard Operating Procedures: Biological Monitoring of Surface Waters in New York State."
- US EPA, 1999. "Rapid Bioassessment Protocols for Use in Wadable Streams and Rivers – Periphyton, Benthic Macroinvertebrates, and Fish."
- US EPA, 2000a. "Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories. Volume 1 Fish Sampling and Analysis." Third Edition.
- US EPA, 2008. "Using Fish Tissue Data to Monitor Remedy Effectiveness."

## 1.1 Purpose, Objective, and Scope

The purpose of a monitoring plan is to "define the measures for monitoring the performance and effectiveness of the remedy at the Site" (AECOM, 2021). The objective of this BMP is to monitor the performance and effectiveness of a planned Remedial Action in regards to the RG of achieving 0.1 mg/kg PCB concentrations or less in biota tissues at the Site. Specifically, the BMP will be conducted to document

PCB concentrations in crayfish and finfish tissues, to allow evaluation of compliance with the RG, and to track changes in tissue concentrations following remedy implementation.

The performance and effectiveness of the Remedial Action will be evaluated by establishing a new baseline biota PCB tissue dataset prior to remediation, collecting post-remedy tissue samples, and analyzing temporal and spatial trends in PCB tissue concentrations.

As detailed in the NYSDEC-approved ICM WP (AECOM, 2021), crayfish and finfish will both be targeted for tissue monitoring since they are expected to be present at the Site in sufficient and reliable quantities to allow for long-term biomonitoring. In addition, crayfish have limited home ranges, which is useful when monitoring tissue concentrations most likely associated with localized exposures (AECOM, 2021).

## 1.2 Site Description

Sanders Creek is classified as a Class C, Standard C water under the NYSDEC Protection of Waters Regulatory Program (AECOM, 2021). Class C is defined as: "The best usage of Class C waters is fishing. These waters will be suitable for fish, shellfish, and wildlife propagation and survival. The water quality will be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes." The Site consists of the portion of Sanders Creek beginning north of the Carrier facility and continuing downstream to the confluence with the South Branch of Ley Creek. Sanders Creek flows toward the west through wooded and developed areas and is connected through a series of culverts. The Site has been divided into the following seven reaches based on the presence of culverts and property boundaries (Figure 1.2). In addition, an upgradient reach of Sanders Creek will be used to define background conditions.

- Reach 0 (background/upgradient reach): From Kinne Street to the culvert under Telergy Parkway.
- Reach 1: Between culvert under Telergy Parkway to the next downstream culvert (Culvert 1).
- Reach 2: Between Culvert 1 to the culvert under Thompson Road.
- Reach 3: Between culvert under Thompson Road to the next downstream culvert (Culvert 2).
- Reach 4: Between Culvert 2 to the Carrier property boundary.
- Reach 5: Between the Carrier property boundary to the culvert under Old Court Street Road.
- Reach 6: Between culvert under Old Court Street Road to the next downstream culvert at a private road (Culvert 3).
- Reach 7: Between the culvert at Deere Road to the confluence of South Branch of Ley Creek.

## 1.3 Report Organization

The remainder of this BMP is organized into three sections based on the elements outlined in Section 6.2 of the ICM WP (AECOM, 2021):

- Section 2 (Sampling Approach and Methods) describes the target species, sampling methods, and analytical methods.
- Section 3 (Data Evaluation and Reporting) describes the data analyses and reporting methods. This section also discusses the approach that may be used to adjust the BMP methods for future sampling events based on past data and analyses.

- References provides a list of references used cited in the BMP.

## 2 Sampling Approach and Methods

---

This section describes the sampling approach and methods that will be used, following the information provided in Sections 6.2.2 and 6.2.3 of the ICM WP. The objective of the proposed sampling is to collect biota tissue samples, ideally during the same time of year and under similar stream flow conditions for each sampling event (US EPA, 2008). Tissue samples should have enough mass to reliably assess PCB concentration trends. The following sections outline the sampling frequency, target species, recommended sampling times and locations, sampling methods, and analytical methods, following applicable United States Environmental Protection Agency (US EPA) guidance for biota sampling (US EPA 2000a, 2008) and NYSDEC's "Procedures for Collection and Preparation of Aquatic Biota for Contaminant Analysis (Draft) (2002).

### 2.1 Sampling Frequency

As per the ICM WP (AECOM, 2021), a baseline sampling event will be conducted to document PCB concentration in biota tissue prior to the Remedial Action. While prior biota samples have been collected from the Site, these data were collected more than 10 years ago.

Once the Remedial Action is implemented, additional sampling will take place 1, 3, and 5 years post remedy (Table 2.1). Results of the different sampling events will be used to evaluate temporal and spatial trends of PCB tissue residue concentrations and potentially recommend changes to the sampling approach for future planned sampling events. Data collected during the 4<sup>th</sup> sampling event (5 years post remedy) will be used to evaluate whether further monitoring is needed.

**Table 2.1. Sampling Events and Objectives**

Sampling Event	Schedule	Objective
Event 1	Prior to remediation <sup>a</sup>	Establish baseline conditions
Event 2	1 year post remedy	Interim sampling
Event 3	3 years post remedy	Interim sampling
Event 4	5 years post remedy	Interim/final sampling

Note:

(a) Schedule subject to securing access agreements with non-Carrier owned properties.

### 2.2 Target Species

As detailed in the NYSDEC-approved ICM WP (AECOM, 2021), crayfish and finfish will be included in the biota monitoring.

Crayfish biota monitoring will center on the collection of *Cambaridae* crayfish because they are a key indicator species and have been routinely used for biomonitoring (NYSDEC, 2021). *Cambaridae* crayfish were abundant in Sanders Creek based on a 2006 biota sampling event (Ensafe, 2007; AECOM, 2021). Crayfish have the ability to repopulate areas relatively quickly, and due to their limited foraging range provide information on location-specific exposures. Crayfish primarily feed on aquatic plants, macroinvertebrates, and small fish (Lui, 2013; Pappas, 2002; AECOM, 2021). Crayfish are also important prey for higher trophic-level wildlife and allow for the evaluation of risks through food chain exposures.



Crayfish from the *Cambaridae* family include multiple species that are present at the Site and surrounding area. Crayfish begin their life as fertilized eggs attached to the underside of the female's abdomen from early March to late May. After hatching, juvenile crayfish will undergo several molts before detaching from the female (Dunoyer, 2016; Lui, 2013; Pappas, 2002). Crayfish continue their growth through periodic molting, shedding their old exoskeleton and growing a new exoskeleton that hardens. Crayfish create burrows in the sediment for shelter. During molting, they will seek refuge under rocks, in burrows, or within wood debris (Dunoyer, 2016; Lui, 2013; Pappas, 2002). Medium-to-large adult crayfish are typically between 10 and 150 mm in length<sup>1</sup> (Bouchard, 2004; Lui, 2013; Pappas, 2002) and can live up to three to six years.<sup>2</sup>

Finfish will also be sampled for tissue analysis. A total of 64 species of fish are known to be present in streams throughout the Syracuse, NY region and have the potential of occurring at the Site (Ensafé, 2007). As part of a sampling event in November 2006, finfish samples were collected from three sampling locations at the Site<sup>3</sup> to determine PCB concentrations in fish (Figure 4 in Ensafé, 2007). During this sampling event, a total of 308 individual fish were captured using a backpack electro shocker and dip net. The collected fish belonged to the following seven species (abundance included as a percentage): creek chub (53.5%), longnose dace (28.9%), white sucker (8.7%), pumpkinseed sunfish (6.8%), fathead minnow (1.3%), largemouth bass (0.4%), and bullhead catfish (0.4%). Creek chub was the most common species collected during this sampling event, followed by longnose dace. Both species, along with white sucker and pumpkinseed sunfish were collected at all three sampling stations. The most commonly collected species, creek chub, was selected as the target species for residue analyses in the 2006 sampling event (Ensafé, 2007).

Given the abundance of creek chub collected from all sampling locations during the 2006 sampling event, creek chub is the proposed target finfish species in this BMP. However, at the discretion of the field sampler and based on the species composition at the time of sampling, different and/or additional fish species may be targeted. For example, longnose dace and creek chub are both freshwater minnow species of similar size known to be present at the Site. As result, longnose dace could be selected as an alternate to creek chub based on the observed relative abundance between both species at the time of sampling. Creek chub are ubiquitous minnows that inhabit streams and lakes, including headwaters and upland lakes, and are tolerant of degraded sites. The native range of this species extends through all of New York's mainland watersheds, but it is not present on Long Island (Carlson *et al.*, 2016). Typical adult creek chubs have total body lengths ranging from 12-18 cm and can live up to 3-8 years in the wild. These carnivorous fish consume plant matter, aquatic insects, small fish, amphibians, crayfish, and mollusks (Anderson, 2014). They are also prey for larger predatory fish, such as smallmouth bass and larger creek chubs. Creek chubs reach sexual maturity at the age of 3 years and mate from mid-spring to early summer. They are generally very mobile with an average maximum range of 130-195 m (Anderson, 2014).

## 2.2 Sampling Time, Location, and Method

NYSDEC (2021) recommends collecting macroinvertebrates between July and September using kick nets. Sampling during the spring is not recommended due to the high number of naidid worms present. A US EPA-recommended sampling time frame for crayfish was not identified. US EPA (2008) recommends fish

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<sup>1</sup> Body length is the distance from the tip of the rostrum to the tip of the telson (US EPA, 2000a).

<sup>2</sup> Rusty crayfish (*Orconectes rusticus*) are found in New York and can live to be 3- 4 years old in the wildlife (Pappas, 2002). Devil crawfish (*Cambarus diogenes*) are also found in the area and can live up to 3 years in the wild (Lui, 2013).

<sup>3</sup> Station 1 of the 2006 sampling was the area between Court Street and 300 feet downstream west of Court Street, which corresponds to a portion of Reach 6. Station 2 was the area between Thompson Road to Court Street, which corresponds to Reaches 3, 4, and 5. Station 3 is the area between Thompson Road and 800 feet upstream of the road, which corresponds to Reach 2.

tissue sampling during late summer to early fall when lipid content is typically the highest and lipid-soluble contaminants, such as PCBs, are most likely to accumulate in lipid-rich tissues. US EPA does not recommend fish sampling during the spring when lipid content is low, as well as around spawning season (2-4 weeks before and after) to reduce variability. Given that crayfish seek shelter in their burrows when the water temperature is cold, sampling success is expected to be greater at times of the year when the water temperature is higher (Dunoyer, 2016).

Based on the above, sampling will occur in late summer to early fall. Care will be taken to ensure that tissue data is collected under similar conditions between the different sampling events. All field activities will follow the Quality Assurance Project Plan (QAPP – see Attachment A), Field Sampling and Analysis Plan (FSAP), and Site-specific Health and Safety Plan (HASP) to be prepared prior to the field activities. Work on Carrier-owned and off-Site properties will be conducted in coordination with Carrier and property owners. Field activities will include Site meetings, mobilization, health and safety monitoring, and decontamination.

### **2.2.1 Number of Samples and Sample Nomenclature**

As per the ICM WP (AECOM, 2021), sample locations will correspond to each of the eight reaches described in Section 1.2 (Figure 1.2). Samples from Reach 0 will represent background conditions, while samples from Reaches 1-7 will represent Site conditions. The goal is to collect a minimum of 10 samples per location and a minimum of five of those samples will be finfish samples and up to five crayfish samples. If enough crayfish cannot be collected to make up five samples at a location, then forage fish will be used to make up the difference in sample number. If sufficient samples of the target finfish species (whatever finfish species is the most common at every sampling reach) cannot be collected to meet the sample number, then the next most common finfish species will be utilized to fill the sample number. Since the priority is to collect a minimum of five finfish samples within each reach, the sample number will be completed even if it is necessary to use composites of a species that is not collected at all of the other sample reaches. The sampling objective for each sampling event is to collect enough tissue biomass in each reach to support the analytical requirements (Belveg, 2019). In addition, quality assurance/quality control (QA/QC) samples will be collected. Specifically, every 20 samples collected in the field will require additional volume for a matrix spike (MS)/matrix spike duplicate (MSD) sample. Table 2.2 presents the number of samples to be collected from each reach for each sampling event.

**Table 2.2 Sample Objectives for Each Sampling Event**

Location	Number of Composite Samples <sup>a</sup>		Total
	Finfish	Crayfish	
Reach 0	≥5	≤5	≥10
Reach 1	≥5	≤5	≥10
Reach 2	≥5	≤5	≥10
Reach 3	≥5	≤5	≥10
Reach 4	≥5	≤5	≥10
Reach 5	≥5	≤5	≥10
Reach 6	≥5	≤5	≥10
Reach 7	≥5	≤5	≥10
<b>QA/QC Samples<sup>b</sup></b>	≥2	≤ 2	≥4
<b>Total</b>	<b>≥42</b>	<b>≤ 42</b>	<b>≥84</b>

Notes:

MS/MSD = Matrix Spike/Matrix Spike Duplicate; QA/QC = Quality Assurance/Quality Control.

(a) Finfish - a minimum of five composite samples will be collected from each reach. Crayfish - up to five composite samples will be collected from each reach.

(b) 1 MS/MSD for every 20 samples.

Composite tissue samples should be labeled to include the sampling year, species (two letter code for the various species: CR for crayfish, CC for creek chub), reach number, and composite letter. For example, the first composite of crayfish collected in 2024 from Reach 4 would be labeled as 24-CR-R4-CompA (Sample year-species-Reach#-composite letter). QA samples will be labeled as a separate sample number and will be collected in reaches with abundant captured individuals. Table 2.3 presents an example table of Sample IDs for composite samples to be collected during the 2024 sampling event.

**Table 2.3 Proposed Composite Sample ID Labels for the 2024 Baseline Biota Sampling Event**

Sample Year	Reach #	Composite Sample #	Crayfish <sup>a</sup> Composite Sample ID	Finfish <sup>b</sup> Composite Sample ID
2024	0	A	24-CR-R0-CompA	24-CC-R0-CompA
2024	0	B	24-CR-R0-CompB	24-CC-R0-CompB
2024	0	C	24-CR-R0-CompC	24-CC-R0-CompC
2024	0	D	24-CR-R0-CompD	24-CC-R0-CompD
2024	0	E	24-CR-R0-CompE	24-CC-R0-CompE
2024	1	A	24-CR-R1-CompA	24-CC-R1-CompA
2024	1	B	24-CR-R1-CompB	24-CC-R1-CompB
2024	1	C	24-CR-R1-CompC	24-CC-R1-CompC
2024	1	D	24-CR-R1-CompD	24-CC-R1-CompD
2024	1	E	24-CR-R1-CompE	24-CC-R1-CompE
2024	2	A	24-CR-R2-CompA	24-CC-R2-CompA
2024	2	B	24-CR-R2-CompB	24-CC-R2-CompB
2024	2	C	24-CR-R2-CompC	24-CC-R2-CompC
2024	2	D	24-CR-R2-CompD	24-CC-R2-CompD
2024	2	E	24-CR-R2-CompE	24-CC-R2-CompE
2024	3	A	24-CR-R3-CompA	24-CC-R3-CompA
2024	3	B	24-CR-R3-CompB	24-CC-R3-CompB
2024	3	C	24-CR-R3-CompC	24-CC-R3-CompC
2024	3	D	24-CR-R3-CompD	24-CC-R3-CompD
2024	3	E	24-CR-R3-CompE	24-CC-R3-CompE
2024	4	A	24-CR-R4-CompA	24-CC-R4-CompA
2024	4	B	24-CR-R4-CompB	24-CC-R4-CompB
2024	4	C	24-CR-R4-CompC	24-CC-R4-CompC
2024	4	D	24-CR-R4-CompD	24-CC-R4-CompD
2024	4	E	24-CR-R4-CompE	24-CC-R4-CompE
2024	5	A	24-CR-R5-CompA	24-CC-R5-CompA
2024	5	B	24-CR-R5-CompB	24-CC-R5-CompB
2024	5	C	24-CR-R5-CompC	24-CC-R5-CompC
2024	5	D	24-CR-R5-CompD	24-CC-R5-CompD
2024	5	E	24-CR-R5-CompE	24-CC-R5-CompE
2024	6	A	24-CR-R6-CompA	24-CC-R6-CompA
2024	6	B	24-CR-R6-CompB	24-CC-R6-CompB
2024	6	C	24-CR-R6-CompC	24-CC-R6-CompC
2024	6	D	24-CR-R6-CompD	24-CC-R6-CompD
2024	6	E	24-CR-R6-CompE	24-CC-R6-CompE
2024	7	A	24-CR-R7-CompA	24-CC-R7-CompA
2024	7	B	24-CR-R7-CompB	24-CC-R7-CompB
2024	7	C	24-CR-R7-CompC	24-CC-R7-CompC
2024	7	D	24-CR-R7-CompD	24-CC-R7-CompD
2024	7	E	24-CR-R7-CompE	24-CC-R7-CompE

**Notes:**

(a) For crayfish, all composite sample IDs will have the same two letter species code of CR for crayfish. Each individual crayfish within a composite sample will be identified as shown in Table 2.4.

(b) For finfish, the composite sample IDs will have the same two letter species code of CC for creek chub. Each individual finfish within a composite sample will be identified as shown in Table 2.4. At the discretion of the field sampler and based on the species composition during sampling, different and/or additional fish species may be targeted. Any fish composite samples that are collected for different finfish species will follow the same sample ID convention (*i.e.*, WS = White Sucker; LD = Longnose Dace).

## 2.2.2 Sampling Method

Sampling for crayfish and finfish will be conducted using a similar method for the background and Site. Within each reach, the following procedures will be followed:

1. Within each reach, a location and sampling method (*i.e.*, electro fishing, kick net, seine net, hand collection, and baited traps)<sup>4</sup> will be selected based on field conditions. Locations and sampling methods may be determined during a separate field event prior to sampling.
2. Within each reach, the sampler will record field notes regarding the sampling date/time, weather conditions, description of the sampling area/locations including substrate, the presence/absence of wildlife. A picture of the sampling location and surrounding environment will be collected. An example field data sheet that NYSDEC (2021) uses for biomonitoring is provided in Attachment B.
3. Prior to sampling within a reach, a surface water measurement will be collected using a water quality meter, while avoiding disturbing the sediment, and recorded onto the field data sheet (Attachment B) or electronically logged. Water temperature, specific conductivity, turbidity, dissolved oxygen, oxidation and reduction potential (ORP), and pH will be measured at each sample station where samples will be collected. Water depth, presence of vegetation, and rate of stream flow at the sampling location will also be documented.
4. Once field measurements and visual inspections are recorded, samples will be collected using the biota sampling method identified under step 1. Kick net sampling is expected to be the default method for crayfish sampling, whereas electro fishing is expected to be the default method for the collection of finfish. As per NYSDEC (2021) guidance, the ideal sampling location for kick net sampling has a water depth of at least 1 meter and a current speed of  $\geq 40$  cm/sec. Sampling using kick net requires laying a net downstream of the sampling area and then disturbing the substrate to dislodge macroinvertebrates from their habitat to be swept into the net by the current. Electro fishing will be conducted using a backpack electro shocker or equivalent that is operated in an upstream direction with a second person collecting shocked fish by using dip nets. A combination of sampling methods may be used to ensure adequate sample volume. Similarly, multiple locations within a reach may be sampled to ensure adequate sample volume. If multiple locations are sampled and those locations are not proximate to one another, then additional data will be collected at each locations consistent with steps 2 and 3.
5. Captured animals from each sampling attempt will be combined into a bucket or deep walled pail. The sampler will note the number of individuals caught.
6. To the extent logistically possible, captured animals will be retained until collections of all reaches are completed to be able to identify common species among all the sample reach locations and inform compositing and processing samples for laboratory submission. Captured animals will be rinsed with creek water prior to collecting species, size, and observational data. A field identification key for expected crayfish in New York will be used by a freshwater macroinvertebrate taxonomist to identify the crayfish specimens. All captured animals will be identified at the species level, and recorded. Crayfish and finfish will be weighed using a digital scale with 0.1 g accuracy, sexed if possible, and measured using a caliper or a fish measuring board for larger fish with 1 mm accuracy. The maximum body length for a crayfish is the length between the rostrum and telson (US EPA, 2000a). For finfish, the maximum body length is the distance between the anterior-most part of the fish to the tip of the longest caudal fin ray (US EPA, 2000a). Information regarding the activity level and appearance will be noted on a field sheet similar to the

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<sup>4</sup> In the years that follow the initial sampling event, the field effort will focus on the most successful collection method(s).

example presented in Table 2.4. Any abnormalities or discolorations will be recorded and photographed. For finfish, any abnormalities, such as fin erosions, skin ulcers, skeletal anomalies, tumors, or the presence of fish parasites, will be noted and photographed (US EPA, 2000a). Crayfish with cracked or damaged exoskeletons during the sampling process or animals that are not fully intact will be noted and discarded (US EPA, 2000a).

Refer to the laboratory preparation of fish tissue standard operating procedure (SOP) in the QAPP (Attachment A) for how the samples will be processed. The process will be the same for crayfish.

7. Captured individuals will be sorted by species and size into small, medium, and large individuals to ensure composite samples are composed of similarly sized individuals to minimize variability. When selecting samples for lab analysis, preference will be given to composites made up of medium or larger individuals of similar size as PCBs bioaccumulate over time. Within each reach, a minimum of 10 composite samples (minimum of 50 g composite samples<sup>5</sup>) will be prepared with at least five individuals per composite sample, as described in Section 2.2.1. US EPA (2008) recommends a minimum of five individuals per composite to determine that post remedy concentrations have decreased by at least 50% with a confidence level of 90-95%. Reaches that have abundant individuals captured will be used for QC samples. Samples from which MS/MSD samples will be analyzed should include three times the minimum weight requirement (minimum of 150 g composite sample). Once the tissue weight requirement is reached, individuals selected for composite analysis will be photographed together, wrapped individually in tin foil and labeled (see Table 2.3 for recommended sample nomenclature), bagged together, and placed on ice to maintain a 4 °C temperature (US EPA 2000a). Field notes will indicate which individuals were composited together for analysis (See Table 2.4). All remaining individuals that are not selected will be noted in the field notes and released back into the water.

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<sup>5</sup> Larger individuals that meet the minimum 50 g sample weight requirement will still be composited with similar size species for analysis in order for these samples to be compared to other composite samples.

**Table 2.4 Proposed Individual Sample ID Labels and Field Notes for the 2024 Baseline Biota Sampling Event (example)**

Reach	Sampling Method <sup>a</sup>	Date	Species	Individual Sample ID <sup>b</sup>	Weight (g)	Length (mm)	Relative Size	Abnormalities	Activity	Composite Sample ID
R4	KN	7/8/24	Crayfish	24-CR-R4-1	13.0	130	Large	None	Active	24-CR-R4-Comp A
R4	KN	7/8/24	Crayfish	24-CR-R4-2	11.9	120	Large	None	Active	24-CR-R4-Comp A
R4	KN	7/8/24	Crayfish	24-CR-R4-3	12.6	128	Large	Slight discoloration on left claw	Active	24-CR-R4-Comp A
R4	KN	7/8/24	Crayfish	24-CR-R4-4	14.2	140	Large	None	Slow	24-CR-R4-Comp A
R4	KN	7/8/24	Crayfish	24-CR-R4-5	12.2	126	Large	None	Active	24-CR-R4-Comp A
R4	KN	7/8/24	Crayfish	24-CR-R4-6	9.6	110	Medium	None	Active	24-CR-R4-Comp B
R4	KN	7/8/24	Crayfish	24-CR-R4-7	9.5	112	Medium	None	Active	24-CR-R4-Comp B
R4	KN	7/8/24	Crayfish	24-CR-R4-8	13.7	133	Large	Cracked	Active	Discarded
R4	KN	7/8/24	Bullfrog	N/A	N/A	N/A	Large	None	Active	Released
R4	KN	7/8/24	Crayfish	24-CR-R4-10	10.3	114	Medium	None	Active	24-CR-R4-Comp B
R4	KN	7/8/24	Crayfish	24-CR-R4-11	8.2	107	Medium	None	Active	24-CR-R4-Comp B
R4	KN	7/8/24	Crayfish	24-CR-R4-12	8.7	110	Medium	None	Active	24-CR-R4-Comp B
R4	EF	7/8/24	Creek chub	24-CC-R4-1	1.9	5	Small	Torn dorsal fin, parasites observed	Slow	24-CC-R4-Comp A
R4	EF	7/8/24	Creek chub	24-CC-R4-2	2.0	5	Small	None	Active	24-CC-R4-Comp A
R4	EF	7/8/24	Creek chub	24-CC-R4-3	2.2	5.2	Small	None	Active	24-CC-R4-Comp A
R4	EF	7/8/24	Creek chub	24-CC-R4-4	2.4	5.5	Small	None	Active	24-CC-R4-Comp A
R4	EF	7/8/24	Creek chub	24-CC-R4-5	1.6	4.8	Small	None	Active	24-CC-R4-Comp A
R4	EF	7/8/24	Catfish	24-CF-R4-1	N/A	N/A	Medium	Pea size tumor near mouth	Active	Released
R4	EF	7/8/24	White sucker	24-WS-R4-1	N/A	N/A	Medium	None	Active	Released

Notes:

N/A = Not Applicable.

(a) Sampling methods will be identified using a two-letter acronym, *e.g.*, KN = Kick Net; EF = Electro Fishing.

(b) Individual IDs will consist of: sampling year, a two-letter code based on species (CR = Crayfish; CC = Creek Chub; WS = White Sucker; LD = Longnose Dace; CF = Catfish), the reach number, and the individual sample number. Five individual IDs will be assigned to create a composite sample as shown in the last column (*e.g.*, 24-CR-R4-Comp A is a crayfish composite collected in Reach 4 during 2024 and consists of individual samples 24-CR-R4-1 through 24-CR-R4-5).



### 2.2.3 Decontamination Procedures

Prior to moving to a new reach for sampling, all shared materials (*e.g.*, nets, traps, calipers, fish measuring boards, scales) will be rinsed with creek water to minimize cross contamination between reaches. All used disposable materials (*i.e.*, safety gloves, foil) will be discarded properly.

## 2.4 Laboratory Analysis, Data Deliverables, and Data Validation

The field samples along with QC samples (MS/MSD) and temperature blanks will be placed in coolers with ample space to avoid crushing crayfish. Samples will need to be shipped within 24 hours of sampling if preserved with wet ice or within 48 hours if preserved with dry ice (US EPA, 2000a). All samples will be sent to a qualified laboratory/ies based upon credentials for the required analyses.

Whole body tissue samples will be analyzed for individual PCB aroclors (Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260) using US EPA Method 8082 and a minimum reporting limit of 0.09 microgram per gram ( $\mu\text{g/g}$ ) (NYSDEC, 2021). In addition, samples will be analyzed for [lipids, as described in the SGS SOP "Lipids in Tissue" \(see Attachment A\)](#)~~lipids using Method 3540C or 3545C, and percent moisture (AECOM, 2021).~~ Since PCBs bioaccumulate in the lipid, the amount of lipid in the samples will aid in calculating the lipid-normalized concentration to be used in the data analysis, further discussed below. The laboratory will provide tabulated results of all samples in electronic data deliverables. The laboratory will also provide additional QC information such as the laboratory volume for analysis for method blanks, instrument blanks, laboratory duplicates, and laboratory control samples. Summaries for QC data and associated raw data generated in support of the reported results (including instrument calibration) will be included in the laboratory reports and reviewed during data validation.

All analyzed data will undergo data validation. US EPA's "Guidance for Data Quality Assessment: Practical Methods for Data Analysis" (US EPA, 2000b) addresses data quality criteria and performance specifications for decision making. All data received from the analytical laboratories will be reviewed and validated according to the most current versions of the US EPA Region II data validation SOPs, US EPA Contract Laboratory Program National Functional Guidelines, and/or QC limits established within the QAPP or laboratory-derived acceptance limits. The following information will be reviewed, as applicable:

- Data package completeness
- Case narrative
- Samples receipt, condition, and holding time
- Mass spectrometer tuning
- Instrument calibrations (initial calibrations and continuing calibration verification)
- Internal standard response (for analysis by mass spectrometer only)
- Blank contamination (Laboratory) and Field Blanks (if applicable)
- Laboratory control samples and/or matrix spike blanks
- Surrogate spike or deuterated monitoring compound recoveries
- Matrix spike and matrix spike duplicate recoveries
- Analyte identification and quantitation



As part of the data validation, data qualification flags may be applied to some sample results when considering the data usability (data quality, data qualification, data preparation, reporting limits, and data adequacy):

U	The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
C	This qualifier applies to results when the identification has been confirmed by Gas Chromatography/Mass Spectrometer (GC/MS).
X	This qualifier applies to results when GC/MS analysis was attempted but unsuccessful.

Data qualifiers applied during the data validation or reported by the laboratory will be included in the final dataset. Data quality interpretations will be summarized in data validation reports and reviewed before data are finalized.

Following data validation, all data will undergo a data usability assessment. The following issues will be considered in the data usability assessment: data quality, data qualifications, data preparation, reporting limits, and data adequacy. All rejected data ("R" qualifier), as assigned by the laboratory or data validator, are anticipated to be excluded.

## 3 Data Analysis and Reporting

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All field and validated analytical data will be compiled into a database. This section discusses the type of data analyses that will be conducted, describes the required content of the biomonitoring reports, and describes approaches that may be used to adjust BMP for future sampling events.

### 3.1 Data Evaluation Methods

Two different types of data will be collected during implementation of the BMP: field data and analytical data. Field data consists of data collected at the time of sampling to help understand field conditions and assist with the interpretation of the analytical results. Analytical data provide information on the PCB tissue residue concentrations and lipid content of the biota tissue samples collected. The evaluations for each type of data are presented below.

#### 3.1.1 Field Data

During field sampling, the following information will be recorded, as discussed in Section 2.2, and used to supplement the finding from the analytical results.

- Sampling day and time, weather
- Sampling location information
- Water quality parameters
- Number of sampling attempts by sampling method
- Number of individuals captured for each sampling attempt
- Length and weight of individuals (including those not shipped for analysis)
- Observations of activity level and abnormalities

#### 3.1.2 Analytical Data

Laboratory PCB data will be presented as individual aroclors. Therefore, the aroclors will be summed to calculate total PCB concentrations. In these calculations, detected concentrations of each aroclor will be summed. If an aroclor is less than the reporting limit, then a concentration of 0 will be used for that aroclor in the summation. In cases where all the aroclors are not detected, the maximum analytical reporting limit among the different aroclors will be used to represent the sample. This approach is common practice and avoids inflating the total PCB concentrations by summing individual aroclor reporting limits.

PCBs bioaccumulate in the lipids of animal tissue and consequently, samples with high lipid content may have higher PCB concentrations. Therefore, sample results will also be adjusted to calculate lipid normalized total PCB tissue concentrations using the following equation:

$$C_{\text{lipid-normalized}} = \frac{C_{\text{tissue}}}{\% \text{lipid}}$$

where:

$C_{\text{lipid-normalized}}$  = Lipid-normalized total PCB concentration (µg/g-lipid);

$C_{\text{tissue}}$  = Total body PCB concentration for a given sample (µg/g); and

%lipid = Percentage lipid concentration for a given composite tissue sample.

The individual aroclor, calculated total PCB, and lipid-normalized total PCB tissue concentrations will be used in the data analyses.

### 3.1.3 Data Analyses

For each sampling event, the following metrics will be calculated and tabulated separately for crayfish and finfish:

- The length and frequency distribution among individuals of each target species captured from each reach (NYSDEC, 2013).
- Summary statistics of total PCB concentrations, %lipid, and lipid-normalized total PCB concentrations by reach (*e.g.*, number of samples, number detected, minimum detected, average,<sup>6</sup> maximum detected, number of samples exceeding RG).
- Aroclor contributions by reach (% contribution of different aroclors to the overall tissue concentrations).

These data will be used to identify temporal (*e.g.*, using graphs) and spatial (*e.g.*, using maps) trends and to evaluate potential differences between crayfish and finfish. The data collected from individual reaches will be compared to samples collected from the background reach by species to identify statistically significant differences using appropriate quantitative statistical methods informed by the data distribution (*e.g.*, parametric, non-parametric). In addition, tissue concentration data collected from all reaches, including from the background reach, will be compared to the RG. Starting from the 2<sup>nd</sup> sampling event, statistical analyses will also be conducted to evaluate differences between sampling events and identify potential temporal trends in the data. Finally, the data will be analyzed to identify any potential correlations between PCB tissue concentration and various other parameters such as physical characteristics of the individuals (*i.e.*, length or weight) and species.

## 3.2 Reporting

Biomonitoring reports will be submitted to NYSDEC following each sampling event by December 15<sup>th</sup> of the same year. The reports will describe the sampling event, including any potential deviations from the BMP and will generally follow the report outline suggested in NYSDEC's "Procedures for Collection and Preparation of Aquatic Biota for Contaminant Analysis (Draft)" (2002). The report will include all raw data (including field notes and pictures) and data analyses as described in Section 3.1.3. In addition, summary data will be provided in a table with defined detection limits (NYSDEC, 2002). Where relevant, the biomonitoring report will also make recommendations for any potential modifications to the BMP for the next sampling event. Following the 4<sup>th</sup> sampling event (5 years post remedy), the biomonitoring report will make a recommendation on the need for further biomonitoring or not, based on a demonstration of a predictable declining trend in PCB tissue concentrations (AECOM, 2021).

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<sup>6</sup> Average concentrations will be calculated using half the reporting limit of samples that are not detected.

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# Attachment A

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## Quality Assurance Project Plan

# Attachment B

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## Example of Field Data Sheet for the Collection of Biological Monitoring Data

## 18.1 FIELD SHEET FOR THE COLLECTION OF BIOLOGICAL MONITORING DATA

New York State Department of Environmental Conservation		
<b>FIELD DATA SHEET</b>		4-letter identifier _____
STREAM / STATION _____		CITY/TOWN/VILLAGE _____
DATE _____		ROUTE NO. _____
TIME : ARRIVAL _____		UNIQUE FEATURES _____
DEPARTURE _____		
COLLECTORS _____		SITE TYPE: <b>RIBS SCREENING</b> _____
LATITUDE\ LONGITUDE _____		<b>RIBS INTENSIVE</b> _____
		<b>MULTI-SITE SURVEY</b> _____

PHYSICAL AND CHEMICAL PARAMETERS	
DEPTH (meters) _____	TEMPERATURE (°C) _____
WIDTH (meters) _____	SPEC. CONDUCT. (µmhos) _____
CURRENT (cm/sec) _____	pH _____
CANOPY (%) 0 10 25 50 75 90 100 _____	D.O. (mg/l; ppm) _____ / sat. % _____
EMBEDDEDNESS (%) _____	SALINITY _____
	SECCHI DISK _____
SUBSTRATE: (%) Rock _____ Rubble _____ Gravel _____ Sand _____ Silt _____	
AQUATIC VEGETATION: Algae (suspended) _____ Algae (filamentous) _____	
Diatoms (on rocks) (%) _____ Thickness _____ Macrophytes (%) _____	

TYPE OF SAMPLE	OCCURRENCE OF MACROINVERTEBRATES
Multiplate _____	Ephemeroptera _____ Chironomidae _____
Kick, sample retained _____	Plecoptera _____ Simuliidae _____
Kick, sample not retained _____	Trichoptera _____ Decapoda _____
Ponar _____	Coleoptera _____ Gammaridae _____
Organisms for toxics _____	Megaleoptera _____ Mollusca _____
Photograph _____	Odonata _____ Oligochaeta _____
Microtox sample _____	Other _____
Other _____	

**FAUNAL CONDITION:** very good \_\_\_\_\_ good \_\_\_\_\_ poor \_\_\_\_\_ very poor \_\_\_\_\_

**Habitat:** adequate \_\_\_\_\_ impoundment \_\_\_\_\_ headwater \_\_\_\_\_ sand \_\_\_\_\_ gravel \_\_\_\_\_  
bedrock \_\_\_\_\_ low flow \_\_\_\_\_ other \_\_\_\_\_

**Landuse:** Residential \_\_\_\_\_ Agriculture \_\_\_\_\_ Commercial \_\_\_\_\_ Industrial \_\_\_\_\_  
Forest \_\_\_\_\_ Recreational \_\_\_\_\_ Wetland \_\_\_\_\_

NOTES, OBSERVATIONS	RIBS SCREENING SITE CRITERIA
	1. Mayflies (3 or more taxa) _____
	2. Stoneflies (present) _____
	3. Caddisflies (less abund. than mayflies) _____
	4. Beetles (present) _____
	5. Worms (sparse or absent) _____



## **Appendix B.2**

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### **Field Sampling and Analysis Plan (FSAP)**

# Field Sampling and Analysis Plan

## Sanders Creek Site Thompson Road, Syracuse, NY

Prepared for  
Carrier Corporation  
Thompson Road  
Syracuse, NY 13206

October 3, 2024



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# Abbreviations

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AECOM	AECOM Technical Services, Inc.
BMP	Biota Monitoring Plan
BMR	Biomonitoring Report
CC	Creek Chub
CF	Catfish
CR	Crayfish
FSAP	Field Sampling and Analysis Plan
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
GLEC	Great Lakes Environmental Center
GNSS	Global Navigation Satellite System
ID	Identification
IDW	Investigation-derived Waste
LD	Longnose Dace
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NYSDEC	New York State Department of Environmental Conservation
PCB	Polychlorinated Biphenyls
QAPP	Quality Assurance Project Plan
QC	Quality Control
SGS	SGS North America Inc.
SOP	Standard Operating Procedures
TSDF	Treatment, Storage, or Disposal Facility
WS	White Sucker

# 1 Introduction

---

Gradient has prepared this Field Sampling and Analysis Plan (FSAP) in support of the December 18, 2023 Biota Monitoring Plan (BMP) for the Sander Creek Site (Gradient, 2023), approved by the New York State Department of Environmental Conservation (NYSDEC) on August 5, 2024. Sanders Creek is located in the town of DeWitt, Onondaga County, New York. The portion of Sanders Creek beginning north of Carrier's Thompson Road facility (Carrier facility) and continuing downstream to the confluence with the South Branch of Ley Creek is considered the Sanders Creek Site.

This FSAP describes the data collection and analysis activities that will be performed to monitor the performance and effectiveness of a planned Remedial Action in a section of Sanders Creek. The Quality Assurance Project Plan (QAPP) for the planned field data collection and analysis was included as Attachment A to the BMP (Gradient, 2023). Standard operating procedures (SOPs) for the planned field data collection and analysis activities not included in Attachment A to the BMP<sup>1</sup> are presented in Attachment A to this FSAP.

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<sup>1</sup> The QAPP included SOPs related to the preparation of fish tissue samples, the procedures for extraction and determination of polychlorinated biphenyls (PCBs) in samples by Soxhlet extraction and gas chromatography (GC), and the determination of lipids in tissue.

## 2 Field Sample Collection and Analyses

---

### 2.1 Sampling Objectives and Summary

Crayfish and finfish tissue samples will be collected from eight reaches within the Site, as described in Section 1.2 of the BMP (Gradient, 2023) and summarized in Table 2.1. Samples from an upgradient reach, Reach 0, will be used to define background conditions, while samples collected from Reaches 1-7 will represent Site conditions.

Based on discussions with the field sampling team of Great Lakes Environmental Center (GLEC), it was deemed infeasible to retain all captured animals until collections at all reaches are completed given that too many animals would not survive captivity for that long. Therefore, instead of retaining all captured animals until collections of all reaches are completed, as discussed in the BMP (Gradient, 2023), Reach 0, and potentially one or two other reaches, will be used to identify common finfish species that will be targeted at all reaches.

Table 2.2 summarizes the sampling and analysis objectives. Table 2.3 provides a sampling summary. Table 4 presents an example table of Sample IDs for composite samples to be collected during the 2024 sampling event. Table 2.5 presents an example table to be used for individual Sample Identifications (IDs) and field notes. Details on sampling frequency, target species, and sampling time, location, and method are included in Sections 2.1 through 2.3 of the BMP, respectively. More information on the specific chemical analyses, including the analytical methods and detection limits, is provided in the QAPP, included as Attachment A to the BMP (Gradient, 2023).

Data recording and documentation, sample preservation, handling and shipping, and data validation and reporting are discussed in Sections 3 through 6 of this FSAP.

**Table 2.1 Sanders Creek Site Biomonitoring Plan: Sampling Objectives**

Media	Sampling and Analysis Objective	Characterization
Finfish and crayfish tissue	Evaluate tissue concentrations of PCBs	Compare tissue PCB concentrations between target species, between the Site and background, and against the remedial goal of 0.1 mg/kg

**Table 2.2 Sanders Creek Site Biomonitoring Plan: Sampling Summary**

Location	Number of Composite Tissue Samples <sup>a</sup>		Total
	Finfish	Crayfish	
Reach 0	≥5	≤5	≥10
Reach 1	≥5	≤5	≥10
Reach 2	≥5	≤5	≥10
Reach 3	≥5	≤5	≥10
Reach 4	≥5	≤5	≥10
Reach 5	≥5	≤5	≥10
Reach 6	≥5	≤5	≥10
Reach 7	≥5	≤5	≥10
QA/QC Samples <sup>b</sup>	≥2	≤2	≥4
<b>Total</b>	<b>≥42</b>	<b>≤42</b>	<b>≥84</b>

Notes:

MS/MSD = Matrix Spike/Matrix Spike Duplicate; QA/QC = Quality Assurance/Quality Control; PCBs = Polychlorinated Biphenyls; mg/kg = Milligram per Kilogram.

(a) Finfish - a minimum of five composite samples will be collected from each reach. Crayfish - up to five composite samples will be collected from each reach.

(b) 1 MS/MSD for every 20 samples.

**Table 2.3 Sanders Creek Site Biomonitoring Plan: Analytes/Parameters by Sample Type**

Analyte/Parameter	Tissue	Surface Water
PCBs <sup>a</sup>	X	
Lipids <sup>b</sup>	X	
Moisture Content <sup>c</sup>	X	
pH <sup>d</sup>		X
Specific Conductance <sup>d</sup>		X
Dissolved Oxygen <sup>d</sup>		X
Oxidation and Reduction Potential (ORP) <sup>d</sup>		X
Temperature <sup>d</sup>		X
Turbidity <sup>d</sup>		X

Notes:

(a) Whole body tissue samples will be analyzed for individual PCB aroclors (Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260) using US EPA Method 8082 and a minimum reporting limit of 0.09 microgram per gram (µg/g).

(b) Whole body tissue samples will be analyzed for lipids, as described in the SGS SOP "Lipids in Tissue" included in Attachment A of the BMP (Gradient, 2023).

(c) Moisture content will be analyzed using Method SM18 2540G.

(d) Water quality parameters will be recorded using a water quality meter, YSI PRO DSS Sonde.



**Table 2.4 Sanders Creek Site Biomonitoring Plan: Composite Sample ID Labels (Example)**

Sample Year	Reach #	Composite Sample #	Crayfish <sup>a</sup> Composite Sample ID	Finfish <sup>b</sup> Composite Sample ID
2024	0	A	24-CR-R0-CompA	24-CC-R0-CompA
2024	0	B	24-CR-R0-CompB	24-CC-R0-CompB
2024	0	C	24-CR-R0-CompC	24-CC-R0-CompC
2024	0	D	24-CR-R0-CompD	24-CC-R0-CompD
2024	0	E	24-CR-R0-CompE	24-CC-R0-CompE
2024	1	A	24-CR-R1-CompA	24-CC-R1-CompA
2024	1	B	24-CR-R1-CompB	24-CC-R1-CompB
2024	1	C	24-CR-R1-CompC	24-CC-R1-CompC
2024	1	D	24-CR-R1-CompD	24-CC-R1-CompD
2024	1	E	24-CR-R1-CompE	24-CC-R1-CompE
2024	2	A	24-CR-R2-CompA	24-CC-R2-CompA
2024	2	B	24-CR-R2-CompB	24-CC-R2-CompB
2024	2	C	24-CR-R2-CompC	24-CC-R2-CompC
2024	2	D	24-CR-R2-CompD	24-CC-R2-CompD
2024	2	E	24-CR-R2-CompE	24-CC-R2-CompE
2024	3	A	24-CR-R3-CompA	24-CC-R3-CompA
2024	3	B	24-CR-R3-CompB	24-CC-R3-CompB
2024	3	C	24-CR-R3-CompC	24-CC-R3-CompC
2024	3	D	24-CR-R3-CompD	24-CC-R3-CompD
2024	3	E	24-CR-R3-CompE	24-CC-R3-CompE
2024	4	A	24-CR-R4-CompA	24-CC-R4-CompA
2024	4	B	24-CR-R4-CompB	24-CC-R4-CompB
2024	4	C	24-CR-R4-CompC	24-CC-R4-CompC
2024	4	D	24-CR-R4-CompD	24-CC-R4-CompD
2024	4	E	24-CR-R4-CompE	24-CC-R4-CompE
2024	5	A	24-CR-R5-CompA	24-CC-R5-CompA
2024	5	B	24-CR-R5-CompB	24-CC-R5-CompB
2024	5	C	24-CR-R5-CompC	24-CC-R5-CompC
2024	5	D	24-CR-R5-CompD	24-CC-R5-CompD
2024	5	E	24-CR-R5-CompE	24-CC-R5-CompE
2024	6	A	24-CR-R6-CompA	24-CC-R6-CompA
2024	6	B	24-CR-R6-CompB	24-CC-R6-CompB
2024	6	C	24-CR-R6-CompC	24-CC-R6-CompC
2024	6	D	24-CR-R6-CompD	24-CC-R6-CompD
2024	6	E	24-CR-R6-CompE	24-CC-R6-CompE
2024	7	A	24-CR-R7-CompA	24-CC-R7-CompA
2024	7	B	24-CR-R7-CompB	24-CC-R7-CompB
2024	7	C	24-CR-R7-CompC	24-CC-R7-CompC
2024	7	D	24-CR-R7-CompD	24-CC-R7-CompD
2024	7	E	24-CR-R7-CompE	24-CC-R7-CompE

Notes:

(a) For crayfish, all composite sample IDs will have the same two letter species code of CR for crayfish. Each individual crayfish within a composite sample will be identified as shown in Table 2.5.

(b) For finfish, the composite sample IDs will have the same two letter species code of CC for creek chub. Each individual finfish within a composite sample will be identified as shown in Table 2.5. At the discretion of the field sampler and based on the species composition during sampling, different and/or additional fish species may be targeted. Any fish composite samples that are collected for different finfish species will follow the same sample ID convention (*e.g.*, WS = White Sucker; LD = Longnose Dace).

**Table 2.5 Sanders Creek Site Biomonitoring Plan: Individual Sample ID Labels and Field Notes (Example)**

Reach	Sampling Method <sup>a</sup>	Date	Species	Individual Sample ID <sup>b</sup>	Weight (g)	Length (mm)	Relative Size	Abnormalities	Activity	Composite Sample ID
R4	KN	7/8/24	Crayfish	24-CR-R4-1	13.0	130	Large	None	Active	24-CR-R4-Comp A
R4	KN	7/8/24	Crayfish	24-CR-R4-2	11.9	120	Large	None	Active	24-CR-R4-Comp A
R4	KN	7/8/24	Crayfish	24-CR-R4-3	12.6	128	Large	Slight discoloration on left claw	Active	24-CR-R4-Comp A
R4	KN	7/8/24	Crayfish	24-CR-R4-4	14.2	140	Large	None	Slow	24-CR-R4-Comp A
R4	KN	7/8/24	Crayfish	24-CR-R4-5	12.2	126	Large	None	Active	24-CR-R4-Comp A
R4	KN	7/8/24	Crayfish	24-CR-R4-6	9.6	110	Medium	None	Active	24-CR-R4-Comp B
R4	KN	7/8/24	Crayfish	24-CR-R4-7	9.5	112	Medium	None	Active	24-CR-R4-Comp B
R4	KN	7/8/24	Crayfish	24-CR-R4-8	13.7	133	Large	Cracked	Active	Discarded
R4	KN	7/8/24	Bullfrog	N/A	N/A	N/A	Large	None	Active	Released
R4	KN	7/8/24	Crayfish	24-CR-R4-10	10.3	114	Medium	None	Active	24-CR-R4-Comp B
R4	KN	7/8/24	Crayfish	24-CR-R4-11	8.2	107	Medium	None	Active	24-CR-R4-Comp B
R4	KN	7/8/24	Crayfish	24-CR-R4-12	8.7	110	Medium	None	Active	24-CR-R4-Comp B
R4	EF	7/8/24	Creek chub	24-CC-R4-1	1.9	5	Small	Torn dorsal fin, parasites observed	Slow	24-CC-R4-Comp A
R4	EF	7/8/24	Creek chub	24-CC-R4-2	2.0	5	Small	None	Active	24-CC-R4-Comp A
R4	EF	7/8/24	Creek chub	24-CC-R4-3	2.2	5.2	Small	None	Active	24-CC-R4-Comp A
R4	EF	7/8/24	Creek chub	24-CC-R4-4	2.4	5.5	Small	None	Active	24-CC-R4-Comp A
R4	EF	7/8/24	Creek chub	24-CC-R4-5	1.6	4.8	Small	None	Active	24-CC-R4-Comp A
R4	EF	7/8/24	Catfish	24-CF-R4-1	N/A	N/A	Medium	Pea size tumor near mouth	Active	Released
R4	EF	7/8/24	White sucker	24-WS-R4-1	N/A	N/A	Medium	None	Active	Released

Notes:

N/A = Not Applicable.

(a) Sampling methods will be identified using a two-letter acronym, *e.g.*, KN = Kick Net; EF = Electro Fishing.

(b) Individual IDs will consist of sampling year, a two-letter code based on species (CR = Crayfish; CC = Creek Chub; WS = White Sucker; LD = Longnose Dace; CF = Catfish), the reach number, and the individual sample number. Five individual IDs will be assigned to create a composite sample as shown in the last column (*e.g.*, 24-CR-R4-Comp A is a crayfish composite collected in Reach 4 during 2024 and consists of individual samples 24-CR-R4-1 through 24-CR-R4-5).

## 2.2 Site Mobilization and Demobilization

Gradient, GLEC, and AECOM Technical Services, Inc. (AECOM) will identify and provide necessary and qualified personnel, equipment, supplies, and other materials for mobilization and demobilization to and from the site, for the purpose of field sampling. Equipment mobilization also includes purchasing materials before and during field sampling, preparing materials for shipping, and shipping materials to the site. A complete inventory of available equipment and supplies will be conducted before initiating the field activities, and any additional required equipment or supplies will be obtained before or during field sampling.

Equipment and supplies necessary to support the field activities include sampling equipment, sample containers, health and safety materials, decontamination equipment and supplies, and general field supplies. Shipping containers (*e.g.*, coolers) will be supplied by SGS North America Inc. (SGS). Specific information on shipping containers is provided in the QAPP, included as Attachment A to the BMP (Gradient, 2023). All shipping containers will be pre-cleaned by the supplier and traceable to the facility that performed the cleaning. Sample containers (*e.g.*, Ziploc bags), will be provided by GLEC.

Field sampling is proposed during early October.

## 3 Data Recording and Documentation

---

Finfish and crayfish sampling will be conducted in accordance with the procedures described in Section 2.2.2 of the BMP (Gradient, 2023). Field sampling will be documented to ensure data validity and facilitate analysis and evaluation.

### 3.1 Field Sample Identification Codes

A field sample ID code provides a way of tracing the sample from the location in the field through laboratory analysis and finally to data evaluation and presentation. It is essential that the integrity of the field sample ID code is not compromised. Each sample will be assigned a unique field sample ID code, and this field sample ID code will contain information that is traceable to the location where the sample was collected and other information appropriate to that sample (see Tables 2.4 and 2.5). This code will be used to reference each particular sample in field and project documentation and reports.

Field sample IDs will be structured to enable the reviewer to easily discern the year, location ID, species, and composite designation from the field sample ID. The field sample ID code will use the following structure:

*Field Sample ID = Sample year – Species – Reach # – Composite Letter – QC Code*

The field sample ID code will consist of the following (additional codes will be used as necessary):

- **Species:**<sup>2</sup>
  - CR = Crayfish
  - CC = Creek Chub
  - WS = White Sucker
- **QC Code:**
  - MS/MSD = Matrix Spike or Matrix Spike Duplicate<sup>3</sup>

### 3.2 Field Documentation and Sample Management

Field data sheets will be used to record sample location and specimen data. An example field data sheet is provided in Attachment B of the BMP (Gradient, 2023).

---

<sup>2</sup> At the discretion of the field sampler and based on the species composition during sampling, different and/or additional fish species may be targeted. Any fish composite samples that are collected for different finfish species will follow the same sample ID convention (e.g., LD = Longnose Dace; CF = Catfish).

<sup>3</sup> One MS/MSD sample will be collected for every 20 individual samples during field sampling. The matrix spike samples will follow the same sample ID convention with an additional quality control (QC) code (e.g., 24-CR-R4-Comp A-**MS1**, 24-CR-R4-Comp B-**MS2**, 24-CC-R2-Comp A-**MSD1**, 24-CC-R2-Comp B-**MSD2**).

Field notes will be maintained by the Field Team Leader or another designated field team member during field activities and transferred to the project files to provide a record of sampling. Field notes will contain the following details:

- Name and location of the site;
- Date(s) and time(s) of sample collection;
- Name of Field Team Leader and other field team members;
- Summary of equipment preparation/decontamination procedures;
- Number and type of samples collected and sample ID codes;
- Description of the sampling area/locations including substrate and the presence/absence of wildlife;
- Weather conditions;
- Water screening results;
- Species, size, and observational data regarding collected specimen;
- A brief description of sampling methodology;
- A description of the method used for mixing or compositing;
- Record of deviations from BMP/QAPP procedures; and
- A cross-reference to photographs, if photographs are taken.

In addition, the following observations about each sample collected for analysis will be recorded, as appropriate:

- Type(s) of laboratory analyses requested; and
- Any changes in sampling locations (these changes are also to be indicated on annotated maps, if appropriate).

A Trimble® Geo 7x Global Navigation Satellite System (GNSS) unit will be used to collect position information on sample locations with sub-meter accuracy.

### **3.3 Corrections to Documentation**

All measurements made and samples collected will be recorded. Any revisions to field notes will be attached as an addendum to the field log and will be dated and signed by the person revising the log.

### **3.4 Photographs**

To the extent practicable, sampling locations and other site activities will be photographed to provide a visual record of the conditions of the sampling area. Pictures of the sampling locations will be taken with a digital camera and inserted into the field notes.

## 4 Sample Preservation, Handling, and Shipping

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The aquatic macroinvertebrates and whole fish composite bags will be stored in the field at  $4\pm 2^{\circ}\text{C}$  on ice. Composite samples will be wrapped in solvent-rinsed muffled aluminum foil with the dull side towards the sample and placed in a labeled Ziploc bag together with the unique field sample identification code described in Section 3.1. The chain of custody documents will also be placed in the composite bags. Composite bags will be placed on dry ice in shipping containers provided by the laboratory. The benthic macroinvertebrate and fish samples will be sent for overnight delivery to SGS for analysis.

### 4.1 Sample Custody

The purpose of the chain of custody procedures is to document the history of samples and reagents or supplies, which become an integral part of the sample from the time of sample collection through shipment and analysis.

Chain of custody is initiated in the field and will travel with the samples. For samples collected for environmental analyses, chain of custody forms will be filled out for information requested and signed and dated by the field sampling personnel. The completed chain of custody forms will accompany the samples at all times. The custody seals will be affixed to the shipping container and sealed with clear tape so that the container cannot be opened without breaking the seal.

#### 4.1.1 Sample Receipt

A designated Sample Custodian is responsible for samples received at the laboratory. This individual is aware of custody requirements and the potential hazards of dealing with environmental samples. In addition to receiving the samples, the Sample Custodian will also be responsible for documenting sample receipt, storage before and after sample analysis, and the proper disposal of samples. Upon sample receipt, the sample custodian will:

- Inspect the sample container for integrity and ensure that the custody seals are in place. The presence of leaking or broken containers will be noted on the chain of custody/sample analysis request forms. The Sample Custodian will sign (with date and time of receipt) the chain of custody/sample analysis request forms, thus taking custody of the samples, and will assign the laboratory sample ID numbers.
- Measure and record the temperature of the cooler. If the reading is greater than  $6^{\circ}\text{C}$ , the laboratory will notify the Project Manager to determine whether resampling is necessary.
- Compare the information on the chain of custody/sample analysis request forms with the sample labels to verify sample identity. Any inconsistencies will be resolved with a field sampling representative before the sample analysis proceeds.
- Assign a sample tracking number for each sample received, then log samples into the laboratory computer.

- Alert the Laboratory Project Manager for analyses requiring immediate attention because of short holding times.

#### **4.1.2 Sample Storage**

Before tissue sample preparation and analysis, samples will be kept frozen at  $\leq -10^{\circ}\text{C}$ . When the samples are ready for extraction they will be placed in refrigeration at  $0-6^{\circ}\text{C}$  for two days to thaw. The temperature is monitored by the laboratory and recorded daily using a wireless application or in a bound logbook by the Sample Custodian. Provisions will be in place to handle emergency conditions. The laboratory will maintain controlled building access. In the event that the refrigerator temperature is not maintained, the laboratory will notify AECOM Project Manager.

#### **4.1.3 Sample Tracking**

Each sample will receive a unique sample number at the laboratory when it is logged into the laboratory computer. Each person handling a sample batch will note the location change, time, date, and reason for movement.

For tissue samples which require extraction or digestion before analysis, a sample extraction or digestion record will be prepared at the time of extraction or digestion. Laboratory data will be entered on the sample extraction form *via* computer or permanently recorded in a bound laboratory logbook.

#### **4.1.4 Record Keeping**

The sample preparation for Organics is done in the bound laboratory logbooks, and the analysis of the samples for PCB is documented electronically. Otherwise data related to sample preparation and analysis, as well as observations by laboratory analysis, will be permanently recorded in bound laboratory logbooks. Laboratory logbook pages will be signed and dated daily by the laboratory analysts. Corrections to logbook entries will be made by drawing a single line through the erroneous entry and writing the correct entry next to the one crossed out. Corrections will be initialed and dated by the analyst.

#### **4.1.5 Building Security**

The laboratory maintains controlled building access at all times. During working hours, all visitors are required to sign in with the receptionist and are escorted by laboratory personnel while in the building.

#### **4.1.6 Internal Chains of Custody**

Internal chain of custody for samples is maintained by the Sample Custodian on the custody record. Internal chain of custody for sample extracts is maintained in the extraction laboratory on the Sample Extraction Record. Internal chain of custody for digestates is maintained on the Sample Digestion Record. All samples and extracts must be signed for by the person retaining custody of these items. On completion of all analyses, these custody sheets will be placed in the client file.

When a sample is relinquished by the Sample Custodian, the transfer is documented on a Custody Transfer Record/Laboratory Work Request form. When the sample is returned to the sample storage area, the Sample Custodian will document the receipt of custody on the Custody Transfer Record.



When a sample is extracted or digested for analysis, a Sample Extraction Record or Sample Digestion Record will be initiated and maintained as a custody transfer document.

When the extracts are transferred to the gas chromatography (GC) or gas chromatography/mass spectrometry (GC/MS) laboratories for analysis, the custody section of the Sample Extraction Record will be signed by the person accepting custody of the extracts. Any additional transfers of these extracts will also be documented in the custody section, which is maintained in the extraction laboratory. The signed Sample Extraction Record will be placed in the client file upon completion of the project.

When the digestates are transferred to the laboratory for analysis, the custody section of the Sample Digestion Record will be signed by the person accepting custody of the digestates. Any additional transfers of these digestates will also be documented in the custody section of this form, which is maintained by the laboratory. The signed Sample Digestion Record will be placed in the client file upon completion of the project.

## **4.2 Disposal of Investigation-derived Wastes**

Samples and extracts will be stored for 30 days following submission of the final analytical data report to AECOM. All investigation-derived waste (IDW) generated during the field sampling efforts will be characterized and disposed of in accordance with local, state, and federal regulations. All unused samples; decontamination wash/rinse water; unused sample preservation and equipment decontamination fluids; and contaminated personal protective clothing, debris, and expendables generated on-site during the field investigations will be characterized to determine their appropriate disposal.

Materials determined to be contaminated by hazardous waste will be shipped off-site to an acceptable treatment, storage, or disposal facility (TSDF) for disposal. Materials determined not to be contaminated by hazardous waste will be disposed of off-site in accordance with prevailing regulations.

## 5 Data Deliverables, Validation, and Reporting

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The results of the baseline monitoring event will be reported in a Biomonitoring Report (BMR) that will be submitted to NYSDEC by December 15 of the same sampling year. Information on data deliverables and data validation associated with the proposed data collection is included in Section 2.4 of the BMP. Details on data analysis and reporting are provided in Section 3 of the BMP.

# References

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Gradient. 2023. "Biota Monitoring Plan (Revision 01), Sanders Creek Site, Thompson Road, Syracuse, NY." Report to Carrier Corp. (Syracuse, NY). Submitted to New York State Dept. of Environmental Conservation (NYSDEC). 178p., December 18.

# Attachment A

---

## Additional SOPs

**STANDARD OPERATING PROCEDURE FOR  
ELECTROFISHING – WADEABLE**

**FLD 6006**

**Method Reference:**  
**Standard Methods for Sampling North American Freshwater Fishes, American Fisheries  
Society, 2009.**

**February 28, 2024**

**Great Lakes Environmental Center, Inc.  
(GLEC)**



David Rosier  
Technical Author

2/28/2024

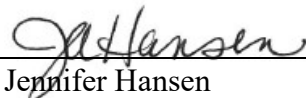
Date



Dennis J. McCauley  
President/Senior Environmental Scientist

3/5/2024

Date



Jennifer Hansen  
GLEC Quality Assurance Officer

2/28/2024

Date

**Training Statement:**

I have read, understand, and agree to follow this SOP.

Signature \_\_\_\_\_

Date \_\_\_\_\_

Printed Name \_\_\_\_\_

***Changes made to this revision:***

- Addition of Proprietary and Confidential footer.
- Changed reviewer to David.
- Added detail on fish processing procedures.
- Added dry ice to Equipment and Supplies, Health and Safety, and Procedure sections.
- Added GLEC SOP LAB 1014. SOP for Chain of Custody as a reference.
- Added in Procedure Section 11.3.2.8: **Note:** If shipping samples from the field requires dry ice for preservation, the outermost container must be labeled with a hazard Class 9 Miscellaneous Dangerous Goods placard, UN 1845, indicating the net weight of dry ice, in kilograms, inside of the shipping container.

***Changes made to revision August 22, 2022:***

- Added to the quality control section the following text in bold: **Voucher specimens and/or high quality digital photographs** can be used to verify species identifications in a laboratory using regional keys.
- Editorial changes throughout.

***Changes made to revision March 10, 2021:***

- Added Severe Weather and Lightening Safety language to H&S Section.
- Added GLEC SOP FLD 6037 Determining Wet Weather Events as a reference.

***Changes made to revision June 14, 2019:***

- Added detail on cleaning foil for use with fish sampling.
- Added reference for FLD 6020. Safe Boat Operation.

***Changes made to revision April 24, 2018:***

- Added the following to equipment and supplies: aerator, if needed; aluminum foil, solvent rinsed or cleaned via muffle furnace; Added long-line to the following: Electroshocker (backpack, long-line, or towed barge); Flagging tape for marking sampling area; Livewell, if needed; Meter for measuring dissolved oxygen, temperature, specific conductivity and pH; plastic bottles for vouchers; polarized sunglasses; range finder (laser) or measuring tape, for measuring distance; and Secchi disk for measuring water transparency.
- Added to reagents section: 10% buffered formalin for voucher samples.
- Added solvent rinsed or muffled to the following sentence: Fish captured and kept for contaminant analysis are wrapped in solvent rinsed or muffled aluminum-foil with the dull side touching the fish and put in a plastic bag.
- Added to equipment maintenance: Record all maintenance to the electroshocker in the equipment specific log book.
- Added CPUE calculation to Data and Calculations section.
- Updated quality control section, regarding voucher specimens.
- Added new hazardous labeling requirement to Health and Safety section (to address formalin).

- Added a section on how to dispose of formalin in the Waste Management section.
- Added information on how to collect voucher specimens, in the Procedure section.
- Added labeling and safety information regarding formalin in Health & Safety Section.
- Added Safety Data Sheets to Definitions.
- Added to procedure: “GPS waypoints can also serve as an alternative to physically marking sampling zones.”



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## **I. SCOPE AND APPLICATION**

- 1.1 This Standard Operating Procedure (SOP) describes the collection of fish in lotic (moving water) systems by electrofishing. For medium sized rivers, both a towed barge and long-line electrofishing units are recommended. For smaller streams (i.e., first order), a backpack electrofishing unit is recommended. This SOP assumes the body of water to be sampled is small to medium sized and therefore is wadeable and does not require the use of a boat. Wadeable is defined as greater than 50% of the stream may be waded safely using chest waders. Electrofishing units used for fish collection while wading in a river or stream include the long-line, towed barge, and backpack electrofishing units.
- 1.2 Familiarity with field sampling procedures is recommended prior to implementing this SOP. All crew members are to understand the electrofishing system they are using and the risks involved. Electrofishing is completed by a crew of at least two people with one person, an experienced fisheries biologist, in charge of the sampling effort.

## **II. SUMMARY OF METHOD**

- 2.1 A long-line, towed barge, or backpack electrofishing unit can be used to collect fish depending on the study area and the suitability of the electrofishing equipment. Electrofishing is used to collect fish by sending an electrical current into the water which temporarily stuns the fish. The stunned fish then float to the water surface where the species of interest are netted, identified, measured and stored on ice (if applicable) for transport.
- 2.2 This SOP is based on Rabeni, C.F., J. Lyons, N. Mercado-Silva, and J.T. Peterson 2009. Warmwater fish in wadeable streams. Pages 43-58 in S.A. Bonar, W.A. Hubert, and D.W. Willis, editors. Standard methods for sampling North American freshwater fishes. American Fisheries Society, Bethesda, Maryland.

## **III. DEFINITIONS**

- 3.1 Catch Per Unit Efforts (CPUE) - In fisheries and conservation biology, the catch per unit effort is an indirect measure of the abundance of a target species. Changes in the catch per unit effort are inferred to signify changes to the target species' true abundance. A decreasing CPUE indicates overexploitation, while an unchanging CPUE indicates sustainable harvesting. In this procedure CPUE is measured by dividing the number of fish caught per unit of time spent electrofishing.
- 3.2 Dead Man's Switch - a device intended to stop electrical current flow if the operator becomes incapacitated in some way; a form of fail safe practice.

- 3.3 Lotic – Moving water ecological systems.
- 3.4 Safety Data Sheet (SDS) – Written information provided by vendors concerning a chemical's toxicity, health hazards, physical properties, flammability, and reactivity, including how it should be stored, handled, and disposed.

#### **IV. INTERFERENCES AND CAUTIONS**

- 4.1 Water temperature, conductivity, transparency, substrate, and physical habitat can interfere with electrofishing. See Chapter 4: Warmwater fish in wadeable streams in Standard Methods for Sampling North American Freshwater Fishes, American Fisheries Society, 2009.
- 4.2 Anode and cathode arrays are prone to electroplating with carbonate salts. If the plating is not removed periodically, the equipment will not function properly. See maintenance instructions in Section XIII.
- 4.3 Cautions - Follow all health and safety precautions listed in Section V.

#### **V. HEALTH AND SAFETY**

- 5.1 Safety Precautions
  - 5.1.1 Crew members will wear the following personal protective equipment while electrofishing: polarized safety glasses, hearing protection, non-conducting waders, and linesman gloves made of vinyl. Personalized Flotation Devices (PFDs) may be required by the client based upon water depth, velocity, and/or soft substrate. The field crew leader should always assess the need for PFDs, even when they are not required in the project plan.
  - 5.1.2 A first aid kit and a fire extinguisher should be readily available to crew members in case of an injury or fire.
  - 5.1.3 Crew members will be certified in cardiopulmonary resuscitation (CPR) and basic first aid.
- 5.2 Severe weather may be encountered and adversely affect working conditions. These weather events may include thunderstorms, rainstorms, visible lightning, high winds (>40 mph), extreme temperatures (>100°F or <0°F), or a tornado watch or warning for an area including the work site.

- 5.2.1 Work will stop for lightning safety when it is determined that lightning is striking within 6 to 10 miles of the work area. This determination will be based on internet weather reports, client project manager notification and/or field crew leader decision. Lightning distance is estimated by counting the time from flash to the bang of associated thunder. For each 5-second count from flash to bang (F-B), lightning is one mile away. For example, an F-B of 10 means that lightning is 2 miles away and a F-B of 15 lightning is 3 miles away and so on.
- 5.2.2 For further safety measures see: GLEC SOP FLD 6020 Safe Boat Operation, GLEC SOP FLD 6019 Working Over or Near Water, and GLEC SOP FLD 6037 Determining Wet Weather Events.
- 5.3 U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) has adopted requirements for labeling hazardous chemicals as part of its revision to the Hazard Communication Standard, 29 CFR 1910.1200. These requirements align the U.S. with the United Nations' Globally Harmonized System (GHS) of classification and labeling of chemicals. They apply to anyone who handles, uses, stores or transports hazardous chemicals in any amount. Labels must include: company name, address and telephone number; chemical identifier; a signal word; a hazard statement(s); precautionary statement(s); and pictograms(s). For more information, see the documents saved on the GLEC server in folder S:\GLEC Health & Safety\OSHA Hazardous Chemical labeling. If you require a label for a container with hazardous material that you are storing, shipping or using for longer than one shift, contact Erica Schneider, Environmental Health & Safety Coordinator, at 231-941-2230 or [eschneider@glec.com](mailto:eschneider@glec.com).
- 5.4 The 10% buffered formalin used to preserve fish vouchers must have a GHS label on the container. Wear a pair of latex or nitrile gloves when handling formalin. Use formalin in an area with adequate ventilation.
- 5.5 Dry ice, if needed:
  - 5.5.1 Dry ice can cause cold burns similar to frost bite if touched with exposed skin. Only handle dry ice while wearing protective gloves.
  - 5.5.2 Dry ice poses some asphyxiation risk when large amounts are held in enclosed spaces. Ensure coolers holding dry ice are closed securely and store coolers containing large amounts of dry ice in areas of buildings or vehicles with adequate ventilation to avoid carbon dioxide build up, roll vehicle windows down if transporting large amounts of dry ice within the passenger compartment.

- 5.6 SDSs for the chemicals referenced in this SOP are available in GLEC's Traverse City, MI library. Analysts using this method should review the applicable SDSs prior to using this SOP for the first time and periodically thereafter to become familiar with the chemicals' toxicity, health hazards, physical properties, flammability, and reactivity. Each chemical must be stored, handled, and disposed in the prescribed manner.

## **VI. EQUIPMENT AND SUPPLIES**

- 6.1 Aerator, if needed.
- 6.2 Aluminum foil, cleaned from trace elements using a solvent rinse or by cleaning via muffle furnace or oven, depending on project/client requirements.
- 6.2.1 If using a solvent rinse to clean the foil, follow a procedure as specified by the client or the project requirements. If using the muffle furnace, clean at 550°C for at least 2 hours, or as specified by client. If using the oven, use the oven cleaning cycle (which has a pre-set temperature and time). Keep foil clean by wrapping the sheets in clean foil and placing in Ziploc® or Whirl-Pak® bags, in quantities specified by the project leader. Avoid touching the surface of the clean foil sheets or the inside of the foil wrapping or bags.
- 6.3 Buckets.
- 6.4 Cooler with wet and/or dry ice for preserving samples (if applicable). If using wet ice, add a cooler liner.
- 6.5 Dip nets, fiberglass handles.
- 6.6 Electroshocker (backpack, long-line, or towed barge).
- 6.7 Electroshocker log book.
- 6.8 First aid kit.
- 6.9 Field notebook, or data sheets and pens/pencils.
- 6.10 Fire extinguisher.
- 6.11 Flagging tape for marking sampling area.
- 6.12 Gloves, vinyl.

- 6.13 Hearing Protection.
- 6.14 Livewell, if needed.
- 6.15 Scale for weighing fish.
- 6.16 Measuring board.
- 6.17 Meter for measuring dissolved oxygen, temperature, specific conductivity and pH.
- 6.18 Non-conducting waders.
- 6.19 Personal Flotation Devices (PFDs), life vests.
- 6.20 Plastic bottles for vouchers.
- 6.21 Polarized sunglasses.
- 6.22 Range finder (laser) or measuring tape, for measuring distance.
- 6.23 Secchi disk for measuring water transparency.

## **VII. REAGENTS AND STANDARDS**

10% Buffered formalin solution to preserve voucher samples.

## **VIII. SAMPLE COLLECTION, PRESERVATION, AND STORAGE**

See Section XI, Procedure.

## **IX. QUALITY CONTROL**

- 9.1 Voucher specimens and/or high quality digital photographs will be archived according to the study plan. Voucher specimens and/or high quality digital photographs can be used to verify species identifications in a laboratory using regional keys.
- 9.2 Field sampling equipment will be cleaned and operated in the prescribed manner.
- 9.3 Sampling information will be noted in the field notebook or on field data sheets and on the chain of custody and sample containers, as needed. See the Record Keeping section within the procedure for more information. Sampling records will be reviewed for accuracy and completeness at the end of each sampling event.

## **X. CALIBRATION**

Not Applicable.

## **XI. PROCEDURE**

### **11.1 Study Area**

- 11.1.1 Determination of the length of stream to be sampled varies according to the width of the stream. The total distance of stream or river sampled will be listed in the study plan for each project.
- 11.1.2 The distance sampled depends on the objectives of the study and the heterogeneity of the system. Sampling zones are to include as many of the available (recognizable) habitats as possible.
- 11.1.3 Sampling zones are marked (e.g., flagging tape on adjacent trees or buoys at beginning and end of sampling zone) for reproducible efforts. GPS waypoints can also serve as an alternative to physically marking sampling zones.

### **11.2 Collection Procedure**

- 11.2.1 All electrofishing for wadeable rivers and streams is conducted during daylight hours.
- 11.2.2 Electrofishing in a wadeable stream is conducted in an upstream direction using the backpack, towed barge, or long-line electrofishing equipment.
- 11.2.3 Pulsed DC current works well for a variety of waters exhibiting a wide range in conductivity.
- 11.2.4 A fish that comes into contact with a pulse DC field is forced to swim toward the anode units extending below the water surface.
- 11.2.5 Hand operated trigger (long-line/towed barge/backpack) activates the electrical current.
- 11.2.6 The crew member(s) then nets (with a long-handled dip net) the stunned fish that come into view and range.



- 11.2.7 After netting, the stunned fish are placed in bucket(s) or live wells containing site water where they are kept until processing.
- 11.2.8 The Dead Man's Switch must be in the off position to stop the electrical current during fish transfer and processing operations.
- 11.2.9 Record time shocked, by reading seconds elapsed (actual shocking time) on voltage converter, in a record book.
  - 11.2.9.1 Relative abundance estimates are made on a catch per unit effort basis.
  - 11.2.9.2 For fish community assessments, all fish stunned are to be collected.
  - 11.2.9.3 Other efforts, such as fish collected for residue analysis or stomach analysis, do not require the collection of all stunned fish.

### 11.3 Processing Procedures

- 11.3.1 Processing fish collections generally follows a study plan and may include: measuring and recording the length; weight and identification of the species; biopsy tissue plug; whole tissue collection; and identification vouchering.
- 11.3.2 Fish may be processed for contaminant analysis, if needed by the project, using the following steps (or follow project specifications if they differ).

**Note:** For fish kept for contaminant analysis, some fish may still be very active during collection and holding and will need to be dispatched. The fisheries biologist will determine the appropriate method to accomplish this task.

- 11.3.2.1 Wear disposable latex or nitrile gloves while handling fish.
- 11.3.2.2 Identify fish to the species level.
- 11.3.2.3 Measure the total length of each fish in millimeters on a clean measuring board.
- 11.3.2.4 Weigh each fish to the nearest gram.

- 11.3.2.5 Place the fish on solvent rinsed or muffled aluminum foil.
- 11.3.2.6 Wrap the fish in foil and place in a labeled plastic bag.
- 11.3.2.7 Add a label to the bag following project specifications, or with the sampling date, sample site, sampler's initials, fish length and weight, fish species' scientific name.
- 11.3.2.8 Preserve the samples following project specifications by placing them in a cooler and covering with wet or dry ice. Deliver or ship samples with a completed COC form. (See SOP LAB 1014.)

**Note:** If shipping samples from the field requires dry ice for preservation, the outermost container must be labeled with a hazard Class 9 Miscellaneous Dangerous Goods placard, UN 1845, indicating the net weight of the dry ice, in kilograms, inside of the shipping container.

- 11.3.3 If voucher specimens are retained for QA, the individual specimens must be placed in a jar labeled with the site ID, date, and time of collection. The jar must have enough 10% buffered formalin to cover the specimens. An additional label written in pencil on waterproof paper with the same information as the outside of the jar will be placed inside the jar. Do not over crowd the jar with specimens. Use the best specimens available to help facilitate easier identification. Record in the log book the number of fish preserved in each jar.

#### 11.4 Record Keeping

- 11.4.1 Detailed records are kept on sampling conditions including: habitat sampled (substrate type, vegetation, habitat type, water depth, and water velocity); physicochemical water parameters (dissolved oxygen (DO), water temperature, turbidity, pH, and conductivity); and weather conditions (air temperature and cloud cover).
- 11.4.2 The length of stream sampled and time of effort (e.g., seconds) are to be recorded for each sample.

## XII. DATA ANALYSIS AND CALCULATIONS

Calculate and record CPUE on data sheets or field notebook for each sampling site. In this procedure CPUE is measured by dividing the number of fish caught per unit of time spent electrofishing.

### **XIII. EQUIPMENT MAINTENANCE**

- 13.1 Record all maintenance to the electroshocker in the equipment specific log book.
- 13.2 All electrical cables and connections should be inspected daily for signs of wear. Replace cables as necessary.
- 13.3 Anode and cathode arrays are prone to electroplating with carbonate salts. If the plating is not removed periodically, the equipment will not function properly.
  - 13.3.1 Clean the electrodes by placing them in a five-gallon bucket or other suitable container with a lime removing chemical. Do not immerse any soldered ends in the cleaning solution.
  - 13.3.2 Rinse and dry the electrodes. Inspect for any loose or worn wires. Replace as necessary.

### **XIV. QUALITY ASSURANCE**

- 14.1 Data reports are reviewed by a qualified Great Lakes Environmental Center, Inc. (GLEC) upper level staff member, such as the Field Coordinator or the Field Manager, before submission to the client. This review evaluates the computations performed, and the accuracy and traceability of the data. It is the responsibility of the person who generated the report to satisfactorily address any of the QA reviewer's comments and concerns and to generate the final report.
- 14.2 The field data sheets and/or field notebooks will be kept on file at GLEC. Field data sheets and chain of custody forms are included as part of the final report. Project information is maintained at GLEC for at least seven years past the end of the contract.

### **XV. WASTE MANAGEMENT/POLLUTION PREVENTION**

- 15.1 Waste 10% buffered formalin solution will be returned to GLEC laboratories, the volume of the solution entered into the hazardous waste log book, and stored in the chemical shed until a disposal appointment is scheduled. GLEC utilizes Grand Traverse County RecycleSmart Hazardous Waste Collection events to dispose of any hazardous materials.
- 15.2 This method will be conducted with active pollution prevention as an objective by: modifying processes to reduce or eliminate waste, promoting the use of non-toxic or less-toxic substances, implementing conservation techniques, and re-using materials rather than putting them into the waste stream.

## **XVI. DEVIATIONS**

None.

## **XVII. REFERENCES**

- 17.1 EPA Guidance for Preparing Standard Operating Procedures (SOPs), EPA QA/G6.
- 17.2 GLEC SOP FLD 6019. SOP for Working Over or Near Water.
- 17.3 GLEC SOP FLD 6020. Safe Boat Operation.
- 17.4 GLEC SOP FLD 6037. Determining Wet Weather Events.
- 17.5 GLEC SOP LAB 1014. SOP for Chain of Custody.
- 17.6 Rabeni, C.F., J. Lyons, N. Mercado-Silva, and J.T. Peterson 2009. Warmwater fish in wadeable streams. Pages 43-58 *in* S.A. Bonar, W.A. Hubert, and D.W. Willis, editors. Standard methods for sampling North American freshwater fishes. American Fisheries Society, Bethesda, Maryland.

**STANDARD OPERATING PROCEDURE FOR  
WORKING OVER OR NEAR WATER**

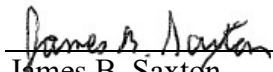
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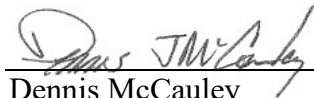
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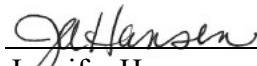
**United States Department of Labor, Occupational Safety and Health Administration  
(OSHA) Regulation 29 CFR 1926 – Safety and Health Regulations for Construction,  
Subparts E and M**

**February 9, 2024**

**Great Lakes Environmental Center, Inc.  
(GLEC)**

 2/9/2024  
James B. Saxton Date  
Technical Author

 2/13/2024  
Dennis McCauley Date  
President/Senior Environmental Scientist

 2/9/2024  
Jennifer Hansen Date  
GLEC Quality Assurance Officer

**Training Statement:**

I have read, understand, and agree to follow this SOP.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Printed Name \_\_\_\_\_

***Changes made in this revision:***

- Added proprietary and confidential footer.
- Changed Field Manager and field crew leader to Field Coordinator throughout.
- Changed Operator title to Boat Operator.
- Editorial changes throughout.

***Changes made in revision November 15, 2022:***

- Changed reviewer to Jamie Saxton.
- Editorial changes.

***Changes made in revision March 10, 2022:***

- Added Severe Weather and Lightening Safety language to H&S Section.
- Added GLEC SOP FLD 6037 Determining Wet Weather Events as a reference.

***Changes made in revision Jun 14, 2019:***

- None.

***Changes made in revision April 20, 2018:***

- Added a definition for the ABC type of fire extinguisher.

***Changes made in revision March 13, 2017:***

- None.

***Changes made in revision December 7, 2015:***

- Added “When required by the project,” to the first sentence in the following paragraphs:
  - “Employees conducting work activities within six feet of the edge of any open body of water such as rivers, bays, lakes or oceans shall wear PFDs. A safety line must also be attached to the employee if the body of water is fast moving such that if the employee falls into the water, they could not easily extract themselves.”
  - “A lifesaving boat or skiff shall be immediately available at any location where there is a drowning hazard. Lifesaving boats shall not be used for any other purpose except for rescue and shall be in the water or capable of being launched by one person. If the water is shallow enough that rescuers could simply run in to assist someone in need, a boat or skiff would not be required.”
  - “Fall protection shall be provided for all employees working six feet or more above the water surface. If continuous fall protection, other than safety nets, is used to prevent employees from falling into the water, employees will not be required to wear PFDs. When safety nets are used in place of other continuous fall protection measures, employees will be required to wear PFDs.”
  - “Ladders shall be provided in the vicinity of all floating vessels on which work is being performed. Ladders shall be portable or fixed and shall be of sufficient length to allow employees to reach safety in the event they fall into the water.”

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## **I. SCOPE AND APPLICATION**

- 1.1 This Standard Operating Procedure (SOP) outlines the requirements for work performed over or near water, including work performed by Great Lakes Environmental Center, Inc. (GLEC) and subcontractor employees, where a danger of drowning exists.
- 1.2 Familiarity with field sampling procedures is recommended prior to implementing this SOP. Training requirements shall be assessed and training shall be obtained and documented for workers performing work over or near water, including the use and inspection of Personal Flotation Devices (PFDs), lifesaving and fall protection equipment.

## **II. SUMMARY OF METHOD**

- 2.1 This procedure applies to all segments of GLEC where work is performed over or near water. It also applies to all such work when it is not governed by a more restrictive client policy or procedure. If a client policy or procedure is less restrictive, it will be used in addition to this policy. Subcontractors will use this policy in addition to any procedure they may have within their organization.
- 2.2 This SOP is based on the United States Department of Labor, Occupational Safety and Health Administration (OSHA) Regulation 29 CFR 1926, Safety and Health Regulations for Construction, Subpart E - Personal Protective and Life Saving Equipment, and Subpart M - Fall Protection.

## **III. DEFINITIONS**

- 3.1 Boat Operator – A designated individual who must either man the lifesaving skiff at all times or remain in the immediate area such that they can quickly reach the lifesaving skiff and deploy the vessel.
- 3.2 Drowning Hazard – There is a potential drowning hazard when the water is two or more feet deep, or when other conditions increase hazards associated with shallow water such as current, water temperature, wave action, water intakes, rapids, waterfalls, etc.
- 3.3 Fire Extinguisher (ABC) – ABC fire extinguishers will put out three classes of fires: Class A for trash, wood and paper; Class B for liquids and gases; and Class C for energized electrical sources.



- 3.4 Lifesaving Skiff – A small, open boat or vessel dedicated solely for water rescue and equipped with oars and a motor as well as equipment required by the United States Coast Guard (USCG), including safety lights, fire extinguishers, radios and lifesaving devices.
- 3.5 Occupational Safety and Health Administration (OSHA) - A Federal agency under the Department of Labor that publishes and enforces safety and health regulations for most businesses and industries in the United States.
- 3.6 Personal Floatation Device (PFD) - All recreational boats must carry one wearable PFD (Types I, II, III or V PFD) for each person aboard. Any boat 16 ft and longer (except canoes and kayaks) must also carry one throwable PFD (Type IV PFD). PFDs must be: 1) Coast Guard approved; 2) in good and serviceable condition, and; 3) the appropriate size for the intended user.
- 3.7 Ring buoy – A life preserver in the form of a ring made of buoyant material, known informally as a life buoy.
- 3.8 United States Coast Guard (USCG) – The governing agency responsible for boating safety requirements on navigable waters within the United States.

#### **IV. INTERFERENCES AND CAUTIONS**

Not Applicable.

#### **V. HEALTH AND SAFETY**

- 5.1 Severe weather may be encountered and adversely affect working conditions. These weather events may include thunderstorms, rainstorms, visible lightning, high winds (>40 mph), extreme temperatures (>100°F or <0°F) or a tornado watch or warning for an area including the work site.
- 5.2 Work will stop for lightning safety when it is determined that lightning is striking within 6 to 10 miles of the work area. This determination will be based on internet weather reports, client project manager notification and/or Field Coordinator or Boat Operator decision. Lightning distance is estimated by counting the time from flash to the bang of associated thunder. For each 5-second count from flash to bang (F-B ratio), lightning is 1 mile away. For example, a F-B ratio of 10 means that lightning is 2 miles away and a F-B ratio of 15 lightning is 3 miles away and so on.
- 5.3 This SOP is dedicated to the safety of GLEC staff working over or near water. For further safety measures see: GLEC SOP FLD 6037 Determining Wet Weather Events and GLEC SOP FLD 6020 Safe Boat Operation.

## **VI. EQUIPMENT AND SUPPLIES**

- 6.1 USCG-approved PFD.
- 6.2 Ring buoy – 30 inches in diameter with a 90-foot line attached.
- 6.3 Fall protection – safety lines and/or nets (see Section 11.2.5); and boat ladders as applicable (see Section 11.2.6).
- 6.4 Lifesaving Skiff – as needed (see Section 11.2.3).
- 6.5 First Aid Kit.
- 6.6 Boat Radio.
- 6.7 Fire Extinguisher (ABC).

## **VII. REAGENTS AND STANDARDS**

Not Applicable.

## **VIII. SAMPLE COLLECTION, PRESERVATION, AND STORAGE**

Not Applicable.

## **IX. QUALITY CONTROL**

Not Applicable.

## **X. CALIBRATION**

Not Applicable.

## **XI. PROCEDURE**

- 11.1 Major steps involved with the implementation of this procedure, based on staff roles, are as follows:
  - 11.1.1 The Field Coordinator or Boat Operator shall:
    - 11.1.1.1 Ensure all applicable employees are trained on the requirements of this SOP.

- 11.1.1.2 Remain aware of changing work conditions that may result in employees working, even briefly, in areas not covered by OSHA safety regulations.
- 11.1.1.3 Shall always be present and specifically designated to respond to water emergencies and operate the skiff or boat when employees are working over or near water.
- 11.1.1.4 Must always remain in the immediate area of the skiff or boat.
- 11.1.1.5 May be assigned other duties only if those duties do not interfere with the Boat Operator's ability to be aware of, and respond to, water emergencies.
- 11.1.1.6 Must be aware of the number of work locations where there is a danger of falling into water and the distance to each of those locations.
- 11.1.2 The Field Technician shall:
  - 11.1.2.1 Perform work over or near water only after being trained to the requirements of this procedure.
- 11.2 Requirements when working over or near water:
  - 11.2.1 Employees working over or near water, where the danger of drowning exists, shall be provided with USCG-approved life jacket or buoyant work vests. PFDs and fall protection equipment shall be inspected before and after each use for defects and signs of wear that would alter their strength or buoyancy. Defective units will be destroyed or tagged out of service and not used.
    - 11.2.1.1 GLEC uses PFDs that are rated for flotation in the water conditions at the job site and are based on the body weight of the Field Coordinator or Boat Operator and Field Technician.
  - 11.2.2 When required by the project, employees conducting work activities within 6 feet of the edge of any open body of water such as rivers, bays, lakes or oceans shall wear PFDs. A safety line must also be attached to the employee if the body of water is fast moving such that if the employee falls into the water, they could not easily extract themselves.

- 11.2.3 When required by the project, a lifesaving boat or skiff shall be immediately available at any location where there is a drowning hazard. Lifesaving boats shall not be used for any other purpose except for rescue and shall be in the water or capable of being launched by one person. If the water is shallow enough that rescuers could simply run in to assist someone in need, a boat or skiff would not be required.
- 11.2.4 Ring buoys shall have at least 90 feet of line attached. When work is performed on a vessel under 200 feet in length, at least one 30-inch ring buoy will be located at the gangway. When work is performed on a floating vessel 200 feet or more in length, at least three 30-inch ring buoys with lines attached shall be located in readily visible and accessible places, including one ring buoy located forward, one aft, and one at the access to the gangway.
  - 11.2.4.1 GLEC uses only 30-inch diameter ring buoys approved by the USCG, and each ring buoy has a line attached of at least 90 feet in length.
- 11.2.5 When required by the project, fall protection shall be provided for all employees working 6 feet or more above the water surface. If continuous fall protection, other than safety nets, is used to prevent employees from falling into the water, employees will not be required to wear PFDs. When safety nets are used in place of other continuous fall protection measures, employees will be required to wear PFDs.
- 11.2.6 When required by the project, ladders shall be provided in the vicinity of all floating vessels on which work is being performed. Ladders shall be portable or fixed and shall be of sufficient length to allow employees to reach safety in the event they fall into the water.

## **XII. DATA ANALYSIS AND CALCULATIONS**

Not Applicable.

## **XIII. INSTRUMENT MAINTENANCE**

Not Applicable.

## **XIV. QUALITY ASSURANCE**

Not Applicable.

## **XV. WASTE MANAGEMENT/POLLUTION PREVENTION**

This method will be conducted with active pollution prevention as an objective by: modifying processes to reduce or eliminate waste, promoting the use of non-toxic or less-toxic substances, implementing conservation techniques, and re-using materials rather than putting them into the waste stream.

## **XVI. DEVIATIONS**

There are no deviations from the referenced methods within this procedure.

## **XVII. REFERENCES**

- 17.1 GLEC SOP FLD 6020. Safe Boat Operation.
- 17.2 GLEC SOP FLD 6037. Determining Wet Weather Events.
- 17.3 United States Department of Labor, Occupational Safety and Health Administration (OSHA) Regulation 29 CFR 1926 – Safety and Health Regulations for Construction. Subpart E - Personal Protective and Life Saving Equipment; Working Over and Near Water, Safety Nets, Definitions, and associated OSHA Interpretation Letters.
- 17.4 United States Department of Labor, Occupational Safety and Health Administration (OSHA) Regulation 29 CFR 1926 - Safety and Health Regulations for Construction. Subpart M - Fall Protection.

**STANDARD OPERATING PROCEDURE FOR  
ELECTROFISHING – WADEABLE**

**FLD 6006**

**Method Reference:**  
**Standard Methods for Sampling North American Freshwater Fishes, American Fisheries  
Society, 2009.**

**February 28, 2024**

**Great Lakes Environmental Center, Inc.  
(GLEC)**



David Rosier  
Technical Author

2/28/2024

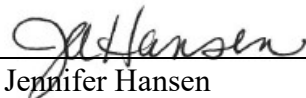
Date



Dennis J. McCauley  
President/Senior Environmental Scientist

3/5/2024

Date



Jennifer Hansen  
GLEC Quality Assurance Officer

2/28/2024

Date

**Training Statement:**

I have read, understand, and agree to follow this SOP.

Signature \_\_\_\_\_

Date \_\_\_\_\_

Printed Name \_\_\_\_\_

***Changes made to this revision:***

- Addition of Proprietary and Confidential footer.
- Changed reviewer to David.
- Added detail on fish processing procedures.
- Added dry ice to Equipment and Supplies, Health and Safety, and Procedure sections.
- Added GLEC SOP LAB 1014. SOP for Chain of Custody as a reference.
- Added in Procedure Section 11.3.2.8: **Note:** If shipping samples from the field requires dry ice for preservation, the outermost container must be labeled with a hazard Class 9 Miscellaneous Dangerous Goods placard, UN 1845, indicating the net weight of dry ice, in kilograms, inside of the shipping container.

***Changes made to revision August 22, 2022:***

- Added to the quality control section the following text in bold: **Voucher specimens and/or high quality digital photographs** can be used to verify species identifications in a laboratory using regional keys.
- Editorial changes throughout.

***Changes made to revision March 10, 2021:***

- Added Severe Weather and Lightening Safety language to H&S Section.
- Added GLEC SOP FLD 6037 Determining Wet Weather Events as a reference.

***Changes made to revision June 14, 2019:***

- Added detail on cleaning foil for use with fish sampling.
- Added reference for FLD 6020. Safe Boat Operation.

***Changes made to revision April 24, 2018:***

- Added the following to equipment and supplies: aerator, if needed; aluminum foil, solvent rinsed or cleaned via muffle furnace; Added long-line to the following: Electroshocker (backpack, long-line, or towed barge); Flagging tape for marking sampling area; Livewell, if needed; Meter for measuring dissolved oxygen, temperature, specific conductivity and pH; plastic bottles for vouchers; polarized sunglasses; range finder (laser) or measuring tape, for measuring distance; and Secchi disk for measuring water transparency.
- Added to reagents section: 10% buffered formalin for voucher samples.
- Added solvent rinsed or muffled to the following sentence: Fish captured and kept for contaminant analysis are wrapped in solvent rinsed or muffled aluminum-foil with the dull side touching the fish and put in a plastic bag.
- Added to equipment maintenance: Record all maintenance to the electroshocker in the equipment specific log book.
- Added CPUE calculation to Data and Calculations section.
- Updated quality control section, regarding voucher specimens.
- Added new hazardous labeling requirement to Health and Safety section (to address formalin).

- Added a section on how to dispose of formalin in the Waste Management section.
- Added information on how to collect voucher specimens, in the Procedure section.
- Added labeling and safety information regarding formalin in Health & Safety Section.
- Added Safety Data Sheets to Definitions.
- Added to procedure: “GPS waypoints can also serve as an alternative to physically marking sampling zones.”



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## **I. SCOPE AND APPLICATION**

- 1.1 This Standard Operating Procedure (SOP) describes the collection of fish in lotic (moving water) systems by electrofishing. For medium sized rivers, both a towed barge and long-line electrofishing units are recommended. For smaller streams (i.e., first order), a backpack electrofishing unit is recommended. This SOP assumes the body of water to be sampled is small to medium sized and therefore is wadeable and does not require the use of a boat. Wadeable is defined as greater than 50% of the stream may be waded safely using chest waders. Electrofishing units used for fish collection while wading in a river or stream include the long-line, towed barge, and backpack electrofishing units.
- 1.2 Familiarity with field sampling procedures is recommended prior to implementing this SOP. All crew members are to understand the electrofishing system they are using and the risks involved. Electrofishing is completed by a crew of at least two people with one person, an experienced fisheries biologist, in charge of the sampling effort.

## **II. SUMMARY OF METHOD**

- 2.1 A long-line, towed barge, or backpack electrofishing unit can be used to collect fish depending on the study area and the suitability of the electrofishing equipment. Electrofishing is used to collect fish by sending an electrical current into the water which temporarily stuns the fish. The stunned fish then float to the water surface where the species of interest are netted, identified, measured and stored on ice (if applicable) for transport.
- 2.2 This SOP is based on Rabeni, C.F., J. Lyons, N. Mercado-Silva, and J.T. Peterson 2009. Warmwater fish in wadeable streams. Pages 43-58 in S.A. Bonar, W.A. Hubert, and D.W. Willis, editors. Standard methods for sampling North American freshwater fishes. American Fisheries Society, Bethesda, Maryland.

## **III. DEFINITIONS**

- 3.1 Catch Per Unit Efforts (CPUE) - In fisheries and conservation biology, the catch per unit effort is an indirect measure of the abundance of a target species. Changes in the catch per unit effort are inferred to signify changes to the target species' true abundance. A decreasing CPUE indicates overexploitation, while an unchanging CPUE indicates sustainable harvesting. In this procedure CPUE is measured by dividing the number of fish caught per unit of time spent electrofishing.
- 3.2 Dead Man's Switch - a device intended to stop electrical current flow if the operator becomes incapacitated in some way; a form of fail safe practice.

- 3.3 Lotic – Moving water ecological systems.
- 3.4 Safety Data Sheet (SDS) – Written information provided by vendors concerning a chemical's toxicity, health hazards, physical properties, flammability, and reactivity, including how it should be stored, handled, and disposed.

#### **IV. INTERFERENCES AND CAUTIONS**

- 4.1 Water temperature, conductivity, transparency, substrate, and physical habitat can interfere with electrofishing. See Chapter 4: Warmwater fish in wadeable streams in Standard Methods for Sampling North American Freshwater Fishes, American Fisheries Society, 2009.
- 4.2 Anode and cathode arrays are prone to electroplating with carbonate salts. If the plating is not removed periodically, the equipment will not function properly. See maintenance instructions in Section XIII.
- 4.3 Cautions - Follow all health and safety precautions listed in Section V.

#### **V. HEALTH AND SAFETY**

- 5.1 Safety Precautions
  - 5.1.1 Crew members will wear the following personal protective equipment while electrofishing: polarized safety glasses, hearing protection, non-conducting waders, and linesman gloves made of vinyl. Personalized Flotation Devices (PFDs) may be required by the client based upon water depth, velocity, and/or soft substrate. The field crew leader should always assess the need for PFDs, even when they are not required in the project plan.
  - 5.1.2 A first aid kit and a fire extinguisher should be readily available to crew members in case of an injury or fire.
  - 5.1.3 Crew members will be certified in cardiopulmonary resuscitation (CPR) and basic first aid.
- 5.2 Severe weather may be encountered and adversely affect working conditions. These weather events may include thunderstorms, rainstorms, visible lightning, high winds (>40 mph), extreme temperatures (>100°F or <0°F), or a tornado watch or warning for an area including the work site.

- 5.2.1 Work will stop for lightning safety when it is determined that lightning is striking within 6 to 10 miles of the work area. This determination will be based on internet weather reports, client project manager notification and/or field crew leader decision. Lightning distance is estimated by counting the time from flash to the bang of associated thunder. For each 5-second count from flash to bang (F-B), lightning is one mile away. For example, an F-B of 10 means that lightning is 2 miles away and a F-B of 15 lightning is 3 miles away and so on.
- 5.2.2 For further safety measures see: GLEC SOP FLD 6020 Safe Boat Operation, GLEC SOP FLD 6019 Working Over or Near Water, and GLEC SOP FLD 6037 Determining Wet Weather Events.
- 5.3 U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) has adopted requirements for labeling hazardous chemicals as part of its revision to the Hazard Communication Standard, 29 CFR 1910.1200. These requirements align the U.S. with the United Nations' Globally Harmonized System (GHS) of classification and labeling of chemicals. They apply to anyone who handles, uses, stores or transports hazardous chemicals in any amount. Labels must include: company name, address and telephone number; chemical identifier; a signal word; a hazard statement(s); precautionary statement(s); and pictograms(s). For more information, see the documents saved on the GLEC server in folder S:\GLEC Health & Safety\OSHA Hazardous Chemical labeling. If you require a label for a container with hazardous material that you are storing, shipping or using for longer than one shift, contact Erica Schneider, Environmental Health & Safety Coordinator, at 231-941-2230 or [eschneider@glec.com](mailto:eschneider@glec.com).
- 5.4 The 10% buffered formalin used to preserve fish vouchers must have a GHS label on the container. Wear a pair of latex or nitrile gloves when handling formalin. Use formalin in an area with adequate ventilation.
- 5.5 Dry ice, if needed:
  - 5.5.1 Dry ice can cause cold burns similar to frost bite if touched with exposed skin. Only handle dry ice while wearing protective gloves.
  - 5.5.2 Dry ice poses some asphyxiation risk when large amounts are held in enclosed spaces. Ensure coolers holding dry ice are closed securely and store coolers containing large amounts of dry ice in areas of buildings or vehicles with adequate ventilation to avoid carbon dioxide build up, roll vehicle windows down if transporting large amounts of dry ice within the passenger compartment.

- 5.6 SDSs for the chemicals referenced in this SOP are available in GLEC's Traverse City, MI library. Analysts using this method should review the applicable SDSs prior to using this SOP for the first time and periodically thereafter to become familiar with the chemicals' toxicity, health hazards, physical properties, flammability, and reactivity. Each chemical must be stored, handled, and disposed in the prescribed manner.

## **VI. EQUIPMENT AND SUPPLIES**

- 6.1 Aerator, if needed.
- 6.2 Aluminum foil, cleaned from trace elements using a solvent rinse or by cleaning via muffle furnace or oven, depending on project/client requirements.
- 6.2.1 If using a solvent rinse to clean the foil, follow a procedure as specified by the client or the project requirements. If using the muffle furnace, clean at 550°C for at least 2 hours, or as specified by client. If using the oven, use the oven cleaning cycle (which has a pre-set temperature and time). Keep foil clean by wrapping the sheets in clean foil and placing in Ziploc® or Whirl-Pak® bags, in quantities specified by the project leader. Avoid touching the surface of the clean foil sheets or the inside of the foil wrapping or bags.
- 6.3 Buckets.
- 6.4 Cooler with wet and/or dry ice for preserving samples (if applicable). If using wet ice, add a cooler liner.
- 6.5 Dip nets, fiberglass handles.
- 6.6 Electroshocker (backpack, long-line, or towed barge).
- 6.7 Electroshocker log book.
- 6.8 First aid kit.
- 6.9 Field notebook, or data sheets and pens/pencils.
- 6.10 Fire extinguisher.
- 6.11 Flagging tape for marking sampling area.
- 6.12 Gloves, vinyl.

- 6.13 Hearing Protection.
- 6.14 Livewell, if needed.
- 6.15 Scale for weighing fish.
- 6.16 Measuring board.
- 6.17 Meter for measuring dissolved oxygen, temperature, specific conductivity and pH.
- 6.18 Non-conducting waders.
- 6.19 Personal Flotation Devices (PFDs), life vests.
- 6.20 Plastic bottles for vouchers.
- 6.21 Polarized sunglasses.
- 6.22 Range finder (laser) or measuring tape, for measuring distance.
- 6.23 Secchi disk for measuring water transparency.

## **VII. REAGENTS AND STANDARDS**

10% Buffered formalin solution to preserve voucher samples.

## **VIII. SAMPLE COLLECTION, PRESERVATION, AND STORAGE**

See Section XI, Procedure.

## **IX. QUALITY CONTROL**

- 9.1 Voucher specimens and/or high quality digital photographs will be archived according to the study plan. Voucher specimens and/or high quality digital photographs can be used to verify species identifications in a laboratory using regional keys.
- 9.2 Field sampling equipment will be cleaned and operated in the prescribed manner.
- 9.3 Sampling information will be noted in the field notebook or on field data sheets and on the chain of custody and sample containers, as needed. See the Record Keeping section within the procedure for more information. Sampling records will be reviewed for accuracy and completeness at the end of each sampling event.

## **X. CALIBRATION**

Not Applicable.

## **XI. PROCEDURE**

### **11.1 Study Area**

- 11.1.1 Determination of the length of stream to be sampled varies according to the width of the stream. The total distance of stream or river sampled will be listed in the study plan for each project.
- 11.1.2 The distance sampled depends on the objectives of the study and the heterogeneity of the system. Sampling zones are to include as many of the available (recognizable) habitats as possible.
- 11.1.3 Sampling zones are marked (e.g., flagging tape on adjacent trees or buoys at beginning and end of sampling zone) for reproducible efforts. GPS waypoints can also serve as an alternative to physically marking sampling zones.

### **11.2 Collection Procedure**

- 11.2.1 All electrofishing for wadeable rivers and streams is conducted during daylight hours.
- 11.2.2 Electrofishing in a wadeable stream is conducted in an upstream direction using the backpack, towed barge, or long-line electrofishing equipment.
- 11.2.3 Pulsed DC current works well for a variety of waters exhibiting a wide range in conductivity.
- 11.2.4 A fish that comes into contact with a pulse DC field is forced to swim toward the anode units extending below the water surface.
- 11.2.5 Hand operated trigger (long-line/towed barge/backpack) activates the electrical current.
- 11.2.6 The crew member(s) then nets (with a long-handled dip net) the stunned fish that come into view and range.

- 11.2.7 After netting, the stunned fish are placed in bucket(s) or live wells containing site water where they are kept until processing.
- 11.2.8 The Dead Man's Switch must be in the off position to stop the electrical current during fish transfer and processing operations.
- 11.2.9 Record time shocked, by reading seconds elapsed (actual shocking time) on voltage converter, in a record book.
  - 11.2.9.1 Relative abundance estimates are made on a catch per unit effort basis.
  - 11.2.9.2 For fish community assessments, all fish stunned are to be collected.
  - 11.2.9.3 Other efforts, such as fish collected for residue analysis or stomach analysis, do not require the collection of all stunned fish.

### 11.3 Processing Procedures

- 11.3.1 Processing fish collections generally follows a study plan and may include: measuring and recording the length; weight and identification of the species; biopsy tissue plug; whole tissue collection; and identification vouchering.
- 11.3.2 Fish may be processed for contaminant analysis, if needed by the project, using the following steps (or follow project specifications if they differ).

**Note:** For fish kept for contaminant analysis, some fish may still be very active during collection and holding and will need to be dispatched. The fisheries biologist will determine the appropriate method to accomplish this task.

- 11.3.2.1 Wear disposable latex or nitrile gloves while handling fish.
- 11.3.2.2 Identify fish to the species level.
- 11.3.2.3 Measure the total length of each fish in millimeters on a clean measuring board.
- 11.3.2.4 Weigh each fish to the nearest gram.



- 11.3.2.5 Place the fish on solvent rinsed or muffled aluminum foil.
- 11.3.2.6 Wrap the fish in foil and place in a labeled plastic bag.
- 11.3.2.7 Add a label to the bag following project specifications, or with the sampling date, sample site, sampler's initials, fish length and weight, fish species' scientific name.
- 11.3.2.8 Preserve the samples following project specifications by placing them in a cooler and covering with wet or dry ice. Deliver or ship samples with a completed COC form. (See SOP LAB 1014.)

**Note:** If shipping samples from the field requires dry ice for preservation, the outermost container must be labeled with a hazard Class 9 Miscellaneous Dangerous Goods placard, UN 1845, indicating the net weight of the dry ice, in kilograms, inside of the shipping container.

- 11.3.3 If voucher specimens are retained for QA, the individual specimens must be placed in a jar labeled with the site ID, date, and time of collection. The jar must have enough 10% buffered formalin to cover the specimens. An additional label written in pencil on waterproof paper with the same information as the outside of the jar will be placed inside the jar. Do not over crowd the jar with specimens. Use the best specimens available to help facilitate easier identification. Record in the log book the number of fish preserved in each jar.

#### 11.4 Record Keeping

- 11.4.1 Detailed records are kept on sampling conditions including: habitat sampled (substrate type, vegetation, habitat type, water depth, and water velocity); physicochemical water parameters (dissolved oxygen (DO), water temperature, turbidity, pH, and conductivity); and weather conditions (air temperature and cloud cover).
- 11.4.2 The length of stream sampled and time of effort (e.g., seconds) are to be recorded for each sample.

## XII. DATA ANALYSIS AND CALCULATIONS

Calculate and record CPUE on data sheets or field notebook for each sampling site. In this procedure CPUE is measured by dividing the number of fish caught per unit of time spent electrofishing.

### **XIII. EQUIPMENT MAINTENANCE**

- 13.1 Record all maintenance to the electroshocker in the equipment specific log book.
- 13.2 All electrical cables and connections should be inspected daily for signs of wear. Replace cables as necessary.
- 13.3 Anode and cathode arrays are prone to electroplating with carbonate salts. If the plating is not removed periodically, the equipment will not function properly.
  - 13.3.1 Clean the electrodes by placing them in a five-gallon bucket or other suitable container with a lime removing chemical. Do not immerse any soldered ends in the cleaning solution.
  - 13.3.2 Rinse and dry the electrodes. Inspect for any loose or worn wires. Replace as necessary.

### **XIV. QUALITY ASSURANCE**

- 14.1 Data reports are reviewed by a qualified Great Lakes Environmental Center, Inc. (GLEC) upper level staff member, such as the Field Coordinator or the Field Manager, before submission to the client. This review evaluates the computations performed, and the accuracy and traceability of the data. It is the responsibility of the person who generated the report to satisfactorily address any of the QA reviewer's comments and concerns and to generate the final report.
- 14.2 The field data sheets and/or field notebooks will be kept on file at GLEC. Field data sheets and chain of custody forms are included as part of the final report. Project information is maintained at GLEC for at least seven years past the end of the contract.

### **XV. WASTE MANAGEMENT/POLLUTION PREVENTION**

- 15.1 Waste 10% buffered formalin solution will be returned to GLEC laboratories, the volume of the solution entered into the hazardous waste log book, and stored in the chemical shed until a disposal appointment is scheduled. GLEC utilizes Grand Traverse County RecycleSmart Hazardous Waste Collection events to dispose of any hazardous materials.
- 15.2 This method will be conducted with active pollution prevention as an objective by: modifying processes to reduce or eliminate waste, promoting the use of non-toxic or less-toxic substances, implementing conservation techniques, and re-using materials rather than putting them into the waste stream.

## **XVI. DEVIATIONS**

None.

## **XVII. REFERENCES**

- 17.1 EPA Guidance for Preparing Standard Operating Procedures (SOPs), EPA QA/G6.
- 17.2 GLEC SOP FLD 6019. SOP for Working Over or Near Water.
- 17.3 GLEC SOP FLD 6020. Safe Boat Operation.
- 17.4 GLEC SOP FLD 6037. Determining Wet Weather Events.
- 17.5 GLEC SOP LAB 1014. SOP for Chain of Custody.
- 17.6 Rabeni, C.F., J. Lyons, N. Mercado-Silva, and J.T. Peterson 2009. Warmwater fish in wadeable streams. Pages 43-58 *in* S.A. Bonar, W.A. Hubert, and D.W. Willis, editors. Standard methods for sampling North American freshwater fishes. American Fisheries Society, Bethesda, Maryland.

**STANDARD OPERATING PROCEDURE FOR  
WORKING OVER OR NEAR WATER**

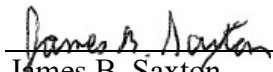
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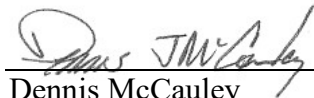
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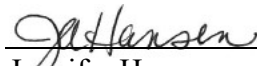
**United States Department of Labor, Occupational Safety and Health Administration  
(OSHA) Regulation 29 CFR 1926 – Safety and Health Regulations for Construction,  
Subparts E and M**

**February 9, 2024**

**Great Lakes Environmental Center, Inc.  
(GLEC)**

 2/9/2024  
James B. Saxton Date  
Technical Author

 2/13/2024  
Dennis McCauley Date  
President/Senior Environmental Scientist

 2/9/2024  
Jennifer Hansen Date  
GLEC Quality Assurance Officer

**Training Statement:**

I have read, understand, and agree to follow this SOP.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Printed Name \_\_\_\_\_

***Changes made in this revision:***

- Added proprietary and confidential footer.
- Changed Field Manager and field crew leader to Field Coordinator throughout.
- Changed Operator title to Boat Operator.
- Editorial changes throughout.

***Changes made in revision November 15, 2022:***

- Changed reviewer to Jamie Saxton.
- Editorial changes.

***Changes made in revision March 10, 2022:***

- Added Severe Weather and Lightening Safety language to H&S Section.
- Added GLEC SOP FLD 6037 Determining Wet Weather Events as a reference.

***Changes made in revision Jun 14, 2019:***

- None.

***Changes made in revision April 20, 2018:***

- Added a definition for the ABC type of fire extinguisher.

***Changes made in revision March 13, 2017:***

- None.

***Changes made in revision December 7, 2015:***

- Added “When required by the project,” to the first sentence in the following paragraphs:
  - “Employees conducting work activities within six feet of the edge of any open body of water such as rivers, bays, lakes or oceans shall wear PFDs. A safety line must also be attached to the employee if the body of water is fast moving such that if the employee falls into the water, they could not easily extract themselves.”
  - “A lifesaving boat or skiff shall be immediately available at any location where there is a drowning hazard. Lifesaving boats shall not be used for any other purpose except for rescue and shall be in the water or capable of being launched by one person. If the water is shallow enough that rescuers could simply run in to assist someone in need, a boat or skiff would not be required.”
  - “Fall protection shall be provided for all employees working six feet or more above the water surface. If continuous fall protection, other than safety nets, is used to prevent employees from falling into the water, employees will not be required to wear PFDs. When safety nets are used in place of other continuous fall protection measures, employees will be required to wear PFDs.”
  - “Ladders shall be provided in the vicinity of all floating vessels on which work is being performed. Ladders shall be portable or fixed and shall be of sufficient length to allow employees to reach safety in the event they fall into the water.”

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## **I. SCOPE AND APPLICATION**

- 1.1 This Standard Operating Procedure (SOP) outlines the requirements for work performed over or near water, including work performed by Great Lakes Environmental Center, Inc. (GLEC) and subcontractor employees, where a danger of drowning exists.
- 1.2 Familiarity with field sampling procedures is recommended prior to implementing this SOP. Training requirements shall be assessed and training shall be obtained and documented for workers performing work over or near water, including the use and inspection of Personal Flotation Devices (PFDs), lifesaving and fall protection equipment.

## **II. SUMMARY OF METHOD**

- 2.1 This procedure applies to all segments of GLEC where work is performed over or near water. It also applies to all such work when it is not governed by a more restrictive client policy or procedure. If a client policy or procedure is less restrictive, it will be used in addition to this policy. Subcontractors will use this policy in addition to any procedure they may have within their organization.
- 2.2 This SOP is based on the United States Department of Labor, Occupational Safety and Health Administration (OSHA) Regulation 29 CFR 1926, Safety and Health Regulations for Construction, Subpart E - Personal Protective and Life Saving Equipment, and Subpart M - Fall Protection.

## **III. DEFINITIONS**

- 3.1 Boat Operator – A designated individual who must either man the lifesaving skiff at all times or remain in the immediate area such that they can quickly reach the lifesaving skiff and deploy the vessel.
- 3.2 Drowning Hazard – There is a potential drowning hazard when the water is two or more feet deep, or when other conditions increase hazards associated with shallow water such as current, water temperature, wave action, water intakes, rapids, waterfalls, etc.
- 3.3 Fire Extinguisher (ABC) – ABC fire extinguishers will put out three classes of fires: Class A for trash, wood and paper; Class B for liquids and gases; and Class C for energized electrical sources.

- 3.4 Lifesaving Skiff – A small, open boat or vessel dedicated solely for water rescue and equipped with oars and a motor as well as equipment required by the United States Coast Guard (USCG), including safety lights, fire extinguishers, radios and lifesaving devices.
- 3.5 Occupational Safety and Health Administration (OSHA) - A Federal agency under the Department of Labor that publishes and enforces safety and health regulations for most businesses and industries in the United States.
- 3.6 Personal Floatation Device (PFD) - All recreational boats must carry one wearable PFD (Types I, II, III or V PFD) for each person aboard. Any boat 16 ft and longer (except canoes and kayaks) must also carry one throwable PFD (Type IV PFD). PFDs must be: 1) Coast Guard approved; 2) in good and serviceable condition, and; 3) the appropriate size for the intended user.
- 3.7 Ring buoy – A life preserver in the form of a ring made of buoyant material, known informally as a life buoy.
- 3.8 United States Coast Guard (USCG) – The governing agency responsible for boating safety requirements on navigable waters within the United States.

#### **IV. INTERFERENCES AND CAUTIONS**

Not Applicable.

#### **V. HEALTH AND SAFETY**

- 5.1 Severe weather may be encountered and adversely affect working conditions. These weather events may include thunderstorms, rainstorms, visible lightning, high winds (>40 mph), extreme temperatures (>100°F or <0°F) or a tornado watch or warning for an area including the work site.
- 5.2 Work will stop for lightning safety when it is determined that lightning is striking within 6 to 10 miles of the work area. This determination will be based on internet weather reports, client project manager notification and/or Field Coordinator or Boat Operator decision. Lightning distance is estimated by counting the time from flash to the bang of associated thunder. For each 5-second count from flash to bang (F-B ratio), lightning is 1 mile away. For example, a F-B ratio of 10 means that lightning is 2 miles away and a F-B ratio of 15 lightning is 3 miles away and so on.
- 5.3 This SOP is dedicated to the safety of GLEC staff working over or near water. For further safety measures see: GLEC SOP FLD 6037 Determining Wet Weather Events and GLEC SOP FLD 6020 Safe Boat Operation.



## **VI. EQUIPMENT AND SUPPLIES**

- 6.1 USCG-approved PFD.
- 6.2 Ring buoy – 30 inches in diameter with a 90-foot line attached.
- 6.3 Fall protection – safety lines and/or nets (see Section 11.2.5); and boat ladders as applicable (see Section 11.2.6).
- 6.4 Lifesaving Skiff – as needed (see Section 11.2.3).
- 6.5 First Aid Kit.
- 6.6 Boat Radio.
- 6.7 Fire Extinguisher (ABC).

## **VII. REAGENTS AND STANDARDS**

Not Applicable.

## **VIII. SAMPLE COLLECTION, PRESERVATION, AND STORAGE**

Not Applicable.

## **IX. QUALITY CONTROL**

Not Applicable.

## **X. CALIBRATION**

Not Applicable.

## **XI. PROCEDURE**

- 11.1 Major steps involved with the implementation of this procedure, based on staff roles, are as follows:
  - 11.1.1 The Field Coordinator or Boat Operator shall:
    - 11.1.1.1 Ensure all applicable employees are trained on the requirements of this SOP.

- 11.1.1.2 Remain aware of changing work conditions that may result in employees working, even briefly, in areas not covered by OSHA safety regulations.
- 11.1.1.3 Shall always be present and specifically designated to respond to water emergencies and operate the skiff or boat when employees are working over or near water.
- 11.1.1.4 Must always remain in the immediate area of the skiff or boat.
- 11.1.1.5 May be assigned other duties only if those duties do not interfere with the Boat Operator's ability to be aware of, and respond to, water emergencies.
- 11.1.1.6 Must be aware of the number of work locations where there is a danger of falling into water and the distance to each of those locations.
- 11.1.2 The Field Technician shall:
  - 11.1.2.1 Perform work over or near water only after being trained to the requirements of this procedure.
- 11.2 Requirements when working over or near water:
  - 11.2.1 Employees working over or near water, where the danger of drowning exists, shall be provided with USCG-approved life jacket or buoyant work vests. PFDs and fall protection equipment shall be inspected before and after each use for defects and signs of wear that would alter their strength or buoyancy. Defective units will be destroyed or tagged out of service and not used.
    - 11.2.1.1 GLEC uses PFDs that are rated for flotation in the water conditions at the job site and are based on the body weight of the Field Coordinator or Boat Operator and Field Technician.
  - 11.2.2 When required by the project, employees conducting work activities within 6 feet of the edge of any open body of water such as rivers, bays, lakes or oceans shall wear PFDs. A safety line must also be attached to the employee if the body of water is fast moving such that if the employee falls into the water, they could not easily extract themselves.

- 11.2.3 When required by the project, a lifesaving boat or skiff shall be immediately available at any location where there is a drowning hazard. Lifesaving boats shall not be used for any other purpose except for rescue and shall be in the water or capable of being launched by one person. If the water is shallow enough that rescuers could simply run in to assist someone in need, a boat or skiff would not be required.
- 11.2.4 Ring buoys shall have at least 90 feet of line attached. When work is performed on a vessel under 200 feet in length, at least one 30-inch ring buoy will be located at the gangway. When work is performed on a floating vessel 200 feet or more in length, at least three 30-inch ring buoys with lines attached shall be located in readily visible and accessible places, including one ring buoy located forward, one aft, and one at the access to the gangway.
  - 11.2.4.1 GLEC uses only 30-inch diameter ring buoys approved by the USCG, and each ring buoy has a line attached of at least 90 feet in length.
- 11.2.5 When required by the project, fall protection shall be provided for all employees working 6 feet or more above the water surface. If continuous fall protection, other than safety nets, is used to prevent employees from falling into the water, employees will not be required to wear PFDs. When safety nets are used in place of other continuous fall protection measures, employees will be required to wear PFDs.
- 11.2.6 When required by the project, ladders shall be provided in the vicinity of all floating vessels on which work is being performed. Ladders shall be portable or fixed and shall be of sufficient length to allow employees to reach safety in the event they fall into the water.

## **XII. DATA ANALYSIS AND CALCULATIONS**

Not Applicable.

## **XIII. INSTRUMENT MAINTENANCE**

Not Applicable.

## **XIV. QUALITY ASSURANCE**

Not Applicable.

## **XV. WASTE MANAGEMENT/POLLUTION PREVENTION**

This method will be conducted with active pollution prevention as an objective by: modifying processes to reduce or eliminate waste, promoting the use of non-toxic or less-toxic substances, implementing conservation techniques, and re-using materials rather than putting them into the waste stream.

## **XVI. DEVIATIONS**

There are no deviations from the referenced methods within this procedure.

## **XVII. REFERENCES**

- 17.1 GLEC SOP FLD 6020. Safe Boat Operation.
- 17.2 GLEC SOP FLD 6037. Determining Wet Weather Events.
- 17.3 United States Department of Labor, Occupational Safety and Health Administration (OSHA) Regulation 29 CFR 1926 – Safety and Health Regulations for Construction. Subpart E - Personal Protective and Life Saving Equipment; Working Over and Near Water, Safety Nets, Definitions, and associated OSHA Interpretation Letters.
- 17.4 United States Department of Labor, Occupational Safety and Health Administration (OSHA) Regulation 29 CFR 1926 - Safety and Health Regulations for Construction. Subpart M - Fall Protection.

## **Appendix C.1**

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### **Data Usability Summary Report (DUSR)**

**DATA USABILITY SUMMARY REPORT**

**2024 BIOTA MONITORING  
SANDERS CREEK SITE  
CARRIER CORPORATION  
THOMPSON ROAD, SYRACUSE, NY  
SITE ID# 734043**

**Analyses Performed by:**

**SGS NORTH AMERICA, INC.  
WILMINGTON, NC 28405**

**Prepared for:**

**CARRIER CORPORATION  
SYRACUSE, NY 13214**

**Prepared by:**

**AECOM  
50 LAKEFRONT BOULEVARD  
SUITE 111  
BUFFALO, NEW YORK 14202**

**JANUARY 2025**

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## **TABLES**

(Following Text)

Table 1            Validated Sample Analytical Results

## **ATTACHMENTS**

Attachment A – Form 1's

Attachment B – Support Documentation

## I. INTRODUCTION

This Data Usability Summary Report (DUSR) has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation *DER-10 Technical Guidance for Site Investigation and Remediation*, Appendix 2B - *Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, May 2010.

The data being evaluated is from the October 8-10, 2024, sampling of 79 Fish Tissue samples and 4 matrix spike/matrix spike duplicate pairs (MS/MSD).

## II. ANALYTICAL METHODOLOGIES AND DATA VALIDATION PROCEDURES

The analytical laboratory that performed the analyses is SGS North America, Inc., located in Wilmington, NC. The samples were analyzed for the following parameters.

Matrix	Parameter	Method
Tissue	Polychlorinated Biphenyls (PCBs) (Total)	SW8082A

A limited data validation was performed following the guidelines in the following USEPA Region II documents:

- *Standard Operating Procedure for Validation of Polychlorinated Biphenyl (PCB) Aroclor Data*, SOP QA-HWSS-A-006, Rev. 0, April 2022.

The limited validation included: a review of completeness of all required deliverables; holding times; a review of quality control (QC) results [blanks, surrogate recoveries, calibration standards, and MS/MSD/laboratory control sample (LCS) recoveries] to determine if the data are within the protocol-required limits and specifications; a determination that all samples were analyzed using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and a review of laboratory data qualifiers.

Qualifications applied to the data during the limited data validation include ‘J’ (estimated concentration). Definitions of USEPA data qualifiers are presented at the end of this text. The validated analytical results are presented on Table 1. Copies of marked-up laboratory analytical summaries (Form 1’s)



are presented in Attachment A. Documentation supporting the qualification of data is presented in Attachment B. Only analytical deviations affecting data usability are discussed in this report.

### **III. DATA DELIVERABLE COMPLETENESS**

Full deliverable data packages (i.e., NYSDEC Category B or equivalent) were provided by the laboratory, which included all reporting forms and raw data necessary to fully evaluate and verify the reported analytical results.

### **IV. SAMPLE RECEIPT/PRESERVATION/HOLDING TIMES**

All samples were received by the laboratory intact, properly preserved and under proper chain-of-custody. The laboratory case narratives noted the samples were extracted outside holding time. However, in accordance with the validation guidelines (noted above) non-aqueous samples can be extracted within 1 year of the sample date and analyzed within 40 days of extraction. The samples were frozen after collection and received at the laboratory at a temperature <6 °C. No qualification was necessary. All samples were analyzed within the required holding times (HT).

### **V. NON-CONFORMANCES**

- **Matrix Spike/Matrix Spike Duplicate (MS/MSD)**

The percent recoveries (%Rs) for Aroclors 1248, 1254, and 1260 were below the lower QC limit in the MS/MSD performed on sample 24-GS-R5-COMP. All %Rs in the laboratory control sample (LCS) were acceptable. The detected results for these Aroclors have been qualified 'J' in this sample.

The %Rs for Aroclor 1260 were below the lower QC limit in the MS/MSD performed on samples 24-GS-R6-COMPA and 24-CC-R1-COMPA. All %Rs in the LCS were acceptable. The detected results for this Aroclor have been qualified 'J' in these samples.

The %Rs for Aroclor 1260 were below the lower QC limit in the MS/MSD performed on sample 24-CC-R2-COMPA. The %R for Aroclor 1254 was above the upper QC limit in the MSD in this sample. All %Rs in the LCS were acceptable. The detected results for both Aroclors have been qualified 'J' in this sample.

Support documentation (i.e., Form 3) is provided in attachment B.

## VI. SAMPLE RESULTS AND REPORTING

All quantitation/detection limits were reported in accordance with method requirements and were adjusted for sample weight and dilution factors. Results below the quantitation limits were qualified 'J' by the laboratory.

In accordance with the validation guidelines, if the percent difference (%D) of the detected Aroclors between the two columns exceeded the QC limits listed in the table below, the samples were qualified accordingly. Support documentation (i.e., Form 10) is provided in attachment B.

Criteria	Action	
	Detects	Non-Detects
%D for any target analyte 0%-25%	No qualification	Not Applicable
%D for any target analyte 26%-200%	J	Not Applicable

## VII. SUMMARY

All sample analyses were found to be compliant with the method and validation criteria, except where previously noted.

Those results qualified 'J' are considered conditionally usable. All other sample results are usable as reported. AECOM does not recommend the recollection of any samples currently.

**Prepared By:** Ann Marie Kropovitch, Chemist



**Date:** 1/24/2025

**Reviewed By:** Peter R. Fairbanks, Senior Chemist



**Date:** 1/24/2025

## **DEFINITIONS OF USEPA DATA QUALIFIERS**

U –	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J –	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
(J+) -	The result is an estimated quantity. The associated numerical value is biased high.
(J-) -	The result is an estimated quantity. The associated numerical value is biased low.
UJ –	The analyte was analyzed for, but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R –	The data are unusable. The sample results are rejected due to serious deficiencies in meeting quality control criteria. The analyte may or may not be present in the sample.
D –	The sample result was reported from a secondary dilution analysis.
NJ –	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.

**TABLE 1**  
**VALIDATED SAMPLE ANALYTICAL RESULTS**  
**CARRIER THOMPSON ROAD SITE**

Location ID		24-CC-R0-COMPA	24-CC-R0-COMP B	24-CC-R0-COMPC	24-CC-R0-COMPD	24-CC-R0-COMPE
Sample ID		24-CC-R0-COMPA	24-CC-R0-COMP B	24-CC-R0-COMPC	24-CC-R0-COMPD	24-CC-R0-COMPE
Matrix		Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/08/24	10/08/24	10/08/24	10/08/24	10/08/24
Parameter	Units					
<b>Polychlorinated Biphenyls</b>						
Aroclor 1016	UG/KG	20 U	19 U	20 U	19 U	19 U
Aroclor 1221	UG/KG	20 U	19 U	20 U	19 U	19 U
Aroclor 1232	UG/KG	20 U	19 U	20 U	19 U	19 U
Aroclor 1242	UG/KG	20 U	19 U	20 U	19 U	19 U
Aroclor 1248	UG/KG	20 U	19 U	20 U	19 U	19 U
Aroclor 1254	UG/KG	88.6	76.9	74.4	68.2	68.1
Aroclor 1260	UG/KG	74.9	55.2	85.7	49.9	63.4
Aroclor 1262	UG/KG	20 U	19 U	20 U	19 U	19 U
Aroclor 1268	UG/KG	20 U	19 U	20 U	19 U	19 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 1/21/25

CHECKED BY: PF 1/24/25

Detection Limits shown are PQL

**TABLE 1**  
**VALIDATED SAMPLE ANALYTICAL RESULTS**  
**CARRIER THOMPSON ROAD SITE**

Location ID		24-CC-R1-COMPA	24-CC-R1-COMP B	24-CC-R1-COMPC	24-CC-R1-COMPD	24-CC-R1-COMPE
Sample ID		24-CC-R1-COMPA	24-CC-R1-COMP B	24-CC-R1-COMPC	24-CC-R1-COMPD	24-CC-R1-COMPE
Matrix		Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/08/24	10/08/24	10/08/24	10/08/24	10/08/24
Parameter	Units					
<b>Polychlorinated Biphenyls</b>						
Aroclor 1016	UG/KG	19 U	19 U	20 U	20 U	20 U
Aroclor 1221	UG/KG	19 U	19 U	20 U	20 U	20 U
Aroclor 1232	UG/KG	19 U	19 U	20 U	20 U	20 U
Aroclor 1242	UG/KG	19 U	19 U	20 U	20 U	20 U
Aroclor 1248	UG/KG	19 U	19 U	20 U	20 U	20 U
Aroclor 1254	UG/KG	652	91.7	414	398	334
Aroclor 1260	UG/KG	361 J	125	288	250	187
Aroclor 1262	UG/KG	19 U	19 U	20 U	20 U	20 U
Aroclor 1268	UG/KG	19 U	19 U	20 U	20 U	20 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 1/21/25

CHECKED BY: PF 1/24/25

Detection Limits shown are PQL

**TABLE 1**  
**VALIDATED SAMPLE ANALYTICAL RESULTS**  
**CARRIER THOMPSON ROAD SITE**

Location ID		24-CC-R1-COMPF	24-CC-R2-COMPA	24-CC-R2-COMPB	24-CC-R2-COMPC	24-CC-R2-COMPD
Sample ID		24-CC-R1-COMPF	24-CC-R2-COMPA	24-CC-R2-COMPB	24-CC-R2-COMPC	24-CC-R2-COMPD
Matrix		Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/08/24	10/08/24	10/08/24	10/08/24	10/08/24
Parameter	Units					
<b>Polychlorinated Biphenyls</b>						
Aroclor 1016	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1221	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1232	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1242	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1248	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1254	UG/KG	344	266 J	442	545	602
Aroclor 1260	UG/KG	304	362 J	647 J	735 J	661 J
Aroclor 1262	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1268	UG/KG	20 U	20 U	20 U	20 U	20 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 1/21/25

CHECKED BY: PF 1/24/25

Detection Limits shown are PQL

**TABLE 1**  
**VALIDATED SAMPLE ANALYTICAL RESULTS**  
**CARRIER THOMPSON ROAD SITE**

Location ID		24-CC-R2-COMPE	24-CC-R2-COMPF	24-CC-R2-COMPG	24-CC-R3-COMPA	24-CC-R3-COMPB
Sample ID		24-CC-R2-COMPE	24-CC-R2-COMPF	24-CC-R2-COMPG	24-CC-R3-COMPA	24-CC-R3-COMPB
Matrix		Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/08/24	10/08/24	10/08/24	10/10/24	10/10/24
Parameter	Units					
Polychlorinated Biphenyls						
Aroclor 1016	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1221	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1232	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1242	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1248	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1254	UG/KG	413	397	465	342	324
Aroclor 1260	UG/KG	679 J	481 J	690 J	687 J	596 J
Aroclor 1262	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1268	UG/KG	20 U	20 U	20 U	20 U	20 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 1/21/25

CHECKED BY: PF 1/24/25

Detection Limits shown are PQL

**TABLE 1**  
**VALIDATED SAMPLE ANALYTICAL RESULTS**  
**CARRIER THOMPSON ROAD SITE**

Location ID		24-CC-R4-COMPA	24-CC-R4-COMP B	24-CC-R5-COMPA	24-CC-R5-COMP B	24-CC-R5-COMPC
Sample ID		24-CC-R4-COMPA	24-CC-R4-COMP B	24-CC-R5-COMPA	24-CC-R5-COMP B	24-CC-R5-COMPC
Matrix		Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/10/24	10/10/24	10/09/24	10/09/24	10/09/24
Parameter	Units					
Polychlorinated Biphenyls						
Aroclor 1016	UG/KG	19 U	20 U	18 U	19 U	19 U
Aroclor 1221	UG/KG	19 U	20 U	18 U	19 U	19 U
Aroclor 1232	UG/KG	19 U	20 U	18 U	19 U	19 U
Aroclor 1242	UG/KG	19 U	20 U	18 U	19 U	19 U
Aroclor 1248	UG/KG	19 U	20 U	18 U	19 U	19 U
Aroclor 1254	UG/KG	284	167	88.7	111	56.1
Aroclor 1260	UG/KG	499	219	244	174	99.5
Aroclor 1262	UG/KG	19 U	20 U	18 U	19 U	19 U
Aroclor 1268	UG/KG	19 U	20 U	18 U	19 U	19 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 1/21/25

CHECKED BY: PF 1/24/25

Detection Limits shown are PQL



**TABLE 1**  
**VALIDATED SAMPLE ANALYTICAL RESULTS**  
**CARRIER THOMPSON ROAD SITE**

Location ID		24-CC-R5-COMPD	24-CC-R6-COMPA	24-CC-R6-COMPB	24-CC-R6-COMPC	24-CC-R7-COMPA
Sample ID		24-CC-R5-COMPD	24-CC-R6-COMPA	24-CC-R6-COMPB	24-CC-R6-COMPC	24-CC-R7-COMPA
Matrix		Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/09/24	10/09/24	10/09/24	10/09/24	10/10/24
Parameter	Units					
Polychlorinated Biphenyls						
Aroclor 1016	UG/KG	20 U	19 U	20 U	18 U	19 U
Aroclor 1221	UG/KG	20 U	19 U	20 U	18 U	19 U
Aroclor 1232	UG/KG	20 U	19 U	20 U	18 U	19 U
Aroclor 1242	UG/KG	20 U	19 U	20 U	18 U	19 U
Aroclor 1248	UG/KG	20 U	19 U	20 U	18 U	19 U
Aroclor 1254	UG/KG	294	166	333	229	452
Aroclor 1260	UG/KG	508	239 J	431 J	331 J	666 J
Aroclor 1262	UG/KG	20 U	19 U	20 U	18 U	19 U
Aroclor 1268	UG/KG	20 U	19 U	20 U	18 U	19 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 1/21/25

CHECKED BY: PF 1/24/25

Detection Limits shown are PQL

**TABLE 1**  
**VALIDATED SAMPLE ANALYTICAL RESULTS**  
**CARRIER THOMPSON ROAD SITE**

Location ID		24-CC-R7-COMP B	24-CC-R7-COMP C	24-CC-R7-COMP G	24-CR-R0-COMP A	24-CR-R2-COMP A
Sample ID		24-CC-R7-COMP B	24-CC-R7-COMP C	24-CC-R7-COMP G	24-CR-R0-COMP A	24-CR-R2-COMP A
Matrix		Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/10/24	10/10/24	10/10/24	10/10/24	10/10/24
Parameter	Units					
Polychlorinated Biphenyls						
Aroclor 1016	UG/KG	19 U	19 U	19 U	19 U	20 U
Aroclor 1221	UG/KG	19 U	19 U	19 U	19 U	20 U
Aroclor 1232	UG/KG	19 U	19 U	19 U	19 U	20 U
Aroclor 1242	UG/KG	19 U	19 U	19 U	19 U	20 U
Aroclor 1248	UG/KG	19 U	19 U	264	19 U	20 U
Aroclor 1254	UG/KG	241	269	393	19 U	20 U
Aroclor 1260	UG/KG	307 J	365 J	291 J	12.1 J	68.5 J
Aroclor 1262	UG/KG	19 U	19 U	19 U	19 U	20 U
Aroclor 1268	UG/KG	19 U	19 U	19 U	19 U	20 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 1/21/25

CHECKED BY: PF 1/24/25

Detection Limits shown are PQL

**TABLE 1**  
**VALIDATED SAMPLE ANALYTICAL RESULTS**  
**CARRIER THOMPSON ROAD SITE**

Location ID		24-CR-R7-COMPA	24-GS-R0-COMPA	24-GS-R0-COMPB	24-GS-R0-COMPC	24-GS-R0-COMPD
Sample ID		24-CR-R7-COMPA	24-GS-R0-COMPA	24-GS-R0-COMPB	24-GS-R0-COMPC	24-GS-R0-COMPD
Matrix		Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/10/24	10/08/24	10/08/24	10/08/24	10/08/24
Parameter	Units					
<b>Polychlorinated Biphenyls</b>						
Aroclor 1016	UG/KG	20 U	19 U	18 U	20 U	20 U
Aroclor 1221	UG/KG	20 U	19 U	18 U	20 U	20 U
Aroclor 1232	UG/KG	20 U	19 U	18 U	20 U	20 U
Aroclor 1242	UG/KG	20 U	19 U	18 U	20 U	20 U
Aroclor 1248	UG/KG	20 U	19 U	18 U	91.2	159
Aroclor 1254	UG/KG	22.4	66.0	314	124	151
Aroclor 1260	UG/KG	85.5 J	34.2	435	65.9	91.2
Aroclor 1262	UG/KG	20 U	19 U	18 U	20 U	20 U
Aroclor 1268	UG/KG	20 U	19 U	18 U	20 U	20 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 1/21/25

CHECKED BY: PF 1/24/25

Detection Limits shown are PQL

**TABLE 1**  
**VALIDATED SAMPLE ANALYTICAL RESULTS**  
**CARRIER THOMPSON ROAD SITE**

Location ID		24-GS-R0-COMPE	24-GS-R0-COMPF	24-GS-R1-COMPA	24-GS-R1-COMPB	24-GS-R1-COMPC
Sample ID		24-GS-R0-COMPE	24-GS-R0-COMPF	24-GS-R1-COMPA	24-GS-R1-COMPB	24-GS-R1-COMPC
Matrix		Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/08/24	10/08/24	10/08/24	10/08/24	10/08/24
Parameter	Units					
<b>Polychlorinated Biphenyls</b>						
Aroclor 1016	UG/KG	20 U	19 U	20 U	20 U	20 U
Aroclor 1221	UG/KG	20 U	19 U	20 U	20 U	20 U
Aroclor 1232	UG/KG	20 U	19 U	20 U	20 U	20 U
Aroclor 1242	UG/KG	20 U	19 U	20 U	20 U	20 U
Aroclor 1248	UG/KG	29.5	19 U	20 U	20 U	20 U
Aroclor 1254	UG/KG	113	88.8	710	609	971
Aroclor 1260	UG/KG	74.8	60.4 J	353	531	522
Aroclor 1262	UG/KG	20 U	19 U	20 U	20 U	20 U
Aroclor 1268	UG/KG	20 U	19 U	20 U	20 U	20 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 1/21/25

CHECKED BY: PF 1/24/25

Detection Limits shown are PQL

**TABLE 1**  
**VALIDATED SAMPLE ANALYTICAL RESULTS**  
**CARRIER THOMPSON ROAD SITE**

Location ID		24-GS-R1-COMPD	24-GS-R1-COMPE	24-GS-R2-COMPA	24-GS-R2-COMPB	24-GS-R2-COMPC
Sample ID		24-GS-R1-COMPD	24-GS-R1-COMPE	24-GS-R2-COMPA	24-GS-R2-COMPB	24-GS-R2-COMPC
Matrix		Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/08/24	10/08/24	10/08/24	10/08/24	10/08/24
Parameter	Units					
<b>Polychlorinated Biphenyls</b>						
Aroclor 1016	UG/KG	19 U	20 U	20 U	20 U	20 U
Aroclor 1221	UG/KG	19 U	20 U	20 U	20 U	20 U
Aroclor 1232	UG/KG	19 U	20 U	20 U	20 U	20 U
Aroclor 1242	UG/KG	19 U	20 U	20 U	20 U	20 U
Aroclor 1248	UG/KG	19 U	20 U	20 U	20 U	20 U
Aroclor 1254	UG/KG	522	674	759	512	764
Aroclor 1260	UG/KG	490	315	996 J	646 J	2,170 J
Aroclor 1262	UG/KG	19 U	20 U	20 U	20 U	20 U
Aroclor 1268	UG/KG	19 U	20 U	20 U	20 U	20 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 1/21/25

CHECKED BY: PF 1/24/25

Detection Limits shown are PQL

**TABLE 1**  
**VALIDATED SAMPLE ANALYTICAL RESULTS**  
**CARRIER THOMPSON ROAD SITE**

Location ID		24-GS-R3-COMPA	24-GS-R3-COMP B	24-GS-R3-COMPC	24-GS-R3-COMPD	24-GS-R4-COMPA
Sample ID		24-GS-R3-COMPA	24-GS-R3-COMP B	24-GS-R3-COMPC	24-GS-R3-COMPD	24-GS-R4-COMPA
Matrix		Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/10/24	10/10/24	10/10/24	10/10/24	10/10/24
Parameter	Units					
<b>Polychlorinated Biphenyls</b>						
Aroclor 1016	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1221	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1232	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1242	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1248	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1254	UG/KG	468	437	437	601	470
Aroclor 1260	UG/KG	1,130 J	998 J	872 J	1,550 J	631
Aroclor 1262	UG/KG	20 U	20 U	20 U	20 U	20 U
Aroclor 1268	UG/KG	20 U	20 U	20 U	20 U	20 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 1/21/25

CHECKED BY: PF 1/24/25

Detection Limits shown are PQL

**TABLE 1**  
**VALIDATED SAMPLE ANALYTICAL RESULTS**  
**CARRIER THOMPSON ROAD SITE**

Location ID		24-GS-R4-COMP B	24-GS-R5-COMPA	24-GS-R5-COMP B	24-GS-R5-COMPC	24-GS-R5-COMPD
Sample ID		24-GS-R4-COMP B	24-GS-R5-COMPA	24-GS-R5-COMP B	24-GS-R5-COMPC	24-GS-R5-COMPD
Matrix		Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/10/24	10/09/24	10/09/24	10/09/24	10/09/24
Parameter	Units					
<b>Polychlorinated Biphenyls</b>						
Aroclor 1016	UG/KG	19 U	19 U	19 U	20 U	20 U
Aroclor 1221	UG/KG	19 U	19 U	19 U	20 U	20 U
Aroclor 1232	UG/KG	19 U	19 U	19 U	20 U	20 U
Aroclor 1242	UG/KG	19 U	19 U	19 U	20 U	20 U
Aroclor 1248	UG/KG	19 U	19 U	305 J	20 U	20 U
Aroclor 1254	UG/KG	652	275	357 J	606	694
Aroclor 1260	UG/KG	993	556	584 J	1,080	1,160
Aroclor 1262	UG/KG	19 U	19 U	19 U	20 U	20 U
Aroclor 1268	UG/KG	19 U	19 U	19 U	20 U	20 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 1/21/25

CHECKED BY: PF 1/24/25

Detection Limits shown are PQL

**TABLE 1**  
**VALIDATED SAMPLE ANALYTICAL RESULTS**  
**CARRIER THOMPSON ROAD SITE**

Location ID		24-GS-R5-COMPE	24-GS-R5-COMPF	24-GS-R5-COMPG	24-GS-R6-COMPA	24-GS-R6-COMPB
Sample ID		24-GS-R5-COMPE	24-GS-R5-COMPF	24-GS-R5-COMPG	24-GS-R6-COMPA	24-GS-R6-COMPB
Matrix		Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/09/24	10/09/24	10/09/24	10/09/24	10/09/24
Parameter	Units					
<b>Polychlorinated Biphenyls</b>						
Aroclor 1016	UG/KG	20 U	20 U	19 U	19 U	19 U
Aroclor 1221	UG/KG	20 U	20 U	19 U	19 U	19 U
Aroclor 1232	UG/KG	20 U	20 U	19 U	19 U	19 U
Aroclor 1242	UG/KG	20 U	20 U	19 U	19 U	19 U
Aroclor 1248	UG/KG	189	20 U	19 U	19 U	532
Aroclor 1254	UG/KG	439	444	603	491	310
Aroclor 1260	UG/KG	715	803	1,140	621 J	230 J
Aroclor 1262	UG/KG	20 U	20 U	19 U	19 U	19 U
Aroclor 1268	UG/KG	20 U	20 U	19 U	19 U	19 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 1/21/25

CHECKED BY: PF 1/24/25

Detection Limits shown are PQL



**TABLE 1**  
**VALIDATED SAMPLE ANALYTICAL RESULTS**  
**CARRIER THOMPSON ROAD SITE**

Location ID		24-GS-R6-COMPC	24-GS-R6-COMPD	24-GS-R6-COMPE	24-GS-R6-COMPF	24-GS-R7-COMPA
Sample ID		24-GS-R6-COMPC	24-GS-R6-COMPD	24-GS-R6-COMPE	24-GS-R6-COMPF	24-GS-R7-COMPA
Matrix		Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/09/24	10/09/24	10/09/24	10/09/24	10/10/24
Parameter	Units					
Polychlorinated Biphenyls						
Aroclor 1016	UG/KG	19 U	19 U	19 U	19 U	19 U
Aroclor 1221	UG/KG	19 U	19 U	19 U	19 U	19 U
Aroclor 1232	UG/KG	19 U	19 U	19 U	19 U	19 U
Aroclor 1242	UG/KG	19 U	19 U	19 U	19 U	19 U
Aroclor 1248	UG/KG	365	165	19 U	233	53.6
Aroclor 1254	UG/KG	213	400	391	465	254
Aroclor 1260	UG/KG	77.5 J	381 J	562 J	511 J	337 J
Aroclor 1262	UG/KG	19 U	19 U	19 U	19 U	19 U
Aroclor 1268	UG/KG	19 U	19 U	19 U	19 U	19 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 1/21/25

CHECKED BY: PF 1/24/25

Detection Limits shown are PQL

**TABLE 1**  
**VALIDATED SAMPLE ANALYTICAL RESULTS**  
**CARRIER THOMPSON ROAD SITE**

Location ID		24-GS-R7-COMP B	24-GS-R7-COMP C	24-GS-R7-COMP D	24-GS-R7-COMP E	24-GS-R7-COMP F
Sample ID		24-GS-R7-COMP B	24-GS-R7-COMP C	24-GS-R7-COMP D	24-GS-R7-COMP E	24-GS-R7-COMP F
Matrix		Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/10/24	10/10/24	10/10/24	10/10/24	10/10/24
Parameter	Units					
<b>Polychlorinated Biphenyls</b>						
Aroclor 1016	UG/KG	20 U	19 U	19 U	19 U	19 U
Aroclor 1221	UG/KG	20 U	19 U	19 U	19 U	19 U
Aroclor 1232	UG/KG	20 U	19 U	19 U	19 U	19 U
Aroclor 1242	UG/KG	20 U	19 U	19 U	19 U	19 U
Aroclor 1248	UG/KG	125	125	113	383	19 U
Aroclor 1254	UG/KG	335	464	453	263	413
Aroclor 1260	UG/KG	340 J	384 J	573 J	185 J	478 J
Aroclor 1262	UG/KG	20 U	19 U	19 U	19 U	19 U
Aroclor 1268	UG/KG	20 U	19 U	19 U	19 U	19 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 1/21/25

CHECKED BY: PF 1/24/25

Detection Limits shown are PQL

**TABLE 1**  
**VALIDATED SAMPLE ANALYTICAL RESULTS**  
**CARRIER THOMPSON ROAD SITE**

Location ID		24-PS-R3-COMPA	24-WS-R4-COMPA	24-WS-R6-COMPC	24-WS-R6-COMPD
Sample ID		24-PS-R3-COMPA	24-WS-R4-COMPA	24-WS-R6-COMPC	24-WS-R6-COMPD
Matrix		Animal Tissue	Animal Tissue	Animal Tissue	Animal Tissue
Depth Interval (ft)		-	-	-	-
Date Sampled		10/10/24	10/10/24	10/09/24	10/09/24
Parameter	Units				
<b>Polychlorinated Biphenyls</b>					
Aroclor 1016	UG/KG	20 U	20 U	19 U	20 U
Aroclor 1221	UG/KG	20 U	20 U	19 U	20 U
Aroclor 1232	UG/KG	20 U	20 U	19 U	20 U
Aroclor 1242	UG/KG	20 U	20 U	19 U	20 U
Aroclor 1248	UG/KG	20 U	20 U	58.6	20 U
Aroclor 1254	UG/KG	401	103	151	95.3
Aroclor 1260	UG/KG	897 J	313	350 J	122 J
Aroclor 1262	UG/KG	20 U	20 U	19 U	20 U
Aroclor 1268	UG/KG	20 U	20 U	19 U	20 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 1/21/25

CHECKED BY: PF 1/24/25

Detection Limits shown are PQL

## **ATTACHMENT A**

### **FORM 1's**

SGS North America Inc.

## Report of Analysis

Page 1 of 1

Client Sample ID:	24-GS-R4-COMPA	Date Sampled:	10/10/24
Lab Sample ID:	JE582-1	Date Received:	11/14/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>b</sup>	RM30495.D	1	12/12/24 19:34	RK	12/11/24 15:25	OP59633	GRM724
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.1 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.3	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.6	ug/kg	
11141-16-5	Aroclor 1232	ND	20	16	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.2	ug/kg	
11097-69-1	Aroclor 1254	470	20	2.1	ug/kg	
11096-82-5	Aroclor 1260	631	20	6.8	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	108%		35-154%
877-09-8	Tetrachloro-m-xylene	110%		35-154%
2051-24-3	Decachlorobiphenyl	98%		24-176%
2051-24-3	Decachlorobiphenyl	98%		24-176%

(a) All results reported on a wet weight basis.

~~(b) Sample extracted outside the holding time.~~

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

Page 1 of 1

Client Sample ID:	24-GS-R4-COMP B	Date Sampled:	10/10/24
Lab Sample ID:	JE582-2	Date Received:	11/14/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>b</sup>	RM30496.D	1	12/12/24 20:00	RK	12/11/24 15:25	OP59633	GRM724
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.2	ug/kg	
11097-69-1	Aroclor 1254	652	19	2.1	ug/kg	
11096-82-5	Aroclor 1260	993	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	111%		35-154%
877-09-8	Tetrachloro-m-xylene	113%		35-154%
2051-24-3	Decachlorobiphenyl	101%		24-176%
2051-24-3	Decachlorobiphenyl	102%		24-176%

(a) All results reported on a wet weight basis.

~~(b) Sample extracted outside the holding time.~~

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

Page 1 of 1

Client Sample ID: 24-CC-R4-COMPA  
 Lab Sample ID: JE582-3  
 Matrix: SO - Animal Tissue  
 Method: SW846 8082A SW846 3570  
 Project: Sanders Creek, Syracuse, NY

Date Sampled: 10/10/24  
 Date Received: 11/14/24  
 Percent Solids: n/a <sup>a</sup>

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>b</sup>	RM30497.D	1	12/12/24 20:28	RK	12/11/24 15:25	OP59633	GRM724
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.3 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.0	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.3	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	11	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.1	ug/kg	
11097-69-1	Aroclor 1254	284	19	2.0	ug/kg	
11096-82-5	Aroclor 1260	499	19	6.5	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	105%		35-154%
877-09-8	Tetrachloro-m-xylene	111%		35-154%
2051-24-3	Decachlorobiphenyl	95%		24-176%
2051-24-3	Decachlorobiphenyl	98%		24-176%

(a) All results reported on a wet weight basis.

~~(b) Sample extracted outside the holding time.~~

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

Page 1 of 1

Client Sample ID:	24-CC-R4-COMP B	Date Sampled:	10/10/24
Lab Sample ID:	JE582-4	Date Received:	11/14/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>b</sup>	RM30498.D	1	12/12/24 20:56	RK	12/11/24 15:25	OP59633	GRM724
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.1 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.3	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.6	ug/kg	
11141-16-5	Aroclor 1232	ND	20	16	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.2	ug/kg	
11097-69-1	Aroclor 1254	167	20	2.1	ug/kg	
11096-82-5	Aroclor 1260	219	20	6.8	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	109%		35-154%
877-09-8	Tetrachloro-m-xylene	114%		35-154%
2051-24-3	Decachlorobiphenyl	96%		24-176%
2051-24-3	Decachlorobiphenyl	97%		24-176%

(a) All results reported on a wet weight basis.

~~(b) Sample extracted outside the holding time.~~

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



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## Report of Analysis

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Client Sample ID: 24-WS-R4-COMPA  
 Lab Sample ID: JE582-5  
 Matrix: SO - Animal Tissue  
 Method: SW846 8082A SW846 3570  
 Project: Sanders Creek, Syracuse, NY

Date Sampled: 10/10/24  
 Date Received: 11/14/24  
 Percent Solids: n/a <sup>a</sup>

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>b</sup>	RM30499.D	1	12/12/24 21:23	RK	12/11/24 15:25	OP59633	GRM724
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	103	20	2.2	ug/kg	
11096-82-5	Aroclor 1260	313	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	105%		35-154%
877-09-8	Tetrachloro-m-xylene	110%		35-154%
2051-24-3	Decachlorobiphenyl	89%		24-176%
2051-24-3	Decachlorobiphenyl	90%		24-176%

(a) All results reported on a wet weight basis.

~~(b) Sample extracted outside the holding time.~~

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-CC-R5-COMP	Date Sampled:	10/09/24
Lab Sample ID:	JE582-6	Date Received:	11/14/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>b</sup>	RM30500.D	1	12/12/24 21:51	RK	12/11/24 15:25	OP59633	GRM724
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.1 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.3	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.6	ug/kg	
11141-16-5	Aroclor 1232	ND	20	16	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.2	ug/kg	
11097-69-1	Aroclor 1254	294	20	2.1	ug/kg	
11096-82-5	Aroclor 1260	508	20	6.8	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	109%		35-154%
877-09-8	Tetrachloro-m-xylene	115%		35-154%
2051-24-3	Decachlorobiphenyl	95%		24-176%
2051-24-3	Decachlorobiphenyl	97%		24-176%

(a) All results reported on a wet weight basis.

~~(b) Sample extracted outside the holding time.~~

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-GS-R5-COMPA	Date Sampled:	10/09/24
Lab Sample ID:	JE582-7	Date Received:	11/14/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>b</sup>	RM30501.D	1	12/12/24 22:18	RK	12/11/24 15:25	OP59633	GRM724
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.2	ug/kg	
11097-69-1	Aroclor 1254	275	19	2.1	ug/kg	
11096-82-5	Aroclor 1260	556	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	108%		35-154%
877-09-8	Tetrachloro-m-xylene	113%		35-154%
2051-24-3	Decachlorobiphenyl	95%		24-176%
2051-24-3	Decachlorobiphenyl	97%		24-176%

(a) All results reported on a wet weight basis.

~~(b) Sample extracted outside the holding time.~~

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-GS-R5-COMP B	Date Sampled:	10/09/24
Lab Sample ID:	JE582-8	Date Received:	11/14/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>b</sup>	RM30502.D	1	12/12/24 22:46	RK	12/11/24 15:25	OP59633	GRM724
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.3 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.0	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.3	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	11	ug/kg	
12672-29-6	Aroclor 1248	305 J	19	4.1	ug/kg	
11097-69-1	Aroclor 1254	357 J	19	2.0	ug/kg	
11096-82-5	Aroclor 1260	584 J	19	6.5	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	107%		35-154%
877-09-8	Tetrachloro-m-xylene	112%		35-154%
2051-24-3	Decachlorobiphenyl	96%		24-176%
2051-24-3	Decachlorobiphenyl	99%		24-176%

(a) All results reported on a wet weight basis.

(b) Sample extracted outside the holding time.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-GS-R5-COMPC	Date Sampled:	10/09/24
Lab Sample ID:	JE582-9	Date Received:	11/14/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>b</sup>	RM30503.D	1	12/12/24 23:13	RK	12/11/24 15:25	OP59633	GRM724
Run #2							

	Initial Weight	Final Volume
Run #1	5.1 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.3	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.6	ug/kg	
11141-16-5	Aroclor 1232	ND	20	16	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.2	ug/kg	
11097-69-1	Aroclor 1254	606	20	2.1	ug/kg	
11096-82-5	Aroclor 1260	1080	20	6.8	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	110%		35-154%
877-09-8	Tetrachloro-m-xylene	115%		35-154%
2051-24-3	Decachlorobiphenyl	101%		24-176%
2051-24-3	Decachlorobiphenyl	103%		24-176%

(a) All results reported on a wet weight basis.

~~(b) Sample extracted outside the holding time.~~

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-GS-R5-COMPD	Date Sampled:	10/09/24
Lab Sample ID:	JE582-10	Date Received:	11/14/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>b</sup>	RM30504.D	1	12/12/24 23:40	RK	12/11/24 15:25	OP59633	GRM724
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.1 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.3	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.6	ug/kg	
11141-16-5	Aroclor 1232	ND	20	16	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.2	ug/kg	
11097-69-1	Aroclor 1254	694	20	2.1	ug/kg	
11096-82-5	Aroclor 1260	1160	20	6.8	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	107%		35-154%
877-09-8	Tetrachloro-m-xylene	110%		35-154%
2051-24-3	Decachlorobiphenyl	97%		24-176%
2051-24-3	Decachlorobiphenyl	101%		24-176%

(a) All results reported on a wet weight basis.

~~(b) Sample extracted outside the holding time.~~

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-GS-R5-COMPE	Date Sampled:	10/09/24
Lab Sample ID:	JE582-11	Date Received:	11/14/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>b</sup>	RM30505.D	1	12/13/24 00:08	RK	12/11/24 15:25	OP59633	GRM724
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.1 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.3	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.6	ug/kg	
11141-16-5	Aroclor 1232	ND	20	16	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	189	20	4.2	ug/kg	
11097-69-1	Aroclor 1254	439	20	2.1	ug/kg	
11096-82-5	Aroclor 1260	715	20	6.8	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	107%		35-154%
877-09-8	Tetrachloro-m-xylene	110%		35-154%
2051-24-3	Decachlorobiphenyl	96%		24-176%
2051-24-3	Decachlorobiphenyl	100%		24-176%

(a) All results reported on a wet weight basis.

(b) ~~Sample extracted outside the holding time.~~

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-GS-R5-COMPF	Date Sampled:	10/09/24
Lab Sample ID:	JE582-12	Date Received:	11/14/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>b</sup>	RM30506.D	1	12/13/24 00:35	RK	12/11/24 15:25	OP59633	GRM724
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	444	20	2.2	ug/kg	
11096-82-5	Aroclor 1260	803	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	107%		35-154%
877-09-8	Tetrachloro-m-xylene	109%		35-154%
2051-24-3	Decachlorobiphenyl	96%		24-176%
2051-24-3	Decachlorobiphenyl	98%		24-176%

(a) All results reported on a wet weight basis.

~~(b) Sample extracted outside the holding time.~~

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



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## Report of Analysis

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Client Sample ID:	24-GS-R5-COMPG	Date Sampled:	10/09/24
Lab Sample ID:	JE582-13	Date Received:	11/14/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>b</sup>	RM30507.D	1	12/13/24 01:02	RK	12/11/24 15:25	OP59633	GRM724
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.2	ug/kg	
11097-69-1	Aroclor 1254	603	19	2.1	ug/kg	
11096-82-5	Aroclor 1260	1140	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	111%		35-154%
877-09-8	Tetrachloro-m-xylene	114%		35-154%
2051-24-3	Decachlorobiphenyl	99%		24-176%
2051-24-3	Decachlorobiphenyl	103%		24-176%

(a) All results reported on a wet weight basis.

~~(b) Sample extracted outside the holding time.~~

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-CC-R5-COMPA	Date Sampled:	10/09/24
Lab Sample ID:	JE582-14	Date Received:	11/14/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>b</sup>	RM30508.D	1	12/13/24 01:30	RK	12/11/24 15:25	OP59633	GRM724
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.5 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	18	7.7	ug/kg	
11104-28-2	Aroclor 1221	ND	18	6.1	ug/kg	
11141-16-5	Aroclor 1232	ND	18	15	ug/kg	
53469-21-9	Aroclor 1242	ND	18	11	ug/kg	
12672-29-6	Aroclor 1248	ND	18	3.9	ug/kg	
11097-69-1	Aroclor 1254	88.7	18	2.0	ug/kg	
11096-82-5	Aroclor 1260	244	18	6.3	ug/kg	
11100-14-4	Aroclor 1268	ND	18	1.8	ug/kg	
37324-23-5	Aroclor 1262	ND	18	1.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		35-154%
877-09-8	Tetrachloro-m-xylene	110%		35-154%
2051-24-3	Decachlorobiphenyl	90%		24-176%
2051-24-3	Decachlorobiphenyl	89%		24-176%

(a) All results reported on a wet weight basis.

~~(b) Sample extracted outside the holding time.~~

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-CC-R5-COMP B	Date Sampled:	10/09/24
Lab Sample ID:	JE582-15	Date Received:	11/14/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>b</sup>	RM30509.D	1	12/13/24 01:58	RK	12/11/24 15:25	OP59633	GRM724
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.2	ug/kg	
11097-69-1	Aroclor 1254	111	19	2.1	ug/kg	
11096-82-5	Aroclor 1260	174	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	106%		35-154%
877-09-8	Tetrachloro-m-xylene	114%		35-154%
2051-24-3	Decachlorobiphenyl	93%		24-176%
2051-24-3	Decachlorobiphenyl	92%		24-176%

(a) All results reported on a wet weight basis.

~~(b) Sample extracted outside the holding time.~~

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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Client Sample ID:	24-CC-R5-COMPC	Date Sampled:	10/09/24
Lab Sample ID:	JE582-16	Date Received:	11/14/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>b</sup>	RM30510.D	1	12/13/24 02:28	RK	12/11/24 15:25	OP59633	GRM724
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.4 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	7.9	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.2	ug/kg	
11141-16-5	Aroclor 1232	ND	19	15	ug/kg	
53469-21-9	Aroclor 1242	ND	19	11	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.0	ug/kg	
11097-69-1	Aroclor 1254	56.1	19	2.0	ug/kg	
11096-82-5	Aroclor 1260	99.5	19	6.4	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	103%		35-154%
877-09-8	Tetrachloro-m-xylene	110%		35-154%
2051-24-3	Decachlorobiphenyl	86%		24-176%
2051-24-3	Decachlorobiphenyl	86%		24-176%

(a) All results reported on a wet weight basis.

~~(b) Sample extracted outside the holding time.~~

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-GS-R6-COMPA	Date Sampled:	10/09/24
Lab Sample ID:	JE936-1	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234435.D	1	11/29/24 13:29	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.2	ug/kg	
11097-69-1	Aroclor 1254	491	19	2.1	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	621 J	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		35-154%
877-09-8	Tetrachloro-m-xylene	94%		35-154%
2051-24-3	Decachlorobiphenyl	83%		24-176%
2051-24-3	Decachlorobiphenyl	93%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-GS-R6-COMP B	Date Sampled:	10/09/24
Lab Sample ID:	JE936-2	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234436.D	1	11/29/24 13:53	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248 <sup>b</sup>	532	19	4.2	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	310	19	2.1	ug/kg	
11096-82-5	Aroclor 1260 <sup>c</sup>	230 J	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		35-154%
877-09-8	Tetrachloro-m-xylene	94%		35-154%
2051-24-3	Decachlorobiphenyl	87%		24-176%
2051-24-3	Decachlorobiphenyl	93%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(c) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-GS-R6-COMPC	Date Sampled:	10/09/24
Lab Sample ID:	JE936-3	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234437.D	1	11/29/24 14:18	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248	365	19	4.2	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	213	19	2.1	ug/kg	
11096-82-5	Aroclor 1260 <sup>c</sup>	77.5 J	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		35-154%
877-09-8	Tetrachloro-m-xylene	95%		35-154%
2051-24-3	Decachlorobiphenyl	88%		24-176%
2051-24-3	Decachlorobiphenyl	90%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(c) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-GS-R6-COMPD	Date Sampled:	10/09/24
Lab Sample ID:	JE936-4	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234438.D	1	11/29/24 14:42	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248 <sup>b</sup>	165	19	4.2	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	400	19	2.1	ug/kg	
11096-82-5	Aroclor 1260 <sup>c</sup>	381 J	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	100%		35-154%
877-09-8	Tetrachloro-m-xylene	99%		35-154%
2051-24-3	Decachlorobiphenyl	94%		24-176%
2051-24-3	Decachlorobiphenyl	99%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(c) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



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## Report of Analysis

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Client Sample ID: 24-GS-R6-COMPE  
 Lab Sample ID: JE936-5  
 Matrix: SO - Animal Tissue  
 Method: SW846 8082A SW846 3570  
 Project: Sanders Creek, Syracuse, NY

Date Sampled: 10/09/24  
 Date Received: 11/19/24  
 Percent Solids: n/a <sup>a</sup>

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234439.D	1	11/29/24 15:07	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.2	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	391	19	2.1	ug/kg	
11096-82-5	Aroclor 1260 <sup>c</sup>	562 J	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		35-154%
877-09-8	Tetrachloro-m-xylene	83%		35-154%
2051-24-3	Decachlorobiphenyl	83%		24-176%
2051-24-3	Decachlorobiphenyl	92%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(c) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-GS-R6-COMPF	Date Sampled:	10/09/24
Lab Sample ID:	JE936-6	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234440.D	1	11/29/24 15:31	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.3 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.0	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.3	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	11	ug/kg	
12672-29-6	Aroclor 1248	233	19	4.1	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	465	19	2.0	ug/kg	
11096-82-5	Aroclor 1260 <sup>c</sup>	511 J	19	6.5	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		35-154%
877-09-8	Tetrachloro-m-xylene	96%		35-154%
2051-24-3	Decachlorobiphenyl	89%		24-176%
2051-24-3	Decachlorobiphenyl	95%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(c) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID: 24-CC-R6-COMPA  
 Lab Sample ID: JE936-7  
 Matrix: SO - Animal Tissue  
 Method: SW846 8082A SW846 3570  
 Project: Sanders Creek, Syracuse, NY

Date Sampled: 10/09/24  
 Date Received: 11/19/24  
 Percent Solids: n/a <sup>a</sup>

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234441.D	1	11/29/24 15:55	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.4 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	7.9	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.2	ug/kg	
11141-16-5	Aroclor 1232	ND	19	15	ug/kg	
53469-21-9	Aroclor 1242	ND	19	11	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.0	ug/kg	
11097-69-1	Aroclor 1254	166	19	2.0	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	239 J	19	6.4	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		35-154%
877-09-8	Tetrachloro-m-xylene	97%		35-154%
2051-24-3	Decachlorobiphenyl	84%		24-176%
2051-24-3	Decachlorobiphenyl	86%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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Client Sample ID:	24-CC-R6-COMP B	Date Sampled:	10/09/24
Lab Sample ID:	JE936-8	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234442.D	1	11/29/24 16:20	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.1 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.3	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.6	ug/kg	
11141-16-5	Aroclor 1232	ND	20	16	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.2	ug/kg	
11097-69-1	Aroclor 1254	333	20	2.1	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	431 J	20	6.8	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		35-154%
877-09-8	Tetrachloro-m-xylene	101%		35-154%
2051-24-3	Decachlorobiphenyl	89%		24-176%
2051-24-3	Decachlorobiphenyl	95%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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Client Sample ID:	24-CC-R6-COMPC	Date Sampled:	10/09/24
Lab Sample ID:	JE936-9	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234443.D	1	11/29/24 16:44	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.5 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	18	7.7	ug/kg	
11104-28-2	Aroclor 1221	ND	18	6.1	ug/kg	
11141-16-5	Aroclor 1232	ND	18	15	ug/kg	
53469-21-9	Aroclor 1242	ND	18	11	ug/kg	
12672-29-6	Aroclor 1248	ND	18	3.9	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	229	18	2.0	ug/kg	
11096-82-5	Aroclor 1260 <sup>c</sup>	331 J	18	6.3	ug/kg	
11100-14-4	Aroclor 1268	ND	18	1.8	ug/kg	
37324-23-5	Aroclor 1262	ND	18	1.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		35-154%
877-09-8	Tetrachloro-m-xylene	87%		35-154%
2051-24-3	Decachlorobiphenyl	80%		24-176%
2051-24-3	Decachlorobiphenyl	83%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(c) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-WS-R6-COMPC	Date Sampled:	10/09/24
Lab Sample ID:	JE936-10	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234444.D	1	11/29/24 17:09	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.4 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	7.9	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.2	ug/kg	
11141-16-5	Aroclor 1232	ND	19	15	ug/kg	
53469-21-9	Aroclor 1242	ND	19	11	ug/kg	
12672-29-6	Aroclor 1248	58.6	19	4.0	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	151	19	2.0	ug/kg	
11096-82-5	Aroclor 1260 <sup>c</sup>	350 J	19	6.4	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		35-154%
877-09-8	Tetrachloro-m-xylene	100%		35-154%
2051-24-3	Decachlorobiphenyl	88%		24-176%
2051-24-3	Decachlorobiphenyl	99%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(c) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-GS-R7-COMPA	Date Sampled:	10/10/24
Lab Sample ID:	JE936-11	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234445.D	1	11/29/24 17:34	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.4 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	7.9	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.2	ug/kg	
11141-16-5	Aroclor 1232	ND	19	15	ug/kg	
53469-21-9	Aroclor 1242	ND	19	11	ug/kg	
12672-29-6	Aroclor 1248 <sup>b</sup>	53.6	19	4.0	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	254	19	2.0	ug/kg	
11096-82-5	Aroclor 1260 <sup>c</sup>	337 J	19	6.4	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		35-154%
877-09-8	Tetrachloro-m-xylene	96%		35-154%
2051-24-3	Decachlorobiphenyl	89%		24-176%
2051-24-3	Decachlorobiphenyl	99%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(c) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-GS-R7-COMP B	Date Sampled:	10/10/24
Lab Sample ID:	JE936-12	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234446.D	1	11/29/24 17:59	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248 <sup>b</sup>	125	20	4.3	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	335	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>c</sup>	340 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		35-154%
877-09-8	Tetrachloro-m-xylene	97%		35-154%
2051-24-3	Decachlorobiphenyl	88%		24-176%
2051-24-3	Decachlorobiphenyl	102%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(c) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-GS-R7-COMPC	Date Sampled:	10/10/24
Lab Sample ID:	JE936-13	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234447.D	1	11/29/24 18:24	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248	125	19	4.2	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	464	19	2.1	ug/kg	
11096-82-5	Aroclor 1260 <sup>c</sup>	384 J	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		35-154%
877-09-8	Tetrachloro-m-xylene	97%		35-154%
2051-24-3	Decachlorobiphenyl	92%		24-176%
2051-24-3	Decachlorobiphenyl	108%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(c) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-GS-R7-COMPD	Date Sampled:	10/10/24
Lab Sample ID:	JE936-14	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234448.D	1	11/29/24 18:49	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248	113	19	4.2	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	453	19	2.1	ug/kg	
11096-82-5	Aroclor 1260 <sup>c</sup>	573 J	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		35-154%
877-09-8	Tetrachloro-m-xylene	95%		35-154%
2051-24-3	Decachlorobiphenyl	90%		24-176%
2051-24-3	Decachlorobiphenyl	103%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(c) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-GS-R7-COMPE	Date Sampled:	10/10/24
Lab Sample ID:	JE936-15	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234449.D	1	11/29/24 19:14	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.3 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.0	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.3	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	11	ug/kg	
12672-29-6	Aroclor 1248	383	19	4.1	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	263	19	2.0	ug/kg	
11096-82-5	Aroclor 1260 <sup>c</sup>	185 J	19	6.5	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		35-154%
877-09-8	Tetrachloro-m-xylene	98%		35-154%
2051-24-3	Decachlorobiphenyl	91%		24-176%
2051-24-3	Decachlorobiphenyl	99%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(c) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-GS-R7-COMPF	Date Sampled:	10/10/24
Lab Sample ID:	JE936-16	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234450.D	1	11/29/24 19:39	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.4 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	7.9	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.2	ug/kg	
11141-16-5	Aroclor 1232	ND	19	15	ug/kg	
53469-21-9	Aroclor 1242	ND	19	11	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.0	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	413	19	2.0	ug/kg	
11096-82-5	Aroclor 1260 <sup>c</sup>	478 J	19	6.4	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		35-154%
877-09-8	Tetrachloro-m-xylene	96%		35-154%
2051-24-3	Decachlorobiphenyl	90%		24-176%
2051-24-3	Decachlorobiphenyl	107%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(c) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-CC-R7-COMPG	Date Sampled:	10/10/24
Lab Sample ID:	JE936-17	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234451.D	1	11/29/24 20:04	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.3 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.0	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.3	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	11	ug/kg	
12672-29-6	Aroclor 1248 <sup>b</sup>	264	19	4.1	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	393	19	2.0	ug/kg	
11096-82-5	Aroclor 1260 <sup>c</sup>	291 J	19	6.5	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		35-154%
877-09-8	Tetrachloro-m-xylene	95%		35-154%
2051-24-3	Decachlorobiphenyl	87%		24-176%
2051-24-3	Decachlorobiphenyl	104%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(c) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-CC-R7-COMPA	Date Sampled:	10/10/24
Lab Sample ID:	JE936-18	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234452.D	1	11/29/24 20:29	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.2	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	452	19	2.1	ug/kg	
11096-82-5	Aroclor 1260 <sup>c</sup>	666 J	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		35-154%
877-09-8	Tetrachloro-m-xylene	101%		35-154%
2051-24-3	Decachlorobiphenyl	91%		24-176%
2051-24-3	Decachlorobiphenyl	102%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(c) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-CC-R7-COMP B	Date Sampled:	10/10/24
Lab Sample ID:	JE936-19	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234453.D	1	11/29/24 20:54	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.4 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	7.9	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.2	ug/kg	
11141-16-5	Aroclor 1232	ND	19	15	ug/kg	
53469-21-9	Aroclor 1242	ND	19	11	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.0	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	241	19	2.0	ug/kg	
11096-82-5	Aroclor 1260 <sup>c</sup>	307 J	19	6.4	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	97%		35-154%
877-09-8	Tetrachloro-m-xylene	102%		35-154%
2051-24-3	Decachlorobiphenyl	93%		24-176%
2051-24-3	Decachlorobiphenyl	101%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(c) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-CC-R7-COMPC	Date Sampled:	10/10/24
Lab Sample ID:	JE936-20	Date Received:	11/19/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234454.D	1	11/29/24 21:19	RK	11/27/24 11:00	OP59634	G2G6179
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.2	ug/kg	
11097-69-1	Aroclor 1254	269	19	2.1	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	365 J	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		35-154%
877-09-8	Tetrachloro-m-xylene	101%		35-154%
2051-24-3	Decachlorobiphenyl	92%		24-176%
2051-24-3	Decachlorobiphenyl	105%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



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## Report of Analysis

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Client Sample ID:	24-WS-R6-COMPD	Date Sampled:	10/09/24
Lab Sample ID:	JE1115-1	Date Received:	11/21/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234871.D	1	12/18/24 05:26	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	95.3	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	122 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		35-154%
877-09-8	Tetrachloro-m-xylene	108%		35-154%
2051-24-3	Decachlorobiphenyl	87%		24-176%
2051-24-3	Decachlorobiphenyl	114%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID: 24-CR-R7-COMPA  
 Lab Sample ID: JE1115-2  
 Matrix: SO - Animal Tissue  
 Method: SW846 8082A SW846 3570  
 Project: Sanders Creek, Syracuse, NY

Date Sampled: 10/10/24  
 Date Received: 11/21/24  
 Percent Solids: n/a <sup>a</sup>

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234872.D	1	12/18/24 05:51	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	22.4	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	85.5 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		35-154%
877-09-8	Tetrachloro-m-xylene	103%		35-154%
2051-24-3	Decachlorobiphenyl	85%		24-176%
2051-24-3	Decachlorobiphenyl	111%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-CC-R2-COMPA	Date Sampled:	10/08/24
Lab Sample ID:	JE1115-3	Date Received:	11/21/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234873.D	1	12/18/24 06:16	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	266 J	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	362 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	100%		35-154%
877-09-8	Tetrachloro-m-xylene	107%		35-154%
2051-24-3	Decachlorobiphenyl	89%		24-176%
2051-24-3	Decachlorobiphenyl	114%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-CC-R2-COMP B	Date Sampled:	10/08/24
Lab Sample ID:	JE1115-4	Date Received:	11/21/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234874.D	1	12/18/24 06:41	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	442	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	647 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	97%		35-154%
877-09-8	Tetrachloro-m-xylene	103%		35-154%
2051-24-3	Decachlorobiphenyl	92%		24-176%
2051-24-3	Decachlorobiphenyl	117%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-CC-R2-COMPC	Date Sampled:	10/08/24
Lab Sample ID:	JE1115-5	Date Received:	11/21/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234875.D	1	12/18/24 07:06	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	545	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	735 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		35-154%
877-09-8	Tetrachloro-m-xylene	101%		35-154%
2051-24-3	Decachlorobiphenyl	91%		24-176%
2051-24-3	Decachlorobiphenyl	115%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID: 24-CC-R2-COMPD  
 Lab Sample ID: JE1115-6  
 Matrix: SO - Animal Tissue  
 Method: SW846 8082A SW846 3570  
 Project: Sanders Creek, Syracuse, NY

Date Sampled: 10/08/24  
 Date Received: 11/21/24  
 Percent Solids: n/a <sup>a</sup>

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234876.D	1	12/18/24 07:31	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	602	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	661 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		35-154%
877-09-8	Tetrachloro-m-xylene	98%		35-154%
2051-24-3	Decachlorobiphenyl	88%		24-176%
2051-24-3	Decachlorobiphenyl	122%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID: 24-CC-R2-COMPE  
 Lab Sample ID: JE1115-7  
 Matrix: SO - Animal Tissue  
 Method: SW846 8082A SW846 3570  
 Project: Sanders Creek, Syracuse, NY

Date Sampled: 10/08/24  
 Date Received: 11/21/24  
 Percent Solids: n/a <sup>a</sup>

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234877.D	1	12/18/24 07:56	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	413	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	679 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		35-154%
877-09-8	Tetrachloro-m-xylene	100%		35-154%
2051-24-3	Decachlorobiphenyl	90%		24-176%
2051-24-3	Decachlorobiphenyl	115%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-CC-R2-COMPF	Date Sampled:	10/08/24
Lab Sample ID:	JE1115-8	Date Received:	11/21/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234878.D	1	12/18/24 08:21	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	397	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	481 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		35-154%
877-09-8	Tetrachloro-m-xylene	99%		35-154%
2051-24-3	Decachlorobiphenyl	89%		24-176%
2051-24-3	Decachlorobiphenyl	117%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



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## Report of Analysis

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Client Sample ID:	24-CC-R2-COMPG	Date Sampled:	10/08/24
Lab Sample ID:	JE1115-9	Date Received:	11/21/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234879.D	1	12/18/24 08:46	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	465	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	690 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		35-154%
877-09-8	Tetrachloro-m-xylene	98%		35-154%
2051-24-3	Decachlorobiphenyl	90%		24-176%
2051-24-3	Decachlorobiphenyl	118%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-GS-R2-COMPA	Date Sampled:	10/08/24
Lab Sample ID:	JE1115-10	Date Received:	11/21/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234880.D	1	12/18/24 09:12	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	759	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	996 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		35-154%
877-09-8	Tetrachloro-m-xylene	94%		35-154%
2051-24-3	Decachlorobiphenyl	90%		24-176%
2051-24-3	Decachlorobiphenyl	121%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID: 24-GS-R2-COMP B  
 Lab Sample ID: JE1115-11  
 Matrix: SO - Animal Tissue  
 Method: SW846 8082A SW846 3570  
 Project: Sanders Creek, Syracuse, NY

Date Sampled: 10/08/24  
 Date Received: 11/21/24  
 Percent Solids: n/a <sup>a</sup>

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234881.D	1	12/18/24 09:36	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	512	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	646 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		35-154%
877-09-8	Tetrachloro-m-xylene	93%		35-154%
2051-24-3	Decachlorobiphenyl	84%		24-176%
2051-24-3	Decachlorobiphenyl	118%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-GS-R2-COMPC	Date Sampled:	10/08/24
Lab Sample ID:	JE1115-12	Date Received:	11/21/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234882.D	1	12/18/24 10:01	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	764	20	2.2	ug/kg	
11096-82-5	Aroclor 1260	2170 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	99%		35-154%
877-09-8	Tetrachloro-m-xylene	99%		35-154%
2051-24-3	Decachlorobiphenyl	95%		24-176%
2051-24-3	Decachlorobiphenyl	127%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-CC-R3-COMPA	Date Sampled:	10/10/24
Lab Sample ID:	JE1115-13	Date Received:	11/21/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234883.D	1	12/18/24 10:26	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	342	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	687 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		35-154%
877-09-8	Tetrachloro-m-xylene	107%		35-154%
2051-24-3	Decachlorobiphenyl	96%		24-176%
2051-24-3	Decachlorobiphenyl	116%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-CC-R3-COMP B	Date Sampled:	10/10/24
Lab Sample ID:	JE1115-14	Date Received:	11/21/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234884.D	1	12/18/24 10:50	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	324	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	596 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	97%		35-154%
877-09-8	Tetrachloro-m-xylene	100%		35-154%
2051-24-3	Decachlorobiphenyl	91%		24-176%
2051-24-3	Decachlorobiphenyl	111%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-GS-R3-COMPA	Date Sampled:	10/10/24
Lab Sample ID:	JE1115-15	Date Received:	11/21/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234885.D	1	12/18/24 11:15	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	468	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	1130 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		35-154%
877-09-8	Tetrachloro-m-xylene	96%		35-154%
2051-24-3	Decachlorobiphenyl	84%		24-176%
2051-24-3	Decachlorobiphenyl	111%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-GS-R3-COMP B	Date Sampled:	10/10/24
Lab Sample ID:	JE1115-16	Date Received:	11/21/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234886.D	1	12/18/24 11:39	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	437	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	998 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		35-154%
877-09-8	Tetrachloro-m-xylene	95%		35-154%
2051-24-3	Decachlorobiphenyl	89%		24-176%
2051-24-3	Decachlorobiphenyl	112%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



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Client Sample ID:	24-GS-R3-COMPC	Date Sampled:	10/10/24
Lab Sample ID:	JE1115-17	Date Received:	11/21/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234887.D	1	12/18/24 12:04	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	437	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	872 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		35-154%
877-09-8	Tetrachloro-m-xylene	95%		35-154%
2051-24-3	Decachlorobiphenyl	91%		24-176%
2051-24-3	Decachlorobiphenyl	112%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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Client Sample ID:	24-GS-R3-COMP	Date Sampled:	10/10/24
Lab Sample ID:	JE1115-18	Date Received:	11/21/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234888.D	1	12/18/24 12:29	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	601	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	1550 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	97%		35-154%
877-09-8	Tetrachloro-m-xylene	94%		35-154%
2051-24-3	Decachlorobiphenyl	88%		24-176%
2051-24-3	Decachlorobiphenyl	126%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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Client Sample ID: 24-PS-R3-COMPA  
 Lab Sample ID: JE1115-19  
 Matrix: SO - Animal Tissue  
 Method: SW846 8082A SW846 3570  
 Project: Sanders Creek, Syracuse, NY

Date Sampled: 10/10/24  
 Date Received: 11/21/24  
 Percent Solids: n/a <sup>a</sup>

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234889.D	1	12/18/24 12:53	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	401	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	897 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		35-154%
877-09-8	Tetrachloro-m-xylene	97%		35-154%
2051-24-3	Decachlorobiphenyl	91%		24-176%
2051-24-3	Decachlorobiphenyl	115%		24-176%

(a) All results reported on a wet weight basis.

(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID: 24-CR-R2-COMPA  
 Lab Sample ID: JE1115-20  
 Matrix: SO - Animal Tissue  
 Method: SW846 8082A SW846 3570  
 Project: Sanders Creek, Syracuse, NY

Date Sampled: 10/10/24  
 Date Received: 11/21/24  
 Percent Solids: n/a <sup>a</sup>

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G234890.D	1	12/18/24 13:18	CP	12/17/24 17:45	OP60061	G2G6191
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	ND	20	2.2	ug/kg	
11096-82-5	Aroclor 1260	68.5 J	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		35-154%
877-09-8	Tetrachloro-m-xylene	101%		35-154%
2051-24-3	Decachlorobiphenyl	86%		24-176%
2051-24-3	Decachlorobiphenyl	105%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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Client Sample ID:	24-CC-R0-COMPA	Date Sampled:	10/08/24
Lab Sample ID:	JE1472-1	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30519.D	1	12/13/24 07:12	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.1 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.3	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.6	ug/kg	
11141-16-5	Aroclor 1232	ND	20	16	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.2	ug/kg	
11097-69-1	Aroclor 1254	88.6	20	2.1	ug/kg	
11096-82-5	Aroclor 1260	74.9	20	6.8	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	105%		35-154%
877-09-8	Tetrachloro-m-xylene	111%		35-154%
2051-24-3	Decachlorobiphenyl	88%		24-176%
2051-24-3	Decachlorobiphenyl	92%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID: 24-CC-R0-COMP  
 Lab Sample ID: JE1472-2  
 Matrix: SO - Animal Tissue  
 Method: SW846 8082A SW846 3570  
 Project: Sanders Creek, Syracuse, NY

Date Sampled: 10/08/24  
 Date Received: 11/25/24  
 Percent Solids: n/a <sup>a</sup>

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30520.D	1	12/13/24 07:39	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.2	ug/kg	
11097-69-1	Aroclor 1254	76.9	19	2.1	ug/kg	
11096-82-5	Aroclor 1260	55.2	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	102%		35-154%
877-09-8	Tetrachloro-m-xylene	108%		35-154%
2051-24-3	Decachlorobiphenyl	85%		24-176%
2051-24-3	Decachlorobiphenyl	89%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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Client Sample ID:	24-CC-R0-COMPC	Date Sampled:	10/08/24
Lab Sample ID:	JE1472-3	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30521.D	1	12/13/24 08:06	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.1 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.3	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.6	ug/kg	
11141-16-5	Aroclor 1232	ND	20	16	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.2	ug/kg	
11097-69-1	Aroclor 1254	74.4	20	2.1	ug/kg	
11096-82-5	Aroclor 1260	85.7	20	6.8	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	103%		35-154%
877-09-8	Tetrachloro-m-xylene	110%		35-154%
2051-24-3	Decachlorobiphenyl	88%		24-176%
2051-24-3	Decachlorobiphenyl	91%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-CC-R0-COMP	Date Sampled:	10/08/24
Lab Sample ID:	JE1472-4	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30522.D	1	12/13/24 08:33	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.2	ug/kg	
11097-69-1	Aroclor 1254	68.2	19	2.1	ug/kg	
11096-82-5	Aroclor 1260	49.9	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		35-154%
877-09-8	Tetrachloro-m-xylene	108%		35-154%
2051-24-3	Decachlorobiphenyl	87%		24-176%
2051-24-3	Decachlorobiphenyl	90%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



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## Report of Analysis

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Client Sample ID: 24-CC-R0-COMPE  
 Lab Sample ID: JE1472-5  
 Matrix: SO - Animal Tissue  
 Method: SW846 8082A SW846 3570  
 Project: Sanders Creek, Syracuse, NY

Date Sampled: 10/08/24  
 Date Received: 11/25/24  
 Percent Solids: n/a <sup>a</sup>

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30523.D	1	12/13/24 09:00	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.3 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.0	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.3	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	11	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.1	ug/kg	
11097-69-1	Aroclor 1254	68.1	19	2.0	ug/kg	
11096-82-5	Aroclor 1260	63.4	19	6.5	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	105%		35-154%
877-09-8	Tetrachloro-m-xylene	110%		35-154%
2051-24-3	Decachlorobiphenyl	88%		24-176%
2051-24-3	Decachlorobiphenyl	90%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-GS-R0-COMPA	Date Sampled:	10/08/24
Lab Sample ID:	JE1472-6	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30524.D	1	12/13/24 09:27	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.3 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.0	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.3	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	11	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.1	ug/kg	
11097-69-1	Aroclor 1254	66.0	19	2.0	ug/kg	
11096-82-5	Aroclor 1260	34.2	19	6.5	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	108%		35-154%
877-09-8	Tetrachloro-m-xylene	109%		35-154%
2051-24-3	Decachlorobiphenyl	90%		24-176%
2051-24-3	Decachlorobiphenyl	92%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-GS-R0-COMP B	Date Sampled:	10/08/24
Lab Sample ID:	JE1472-7	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30525.D	1	12/13/24 09:54	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.5 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	18	7.7	ug/kg	
11104-28-2	Aroclor 1221	ND	18	6.1	ug/kg	
11141-16-5	Aroclor 1232	ND	18	15	ug/kg	
53469-21-9	Aroclor 1242	ND	18	11	ug/kg	
12672-29-6	Aroclor 1248	ND	18	3.9	ug/kg	
11097-69-1	Aroclor 1254	314	18	2.0	ug/kg	
11096-82-5	Aroclor 1260	435	18	6.3	ug/kg	
11100-14-4	Aroclor 1268	ND	18	1.8	ug/kg	
37324-23-5	Aroclor 1262	ND	18	1.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	106%		35-154%
877-09-8	Tetrachloro-m-xylene	108%		35-154%
2051-24-3	Decachlorobiphenyl	90%		24-176%
2051-24-3	Decachlorobiphenyl	94%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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Client Sample ID:	24-GS-R0-COMPC	Date Sampled:	10/08/24
Lab Sample ID:	JE1472-8	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30526.D	1	12/13/24 10:20	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.1 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.3	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.6	ug/kg	
11141-16-5	Aroclor 1232	ND	20	16	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	91.2	20	4.2	ug/kg	
11097-69-1	Aroclor 1254	124	20	2.1	ug/kg	
11096-82-5	Aroclor 1260	65.9	20	6.8	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		35-154%
877-09-8	Tetrachloro-m-xylene	109%		35-154%
2051-24-3	Decachlorobiphenyl	89%		24-176%
2051-24-3	Decachlorobiphenyl	91%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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Client Sample ID:	24-GS-R0-COMPD	Date Sampled:	10/08/24
Lab Sample ID:	JE1472-9	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30527.D	1	12/13/24 10:48	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.1 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.3	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.6	ug/kg	
11141-16-5	Aroclor 1232	ND	20	16	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	159	20	4.2	ug/kg	
11097-69-1	Aroclor 1254	151	20	2.1	ug/kg	
11096-82-5	Aroclor 1260	91.2	20	6.8	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	106%		35-154%
877-09-8	Tetrachloro-m-xylene	108%		35-154%
2051-24-3	Decachlorobiphenyl	90%		24-176%
2051-24-3	Decachlorobiphenyl	91%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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Client Sample ID:	24-GS-R0-COMPE	Date Sampled:	10/08/24
Lab Sample ID:	JE1472-10	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30528.D	1	12/13/24 11:16	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	29.5	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	113	20	2.2	ug/kg	
11096-82-5	Aroclor 1260	74.8	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	109%		35-154%
877-09-8	Tetrachloro-m-xylene	109%		35-154%
2051-24-3	Decachlorobiphenyl	91%		24-176%
2051-24-3	Decachlorobiphenyl	92%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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Client Sample ID:	24-CC-R1-COMPA	Date Sampled:	10/08/24
Lab Sample ID:	JE1472-11	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30533.D	1	12/13/24 13:43	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.2	ug/kg	
11097-69-1	Aroclor 1254	652	19	2.1	ug/kg	
11096-82-5	Aroclor 1260	361 J	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	105%		35-154%
877-09-8	Tetrachloro-m-xylene	112%		35-154%
2051-24-3	Decachlorobiphenyl	95%		24-176%
2051-24-3	Decachlorobiphenyl	95%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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Client Sample ID:	24-CC-R1-COMP B	Date Sampled:	10/08/24
Lab Sample ID:	JE1472-12	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30534.D	1	12/13/24 14:13	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.3 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.0	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.3	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	11	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.1	ug/kg	
11097-69-1	Aroclor 1254	91.7	19	2.0	ug/kg	
11096-82-5	Aroclor 1260	125	19	6.5	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	106%		35-154%
877-09-8	Tetrachloro-m-xylene	114%		35-154%
2051-24-3	Decachlorobiphenyl	91%		24-176%
2051-24-3	Decachlorobiphenyl	92%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



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Client Sample ID:	24-CC-R1-COMPC	Date Sampled:	10/08/24
Lab Sample ID:	JE1472-13	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30535.D	1	12/13/24 14:43	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.1 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.3	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.6	ug/kg	
11141-16-5	Aroclor 1232	ND	20	16	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.2	ug/kg	
11097-69-1	Aroclor 1254	414	20	2.1	ug/kg	
11096-82-5	Aroclor 1260	288	20	6.8	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	106%		35-154%
877-09-8	Tetrachloro-m-xylene	112%		35-154%
2051-24-3	Decachlorobiphenyl	94%		24-176%
2051-24-3	Decachlorobiphenyl	96%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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Client Sample ID:	24-CC-R1-COMPD	Date Sampled:	10/08/24
Lab Sample ID:	JE1472-14	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30536.D	1	12/13/24 15:13	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.1 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.3	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.6	ug/kg	
11141-16-5	Aroclor 1232	ND	20	16	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.2	ug/kg	
11097-69-1	Aroclor 1254	398	20	2.1	ug/kg	
11096-82-5	Aroclor 1260	250	20	6.8	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	106%		35-154%
877-09-8	Tetrachloro-m-xylene	110%		35-154%
2051-24-3	Decachlorobiphenyl	94%		24-176%
2051-24-3	Decachlorobiphenyl	96%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

Page 1 of 1

Client Sample ID:	24-CC-R1-COMPE	Date Sampled:	10/08/24
Lab Sample ID:	JE1472-15	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30537.D	1	12/13/24 15:43	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	334	20	2.2	ug/kg	
11096-82-5	Aroclor 1260	187	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		35-154%
877-09-8	Tetrachloro-m-xylene	110%		35-154%
2051-24-3	Decachlorobiphenyl	92%		24-176%
2051-24-3	Decachlorobiphenyl	93%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

Page 1 of 1

Client Sample ID:	24-CC-R1-COMPF	Date Sampled:	10/08/24
Lab Sample ID:	JE1472-16	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30538.D	1	12/13/24 16:13	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.1 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.3	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.6	ug/kg	
11141-16-5	Aroclor 1232	ND	20	16	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.2	ug/kg	
11097-69-1	Aroclor 1254	344	20	2.1	ug/kg	
11096-82-5	Aroclor 1260	304	20	6.8	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		35-154%
877-09-8	Tetrachloro-m-xylene	109%		35-154%
2051-24-3	Decachlorobiphenyl	93%		24-176%
2051-24-3	Decachlorobiphenyl	95%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID: 24-GS-R1-COMPA  
 Lab Sample ID: JE1472-17  
 Matrix: SO - Animal Tissue  
 Method: SW846 8082A SW846 3570  
 Project: Sanders Creek, Syracuse, NY

Date Sampled: 10/08/24  
 Date Received: 11/25/24  
 Percent Solids: n/a <sup>a</sup>

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30539.D	1	12/13/24 16:42	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	710	20	2.2	ug/kg	
11096-82-5	Aroclor 1260	353	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		35-154%
877-09-8	Tetrachloro-m-xylene	109%		35-154%
2051-24-3	Decachlorobiphenyl	93%		24-176%
2051-24-3	Decachlorobiphenyl	99%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

Page 1 of 1

Client Sample ID: 24-GS-R1-COMP  
 Lab Sample ID: JE1472-18  
 Matrix: SO - Animal Tissue  
 Method: SW846 8082A SW846 3570  
 Project: Sanders Creek, Syracuse, NY

Date Sampled: 10/08/24  
 Date Received: 11/25/24  
 Percent Solids: n/a <sup>a</sup>

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30540.D	1	12/13/24 17:11	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.1 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.3	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.6	ug/kg	
11141-16-5	Aroclor 1232	ND	20	16	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.2	ug/kg	
11097-69-1	Aroclor 1254	609	20	2.1	ug/kg	
11096-82-5	Aroclor 1260	531	20	6.8	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		35-154%
877-09-8	Tetrachloro-m-xylene	111%		35-154%
2051-24-3	Decachlorobiphenyl	94%		24-176%
2051-24-3	Decachlorobiphenyl	99%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-GS-R1-COMPC	Date Sampled:	10/08/24
Lab Sample ID:	JE1472-19	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30541.D	1	12/13/24 17:39	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254	971	20	2.2	ug/kg	
11096-82-5	Aroclor 1260	522	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	105%		35-154%
877-09-8	Tetrachloro-m-xylene	109%		35-154%
2051-24-3	Decachlorobiphenyl	94%		24-176%
2051-24-3	Decachlorobiphenyl	107%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-GS-R1-COMP	Date Sampled:	10/08/24
Lab Sample ID:	JE1472-20	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30542.D	1	12/13/24 18:07	RK	12/12/24 13:25	OP59863	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.2	ug/kg	
11097-69-1	Aroclor 1254	522	19	2.1	ug/kg	
11096-82-5	Aroclor 1260	490	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	105%		35-154%
877-09-8	Tetrachloro-m-xylene	110%		35-154%
2051-24-3	Decachlorobiphenyl	95%		24-176%
2051-24-3	Decachlorobiphenyl	101%		24-176%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-GS-R0-COMPF	Date Sampled:	10/08/24
Lab Sample ID:	JE1473-1	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30548.D	1	12/13/24 20:56	RK	12/12/24 13:25	OP59864	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.2 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	8.2	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.5	ug/kg	
11141-16-5	Aroclor 1232	ND	19	16	ug/kg	
53469-21-9	Aroclor 1242	ND	19	12	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.2	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	88.8	19	2.1	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	60.4 J	19	6.6	ug/kg	
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	107%		35-154%
877-09-8	Tetrachloro-m-xylene	84%		35-154%
2051-24-3	Decachlorobiphenyl	91%		24-176%
2051-24-3	Decachlorobiphenyl	80%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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Client Sample ID:	24-CR-R0-COMPA	Date Sampled:	10/10/24
Lab Sample ID:	JE1473-2	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30549.D	1	12/13/24 21:25	RK	12/12/24 13:25	OP59864	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.4 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	19	7.9	ug/kg	
11104-28-2	Aroclor 1221	ND	19	6.2	ug/kg	
11141-16-5	Aroclor 1232	ND	19	15	ug/kg	
53469-21-9	Aroclor 1242	ND	19	11	ug/kg	
12672-29-6	Aroclor 1248	ND	19	4.0	ug/kg	
11097-69-1	Aroclor 1254	ND	19	2.0	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	12.1 J	19	6.4	ug/kg	J
11100-14-4	Aroclor 1268	ND	19	1.9	ug/kg	
37324-23-5	Aroclor 1262	ND	19	1.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	103%		35-154%
877-09-8	Tetrachloro-m-xylene	85%		35-154%
2051-24-3	Decachlorobiphenyl	88%		24-176%
2051-24-3	Decachlorobiphenyl	78%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

Page 1 of 1

Client Sample ID:	24-GS-R1-COMPE	Date Sampled:	10/08/24
Lab Sample ID:	JE1473-3	Date Received:	11/25/24
Matrix:	SO - Animal Tissue	Percent Solids:	n/a <sup>a</sup>
Method:	SW846 8082A SW846 3570		
Project:	Sanders Creek, Syracuse, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	RM30550.D	1	12/13/24 21:53	RK	12/12/24 13:25	OP59864	GRM725
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	20	8.5	ug/kg	
11104-28-2	Aroclor 1221	ND	20	6.7	ug/kg	
11141-16-5	Aroclor 1232	ND	20	17	ug/kg	
53469-21-9	Aroclor 1242	ND	20	12	ug/kg	
12672-29-6	Aroclor 1248	ND	20	4.3	ug/kg	
11097-69-1	Aroclor 1254 <sup>b</sup>	674	20	2.2	ug/kg	
11096-82-5	Aroclor 1260 <sup>b</sup>	315	20	6.9	ug/kg	
11100-14-4	Aroclor 1268	ND	20	2.0	ug/kg	
37324-23-5	Aroclor 1262	ND	20	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	106%		35-154%
877-09-8	Tetrachloro-m-xylene	84%		35-154%
2051-24-3	Decachlorobiphenyl	91%		24-176%
2051-24-3	Decachlorobiphenyl	88%		24-176%

(a) All results reported on a wet weight basis.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## **ATTACHMENT B**

### **SUPPORT DOCUMENTATION**



5500 Business Drive  
Wilmington, NC 28405 USA  
Tel: 910 794-1613  
Toll Free: 866 846-8290  
Fax: 910 794-3919

Fish

### Sample Receipt Notification

AK-4140 3351 3540

JE582  
Lynn Kuhel = Sales  
Contact PN

Project Manager: Amy Boehm  
Receipt Date & Time: 11-Oct-24 at 09:28  
AP Project name: C1047  
Requested TAT: 30 business days  
Projected due date: 22-Nov-24  
Matrix: Tissue  
Phone#: 910-794-1613  
Email Address: Amy.Boehm@sgs.com

Company Contact: Peter Hollatz  
Company: AECOM  
Project Name & Site: Sanders Creek, Syracuse NY  
Project PO#: 2024 3092  
QAAP/Contract #: 2024 3092  
Requested Analysis: Fish Tissue, % lipids, % moisture, PCB 8082  
Phone#: 919.461.1194  
Email Address: peter.hollatz@aecom.com

Client Smp ID	AP Smp ID	Sample Condition & Notes	Quantity	Size	Sampling Date	Sampling Time	Received Temp (°C)	Container #	Shipping #
1 24-GS-R4-CompA	C1047_001	Tissue	1	Ziploc bag	10-Oct-24	12:00	-44	1	2805 1547 6163
2 24-GS-R4-CompB	C1047_002	Tissue	1	Ziploc bag	10-Oct-24	12:00	-44	1	2805 1547 6163
3 24-CC-R4-CompA	C1047_003	Tissue	1	Ziploc bag	10-Oct-24	12:00	-44	1	2805 1547 6163
4 24-CC-R4-CompB	C1047_004	Tissue	1	Ziploc bag	10-Oct-24	12:00	-44	1	2805 1547 6163
5 24-WS-R4-CompA	C1047_005	Tissue	1	Ziploc bag	10-Oct-24	12:00	-44	1	2805 1547 6163
6 24-CC-R5-CompD	C1047_006	Tissue	1	Ziploc bag	09-Oct-24	13:00	-44	1	2805 1547 6163
7 24-GS-R5-CompA	C1047_007	Tissue	1	Ziploc bag	09-Oct-24	13:00	-44	1	2805 1547 6163
8 24-GS-R5-CompB	C1047_008	Tissue - MS3 (MS MSD)	1	Ziploc bag	09-Oct-24	13:00	-44	1	2805 1547 6163
9 24-GS-R5-CompC	C1047_009	Tissue	1	Ziploc bag	09-Oct-24	13:00	-44	1	2805 1547 6163
10 24-GS-R5-CompD	C1047_010	Tissue	1	Ziploc bag	09-Oct-24	13:00	-44	1	2805 1547 6163
11 24-GS-R5-CompE	C1047_011	Tissue	1	Ziploc bag	09-Oct-24	13:00	-44	1	2805 1547 6163
12 24-GS-R5-CompF	C1047_012	Tissue	1	Ziploc bag	09-Oct-24	13:00	-44	1	2805 1547 6163
13 24-GS-R5-CompG	C1047_013	Tissue	1	Ziploc bag	09-Oct-24	13:00	-44	1	2805 1547 6163
14 24-CC-R5-CompA	C1047_014	Tissue	1	Ziploc bag	09-Oct-24	13:00	-44	1	2805 1547 6163
15 24-CC-R5-CompB	C1047_015	Tissue	1	Ziploc bag	09-Oct-24	13:00	-44	1	2805 1547 6163
16 24-CC-R5-CompC	C1047_016	Tissue	1	Ziploc bag	09-Oct-24	13:00	-44	1	2805 1547 6163
Preservation Type: Sample Seals: No			Any un-extracted sample will be stored for 90 days from reporting date. Additional storage fees may apply for any samples stored longer than 90 days.						
Notes/Comments:			Samples received intact.						
			0.5 gm, 0.5 Lipids @ 1 gm						
			MS082 → Dayton Report / Bill						

Received by: Malachi Clark

Logged by: Malachi Clark

AECOM

1.4°C 12:50

AK 18 Oct 24

All services are rendered in accordance with the applicable SGS General Conditions of Service accessible via:

[http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)

Initial Assessment 3/3-50  
Label Verification

FedEx → Rec: 11/4/2024 1025

SGS North America

JE582: Chain of Custody

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C1047

JE582

## PROJECT INFO

PROJECT: Sanders Creek, Syracuse NY

PO #

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

SPECIAL DELIVERABLES:

DoD ✓ EDD/Version:

☐ State of Origin:

## SPECIAL INSTRUCTIONS / COMMENTS

## SEND DOCUMENTATION / RESULTS TO

COMPANY: AECOM

CONTACT: Peter Hailatz

ADDRESS: 5438 Wade Park Blvd. Suite 200 Raleigh NC 27604

PHONE: 919-461-1194 EMAIL: Peter.Hallatz@arecom.com

INVOICE TO ☒ CHECK IF SAME)

COMPANY

CONTACT:

ADDRESS:

PHONE \_\_\_\_\_

EMAIL :

[illegible]

Page

12

ECS NORTH AMERICA INC.

ENVIRONMENT HEALTH &amp; SAFETY 5500 Business Drive

1A Classification: KIC 20405  
 2A Classification: IAG 20405

310 350 1903 | 800 840 8290

[www.us.sgs.com/environment](http://www.us.sgs.com/environment)

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## JE582: Chain of Custody

Page 2 of 4

## 5.1



SGS

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JE582



## CHAIN OF CUSTODY

(1047)

JE582

### PROJECT INFO

PROJECT: Sanders Creek, Syracuse NY

PO #:

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

SPECIAL DELIVERABLES:

☐ DoD ☒ DDD/Version:

☐ State of Origin:

### SPECIAL INSTRUCTIONS / COMMENTS

### SEND DOCUMENTATION / RESULTS TO

COMPANY: AECOM

CONTACT: Peter Hallatz

ADDRESS: 5436 Wade Park Blvd Suite 200 Raleigh, NC 27607

PHONE: 919-461-1194 EMAIL: Peter.Hallatz@aecom.com

### INVOICE TO ☒ (CHECK IF SAME)

COMPANY:

CONTACT:

ADDRESS:

PHONE:

EMAIL:

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	PRESERVATIVE										MS MSD	MS/ DUP	REMARKS				
					Lipids	PCB 8082	Methylene														
24-GS-RS-Comp A	10/19	1300																			
24-GS-RS-Comp B	10/19	1300											X			M33					
24-GS-RS-Comp C	10/19	1300																			
24-GS-RS-Comp D	10/19	1300																			
24-GS-RS-Comp E	10/19	1300																			
24-GS-RS-Comp F	10/19	1300																			
24-GS-RS-Comp G	10/19	1300																			
24-CL-RS-Comp A	10/19	1300																			
24-CL-RS-Comp B	10/19	1300																			
24-CL-RS-Comp C	10/19	1300																			
COLLECTED/RELINQUISHED BY (1):					DATE:	TIME:	RECEIVED BY:										RECEIVED BY LABORATORY:		DATE:	TIME:	
[Signature]					10/19/24	1900	[Signature]										malachuk		10/19/24	9:07	
RELINQUISHED BY (2):					DATE:	TIME:	RECEIVED BY:										COOLER SEAL:		<input checked="" type="checkbox"/> INTACT	<input type="checkbox"/> BROKEN	<input type="checkbox"/> ABSENT
[Signature]					10/19/24	16:20	[Signature]										CONTAINER SEALS:		<input type="checkbox"/> INTACT	<input type="checkbox"/> BROKEN	<input checked="" type="checkbox"/> ABSENT
RELINQUISHED BY (3):					DATE:	TIME:	RECEIVED BY:										CARRIER:		TEMP: °C	-44°	
[Signature]							[Signature]										TRACKING #:				

Page 2 of 2

SGS NORTH AMERICA, INC.

ENVIRONMENT, HEALTH & SAFETY 6600 Business Drive Wilmington, NC 28405 910-350-1503 1-800-870-8790

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5

JE582: Chain of Custody

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JE582

## CASE NARRATIVE / CONFORMANCE SUMMARY

2

**Client:** AECOM, INC.

**Job No:** JE582

**Site:** Sanders Creek, Syracuse, NY

**Report Date** 12/13/2024 10:27:33 A

On 11/14/2024, 16 sample(s), 0 Trip Blank(s), 0 Equip. Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. (SGS) at a temperature of 1.8 °C. The samples were intact and properly preserved, unless noted below. An SGS Job Number of JE582 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### GC/LC Semi-volatiles By Method SW846 8082A

**Matrix:** SO

**Batch ID:** OP59633

- All method blanks for this batch meet method specific criteria.
- Sample(s) JE582-8MS, JE582-8MSD, OP59633-MSMSD were used as the QC samples indicated.
- The matrix spike (MS) recovery(s) of Aroclor 1016 are outside control limits. Outside of in house control limits.
- The matrix spike duplicate (MSD) recovery(s) of Aroclor 1016 are outside control limits. Outside of in house control limits.
- The matrix spike (MS) recovery(s) of Aroclor 1248, Aroclor 1254, Aroclor 1260 are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- JE582-15: Sample extracted outside the holding time.
- JE582-1: Sample extracted outside the holding time.
- JE582-10: Sample extracted outside the holding time.
- JE582-11: Sample extracted outside the holding time.
- JE582-12: Sample extracted outside the holding time.
- JE582-14: Sample extracted outside the holding time.
- JE582-9: Sample extracted outside the holding time.
- JE582-16: Sample extracted outside the holding time.
- JE582-2: Sample extracted outside the holding time.
- JE582-3: Sample extracted outside the holding time.
- JE582-4: Sample extracted outside the holding time.
- JE582-5: Sample extracted outside the holding time.
- JE582-6: Sample extracted outside the holding time.
- JE582-7: Sample extracted outside the holding time.
- JE582-8: Sample extracted outside the holding time.
- JE582-13: Sample extracted outside the holding time.

SGS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting SGS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SGS indicated via signature on the report cover.

**Friday, December 13, 2024**

**Page 1 of 1**



## Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: JE582  
 Account: ERTECHNC AECOM, INC.  
 Project: Sanders Creek, Syracuse, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP59633-MS	RM30493.D	1	12/12/24	RK	12/11/24	OP59633	GRM724
OP59633-MSD	RM30494.D	1	12/12/24	RK	12/11/24	OP59633	GRM724
JE582-8 <sup>a</sup>	RM30502.D	1	12/12/24	RK	12/11/24	OP59633	GRM724

The QC reported here applies to the following samples:

Method: SW846 8082A

JE582-1, JE582-2, JE582-3, JE582-4, JE582-5, JE582-6, JE582-7, JE582-8, JE582-9, JE582-10, JE582-11, JE582-12, JE582-13, JE582-14, JE582-15, JE582-16

CAS No.	Compound	JE582-8 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND		40	102	255* <sup>b</sup>	38.5	97.2	253* <sup>b</sup>	5	26-163/38
11104-28-2	Aroclor 1221	ND			ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	ND			ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	ND			ND			ND		nc	50-150/30
12672-29-6	Aroclor 1248	305	40	177	-320* <sup>c</sup>	38.5	151	-400* <sup>c</sup>	16	10-235/18	
11097-69-1	Aroclor 1254	357	40	333	-60* <sup>c</sup>	38.5	286	-185* <sup>c</sup>	15	10-214/28	
11096-82-5	Aroclor 1260	584	40	582	-5* <sup>c</sup>	38.5	503	-211* <sup>c</sup>	15	16-173/39	
11100-14-4	Aroclor 1268	ND			ND			ND		nc	50-150/30
37324-23-5	Aroclor 1262	ND			ND			ND		nc	10-153/15

CAS No.	Surrogate Recoveries	MS	MSD	JE582-8	Limits
877-09-8	Tetrachloro-m-xylene	110%	110%	107%	35-154%
877-09-8	Tetrachloro-m-xylene	112%	114%	112%	35-154%
2051-24-3	Decachlorobiphenyl	96%	96%	96%	24-176%
2051-24-3	Decachlorobiphenyl	100%	99%	99%	24-176%

(a) Sample extracted outside the holding time.

(b) Outside of in house control limits.

(c) Outside control limits due to high level in sample relative to spike amount.

\* = Outside of Control Limits.

Tissue

Fedex # 4140 3351 4054

JE936

**SGS****CHAIN OF CUSTODY**

CL-48

**PROJECT INFO**

PROJECT: Sanders Creek, Syracuse NY

P.O. #:

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

SPECIAL DELIVERABLES:

☐ DoD ☒ EDO/Version:☐ State of Origin:**SPECIAL INSTRUCTIONS / COMMENTS****SEND DOCUMENTATION / RESULTS TO**

COMPANY: AECOM

CONTACT: Peter Hollatz

ADDRESS: 5438 Wake Park Blvd suite 200 Raleigh NC 276

PHONE: 919-461-1194 EMAIL: Peter.Hollatz@aecom.com

**INVOICE TO** (CHECK IF SAME)

COMPANY:

CONTACT:

ADDRESS:

PHONE:

EMAIL:

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	PRESERVATIVE			ANALYSIS & METHOD			MS MSD	MS/ DUP	REMARKS
					Lipids	PCB	Moisture	DOE	DOE	DOE			
1 24-GS-R6-Comp A	10/19	1500			X	X	X				X		MS 4
2 24-GS-R6-Comp B	10/19	1500			X	X	X						
3 24-GS-R6-Comp C	10/19	1500			X	X	X						
4 24-GS-R6-Comp D	10/19	1500			X	X	X						
5 24-GS-R6-Comp E	10/19	1500			X	X	X						
6 24-GS-R6-Comp F	10/19	1500			X	X	X						
7 24-CC-R6-Comp A	10/19	1500			X	X	X						Initial Assessment 2A
8 24-CC-R6-Comp B	10/19	1500			X	X	X						Label Verification
9 24-CC-R6-Comp C	10/19	1500			X	X	X						
10 24-WS-R6-Comp C	10/19	1500			X	X	X						

COLLECTED/RELINQUISHED BY (1): Client	DATE: 10/16/24 TIME: 1900	RECEIVED BY: Fedex	RECEIVED BY LABORATORY: [Signature] DATE: 10/19/24 TIME: 9:21
RELINQUISHED BY (2): Client	DATE: 11/18/24 TIME: 1600	RECEIVED BY: Fedex	COOLER SEAL: <input checked="" type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT
RELINQUISHED BY (3): Fedex	DATE: 11/19/24 TIME: 11:20	RECEIVED BY:	CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input checked="" type="checkbox"/> ABSENT
			CARRIER: Fedex TEMP: °C -64°
			TRACKING #:

Page 1 of 2

SGS NORTH AMERICA INC.

ENVIRONMENT, HEALTH &amp; SAFETY 5500 Business Drive Wilmington, NC 28405 910 350 1903 | 856 848 8290 www.us.sgs.com/environment

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JE936: Chain of Custody

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**SGS**

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JE936



## CHAIN OF CUSTODY

C104P

JE936

## PROJECT INFO

PROJECT: Sanders Creek, Syracuse NY

P.O. #:

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

SPECIAL DELIVERABLES:

☐ DoD ☒ EOD/Version:  
☐ State of Origin:

## SPECIAL INSTRUCTIONS / COMMENTS

## SEND DOCUMENTATION / RESULTS TO

COMPANY: AECOM

CONTACT: Peter Hallatz

ADDRESS: 5438 Wade Park Blvd Suite 200 Raleigh NC 27604

PHONE: 919-461-1194 EMAIL: Peter.Hallatz@aecom.co

INVOICE TO ☒ CHECK IF SAME

COMPANY:

CONTACT:

ADDRESS:

PHONE:

EMAIL:

41.43  
7.75  
0.00  
49.22SHIPPING:  
WEIGHT:  
TOTAL:Ref: Sanders Creek C1 Date: 18Nov24  
Dep: 11/16/24  
DVT: 11/16/24  
Sgs: PRIORITY OVERNIGHT  
11/16/24 10:30 AM  
11/16/24 10:30 AM

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	PRESERVATIVE			ANALYSIS & METHOD			MS MSD	MS/ DUP	REMARKS
					Lipids	PCB 6082	Moisture						
24-BS-R7-Comp A	10/10	1400			X	X	X						
24-BS-R7-Comp B	10/10	1400			X	X	X						
24-BS-R7-Comp C	10/10	1400			X	X	X						
24-BS-R7-Comp D	10/10	1400			X	X	X						
24-BS-R7-Comp E	10/10	1400			X	X	X						
24-BS-R7-Comp F	10/10	1400			X	X	X						
24-BS-R7-Comp G	10/10	1400			X	X	X						
24-CC-R7-Comp A	10/10	1400			X	X	X						
24-CC-R7-Comp B	10/10	1400			X	X	X						
24-CC-R7-Comp C	10/10	1400			X	X	X						

COLLECTED/RELINQUISHED BY (1): Ch...	DATE: 11/16/24 TIME: 10:30 AM	RECEIVED BY: M...	DATE: 10/16/24 TIME: 9:11
RELINQUISHED BY (2): C...	DATE: 11/16/24 TIME: 1600	RECEIVED BY: Fedex	COOLER SEAL: <input checked="" type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT
RELINQUISHED BY (3): Fedex	DATE: 11/16/24 TIME: 11:20	RECEIVED BY:	CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input checked="" type="checkbox"/> ABSENT
			CARRIER: Fedex
			TEMP: °C -64°
			TRACKING #:

Page 2 of 2

SGS NORTH AMERICA INC.

ENVIRONMENT, HEALTH &amp; SAFETY

5500 Business Drive

Wilmington, NC 28406

910-350-1803 1-800-840-0000

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JE936: Chain of Custody

Page 2 of 5



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JE936



## Sample Receipt Notification

JE936

5500 Business Drive  
Wilmington, NC 28405 USA  
Tel: 910 794-1613  
Toll Free: 866 846-8290  
Fax: 910 794-3919

Project Manager: Amy Boehm  
Receipt Date & Time: 11-Oct-24 at 09:28  
AP Project name: C1048  
Requested TAT: 30 business days  
Projected due date: 22-Nov-24  
Matrix: Tissue  
Phone#: 910-794-1613  
Email Address: Amy.Boehm@sgs.com

Company Contact: Peter Hollarz  
Company: AECOM  
Project Name & Site: Sanders Creek, Syracuse NY  
Project PO#:   
QAAP/Contract #: 2024 3092  
Requested Analysis: Fish Prep, % lipids, % moisture, PCB 8082  
Phone#: 919.461.1194  
Email Address: peter.hollarz@aecom.com

Client Smp ID	AP Smp ID	Sample Condition & Notes	Quantity	Size	Sampling Date	Sampling Time	Received Temp (°C)	Container #	Shipping #
24-GS-R6-CompA	C1048_001	Tissue - MS4 (MSA/MSD)	1	Ziploc Bag	09-Oct-24	15:00	-64	1	2805 1547 6152
24-GS-R6-CompB	C1048_002	Tissue	1	Ziploc Bag	09-Oct-24	15:00	-64	1	2805 1547 6152
24-GS-R6-CompC	C1048_003	Tissue	1	Ziploc Bag	09-Oct-24	15:00	-64	1	2805 1547 6152
24-GS-R6-CompD	C1048_004	Tissue	1	Ziploc Bag	09-Oct-24	15:00	-64	1	2805 1547 6152
24-GS-R6-CompE	C1048_005	Tissue	1	Ziploc Bag	09-Oct-24	15:00	-64	1	2805 1547 6152
24-GS-R6-CompF	C1048_006	Tissue	1	Ziploc Bag	09-Oct-24	15:00	-64	1	2805 1547 6152
24-CC-R6-CompA	C1048_007	Tissue	1	Ziploc Bag	09-Oct-24	15:00	-64	1	2805 1547 6152
24-CC-R6-CompB	C1048_008	Tissue	1	Ziploc Bag	09-Oct-24	15:00	-64	1	2805 1547 6152
24-CC-R6-CompC	C1048_009	Tissue	1	Ziploc Bag	09-Oct-24	15:00	-64	1	2805 1547 6152
24-WS-R6-CompC	C1048_010	Tissue	1	Ziploc Bag	09-Oct-24	15:00	-64	1	2805 1547 6152
24-GS-R7-CompA	C1048_011	Tissue	1	Ziploc Bag	10-Oct-24	14:00	-64	1	2805 1547 6152
24-GS-R7-CompB	C1048_012	Tissue	1	Ziploc Bag	10-Oct-24	14:00	-64	1	2805 1547 6152
24-GS-R7-CompC	C1048_013	Tissue	1	Ziploc Bag	10-Oct-24	14:00	-64	1	2805 1547 6152
24-GS-R7-CompD	C1048_014	Tissue	1	Ziploc Bag	10-Oct-24	14:00	-64	1	2805 1547 6152
24-GS-R7-CompE	C1048_015	Tissue	1	Ziploc Bag	10-Oct-24	14:00	-64	1	2805 1547 6152
24-GS-R7-CompF	C1048_016	Tissue	1	Ziploc Bag	10-Oct-24	14:00	-64	1	2805 1547 6152
24-GS-R7-CompG	C1048_017	Tissue	1	Ziploc Bag	10-Oct-24	14:00	-64	1	2805 1547 6152
Preservation Type:		Sample Seals:	No _____			Any un-extracted sample will be stored for 90 days from reporting date. Additional storage fees may apply for any samples stored longer than 90 days.			
Notes/Comments:									
Samples received intact									

Received by: Malachi Clark

Logged in by: Malachi Clark

QC'd by: AK 18 Oct 24

All services are rendered in accordance with the applicable SGS General Conditions of Service accessible via:

[http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)

SGS North America

JE936: Chain of Custody  
Page 3 of 5



36 of 588

JE936



<b>Company Contact:</b>	<i>Peter Hollatz</i>
<b>Company:</b>	<i>AECOM</i>
<b>Project Name &amp; Site:</b>	<i>Sanders Creek, Syracuse NY</i>
<b>Project PO#:</b>	
<b>QAAP/Contract #:</b>	<i>2024 3092</i>
<b>Requested Analysis:</b>	<i>Fish Prep, % lipids, % moisture, PCB 8082</i>
<b>Phone#:</b>	<i>919.461.1194</i>
<b>Email Address:</b>	<i>peter.hollatz@aecom.com</i>

## 5

Q<sup>ued by</sup>: AK 18 Oct 24

[http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)

~~SGS North America~~

Page 4 of 5

## CASE NARRATIVE / CONFORMANCE SUMMARY

2

**Client:** AECOM, INC.

**Job No:** JE936

**Site:** Sanders Creek, Syracuse, NY

**Report Date** 12/12/2024 3:46:13 P

On 11/19/2024, 20 sample(s), 0 Trip Blank(s), 0 Equip. Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. (SGS) at a temperature of 4.4 °C. The samples were intact and properly preserved, unless noted below. An SGS Job Number of JE936 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### GC/LC Semi-volatiles By Method SW846 8082A

**Matrix:** SO

**Batch ID:** OP59634

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JE936-1MS, JE936-1MSD were used as the QC samples indicated.
- Matrix Spike/Matrix Spike Duplicate recovery(s) of Aroclor 1016 are outside in house limits.
- Matrix Spike/Matrix Spike Duplicate recovery(s) of Aroclor 1260 are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- JE936-2 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-8 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE936-7 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE936-6 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-6 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE936-5 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-5 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE936-4 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-4 for Aroclor 1248: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-4 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE936-3 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE936-10 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE936-2 for Aroclor 1248: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-2 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE936-1 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- OP59634-MS for Aroclor 1016: Outside of in house control limits.
- OP59634-BS1 for Aroclor 1260: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-3 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-14 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.

Thursday, December 12, 2024

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## GC/LC Semi-volatiles By Method SW846 8082A

**Matrix:** SO

**Batch ID:** OP59634

2

- JE936-19 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-19 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE936-18 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-18 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE936-17 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-17 for Aroclor 1248: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-17 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE936-16 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-16 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE936-15 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-9 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE936-14 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-9 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-13 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-13 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE936-12 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-12 for Aroclor 1248: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-12 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE936-11 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-11 for Aroclor 1248: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-11 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE936-10 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE936-20 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE936-15 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.

SGS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting SGS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SGS indicated via signature on the report cover.

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## Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: JE936  
 Account: ERTECHNC AECOM, INC.  
 Project: Sanders Creek, Syracuse, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP59634-MS	2G234433.D	1	11/29/24	RK	11/27/24	OP59634	G2G6179
OP59634-MSD	2G234434.D	1	11/29/24	RK	11/27/24	OP59634	G2G6179
JE936-1	2G234435.D	1	11/29/24	RK	11/27/24	OP59634	G2G6179

The QC reported here applies to the following samples:

Method: SW846 8082A

JE936-1, JE936-2, JE936-3, JE936-4, JE936-5, JE936-6, JE936-7, JE936-8, JE936-9, JE936-10, JE936-11, JE936-12, JE936-13, JE936-14, JE936-15, JE936-16, JE936-17, JE936-18, JE936-19, JE936-20

CAS No.	Compound	JE936-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND		36.4	67.4	185* a	37.7	64.2	170* a	5	26-163/38
11096-82-5	Aroclor 1260	621		36.4		-481* b	37.7	553	-180* b	21	16-173/39

CAS No.	Surrogate Recoveries	MS	MSD	JE936-1	Limits
877-09-8	Tetrachloro-m-xylene	98%	94%	93%	35-154%
877-09-8	Tetrachloro-m-xylene	100%	94%	94%	35-154%
2051-24-3	Decachlorobiphenyl	86%	88%	83%	24-176%
2051-24-3	Decachlorobiphenyl	91%	92%	93%	24-176%

(a) Outside of in house control limits.

(b) Outside control limits due to high level in sample relative to spike amount.

\* = Outside of Control Limits.



# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE936-1	Injection Date:	11/29/24
Lab File ID:	2G234435.D	Injection Time:	13:29
Client ID:	24-GS-R6-COMPA		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			491		ug/kg	5.0
Aroclor 1254	2			516		ug/kg	
AR1254-A	1	6.33	6.33 <sup>b</sup>	429		ug/kg	
AR1254-A	2	7.79	7.79 <sup>b</sup>	530		ug/kg	
AR1254-C	1	6.96	6.95 <sup>b</sup>	518		ug/kg	
AR1254-C	2	8.88	8.89 <sup>b</sup>	421		ug/kg	
AR1254-D	1	7.12	7.12 <sup>b</sup>	524		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	597		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			621		ug/kg	52.2
Aroclor 1260 <sup>d</sup>	2			1060		ug/kg	
AR1260-C	1	9.09	9.09	559		ug/kg	
AR1260-C <sup>d</sup>	2	10.71	10.71	889		ug/kg	
AR1260-D	1	9.62	9.61	702		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	1300		ug/kg	
AR1260-E	1	10.01	10.00	603		ug/kg	
AR1260-E <sup>d</sup>	2	11.31	11.32	999		ug/kg	

- (a) Final result reported from this column.  
(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45  
(c) More than 40 % RPD for detected concentrations between the two GC columns.  
(d) Associated CCV outside of control limits low.

6.4.1  
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# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE936-2	Injection Date:	11/29/24
Lab File ID:	2G234436.D	Injection Time:	13:53
Client ID:	24-GS-R6-COMP		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1248 <sup>a</sup>	1 <sup>b</sup>			532		ug/kg	3.6
Aroclor 1248 <sup>a</sup>	2			513		ug/kg	
AR1248-B	1	5.50	5.49 <sup>c</sup>	766		ug/kg	
AR1248-B	2	6.33	6.34 <sup>c</sup>	702		ug/kg	
AR1248-D	1	5.96	5.96 <sup>c</sup>	382		ug/kg	
AR1248-D	2	7.11	7.11 <sup>c</sup>	329		ug/kg	
AR1248-E	1	6.04	6.04 <sup>c</sup>	447		ug/kg	
AR1248-E	2	7.30	7.30 <sup>c</sup>	509		ug/kg	
Aroclor 1254 <sup>a</sup>	1 <sup>b</sup>			310		ug/kg	20.2
Aroclor 1254 <sup>a</sup>	2			253		ug/kg	
AR1254-C	1	6.96	6.95 <sup>d</sup>	326		ug/kg	
AR1254-C	2	8.89	8.89 <sup>d</sup>	193		ug/kg	
AR1254-D	1	7.12	7.12 <sup>d</sup>	355		ug/kg	
AR1254-D	2	9.12	9.12 <sup>d</sup>	390		ug/kg	
AR1254-E	1	7.53	7.53 <sup>d</sup>	248		ug/kg	
AR1254-E	2	9.49	9.50 <sup>d</sup>	178		ug/kg	
Aroclor 1260 <sup>e</sup>	1 <sup>b</sup>			230		ug/kg	44.1
Aroclor 1260 <sup>f</sup>	2			360		ug/kg	
AR1260-C	1	9.10	9.09	196		ug/kg	
AR1260-C <sup>f</sup>	2	10.71	10.71	278		ug/kg	
AR1260-D	1	9.62	9.61	273		ug/kg	
AR1260-D <sup>f</sup>	2	10.96	10.96	454		ug/kg	
AR1260-E	1	10.01	10.00	221		ug/kg	
AR1260-E <sup>f</sup>	2	11.32	11.32	348		ug/kg	

(a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(b) Final result reported from this column.

(c) StdRT taken from init cal: G2G6177-IC6177 2G234328.D 11/23/24 15:49

(d) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(e) More than 40 % RPD for detected concentrations between the two GC columns.

(f) Associated CCV outside of control limits low.

# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE936-3	Injection Date:	11/29/24
Lab File ID:	2G234437.D	Injection Time:	14:18
Client ID:	24-GS-R6-COMPC		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1248	1 <sup>a</sup>			365		ug/kg	8.1
Aroclor 1248	2			396		ug/kg	
AR1248-A	1	5.13	5.12 <sup>b</sup>	411		ug/kg	
AR1248-A	2	5.85	5.86 <sup>b</sup>	453		ug/kg	
AR1248-D	1	5.96	5.96 <sup>b</sup>	319		ug/kg	
AR1248-D	2	7.11	7.11 <sup>b</sup>	271		ug/kg	
AR1248-E	1	6.04	6.04 <sup>b</sup>	365		ug/kg	
AR1248-E	2	7.29	7.30 <sup>b</sup>	463		ug/kg	
Aroclor 1254 <sup>c</sup>	1 <sup>a</sup>			213		ug/kg	21.3
Aroclor 1254 <sup>c</sup>	2			172		ug/kg	
AR1254-C	1	6.96	6.95 <sup>d</sup>	231		ug/kg	
AR1254-C	2	8.88	8.89 <sup>d</sup>	138		ug/kg	
AR1254-D	1	7.12	7.12 <sup>d</sup>	226		ug/kg	
AR1254-D	2	9.11	9.12 <sup>d</sup>	240		ug/kg	
AR1254-E	1	7.53	7.53 <sup>d</sup>	181		ug/kg	
AR1254-E	2	9.50	9.50 <sup>d</sup>	137		ug/kg	
Aroclor 1260 <sup>e</sup>	1 <sup>a</sup>			77.5		ug/kg	40.6
Aroclor 1260 <sup>f</sup>	2			117		ug/kg	
AR1260-C	1	9.09	9.09	58.6		ug/kg	
AR1260-C <sup>f</sup>	2	10.71	10.71	77.7		ug/kg	
AR1260-D	1	9.62	9.61	94.0		ug/kg	
AR1260-D <sup>f</sup>	2	10.96	10.96	153		ug/kg	
AR1260-E	1	10.01	10.00	79.9		ug/kg	
AR1260-E <sup>f</sup>	2	11.32	11.32	120		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234328.D 11/23/24 15:49

(c) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(d) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(e) More than 40 % RPD for detected concentrations between the two GC columns.

(f) Associated CCV outside of control limits low.

6.4.3

6

# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE936-4	Injection Date:	11/29/24
Lab File ID:	2G234438.D	Injection Time:	14:42
Client ID:	24-GS-R6-COMPD		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1248 <sup>a</sup>	1 <sup>b</sup>			165		ug/kg	3.7
Aroclor 1248 <sup>a</sup>	2			159		ug/kg	
AR1248-A	1	5.13	5.12 <sup>c</sup>	114		ug/kg	
AR1248-A	2	5.87	5.86 <sup>c</sup>	108		ug/kg	
AR1248-B	1	5.50	5.49 <sup>c</sup>	271		ug/kg	
AR1248-B	2	6.33	6.34 <sup>c</sup>	231		ug/kg	
AR1248-D	1	5.96	5.96 <sup>c</sup>	109		ug/kg	
AR1248-D	2	7.11	7.11 <sup>c</sup>	137		ug/kg	
Aroclor 1254 <sup>a</sup>	1 <sup>b</sup>			400		ug/kg	8.9
Aroclor 1254 <sup>a</sup>	2			366		ug/kg	
AR1254-C	1	6.96	6.95 <sup>d</sup>	388		ug/kg	
AR1254-C	2	8.88	8.89 <sup>d</sup>	324		ug/kg	
AR1254-D	1	7.12	7.12 <sup>d</sup>	404		ug/kg	
AR1254-D	2	9.12	9.12 <sup>d</sup>	453		ug/kg	
AR1254-E	1	7.53	7.53 <sup>d</sup>	409		ug/kg	
AR1254-E	2	9.49	9.50 <sup>d</sup>	321		ug/kg	
Aroclor 1260 <sup>e</sup>	1 <sup>b</sup>			381		ug/kg	45.1
Aroclor 1260 <sup>f</sup>	2			603		ug/kg	
AR1260-C	1	9.09	9.09	288		ug/kg	
AR1260-C <sup>f</sup>	2	10.71	10.71	397		ug/kg	
AR1260-D	1	9.62	9.61	474		ug/kg	
AR1260-D <sup>f</sup>	2	10.96	10.96	802		ug/kg	
AR1260-E	1	10.01	10.00	380		ug/kg	
AR1260-E <sup>f</sup>	2	11.32	11.32	610		ug/kg	

- (a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- (b) Final result reported from this column.
- (c) StdRT taken from init cal: G2G6177-IC6177 2G234328.D 11/23/24 15:49
- (d) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45
- (e) More than 40 % RPD for detected concentrations between the two GC columns.
- (f) Associated CCV outside of control limits low.

# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE936-5	Injection Date:	11/29/24
Lab File ID:	2G234439.D	Injection Time:	15:07
Client ID:	24-GS-R6-COMPE		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254 <sup>a</sup>	1 <sup>b</sup>			391		ug/kg	0.5
Aroclor 1254 <sup>a</sup>	2			389		ug/kg	
AR1254-B	1	6.62	6.61 <sup>c</sup>	403		ug/kg	
AR1254-B	2	8.12	8.12 <sup>c</sup>	542		ug/kg	
AR1254-C	1	6.96	6.95 <sup>c</sup>	436		ug/kg	
AR1254-C	2	8.88	8.89 <sup>c</sup>	301		ug/kg	
AR1254-D	1	7.12	7.12 <sup>c</sup>	430		ug/kg	
AR1254-D	2	9.11	9.12 <sup>c</sup>	506		ug/kg	
AR1254-E	1	7.53	7.53 <sup>c</sup>	296		ug/kg	
AR1254-E	2	9.49	9.50 <sup>c</sup>	209		ug/kg	
Aroclor 1260 <sup>d</sup>	1 <sup>b</sup>			562		ug/kg	47.8
Aroclor 1260 <sup>e</sup>	2			915		ug/kg	
AR1260-C	1	9.09	9.09	464		ug/kg	
AR1260-C <sup>e</sup>	2	10.71	10.71	681		ug/kg	
AR1260-D	1	9.62	9.61	675		ug/kg	
AR1260-D <sup>e</sup>	2	10.96	10.96	1160		ug/kg	
AR1260-E	1	10.01	10.00	547		ug/kg	
AR1260-E <sup>e</sup>	2	11.32	11.32	906		ug/kg	

- (a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- (b) Final result reported from this column.
- (c) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45
- (d) More than 40 % RPD for detected concentrations between the two GC columns.
- (e) Associated CCV outside of control limits low.

6.4.5  
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# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A
Sample ID:	JE936-6	Injection Date:	11/29/24
Lab File ID:	2G234440.D	Injection Time:	15:31
Client ID:	24-GS-R6-COMPF		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1248	1 <sup>a</sup>			233		ug/kg	6.2
Aroclor 1248	2			248		ug/kg	
AR1248-B	1	5.50	5.49 <sup>b</sup>	338		ug/kg	
AR1248-B	2	6.33	6.34 <sup>b</sup>	290		ug/kg	
AR1248-D	1	5.96	5.96 <sup>b</sup>	137		ug/kg	
AR1248-D	2	7.11	7.11 <sup>b</sup>	183		ug/kg	
AR1248-E	1	6.04	6.04 <sup>b</sup>	224		ug/kg	
AR1248-E	2	7.29	7.30 <sup>b</sup>	271		ug/kg	
Aroclor 1254 <sup>c</sup>	1 <sup>a</sup>			465		ug/kg	8.1
Aroclor 1254 <sup>c</sup>	2			429		ug/kg	
AR1254-C	1	6.96	6.95 <sup>d</sup>	476		ug/kg	
AR1254-C	2	8.88	8.89 <sup>d</sup>	381		ug/kg	
AR1254-D	1	7.12	7.12 <sup>d</sup>	523		ug/kg	
AR1254-D	2	9.11	9.12 <sup>d</sup>	610		ug/kg	
AR1254-E	1	7.53	7.53 <sup>d</sup>	397		ug/kg	
AR1254-E	2	9.49	9.50 <sup>d</sup>	296		ug/kg	
Aroclor 1260 <sup>e</sup>	1 <sup>a</sup>			511		ug/kg	47.8
Aroclor 1260 <sup>f</sup>	2			832		ug/kg	
AR1260-C	1	9.09	9.09	406		ug/kg	
AR1260-C <sup>f</sup>	2	10.71	10.71	601		ug/kg	
AR1260-D	1	9.62	9.61	627		ug/kg	
AR1260-D <sup>f</sup>	2	10.96	10.96	1070		ug/kg	
AR1260-E	1	10.01	10.00	500		ug/kg	
AR1260-E <sup>f</sup>	2	11.32	11.32	827		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234328.D 11/23/24 15:49

(c) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(d) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(e) More than 40 % RPD for detected concentrations between the two GC columns.

(f) Associated CCV outside of control limits low.

6.4.6

6

# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A
Sample ID:	JE936-7	Injection Date:	11/29/24
Lab File ID:	2G234441.D	Injection Time:	15:55
Client ID:	24-CC-R6-COMPA		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			166		ug/kg	3.6
Aroclor 1254	2			172		ug/kg	
AR1254-B	1	6.61	6.61 <sup>b</sup>	161		ug/kg	
AR1254-B	2	8.12	8.12 <sup>b</sup>	209		ug/kg	
AR1254-D	1	7.12	7.12 <sup>b</sup>	194		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	207		ug/kg	
AR1254-E	1	7.53	7.53 <sup>b</sup>	144		ug/kg	
AR1254-E	2	9.49	9.50 <sup>b</sup>	98.2		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			239		ug/kg	40.9
Aroclor 1260 <sup>d</sup>	2			362		ug/kg	
AR1260-C	1	9.09	9.09	204		ug/kg	
AR1260-C <sup>d</sup>	2	10.70	10.71	273		ug/kg	
AR1260-D	1	9.61	9.61	303		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	482		ug/kg	
AR1260-E	1	10.01	10.00	210		ug/kg	
AR1260-E <sup>d</sup>	2	11.32	11.32	331		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits low.

6.4.7

6

# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A
Sample ID:	JE936-8	Injection Date:	11/29/24
Lab File ID:	2G234442.D	Injection Time:	16:20
Client ID:	24-CC-R6-COMP		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			333		ug/kg	7.8
Aroclor 1254	2			360		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	334		ug/kg	
AR1254-B	2	8.12	8.12 <sup>b</sup>	452		ug/kg	
AR1254-C	1	6.96	6.95 <sup>b</sup>	301		ug/kg	
AR1254-C	2	8.88	8.89 <sup>b</sup>	220		ug/kg	
AR1254-D	1	7.12	7.12 <sup>b</sup>	363		ug/kg	
AR1254-D	2	9.11	9.12 <sup>b</sup>	410		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			431		ug/kg	50.0
Aroclor 1260 <sup>d</sup>	2			718		ug/kg	
AR1260-C	1	9.09	9.09	354		ug/kg	
AR1260-C <sup>d</sup>	2	10.71	10.71	547		ug/kg	
AR1260-D	1	9.61	9.61	543		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	949		ug/kg	
AR1260-E	1	10.01	10.00	396		ug/kg	
AR1260-E <sup>d</sup>	2	11.32	11.32	657		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits low.

6.4.8

6



# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE936-9	Injection Date:	11/29/24
Lab File ID:	2G234443.D	Injection Time:	16:44
Client ID:	24-CC-R6-COMPC		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254 <sup>a</sup>	1 <sup>b</sup>			229		ug/kg	15.0
Aroclor 1254 <sup>a</sup>	2			197		ug/kg	
AR1254-C	1	6.96	6.95 <sup>c</sup>	230		ug/kg	
AR1254-C	2	8.88	8.89 <sup>c</sup>	158		ug/kg	
AR1254-D	1	7.12	7.12 <sup>c</sup>	256		ug/kg	
AR1254-D	2	9.12	9.12 <sup>c</sup>	287		ug/kg	
AR1254-E	1	7.53	7.53 <sup>c</sup>	203		ug/kg	
AR1254-E	2	9.49	9.50 <sup>c</sup>	147		ug/kg	
Aroclor 1260 <sup>d</sup>	1 <sup>b</sup>			331		ug/kg	44.2
Aroclor 1260 <sup>e</sup>	2			519		ug/kg	
AR1260-C	1	9.09	9.09	269		ug/kg	
AR1260-C <sup>e</sup>	2	10.71	10.71	370		ug/kg	
AR1260-D	1	9.62	9.61	418		ug/kg	
AR1260-D <sup>e</sup>	2	10.96	10.96	694		ug/kg	
AR1260-E	1	10.01	10.00	308		ug/kg	
AR1260-E <sup>e</sup>	2	11.32	11.32	494		ug/kg	

- (a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- (b) Final result reported from this column.
- (c) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45
- (d) More than 40 % RPD for detected concentrations between the two GC columns.
- (e) Associated CCV outside of control limits low.

6.4.9

6

# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE936-10	Injection Date:	11/29/24
Lab File ID:	2G234444.D	Injection Time:	17:09
Client ID:	24-WS-R6-COMPC		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1248	1 <sup>a</sup>			58.6		ug/kg	15.3
Aroclor 1248	2			68.3		ug/kg	
AR1248-C	1	5.76	5.76 <sup>b</sup>	29.0		ug/kg	
AR1248-C	2	6.72	6.72 <sup>b</sup>	59.7		ug/kg	
AR1248-D	1	5.96	5.96 <sup>b</sup>	67.5		ug/kg	
AR1248-D	2	7.11	7.11 <sup>b</sup>	61.3		ug/kg	
AR1248-E	1	6.04	6.04 <sup>b</sup>	79.2		ug/kg	
AR1248-E	2	7.30	7.30 <sup>b</sup>	83.8		ug/kg	
Aroclor 1254 <sup>c</sup>	1 <sup>a</sup>			151		ug/kg	8.3
Aroclor 1254 <sup>c</sup>	2			139		ug/kg	
AR1254-B	1	6.62	6.61 <sup>d</sup>	147		ug/kg	
AR1254-B	2	8.12	8.12 <sup>d</sup>	174		ug/kg	
AR1254-C	1	6.96	6.95 <sup>d</sup>	149		ug/kg	
AR1254-C	2	8.88	8.89 <sup>d</sup>	98.6		ug/kg	
AR1254-D	1	7.12	7.12 <sup>d</sup>	174		ug/kg	
AR1254-D	2	9.11	9.12 <sup>d</sup>	188		ug/kg	
AR1254-E	1	7.53	7.53 <sup>d</sup>	135		ug/kg	
AR1254-E	2	9.49	9.50 <sup>d</sup>	97.5		ug/kg	
Aroclor 1260 <sup>e</sup>	1 <sup>a</sup>			350		ug/kg	47.8
Aroclor 1260 <sup>f</sup>	2			570		ug/kg	
AR1260-B	1	8.59	8.59	346		ug/kg	
AR1260-B <sup>f</sup>	2	10.36	10.36	517		ug/kg	
AR1260-D	1	9.62	9.61	414		ug/kg	
AR1260-D <sup>f</sup>	2	10.96	10.96	705		ug/kg	
AR1260-E	1	10.01	10.00	292		ug/kg	
AR1260-E <sup>f</sup>	2	11.32	11.32	487		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234328.D 11/23/24 15:49

(c) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(d) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(e) More than 40 % RPD for detected concentrations between the two GC columns.

(f) Associated CCV outside of control limits low.

6.4.10  
6

# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE936-11	Injection Date:	11/29/24
Lab File ID:	2G234445.D	Injection Time:	17:34
Client ID:	24-GS-R7-COMPA		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1248 <sup>a</sup>	1 <sup>b</sup>			53.6		ug/kg	3.2
Aroclor 1248 <sup>a</sup>	2			51.9		ug/kg	
AR1248-B	1	5.51	5.49 <sup>c</sup>	47.3		ug/kg	
AR1248-B	2	6.33	6.34 <sup>c</sup>	43.4		ug/kg	
AR1248-D	1	5.96	5.96 <sup>c</sup>	31.6		ug/kg	
AR1248-D	2	7.11	7.11 <sup>c</sup>	35.9		ug/kg	
AR1248-E	1	6.04	6.04 <sup>c</sup>	82.0		ug/kg	
AR1248-E	2	7.30	7.30 <sup>c</sup>	76.2		ug/kg	
Aroclor 1254 <sup>a</sup>	1 <sup>b</sup>			254		ug/kg	22.3
Aroclor 1254 <sup>a</sup>	2			203		ug/kg	
AR1254-C	1	6.96	6.95 <sup>d</sup>	299		ug/kg	
AR1254-C	2	8.88	8.89 <sup>d</sup>	181		ug/kg	
AR1254-D	1	7.12	7.12 <sup>d</sup>	226		ug/kg	
AR1254-D	2	9.11	9.12 <sup>d</sup>	251		ug/kg	
AR1254-E	1	7.53	7.53 <sup>d</sup>	238		ug/kg	
AR1254-E	2	9.49	9.50 <sup>d</sup>	178		ug/kg	
Aroclor 1260 <sup>e</sup>	1 <sup>b</sup>			337		ug/kg	50.1
Aroclor 1260 <sup>f</sup>	2			562		ug/kg	
AR1260-C	1	9.09	9.09	224		ug/kg	
AR1260-C <sup>f</sup>	2	10.71	10.71	331		ug/kg	
AR1260-D	1	9.62	9.61	466		ug/kg	
AR1260-D <sup>f</sup>	2	10.96	10.96	818		ug/kg	
AR1260-E	1	10.01	10.00	321		ug/kg	
AR1260-E <sup>f</sup>	2	11.32	11.32	536		ug/kg	

- (a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- (b) Final result reported from this column.
- (c) StdRT taken from init cal: G2G6177-IC6177 2G234328.D 11/23/24 15:49
- (d) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45
- (e) More than 40 % RPD for detected concentrations between the two GC columns.
- (f) Associated CCV outside of control limits low.

6.4.11

6

# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A
Sample ID:	JE936-12	Injection Date:	11/29/24
Lab File ID:	2G234446.D	Injection Time:	17:59
Client ID:	24-GS-R7-COMP		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1248 <sup>a</sup>	1 <sup>b</sup>			125		ug/kg	4.9
Aroclor 1248 <sup>a</sup>	2			119		ug/kg	
AR1248-B	1	5.50	5.49 <sup>c</sup>	144		ug/kg	
AR1248-B	2	6.33	6.34 <sup>c</sup>	131		ug/kg	
AR1248-D	1	5.96	5.96 <sup>c</sup>	54.9		ug/kg	
AR1248-D	2	7.11	7.11 <sup>c</sup>	63.8		ug/kg	
AR1248-E	1	6.04	6.04 <sup>c</sup>	178		ug/kg	
AR1248-E	2	7.30	7.30 <sup>c</sup>	163		ug/kg	
Aroclor 1254 <sup>a</sup>	1 <sup>b</sup>			335		ug/kg	12.7
Aroclor 1254 <sup>a</sup>	2			295		ug/kg	
AR1254-C	1	6.96	6.95 <sup>d</sup>	345		ug/kg	
AR1254-C	2	8.88	8.89 <sup>d</sup>	255		ug/kg	
AR1254-D	1	7.12	7.12 <sup>d</sup>	357		ug/kg	
AR1254-D	2	9.11	9.12 <sup>d</sup>	402		ug/kg	
AR1254-E	1	7.53	7.53 <sup>d</sup>	302		ug/kg	
AR1254-E	2	9.49	9.50 <sup>d</sup>	226		ug/kg	
Aroclor 1260 <sup>e</sup>	1 <sup>b</sup>			340		ug/kg	49.9
Aroclor 1260 <sup>f</sup>	2			566		ug/kg	
AR1260-C	1	9.09	9.09	237		ug/kg	
AR1260-C <sup>f</sup>	2	10.71	10.71	367		ug/kg	
AR1260-D	1	9.62	9.61	454		ug/kg	
AR1260-D <sup>f</sup>	2	10.96	10.96	770		ug/kg	
AR1260-E	1	10.01	10.00	330		ug/kg	
AR1260-E <sup>f</sup>	2	11.32	11.32	560		ug/kg	

(a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(b) Final result reported from this column.

(c) StdRT taken from init cal: G2G6177-IC6177 2G234328.D 11/23/24 15:49

(d) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(e) More than 40 % RPD for detected concentrations between the two GC columns.

(f) Associated CCV outside of control limits low.

6.4.12

6

# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE936-13	Injection Date:	11/29/24
Lab File ID:	2G234447.D	Injection Time:	18:24
Client ID:	24-GS-R7-COMPC		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1248	1 <sup>a</sup>			125		ug/kg	10.6
Aroclor 1248	2			139		ug/kg	
AR1248-B	1	5.50	5.49 <sup>b</sup>	127		ug/kg	
AR1248-B	2	6.33	6.34 <sup>b</sup>	126		ug/kg	
AR1248-D	1	5.96	5.96 <sup>b</sup>	74.2		ug/kg	
AR1248-D	2	7.11	7.11 <sup>b</sup>	111		ug/kg	
AR1248-E	1	6.04	6.04 <sup>b</sup>	174		ug/kg	
AR1248-E	2	7.30	7.30 <sup>b</sup>	179		ug/kg	
Aroclor 1254 <sup>c</sup>	1 <sup>a</sup>			464		ug/kg	8.8
Aroclor 1254 <sup>c</sup>	2			425		ug/kg	
AR1254-C	1	6.96	6.95 <sup>d</sup>	471		ug/kg	
AR1254-C	2	8.88	8.89 <sup>d</sup>	365		ug/kg	
AR1254-D	1	7.12	7.12 <sup>d</sup>	504		ug/kg	
AR1254-D	2	9.12	9.12 <sup>d</sup>	581		ug/kg	
AR1254-E	1	7.53	7.53 <sup>d</sup>	417		ug/kg	
AR1254-E	2	9.49	9.50 <sup>d</sup>	329		ug/kg	
Aroclor 1260 <sup>e</sup>	1 <sup>a</sup>			384		ug/kg	48.5
Aroclor 1260 <sup>f</sup>	2			630		ug/kg	
AR1260-C	1	9.09	9.09	295		ug/kg	
AR1260-C <sup>f</sup>	2	10.71	10.71	420		ug/kg	
AR1260-D	1	9.62	9.61	484		ug/kg	
AR1260-D <sup>f</sup>	2	10.96	10.96	846		ug/kg	
AR1260-E	1	10.01	10.00	373		ug/kg	
AR1260-E <sup>f</sup>	2	11.32	11.32	623		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234328.D 11/23/24 15:49

(c) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(d) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(e) More than 40 % RPD for detected concentrations between the two GC columns.

(f) Associated CCV outside of control limits low.

6.4.13

6

# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE936-14	Injection Date:	11/29/24
Lab File ID:	2G234448.D	Injection Time:	18:49
Client ID:	24-GS-R7-COMPD		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1248	1 <sup>a</sup>			113		ug/kg	0.0
Aroclor 1248	2			113		ug/kg	
AR1248-A	1	5.12	5.12 <sup>b</sup>	79.0		ug/kg	
AR1248-A	2	5.85	5.86 <sup>b</sup>	72.4		ug/kg	
AR1248-B	1	5.50	5.49 <sup>b</sup>	164		ug/kg	
AR1248-B	2	6.33	6.34 <sup>b</sup>	141		ug/kg	
AR1248-D	1	5.96	5.96 <sup>b</sup>	70.2		ug/kg	
AR1248-D	2	7.10	7.11 <sup>b</sup>	91.2		ug/kg	
AR1248-E	1	6.04	6.04 <sup>b</sup>	137		ug/kg	
AR1248-E	2	7.29	7.30 <sup>b</sup>	148		ug/kg	
Aroclor 1254 <sup>c</sup>	1 <sup>a</sup>			453		ug/kg	8.8
Aroclor 1254 <sup>c</sup>	2			415		ug/kg	
AR1254-C	1	6.96	6.95 <sup>d</sup>	470		ug/kg	
AR1254-C	2	8.88	8.89 <sup>d</sup>	386		ug/kg	
AR1254-D	1	7.12	7.12 <sup>d</sup>	440		ug/kg	
AR1254-D	2	9.11	9.12 <sup>d</sup>	507		ug/kg	
AR1254-E	1	7.53	7.53 <sup>d</sup>	448		ug/kg	
AR1254-E	2	9.49	9.50 <sup>d</sup>	352		ug/kg	
Aroclor 1260 <sup>e</sup>	1 <sup>a</sup>			573		ug/kg	52.0
Aroclor 1260 <sup>f</sup>	2			976		ug/kg	
AR1260-C	1	9.09	9.09	389		ug/kg	
AR1260-C <sup>f</sup>	2	10.71	10.71	604		ug/kg	
AR1260-D	1	9.62	9.61	755		ug/kg	
AR1260-D <sup>f</sup>	2	10.96	10.96	1330		ug/kg	
AR1260-E	1	10.01	10.00	576		ug/kg	
AR1260-E <sup>f</sup>	2	11.32	11.32	990		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234328.D 11/23/24 15:49

(c) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(d) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(e) More than 40 % RPD for detected concentrations between the two GC columns.

(f) Associated CCV outside of control limits low.

6.4.14

6

# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE936-15	Injection Date:	11/29/24
Lab File ID:	2G234449.D	Injection Time:	19:14
Client ID:	24-GS-R7-COMPE		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1248	1 <sup>a</sup>			383		ug/kg	2.1
Aroclor 1248	2			391		ug/kg	
AR1248-A	1	5.13	5.12 <sup>b</sup>	385		ug/kg	
AR1248-A	2	5.85	5.86 <sup>b</sup>	406		ug/kg	
AR1248-D	1	5.96	5.96 <sup>b</sup>	353		ug/kg	
AR1248-D	2	7.11	7.11 <sup>b</sup>	290		ug/kg	
AR1248-E	1	6.04	6.04 <sup>b</sup>	411		ug/kg	
AR1248-E	2	7.30	7.30 <sup>b</sup>	477		ug/kg	
Aroclor 1254 <sup>c</sup>	1 <sup>a</sup>			263		ug/kg	15.1
Aroclor 1254 <sup>c</sup>	2			226		ug/kg	
AR1254-C	1	6.96	6.95 <sup>d</sup>	279		ug/kg	
AR1254-C	2	8.88	8.89 <sup>d</sup>	181		ug/kg	
AR1254-D	1	7.12	7.12 <sup>d</sup>	290		ug/kg	
AR1254-D	2	9.12	9.12 <sup>d</sup>	324		ug/kg	
AR1254-E	1	7.53	7.53 <sup>d</sup>	218		ug/kg	
AR1254-E	2	9.49	9.50 <sup>d</sup>	173		ug/kg	
Aroclor 1260 <sup>e</sup>	1 <sup>a</sup>			185		ug/kg	44.9
Aroclor 1260 <sup>f</sup>	2			292		ug/kg	
AR1260-C	1	9.09	9.09	134		ug/kg	
AR1260-C <sup>f</sup>	2	10.71	10.71	177		ug/kg	
AR1260-D	1	9.62	9.61	234		ug/kg	
AR1260-D <sup>f</sup>	2	10.96	10.96	394		ug/kg	
AR1260-E	1	10.01	10.00	188		ug/kg	
AR1260-E <sup>f</sup>	2	11.32	11.32	304		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234328.D 11/23/24 15:49

(c) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(d) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(e) More than 40 % RPD for detected concentrations between the two GC columns.

(f) Associated CCV outside of control limits low.

6.4.15

6

# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE936-16	Injection Date:	11/29/24
Lab File ID:	2G234450.D	Injection Time:	19:39
Client ID:	24-GS-R7-COMPF		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254 <sup>a</sup>	1 <sup>b</sup>			413		ug/kg	7.0
Aroclor 1254 <sup>a</sup>	2			385		ug/kg	
AR1254-C	1	6.96	6.95 <sup>c</sup>	420		ug/kg	
AR1254-C	2	8.88	8.89 <sup>c</sup>	364		ug/kg	
AR1254-D	1	7.12	7.12 <sup>c</sup>	417		ug/kg	
AR1254-D	2	9.11	9.12 <sup>c</sup>	483		ug/kg	
AR1254-E	1	7.53	7.53 <sup>c</sup>	403		ug/kg	
AR1254-E	2	9.49	9.50 <sup>c</sup>	310		ug/kg	
Aroclor 1260 <sup>d</sup>	1 <sup>b</sup>			478		ug/kg	59.1
Aroclor 1260 <sup>e</sup>	2			879		ug/kg	
AR1260-C	1	9.09	9.09	405		ug/kg	
AR1260-C <sup>e</sup>	2	10.71	10.71	599		ug/kg	
AR1260-D	1	9.62	9.61	743		ug/kg	
AR1260-D <sup>e</sup>	2	10.96	10.96	1310		ug/kg	
AR1260-E	1	10.01	10.00	286		ug/kg	
AR1260-E <sup>e</sup>	2	11.32	11.32	728		ug/kg	

- (a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- (b) Final result reported from this column.
- (c) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45
- (d) More than 40 % RPD for detected concentrations between the two GC columns.
- (e) Associated CCV outside of control limits low.

6.4.16

6



# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE936-17	Injection Date:	11/29/24
Lab File ID:	2G234451.D	Injection Time:	20:04
Client ID:	24-CC-R7-COMPG		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1248 <sup>a</sup>	1 <sup>b</sup>			264		ug/kg	6.3
Aroclor 1248 <sup>a</sup>	2			248		ug/kg	
AR1248-A	1	5.12	5.12 <sup>c</sup>	156		ug/kg	
AR1248-A	2	5.86	5.86 <sup>c</sup>	149		ug/kg	
AR1248-B	1	5.50	5.49 <sup>c</sup>	428		ug/kg	
AR1248-B	2	6.33	6.34 <sup>c</sup>	295		ug/kg	
AR1248-D	1	5.96	5.96 <sup>c</sup>	208		ug/kg	
AR1248-D	2	7.11	7.11 <sup>c</sup>	301		ug/kg	
Aroclor 1254 <sup>a</sup>	1 <sup>b</sup>			393		ug/kg	7.4
Aroclor 1254 <sup>a</sup>	2			365		ug/kg	
AR1254-C	1	6.96	6.95 <sup>d</sup>	404		ug/kg	
AR1254-C	2	8.88	8.89 <sup>d</sup>	303		ug/kg	
AR1254-D	1	7.12	7.12 <sup>d</sup>	440		ug/kg	
AR1254-D	2	9.12	9.12 <sup>d</sup>	511		ug/kg	
AR1254-E	1	7.53	7.53 <sup>d</sup>	336		ug/kg	
AR1254-E	2	9.49	9.50 <sup>d</sup>	280		ug/kg	
Aroclor 1260 <sup>e</sup>	1 <sup>b</sup>			291		ug/kg	41.2
Aroclor 1260 <sup>f</sup>	2			442		ug/kg	
AR1260-C	1	9.09	9.09	254		ug/kg	
AR1260-C <sup>f</sup>	2	10.71	10.71	291		ug/kg	
AR1260-D	1	9.62	9.61	347		ug/kg	
AR1260-D <sup>f</sup>	2	10.96	10.96	579		ug/kg	
AR1260-E	1	10.01	10.00	272		ug/kg	
AR1260-E <sup>f</sup>	2	11.32	11.32	455		ug/kg	

(a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

(b) Final result reported from this column.

(c) StdRT taken from init cal: G2G6177-IC6177 2G234328.D 11/23/24 15:49

(d) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(e) More than 40 % RPD for detected concentrations between the two GC columns.

(f) Associated CCV outside of control limits low.

6.4.17

6

## GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE936-18	Injection Date:	11/29/24
Lab File ID:	2G234452.D	Injection Time:	20:29
Client ID:	24-CC-R7-COMPA		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254 <sup>a</sup>	1 <sup>b</sup>			452		ug/kg	10.7
Aroclor 1254 <sup>a</sup>	2			406		ug/kg	
AR1254-C	1	6.96	6.95 <sup>c</sup>	437		ug/kg	
AR1254-C	2	8.88	8.89 <sup>c</sup>	336		ug/kg	
AR1254-D	1	7.12	7.12 <sup>c</sup>	442		ug/kg	
AR1254-D	2	9.11	9.12 <sup>c</sup>	502		ug/kg	
AR1254-E	1	7.53	7.53 <sup>c</sup>	477		ug/kg	
AR1254-E	2	9.50	9.50 <sup>c</sup>	381		ug/kg	
Aroclor 1260 <sup>d</sup>	1 <sup>b</sup>			666		ug/kg	46.5
Aroclor 1260 <sup>e</sup>	2			1070		ug/kg	
AR1260-C	1	9.09	9.09	466		ug/kg	
AR1260-C <sup>e</sup>	2	10.71	10.71	675		ug/kg	
AR1260-D	1	9.62	9.61	924		ug/kg	
AR1260-D <sup>e</sup>	2	10.96	10.96	1490		ug/kg	
AR1260-E	1	10.01	10.00	608		ug/kg	
AR1260-E <sup>e</sup>	2	11.32	11.32	1050		ug/kg	

- (a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- (b) Final result reported from this column.
- (c) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45
- (d) More than 40 % RPD for detected concentrations between the two GC columns.
- (e) Associated CCV outside of control limits low.

6.4.18

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# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A
Sample ID:	JE936-19	Injection Date:	11/29/24
Lab File ID:	2G234453.D	Injection Time:	20:54
Client ID:	24-CC-R7-COMP		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254 <sup>a</sup>	1 <sup>b</sup>			241		ug/kg	3.4
Aroclor 1254 <sup>a</sup>	2			233		ug/kg	
AR1254-B	1	6.62	6.61 <sup>c</sup>	246		ug/kg	
AR1254-B	2	8.12	8.12 <sup>c</sup>	327		ug/kg	
AR1254-C	1	6.96	6.95 <sup>c</sup>	245		ug/kg	
AR1254-C	2	8.88	8.89 <sup>c</sup>	160		ug/kg	
AR1254-D	1	7.12	7.12 <sup>c</sup>	261		ug/kg	
AR1254-D	2	9.12	9.12 <sup>c</sup>	289		ug/kg	
AR1254-E	1	7.53	7.53 <sup>c</sup>	210		ug/kg	
AR1254-E	2	9.49	9.50 <sup>c</sup>	158		ug/kg	
Aroclor 1260 <sup>d</sup>	1 <sup>b</sup>			307		ug/kg	45.1
Aroclor 1260 <sup>e</sup>	2			486		ug/kg	
AR1260-C	1	9.09	9.09	234		ug/kg	
AR1260-C <sup>e</sup>	2	10.71	10.71	314		ug/kg	
AR1260-D	1	9.61	9.61	403		ug/kg	
AR1260-D <sup>e</sup>	2	10.96	10.96	685		ug/kg	
AR1260-E	1	10.01	10.00	284		ug/kg	
AR1260-E <sup>e</sup>	2	11.32	11.32	461		ug/kg	

- (a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- (b) Final result reported from this column.
- (c) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45
- (d) More than 40 % RPD for detected concentrations between the two GC columns.
- (e) Associated CCV outside of control limits low.

6.4.19

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# GC Identification Summary

Page 1 of 1

Job Number: JE936  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6179-CC6177	Injection Date:	11/29/24
Lab File ID:	2G234429.D	Injection Time:	11:02
Instrument ID:	GC2G	Method:	SW846 8082A
Sample ID:	JE936-20	Injection Date:	11/29/24
Lab File ID:	2G234454.D	Injection Time:	21:19
Client ID:	24-CC-R7-COMPC		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			269		ug/kg	7.5
Aroclor 1254	2			290		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	277		ug/kg	
AR1254-B	2	8.12	8.12 <sup>b</sup>	364		ug/kg	
AR1254-D	1	7.12	7.12 <sup>b</sup>	294		ug/kg	
AR1254-D	2	9.11	9.12 <sup>b</sup>	330		ug/kg	
AR1254-E	1	7.53	7.53 <sup>b</sup>	236		ug/kg	
AR1254-E	2	9.49	9.50 <sup>b</sup>	175		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			365		ug/kg	47.0
Aroclor 1260 <sup>d</sup>	2			589		ug/kg	
AR1260-C	1	9.09	9.09	264		ug/kg	
AR1260-C <sup>d</sup>	2	10.71	10.71	361		ug/kg	
AR1260-D	1	9.62	9.61	497		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	838		ug/kg	
AR1260-E	1	10.01	10.00	335		ug/kg	
AR1260-E <sup>d</sup>	2	11.32	11.32	568		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits low.

6.4.20

6

JELLS

## CHAIN OF CUSTODY

EMAIL:

☐ State of Origin:

1.4°C  
1250

Member of the SGS Group (SGS SA)

JE1115





## CHAIN OF CUSTODY

CL 48

JE1115

### PROJECT INFO

PROJECT: Sanders Creek, Syracuse NY

P.O. #:

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

### SPECIAL DELIVERABLES:

☐ DoD ☒ EDD/Version:

☐ State of Origin:

### SPECIAL INSTRUCTIONS / COMMENTS

### SEND DOCUMENTATION / RESULTS TO

COMPANY: AECOM

CONTACT: Peter Hallatz

ADDRESS: 5435 Wade Park Blvd suite 200 Raleigh NC 27601

PHONE: 919-461-1194 EMAIL: Peter.Hallatz@aecom.com

### INVOICE TO ☒ CHECK IF SAME

COMPANY:

CONTACT:

ADDRESS:

PHONE:

EMAIL:

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	ANALYSIS & METHOD										MS MSD	MS/ DUP	REMARKS
					Lipids	PCB	BOBT	Moisture									
13- 24-CC-R3-Comp A	10/16	1100			+	+	+										
14- 24-CC-R3-Comp B	10/16	1100			+	+	+										
15- 24-GS-R3-Comp A	10/16	1100			+	+	+										
16- 24-GS-R3-Comp B	10/16	1100			+	+	+										
17- 24-GS-R3-Comp C	10/16	1100			+	+	+										
18- 24-GS-R3-Comp D	10/16	1100			+	+	+										
19- 24-PS-R3-Comp A	10/16	1100			+	+	+										
20- 24-CR-R2-Comp A	10/16	1000			+	+	+										

COLLECTED/RELINQUISHED BY (1): <i>Ch...</i>	DATE: 10/16/24	TIME: 1900	RECEIVED BY: <i>Mad...</i>	RECEIVED BY LABORATORY: <i>Mad...</i>	DATE: 10/16/24	TIME: 9:48
RELINQUISHED BY (2): <i>Mad...</i>	DATE: 10/16/24	TIME: 10:30	RECEIVED BY: Fedex	COOLER SEAL: <input checked="" type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT		
RELINQUISHED BY (3): Fedex	DATE: 10/16/24	TIME: 10:30	RECEIVED BY: <i>Sam...</i>	CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input checked="" type="checkbox"/> ABSENT		
				CARRIER: Fedex	TEMP: °C	-55
				TRACKING #:		

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SGS NORTH AMERICA INC

ENVIRONMENT, HEALTH & SAFETY 5500 Business Drive

Wilmington, NC 28405

910 350 1903 | 866 846 8290

www.us.sgs.com/environment

Member of the SGS Group (SGS SAI)

JE1115: Chain of Custody

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JE1115

5.1

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5500 Business Drive  
Wilmington, NC 28405 USA  
Tel: 910 794-1613  
Toll Free: 866 846-8290  
Fax: 910 794-3919

## Sample Receipt Notification

Feder # 4140 3351 4260

JE1115

**Project Manager:** Amy Boehm  
**Receipt Date & Time:** 11-Oct-24 at 09:28  
**AP Project name:** C1049  
**Requested TAT:** 30 business days  
**Projected due date:** 22-Nov-24  
**Matrix:** Tissue  
**Phone#:** 910-794-1613  
**Email Address:** Amy.Boehm@sgs.com

**Company Contact:** Peter Hollatz  
**Company:** AECOM  
**Project Name & Site:** Sanders Creek, Syracuse NY  
**Project PO#:**  
**QAAP/Contract #:** 2024 3092  
**Requested Analysis:** Fish Prep, % lipids, % moisture, PCB 8082  
**Phone#:** 919.461.1194  
**Email Address:** peter.hollatz@aecom.com

Client Smp ID	AP Smp ID	Sample Condition & Notes	Quantity	Size	Sampling Date	Sampling Time	Received Temp (°C)	Container #	Shipping #	
24-WS-R6-CompD	C1049_001	Tissue	1	Ziploc Bag	09-Oct-24	15:00	-64	1	2805 1547 6152	
24-CR-R7-CompA	C1049_002	Tissue	1	Ziploc Bag	10-Oct-24	14:00	-64	1	2805 1547 6152	
24-CC-R2-CompA	C1049_003	Tissue - MS2 (MS/MSD)	1	Ziploc Bag	08-Oct-24	14:00	-59	2	2805 1547 6174	
24-CC-R2-CompB	C1049_004	Tissue	1	Ziploc Bag	08-Oct-24	14:00	-59	2	2805 1547 6174	
24-CC-R2-CompC	C1049_005	Tissue	1	Ziploc Bag	08-Oct-24	14:00	-59	2	2805 1547 6174	
24-CC-R2-CompD	C1049_006	Tissue	1	Ziploc Bag	08-Oct-24	14:00	-59	2	2805 1547 6174	
24-CC-R2-CompE	C1049_007	Tissue	1	Ziploc Bag	08-Oct-24	14:00	-59	2	2805 1547 6174	
24-CC-R2-CompF	C1049_008	Tissue	1	Ziploc Bag	08-Oct-24	14:00	-59	2	2805 1547 6174	
24-CC-R2-CompG	C1049_009	Tissue	1	Ziploc Bag	08-Oct-24	14:00	-59	2	2805 1547 6174	
24-GS-R2-CompA	C1049_010	Tissue	1	Ziploc Bag	08-Oct-24	14:00	-59	2	2805 1547 6174	
24-GS-R2-CompB	C1049_011	Tissue	1	Ziploc Bag	08-Oct-24	14:00	-59	2	2805 1547 6174	
24-GS-R2-CompC	C1049_012	Tissue	1	Ziploc Bag	08-Oct-24	14:00	-59	2	2805 1547 6174	
24-CC-R3-CompA	C1049_013	Tissue	1	Ziploc Bag	10-Oct-24	11:00	-59	2	2805 1547 6174	
24-CC-R3-CompB	C1049_014	Tissue	1	Ziploc Bag	10-Oct-24	11:00	-59	2	2805 1547 6174	
24-GS-R3-CompA	C1049_015	Tissue	1	Ziploc Bag	10-Oct-24	11:00	-59	2	2805 1547 6174	
24-GS-R3-CompB	C1049_016	Tissue	1	Ziploc Bag	10-Oct-24	11:00	-59	2	2805 1547 6174	
24-GS-R3-CompC	C1049_017	Tissue	1	Ziploc Bag	10-Oct-24	11:00	-59	2	2805 1547 6174	
Preservation Type:					Sample Seals:					No
Notes/Comments:					Any un-extracted sample will be stored for 90 days from reporting date. Additional storage fees may apply for any samples stored longer than 90 days.					
Samples received intact, <i>Remains volume sub to SGS-Durham</i>										

Received by: Malachi Clark

Logged in by: Malachi Clark

QC'd by: AK 18 Oct 24

All services are rendered in accordance with the applicable SGS General Conditions of Service accessible via:

[http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)

SGS North America

JE1115: Chain of Custody

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JE1115

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JE1115

<b>Project Manager:</b>	<i>Amy Boehm</i>
<b>Receipt Date &amp; Time:</b>	<i>11-Oct-24 at 09:28</i>
<b>AP Project name:</b>	<i>C1049</i>
<b>Requested TAT:</b>	<i>30 days</i>
<b>Projected due date:</b>	<i>22-Nov-24</i>
<b>Matrix:</b>	<i>Tissue</i>
<b>Phone#:</b>	<i>910-794-1613</i>
<b>Email Address:</b>	<i><u><a href="mailto:Amy.Boehm@sqs.com">Amy.Boehm@sqs.com</a></u></i>

<b>Company Contact:</b>	<i>Peter Hollatz</i>
<b>Company:</b>	<i>AECOM</i>
<b>Project Name &amp; Site:</b>	<i>Sanders Creek, Syracuse NY</i>
<b>Project PO#:</b>	
<b>QAAP/Contract #:</b>	<i>2024 3092</i>
<b>Requested Analysis:</b>	<i>Fish Prep. % lipids, % moisture, PCB 8082</i>
<b>Phone#:</b>	<i>919.461.1194</i>
<b>Email Address:</b>	<i><a href="mailto:peter.hollatz@aecom.com">peter.hollatz@aecom.com</a></i>

Client Smp ID	AP Smp ID	Sample Condition & Notes	Quantity	Size	Sampling Date	Sampling Time	Received Temp (°C)	Container #	Shipping #
24-GS-R3-CompD	C1049_018	Tissue	1	Ziploc Bag	10-Oct-24	11:00	-59	2	2805 1547 6174
24-PS-R3-CompA	C1049_019	Tissue	1	Ziploc Bag	10-Oct-24	11:00	-59	2	2805 1547 6174
24-CR-R2-CompA	C1049_020	Tissue	1	Ziploc Bag	10-Oct-24	11:00	-59	2	2805 1547 6174
Preservation Type:			Sample Seals:		No				
Notes/Comments:									
Samples received intact- <i>Remainix Volume Sub to SGF-Dustin.</i>									
						Any un-extracted sample will be stored for 90 days from reporting date. Additional storage fees may apply for any samples stored longer than 90 days.			

Received by: Malachi Clark

Logged in by: Malachi Clark

QC'ed by: AK 18 Oct 24

All services are rendered in accordance with the applicable SGS General Conditions of Service accessible via:

[http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)

SGS North America

**JE1115: Chain of Custody**  
**Page 5 of 6**

## CASE NARRATIVE / CONFORMANCE SUMMARY

2

**Client:** AECOM, INC.

**Job No:** JE1115

**Site:** Sanders Creek, Syracuse, NY

**Report Date** 12/20/2024 10:57:41 A

On 11/21/2024, 20 sample(s), 0 Trip Blank(s), 0 Equip. Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. (SGS) at a temperature of 1.8 °C. The samples were intact and properly preserved, unless noted below. An SGS Job Number of JE1115 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### GC/LC Semi-volatiles By Method SW846 8082A

**Matrix:** SO

**Batch ID:** OP60061

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JE1115-3MS, JE1115-3MSD, OP60061-MSMSD were used as the QC samples indicated.
- The following samples were extracted outside of holding time for method SW846 8082A: JE1115-1, JE1115-10, JE1115-11, JE1115-12, JE1115-13, JE1115-14, JE1115-15, JE1115-16, JE1115-17, JE1115-18, JE1115-19, JE1115-2, JE1115-20, JE1115-3, JE1115-4, JE1115-5, JE1115-6, JE1115-7, JE1115-8, JE1115-9
- The matrix spike (MS) recovery(s) of Aroclor 1260 are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- JE1115-8 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE1115-1 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE1115-2 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE1115-3 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE1115-4 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE1115-5 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE1115-7 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE1115-19 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE1115-9 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE1115-10 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE1115-11 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE1115-13 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE1115-14 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE1115-15 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE1115-16 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE1115-17 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE1115-18 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.
- JE1115-6 for Aroclor 1260: More than 40 % RPD for detected concentrations between the two GC columns.

Friday, December 20, 2024

Page 1 of 2

SGS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting SGS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SGS indicated via signature on the report cover.

## Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: JE1115  
 Account: ERTECHNC AECOM, INC.  
 Project: Sanders Creek, Syracuse, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP60061-MS	2G234869.D	1	12/18/24	CP	12/17/24	OP60061	G2G6191
OP60061-MSD	2G234870.D	1	12/18/24	CP	12/17/24	OP60061	G2G6191
JE1115-3	2G234873.D	1	12/18/24	CP	12/17/24	OP60061	G2G6191

The QC reported here applies to the following samples:

Method: SW846 8082A

JE1115-1, JE1115-2, JE1115-3, JE1115-4, JE1115-5, JE1115-6, JE1115-7, JE1115-8, JE1115-9, JE1115-10, JE1115-11, JE1115-12, JE1115-13, JE1115-14, JE1115-15, JE1115-16, JE1115-17, JE1115-18, JE1115-19, JE1115-20

CAS No.	Compound	JE1115-3 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND		40	41.5	104	40	38.2	96	8	26-163/38
11104-28-2	Aroclor 1221	ND			ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	ND			ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	ND			ND			ND		nc	50-150/30
12672-29-6	Aroclor 1248	ND			ND			ND		nc	10-235/18
11097-69-1	Aroclor 1254	266	40	323	143	40	368	255* a	13		10-214/28
11096-82-5	Aroclor 1260	362	40	439	193* a	40	500	345* a	13		16-173/39
11100-14-4	Aroclor 1268	ND			ND			ND		nc	50-150/30
37324-23-5	Aroclor 1262	ND			ND			ND		nc	10-153/15

CAS No.	Surrogate Recoveries	MS	MSD	JE1115-3	Limits
877-09-8	Tetrachloro-m-xylene	96%	92%	100%	35-154%
877-09-8	Tetrachloro-m-xylene	107%	106%	107%	35-154%
2051-24-3	Decachlorobiphenyl	91%	86%	89%	24-176%
2051-24-3	Decachlorobiphenyl	134%	123%	114%	24-176%

(a) Outside control limits due to high level in sample relative to spike amount.

\* = Outside of Control Limits.

# GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A
Sample ID:	JE1115-1	Injection Date:	12/18/24
Lab File ID:	2G234871.D	Injection Time:	05:26
Client ID:	24-WS-R6-COMPD		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			95.3		ug/kg	3.4
Aroclor 1254	2			98.6		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	99.8		ug/kg	
AR1254-B	2	8.13	8.12 <sup>b</sup>	113		ug/kg	
AR1254-D	1	7.13	7.12 <sup>b</sup>	105		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	122		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	81.1		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	60.4		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			122		ug/kg	41.0
Aroclor 1260 <sup>d</sup>	2			185		ug/kg	
AR1260-B	1	8.60	8.60	156		ug/kg	
AR1260-B <sup>d</sup>	2	10.36	10.36	210		ug/kg	
AR1260-D	1	9.62	9.62	119		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	197		ug/kg	
AR1260-E	1	10.01	10.01	92.0		ug/kg	
AR1260-E <sup>d</sup>	2	11.32	11.32	148		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits high.

6.4.1  
6

## GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE1115-2	Injection Date:	12/18/24
Lab File ID:	2G234872.D	Injection Time:	05:51
Client ID:	24-CR-R7-COMPA		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			22.4		ug/kg	16.0
Aroclor 1254	2			26.3		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	30.2		ug/kg	
AR1254-B	2	8.12	8.12 <sup>b</sup>	48.8		ug/kg	
AR1254-D	1	7.12	7.12 <sup>b</sup>	10.4	J	ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	12.2	J	ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	26.6		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	17.8	J	ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			85.5		ug/kg	42.0
Aroclor 1260 <sup>d</sup>	2			131		ug/kg	
AR1260-B	1	8.60	8.60	113		ug/kg	
AR1260-B <sup>d</sup>	2	10.36	10.36	152		ug/kg	
AR1260-D	1	9.62	9.62	94.2		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	157		ug/kg	
AR1260-E	1	10.01	10.01	49.3		ug/kg	
AR1260-E <sup>d</sup>	2	11.32	11.32	81.7		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits high.

6.4.2  
6

# GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE1115-3	Injection Date:	12/18/24
Lab File ID:	2G234873.D	Injection Time:	06:16
Client ID:	24-CC-R2-COMPA		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			266		ug/kg	14.3
Aroclor 1254	2			307		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	232		ug/kg	
AR1254-B	2	8.12	8.12 <sup>b</sup>	359		ug/kg	
AR1254-D	1	7.12	7.12 <sup>b</sup>	268		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	319		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	298		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	245		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			362		ug/kg	41.6
Aroclor 1260 <sup>d</sup>	2			552		ug/kg	
AR1260-B	1	8.60	8.60	585		ug/kg	
AR1260-B <sup>d</sup>	2	10.36	10.36	795		ug/kg	
AR1260-D	1	9.62	9.62	294		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	508		ug/kg	
AR1260-E	1	10.01	10.01	209		ug/kg	
AR1260-E <sup>d</sup>	2	11.32	11.32	354		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits high.

6.4.3

6

# GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A
Sample ID:	JE1115-4	Injection Date:	12/18/24
Lab File ID:	2G234874.D	Injection Time:	06:41
Client ID:	24-CC-R2-COMP		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			442		ug/kg	8.0
Aroclor 1254	2			479		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	411		ug/kg	
AR1254-B	2	8.13	8.12 <sup>b</sup>	568		ug/kg	
AR1254-D	1	7.13	7.12 <sup>b</sup>	430		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	481		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	483		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	388		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			647		ug/kg	46.6
Aroclor 1260 <sup>d</sup>	2			1040		ug/kg	
AR1260-B	1	8.60	8.60	1050		ug/kg	
AR1260-B <sup>d</sup>	2	10.36	10.36	1540		ug/kg	
AR1260-D	1	9.62	9.62	512		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	930		ug/kg	
AR1260-E	1	10.01	10.01	381		ug/kg	
AR1260-E <sup>d</sup>	2	11.33	11.32	658		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits high.

6.4.4

6



## GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE1115-5	Injection Date:	12/18/24
Lab File ID:	2G234875.D	Injection Time:	07:06
Client ID:	24-CC-R2-COMPC		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			545		ug/kg	9.1
Aroclor 1254	2			597		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	492		ug/kg	
AR1254-B	2	8.13	8.12 <sup>b</sup>	691		ug/kg	
AR1254-D	1	7.13	7.12 <sup>b</sup>	506		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	574		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	637		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	526		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			735		ug/kg	47.3
Aroclor 1260 <sup>d</sup>	2			1190		ug/kg	
AR1260-B	1	8.60	8.60	1290		ug/kg	
AR1260-B <sup>d</sup>	2	10.36	10.36	1930		ug/kg	
AR1260-D	1	9.63	9.62	526		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	970		ug/kg	
AR1260-E	1	10.02	10.01	392		ug/kg	
AR1260-E <sup>d</sup>	2	11.33	11.32	671		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits high.

6.4.5

6

# GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE1115-6	Injection Date:	12/18/24
Lab File ID:	2G234876.D	Injection Time:	07:31
Client ID:	24-CC-R2-COMPD		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			602		ug/kg	10.7
Aroclor 1254	2			670		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	563		ug/kg	
AR1254-B	2	8.13	8.12 <sup>b</sup>	791		ug/kg	
AR1254-D	1	7.13	7.12 <sup>b</sup>	630		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	724		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	612		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	495		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			661		ug/kg	48.1
Aroclor 1260 <sup>d</sup>	2			1080		ug/kg	
AR1260-B	1	8.60	8.60	1060		ug/kg	
AR1260-B <sup>d</sup>	2	10.36	10.36	1570		ug/kg	
AR1260-D	1	9.63	9.62	526		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	965		ug/kg	
AR1260-E	1	10.02	10.01	397		ug/kg	
AR1260-E <sup>d</sup>	2	11.33	11.32	692		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits high.

6.4.6

6

# GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE1115-7	Injection Date:	12/18/24
Lab File ID:	2G234877.D	Injection Time:	07:56
Client ID:	24-CC-R2-COMPE		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			413		ug/kg	8.4
Aroclor 1254	2			449		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	405		ug/kg	
AR1254-B	2	8.13	8.12 <sup>b</sup>	546		ug/kg	
AR1254-D	1	7.13	7.12 <sup>b</sup>	430		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	486		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	405		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	316		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			679		ug/kg	46.5
Aroclor 1260 <sup>d</sup>	2			1090		ug/kg	
AR1260-B	1	8.60	8.60	1070		ug/kg	
AR1260-B <sup>d</sup>	2	10.36	10.36	1560		ug/kg	
AR1260-D	1	9.62	9.62	563		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	1020		ug/kg	
AR1260-E	1	10.02	10.01	400		ug/kg	
AR1260-E <sup>d</sup>	2	11.33	11.32	692		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits high.

6.4.7

6

# GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE1115-8	Injection Date:	12/18/24
Lab File ID:	2G234878.D	Injection Time:	08:21
Client ID:	24-CC-R2-COMPF		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			397		ug/kg	8.0
Aroclor 1254	2			430		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	378		ug/kg	
AR1254-B	2	8.13	8.12 <sup>b</sup>	508		ug/kg	
AR1254-D	1	7.13	7.12 <sup>b</sup>	417		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	469		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	396		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	313		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			481		ug/kg	44.6
Aroclor 1260 <sup>d</sup>	2			757		ug/kg	
AR1260-B	1	8.60	8.60	792		ug/kg	
AR1260-B <sup>d</sup>	2	10.36	10.36	1150		ug/kg	
AR1260-D	1	9.63	9.62	366		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	652		ug/kg	
AR1260-E	1	10.02	10.01	285		ug/kg	
AR1260-E <sup>d</sup>	2	11.33	11.32	470		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits high.

6.4.8

6

## GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE1115-9	Injection Date:	12/18/24
Lab File ID:	2G234879.D	Injection Time:	08:46
Client ID:	24-CC-R2-COMPG		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			465		ug/kg	8.2
Aroclor 1254	2			505		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	437		ug/kg	
AR1254-B	2	8.13	8.12 <sup>b</sup>	595		ug/kg	
AR1254-D	1	7.13	7.12 <sup>b</sup>	476		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	535		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	483		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	385		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			690		ug/kg	44.9
Aroclor 1260 <sup>d</sup>	2			1090		ug/kg	
AR1260-B	1	8.60	8.60	1140		ug/kg	
AR1260-B <sup>d</sup>	2	10.37	10.36	1660		ug/kg	
AR1260-D	1	9.63	9.62	527		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	936		ug/kg	
AR1260-E	1	10.02	10.01	407		ug/kg	
AR1260-E <sup>d</sup>	2	11.33	11.32	684		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits high.

6.4.9

6

## GC Identification Summary

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Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE1115-10	Injection Date:	12/18/24
Lab File ID:	2G234880.D	Injection Time:	09:12
Client ID:	24-GS-R2-COMPA		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			759		ug/kg	12.5
Aroclor 1254	2			860		ug/kg	
AR1254-B	1	6.63	6.61 <sup>b</sup>	751		ug/kg	
AR1254-B	2	8.13	8.12 <sup>b</sup>	1120		ug/kg	
AR1254-D	1	7.13	7.12 <sup>b</sup>	634		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	717		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	892		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	743		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			996		ug/kg	47.1
Aroclor 1260 <sup>d</sup>	2			1610		ug/kg	
AR1260-B	1	8.60	8.60	1670		ug/kg	
AR1260-B <sup>d</sup>	2	10.37	10.36	2450		ug/kg	
AR1260-D	1	9.63	9.62	756		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	1390		ug/kg	
AR1260-E	1	10.02	10.01	560		ug/kg	
AR1260-E <sup>d</sup>	2	11.33	11.32	986		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits high.

6.4.10  
6

# GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE1115-11	Injection Date:	12/18/24
Lab File ID:	2G234881.D	Injection Time:	09:36
Client ID:	24-GS-R2-COMP		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			512		ug/kg	12.1
Aroclor 1254	2			578		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	487		ug/kg	
AR1254-B	2	8.13	8.12 <sup>b</sup>	697		ug/kg	
AR1254-D	1	7.13	7.12 <sup>b</sup>	622		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	711		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	428		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	327		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			646		ug/kg	43.0
Aroclor 1260 <sup>d</sup>	2			1000		ug/kg	
AR1260-B	1	8.60	8.60	1170		ug/kg	
AR1260-B <sup>d</sup>	2	10.36	10.36	1650		ug/kg	
AR1260-D	1	9.63	9.62	424		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	766		ug/kg	
AR1260-E	1	10.02	10.01	347		ug/kg	
AR1260-E <sup>d</sup>	2	11.33	11.32	586		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits high.

6.4.11

6

# GC Identification Summary

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Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE1115-12	Injection Date:	12/18/24
Lab File ID:	2G234882.D	Injection Time:	10:01
Client ID:	24-GS-R2-COMPC		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			764		ug/kg	16.2
Aroclor 1254	2			899		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	763		ug/kg	
AR1254-B	2	8.13	8.12 <sup>b</sup>	1150		ug/kg	
AR1254-D	1	7.13	7.12 <sup>b</sup>	855		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	1030		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	673		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	526		ug/kg	
Aroclor 1260	1 <sup>a</sup>			2170		ug/kg	29.1
Aroclor 1260 <sup>c</sup>	2			2910		ug/kg	
AR1260-B	1	8.60	8.60	3510		ug/kg	
AR1260-B <sup>c</sup>	2	10.37	10.36	4220	E	ug/kg	
AR1260-D	1	9.63	9.62	1600		ug/kg	
AR1260-D <sup>c</sup>	2	10.97	10.96	2050		ug/kg	
AR1260-E	1	10.02	10.01	1400		ug/kg	
AR1260-E <sup>c</sup>	2	11.33	11.32	2460		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) Associated CCV outside of control limits high.

6.4.12

6



# GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE1115-13	Injection Date:	12/18/24
Lab File ID:	2G234883.D	Injection Time:	10:26
Client ID:	24-CC-R3-COMPA		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			342		ug/kg	7.9
Aroclor 1254	2			370		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	342		ug/kg	
AR1254-B	2	8.13	8.12 <sup>b</sup>	461		ug/kg	
AR1254-D	1	7.13	7.12 <sup>b</sup>	360		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	404		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	326		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	244		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			687		ug/kg	42.7
Aroclor 1260 <sup>d</sup>	2			1060		ug/kg	
AR1260-B	1	8.60	8.60	1010		ug/kg	
AR1260-B <sup>d</sup>	2	10.36	10.36	1400		ug/kg	
AR1260-D	1	9.62	9.62	609		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	1050		ug/kg	
AR1260-E	1	10.01	10.01	441		ug/kg	
AR1260-E <sup>d</sup>	2	11.33	11.32	732		ug/kg	

- (a) Final result reported from this column.  
(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45  
(c) More than 40 % RPD for detected concentrations between the two GC columns.  
(d) Associated CCV outside of control limits high.

6.4.13

6

## GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE1115-14	Injection Date:	12/18/24
Lab File ID:	2G234884.D	Injection Time:	10:50
Client ID:	24-CC-R3-COMP		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			324		ug/kg	
Aroclor 1254	2			347		ug/kg	6.9
AR1254-B	1	6.62	6.61 <sup>b</sup>	324		ug/kg	
AR1254-B	2	8.13	8.12 <sup>b</sup>	434		ug/kg	
AR1254-D	1	7.13	7.12 <sup>b</sup>	342		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	383		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	305		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	223		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			596		ug/kg	
Aroclor 1260 <sup>d</sup>	2			916		ug/kg	42.3
AR1260-B	1	8.60	8.60	829		ug/kg	
AR1260-B <sup>d</sup>	2	10.36	10.36	1120		ug/kg	
AR1260-D	1	9.62	9.62	560		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	955		ug/kg	
AR1260-E	1	10.01	10.01	399		ug/kg	
AR1260-E <sup>d</sup>	2	11.33	11.32	671		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits high.

6.4.14

6

# GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A
Sample ID:	JE1115-15	Injection Date:	12/18/24
Lab File ID:	2G234885.D	Injection Time:	11:15
Client ID:	24-GS-R3-COMPA		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			468		ug/kg	11.7
Aroclor 1254	2			526		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	501		ug/kg	
AR1254-B	2	8.13	8.12 <sup>b</sup>	727		ug/kg	
AR1254-D	1	7.13	7.12 <sup>b</sup>	508		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	558		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	393		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	295		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			1130		ug/kg	43.6
Aroclor 1260 <sup>d</sup>	2			1760		ug/kg	
AR1260-B	1	8.60	8.60	1860		ug/kg	
AR1260-B <sup>d</sup>	2	10.37	10.36	2640		ug/kg	
AR1260-D	1	9.63	9.62	861		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	1480		ug/kg	
AR1260-E	1	10.02	10.01	680		ug/kg	
AR1260-E <sup>d</sup>	2	11.33	11.32	1170		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits high.

6.4.15

6

# GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE1115-16	Injection Date:	12/18/24
Lab File ID:	2G234886.D	Injection Time:	11:39
Client ID:	24-GS-R3-COMP		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			437		ug/kg	11.2
Aroclor 1254	2			489		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	458		ug/kg	
AR1254-B	2	8.13	8.12 <sup>b</sup>	644		ug/kg	
AR1254-D	1	7.13	7.12 <sup>b</sup>	486		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	544		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	366		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	279		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			998		ug/kg	46.3
Aroclor 1260 <sup>d</sup>	2			1600		ug/kg	
AR1260-B	1	8.60	8.60	1430		ug/kg	
AR1260-B <sup>d</sup>	2	10.37	10.36	2110		ug/kg	
AR1260-D	1	9.63	9.62	876		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	1490		ug/kg	
AR1260-E	1	10.02	10.01	691		ug/kg	
AR1260-E <sup>d</sup>	2	11.33	11.32	1180		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits high.

6.4.16

6

# GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A
Sample ID:	JE1115-17	Injection Date:	12/18/24
Lab File ID:	2G234887.D	Injection Time:	12:04
Client ID:	24-GS-R3-COMPC		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			437		ug/kg	11.6
Aroclor 1254	2			491		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	454		ug/kg	
AR1254-B	2	8.13	8.12 <sup>b</sup>	645		ug/kg	
AR1254-D	1	7.13	7.12 <sup>b</sup>	485		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	542		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	372		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	285		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			872		ug/kg	47.2
Aroclor 1260 <sup>d</sup>	2			1410		ug/kg	
AR1260-B	1	8.60	8.60	1250		ug/kg	
AR1260-B <sup>d</sup>	2	10.37	10.36	1810		ug/kg	
AR1260-D	1	9.62	9.62	769		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	1380		ug/kg	
AR1260-E	1	10.02	10.01	600		ug/kg	
AR1260-E <sup>d</sup>	2	11.33	11.32	1040		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits high.

6.4.17

6

## GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE1115-18	Injection Date:	12/18/24
Lab File ID:	2G234888.D	Injection Time:	12:29
Client ID:	24-GS-R3-COMPD		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			601		ug/kg	13.2
Aroclor 1254	2			686		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	653		ug/kg	
AR1254-B	2	8.13	8.12 <sup>b</sup>	952		ug/kg	
AR1254-D	1	7.13	7.12 <sup>b</sup>	637		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	715		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	513		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	392		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			1550		ug/kg	42.6
Aroclor 1260 <sup>d</sup>	2			2390		ug/kg	
AR1260-B	1	8.61	8.60	2220		ug/kg	
AR1260-B <sup>d</sup>	2	10.37	10.36	3290		ug/kg	
AR1260-D	1	9.63	9.62	1320		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	1900		ug/kg	
AR1260-E	1	10.02	10.01	1100		ug/kg	
AR1260-E <sup>d</sup>	2	11.33	11.32	1960		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits high.

6.4.18

6

# GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A
Sample ID:	JE1115-19	Injection Date:	12/18/24
Lab File ID:	2G234889.D	Injection Time:	12:53
Client ID:	24-PS-R3-COMPA		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254	1 <sup>a</sup>			401		ug/kg	9.7
Aroclor 1254	2			442		ug/kg	
AR1254-B	1	6.62	6.61 <sup>b</sup>	437		ug/kg	
AR1254-B	2	8.13	8.12 <sup>b</sup>	613		ug/kg	
AR1254-D	1	7.13	7.12 <sup>b</sup>	424		ug/kg	
AR1254-D	2	9.12	9.12 <sup>b</sup>	461		ug/kg	
AR1254-E	1	7.54	7.53 <sup>b</sup>	344		ug/kg	
AR1254-E	2	9.50	9.50 <sup>b</sup>	253		ug/kg	
Aroclor 1260 <sup>c</sup>	1 <sup>a</sup>			897		ug/kg	47.1
Aroclor 1260 <sup>d</sup>	2			1450		ug/kg	
AR1260-B	1	8.60	8.60	1210		ug/kg	
AR1260-B <sup>d</sup>	2	10.37	10.36	1770		ug/kg	
AR1260-D	1	9.63	9.62	827		ug/kg	
AR1260-D <sup>d</sup>	2	10.96	10.96	1430		ug/kg	
AR1260-E	1	10.02	10.01	654		ug/kg	
AR1260-E <sup>d</sup>	2	11.33	11.32	1150		ug/kg	

(a) Final result reported from this column.

(b) StdRT taken from init cal: G2G6177-IC6177 2G234323.D 11/23/24 13:45

(c) More than 40 % RPD for detected concentrations between the two GC columns.

(d) Associated CCV outside of control limits high.

6.4.19

6

## GC Identification Summary

Page 1 of 1

Job Number: JE1115  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	G2G6191-CC6177	Injection Date:	12/18/24
Lab File ID:	2G234865.D	Injection Time:	02:55
Instrument ID:	GC2G	Method:	SW846 8082A

Sample ID:	JE1115-20	Injection Date:	12/18/24
Lab File ID:	2G234890.D	Injection Time:	13:18
Client ID:	24-CR-R2-COMPA		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1260	1 <sup>a</sup>			68.5		ug/kg	
Aroclor 1260 <sup>b</sup>	2			99.2		ug/kg	36.6
AR1260-B	1	8.60	8.60	119		ug/kg	
AR1260-B <sup>b</sup>	2	10.36	10.36	157		ug/kg	
AR1260-D	1	9.62	9.62	64.1		ug/kg	
AR1260-D <sup>b</sup>	2	10.96	10.96	106		ug/kg	
AR1260-E	1	10.01	10.01	22.1		ug/kg	
AR1260-E <sup>b</sup>	2	11.32	11.32	34.9		ug/kg	

- (a) Final result reported from this column.  
(b) Associated CCV outside of control limits high.

6.4.20

6





# CHAIN OF CUSTODY

## PROJECT INFO

PROJECT: Sanders Creek, Syracuse NY

PO. #:

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☐ Level IV

SPECIAL DELIVERABLES:

☐ DoD ☐ EDD/Version:

☐ State of Origin:

## SPECIAL INSTRUCTIONS / COMMENTS

## SEND DOCUMENTATION / RESULTS TO

COMPANY: AECOM

CONTACT: Peter Hollatz

ADDRESS: 543B Wade Park Blvd suite 200 Raleigh NC 276

PHONE: 919-461-1194 EMAIL: Peter.Hollatz@aecom.com

INVOICE TO: ☐ CHECK IF SAME

COMPANY:

CONTACT:

ADDRESS:

PHONE:

EMAIL:

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	Lipids	PCB 8082	Moisture	MS MSD	MS/ DUP	REMARKS
1- 24-CC-RD-Comp A	10/6	1000			X	X	X			
2- 24-CC-RD-Comp B	10/6	1000			X	X	X			
3- 24-CC-RD-Comp C	10/6	1000			X	X	X			
4- 24-CC-RD-Comp D	10/6	1000			X	X	X			
5- 24-CC-RD-Comp E	10/6	1000			X	X	X			
6- 24-GS-RD-Comp A	10/6	1000			X	X	X			
7- 24-GS-RD-Comp B	10/6	1000			X	X	X			
8- 24-GS-RD-Comp C	10/6	1000			X	X	X			
9- 24-GS-RD-Comp D	10/6	1000			X	X	X			
10- 24-GS-RD-Comp E	10/6	1000			X	X	X			

COLLECTED/RELINQUISHED BY (1):	DATE: 10/10/24	TIME: 1900	RECEIVED BY:	RECEIVED BY LABORATORY: Malachuk	DATE: 10/10/24	TIME: 9:28
RELINQUISHED BY (2):	DATE: 10/10/24	TIME: 15:00	RECEIVED BY: Samiya	COOLER SEAL: <input checked="" type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT		
RELINQUISHED BY (3):	DATE:	TIME:	RECEIVED BY:	CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input checked="" type="checkbox"/> ABSENT		
				CARRIER: FedEx	TEMP: °C	-10°C
				TRACKING #:		

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SGS NORTH AMERICA INC

ENVIRONMENT, HEALTH & SAFETY

5500 Business Drive

Wilmington, NC 28405

910 350 1903 | 866 846 8290

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JE1472: Chain of Custody

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JE1472



# CHAIN OF CUSTODY

0600

JE1472

## PROJECT INFO

PROJECT: Sanders Creek, Syracuse NY

P.O. #:

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

## SPECIAL DELIVERABLES:

☐ DoD ☒ EDD/Version:

☐ State of Origin:

## SPECIAL INSTRUCTIONS / COMMENTS

## SEND DOCUMENTATION / RESULTS TO

COMPANY: Aecom

CONTACT: Peter Hollatz

ADDRESS: 5438 Wade Park Blvd Suite 200 Raleigh NC 27607

PHONE: 919-461-1194 EMAIL: Peter.hollatz@aecom.com

INVOICE TO: ☒ CHECK IF SAME

COMPANY:

CONTACT:

ADDRESS:

PHONE:

EMAIL:

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	Lipids	PCB 8087	Moisture	MS MSD	MS/ DUP	REMARKS
11- 24-CC-R1-Comp A	10/8	1200			X	X	X	X		MSI
12- 24-CC-R1-Comp B	10/8	1200			X	X	X			
13- 24-CC-R1-Comp C	10/8	1200			X	X	X			
14- 24-CC-R1-Comp D	10/8	1200			X	X	X			
15- 24-CC-R1-Comp E	10/8	1200			X	X	X			
16- 24-CC-R1-Comp F	10/8	1200			X	X	X			
17- 24-GS-R1-Comp A	10/8	1200			X	X	X			
18- 24-GS-R1-Comp B	10/8	1200			X	X	X			
19- 24-GS-R1-Comp C	10/8	1200			X	X	X			
20- 24-GS-R1-Comp D	10/8	1200			X	X	X			

COLLECTED/RELINQUISHED BY (1): <i>[Signature]</i>	DATE: 10/10/24 TIME: 1900	RECEIVED BY: <i>[Signature]</i>	RECEIVED BY LABORATORY: <i>Maldachuk</i>	DATE: 10/14/24 TIME: 9:28
RELINQUISHED BY (2): <i>Maldachuk</i>	DATE: 11/12/24 TIME: 16:00	RECEIVED BY: <i>[Signature]</i>	COOLER SEAL: <input checked="" type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT	
RELINQUISHED BY (3):			CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input checked="" type="checkbox"/> ABSENT	
			CARRIER: <i>Recep</i>	TEMP: °C -40°C
			TRACKING #:	

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ENVIRONMENT, HEALTH & SAFETY

6500 Business Drive

Wilmington, NC 28405

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JE1472



## Sample Receipt Notification

JE1472

5500 Business Drive  
Wilmington, NC 28405 USA  
Tel: 910 794-1613  
Toll Free: 866 846-8290  
Fax: 910 794-3919

**Project Manager:** Amy Boehm  
**Receipt Date & Time:** 11-Oct-24 at 09:28  
**AP Project name:** C1050  
**Requested TAT:** 30 business days  
**Projected due date:** 22-Nov-24  
**Matrix:** Tissue  
**Phone#:** 910-794-1613  
**Email Address:** Amy.Boehm@sgs.com

**Company Contact:** Peter Hollatz  
**Company:** AECOM  
**Project Name & Site:** Sanders Creek, Syracuse NY  
**Project PO#:**  
**QAAP/Contract #:** 2024 3092  
**Requested Analysis:** Fish Prep, % lipids, % moisture, PCB 8082  
**Phone#:** 919.461.1194  
**Email Address:** peter.hollatz@aecom.com

Client Smp ID	AP Smp ID	Sample Condition & Notes	Quantity	Size	Sampling Date	Sampling Time	Received Temp (°C)	Container #	Shipping #	
24-CC-R0-CompA	C1050_001	Tissue	1	Ziploc Bag	08-Oct-24	10:00	-40	1	2805 1547 6141	
24-CC-R0-CompB	C1050_002	Tissue	1	Ziploc Bag	08-Oct-24	10:00	-40	1	2805 1547 6141	
24-CC-R0-CompC	C1050_003	Tissue	1	Ziploc Bag	08-Oct-24	10:00	-40	1	2805 1547 6141	
24-CC-R0-CompD	C1050_004	Tissue	1	Ziploc Bag	08-Oct-24	10:00	-40	1	2805 1547 6141	
24-CC-R0-CompE	C1050_005	Tissue	1	Ziploc Bag	08-Oct-24	10:00	-40	1	2805 1547 6141	
24-GS-R0-CompA	C1050_006	Tissue	1	Ziploc Bag	08-Oct-24	10:00	-40	1	2805 1547 6141	
24-GS-R0-CompB	C1050_007	Tissue	1	Ziploc Bag	08-Oct-24	10:00	-40	1	2805 1547 6141	
24-GS-R0-CompC	C1050_008	Tissue	1	Ziploc Bag	08-Oct-24	10:00	-40	1	2805 1547 6141	
24-GS-R0-CompD	C1050_009	Tissue	1	Ziploc Bag	08-Oct-24	10:00	-40	1	2805 1547 6141	
24-GS-R0-CompE	C1050_010	Tissue	1	Ziploc Bag	08-Oct-24	10:00	-40	1	2805 1547 6141	
24-CC-R1-CompA	C1050_011	Tissue - MSI (MS/MSD)	1	Ziploc Bag	08-Oct-24	12:00	-40	1	2805 1547 6141	
24-CC-R1-CompB	C1050_012	Tissue	1	Ziploc Bag	08-Oct-24	12:00	-40	1	2805 1547 6141	
24-CC-R1-CompC	C1050_013	Tissue	1	Ziploc Bag	08-Oct-24	12:00	-40	1	2805 1547 6141	
24-CC-R1-CompD	C1050_014	Tissue	1	Ziploc Bag	08-Oct-24	12:00	-40	1	2805 1547 6141	
24-CC-R1-CompE	C1050_015	Tissue	1	Ziploc Bag	08-Oct-24	12:00	-40	1	2805 1547 6141	
24-CC-R1-CompF	C1050_016	Tissue	1	Ziploc Bag	08-Oct-24	12:00	-40	1	2805 1547 6141	
24-GS-R1-CompA	C1050_017	Tissue	1	Ziploc Bag	08-Oct-24	12:00	-40	1	2805 1547 6141	
Preservation Type:					Sample Seals:					No
Notes/Comments:					Initial Assessment 3A N1 Label Verification					Any un-extracted sample will be stored for 90 days from reporting date. Additional storage fees may apply for any samples stored longer than 90 days.
Samples received intact										

Received by: Malachi Clark

Logged in by: Malachi Clark

QC'd by: AK 18 Oct 24

All services are rendered in accordance with the applicable SGS General Conditions of Service accessible via: [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)

SGS North America

JE1472: Chain of Custody

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JE1472

<b>Project Manager:</b>	<i>Amy Boehm</i>
<b>Receipt Date &amp; Time:</b>	<i>11-Oct-24 at 09:28</i>
<b>AP Project name:</b>	<i>C1050</i>
<b>Requested TAT:</b>	<i>30 business days</i>
<b>Projected due date:</b>	<i>22-Nov-24</i>
<b>Matrix:</b>	<i>Tissue</i>
<b>Phone#:</b>	<i>910-794-1613</i>
<b>Email Address:</b>	<i><a href="mailto:Amy.Boehm@sqs.com">Amy.Boehm@sqs.com</a></i>

<b>Company Contact:</b>	<i>Peter Hollatz</i>
<b>Company:</b>	<i>AECOM</i>
<b>Project Name &amp; Site:</b>	<i>Sanders Creek, Syracuse NY</i>
<b>Project PO#:</b>	
<b>QAAP/Contract #:</b>	<i>2024 3092</i>
<b>Requested Analysis:</b>	<i>Fish Prep. % lipids, % moisture, PCB 8082</i>
<b>Phone#:</b>	<i>919.461.1194</i>
<b>Email Address:</b>	<i><a href="mailto:peter.hollatz@aecom.com">peter.hollatz@aecom.com</a></i>

<b>Client Smp ID</b>	<b>AP Smp ID</b>	<b>Sample Condition &amp; Notes</b>	<b>Quantity</b>	<b>Size</b>	<b>Sampling Date</b>	<b>Sampling Time</b>	<b>Received Temp (°C)</b>	<b>Container #</b>	<b>Shipping #</b>
24-GS-R1-CompB	C1050_018	Tissue	1	Ziploc Bag	08-Oct-24	12:00	-40	1	2805 1547 6141
24-GS-R1-CompC	C1050_019	Tissue	1	Ziploc Bag	08-Oct-24	12:00	-40	1	2805 1547 6141
24-GS-R1-CompD	C1050_020	Tissue	1	Ziploc Bag	08-Oct-24	12:00	-40	1	2805 1547 6141
<b>Preservation Type:</b>					No				
<b>Notes/Comments:</b>					Samples received intact	Any un-extracted sample will be stored for 90 days from reporting date. Additional storage fees may apply for any samples stored longer than 90 days.			

Received by: Malachi Clark

Logged in by: Malachi Clark

QC'ed by: AK 18 Oct 24

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[http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)

SGS North America

**JE1472: Chain of Custody**  
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## CASE NARRATIVE / CONFORMANCE SUMMARY

2

**Client:** AECOM, INC.

**Job No:** JE1472

**Site:** Sanders Creek, Syracuse, NY

**Report Date** 12/16/2024 7:07:19 A

On 11/25/2024, 20 sample(s), 0 Trip Blank(s), 0 Equip. Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. (SGS) at a temperature of 4.4 °C. The samples were intact and properly preserved, unless noted below. An SGS Job Number of JE1472 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### GC/LC Semi-volatiles By Method SW846 8082A

**Matrix:** SO

**Batch ID:** OP59863

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JE1472-11MS, JE1472-11MSD were used as the QC samples indicated.
- The following samples were extracted outside of holding time for method SW846 8082A: JE1472-1, JE1472-10, JE1472-11, JE1472-12, JE1472-13, JE1472-14, JE1472-15, JE1472-16, JE1472-17, JE1472-18, JE1472-19, JE1472-2, JE1472-20, JE1472-3, JE1472-4, JE1472-5, JE1472-6, JE1472-7, JE1472-8, JE1472-9
- The matrix spike (MS) recovery(s) of Aroclor 1260 are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- JE1472-15 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

SGS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting SGS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SGS indicated via signature on the report cover.

Monday, December 16, 2024

Page 1 of 1

## Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: JE1472

Account: ERTECHNC AECOM, INC.

Project: Sanders Creek, Syracuse, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP59863-MS	RM30517.D	1	12/13/24	RK	12/12/24	OP59863	GRM725
OP59863-MSD	RM30518.D	1	12/13/24	RK	12/12/24	OP59863	GRM725
JE1472-11	RM30533.D	1	12/13/24	RK	12/12/24	OP59863	GRM725

The QC reported here applies to the following samples:

Method: SW846 8082A

JE1472-1, JE1472-2, JE1472-3, JE1472-4, JE1472-5, JE1472-6, JE1472-7, JE1472-8, JE1472-9, JE1472-10, JE1472-11, JE1472-12, JE1472-13, JE1472-14, JE1472-15, JE1472-16, JE1472-17, JE1472-18, JE1472-19, JE1472-20

CAS No.	Compound	JE1472-11 ug/kg	Spike Q	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	37.7	54.1	143	38.5	58.8	153	8	26-163/38
11096-82-5	Aroclor 1260	361	37.7	293	-180* a	38.5	358	-8* a	20	16-173/39

CAS No.	Surrogate Recoveries	MS	MSD	JE1472-11	Limits
877-09-8	Tetrachloro-m-xylene	105%	104%	105%	35-154%
877-09-8	Tetrachloro-m-xylene	111%	111%	112%	35-154%
2051-24-3	Decachlorobiphenyl	92%	92%	95%	24-176%
2051-24-3	Decachlorobiphenyl	93%	94%	95%	24-176%

(a) Outside control limits due to high level in sample relative to spike amount.

\* = Outside of Control Limits.

JE1473

# SGS

## CHAIN OF CUSTODY

51st

## PROJECT INFO

PROJECT: Sanders Creek, Syracuse NY

P.O. #

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

**SPECIAL DELIVERABLES:**

☐ DoD ☒ EDD/Version:

☐ State of Origin:

**SPECIAL INSTRUCTIONS / COMMENTS**

**SEND DOCUMENTATION / RESULTS TO**

COMPANY: **AECOM**

CONTACT: Peter Hollarz

CONTACT: 5438 Wade Park Blvd Suite 200 Raleigh NC 27606

ADDRESS: 918-461-1194 Peter Heilatz @ aecom, co

PHONE: 919-461-1144 EMAIL: Peter.Hallatz@duke.edu

**INVOICE TO ☒ (CHECK IF SAME)**

**COMPANY:**

CONTACT:

ADDRESS:

PHONE:

EMAIL:

[illegible]Page 1 of 1

SGS NORTH AMERICA INC

ENVIRONMENT, HEALTH & SAFETY 5500 Business Drive Wilmington, NC 28405 910 350 1903 | 866 846 8290 [www.us.sgs.com/environment](http://www.us.sgs.com/environment)

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## JE1473: Chain of Custody

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SGS

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JE1473

## 5.1



JE1473

<b>Project Manager:</b>	<i>Amy Boehm</i>
<b>Receipt Date &amp; Time:</b>	<i>11-Oct-24 at 09:28</i>
<b>AP Project name:</b>	<i>C1051</i>
<b>Requested TAT:</b>	<i>30 business days</i>
<b>Projected due date:</b>	<i>22-Nov-24</i>
<b>Matrix:</b>	<i>Tissue</i>
<b>Phone#:</b>	<i>910-794-1613</i>
<b>Email Address:</b>	<i>Amy.Boehm@sas.com</i>

Company Contact:	Peter Hollatz
Company:	AECOM
Project Name & Site:	Sanders Creek, Syracuse NY
Project PO#:	
QAAP/Contract #:	2024 3092
Requested Analysis:	Fish Prep, % lipids, % moisture, PCB 8082
Phone#:	919.461.1194
Email Address:	<a href="mailto:peter.hollatz@aecom.com">peter.hollatz@aecom.com</a>

[illegible]

Received by: Malachi Clark

Logged in by: Malachi Clark

QC'd by: AK 18 Oct 24

All services are rendered in accordance with the applicable SGS General Conditions of Service accessible via:

[http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)

SGS North America

## JE1473: Chain of Custody

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## CASE NARRATIVE / CONFORMANCE SUMMARY

2

**Client:** AECOM, INC.

**Job No:** JE1473

**Site:** Sanders Creek, Syracuse, NY

**Report Date** 12/16/2024 7:08:20 A

On 11/25/2024, 3 sample(s), 0 Trip Blank(s), 0 Equip. Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. (SGS) at a temperature of 4.4 °C. The samples were intact and properly preserved, unless noted below. An SGS Job Number of JE1473 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### GC/LC Semi-volatiles By Method SW846 8082A

**Matrix:** SO

**Batch ID:** OP59864

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JE1473-1MS, JE1473-1MSD, OP59864-MSMSD were used as the QC samples indicated.
- The following samples were extracted outside of holding time for method SW846 8082A: JE1473-1, JE1473-2, JE1473-3
- JE1473-3 for Aroclor 1260: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE1473-3 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE1473-2 for Aroclor 1260: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE1473-1 for Aroclor 1260: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JE1473-1 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- OP59864-BS1 for Aroclor 1260: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- OP59864-BS1 for Aroclor 1016: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

SGS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting SGS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SGS indicated via signature on the report cover.

Monday, December 16, 2024

Page 1 of 1

# GC Identification Summary

Page 1 of 1

Job Number: JE1473  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	GRM725-CC695	Injection Date:	12/13/24
Lab File ID:	RM30531.D	Injection Time:	12:44
Instrument ID:	GCRM	Method:	SW846 8082A
Sample ID:	JE1473-1	Injection Date:	12/13/24
Lab File ID:	RM30548.D	Injection Time:	20:56
Client ID:	24-GS-R0-COMPF		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1254 <sup>a</sup>	1 <sup>b</sup>			88.8		ug/kg	17.6
Aroclor 1254 <sup>a</sup>	2			74.4		ug/kg	
AR1254-A	1	5.49	5.50 <sup>c</sup>	88.2		ug/kg	
AR1254-A	2	7.00	7.02 <sup>c</sup>	75.4		ug/kg	
AR1254-B	1	5.78	5.80 <sup>c</sup>	81.3		ug/kg	
AR1254-B	2	7.27	7.29 <sup>c</sup>	84.1		ug/kg	
AR1254-D	1	6.30	6.32 <sup>c</sup>	98.3		ug/kg	
AR1254-D	2	7.90	7.91 <sup>c</sup>	70.6		ug/kg	
AR1254-E	1	6.72	6.75 <sup>c</sup>	87.3		ug/kg	
AR1254-E	2	8.15	8.17 <sup>c</sup>	67.4		ug/kg	
Aroclor 1260 <sup>a</sup>	1 <sup>b</sup>			60.4		ug/kg	27.5
Aroclor 1260 <sup>d</sup>	2			45.8		ug/kg	
AR1260-C	1	7.87	7.87	57.7		ug/kg	
AR1260-C	2	9.09	9.09	44.1		ug/kg	
AR1260-D	1	8.22	8.22	65.9		ug/kg	
AR1260-D <sup>d</sup>	2	9.30	9.30	50.6		ug/kg	
AR1260-E	1	8.51	8.52	57.6		ug/kg	
AR1260-E <sup>d</sup>	2	9.62	9.62	42.7		ug/kg	

- (a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.  
(b) Final result reported from this column.  
(c) StdRT taken from init cal: GRM695-IC695 RM29295.D 11/12/24 14:16  
(d) Associated CCV outside of control limits low.

6.4.1  
6

# GC Identification Summary

Page 1 of 1

Job Number: JE1473  
Account: ERTECHNC AECOM, INC.  
Project: Sanders Creek, Syracuse, NY

Check Std:	GRM725-CC695	Injection Date:	12/13/24
Lab File ID:	RM30531.D	Injection Time:	12:44
Instrument ID:	GCRM	Method:	SW846 8082A
Sample ID:	JE1473-2	Injection Date:	12/13/24
Lab File ID:	RM30549.D	Injection Time:	21:25
Client ID:	24-CR-R0-COMPA		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1260 <sup>a</sup>	1 <sup>b</sup>			12.1	J	ug/kg	42.0
Aroclor 1260 <sup>c</sup>	2			7.9	J	ug/kg	
AR1260-B	1	7.56	7.57	16.9	J	ug/kg	
AR1260-B <sup>c</sup>	2	8.81	8.81	10.2	J	ug/kg	
AR1260-C	1	7.87	7.87	5.6	J	ug/kg	
AR1260-C	2	9.09	9.09	3.9	J	ug/kg	
AR1260-D	1	8.22	8.22	15.6	J	ug/kg	
AR1260-D <sup>c</sup>	2	9.30	9.30	11.0	J	ug/kg	
AR1260-E	1	8.51	8.52	10.2	J	ug/kg	
AR1260-E <sup>c</sup>	2	9.62	9.62	6.7	J	ug/kg	

- (a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.  
(b) Final result reported from this column.  
(c) Associated CCV outside of control limits low.

6.4.2  
6

## **Appendix C.2**

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### **Fish and Crayfish Tissue Collection Report**



739 Hastings Street  
Traverse City, Michigan 49686  
Phone: 231-941-2230  
Fax: 231-941-2240

**DATE:** January 10, 2025

**TO:** Peter Hollatz, P.E.  
AECOM  
5438 Wade Park Boulevard Suite 200  
Raleigh, NC 27607

**FROM:** James Stricko, Principal Research Scientist  
John Barkach, Senior Program Manager

**SUBJECT:** Fish and Crayfish Tissue Collection, Sanders Creek  
October 8-10, 2024  
Carrier Corporation  
Syracuse, NY  
GLEC Project Number: 2686

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Great Lakes Environmental Center, Inc. (GLEC) was retained by AECOM to conduct fish tissue and crayfish sampling of Sanders Creek. The project site is located in Syracuse, New York adjacent to Carrier Corporation's Thompson Road facility. Crayfish and fin fish tissue samples were collected by GLEC from eight reaches within the Site, as described in Section 1.2 of the Biota Monitoring Plan (Gradient, 2023). The field work was completed on October 8<sup>th</sup> to 10<sup>th</sup>, 2024.

### **Introduction**

Gradient (2023) prepared a Biota Monitoring Plan (BMP) to monitor the performance and effectiveness of a planned Remedial Action in a section of Sanders Creek. Sanders Creek is located in the town of DeWitt, Onondaga County, New York (Figure 1). The portion of Sanders Creek beginning north of Carrier Corporation's Thompson Road facility (Carrier facility) and continuing downstream to the confluence with the South Branch of Ley Creek is considered the Site.

An Interim Corrective Measures (ICM) Work Plan (WP) was prepared by Carrier Corporation in response to the New York State Department of Environmental Conservation (NYSDEC)

Corrective Action Order – Index Number CO 7-20051118-4 dated January 4, 2006 (Gradient, 2023; AECOM, 2021). The ICM WP outlines the Remedial Action that will be implemented to achieve the remedial criteria agreed to by NYSDEC for polychlorinated biphenyls (PCBs) in the Sanders Creek sediments and immediate floodplains which support achieving the Remedial Goal (RG) as specified by the Corrective Action Order. The remedial goal/criteria for Sanders Creek is that monitoring of resident aquatic biota assures that PCB concentrations are 0.1 parts per million (ppm) or less in the relevant portions of the creek (Gradient, 2023; AECOM, 2021).

### **Sanders Creek Site Description and Reach Designations**

Sanders Creek is classified as a Class C, Standard C water under the NYSDEC Protection of Waters Regulatory Program (Gradient, 2023; AECOM, 2021). Class C is defined as: "The best usage of Class C waters is fishing. These waters will be suitable for fish, shellfish, and wildlife propagation and survival. The water quality will be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes."

The Site consists of the portion of Sanders Creek beginning north of the Carrier facility and continuing downstream to the confluence with the South Branch of Ley Creek (see Figure 1). Sanders Creek flows toward the west through wooded and developed areas and is connected through a series of culverts (Gradient, 2023). The Site has been divided into the following seven reaches based on the presence of culverts and property boundaries (Figure 1). In addition, an upgradient reach of Sanders Creek will be used to define background conditions (Gradient, 2023). Eight reaches were evaluated and include:

- Reach 0 (background/upgradient reach): From Kinne Street to the culvert under Telergy Parkway.
- Reach 1: Between culvert under Telergy Parkway to the next downstream culvert (Culvert 1).
- Reach 2: Between Culvert 1 to the culvert under Thompson Road.
- Reach 3: Between culvert under Thompson Road to the next downstream culvert (Culvert 2).
- Reach 4: Between Culvert 2 to the Carrier property boundary.
- Reach 5: Between the Carrier property boundary to the culvert under Old Court Street Road.
- Reach 6: Between culvert under Old Court Street Road to the next downstream culvert at a private road (Culvert 3).
- Reach 7: Between the culvert at Deere Road to the confluence of South Branch of Ley Creek.

The purpose of the biota monitoring plan is to "define the measures for monitoring the performance and effectiveness of the remedy at the Site" (Gradient, 2023; AECOM, 2021). The objective of this BMP is to monitor the performance and effectiveness of a planned Remedial Action in regards to the Remedial Goal (RG) of achieving 0.1 mg/kg PCB concentrations or less in biota tissues at the Site. Specifically, the BMP will be conducted to document PCB

concentrations in crayfish and finfish tissues, to allow evaluation of compliance with the RG, and to track changes in tissue concentrations following remedy implementation (Gradient, 2023).

The performance and effectiveness of the Remedial Action will be evaluated by establishing a new baseline biota PCB tissue dataset prior to remediation, collecting post-remedy tissue samples, and analyzing temporal and spatial trends in PCB tissue concentrations (Gradient, 2023).

### **Summary of GLEC Field Collection**

Fin fish and crayfish sampling was completed by GLEC during October 8-10, 2024 in accordance with to the requirements of the Field Sampling and Analysis Plan (FSAP; Gradient, 2024). The target fish species chosen for the proposed fish tissue sampling effort were creek chub (*Semotilus atromaculatus*) and white sucker (*Catostomus commersoni*).

Reach lengths are summarized in Table 1. As discussed in the Biota Monitoring Plan (Gradient, 2023), samples from an upgradient reach, Reach 0, will be used to define background conditions, while tissue samples collected from Reaches 1-7 will represent Site conditions.

**Table 1. Fish Collection Reaches, R0 through R7 Sanders Creek, Syracuse, NY, October 8-10, 2024**

<b>Sample Station</b>	<b>Starting Location</b>	<b>Upstream Distance (meters)</b>
R0	From the culvert located at 43.08632, -76.08247	277
R1	From the culvert located at 43.08629, -76.08478	167
R2	From the culvert located at 43.08632, -76.08247	370
R3	From the culvert located at 43.08704, -76.09144	82
R4	From GPS coordinates 43.08680, -76.092416	67
R5	From the culvert located at 43.08634, -76.09414	155
R6	From the culvert located at 43.08814, -76.09963	510
R7	From the confluence of South Branch Ley Creek and Sanders Creek	213

## **Methods**

GLEC collected fish and crayfish samples from Sanders Creek. On October 8<sup>th</sup>, fish were collected from Sanders Creek sample stations R0 (reference location) and R1. On October 9<sup>th</sup>, fish were collected from Sanders Creek station locations R2, R5, and R6. Sampling at the final two locations, R3 and R7, occurred on October 10<sup>th</sup>. Fish were identified to species.

Crayfish collection was conducted on October 8-10 at sites R0, R1, R2, R3, R4, R5, and R6. with baited minnow traps. Minnow traps were set and then retrieved each morning. Crayfish were collected from R7 using pulsed DC electrofishing simultaneous with fish collection. Crayfish were identified to species using Crocker DW (1957).

At each reach location, five composites of finfish and five composites of crayfish all providing at least 50 grams of tissue for analysis were the target numbers of samples. If enough crayfish were not present, additional fish composites were collected for analysis. Fish were collected using pulsed DC electrofishing via backpack system. Crayfish were collected using pulsed DC electrofishing via backpack system and baited minnow traps.

After completing the fish collection at R0 and R1, creek chub (*Semotilus atromaculatus*) and green sunfish (*Lepomis cyanellus*) were chosen to be the target species. Crayfish (*Faxonius immunitis*) were collected at R0 and R7. Another crayfish species was collected R2, *Faxonius obscurus*, but was not submitted for analysis since it was not the same species collected at R0 and R7. At all sites, crayfish were not present in high enough numbers to collect five composites at each location. At sites R3 and R4, there were not enough fish collected to have ten composites. After discussion with Gradient staff, additional fish composites were submitted from R0, R5, and R6. The additional composites included white sucker at R6.



**Table 2. Summary of Species Collected and the Number of Composites at Sites R0 through R7, Sanders Creek, Syracuse, NY.**

Sample Station	Species	Number Composites	Date Collected
R0	Creek Chub	5	10/08/2024
	Green Sunfish	6	10/08/2014
	Crayfish	1	10/10/2024
R1	Creek Chub	6	10/08/2024
	Green Sunfish	5	10/08/2024
R2	Creek Chub	7	10/09/2024
	Green Sunfish	3	10/09/2024
R3	Creek Chub	2	10/10/2024
	Green Sunfish	4	10/10/2024
	Pumpkinseed	1	10/10/2024
R4	Creek Chub	2	10/10/2024
	Green Sunfish	2	10/10/2024
	White Sucker	1	10/10/2024
R5	Creek Chub	4	10/09/2024
	Green Sunfish	7	10/09/2024
R6	Creek Chub	3	10/09/2024
	Green Sunfish	6	10/09/2024
	White Sucker	2	10/09/2024
R7	Creek Chub	3	10/10/2024
	Green Sunfish	7	10/10/2024
	Crayfish	1	10/10/2024

GLEC measured and recorded the total length and weight of all fish and crayfish submitted for laboratory testing (see Table 3). For each sample location, fish and crayfish were divided into composites, photographed, and wrapped in solvent rinsed muffled aluminum foil with the dull side towards the fish or crayfish. Each composite was placed in a Ziploc bag labeled with the sampling date, station, species, and a unique sample identification number. The sample identification numbers are listed in Table 3.

Fish samples were frozen on dry ice for transport to the environmental laboratory. Chain of custody forms were completed by AECOM and GLEC listing all samples that were shipped to the laboratory (see Appendix A). GLEC obtained a permit to conduct the fish collection from the NYSDEC (Scientific License to Collect or Possess, #3310, Dated October 4, 2024). A copy of the permit is contained in Appendix B.

### **References**

AECOM. 2021. Interim Corrective Measure Work Plan, Sanders Creek, Carrier Corporation Site, Thompson Road, Syracuse, NY (Corrective Action Order – Index CO 7-20051118-4; NYSDEC Site Registry #734043). Report to Carrier Corp., Syracuse, NY. Report Date: April 2021.

Gradient. 2024. Field Sampling and Analysis Plan, Sanders Creek Site, Thompson Road, Syracuse, NY. Gradient, Boston, Massachusetts. Report Date: October 2024.

Gradient. 2023. Biota Monitoring Plan (Revision 01), Sanders Creek Site, Thompson Road, Syracuse, NY. Report to Carrier Corp. (Syracuse, NY). Submitted to New York State Department of Environmental Conservation (NYSDEC).

Crocker, D.W., 1957. The Crayfishes of New York State. New York State Museum and Science Service. Bulletin Number 355. The University of the State of New York. Albany, New York. 47p.

**Table 3. Summary of Length and Weight, Fish and Crayfish Collection Conducted on October 8-10, 2024. Sample Locations Reach 0 to Reach 7, Sanders Creek, Syracuse, NY.**

Station/ Date	Species	Composite Sample ID	Length (mm)	Weight (g)	Number Fish per Composite
Reach 0 10/08/24	Creek Chub ( <i>Semotilus atromaculatus</i> )	24-CC-R0-CompA	177	56.4	1
		24-CC-R0-CompB	152	35.0	2
			131	22.3	
		24-CC-R0-CompC	152	32.2	2
			136	23.3	
		24-CC-R0-CompD	100	8.8	8
			90	8.0	
			96	8.0	
			86	6.1	
			88	6.4	
			82	5.7	
			76	4.3	
			81	5.0	
		24-CC-R0-CompE	77	4.4	22
			72	4.3	
			82	5.3	
			72	4.0	
			71	3.5	
			72	3.5	
			76	4.3	
			74	3.7	
			69	3.1	
			69	3.4	
			68	3.2	
			73	3.9	
			78	4.0	
			67	3.1	
			70	3.3	
			68	3.0	
			62	2.1	
			60	2.1	
			68	2.9	
			62	2.3	
			59	2.3	
			61	2.4	
	Green Sunfish ( <i>Lepomis cyanellus</i> )	24-GS-R0-CompA	152	70.9	1
		24-GS-R0-CompB	127	38.0	2
			108	23.7	
		24-GS-R0-CompC	124	33.1	2
			114	25.0	
		24-GS-R0-CompD	91	11.8	5
			93	14.0	
			92	11.9	
			88	11.0	
			78	7.7	

**Table 3. Summary of Length and Weight, Fish and Crayfish Collection Conducted on October 8-10, 2024. Sample Locations Reach 0 to Reach 7, Sanders Creek, Syracuse, NY.**

Station/ Date	Species	Composite Sample ID	Length (mm)	Weight (g)	Number Fish per Composite
		24-GS-R0-CompE	77	7.7	8
			82	9.3	
			78	7.6	
			72	6.4	
			71	5.6	
			74	6.1	
			74	6.2	
			73	6.6	
		24-GS-R0-CompF	71	6.3	14
			69	6.4	
			78	8.2	
			76	7.0	
			68	5.1	
			67	4.9	
			75	6.7	
			66	4.3	
			58	3.5	
			57	3.6	
			50	2.1	
			55	2.8	
			58	3.2	
			62	4.1	
Reach 1 10/08/24	Creek Chub ( <i>Semotilus atromaculatus</i> )	24-CC-R1-CompA	221	96.7	2
			202	82.2	
		24-CC-R1-CompB	187	60.3	2
			181	51.1	
		24-CC-R1-CompC	157	34.1	2
			138	24.2	
		24-CC-R1-CompD	147	29.3	2
			148	31.2	
		24-CC-R1-CompE	136	20.4	3
			121	16.6	
		24-CC-R1-CompF	119	14.3	5
			121	15.8	
			121	15.2	
			122	15.2	
			81	4.8	
			78	4.0	
	Green Sunfish ( <i>Lepomis cyanellus</i> )	24-GS-R1-CompA	137	46.6	2
			132	43.3	
		24-GS-R1-CompB	140	47.7	2
			124	32.6	
		24-GS-R1-CompC	119	28.5	2
			114	23.7	

**Table 3. Summary of Length and Weight, Fish and Crayfish Collection Conducted on October 8-10, 2024. Sample Locations Reach 0 to Reach 7, Sanders Creek, Syracuse, NY.**

Station/ Date	Species	Composite Sample ID	Length (mm)	Weight (g)	Number Fish per Composite
Reach 2 10/09/24	Creek Chub ( <i>Semotilus atromaculatus</i> )	24-GS-R1-CompD	107	20.3	3
			107	20.1	
			108	19.8	
		24-GS-R1-CompE	97	15.6	4
			98	16.3	
			99	15.4	
			90	11.7	
		24-CC-R2-CompA	199	75.7	5
			186	58.9	
			179	57.6	
			185	53.9	
			173	45.4	
		24-CC-R2-CompB	180	49.8	5
			162	40.3	
			159	33.6	
			161	34.6	
			163	37.7	
		24-CC-R2-CompC	184	57.3	5
			180	46.2	
			169	46.2	
			151	30.8	
			153	33.2	
		24-CC-R2-CompD	136	21.3	5
			129	18.4	
			141	26.6	
			137	25.1	
			141	30.3	
		24-CC-R2-CompE	133	23.7	5
			133	21.5	
			129	18.1	
			132	19.6	
			132	20.6	
		24-CC-R2-CompF	126	18.0	5
			126	17.8	
			126	16.5	
			119	16.1	
			121	14.1	
		24-CC-R2-CompG	135	21.5	4
			122	16.8	
			112	11.2	
			126	14.8	
	Green Sunfish ( <i>Lepomis cyanellus</i> )	24-GS-R2-CompA	167	89.9	2
			158	77.2	
		24-GS-R2-CompB	105	19.9	5
			114	27.8	

**Table 3. Summary of Length and Weight, Fish and Crayfish Collection Conducted on October 8-10, 2024. Sample Locations Reach 0 to Reach 7, Sanders Creek, Syracuse, NY.**

Station/ Date	Species	Composite Sample ID	Length (mm)	Weight (g)	Number Fish per Composite
			101	17.3	
			84	12.3	
			98	14.7	
		24-GS-R2-CompC	96	14.0	6
			87	11.2	
			86	10.0	
			81	8.5	
			81	8.8	
			77	8.0	
Reach 5 10/09/24	Creek Chub ( <i>Semotilus atromaculatus</i> )	24-CC-R5-CompA	213	102.3	2
			193	67.2	
		24-CC-R5-CompB	168	41.9	3
			172	42.1	
			148	31.0	
		24-CC-R5-CompC	134	24.0	3
			153	35.5	
			143	26.0	
		24-CC-R5-CompD	126	18.1	5
			119	16.0	
			118	15.6	
			110	12.4	
			104	10.9	
	Green Sunfish ( <i>Lepomis cyanellus</i> )	24-GS-R5-CompA	167	87.1	3
			168	88.1	
			157	70.9	
		24-GS-R5-CompB	145	57.0	5
			147	56.5	
			138	43.7	
			133	40.8	
			127	34.0	
		24-GS-R5-CompC	117	27.5	5
			112	25.1	
			110	23.5	
			110	23.7	
			105	20.7	
		24-GS-R5-CompD	106	19.0	6
			93	14.0	
			91	13.0	
			92	12.8	
			92	11.1	
			93	13.0	
		24-GS-R5-CompE	85	10.2	7
			89	11.0	
			84	9.9	
			82	9.1	

**Table 3. Summary of Length and Weight, Fish and Crayfish Collection Conducted on October 8-10, 2024. Sample Locations Reach 0 to Reach 7, Sanders Creek, Syracuse, NY.**

Station/ Date	Species	Composite Sample ID	Length (mm)	Weight (g)	Number Fish per Composite
			83	9.5	
			82	9.1	
			81	9.4	
		24-GS-R5-CompF	80	8.8	8
			80	8.6	
			81	8.7	
			72	6.7	
			75	6.9	
			77	7.8	
			83	9.1	
			73	6.8	
		24-GS-R5-CompG	76	7.0	12
			76	7.4	
			75	6.9	
			72	5.6	
			73	6.5	
			77	7.6	
			76	6.5	
			65	4.8	
			74	5.8	
			70	5.4	
			70	5.2	
			67	5.0	
Reach 6 10/09/24	Creek Chub ( <i>Semotilus atromaculatus</i> )	24-CC-R6-CompA	117	57.3	4
			187	60.3	
			164	44.7	
			151	30.9	
		24-CC-R6-CompB	123	18.1	4
			130	21.3	
			137	25.8	
			122	16.0	
		24-CC-R6-CompC	117	16.3	4
			112	12.8	
			123	17.6	
			127	18.4	
	Green Sunfish ( <i>Lepomis cyanellus</i> )	24-GS-R6-CompA	147	57.6	4
			120	33.3	
			120	29.3	
			122	30.4	
		24-GS-R6-CompB	112	21.6	4
			112	26.5	
			108	23.0	
			103	18.7	
		24-GS-R6-CompC	97	15.3	6
			98	16.0	

**Table 3. Summary of Length and Weight, Fish and Crayfish Collection Conducted on October 8-10, 2024. Sample Locations Reach 0 to Reach 7, Sanders Creek, Syracuse, NY.**

Station/ Date	Species	Composite Sample ID	Length (mm)	Weight (g)	Number Fish per Composite
			101	17.3	
			102	17.0	
			93	13.9	
			93	12.7	
		24-GS-R6-CompD	87	11.4	6
			89	11.5	
			92	12.5	
			97	14.8	
			90	11.7	
			85	9.8	
		24-GS-R6-CompE	78	8.7	7
			82	9.0	
			88	10.1	
			86	8.9	
			78	7.8	
			77	8.0	
			82	10.0	
		24-GS-R6-CompF	79	8.6	11
			77	7.5	
			73	6.2	
			75	6.7	
			73	6.3	
			72	6.0	
			69	6.1	
			69	5.8	
			67	5.0	
			63	4.8	
			73	5.7	
	White Sucker ( <i>Catostomus commersoni</i> )	24-WS-R6-CompA	197	67.2	3
			172	46.5	
			173	48.2	
		24-WS-R6-CompB	167	43.8	3
			160	41.3	
			160	38.2	
		24-WS-R6-CompC	127	17.7	5
			117	13.8	
			122	16.5	
			119	14.2	
			110	12.5	
		24-WS-R6-CompD	106	11.3	6
			94	7.9	
			101	9.5	
			97	8.3	
			98	8.5	
			96	7.9	



**Table 3. Summary of Length and Weight, Fish and Crayfish Collection Conducted on October 8-10, 2024. Sample Locations Reach 0 to Reach 7, Sanders Creek, Syracuse, NY.**

Station/ Date	Species	Composite Sample ID	Length (mm)	Weight (g)	Number Fish per Composite
Reach 3 10/10/24	Creek Chub ( <i>Semotilus atromaculatus</i> )	24-CC-R3-CompA	181	55.1	4
			183	54.0	
			167	39.9	
			167	38.3	
		24-CC-R3-CompB	147	33.4	5
			142	25.3	
			127	19.1	
			124	18.2	
			113	12.7	
	Green Sunfish ( <i>Lepomis cyanellus</i> )	24-GS-R3-CompA	143	54.2	5
			113	27.9	
			112	22.7	
			107	20.7	
			106	18.1	
		24-GS-R3-CompB	99	18.7	5
			94	15.2	
			97	16.6	
			94	13.7	
			98	15.7	
		24-GS-R3-CompC	98	16.1	5
			89	12.2	
			89	11.7	
			86	11.5	
			85	12.0	
		24-GS-R3-CompD	78	8.1	7
			80	8.7	
			83	11.4	
			72	7.2	
			77	8.1	
			73	6.6	
			73	6.6	
	Pumpkinseed ( <i>Lepomis gibbosus</i> )	24-PS-R3-CompA	106	24.8	5
			92	14.5	
			79	8.8	
			74	7.4	
			72	6.9	
Reach 4 10/10/24	Creek Chub ( <i>Semotilus atromaculatus</i> )	24-CC-R4-CompA	168	47.2	5
			141	30.3	
			127	20.3	
			144	28.3	
			131	22.8	
		24-CC-R4-CompB	118	15.3	5
			127	17.9	
			117	14.8	
			122	16.4	

**Table 3. Summary of Length and Weight, Fish and Crayfish Collection Conducted on October 8-10, 2024. Sample Locations Reach 0 to Reach 7, Sanders Creek, Syracuse, NY.**

Station/ Date	Species	Composite Sample ID	Length (mm)	Weight (g)	Number Fish per Composite
	Green Sunfish ( <i>Lepomis cyanellus</i> )	24-GS-R4-CompA	126	18.7	2
			172	119	
			142	51.0	
		24-GS-R4-CompB	115	28.3	5
			92	14.1	
			85	11.9	
			83	9.7	
			71	6.3	
		24-WS-R4-CompA	193	69.6	3
			134	23.6	
			132	24	
Reach 0 10/10/24	Crayfish ( <i>Faxonius immunis</i> )	24-CR-R0-CompA	68	5.8	13
			66	7.0	
			65	6.3	
			67	5.8	
			71	8.2	
			58	3.8	
			62	5.5	
			62	6.0	
			58	4.8	
			71	6.4	
			59	4.1	
			55	4.4	
			56	4.5	
Reach 2 10/10/24	Crayfish ( <i>Faxonius obscurus</i> )	24-CR-R2-CompA	76	15.3	2
			92	22.4	
Reach 7 10/10/24	Creek Chub ( <i>Semotilus atromaculatus</i> )	24-CC-R7-CompA	213	100.5	3
			157	36.9	
			135	24.1	
		24-CC-R7-CompB	138	22.7	5
			141	20.0	
			111	11.7	
			107	11.6	
			106	10.0	
		24-CC-R7-CompC	115	14.1	6
			111	11.5	
			110	12.0	
			103	10.0	
			72	3.4	
			77	3.2	
	Green Sunfish ( <i>Lepomis cyanellus</i> )	24-GS-R7-CompA	150	67.6	4
			152	64.2	
			143	54.6	
			142	56.4	
		24-GS-R7-CompB	135	48.2	5

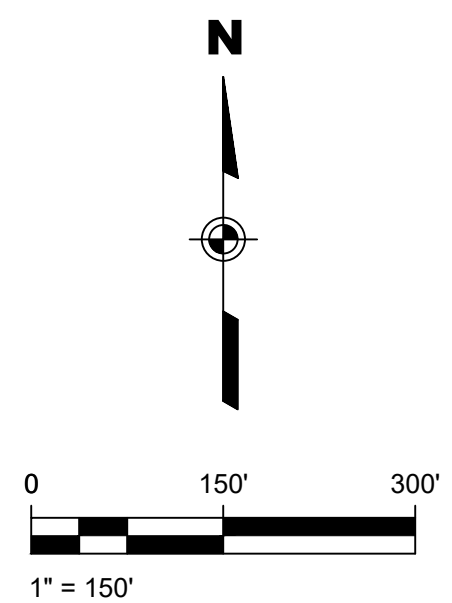
**Table 3. Summary of Length and Weight, Fish and Crayfish Collection Conducted on October 8-10, 2024. Sample Locations Reach 0 to Reach 7, Sanders Creek, Syracuse, NY.**

Station/ Date	Species	Composite Sample ID	Length (mm)	Weight (g)	Number Fish per Composite
			124	36.3	
			127	33.4	
			113	27.6	
			110	23.0	
		24-GS-R7-CompC	103	20.8	5
			102	16.2	
			99	17.3	
			106	19.4	
			108	21.3	
		24-GS-R7-CompD	105	21.9	5
			95	14.2	
			93	13.3	
			93	13.9	
			95	13.3	
		24-GS-R7-CompE	95	12.8	5
			96	14.6	
			96	13.0	
			93	13.1	
			96	15.0	
		24-GS-R7-CompF	88	11.7	5
			95	14.7	
			88	11.6	
			83	10.1	
			83	9.3	
		24-GS-R7-CompG	87	10.0	7
			87	9.2	
			79	8.4	
			86	10.1	
			77	7.2	
			77	7.9	
			82	8.5	
	Crayfish ( <i>Faxonius immunis</i> )	24-CR-R7-CompA	75	8.1	8
			60	4.5	
			72	9.1	
			45	2.1	
			41	1.7	
			50	2.5	
			34	1.2	
			50	2.6	



#### LEGEND

- |  |   |
|--|---|
|  | APPROXIMATE LIMITS OF SANDERS CREEK / BANK EXCAVATION   |
|  | APPROXIMATE PROPERTY BOUNDARY - FROM TAX MAPPING  |
|  | PROPOSED AREA OF SOIL REMEDIATION   |
|  | PROPOSED AREA OF SOIL REMEDIATION WITH STEEP BANK / INFRASTRUCTURE AREA: ENGINEERED CONTROLS WILL BE IMPLEMENTED IN THE EVENT THAT THE REMEDIATION CRITERIA CANNOT BE ACHIEVED. |
|  | NO EXCAVATION AREA DUE TO SLOPE STABILITY<br>ENGINEERED CONTROL IN-PLACE  |
|  | TR-3 PROPOSED AREA OF REMEDIATION TO BE COMPLETED IN CONJUNCTION WITH THIS REMEDIAL ACTION BUT AS PART OF A SEPARATE INTERIM REMEDIAL MEASURE                                   |



# AECOM

#### PROJECT

### SANDERS CREEK INTERIM CORRECTIVE MEASURE

CARRIER SITE  
Thompson Road  
Syracuse, New York

#### CLIENT

### Carrier Corporation

Thompson Road  
Syracuse, New York

#### CONSULTANT

AECOM  
50 Lakefront Boulevard, Suite 111  
Buffalo, New York 14202  
716.856.5636 tel  
www.aecom.com

#### PROJECT NUMBER

AECOM #60604770

#### FIGURE TITLE

Sanders Creek Reaches

#### FIGURE NUMBER

Figure 1

## **APPENDIX A**

### **Laboratory Chain of Custody Form**





## CHAIN OF CUSTODY

### PROJECT INFO

PROJECT: Sanders Creek, Syracuse NY

PO #:

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☐ Level IV

SPECIAL DELIVERABLES:

☐ DoD ☐ EDD/Version:

☐ State of Origin:

### SPECIAL INSTRUCTIONS / COMMENTS

#### PRESERVATIVE

N/A

#### ANALYSIS & METHOD

Lipids

PCB 0082

Moisture

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	Lipids	PCB 0082	Moisture	MS MSD	MS/ DUP	REMARKS
24-CC-RO-Comp A	10/8	1000			x	x	x			
24-CC-RO-Comp B	10/8	1000			x	x	x			
24-CC-RO-Comp C	10/8	1000			x	x	x			
24-CC-RO-Comp D	10/8	1000			x	x	x			
24-CC-RO-Comp E	10/8	1000			x	x	x			
24-GS-RO-Comp A	10/8	1000			x	x	x			
24-GS-RO-Comp B	10/8	1000			x	x	x			
24-GS-RO-Comp C	10/8	1000			x	x	x			
24-GS-RO-Comp D	10/8	1000			x	x	x			
24-GS-RO-Comp E	10/8	1000			x	x	x			
COLLECTED/RELINQUISHED BY (1):				DATE:	TIME:	RECEIVED BY:			RECEIVED BY LABORATORY:	
RELINQUISHED BY (2):				DATE:	TIME:	RECEIVED BY:			COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT	
RELINQUISHED BY (3):				DATE:	TIME:	RECEIVED BY:			CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT	
									CARRIER:	TEMP: °C
									TRACKING #:	

### SEND DOCUMENTATION / RESULTS TO

COMPANY: AECOM

CONTACT: Peter Hollatz

ADDRESS: 5438 Wade Point Blvd suite 200 Raleigh NC 27604

PHONE: 919-461-1194 EMAIL: Peter.Hollatz@aecom.com

INVOICE TO ☐ CHECK IF SAME

COMPANY:

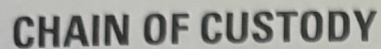
CONTACT:

ADDRESS:

PHONE:

EMAIL:





PROJECT: Sanders Creek, Syracuse NY

QUOTE #: 2024 3092

TURN AROUND TIME: Standard

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

☐ DoD ☒ EDD/Version:☐ State of Origin:

**PRESERVATIVE**

## ANALYSIS & METHOD

[illegible]

COMPANY: **AECOM**

CONTACT: Peter Hollatz

CONTACT: Peter Hollars  
ADDRESS: 5438 Wade Park Blvd Suite 200 Raleigh NC 27607

ADDRESS: 5958 Widge Lake Blvd E704  
PHONE: 919-461-1194 EMAIL: Peter.Hollatz@aecom.com

INVOICE TO ☒ (CHECK IF SAME)

COMPANY:

CONTACT:

ADDRESS:

PHONE: \_\_\_\_\_ EMAIL: \_\_\_\_\_





## CHAIN OF CUSTODY

### PROJECT INFO

PROJECT: Sanders Creek, Syracuse NY

PO. #:

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

### SPECIAL DELIVERABLES:

☐ DoD ☒ EDD/Version:

☐ State of Origin:

### SPECIAL INSTRUCTIONS / COMMENTS

### SEND DOCUMENTATION / RESULTS TO

COMPANY: Aecom

CONTACT: Peter Hollatz

ADDRESS: 5438 Wade Park Blvd Suite 200 Raleigh NC 27607

PHONE: 919-461-1194 EMAIL: peter.hollatz@aecom.com

INVOICE TO ☒ CHECK IF SAME

COMPANY:

CONTACT:

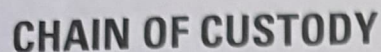
ADDRESS:

PHONE:

EMAIL:

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	Lipids	PCB/BBZ	Moisture											MS MSD	MS/ DUP	REMARKS	
24-CC-R1-Comp A	10/18	1200			+	+	+											X		MS1	
24-CC-R1-Comp B	10/18	1200			+	+	+														
24-CC-R1-Comp C	10/18	1200			+	+	+														
24-CC-R1-Comp D	10/18	1200			+	+	+														
24-CC-R1-Comp E	10/18	1200			X	+	+														
24-CC-R1-Comp F	10/18	1200			X	+	+														
24-GS-R1-Comp A	10/18	1200			+	+	+														
24-GS-R1-Comp B	10/18	1200			+	+	+														
24-GS-R1-Comp C	10/18	1200			+	+	+														
24-GS-R1-Comp D	10/18	1200			X	+	+														
COLLECTED/RELINQUISHED BY (1):				DATE:	TIME:	RECEIVED BY:										RECEIVED BY LABORATORY:				DATE:	TIME:
				10/16/24	1900																
RELINQUISHED BY (2):				DATE:	TIME:	RECEIVED BY:										COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT					
																CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT					
RELINQUISHED BY (3):				DATE:	TIME:	RECEIVED BY:										CARRIER:				TEMP: °C	
																TRACKING #:					





PROJECT: Sanders Creek, Syracuse NY

QUOTE #: 2024 3092

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

☐ DoD ☒ EDD/Version:☐ State of Origin:

**PRESERVATIVE**

## ANALYSIS & METHOD

SAMPLE ID / DESCRIPTION										10/B DATE	TIME	QTY	MATRIX	Lipids	PCB B	Moisture	MS MSD	MS/ DUP	REMARKS			
<del>24-R2</del> 24-CC-R2-Comp A										10/8	1400			X	+	+			X	MS2		
24-CC-R2-Comp B										10/8	1400			X	+	+						
24-CC-R2-Comp C										10/8	1400			X	+	+						
24-CC-R2-Comp D										10/8	1400			+	+	X						
24-CC-R2-Comp E										10/8	1400			X	+	+						
24-CC-R2-Comp F										10/8	1400			X	+	X						
24-CC-R2-Comp G										10/8	1400			X	X	X						
24-GS-R2-Comp A										10/8	1400			X	+	X						
24-GS-R2-Comp B										10/8	1400			X	X	X						
24-GS-R2-Comp C										10/8	1400			X	+	X						
COLLECTED/RELINQUISHED BY (1): 												DATE: 10/11/24	TIME: 1900	RECEIVED BY:					RECEIVED BY LABORATORY:      DATE:      TIME:			
RELINQUISHED BY (2):												DATE:	TIME:	RECEIVED BY:					COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT			
																			CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT			
RELINQUISHED BY (3):												DATE:	TIME:	RECEIVED BY:					CARRIER:		TEMP: °C	
																			TRACKING #:			

COMPANY: **AECON**

CONTACT: Peter Hollatz

ADDRESS 5438 Wade Park Blvd Suite 200 Raleigh NC 27601

PHONE: 919-461-1194 EMAIL: Peter.Hollatz@qecom.com

INVOICE TO ☒ (CHECK IF SAME)

COMPANY:

**CONTACT:**

ADDRESS:

PHONE:

EMAIL:





## CHAIN OF CUSTODY

### PROJECT INFO

PROJECT: Sanders Creek, Syracuse NY

PO #:

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

### SPECIAL DELIVERABLES:

☐ DoD ☒ EDD/Version:

☐ State of Origin:

### SPECIAL INSTRUCTIONS / COMMENTS

PRESERVATIVE									
NA	NA	NA							

### ANALYSIS & METHOD

Lipids	PCB 6082	Moisture																	
--------	----------	----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

### SEND DOCUMENTATION / RESULTS TO

COMPANY: AECOM

CONTACT: Peter Hallatz

ADDRESS: 5438 Wade Park Blvd suite 200 Raleigh NC 27607

PHONE: 919-461-1194 EMAIL: Peter.Hallatz@aecom.com

INVOICE TO ☒ (CHECK IF SAME)

COMPANY:

CONTACT:

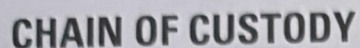
ADDRESS:

PHONE:

EMAIL:

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	Lipids	PCB 6082	Moisture													MS MSD	MS/ DUP	REMARKS	
24-CC-R3-Comp A	10/16	1106			+	+	+																
24-CC-R3-Comp B	10/16	1100			+	+	+																
24-GS-R3-Comp A	10/16	1106			+	+	+																
24-GS-R3-Comp B	10/16	1100			+	+	+																
24-GS-R3-Comp C	10/16	1103			+	+	+																
24-GS-R3-Comp D	10/16	1100			+	+	+																
24-PS-R3-Comp A	10/16	1100			+	+	+																
24-CR-R2-Comp A	10/16	1000			+	+	+																
COLLECTED/RELINQUISHED BY (1):				DATE:	TIME:	RECEIVED BY:				RECEIVED BY LABORATORY:				DATE:	TIME:								
RELINQUISHED BY (2):				DATE:	TIME:	RECEIVED BY:				COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT				CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT									
RELINQUISHED BY (3):				DATE:	TIME:	RECEIVED BY:				CARRIER:				TEMP: °C									





PROJECT INFO  
PROJECT: Sanders Creek, Syracuse NY

PO. #:

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

**SPECIAL DELIVERABLES:**

☐ DoD ☒ EDD/Version:☐ State of Origin:

## SPECIAL INSTRUCTIONS / COMMENTS

**PRESERVATIVE**

## ANALYSIS & METHOD

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	Lipids	PCB B	Moisture											MS	MS/	REMARKS		
																		MSD	DUP			
<del>24-BS-Comp</del>					<del>6</del>																	
24-BS-R4-Comp A	10/16	1200			+	+	+															
24-BS-R4-Comp B	10/16	1200			+	+	x															
24-CC-R4-Comp A	10/16	1200			+	+	+															
24-CC-R4-Comp B	10/16	1200			+	+	+															
24-WS-R4-Comp A	10/10	1200			x	x	x															
24-CC-R5-Comp D	10/19	1300			+	+	+															
COLLECTED/RELINQUISHED BY (1):				DATE:	TIME:	RECEIVED BY:											RECEIVED BY LABORATORY:			DATE:	TIME:	
				10/16/24	1900																	
RELINQUISHED BY (2):				DATE:	TIME:	RECEIVED BY:											COOLER SEAL:			<input type="checkbox"/> INTACT	<input type="checkbox"/> BROKEN	<input type="checkbox"/> ABSENT
																	CONTAINER SEALS:			<input type="checkbox"/> INTACT	<input type="checkbox"/> BROKEN	<input type="checkbox"/> ABSENT
RELINQUISHED BY (3):				DATE:	TIME:	RECEIVED BY:											CARRIER:		TEMP: °C			
																	TRACKING #:					

SEND DOCUMENTATION / RESULTS TO

COMPANY, AECOM

CONTACT: Peter Hollatz

ADDRESS: 5438 Wade Park Blvd Suite 200 Raleigh NC 27604

PHONE: 919-461-1194

EMAIL: Peter.Hallatz@aecom.com

INVOICE TO ☒ (CHECK IF SAME)

COMPANY:

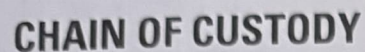
**CONTACT:**

ADDRESS:

PHONE:

EMAIL:





PROJECT INFO  
PROJECT: Sanders Creek, Syracuse NY

QUOTE #: 2024 3092

TURN AROUND TIME: Standard

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

☐ DoD ☒ EDD/Version:☐ State of Origin:

**PRESERVATIVE**

## ANALYSIS & METHOD

SEND DOCUMENTATION / RESULTS TO

COMPANY: **AECOM**

CONTACT: Peter Hallatz

CONTACT: Peter Hoffman  
ADDRESS: 5438 Wade Park Blvd Suite 200 Raleigh NC 27607

PHONE: 919-461-1194 EMAIL: Peter.Hallatz@aecom.com

INVOICE TO ☒ (CHECK IF SAME)

COMPANY:

**CONTACT:**

ADDRESS:

PHONE:

EMAIL:





## CHAIN OF CUSTODY

### PROJECT INFO

PROJECT: Sanders Creek, Syracuse NY

PO #:

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

### SPECIAL DELIVERABLES:

☐ DoD ☒ EDD/Version:

☐ State of Origin:

### SPECIAL INSTRUCTIONS / COMMENTS

#### PRESERVATIVE

#### ANALYSIS & METHOD

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	Lipids	PCB	Moisture	MS MSD	MS/ DUP	REMARKS		
24-GS-R6-Comp A	10/9	1500			x	x	x	x		MS 4		
24-GS-R6-Comp B	10/9	1500			x	x	x					
24-GS-R6-Comp C	10/9	1500			x	x	x					
24-GS-R6-Comp D	10/9	1500			x	x	x					
24-GS-R6-Comp E	10/9	1500			x	x	x					
24-GS-R6-Comp F	10/9	1500			x	x	x					
24-CC-R6-Comp A	10/9	1500			x	x	x					
24-CC-R6-Comp B	10/9	1500			x	x	x					
24-CC-R6-Comp C	10/9	1500			x	x	x					
24-WS-R6-Comp C	10/9	1500			x	x	x					
COLLECTED/RELINQUISHED BY (1):				DATE:	TIME:	RECEIVED BY:				RECEIVED BY LABORATORY:	DATE:	TIME:
RELINQUISHED BY (2):				DATE:	TIME:	RECEIVED BY:				COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT		
RELINQUISHED BY (3):				DATE:	TIME:	RECEIVED BY:				CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT		
				DATE:	TIME:					CARRIER:	TEMP: °C	
								TRACKING #:				

### SEND DOCUMENTATION / RESULTS TO

COMPANY: AECOM

CONTACT: Peter Hallatz

ADDRESS: 5438 Wade Park Blvd suite 200 Raleigh NC 27607

PHONE: 919-461-1194

EMAIL: Peter.Hallatz@aecom.com

INVOICE TO ☒ (CHECK IF SAME)

COMPANY:

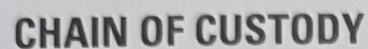
CONTACT:

ADDRESS:

PHONE:

EMAIL:





PROJECT INFO  
PROJECT: Sanders Creek, Syracuse NY

QUOTE #: 2024 3092

TURN AROUND TIME: Standard

☐ State of Origin:

## EMAIL:

Page \_\_\_\_ of \_\_\_\_

SGS NORTH AMERICA INC.

**ENVIRONMENT, HEALTH & SAFETY** 5500 Business Drive Wilmington, NC 28405 910 350 1903 | 866 846 8290

[www.us.sgs.com/environment](http://www.us.sgs.com/environment)

Member of the SGS Group (SGS SA)





## CHAIN OF CUSTODY

### PROJECT INFO

PROJECT: Sanders Creek, Syracuse NY

P.O. #:

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

### SPECIAL DELIVERABLES:

☐ DoD ☒ EDD/Version:

☐ State of Origin:

### SPECIAL INSTRUCTIONS / COMMENTS

#### PRESERVATIVE

#### ANALYSIS & METHOD

Lipids  
PCB 8082  
Moisture

### SEND DOCUMENTATION / RESULTS TO

COMPANY: AECOM

CONTACT: Peter Hallatz

ADDRESS: 5438 Wade Park Blvd suite 200 Raleigh NC 27607

PHONE: 919-461-1194 EMAIL: Peter.Hallatz@aecom.com

INVOICE TO ☒ CHECK IF SAME

COMPANY:

CONTACT:

ADDRESS:

PHONE:

EMAIL:

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	Lipids	PCB 8082	Moisture	MS MSD	MS/ DUP	REMARKS
24-GS-R7-Comp A	10/10	1400			+	+	+			
24-GS-R7-Comp B	10/10	1400			+	+	+			
24-GS-R7-Comp C	10/10	1400			+	+	+			
24-GS-R7-Comp D	10/10	1400			+	+	+			
24-GS-R7-Comp E	10/10	1400			+	+	+			
24-GS-R7-Comp F	10/10	1400			+	+	+			
24-GS-R7-Comp G	10/10	1400			+	+	+			
24-CC-R7-Comp A	10/10	1400			+	+	+			
24-CC-R7-Comp B	10/10	1400			+	+	+			
24-CC-R7-Comp C	10/10	1400			+	+	+			

COLLECTED/RELINQUISHED BY (1): 	DATE: 10/10/24 TIME: 1900	RECEIVED BY:	RECEIVED BY LABORATORY:	DATE:	TIME:
RELINQUISHED BY (2):	DATE:	TIME:	RECEIVED BY:	COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT	
RELINQUISHED BY (3):	DATE:	TIME:	RECEIVED BY:	CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT	
				CARRIER:	TEMP: °C
				TRACKING #:	

## **APPENDIX B**

**Scientific Purposes License Number 4255**  
**Indiana Department of Environmental Management**  
**October 4, 2023**



**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION****License to Collect or Possess: Scientific # 3310****LICENSE****Under the Environmental Conservation Law (ECL)****Licensee Information****License Issued To:**

JAMES P STRICKO  
GREAT LAKES ENVIRONMENTAL CENTER  
739 HASTINGS ST  
TRAVERSE CITY, MI 49686

(231) 941-2230

**DEC Contact Information**

DIVISION of FISH and WILDLIFE  
SPECIAL LICENSES UNIT  
625 BROADWAY, ALBANY, NEW YORK 12233-4752  
PHONE: (518) 402-8985 FAX: (518) 402-8925  
WEBSITE: <http://www.dec.ny.gov>

**License Authorizations****License to Collect or Possess: Scientific**

License # 3310

New License

Effective Date: 10/4/2024

Expiration Date: 10/3/2025

**NYSDEC Approval**

**By acceptance of this license, the licensee agrees that the license is contingent upon strict compliance with the ECL, all applicable regulations, and all conditions included as part of this license.**

**License Regulations**

6 NYCRR Part 175  
ECL 11-0515 (1)  
6 NYCRR Part 189

**Issued License**

**Page 1 of 4**

## NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

License to Collect or Possess: Scientific # 3310

**LICENSE TO COLLECT OR POSSESS: SCIENTIFIC - LICENSE  
CONDITIONS**

**1. Collection from the Wild: Authorized Species, Specific** The licensee is authorized to collect and possess the following species: Fresh water fish species (Super-order Pisces), 200 Creek chub (*Semotilus atromaculatus*), 200 White sucker (*Catostomus commersonii*), 200 Blacknose dace (*Rhinichthys atratulus*), Crayfish (*Astacus fluviatilis*)

**2. Scientific Collection - Authorized Activities** The licensee is authorized to possess the collected species for the following activity(ies): collection of fish for tissue collection and analysis.

**3. Scientific Collection - Location** The licensee is authorized to collect species from the following locations only:

.eight sampling locations within Sanders Creek, as presented within the licensee's study plan.

**4. Scientific: Collection from the Wild – Regional TRP** Prior to conducting activities on State Lands, the licensee shall obtain a Temporary Revocable Permit (TRP) through their respective regional NYSDEC land managers. For State Parks lands, the licensee shall contact the office of Parks Recreation and Historic Preservation.

**5. Scientific Collection - Authorized Collection Equipment General** The licensee shall only collect authorized species using: hand collection, electro fishing, seine, kick net and minnow traps .

**6. Scientific Collection – Regional Fisheries Notification** The licensee shall notify the regional fisheries manager 24 hours prior to initial sampling of a water body. Please use the following link for a listing regional Fisheries managers: <http://www.dec.ny.gov/about/558.html>

**7. Scientific - LCP - Collection or Possession of Endangered or Threatened Species Prohibited**  
The licensee shall not collect or possess any endangered/threatened species pursuant to this license.

**8. Scientific Collection - Freshwater Fisheries - Bio-safety Protocol** The licensee shall conform with all guidelines contained in the NYS DEC Bureau of Fisheries Sampling, Survey, Boat and Equipment Protocol, attached to this license as Appendix I. Any questions regarding the protocols may be directed to the Regional Fisheries Manager at:

Regional Fisheries Manager  
NYSDEC Region 7 Cortland Sub-Office  
1285 Fisher Ave  
Cortland, NY13045 -1090

**9. Scientific Collection – Gear Marking and Monitoring** The licensee shall mark all gear deployed with the licensee's name, resident address and license type and number. All traps and nets shall be checked no less than once every twenty-four (24) hours.

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION****License to Collect or Possess: Scientific # 3310**

**10. Scientific Collection - Law Enforcement Notification** The licensee shall notify the appropriate Regional Environmental Conservation Officer at least 48 hours prior to conducting activities pursuant to this license and within 24 hours upon the loss or theft of any collecting gear. Please use the following link for a listing of regional law enforcement phone numbers: <http://www.dec.ny.gov/about/558.html>

**11. Scientific Collection – Final Disposition of Collected Fish** All collected fish shall be deposited with a qualified laboratory for analysis.

**12. Collection from the Wild - Authority to Designate Agents** The licensee is authorized to designate agents to assist the licensee with the activities authorized pursuant to this license provided that:

a. the licensee submits a written request to the NYSDEC Special Licenses Unit at the address listed on the front of this license containing the:

- i) name
- ii) address
- iii) age
- iv) phone number of the person he or she is nominating as a designated agent, and;

b. the licensee receives an amended license from the Special Licenses Unit listing the designated agent(s) he or she has nominated before that person can conduct activities authorized by this license.

**13. Authorized Designated Agents** The following Designated Agents are authorized: Craig Davis.

**14. Scientific Collection – Reporting Requirement – LCP Fish Report Form** The licensee shall file an annual report using the LCP Fish Report Form, available from the NYSDEC Special Licenses Unit at: <https://www.dec.ny.gov/permits/28633.html>. The file should be emailed to [rarefish@dec.ny.gov](mailto:rarefish@dec.ny.gov)

**15. Scientific Collection - Reporting Requirement - Prior to Expiration** The licensee shall file a written annual report prior to the expiration date of this license. Such annual report shall contain: a) name of the licensee, b) license number, c) common name of the listed animals collected, d) location(s) of collection, e) date(s) of collection, f) biological data collected and g) final disposition of collected animals. The licensee shall send this report to the NYSDEC Special Licenses Unit 625 Broadway, Albany, NY 12233-4752.

<b>GENERAL CONDITIONS - Apply to ALL Authorized Licenses</b>
--

**1. GC – Licensee Shall Read All Conditions** The licensee shall read all license conditions prior to conducting any activities authorized pursuant to this license.

**2. GC – License is Not Transferrable** This license is not transferrable and is valid only for the person identified as the licensee.

**3. GC – Licensee Responsible for Federal, State or Local Permits/Licenses** The licensee is responsible for obtaining any and all necessary, corresponding Federal, State or local permits or licenses prior to conducting any activity authorized pursuant to this license.

**4. GC – Reasons for Revocation** This license may be revoked for any of the following reasons:

- i. licensee provided materially false or inaccurate statements in his or her application, supporting documentation

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION****License to Collect or Possess: Scientific # 3310**

or on required reports;

- ii. failure by the licensee to comply with any terms or conditions of this license;
- iii. licensee exceeds the scope of the purpose or activities described in his or her application for this license;
- iv. licensee fails to comply with any provisions of the NYS Environmental Conservation Law, any other State or Federal laws or regulations of the department directly related to the licensed activity;
- v. licensee submits a check, money order or voucher for this license or application for this license that is subsequently returned to the department for insufficient funds or nonpayment after the license has been issued.

**5. GC – Licensee Shall Carry Copy of License** The licensee shall carry a copy of this license or a document provided by the department, if relevant, when conducting activities pursuant to this license.

**6. GC – Licensee Shall Notify of Change of Address** The licensee shall notify the Special Licenses Unit in writing, by mail or email, within five (5) days of the official change of residence.

**7. GC – Licensee is Liable for Designated Agents** If designated agents are authorized pursuant to this license, the licensee shall be liable and responsible for any activities conducted by designated agents pursuant to this license or any actions by designated agents resulting from activities authorized by this license.

**8. GC – Licensee Renewal** The licensee shall submit a written request for the renewal of this license prior to the expiration date listed on the license. The licensee shall include accurate and complete copies of any required reports with their renewal request. This renewal paperwork shall be sent to:

NYSDEC  
Special Licenses Unit  
625 Broadway  
Albany, NY 12233-4752.

This license is deemed expired on the date of expiration listed on the license.

<b>NOTIFICATION OF OTHER LICENSEE OBLIGATIONS</b>
---

**MN– Licensee is Liable**

The licensee shall be liable and responsible for any activities conducted under the authority of this license or any actions resulting from activities authorized by the license.

**MN – Access by Department Representatives**

The licensee shall allow representatives of the department to enter upon the licensed premises to inspect their operations and records for compliance with license conditions.

**Trespassing Prohibited**

This license is not a license to trespass. The licensee shall obtain permission from the appropriate landowner/land manager prior to conducting activities authorized pursuant to this license

## Appendix C.3

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### Daily Work Log

Date: 10/8/24

Page 1 of 1

## DAILY WORK LOG

UTC CARRIER - SYRACUSE, NY

Weather: 50s, Partly Cloudy

## Personnel Onsite:

Name	Company	ARR	DEP
Chris Finn + Rob Murphy	AECOM	0745	1830
Craig Davis	GLEC	0745	1830
Jim Stricko	GLEC	0745	1830
Janet Vo	Gradient	0745	1830
Tim Verslycke	Gradient	0745	1830

## Field Notes/Description of Work:

Morning: Completed SP-10 safety meeting with Carrier (Soc Basile) and AECOM tailgate + THAs. Tasks for the day include electrofishing in Reaches 0, 1, and 2 and placing all crayfish traps in these reaches. Processing of fish collected will occur after fishing is complete in a reach.

Afternoon: All fishing completed in Reach 0, 1, and 2 and all traps placed. All samples collected have been measured, weighed and separated into composites. Work completed for day off-site @ 1630.

Not a lot of crayfish observed. Creek chubs + green sunfish appear to be most common fish.

## Safety Observations:

Slips + trip hazards noted along creek bank, Poisonous plants (ivy) noted in work area.

## Field Changes:

No changes



**Facility Name:**  
Carrier

**Site Location:**  
6304 Carrier Parkway Syracuse New York

**Photo No.**  
**1**

**Date:**  
10/08/2024

**Project Name:**

Carrier BIOTA Study

**Description:**

GLEC Electrofishing in  
Reach 2



**Photo No.**  
**2**

**Date:**  
10/08/2024

**Project Name:**

Carrier BIOTA Study

**Description:**

GLEC sorting fish collected  
from Reach 2 by species.



**Facility Name:**  
Carrier

**Site Location:**  
6304 Carrier Parkway Syracuse New York

**Photo No.**  
**3**

**Date:**  
10/08/2024

**Project Name:**

Carrier BIOTA Study

**Description:**

GLEC putting together and baiting crayfish traps for placement in Reach 1.



**Photo No.**  
**4**

**Date:**  
10/08/2024

**Project Name:**

Carrier BIOTA Study

**Description:**

Representative collection of fish after being sorted by species, weighed and measured.





## DAILY WORK LOG

UTC CARRIER - SYRACUSE, NY

Weather: Morning: 40s partly Cloudy Afternoon: 50s, light rain, Cloudy

## Personnel Onsite:

Name	Company	ARR	DEP
Chris Finn	AECOM	0730	1800
Craig Davis	GLEC	0730	1800
Jim Stricko	GLEC	0730	1800
Janet Vo	Gradient	0730	1800
Tim Verslycke	Gradient	0730	1400

## Field Notes/Description of Work:

Morning (0730): Tailgate meeting. Tasks for today include checking traps in Reaches 0, 1, + 2. Electrofishing + Trap placement in Reaches 3, 4, 5, + 6.

Afternoon (1300): All traps pulled + rebaited in Reaches 0, 1, + 2. Electrofishing and trap placement completed in Reach 3. GLEC starting to work from end of Reach 5 up into Reach 4. Will use creek for access into Reach 4.

1630: All electrofishing completed in Reaches 4 + 5, all traps placed. Moving to Reach 6.

End of Day (1800): Electrofishing + Trap placement completed in Reach 6. All fish collected have been processed.

\* Very few crayfish noted during day. Poor fishing in Reach 4 \*

## Safety Observations:

Person Inj. observed in Reaches, Slip + trip hazards noted

## Field Changes:

N/A

**Facility Name:**  
Carrier

**Site Location:**  
6304 Carrier Parkway Syracuse New York

**Photo No.**  
**1**

**Date:**  
10/09/2024

**Project Name:**

Carrier BIOTA Study

**Description:**

Representative crayfish trap



**Photo No.**  
**2**

**Date:**  
10/09/2024

**Project Name:**

Carrier BIOTA Study

**Description:**

GLEC measuring and weighing fish collected.





**Facility Name:**  
Carrier

**Site Location:**  
6304 Carrier Parkway Syracuse New York

**Photo No.**  
**3**

**Date:**  
10/09/2024

**Project Name:**

Carrier BIOTA Study

**Description:**

Fish processing equipment, scale, measuring board, and sorting board.



**Photo No.**  
**4**

**Date:**  
10/09/2024

**Project Name:**

Carrier BIOTA Study

**Description:**

GLEC electrofishing and placing crayfish traps in Reach 6.



## DAILY WORK LOG

UTC CARRIER - SYRACUSE, NY

Weather: 40s and overcast light rain in afternoon

## Personnel Onsite:

Name	Company	ARR	DEP
Chris Finn	AECOM	0730	1945
Craig Davis	GLEC		1945
Jim Strickler	GLEC		1945

## Field Notes/Description of Work:

Morning (0730): Tailgate meeting. Tasks for today include pulling all traps in Reaches 0-6, meeting with Lawyer for Reach 7 access, electrofishing Reach 7, Staging and Samples.

Afternoon (1300): All traps from Reaches 0-6 pulled. GLEC processed all fish in traps. Meeting with Lawyer completed GLEC purchasing dry ice.

1400: Fishing in Reach 7 began.

1600: Fishing completed in Reach 7. GLEC starting to process fish.

1700: Processing of fish completed. GLEC w/Tim Verslycke (on phone) deciding what specimens to submit for each reach.

1730: Starting to complete Chain of Custodies for each Reach and pack coolers.

1915: All coolers packed with dry ice, packed for shipping. Heading to Fedex.

1945: Four coolers dropped off at Fedex priority overnight shipping. Offsite @ 1945

## Safety Observations:

- Slips + trips around creek banks.

## Field Changes:

No crayfish traps placed in Reach 7. Almost no crayfish encountered. GLEC did not observe a lot of crayfish activity while electrofishing.



**Facility Name:**  
Carrier

**Site Location:**  
6304 Carrier Parkway Syracuse New York

**Photo No.**  
**1**

**Date:**  
10/10/2024

**Project Name:**

Carrier BIOTA Study

**Description:**

GLEC electrofishing in  
Reach 7.



**Photo No.**  
**2**

**Date:**  
10/10/2024

**Project Name:**

Carrier BIOTA Study

**Description:**

GLEC electrofishing in  
Reach 7.



**Facility Name:**  
Carrier

**Site Location:**  
6304 Carrier Parkway Syracuse New York

**Photo No.**  
**3**

**Date:**  
10/10/2024

**Project Name:**

Carrier BIOTA Study

**Description:**

Representative collection  
bucket of fish.



**Photo No.**  
**4**

**Date:**  
10/10/2024

**Project Name:**

Carrier BIOTA Study

**Description:**

Sample coolers at FedEx.







## CHAIN OF CUSTODY

## PROJECT INFO

PROJECT: Sanders Creek, Syracuse NY

PO #:

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☐ Level IV

SPECIAL DELIVERABLES:

☐ DoD ☐ EDD/Version:☐ State of Origin:

## SPECIAL INSTRUCTIONS / COMMENTS

## SEND DOCUMENTATION / RESULTS TO

COMPANY: AECOM

CONTACT: Peter Hollatz

ADDRESS: 5438 Wade Point Blvd suite 200 Raleigh NC 27604

PHONE: 919-461-1194 EMAIL: Peter.Hollatz@aecom.com

INVOICE TO ☐ (CHECK IF SAME)

COMPANY:

CONTACT:

ADDRESS:

PHONE:

EMAIL:

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	PRESERVATIVE										MS MSD	MS/ DUP	REMARKS
					NA	NA	NA										
					ANALYSIS & METHOD												
					Lipids	PCB 0082	Moisture										
24-CC-RO-Comp A	10/8	1000			x	x	x										
24-CC-RO-Comp B	10/8	1000			x	x	x										
24-CC-RO-Comp C	10/8	1000			x	x	x										
24-CC-RO-Comp D	10/8	1000			x	x	x										
24-CC-RO-Comp E	10/8	1000			x	x	x										
24-GS-RO-Comp A	10/8	1000			x	x	x										
24-GS-RO-Comp B	10/8	1000			x	x	x										
24-GS-RO-Comp C	10/8	1000			x	x	x										
24-GS-RO-Comp D	10/8	1000			x	x	x										
24-GS-RO-Comp E	10/8	1000			x	x	x										
COLLECTED/RELINQUISHED BY (1):					DATE:	TIME:	RECEIVED BY:								RECEIVED BY LABORATORY: DATE: TIME:		
					10/10/24	1900											
RELINQUISHED BY (2):					DATE:	TIME:	RECEIVED BY:								COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT		
															CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT		
RELINQUISHED BY (3):					DATE:	TIME:	RECEIVED BY:								CARRIER: TEMP: °C		
															TRACKING #:		



PROJECT: Sanders Creek, Syracuse NY

QUOTE #: 2024 3092

TURN AROUND TIME: Standard

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

☐ DoD ☒ EDD/Version:☐ State of Origin:

PRESERVATIVE

## ANALYSIS & METHOD

Lipids	PCB 2082	Moisture
--------	----------	----------

MS  
MSDMS/  
DUP

COMPANY: **AGCOM**

CONTACT: Peter Hollarz

CONTACT: 5438 Wade Park Blvd Suite 200 Raleigh NC 27607

PHONE: 919-461-1194 EMAIL: Peter.Hollatz@aecom.com

INVOICE TO ☒ (CHECK IF SAME)

COMPANY:

**CONTACT:**

ADDRESS:

PHONE:

EMAIL:

COLLECTED/RELINQUISHED BY (1):  
*Charles F. Z...*

DATE:	TIME:
10/10/24	1900

RECEIVED BY:

DATE:	TIME:
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RECEIVED BY:

RECEIVED BY:

DATE:	TIME:
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RECEIVED BY LABORATORY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

COOLER SEAL: ☐ INTACT ☐ BROKEN ☐ ABSENTCONTAINER SEALS: ☐ INTACT ☐ BROKEN ☐ ABSENT

CARRIER: \_\_\_\_\_ TEMP: °C \_\_\_\_\_

TRACKING # \_\_\_\_\_





## CHAIN OF CUSTODY

## PROJECT INFO

PROJECT: Sanders Creek, Syracuse NY

PO #:

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

## SPECIAL DELIVERABLES:

☐ DoD ☒ EDD/Version:☐ State of Origin:

## SPECIAL INSTRUCTIONS / COMMENTS

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COMPANY: AECOM

CONTACT: Peter Hollatz

ADDRESS: 5438 Wade Park Blvd Suite 200 Raleigh NC 27607

PHONE: 919-461-1194

EMAIL: peter.hollatz@aecom.com

INVOICE TO ☒ CHECK IF SAME

COMPANY:

CONTACT:

ADDRESS:

PHONE:

EMAIL:

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	Lipids	PCB002	Moisture													MS MSD	MS/ DUP	REMARKS	
24-CC-R1-Comp A	10/18	1200			+	+	+													X		MS1	
24-CC-R1-Comp B	10/18	1200			+	+	+																
24-CC-R1-Comp C	10/18	1200			+	+	+																
24-CC-R1-Comp D	10/18	1200			+	+	+																
24-CC-R1-Comp E	10/18	1200			X	+	+																
24-CC-R1-Comp F	10/18	1200			X	+	+																
24-GS-R1-Comp A	10/18	1200			+	+	+																
24-GS-R1-Comp B	10/18	1200			+	+	+																
24-GS-R1-Comp C	10/18	1200			+	+	+																
24-GS-R1-Comp D	10/18	1200			X	+	+																
COLLECTED/RELINQUISHED BY (1):				DATE:	TIME:	RECEIVED BY:														RECEIVED BY LABORATORY:		DATE:	TIME:
				10/18/24	1900																		
RELINQUISHED BY (2):				DATE:	TIME:	RECEIVED BY:														COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT			
																				CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT			
RELINQUISHED BY (3):				DATE:	TIME:	RECEIVED BY:														CARRIER:		TEMP: °C	
																						TRACKING #:	



# CHAIN OF CUSTODY

## PROJECT INFO

PROJECT: Sanders Creek, Syracuse NY

P.O. #:

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

SPECIAL DELIVERABLES:

☐ DoD ☒ EDD/Version:

☐ State of Origin:

## SPECIAL INSTRUCTIONS / COMMENTS

PRESERVATIVE									

ANALYSIS & METHOD									

## SEND DOCUMENTATION / RESULTS TO

COMPANY: AECOM

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ADDRESS: 5438 Wade Park Blvd Suite 200 Raleigh NC 27607

PHONE: 919-461-1194 EMAIL: Peter.Hollatz@aecom.com

INVOICE TO ☒ (CHECK IF SAME)

COMPANY:

CONTACT:

ADDRESS:

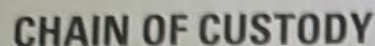
PHONE:

EMAIL:

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	LiPds	PCB 0082	Moisture	MS MSD	MS/ DUP	REMARKS
24-R2-CC-R2-Comp A	10/8	1400			+	+	+	X		MS2
24-CC-R2-Comp B	10/8	1400			+	+	+			
24-CC-R2-Comp C	10/8	1400			X	+	+			
24-CC-R2-Comp D	10/8	1400			+	+	X			
24-CC-R2-Comp E	10/8	1400			X	X	X			
24-CC-R2-Comp F	10/8	1400			+	X	X			
24-CC-R2-Comp G	10/8	1400			X	X	X			
24-GS-R2-Comp A	10/8	1400			X	X	X			
24-GS-R2-Comp B	10/8	1400			+	X	X			
24-GS-R2-Comp C	10/8	1400			X	X	X			

COLLECTED/RELINQUISHED BY (1): 	DATE: 10/16/24	TIME: 1900	RECEIVED BY:	RECEIVED BY LABORATORY:	DATE:	TIME:
RELINQUISHED BY (2):	DATE:	TIME:	RECEIVED BY:	COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT		
RELINQUISHED BY (3):	DATE:	TIME:	RECEIVED BY:	CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT		
				CARRIER:	TEMP: °C	
				TRACKING #:		





PROJECT: Sanders Creek, Syracuse NY

QUOTE #: 2024 3092

TURN AROUND TIME: Standard

### SPECIAL DELIVERABLES:

☐ State of Origin:

**PRESERVATIVE**

NA	NA	NA
----	----	----

Lipids
PCB 6082
Moisture

Lipids  
PCB 608  
Moisture

MS	MS/
MSD	DUP

COMPANY: **AECOM**

CONTACT: Peter Hollatz

ADDRESS: 5438 Wade Park Blvd suite 200 Raleigh NC 27604

PHONE: 919-461-1194 EMAIL: Peter.Hallotz@aecom.com

INVOICE TO ☒ (CHECK IF SAME)


COMPANY:

#### CONTACT:

ADDRESS:

PHONE:

EMAIL:

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	Lipid	PCB	Moist									MS MSD	MS/ DUP	REMARKS		
24-CC-R3-Camp A	10/16	1105			+	+	+													
24-CC-R3-Camp B	10/16	1100			+	+	+													
24-GS-R3-Camp A	10/16	1105			+	-	+													
24-GS-R3-Camp B	10/16	1100			+	+	+													
24-GS-R3-Camp C	10/16	1105			+	+	+													
24-GS-R3-Camp D	10/16	1100			+	+	+													
24-PS-R3-Camp A	10/16	1100			+	+	+													
24-CR-R2-Camp A	10/16	1000			+	+	+													
COLLECTED/RELINQUISHED BY (1): 				DATE: 10/16/24	TIME: 1900	RECEIVED BY:										RECEIVED BY LABORATORY:      DATE:      TIME:				
RELINQUISHED BY (2):				DATE:	TIME:	RECEIVED BY:										COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT				
RELINQUISHED BY (3):				DATE:	TIME:	RECEIVED BY:										CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT		CARRIER:		TEMP: °C
TRACKING #:																				



PROJECT: Sanders Creek, Syracuse NY

QUOTE #: 2024 3092

TURN AROUND TIME: *Standard*

**SPECIAL DELIVERABLES:**

☐ DoD ☒ EDD/Version:☐ State of Origin:

## SPECIAL INSTRUCTIONS / COMMENTS

**PRESERVATIVE**

## ANALYSIS & METHOD

SEND DOCUMENTATION / RESULTS TO

COMPANY, AECOM

CONTACT: Peter Hollarz

ADDRESS 5438 Wade Park Blvd Suite 200 Atlanta, GA 30342

PHONE: 919-461-1194

EMAIL: Peter.Hellatz@aecom.com

INVOICE TO ☒ (CHECK IF SAME)

COMPANY:

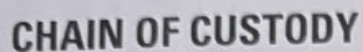
## CONTACT

ADDRESS:

PHONE:

EMAIL:





PROJECT: Sanders Creek, Syracuse NY

QUOTE #: 2024 3092

TURN AROUND TIME: Standard

TURN AROUND TIME: Standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

☐ DoD ☒ EDD/Version:☐ State of Origin:

**PRESERVATIVE**

## ANALYSIS & METHOD

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	Lipids	PCB	Moisture									MS MSD	MS/ DUP	REMARKS			
24-GS-R5-Comp A	10/9	1300			X	X	X														
24-GS-R5-Comp B	10/9	1300			X	X	X									X		MS3			
24-GS-R5-Comp C	10/9	1300			X	X	X														
24-GS-R5-Comp D	10/9	1300			X	X	X														
24-GS-R5-Comp E	10/9	1300			X	X	X														
24-GS-R5-Comp F	10/9	1300			X	X	X														
24-GS-R5-Comp G	10/9	1300			X	X	X														
24-LC-R5-Comp A	10/9	1300			X	X	X														
24-LC-R5-Comp B	10/9	1300			X	X	X														
24-LC-R5-Comp C	10/9	1300			X	X	X														
COLLECTED/RELINQUISHED BY (1): 				DATE: 10/10/24	TIME: 1900	RECEIVED BY:										RECEIVED BY LABORATORY:			DATE:	TIME:	
RELINQUISHED BY (2):				DATE:	TIME:	RECEIVED BY:										COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT					
																CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT					
RELINQUISHED BY (3):				DATE:	TIME:	RECEIVED BY:										CARRIER:			TEMP: °C		
																TRACKING #:					

COMPANY: **AECOM**

CONTACT: Peter Hallatz

CONTACT: Peter Hollatz  
ADDRESS: 5438 Wade Park Blvd Suite 200 Raleigh NC 27604

PHONE: 919-461-1194 EMAIL: Peter.Hallatz@aecom.com

INVOICE TO ☒ (CHECK IF SAME)

COMPANY:

**CONTACT:**

ADDRESS:

PHONE:

EMAIL:



## CHAIN OF CUSTODY

## PROJECT INFO

PROJECT: Sanders Creek, Syracuse NY

PO #:

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

## SPECIAL DELIVERABLES:

☐ DoD ☒ EDD/Version:☐ State of Origin:

## SPECIAL INSTRUCTIONS / COMMENTS

## PRESERVATIVE

## ANALYSIS &amp; METHOD

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	Lipids	PCB 8082	Moisture	MS MSD	MS/ DUP	REMARKS
24-GS-R6-Comp A	10/19	1500			+	+	+	X		MS 4
24-GS-R6-Comp B	10/19	1500			+	+	+			
24-GS-R6-Comp C	10/19	1500			+	+	+			
24-GS-R6-Comp D	10/19	1500			+	+	+			
24-GS-R6-Comp E	10/19	1500			+	+	+			
24-GS-R6-Comp F	10/19	1500			+	+	+			
24-CC-R6-Comp A	10/19	1500			+	+	+			
24-CC-R6-Comp B	10/19	1500			+	+	+			
24-CC-R6-Comp C	10/19	1500			+	+	+			
24-WS-R6-Comp C	10/19	1500			+	+	+			

COLLECTED/RELINQUISHED BY (1): 	DATE: 10/19/24	TIME: 1900	RECEIVED BY:	RECEIVED BY LABORATORY:	DATE:	TIME:
RELINQUISHED BY (2):	DATE:	TIME:	RECEIVED BY:	COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT		
				CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT		
RELINQUISHED BY (3):	DATE:	TIME:	RECEIVED BY:	CARRIER:	TEMP: °C	
				TRACKING #:		

## SEND DOCUMENTATION / RESULTS TO

COMPANY: AECOM

CONTACT: Peter Hollatz

ADDRESS: 5438 Wade Park Blvd suite 200 Raleigh NC 27607

PHONE: 919-461-1194

EMAIL: Peter.Hollatz@aecom.com

INVOICE TO ☒ (CHECK IF SAME)

COMPANY:

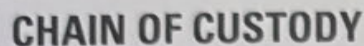
CONTACT:

ADDRESS:

PHONE:

EMAIL:





PROJECT INFO  
PROJECT: Sanders Creek, Syracuse NY

QUOTE #: 2024 3092

TURN AROUND TIME: Standard

☐ State of Origin:

## PRESERVATIVE

NA	NA	NA
----	----	----

## ANALYSIS & METHOD

2

808

COMPANY: AECOM

CONTACT: Peter Hall at E

CONTACT: Peter Hall  
ADDRESS: 5438 Wade Park Blvd Suite 200 Raleigh NC 27607

PHONE: 919-461-1194 EMAIL: Peter.Hollatz@aecom.com

INVOICE TO ☒ (CHECK IF SAME)

COMPANY:

#### CONTACT:

ADDRESS:

PHONE:

EMAIL:

Page \_\_\_\_ of \_\_\_\_

SGS NORTH AMERICA INC.

ENVIRONMENT, HEALTH & SAFETY 5500 Business Drive Wilmington, NC 28405 910 350 1903 | 866 846 8290 [www.us.sgs.com/environment](http://www.us.sgs.com/environment)

Member of the SGS Group ISGS SA



## CHAIN OF CUSTODY

### PROJECT INFO

PROJECT: Sanders Creek, Syracuse NY

P.O. #:

QUOTE #: 2024 3092

SITE REF:

TURN AROUND TIME: standard

REPORT LEVEL: ☐ Level I ☐ Level II ☒ Level IV

### SPECIAL DELIVERABLES:

☐ DoD ☒ EDD/Version:

☐ State of Origin:

### SPECIAL INSTRUCTIONS / COMMENTS

#### PRESERVATIVE

#### ANALYSIS & METHOD

Lipids  
PCB 8082  
Moisture

### SEND DOCUMENTATION / RESULTS TO

COMPANY: AECOM

CONTACT: Peter Hollatz

ADDRESS: 5438 Wade Park Blvd suite 200 Raleigh NC 27607

PHONE: 919-461-1194 EMAIL: Peter.Hollatz@aecom.com

INVOICE TO ☒ CHECK IF SAME

COMPANY:

CONTACT:

ADDRESS:

PHONE: EMAIL:

SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	Lipids	PCB 8082	Moisture	MS MSD	MS/ DUP	REMARKS
24-GS-R7-Comp A	10/10	1400			+	+	+			
24-GS-R7-Comp B	10/10	1400			+	+	+			
24-GS-R7-Comp C	10/10	1400			+	+	+			
24-GS-R7-Comp D	10/10	1400			+	+	+			
24-GS-R7-Comp E	10/10	1400			+	+	+			
24-GS-R7-Comp F	10/10	1400			+	+	+			
24-GS-R7-Comp G	10/10	1400			+	+	+			
24-CL-R7-Comp A	10/10	1400			+	+	+			
24-CL-R7-Comp B	10/10	1400			+	+	+			
24-CL-R7-Comp C	10/10	1400			+	+	+			
COLLECTED/RELINQUISHED BY (1):					DATE:	TIME:	RECEIVED BY:	RECEIVED BY LABORATORY: DATE: TIME:		
RELINQUISHED BY (2):					DATE:	TIME:	RECEIVED BY:	COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT		
RELINQUISHED BY (3):					DATE:	TIME:	RECEIVED BY:	CONTAINER SEALS: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT		
					DATE:	TIME:	RECEIVED BY:	CARRIER: TEMP: °C		
					DATE:	TIME:	RECEIVED BY:	TRACKING #:		



## Appendix C.4

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### Field Notes and Photographs

# CARRIER CORP SANDERS CREEK

3

10/8/2024

SITE 0

## SPECIES

CREEK CHUB

16 17GREEN SUNFISH <sup>MSL</sup><sub>100</sub>~~12~~ 18 17 20 29 35BANDY KILLFISH <sup>MSL</sup><sub>100</sub>~~2~~ 2 2 2 40TESELLATED DARTER <sup>MSL</sup>~~3~~ 5 8 10

WHITE SUCKER

~~2~~ 8LARGEMOUTH BASS <sup>MSL</sup>~~2~~ 2 8

CRAY FISH

4

longnose Dace <sup>MSL</sup>~~2~~ 4Pumpkin Seed Sunfish 2

## MIDNIGHT TRAPS

NOTES: DST POOL NEAR CULVERT

UST @ FIRST POOL

UST @ STORMWATER 4th CULVERT

4 10/8/24

REACH METHOD DATE ID ~~24-CC-RO-COMPA~~RO EF 10/8/24 ~~24-CC-RO-1~~  
24-CC-RO-COMPA

24-CC-RO-1

24-CC-RO-2

24-CC-RO-3

<u>Creek</u> <u>chubs</u>	<u>Length</u> (mm)	<u>W</u> (g)	<u>#</u>	<u>L</u>	<u>W</u>
1	177	56.4	19	72	3.5
2	152	35.0	20	76	4.3
3	152	32.2	21	74	3.7
4	131	22.3	22	69	3.1
5	136	23.3	23	69	3.4
6	100	8.8	24	68	3.2
7	90	8.0	25	73	3.9
8	<del>105</del> 96	8.0	26	78	4.0
9	86	6.1	27	67	3.1
10	88	6.4	28	70	3.3
11	82	5.7	29	68	3.0
12	76	4.3	30	62	2.1
13	81	5.0	31	60	2.1
14	77	4.4	32	68	2.9
15	72	4.3	33	62	2.3
16	82	5.3	34	59	2.3
17	72	4.0	35	61	2.4
18	71	3.5			



24-CC-RO-COMPA Fish 1

24-CC-RO-CompB Fish 2+4

24-CC-RO-CompC Fish 3+5

24-CC-RO-CompD Fish 6-13

24-CC-RO-CompE Fish 13-35

10/8/24

Reach

Method

Date

ID

R0

EF

10/8/24

24-GS-R0-Comp

GS = Green Sunfish

#	<u>L(mm)</u>	<u>W(g)</u>	#	<u>L(mm)</u>	<u>W(g)</u>
1	152	70.9	21	68	5.1
2	127	38.0	22	67	4.9
3	124	33.1	23	75	6.7
4	91	11.8	24	66	4.3
5	93	14.0	25	58	3.5
6	92	11.9	26	57	3.6
7	88	11.0	27	50	2.1
8	78	7.7	28	55	2.8
9	77	7.7	29	58	3.2
10	82	9.3	30	62	4.1
11	78	7.6	31	114	25.0
12	72	6.4	32	108	23.7
13	71	5.6			
14	74	6.1	A → 1		
15	74	6.2	B → 2 + 32		
16	73	6.6	C → 3 + 31		
17	71	6.3	D → 4 - 8		
18	69	6.4	E → 9 - 16		
19	78	8.2	F → 17 - 30		
20	76	7.0			

24-GS-RO-Comp A	Fish 1
24-GS-RO-Comp B	Fish 2 + 32
24-GS-RO-Comp C	Fish 3 + 31
24-GS-RO-Comp D	Fish 4 - 8
24-GS-RO-Comp E	Fish 9 - 16
24-GS-RO-Comp F	Fish 17 - 30



8

10/08/24 REACH 1

ELECTROFISHING

24-CC-R1-Comp

#	<u>L(mm)</u>	<u>W(g)</u>
1	221	96.7
2	202	82.2
3	187	60.3
4	181	51.1
5	157	34.1
6	138	24.2
7	147	29.3
8	148	31.2
9	136	20.4
10	121	16.6
11	119	14.3
12	121	15.8
13	121	15.2
14	122	15.2
15	81	4.8
16	78	4.0

24-CC-R1-Comp A - MS1	Fish 1+2
24-CC-R1-Comp B	Fish 3+4
24-CC-R1-Comp C	Fish 5+6
24-CC-R1-Comp D	Fish 7+8
24-CC-R1-Comp E	Fish 9, 10, + 11
24-CC-R1-Comp F	Fish 12-16

Comp



10/08/24 Reach 1 Electrofishing

24-GS-R1-Comp

<u>#</u>	<u>L(mm)</u>	<u>W(g)</u>
1	137	46.6
2	132	43.3
3	140	47.7
4	124	32.6
5	119	28.5
6	114	23.7
7	107	20.3
8	107	20.1
9	108	19.8
10	97	15.6
11	98	16.3
12	99	15.4
13	90	11.7

14

15

24-GS-R1-Comp A	Fish 1+2
24-GS-R1-Comp B	Fish 3+4
24-GS-R1-Comp C	Fish 5+6
24-GS-R1-Comp D	Fish 10-13

10/9/24 Reach 2 Electrofishing  
24-CC-R2-Comp

#	L(mm)	W(g)	#	L(mm)	W(g)
1	199	75.7	23	129	18.1
2	186	58.9	24	132	19.6
3	179	57.6	25	132	20.6
4	185	53.9	26	126	18.0
5	173	45.4	27	126	17.8
6	180	49.8	28	126	16.5
7	162	40.3	29	119	16.1
8	159	33.6	30	121	14.1
9	161	34.6	31	135	21.5
10	163	37.7	32	122	16.8
11	184	57.3	33	112	11.2
12	180	46.2	34	126	14.8
13	169	46.2			
14	151	30.8			
15	153	33.2			
16	136	21.3			
17	129	18.4			
18	141	26.6			
19	137	25.1			
20	141	30.3			
21	133	23.7			
22	133	21.5			



24 - CC - R2 - Comp A - MS 2	Fish 1-5
24 - CC - R2 - Comp B	Fish 6-10
24 - CC - R2 - Comp C	Fish 11-15
24 - CC - R2 - Comp D	Fish 16-20
24 - CC - R2 - Comp E	Fish 21-25
24 - CC - R2 - Comp F	Fish 26-30
24 - CC - R2 - Comp G	Fish 31-34

10/9/24

Reach 2

Electrofishing

24-GS-R2-Comp

#	<u>L(mm)</u>	<u>W(g)</u>
1	167	89.9
2	158	77.2
3	105	19.9
4	114	27.8
5	101	17.3
6	84	12.3
7	98	14.7
8	96	14.0
9	87	11.2
10	86	10.0
11	81	8.5
12	81	8.8
13	77	8.0

24-GS-R2-CompA

Fish 1-2

24-GS-R2-CompB

Fish 3-7

24-GS-R2-CompC

Fish 8-13



10/9/24 Reach 5 Electrofishing  
24-GS-R5-Comp

#	<u>L(mm)</u>	<u>W(g)</u>	#	<u>L(mm)</u>	<u>W(g)</u>
1	167	87.1	23	82	9.1
2	168	88.1	24	83	9.5
3	157	70.9	25	82	9.1
4	145	57.6	26	81	9.4
5	147	56.5	27	80	8.8
6	138	43.7	28	80	8.6
7	133	40.8	29	81	8.7
8	127	34.0	30	72	6.7
9	117	27.5	31	75	6.9
10	112	25.1	32	77	7.8
11	110	23.5	33	83	9.1
12	110	23.7	34	73	6.8
13	105	20.7	35	76	7.0
14	106	19.0	36	76	7.4
15	93	14.0	37	75	6.9
16	91	13.0	38	72	5.6
17	92	12.8	39	73	6.5
18	92	11.1	40	77	7.6
19	93	13.0	41	76	6.5
20	<del>85</del> 85	10.2	42	68	4.8
21	89	11.0	43	74	5.8
22	84	9.9	44	70	5.4

24-GS-R5-Comp A Fish 1-3  
 24-GS-R5-Comp B-MSB Fish 4-8  
 24-GS-R5-Comp C Fish 9-13  
 24-GS-R5-Comp D Fish 14-19  
 24-GS-R5-Comp E Fish 20-26  
 24-GS-R5-Comp F Fish 27-34  
 24-GS-R5-Comp G Fish 35-46

#	<u>L(mm)</u>	<u>W(g)</u>
45	70	5.2
46	67	5.0



18 10/9/24 Reach 5 EF

24-CC-R5-Comp

#	<u>L (mm)</u>	<u>W (g)</u>
1	213	102.3
2	193	67.2
3	168	41.9
4	172	42.1
5	148	31.0
6	134	24.0
7	153	35.5
8	143	26.0
9	126	18.1
10	119	16.0
11	118	15.6
12	110	12.4
13	104	10.9

24-CC-R5-Comp A	Fish 1-2
24-CC-R5-Comp B	Fish 3-5
24-CC-R5-Comp C	Fish 6-8
24-CC-R5-Comp D	Fish 9-13

20 16/9/24 Reach 6 EF  
24-GS-R6-Comp

#	L(mm)	W(g)	#	L(mm)	W(g)
1	147	57.6	23	88	10.1
2	120	33.3	24	86	8.9
3	120	29.3	25	78	7.8
4	122	30.4	26	77	8.0
5	112	21.6	27	82	10.0
6	112	26.5	28	79	8.6
7	108	23.0	29	77	7.5
8	103	18.7	30	73	6.2
9	97	15.3	31	75	6.7
10	98	16.0	32	73	6.3
11	<del>9</del> 101	17.3	33	72	6.0
12	102	17.0	34	69	6.1
13	93	13.9	35	69	5.8
14	93	12.7	36	67	5.0
15	87	11.4	37	63	4.8
16	89	11.5	38	73	5.7
17	92	12.5			
18	97	14.8			
19	90	11.7			
20	85	9.8			
21	78	8.7			
22	82	9.0			



12/1/50

24-GS-RG-Comp A-MS4	Fish 1-4
24-GS-RG-Comp B	Fish 5-8
24-GS-RG-Comp C	Fish 9-14
24-GS-RG-Comp D	Fish 15-20
24-GS-RG-Comp E	Fish 21-27
24-GS-RG-Comp F	Fish 28-38

10/9/24 Reach 6

EF

24-CC-R6-Comp

#	<u>L(mm)</u>	<u>W(g)</u>
1	177	57.3
2	187	60.3
3	164	44.7
4	151	30.9
5	123	18.1
6	130	21.3
7	137	25.8
8	122	16.0
9	117	16.3
10	112	12.8
11	123	17.6
12	127	18.4
13		
14		
15		
16		

24-CC-R6-Comp A Fish 1-4

24-CC-R6-Comp B Fish 5-8

24-CC-R6-Comp C Fish 9-12

~~24-CC-R6-Comp D Fish~~



10/9/24 Reach 6

EF

24-WS-R6-Comp

#	<u>L (mm)</u>	<u>W (g)</u>
1	197	67.2
2	172	46.5
3	173	48.2
4	167	43.8
5	160	41.3
6	160	38.2
7	127	17.7
8	117	13.8
9	122	16.5
10	119	14.2
11	110	12.5
12	106	11.3
13	94	7.9
14	101	9.5
15	97	8.3
16	9.8	8.5
17	96	7.9



24-WS-RG-Comp A Fish 1-3  
24-WS-RG-Comp B Fish 4-6  
24-WS-RG-Comp C Fish 7-11  
24-WS-RG-Comp D Fish 12-17

Removed A+B

10/10/24

REACH 0 COLLECTED 5 CRAYFISH

REACH 1 COLLECTED 0 CRAYFISH <sup>SEVERAL</sup> GS & CCREACH 2 COLLECTED 1 CRAYFISH <sup>SEVERAL</sup> GS & CC

REACH 3 COLLECTED CC &amp; GS

REACH 4 COLLECTED CC &amp; GS

REACH 5 COLLECTED 0 CRAYFISH

REACH 6 COLLECTED 0 CRAYFISH

10/10/24 Reach 3  
24-CC-R3-Comp

EF

#	<u>L(mm)</u>	<u>W(g)</u>
1	181	55.1
2	183	54.0
3	167	39.9
4	167	38.3
5	147	33.4
6	142	25.3
7	127	19.1
8	124	18.2
9	113	12.7

~~10~~



24-CC-R3-CompA Fish 1-4

24-CC-R3-CompB Fish 5-9

30 10/10/24

Reach 3

EF

24-GS-R3-Comp

#	<u>L(mm)</u>	<u>W(g)</u>
1	143	54.2
2	113	27.9
3	112	22.7
4	107	20.7
5	106	18.1
6	99	18.7
7	94	15.2
8	97	16.6
9	94	13.7
10	98	15.7
11	98	16.1
12	89	12.2
13	89	11.7
14	86	11.5
15	85	12.0
16	78	8.1
17	80	8.7
18	83	11.4
19	72	7.2
20	77	8.1
21	73	6.6
22	73	6.6

24-GS-R3-CompA Fish 1-5

24-GS-R3-CompB Fish 6-10

24-GS-R3-CompC Fish 11-15

24-GS-R3-CompD Fish 16-22



10/10/24

Reach 3

EF

24 - PS - R3 - Comp

PS = Pumpkinseed

<u>#</u>	<u>L (mm)</u>	<u>W (g)</u>
1	106	24.8
2	92	14.5
3	79	8.8
4	74	7.4
5	72	6.9



24-PS-R3-Comp A Fish 1-5

10/10/24 Reach 4

EF

24-GS-R4-Comp

#	<u>L(mm)</u>	<u>W(g)</u>
1	172	119.0
2	142	<u>51.0</u>
3	115	28.3
4	92	14.1
5	85	11.9
6	83	9.7
7	71	<u>6.3</u>

24-GS-R4-Comp A Fish 1 + 2

24-GS-R4-Comp B Fish 3 -

10/10/24

Reach 4

EF

24-CC-R4-Comp

<u>#</u>	<u>Len</u>	<u>W(g)</u>
1	168	47.2
2	141	30.3
3	127	20.3
4	144	28.3
5	131	<u>22.8</u>
6	118	15.3
7	127	17.9
8	117	14.8
9	122	16.4
10	126	<u>18.7</u>



24-CC-R4-Comp A Fish 1-5  
24-CC-R4-Comp B Fish 6-10

10/10/20

Reach 4

EF

24-WS-R4-Comp

<u>#</u>	<u>L (mm)</u>	<u>W (g)</u>
1	193	69.6
2	134	23.6
3	132	24.0

GS  
RS

24-WS-R4-Camp Fish 1-3



10/10/24 Reach O

Traps

24-CR-RO-Comp

CR = *Faxonius immunis*

<u>#</u>	<u>L(mm)</u>	<u>W(g)</u>
1	68	5.8
2	66	7.0
3	65	6.3
4	67	5.8
5	71	8.2
6	58	3.8
7	62	5.5
8	62	6.0
9	58	4.8
10	71	6.4
11	59	4.1
12	55	4.4
13	56	4.5

24-CR-RO-CompA CR 1-13

42 10/10/24 Reach 2 Trap

24-CR-R2-Comp

CR = *Faxonius obscurus*

#	<u>L(mm)</u>	<u>W(g)</u>
1	76	15.3
2	92	22.4

24-CR-R2-Comp A: CR 1 to 2



10/10/24 Reach 7

EF

24-GS-R7-Comp

#	L(mm)	W(g)	#	L(mm)	W(g)
1	150	67.6	23	93	13.1
2	152	64.2	24	96	15.0
3	143	54.6	25	88	11.7
4	142	56.4	26	95	14.7
5	135	48.2	27	88	11.6
6	124	36.3	28	83	10.1
7	127	33.4	29	83	9.3
8	113	27.6	30	87	10.0
9	110	<del>22.3</del> 23.0	31	87	9.2
10	103	20.8	32	79	8.4
11	102	16.2	33	86	10.1
12	99	17.3	34	77	7.2
13	106	19.4	35	77	7.9
14	108	21.3	36	82	8.5
15	105	21.9			
16	95	14.2			
17	93	13.3			
18	93	13.9			
19	95	13.3			
20	95	12.8			
21	96	14.6			
22	96	13.0			

24-GS-R7-CompA Fish 1-4  
24-GS-R7-CompB Fish 5-9  
24-GS-R7-CompC Fish 10-14  
24-GS-R7-CompD Fish 15-19  
24-GS-R7-CompE Fish 20-24  
24-GS-R7-CompF Fish 25-29  
24-GS-R7-CompG Fish 30-36

10/10/24

Reach 7

ET

24-CC-R7-Comp

<u>#</u>	<u>L (mm)</u>	<u>w(g)</u>
1	213	100.5
2	157	36.9
3	135	24.1
4	138	22.7
5	141	20.0
6	111	11.7
7	107	11.6
8	106	10.0
9	115	14.1
10	111	11.5
11	110	12.0
12	103	10.0
13	72	3.4
14	77	3.2



24-CC-R7-Comp A Fish 1-3

24-CC-R7-Comp B Fish 4-8

24-CC-R7-Comp C Fish 9-

10/10/24

Reach 7

EF

24-CR-R7-Comp

(R = F. immunis)

#	<u>L(mm)</u>	<u>W(g)</u>
1	75	8.1
2	60	4.5
3	72	9.1
4	45	2.1
5	41	1.7
6	50	2.5
7	34	1.2
8	50	2.6

24-CR-R7-CompA

<u>React</u>	<u>Species</u>	<u>Comp #</u>
0	CC	5
0	GS	6
0	CR	1
1	CC	6
1	GS	4
2	CC	7
2	GS	3
5	GS	7
5	CC	4
6	GS	6
6	CC	3
6	WS	4
3	CC	2
3	GS	4
3	PS	1
4	GS	2
4	CC	2
4	WS	1
2	CR	1
7	GS	7
7	CC	3
7	CR	1

Keep  
5 fish  
Comp

→ 2





meijer

Date:

10/09/24

Contents: 24-GS-R5-<sup>Red</sup>Comp





meijer®

Date: 10/09/24

24-GS-R5-REP B-MS3  
COMP

Contents:





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Date: 10/09/24

24-GS-R5-~~REP~~C  
COMP

Contents:





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Date: 10/09/24

24-GS-R5-~~REP~~C  
COMP

Contents:





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Date:

10/09/24

24-GS-R5-COMP D





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24-GS-R5-COMPE

Contents:





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Date: 10/09/24

24-GS-R5-COMP F

Contents:







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Date: 10/09/24

24-CC-R5-COMPA

Contents:





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Date: 10/09/24

24-CC-R5 - COMP B

Contents:





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Date: 10/09/24

24-CC-R5-COMP C

Contents:





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10/9/24

24-CC-R5-COMP D

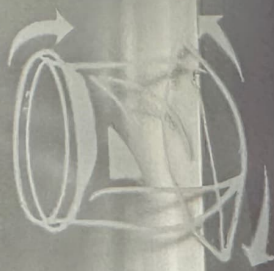




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24-GS-R6-COMPA-MS4

FOLD & FILL







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24-GS-R6-COMP B

**FOLD & FILL**







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BRAND/MARQUE

24-GS-R6-COMP C

FOLD







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24-GS-R6-COMP D

FOLD & FILL







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24-GS-R6-COMPE

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24-GS-R6=Comp F

FOLD & FILL











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-CC-RG-Comp A

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24-CC-R6-Comp B

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24-CC-R6-Comp C

FOLD & F







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24-WS-R6-Comp A

FOLD & FILL







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FOLD & FILL







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24-WS-R6-Comp C

FOLD & F







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24-WS-R6-CompD





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24-CC-R3-CompA

FOLD & FILL







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2 24-CC-R3 Comp B

FOLD









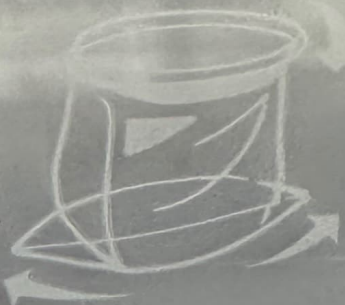


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2 24-GS-R3-Comp B

FOLD & FILL







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24-GS-R3-Comp C

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24-GS-R3-Comp D

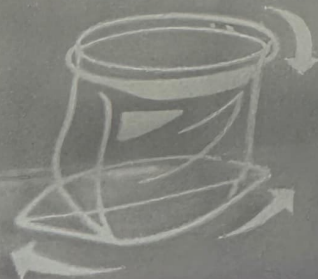




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24-PS-R3-Comp A

FOLD & FILL







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2024-GS-R4-Comp A

FOLD & FILL







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24-CC-R4-Comp A

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24-WS-R4-COMP A

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24-CR-RO-CompA







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24-CR-R2-Comp A

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24-GS-R7-Comp F





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24-GS-R7-Comp G

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FOLD & FILL







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24-CC-R7-Comp R





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GRAND MARQUE

R.7 - Comp C

24-CC-~~R.7 - Comp C~~

FOLD & FIL







24-CR-R7-Comp A